IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

UTILITY APPLICATION

FOR

Method and apparatus for navigating on artistic maps

Inventors: Kent Qing Pu
5095 Seachase Way
San Diego, CA 92130

Ivan Angelov
526 Camino Del Mar
Del Mar, CA 92014

David Thieme
28506 Rancho Cristiano
Laguna Niguel, CA 92677

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Name: Joe Zheng Signature: / joe zheng /

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Kent Qing Pu
Ivan Angelov
David Thieme

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefits of US provisional application No.: 60/955,343, entitled "Navigation on artistic maps", filed on 8/11/2007, which is hereby incorporated by reference for all purposes.

FIELD OF THE INVENTION

[0002] The present invention is generally related to the area of Global Positioning System (GPS). In particular, the present invention is related to navigation on non-linearly scaled maps and how to display such non-linearly scaled maps with proper colors on a display screen.

BACKGROUND OF RELATED ART

[0003] The Global Positioning System (GPS) is the only fully functional Global Navigation Satellite System (GNSS). Utilizing a constellation of at least 24 medium Earth orbit satellites that transmit precise microwave signals, the system enables a GPS receiver to determine its location, speed and direction.

[0004] A GPS receiver calculates its position by measuring the distance between itself and three or more GPS satellites. Measuring the time delay between transmission and reception of each GPS microwave signal gives the distance to each satellite, since the signal travels at a known speed. The signals also carry information about the locations of the satellites. By determining the position of, and distance to, at least three satellites, the receiver can compute its position using trilateration.

[0005] GPS receivers are being widely used in automobiles and help drivers find where they want to go. It is often observed that the GPS displays only the road

the driver is on when a driver is in a remote area without much surroundings. Such a display not only is boring but also fails to tell where the driver may be located with respect to the destination, unless the actual mileage is read and calculated over the total distance.

[0006] GPS receivers are also getting popular in leisure activities, such as touring a city, a park and a zoo. Travellers by looking at the actual maps being displayed may find their ways to a desired point of interest. However, unless the map is displayed at a certain resolution and a distance to the point of interest is very short, the point of interest may not be even displayed in a map. All the user sees are the roads and unrelated landmarks untill the user is getting sufficiently close to the point of interest.

[0007] The present invention discloses techniques of navgating on a non-linearly scaled map, where the non-linearly scaled map shows exaggeratedly points of interest. One of the benefits, advantages, and objects of the present invention is to allow users to navigate easily from one point to another point.

[0008] The present invention may be advantangeously used in leisure activities, such as touring a city, a park or a zoo, where landmarks, point of interests, or animals may be exaggeratedly shown to help a user of a GPS receiver locate what is desired to see. A map being used in the present invention may be artisticly made to make the navigation as a pleasant experience.

SUMMARY

[0009] This section is for the purpose of summarizing some aspects of embodiments of the present invention and to briefly introduce some preferred embodiments. Simplifications or omissions in this section as well as in the title and the abstract of this disclosure may be made to avoid obscuring the purpose of the section, the title and the abstract. Such simplifications or omissions are not intended to limit the scope of the present invention.

[0010] Broadly speaking, embodiments of the invention relate to techniques for providing a navigation experience on a non-linearly scaled map, wherein the map may show exaggeratedly objects (or points of interest) to help a user locate where he/she is and visit what he/she needs to visit. The techniques described herein are related to each other and each is believed independently novel in the art. The disclosed techniques may be performed alone or in any combination to provide a novel and unobvious system or a portion of a system. It should be understood that the techniques in combination yield an equally independently novel combination as well, even if combined in their broadest sense; i.e. with less than the specific manner in which each of the techniques has been reduced to practice.

[0011] According to one aspect of the present invention, some of the techniques, when properly combined, provide a mechanism to display an artistic map with exaggeratedly shown objects. According to one aspect of the present invention, the artistic map is non-linearly scaled. When a point of an object is selected as a destination, the coordinates of the point is captured. The coordinates of the point are then transformed to a physical point represented by latitude and longitude (e.g., used in geospatial representation or GPS data). A direction from a current location to the physical point is determined. Subsequently, the direction is modified or transformed in accordance with the map being displayed.

[0012] The present invention may be implemented in different forms including a method, a product and a part of a system. According to one embodiment, the present invention is a method for navigating a particular area, the method comprises: providing a map that is non-linearly scaled, the map including various objects being exaggeratedly shown; capturing coordinates of a point selected on one of the objects; transforming the coordinates to a physical point represented by latitude and longitude; determining a direction from a current location to the physical point; and synchronizing the direction with the map being displayed. The map corresponds to a geographical map, where the physical point can be fairly precisely located in accordance with the latitude and longitude.

[0013] According to another embodiment, the present invention a portable device for navigating a designed place, the portable device comprises: a display screen configured to display a map including various objects being exaggeratedly shown; a memory for storing code; a processor executing the code to perform operations of: capturing coordinates of a point selected on one of the objects in the

map being displayed; transforming the coordinates of the point to a physical point represented by latitude and longitude; determining a direction from a current location to the physical point; and synchronizing the direction with the map being displayed.

[0014] There are many objects, features, and advantages in the present invention, which will become apparent upon examining the following detailed description of embodiments thereof, taken in conjunction with the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] The invention will be readily understood by the following detailed description in conjunction with the accompanying drawings, wherein like reference numerals designate like structural elements, and in which:

[0016] FIG. 1 shows an exemplary map of a zoo;

[0017] FIG. 2 shows an exemplary image including a plurality of segments, each segment being labeled and represented by a few pairs of coordinates in latitude and longitude;

[0018] FIG. 3 shows an example of mapping between an artistic map and an actual geographical map;

[0019] FIG. 4A shows an internal functional block diagram of an exemplary GPS receiver or a portable device configurable to be a GPS receiver;

[0020] FIG. 4B shows an exemplary scheme of presenting a non-linearly scaled map;

[0021] FIG. 4C shows a corresponding resolution curve to show the nonlinearity of the map being displayed on a screen, as a result, many objects near the center are clearly displayed in details;

[0022] FIG. 5 shows a flowchart or process of navigating in a non-linearly scaled map;

[0023] FIG. 6A shows an original image being transformed to three different deformed images via a plurality of control points;

[0024] FIG. 6B shows another transformation to transform the pixel coordinates (artistic image coordinates) of every node and shape point of a road network in a geographic map to an artistic map; and

[0025] FIG. 6C shows alternatively a route being converted into a sequence of points and these points being transformed to image pixel-coordinates and then connected with lines.

DETAILED DESCRIPTION OF THE INVENTION

[0026] The detailed description of the invention is presented largely in terms of procedures, steps, logic blocks, processing, and other symbolic representations that directly or indirectly resemble the operations of data processing devices. These process descriptions and representations are typically used by those skilled in the art to most effectively convey the substance of their work to others skilled in the art. Numerous specific details are set forth in order to provide a thorough understanding of the present invention. However, it will become obvious to those skilled in the art that the present invention may be practiced without these specific details. In other instances, well known methods, procedures, components, and circuitry have not been described in detail to avoid unnecessarily obscuring aspects of the present invention.

[0027] Reference herein to “one embodiment” or “an embodiment” means that a particular feature, structure, or characteristic described in connection with the embodiment can be included in at least one embodiment of the invention. The appearances of the phrase “in one embodiment” in various places in the specification are not necessarily all referring to the same embodiment, nor are separate or alternative embodiments mutually exclusive of other embodiments. Further, the order of blocks in process flowcharts or diagrams representing one or more embodiments of the invention do not inherently indicate any particular order nor imply any limitations in the invention.

[0028] Referring now to the drawings, in which like numerals refer to like parts throughout the several views. FIG. 1 shows an exemplary map 100 of a zoo. The map 100 is artistic and non-linearly scaled, where points of interests are

exaggeratedly displayed to assist a visitor to locate what is desired to be seen. Such a map may be provided electronically by the zoo. The map 100 may be in a specific format readable by a GPS receiver. Examples of such a specific format include GPs eXchange file format (.gpx) and Garmin Point of Interest file format (.gpi). The map 100 in a data file may be downloadable to a portable device or a personal computer that can be configured to perform as a GSP receiver. The map 100 in a data file may be also transportable in a medium. Regardless how the map 100 is loaded, a GPS receiver is configured to display the map 100 on its display screen and allow a user thereof to navigate in the map 100 (e.g., from a current location to a desired location).

[0029] A map used in a GPS receiver is constructed based on GPS data. Every point in the map is represented by a pair of latitude and longitude. Different from the prior art system that operates on such a map, one embodiment of the present invention uses a map that is constructed by segments and points. A segment includes a collection of points. FIG. 2 shows an exemplary image 200 including a plurality of segments; each segment is labeled and represented by only one pair of latitude and longitude. In other words, regardless of its size in a map, any part of a segment means one or few points in the map. As will be described below, a mapping process is performed to ensure that a GPS receiver calculates or determines exactly the location of a segment in an actual map by a pair of latitude and longitude.

[0030] FIG. 3 shows an example of mapping between an artistic map 302 and an actual geographical map 304. The artistic map 302 may represent a touring map provided by a zoo and shows graphically where the animals are located in the zoo. To demonstrate the outlines of the zoo clearly, such a map may not be linearly scaled. The animals are even exaggeratedly shown on the map 302 to show their respective exhibits. However, each exhibit occupies an area in artistic map 302 that may be only a point in the geographical map 304. In one embodiment, the artistic map 302 covers the same area as the geographical map 304 does. Every point in

the artistic map 302 is supposed to be represented by a pair of latitude and longitude but grouped in segments to represent single points of interest (POIs), each of the POIs is represented by a pair of latitude and longitude. In other words, no matter where a point is located in the artistic map 302, as long as it is in a segment, it is only represented by a pair of latitude and longitude representing the segment.

[0031] In referring to a zoo, displaying an artistic map of the zoo helps a visitor to find the location of a particular animal to see. However, such an artistic map would not work with a GPS receiver as it projects a physical point represented by coordinates in latitude and longitude in the real world to a corresponding point represented by Cartesian coordinates in an actual geographic map. In one embodiment, points in any part of an object or segment in the artistic map are collectively represented by a pair of Cartesian coordinates. FIG. 3 shows that an object “lion” in the artistic map is represented by one point in the actual geographic map. In other words, any point in the object “lion” means a single location in the actual geographic map.

[0032] When the artistic zoo map is displayed on a GPS receiver, a user desires to visit the loin exhibit and points to the object “lion” in the map being displayed. Through an underlying mapping processing, the GPS is configured to know that a location in the actual geographic map is identified and show the routes towards that location.

[0033] FIG. 4A shows an internal functional block diagram of an exemplary GPS receiver 400 or a portable device configurable to be a GPS receiver. The display screen 402 may be a screen (e.g., LCD or touchable). The screen 402 communicates with and is commanded by a screen driver 404 that is controlled by a microcontroller (e.g., a processor) 406. The memory 408 may be loaded with one or more application modules 410 that can be executed by the microcontroller 406 with or without a user input via the user interface 412 to achieve desired tasks. In one embodiment, an application module is configured to facilitate a mapping process

from coordinates in one map to coordinates in another map. In another embodiment, an application module is configured to map coordinates in an artistic map to a point represented by a pair of latitude and longitude. In operation, when the microcontroller 406 executes one of the application modules 410, the screen driver 404 generates control signals to drive screen 402 to display an application specific user interface accordingly.

[0034] In one exemplary application, the screen 402 displays an artistic map showing various objects of interest. The objects and map are not linearly scaled. A user of the device 400 may select any one of the objects as a destination. Each of the objects, regardless of its size, is inherently represented by only a point or a pair of coordinates. So regardless where the object is pointed at, the microcontroller 406 locates the object as a corresponding destination in a real geographic map and presents the directions to the destination. The directions may be presented in audio, video or other instruction with respect to the map being displayed on the screen 402.

[0035] In one embodiment, the audio is synched with the artistic map and indicates a turn when the current location needs to turn in accordance with the directions. In another embodiment, the audio also provides commentary on the features and history of a particular location, and entertaining, relevant, organized and themed heritage interpretation, etc... FIG. 4B shows an exemplary scheme of presenting a non-linaely scaled map. The center portion of the screen 402 is more detailed than the surrounding areas. FIG. 4C shows a corresponding resolution curve to show the nonlinearity of the map being displayed on the screen 402. As a result, many objects near the center are clearly displayed in details.

[0036] The controller 406 includes a network interface 414 referred to as a RF interface that facilitates wireless communication with a GPS system. In one embodiment, the interface 414 is configured to act as a common interface to communicate with a server to receive a map data file about a particular place (e.g., a zoo, a resort, or a park).

[0037] Depending on implementation, the input interface 412 may include a number of function buttons and/or a screen graphical user interface (e.g., a touch screen). The input interface 278 allows a user to select or enter a destination. In one embodiment, a user is allowed to select an enlarged object being displayed to get directions. It should be pointed out that the present invention does not have to be only practiced on a GPS receiver. Other devices (e.g., a computing device, a hand-held device) may also be configured to practice the present invention.

[0038] FIG. 5 shows a flowchart or process 500 of navigating in a non-linearly scaled map. The process 500 may be implemented in software, hardware, or in a combination of both. At 502, the process 500 is awaiting a local map (e.g., the map 100 of FIG. 1) to be loaded. The local map is received into a portable device with GPS capability. The local map may be provided by a premise (e.g., a park) via wireless transmission (e.g., cellular, WiMAX, 802.11a/b/g, UWB or bluetooth) or a line connection (e.g., USB).

[0039] Upon receiving the local map, the process 500 goes to 504 to display the map on the portable device. Different from a regular map, the map is artistically represented. Objects or distances are nonlinearly scaled. In one embodiment, the objects are exaggeratedly shown to illustrate respective points of interest. At the same time, a current location of the device may be labeled on the map to show where it is in the map.

[0040] With the displayed map, a user of the device selects a point of interest as a destination at 506. The destination may be an exhibit exaggeratedly shown in the map. At 508, a segment representing the exhibit and a pair of coordinates representing the segment are determined. The segment may represent the shape of the exhibit. All points in the segment are represented by only one pair of coordinates.

[0041] At 510 the pair of coordinates in the map is translated into a pair of latitude and longitude in an actual geographic map. In operation, the latitude and longitude coordinates are understandable by the GPS so that the destination can be

determined. At 512, a direction from the current location to the destination is determined. A set of instructions of how to get from the current location to the destination is also prepared. At 514, the direction and instructions are mapped in accordance with the local map so that the direction and instructions make sense in the local map. In one embodiment, the instructions are modified to optimize the route by introducing stops at several points of interest along the way so that the visitor may see the most without compromising the time to spend from the current location to the destination.

[0042] Once the direction and instructions are determined, the current location is tracked by the GPS at 516. It should be noted, in one embodiment, the current location is translated or mapped according to the original local map. As a result, the display showing the current location as well as the destination fit nicely in the local map despite of its non-linearity.

[0043] A user of a GPS device showing a local artistic map needs to visualize the current position in the artistic map. While the current position is presented by the GPS device per a pair of geographic coordinates (longitude/latitude). According to one embodiment, a transformation from the geographic coordinates to image pixel coordinates is carried out to ensure that the current position or a destination is correctly presented in the artistic map. Since the artistic map can be very deformed and different from the corresponding real geographic map, different approaches may be applied for implementing such a transformation.

[0044] One is to use image deformation techniques. For example, some deformation techniques use control points. Normally every control point has 2 pairs of coordinates associated with it. The first pair is pixel-coordinates in an original image and the second pair is the pixel-coordinates of a control point in a corresponding deformed image. In one implementation, the second pair is the coordinates (longitude, latitude) of the control point in the geographic map. Then the rest of the image is transformed by an algorithm that uses control points:

[0045] FIG. 6A shows an original image being transformed to three different deformed images via a plurality of control points. It should be noted that how an image is transformed is not important, what is important is the transformation itself. One advantage of the transformation using the control points is that some transformations can be achieved with very few control points. The number of control points represents the amount of manual work that has to be done to import the artistic map into a GPS device. The transformation is exact for every control point, but can be quite inaccurate for the rest of the pixels. In general, the more control points are presented, the more accurate the transformation can be.

[0046] FIG. 6B shows another transformation to transform the pixel coordinates (artistic image coordinates) of every node and shape point of a road network in a geographic map to an artistic map. Since a position of a user is map matched to a part of the road network, the pixel coordinates of the position can be obtained by interpolating the pixel coordinates of the end points of the map matched part of the road network.

[0047] In one embodiment, visualization of the route (namely the user has to follow) on an artistic map is realized as follows: the points of the route belong to a road network, so the pixel coordinates of every point can be used in the above embodiment to transform the geographic coordinates to the image coordinates. Then lines connecting the pixel coordinates of the points for the route can be drawn.

[0048] Alternatively, the route may be converted into a sequence of points (for example evenly distributed – the distance between 2 points is constant) and these points are transformed to image pixel-coordinates and then connected with lines, as shown FIG. 6C.

[0049] Nearly all GP receivers have a display screen. Different display screens represent a colorful map differently. In one case, an artistic map with lakes and streams that are drawn in blues may be displayed as a map with lakes and streams in green. Such color distortions are often observed and due to the facts that

each manfacturer of the display screen or the GPS receivers sets the display colors differently. Some distortions are caused by the backlighting and others are caused by the color maps. One aspect of the present invention is to provide a mechanism that faciliates a color setting by each individual manfacturer without asking a provider of the application module per the present invention to test the color requirement for each of the manfacturers again and again.

[0050] In one embodiment, an artifical map is provided. Depending on the number of objects to be displayed in a map, the artifical map presents an artifical scene including all the obejcts. For example, there are 5 items to be shown in a map, such as all highways, all local major roads, all hospitals, all lakes, and all golf courts. An artifical scene is then created to include all of the five objects, the color of each of the objects may be changed (e.g., via a bitmap image). The artifical map may be preapred to include any number of objects, items or landmarks. When the artifical scene is displayed on a particular GPS receiver, the manfacturer of the GPS receiver can adjust the respective colors to suit the display screen of the GPS receiver. The revised artifical map is referred to as a color-definition map, which depending on implemantion may be exported to a file or color reference attributes.

[0051] The application module loaded in the GPS receiver is configured to determine whether there is a revised color-definition map (or a color file or color reference attributes). If there is one, the application module reads in the parameters that overwrite the original default parameters. When given a pair of coordinates, the application module draws the map per updated parameters. For example, coordinates (10, 19) represent a golf course, the application module determines what color is for a golf course in reference to the updated parameters. Should there be no such updated parameters, all objects are drawn in default.

[0052] The processes, sequences or steps and features discussed above are related to each other and each is believed independently novel in the art. The disclosed processes and sequences may be performed alone or in any combination

to provide a novel and unobvious system or a portion of a system. It should be understood that the processes and sequences in combination yield an equally independently novel combination as well, even if combined in their broadest sense; i.e. with less than the specific manner in which each of the processes or sequences has been reduced to practice.

[0053] The present invention has been described in sufficient details with a certain degree of particularity. It is understood to those skilled in the art that the present disclosure of embodiments has been made by way of examples only and that numerous changes in the arrangement and combination of parts may be resorted without departing from the spirit and scope of the invention as claimed. Accordingly, the scope of the present invention is defined by the appended claims rather than the foregoing description of embodiments.

Claim

We claim:

1. A method for navigating in a particular area, the method comprising:
   providing a map that is non-linearly scaled, the map including various objects being exaggeratedly shown;
   capturing coordinates of a point selected on one of the objects;
   transforming the coordinates to a physical point represented by latitude and longitude;
   determining a direction from a current location to the physical point; and
   synchronizing the direction with the map being displayed.

2. The method as recited in claim 1, wherein the selected objected is represented by a plurality of pairs of coordinates, all are transformed to the physical point represented by the latitude and longitude.

3. The method as recited in claim 2, wherein the map corresponds to a geographical map, where the physical point is precisely located in accordance with the latitude and longitude.

4. The method as recited in claim 3, wherein the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map.

5. The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

7. The method as recited in claim 6, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates pf the points to image coordinates of the points.

8. The method as recited in claim 7, comprising connecting the pixel coordinates of the points to show the route in the map.

9. The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

10. The method as recited in claim 1, wherein there is a color map to define a color of each of objects in the map, and the method further comprising:

adjusting the color for the each of objects in the map, and generating a color-definition map.

11. A portable device for navigating a designed place, the portable device comprising:

a display screen configured to display a map including various objects being exaggeratedly shown;

a memory for storing code;

a processor executing the code to perform operations of:

capturing coordinates of a point selected on one of the objects in the map being displayed;

transforming the coordinates of the point to a physical point represented by latitude and longitude;

determining a direction from a current location to the physical point; and

synchronizing the direction with the map being displayed.

12. The portable device as recited in claim 11, wherein the selected objected is represented by a plurality of pairs of coordinates, all are substantially transformed to the physical point represented by the latitude and longitude.

13. The portable device as recited in claim 12, wherein the map being an artistic map corresponds to a geographical map, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14. The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map.

15. The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16. The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

17. The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

18. The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the map.

19. The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20. The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color-definition map that is generated after an adjustment of the colors originally producted according to a color map.

Method and apparatus for navigating on artistic maps

Abstract

Techniques for navigating an artistic map are disclosed. The artistic map is often non-linear scaled, which means the map includes various objects being exaggeratedly shown. When a point of an object is selected as a destination, the coordinates of the point is captured. The coordinates of the point are then transformed to a physical point represented by latitude and longitude. A direction from a current location to the physical point is determined. Subsequently, the direction is modified or transformed in accordance with the map being displayed.

PTO/SB/35 (11-00)
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NONPUBLICATION REQUEST UNDER 35 U.S.C. 122(b)(2)(B)(i)		
	First Named Inventor	**Kent Qing Pu**
	Title	**Method and apparatus for navigating on artistic maps**
	Atty Docket Number	**KENT-007**

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

I hereby request that the attached application not be published under 35 U.S.C. 122(b).

08/06/2008
Date

/ joe zheng /
Signature

Joe Zheng, Reg. No.: 39,450
Typed or printed name

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application **upon filing.**

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant **must** notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. **Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).**

Burden Hour Statement: This collection of information is required by 37 CFR 1.213(a). The information is used by the public to request that an application not be published under 35 U.S.C. 122(b) (and the PTO to process that request). Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 6 minutes to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

[X] Declaration Submitted with Initial Filing OR [ ] Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	KENT-07
First Named Inventor	Kent Qing Pu
COMPLETE IF KNOWN	
Application Number	/
Filing Date	Herewith
Group Art Unit	
Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Method and apparatus for navigating on artistic maps

(Title of the Invention)

the specification of which

[X] is attached hereto

OR

[ ] was filed on (MM/DD/YYYY) _____ as United States Application Number or PCT International Application Number _____ and was amended on (MM/DD/YYYY) _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	NO
			[ ]	[ ]	[ ]
			[ ]	[ ]	[ ]
			[ ]	[ ]	[ ]
			[ ]	[ ]	[ ]

[ ] Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	
60/955,343	8/11/2007	[ ] Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

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Toyota Petition '628 Exhibit 1002
Page 21 of 434
08/05/2008 09:31 8584577777 INFOGATION PAGE 02

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PTO/SB/01 (12-97)
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DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: ☐ Customer Number 26797 → Place Customer Number Bar Code Label here

OR

☐ Registered practitioner(s) name/registration number listed below

Name	Registration Number	Name	Registration Number

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to: ☐ Customer Number or Bar Code Label 26797 OR ☐ Correspondence address below

Name					
Address					
Address					
City		State		ZIP	
Country		Telephone	(408)777-8873	Fax	(408)873-9249

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any])	Family Name or Surname
Kent Qing	Pu

Inventor's Signature						Date	8/4/2000
Residence: City	San Diego	State	CA	Country	USA	Citizenship	PRC
Post Office Address	5095 Seachase Way						
Post Office Address							
City	San Diego	State	CA	ZIP	92130	Country	USA

☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto

Toyota Petition '628 Exhibit 1002
Page 22 of 434
8584577777 INFORMATION PAGE 04
08/05/2008 09:31

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DECLARATION

ADDITIONAL INVENTOR(S)
Supplemental Sheet
Page 1 of 1

Name of Additional Joint Inventor, if any:	☐ A petition has been filed for this unsigned inventor						
Given Name (first and middle [if any])			Family Name or Surname				
Ivan			Angelov				
Inventor's Signature					Date	8/4/2008	
Residence: City	Del Mar	State CA	Country USA		Citizenship	Bulgaria	
Post Office Address	526 Camino Del Mar						
Post Office Address							
City	Del Mar	State CA	ZIP 92914	Country USA			

Name of Additional Joint Inventor, if any:	☐ A petition has been filed for this unsigned inventor						
Given Name (first and middle [if any])			Family Name or Surname				
David			Thieme				
Inventor's Signature					Date	8/4/2008	
Residence: City	Laguna Niguel	State CA	Country USA		Citizenship	USA	
Post Office Address	28506 Rancho Cristiano						
Post Office Address							
City	Laguna Niguel	State CA	ZIP 92677	Country USA			

Name of Additional Joint Inventor, if any:	☐ A petition has been filed for this unsigned inventor						
Given Name (first and middle [if any])			Family Name or Surname				
Inventor's Signature					Date		
Residence: City		State	Country		Citizenship		
Post Office Address							
Post Office Address							
City		State	ZIP	Country			

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PAGE 03 INFORMATION 8584577777 08/05/2008 09:31

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Filer:	Joe Zheng
Attorney Docket Number:	Kent-007

Filed as Small Entity

Utility Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	75	75
Utility Search Fee	2111	1	255	255
Utility Examination Fee	2311	1	105	105
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**435**

Electronic Acknowledgement Receipt

EFS ID:	3734940
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	06-AUG-2008
Filing Date:	
Time Stamp:	02:26:59
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$435
RAM confirmation Number	4556
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)

Toyota Petition 628 Exhibit 1002
Page 26 of 434

1	Specification	PatentAsFiled.pdf	125910 8c31c016276b05b157b8abbe833153bb6fab2569	no	19
Warnings:					
Information:					
2	Drawings-only black and white line drawings	DrawingsV.pdf	234461 a1b006d1e2f2cae5c9ae56b3a694758a4ee45e87	no	8
Warnings:					
Information:					
3	Nonpublication request from applicant.	NonPublicationRequest1.pdf	32633 b3ad50c14867145b7f0b965777def8736d6b1d65	no	1
Warnings:					
Information:					
4	Oath or Declaration filed	SignedDeclaration.pdf	165622 3faa8fba77ea81238addc35cbeef101b4ca6538c	no	3
Warnings:					
Information:					
5	Fee Worksheet (PTO-06)	fee-info.pdf	8353 922f6708dc6037832e87951b8ef427bfcb2519f8	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	566979		

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New International Application Filed with the USPTO as a Receiving Office
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100

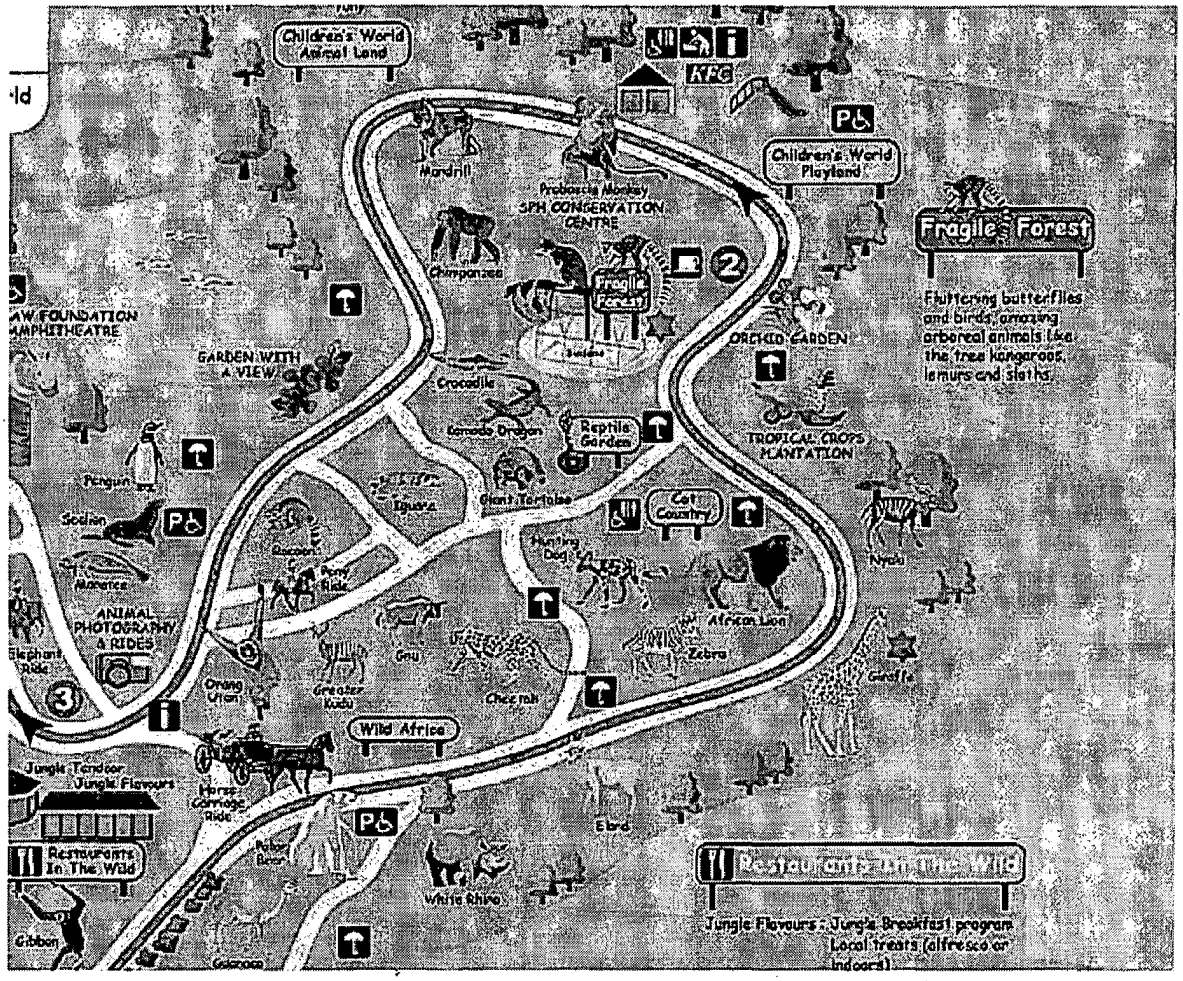

Children's World Animal Land
KFC
Children's World Playland
Fragile Forest
Fluttering butterflies and birds, amazing arboreal animals like the tree kangaroos, lemurs and sloths
Mandrill
Proboscis Monkey
SPH CONSERVATION CENTRE
Chimpanzee
Fragile Forest
2
ORCHID GARDEN
TROPICAL CROPS PLANTATION
GARDEN WITH A VIEW
Crocodile
Komodo Dragon
Reptile Garden
Penguin
Sealion
Iguana
Giant Tortoise
Cat Country
Hunting Dog
Nyala
Macaque
Pony Ride
African Lion
ANIMAL PHOTOGRAPHY & RIDES
Elephant Ride
Gnu
Zebra
Giraffe
3
Orang Utan
Greater Kudu
Cheetah
Wild Africa
Jungle Terrace
Jungle Flavours
Horse Carriage Ride
Eland
Restaurants In The Wild
White Rhino
Gibbon
Jungle Flavours : Jungle Breakfast program
Local treats (alfresco or indoors)

FIG. 1

200


Manila Zoological
Botanical Garden
Pres. Quirino Ave.
A. Mabini St.
M. Adriatico St.
Parking Area
Entrance
Police Sta.
Museum
Island
Lagoon
Picnic Area
Falls
Playground
Green House
Water Falls
Admin Bldg.
Plant Nursery
Motorpool
Estero de San Antonio Abad
Horseback Riding Area
Maintenance Bldg.
Exit
Copyright (c) 2003 cyber-dynamics inc.

FIG. 2

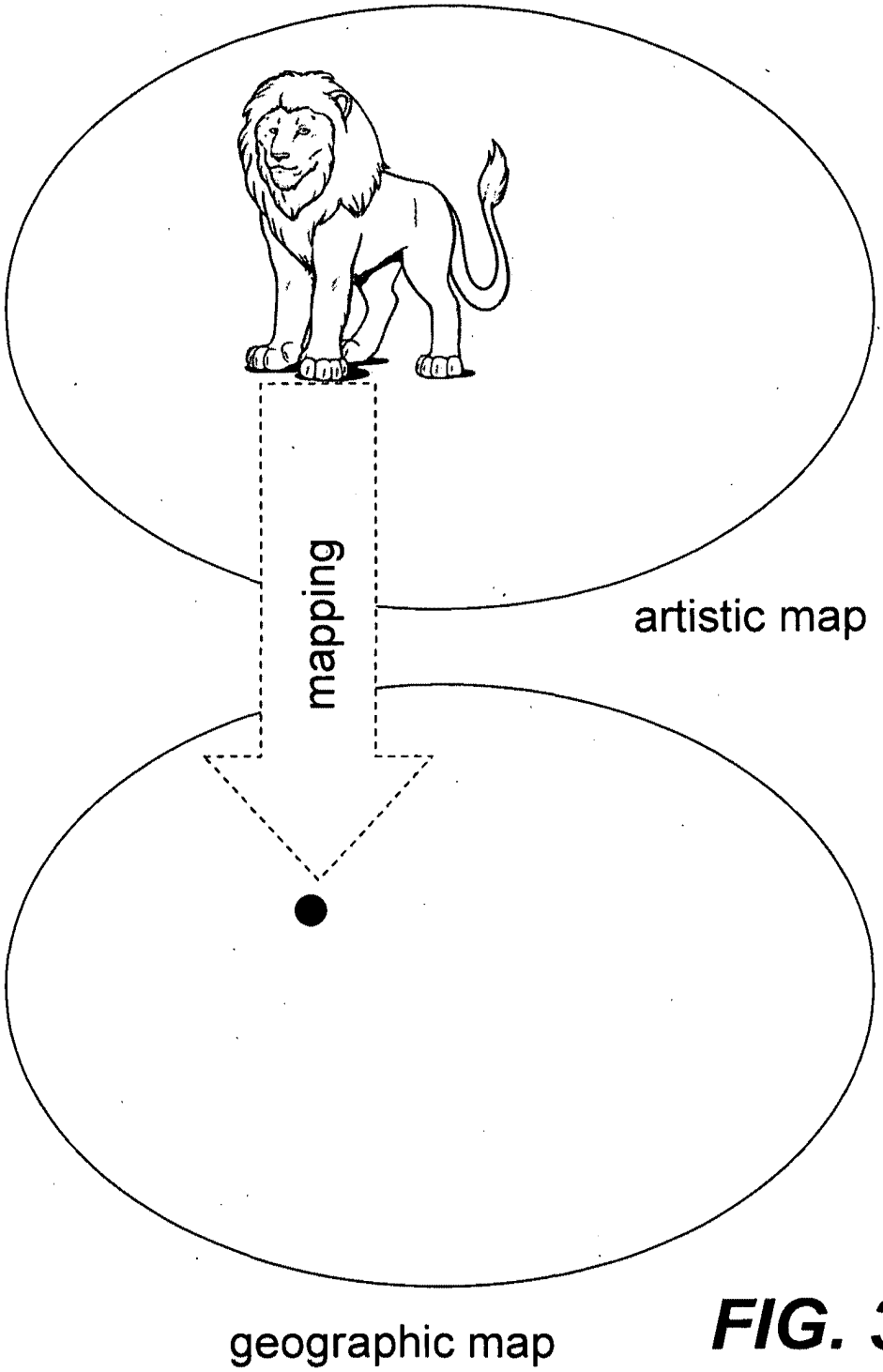


FIG. 3

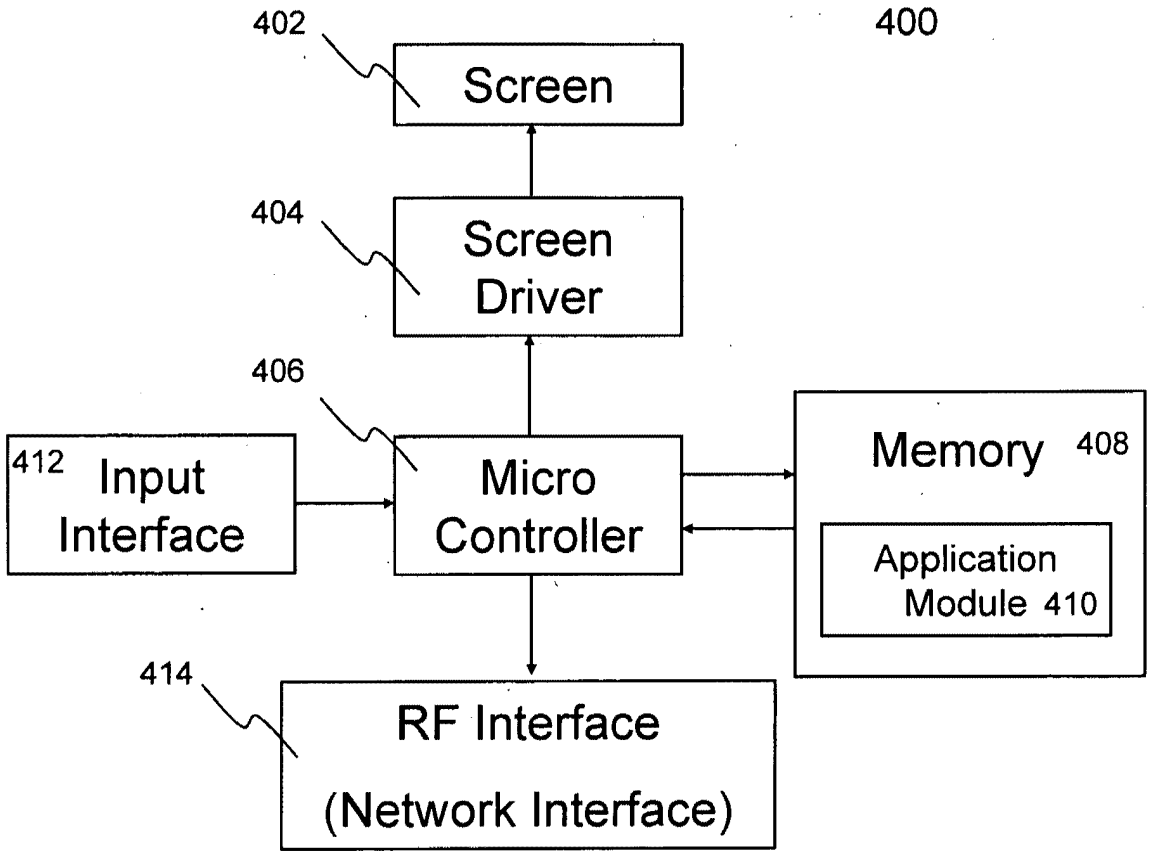

402
400
Screen
404
Screen Driver
406
412 Input Interface
Micro Controller
Memory 408
Application Module 410
414
RF Interface
(Network Interface)

FIG. 4A

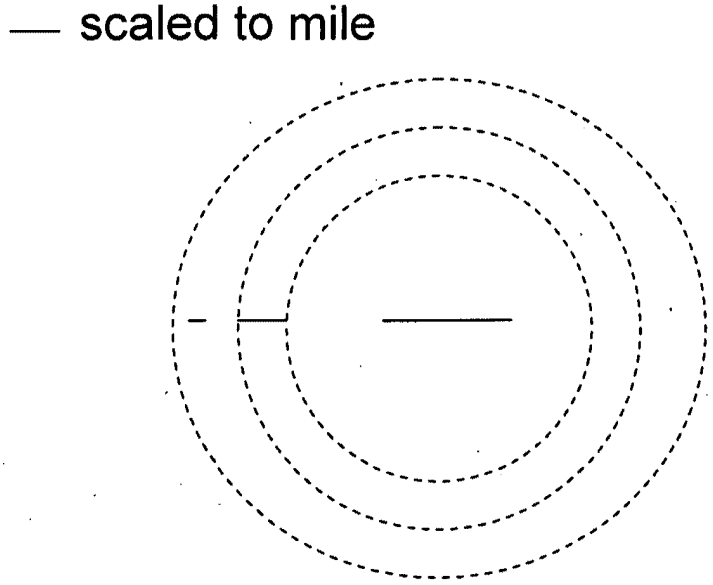


FIG. 4B

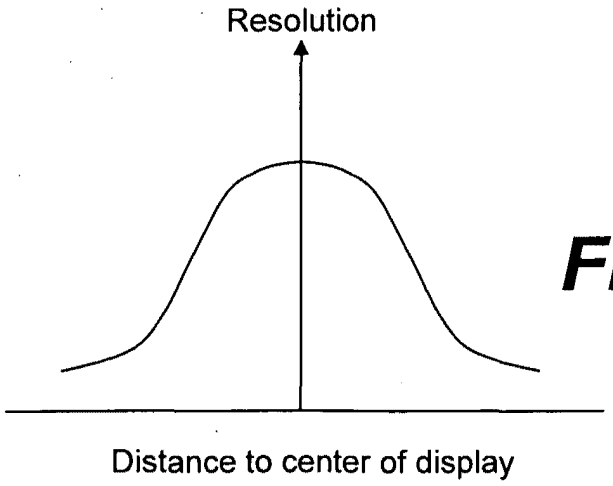


FIG. 4C

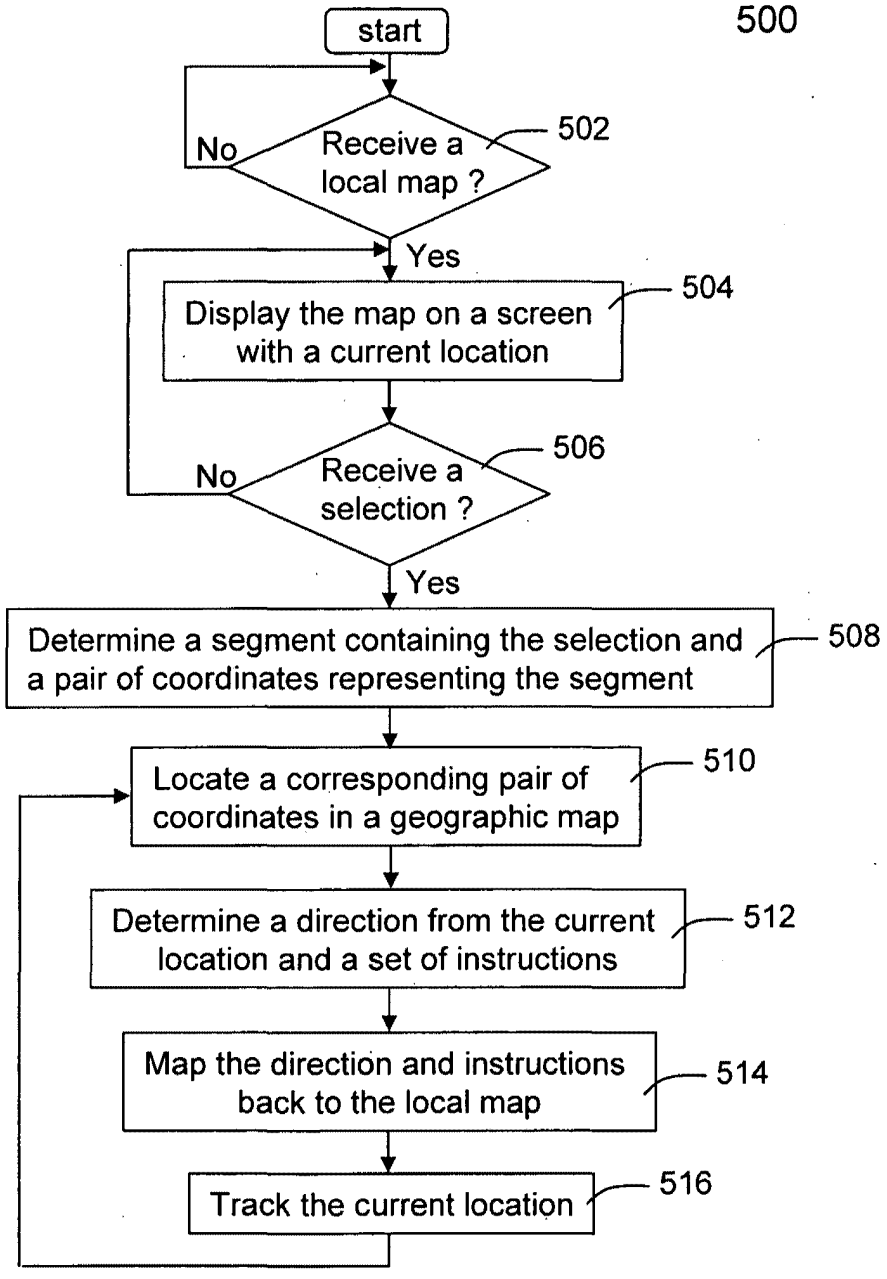

500
start
Receive a local map ?
No
502
Yes
Display the map on a screen with a current location
504
Receive a selection ?
No
506
Yes
Determine a segment containing the selection and a pair of coordinates representing the segment
508
Locate a corresponding pair of coordinates in a geographic map
510
Determine a direction from the current location and a set of instructions
512
Map the direction and instructions back to the local map
514
Track the current location
516

FIG. 5

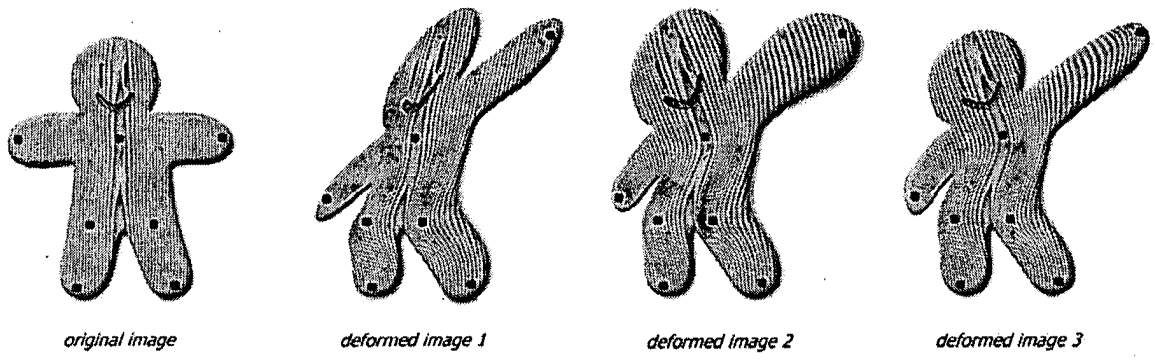

original image
deformed image 1
deformed image 2
deformed image 3

FIG. 6A

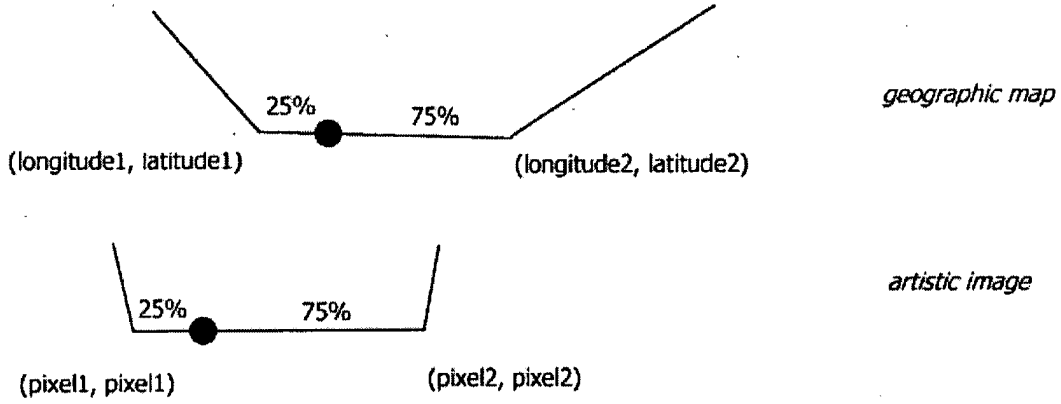

25%
75%
(longitude1, latitude1)
(longitude2, latitude2)
geographic map
25%
75%
(pixel1, pixel1)
(pixel2, pixel2)
artistic image

FIG. 6B

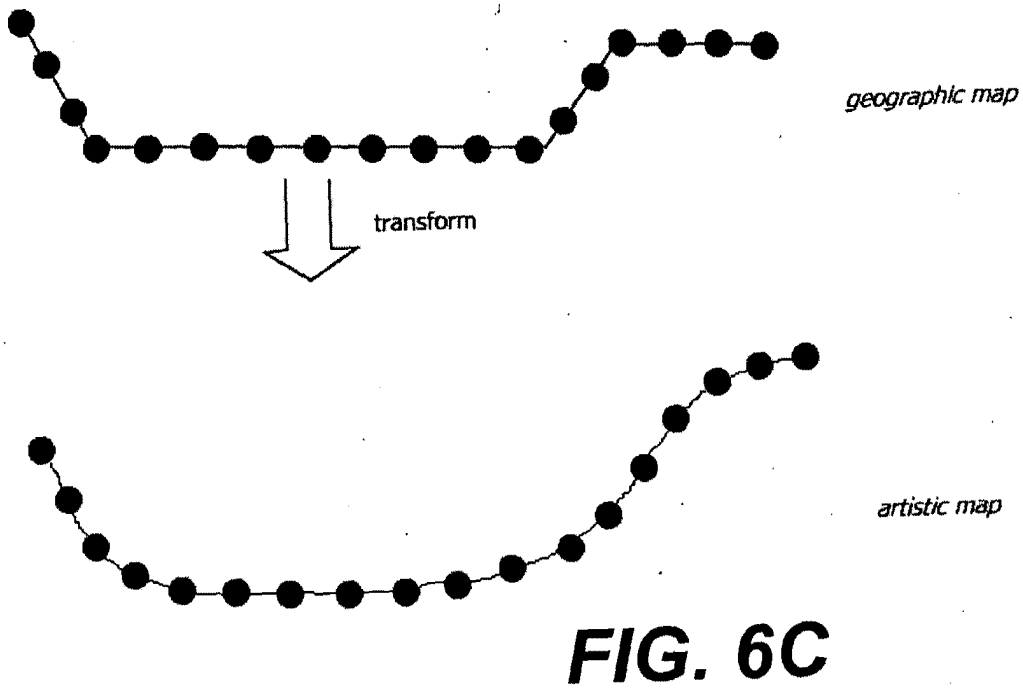


FIG. 6C

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Filing Date: 08/06/2008

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PATENT APPLICATION FEE DETERMINATION RECORD
Substitute for Form PTO-875

Application or Docket Number
12/186,524

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	255		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	105		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	20	*	X 25=		OR	X 50=	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2	*	X 105			X 210	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $260 ($130or small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR						
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			185			370	
			TOTAL	435		TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	X =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X =		OR	X =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					185		OR	370	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	X =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X =		OR	X =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
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United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
12/186,524	08/06/2008	3664	435	Kent-007	20	2

CONFIRMATION NO. 1339

26797
SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO, CA 95014

FILING RECEIPT

OC000000031633698

Date Mailed: 08/20/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Kent Qing PU, San Diego, CA;
Ivan Angelov, Del Mar, CA;
David Thieme, Laguna Niguel, CA;

Power of Attorney: The patent practitioners associated with Customer Number 26797

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/955,343 08/11/2007

Foreign Applications

If Required, Foreign Filing License Granted: 08/18/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/186,524**

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No
** **SMALL ENTITY** **

Title

Method and apparatus for navigating on artistic maps

Preliminary Class

701

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For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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PTO/SB/64a (07-09)
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PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED FOR FAILURE TO NOTIFY THE OFFICE OFA FOREIGN OR INTERNATIONAL FILING (37 CFR 1.137(f))	Docket Number (Optional) Kent-007

First named inventor: Kent Qing Pu

Application No.: 12/186,524 Art Unit: 3663

Filed: 08-06-2008 Examiner: ALGAHAIM, HELAL A

Title: Method and apparatus for navigating on artistic maps

Attention: Office of Petitions
Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
FAX (571) 273-8300

NOTE: If information or assistance is needed in completing this form, please contact Petitions Information at (571) 272-3282.

The above-identified application became abandoned pursuant to 35 U.S.C. 12 2(b)(2)(B)(iii) for failure to timely notify the Office of the filing of an application in a foreign country or under a multinational international treaty that requires publication of applications eighteen months after filing. The date of abandonment is the day after the expiration date of the forty-five (45) day period set in 35 U.S.C. 122(b)(2)(B)(iii).

PURSUANT TO 37 CFR 1.137(f), APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION UNDER 37 CFR 1.137(b)

1.Petition fee

☑ Small entity-fee $ 810 (37 CFR 1.17(m)). Applicant claims small entity status. See 37 CFR 1.27.

☐ Other than small entity – fee $ _____ (37 CFR 1.17(m))

2. Notice of Foreign or International Filing (35 U.S.C. 122(b)(2)(B)(iii) and 37 CFR 1.213(c))

Subsequent to the filing of the above-identified application, an application was filed in another country, or under a multinational international treaty (e.g., filed under the Patent Cooperation Treaty), that requires publication of applications eighteen months after the filing. The filing date of the subsequently filed foreign or international application is **08/11/2008 (w/USPTO)** .

This collection of information is required by 37 CFR 1.137. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1. 11 and 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO**: **Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

STATEMENT: The entire delay in filing the required notice of a foreign or international filing from the due date for the required notice until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional. [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filing a petition under 37 CFR 1.137(b) was unintentional (MPEP 711.03(c), subsections (III)(C) and (D)).]

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

/ joe zheng /	11/23/2010
Signature	Date
Joe Zheng	39,450
Type or Printed Name	Registration Number, if applicable
Customer No.: 26797	(408)777-8873
Address	Telephone Number
Address	

Enclosures: ☑ Fee Payment

☐ Additional sheets containing statements establishing unintentional delay

☐ Other: _____

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

I hereby certify that this correspondence is being:

☐ Deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

☑ Transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (571) 273-8300.

11/23/2010 (VIA EFS)	/ joe zheng /
Date	Signature
	Joe Zheng
	Typed or printed name of person signing certificate

Electronic Patent Application Fee Transmittal

Application Number:	12186524
Filing Date:	06-Aug-2008
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Filer:	Joe Zheng
Attorney Docket Number:	Kent-007

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Petition-revive unintent. abandoned appl	2453	1	810	810
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**810**

Electronic Acknowledgement Receipt

EFS ID:	8900887
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	23-NOV-2010
Filing Date:	06-AUG-2008
Time Stamp:	15:28:30
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$810
RAM confirmation Number	2325
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Petition for review by the Office of Petitions.	PetitionAsFiled.pdf	42101 ce070beb66044efbbaedebe0f788e474be4fb3f5	no	2
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	29887 dc8251149fdebd32c6712f2686975eca56ba4d80	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	71988	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	ALGAHAIM, HELAL A
Group Art Unit:	3663
Docket No:	Kent-007

November 23, 2010

Mail Stop: No-Fee Amendments
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Preliminary Amendment

Dear Sir:

The Applicant respectfully requests the Examiner to enter the following amendments before considering the pending claims:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Amendment.

REMARKS/ARGUMENTS begin on page 7 of this Amendment.

IN THE CLAIMS

Please amend Claims 1 – 2, 7, 10-11, and 20 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

   providing a map that is non-linearly scaled, the map including various objects being exaggeratedly shown, each of the objects represented by a plurality of points;

   capturing coordinates of ~~a~~ one of the points ~~selected~~ on one of the objects being selected;

   transforming the coordinates to a physical point represented by latitude and longitude, wherein each of the points representing one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

   determining a direction from a current location to the physical point; and

   synchronizing the direction with the map being displayed.

2. (*Currently amended*) The method as recited in claim 1, wherein the selected object~~ed~~ is represented by a plurality of pairs of coordinates, all of the coordinates are transformed to the physical point represented by the latitude and longitude.

3. (*Original*) The method as recited in claim 2, wherein the map corresponds to a geographical map, where the physical point is precisely located in accordance with the latitude and longitude.

4. (*Original*) The method as recited in claim 3, wherein the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Original*) The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

7. (*Currently amended*) The method as recited in claim 6, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates ~~pf~~ of the points to image coordinates of the points.

8. (*Original*) The method as recited in claim 7, comprising connecting the pixel coordinates of the points to show the route in the map.

9. (*Original*) The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

10. (*Currently amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the map, and the method further comprising: adjusting the color for the each of objects in the map, and generating a color-definition map.

11. (*Currently amended*) A portable device for navigating a designed place, the portable device comprising:

a display screen configured to display a map including various objects being exaggeratedly shown, each of the objects represented by a plurality of points;

a memory for storing code;

a processor executing the code to perform operations of:

capturing coordinates of ~~a~~ one of the points ~~selected~~ on one of the objects being selected in the map being displayed;

transforming the coordinates of the one of the points to a physical point represented by latitude and longitude, wherein each of the points representing one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

determining a direction from a current location to the physical point; and

synchronizing the direction with the map being displayed.

12. (*Original*) The portable device as recited in claim 11, wherein the selected objected is represented by a plurality of pairs of coordinates, all are substantially transformed to the physical point represented by the latitude and longitude.

13. (*Original*) The portable device as recited in claim 12, wherein the map being an artistic map corresponds to a geographical map, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14. (*Original*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map.

15. (*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16. (*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

17. (*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

18. (*Original*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the map.

19. (*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20. (*Currently amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color-definition map that is generated after an adjustment of the colors originally ~~producted~~ produced according to a color map.

REMARKS

Claims 1 - 20 were submitted for examination.

In the foregoing amendments, the Applicant had amended pending claims to better define the scope of the invention disclosed in the instant application. It is believed the amended claims can be appreciated to be allowable over US Patent Publication No.: 2007/0176953 cited in a Search Report for a PCT application based on the instant application.

The Examiner is respectfully requested to contact the undersigned at (408)777-8873 if there is any question.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on November 23, 2010.

Name: Joe Zheng

Signature:/ joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg. No.: 39,450

Electronic Acknowledgement Receipt

EFS ID:	8905281
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	23-NOV-2010
Filing Date:	06-AUG-2008
Time Stamp:	21:08:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Preliminary Amendment	PreliminaryAmendment.pdf	84680 8e19eb7c70d3f7728247d132ec0997dde1eca563	no	7

Warnings:	
Information:	

Total Files Size (in bytes):	84680

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
12/186,524	08/06/2008	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 11/23/2010	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $26 =	0	OR	X $ =	
Independent (37 CFR 1.16(h))	* 2	Minus	***2	= 0	X $110 =	0	OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

AMENDMENT	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/JAMILAH Z. HARRIS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P. O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO CA 95014

MAILED

FEB 22 2011

OFFICE OF PETITIONS

In re Application of
Pu, et al.
Application No. 12/186,524
Filed: August 6, 2008
Attorney Docket No. Kent-007

ON PETITION

This is a decision on the petition, filed November 23, 2010, which is being treated as a petition under 37 CFR 1.137(b) to revive the instant nonprovisional application for failure to timely notify the U.S. Patent and Trademark (USPTO) of the filing of an application in a foreign country, or under a multinational treaty that requires publication of applications eighteen months after filing. *See* 37 CFR 1.137(f).

The petition is **GRANTED**.

Petitioner states that the instant nonprovisional application is the subject of an application filed in an under a multi-national treaty on August 11, 2008. However, the USPTO was unintentionally not notified of this filing within 45 days subsequent to the filing of the subject application under a multi-national treaty

In view of the above, this application became abandoned pursuant to 35 U.S.C. § 122(b)(2)(B)(iii) and 37 CFR 1.213(c) for failure to timely notify the Office of the filing of an application in a foreign country or under a multilateral international agreement that requires publication of applications 18 months after filing.

A petition to revive an application abandoned pursuant to 35 U.S.C. 122(b)(2)(B)(iii) for failure to notify the USPTO of a foreign filing must be accompanied by:

(1) the required reply which is met by the notification of such filing in a foreign country or under a multinational treaty;
(2) the petition fee as set forth in 37 CFR 1.17(m); and
(3) a statement that the entire delay in filing the required reply from the due date of the reply until the filing of a grantable petition was unintentional.

The instant petition has been found to be in compliance with 37 CFR 1.137(b). Accordingly, the failure to timely notify the USPTO of a foreign or international filing within 45 days after the date of filing of such foreign or international application as provided by 35 U.S.C. § 122(b)(2)(B)(iii) and 37 CFR 1.213(c) is accepted as having been unintentionally delayed.

The previous Request and Certification under 35 U.S.C. § 122(b)(2)(B)(i) has been rescinded. A Notice Regarding Rescission of Nonpublication Request which sets forth the projected publication date of accompanies this decision on petition.

Telephone inquiries concerning this decision should be directed to the undersigned at (571) 272-3222.

This application is being forwarded to Technology Center Art Unit 3663 for examination in due course.

/Kenya A. McLaughlin/

Kenya A. McLaughlin
Petitions Attorney
Office of Petition

ATTACHMENT: Notice Regarding Rescission of Nonpublication Request

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/186,524	08/06/2008	Kent Qing PU	Kent-007

CONFIRMATION NO. 1339

26797
SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO, CA 95014

NONPUBLICATION RESCISSION LETTER



Date Mailed: 02/22/2011

Communication Regarding Rescission Of Nonpublication Request and/or Notice of Foreign Filing

Applicant's rescission of the previously-filed nonpublication request and/or notice of foreign filing is acknowledged. The paper has been reflected in the Patent and Trademark Office's (USPTO's) computer records so that the earliest possible projected publication date can be assigned.

The projected publication date is 06/02/2011.

If applicant rescinded the nonpublication request before or on the date of "foreign filing,"[1] then no notice of foreign filing is required.

If applicant foreign filed the application after filing the above application and before filing the rescission, and the rescission did not also include a notice of foreign filing, then a notice of foreign filing (not merely a rescission) is required to be filed within 45 days of the date of foreign filing. See 35 U.S.C. § 122(b)(2)(B)(iii), and Clarification of the United States Patent and Trademark Office's Interpretation of the Provisions of 35 U.S.C. § 122(b)(2)(B)(ii)-(iv), 1272 Off. Gaz. Pat. Office 22 (July 1, 2003).

If a notice of foreign filing is required and is not filed within 45 days of the date of foreign filing, then the application becomes abandoned pursuant to 35 U.S.C. § 122(b)(2)(B)(iii). In this situation, applicant should either file a petition to revive or notify the Office that the application is abandoned. See 37 CFR 1.137(f). Any such petition to revive will be forwarded to the Office of Petitions for a decision. Note that the filing of the petition will not operate to stay any period of reply that may be running against the application.

Questions regarding petitions to revive should be directed to the Office of Petitions at (571) 272-3282.

[1] Note, for purpose of this notice, that "foreign filing" means "filing an application directed to the same invention in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing".

/kathornton mclaughl/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/186,524	08/06/2008	Kent Qing PU	Kent-007

CONFIRMATION NO. 1339

26797
SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO, CA 95014

NONPUBLICATION RESCISSION LETTER

OC000000046109632

Date Mailed: 02/22/2011

Communication Regarding Rescission Of Nonpublication Request and/or Notice of Foreign Filing

Applicant's rescission of the previously-filed nonpublication request and/or notice of foreign filing is acknowledged. The paper has been reflected in the Patent and Trademark Office's (USPTO's) computer records so that the earliest possible projected publication date can be assigned.

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If a notice of foreign filing is required and is not filed within 45 days of the date of foreign filing, then the application becomes abandoned pursuant to 35 U.S.C. § 122(b)(2)(B)(iii). In this situation, applicant should either file a petition to revive or notify the Office that the application is abandoned. See 37 CFR 1.137(f). Any such petition to revive will be forwarded to the Office of Petitions for a decision. Note that the filing of the petition will not operate to stay any period of reply that may be running against the application.

Questions regarding petitions to revive should be directed to the Office of Petitions at (571) 272-3282.

[1] Note, for purpose of this notice, that "foreign filing" means "filing an application directed to the same invention in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing".

/kathornton mclaughl/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO, CA 95014

Courtesy Reminder for
Application Serial No: 12/186,524

Attorney Docket No: Kent-007
Customer Number: 26797
Date of Electronic Notification: 02/25/2011

This is a courtesy reminder that new correspondence is available for this application. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:
uspatents@sbcglobal.net
Please verify that these email addresses are correct.

To view your correspondence online or update your email addresses, please visit us anytime at **https://sportal.uspto.gov/secure/myportal/privatepair.** If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/186,524	08/06/2008	Kent Qing PU	Kent-007

CONFIRMATION NO. 1339

26797
SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO, CA 95014

PUBLICATION NOTICE

OC000000048002460

Title: Method and apparatus for navigating on artistic maps

Publication No.US-2011-0130955-A1
Publication Date:06/02/2011

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

26797 7590 09/02/2011
SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO, CA 95014

EXAMINER	
HUNTER, SEAN KRISTOPHER	
ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
09/02/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Office Action Summary	Application No.	Applicant(s)	
	12/186,524	PU ET AL.	
	Examiner	Art Unit	
	SEAN K. HUNTER	3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *06 August 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

STATUS OF CLAIMS

This action is in reply to the Application filed on 6 August 2008. The Applicant has amended claims 1-2, 7, 10-11 and 20 prior to examination. Claims 1-20 are currently pending and have been examined.

PRIORITY

Applicant's claim for the benefit of prior-filed applications (provisional application 60/955,343, filed 8/11/2007) under 35 U.S.C. 110(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

CLAIM REJECTIONS - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A claimed process is eligible for patent protection under 35 U.S.C. § 101 if:

> "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. See Benson, 409 U.S. at 70 ('Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines.'); Diehr, 450 U.S. at 192 (holding that use of mathematical formula in process 'transforming or reducing an article to a different state or thing' constitutes patent-eligible subject matter); see also Flook, 437 U.S. at 589 n.9 ('An argument can be made [that the Supreme] Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing' '); Cochrane v. Deener, 94 U.S. 780, 788 (1876) ('A process is...an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.').7 A claimed process involving a fundamental principle that uses a particular machine or apparatus would not pre-empt uses of the principle that do not also use the specified machine or apparatus in the

> manner claimed. And a claimed process that transforms a particular article to a specified different state or thing by applying a fundamental principle would not pre-empt the use of the principle to transform any other article, to transform the same article but in a manner not covered by the claim, or to do anything other than transform the specified article." (Bilski v. Kappos, 95 USPQ2d 1001 (U.S. 2010))

Also noted in Bilski is the statement, "Process claim that recites fundamental principle, and that otherwise fails 'machine-or-transformation' test for whether such claim is drawn to patentable subject matter under 35 U.S.C. §101, is not rendered patent eligible by mere field-of-use limitations; another corollary to machine-or-transformation test is that recitation of specific machine or particular transformation of specific article does not transform unpatentable principle into patentable process if recited machine or transformation constitutes mere 'insignificant post-solution activity.'" (Bilski v. Kappos, 95 USPQ2d 1001 (U.S. 2010)) Examples of insignificant post-solution activity include data gathering and outputting.

Claims 1-10 are not tied to a particular machine or apparatus nor do they transform a particular article into a different state or thing, thereby failing the machine-or-transformation test. Claims 1-10, as recited, are directed towards a method comprising the steps of providing, capturing transforming, determining, and synchronizing. As currently written the steps recited in Claims 1-10 are not tied to a machine, much less a significant tie to a particular machine (i.e., computer/processor/server/etc.). To qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus, i.e., computer, server, computer communications network, computer-readable medium, etc., that accomplishes the method steps or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. As currently written the steps recited in Claims 1-10 are not tied to a machine, much less a significant tie to a particular machine (i.e., computer/processor/server/etc.). Also, as currently written the steps recited in Claims 1-10 may be performed by hand or mentally, or could be interpreted as software per se, and therefore are not tied to another statutory class. Claims 1-10 are therefore non-statutory under §101. Appropriate correction is required.

CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), hereinafter referred to as Salmre, respectively.

Claim 1 –

As per Claim 1, Salmre discloses a method for navigating in a particular area, the method comprising:

- providing a map that is non-linearly scaled, the map including various objects being exaggeratedly shown, each of the objects represented by a plurality of points [*see at least, Abstract; Figure 2; p. 1, ¶0007; p. 2, ¶0035, of Salmre*];
- capturing coordinates of one of the points on one of the objects being selected [*see at least, Abstract; p. 5, ¶0058, of Salmre*];
- transforming the coordinates to a physical point represented by latitude and longitude, wherein each of the points representing one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed [*see at least, Abstract; p. 5, ¶0058, of Salmre*];

- determining a direction from a current location to the physical point; and synchronizing the direction with the map being displayed [*see at least, Abstract; p. 2, ¶0030-¶0031, of Salmre*].

Salmre does not *explicitly* disclose, wherein each of the points representing one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed.

However, Salmre does disclose in a non-linear map, X and Y coordinates are transformed to latitude and longitude coordinates, and then back to X and Y coordinates. It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, wherein each of the points representing one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 2 –

As per Claim 2, Salmre discloses the method as recited in Claim 1, wherein

- the selected object is represented by a plurality of pairs of coordinates, all of the coordinates are transformed to the physical point represented by the latitude and longitude [*see at least, p. 5, ¶0058, of Salmre*].

Claim 3 –

As per Claim 3, Salmre discloses the method as recited in Claim 2, wherein

- the map corresponds to a geographical map, where the physical point is precisely located in accordance with the latitude and longitude [*see at least, p. 4, ¶0047; p. 5-6, ¶0065, of Salmre*].

Claim 4 –

As per Claim 4, Salmre discloses the method as recited in Claim 3, wherein

- the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map [*see at least, p. 2, ¶0030, of Salmre*].

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Suomela (US 6,697,734), hereinafter referred to as Salmre and Suomela, respectively.

Claim 5 –

As per Claim 5, Salmre discloses the method as recited in Claim 4, however Salmre does not explicitly disclose further comprising

- determining a set of instructions of how to move from the current location to the physical point as a destination.

Suomela discloses

- determining a set of instructions of how to move from the current location to the physical point as a destination [*see at least, col. 1, lines 21-26, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, determining a set of instructions of how to move from the current location to the physical point as a destination, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 6 –

As per Claim 6, Salmre in view of Suomela discloses the method as recited in Claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

- transforming the direction with respect to the geographical map to the map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*]; and
- transforming the instructions with respect to the geographical map to the map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 7 –

As per Claim 7, Salmre in view of Suomela discloses the method as recited in Claim 6, wherein the direction shows how to

- move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points [*see at least, Figure 4; Figure 5; Figure 6; col. 3 lines 37-47; col. 8, lines 26-27, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 8 –

As per Claim 8, Salmre in view of Suomela discloses the method as recited in Claim 7, comprising

- connecting the pixel coordinates of the points to show the route in the map [*see at least, Figure 3; Figure 4; Figure 5; and Figure 6, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, connecting the pixel coordinates of the points to show the route in the map, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 9 –

As per Claim 9, Salmre in view of Suomela discloses the method as recited in Claim 5, wherein the synchronizing of the direction with the map being displayed is

- carried out according to a transformation derived from a deformation of the geographical map to the map being displayed [*see at least, col. 2, lines 14-33, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Rasmussen (US 2006/0206264), hereinafter referred to as Salmre and Rasmussen, respectively.

Claim 10 –

As per Claim 10, Salmre discloses the method as recited in Claim 1, wherein there is a color map to define a color of each of the objects in the map, Salmre does not *explicitly* disclose and the method further comprising:

- adjusting the color for the each of objects in the map, and generating a color-definition map.

Rasmussen discloses

- adjusting the color for the each of objects in the map, and generating a color-definition map [*see at least, p. 3, ¶0023 and ¶0027, of Rasmussen*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, adjusting the color for the each of objects in the map, and generating a color-definition map, as disclosed by Rasmussen.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claims 11 through 20 –

As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN K. HUNTER whose telephone number is 571.270.7791. The examiner can normally be reached on Monday through Thursday 9a through 5p. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT MORGAN can be reached on 571-272-6773. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. K. H./
Examiner, Art Unit 3626

/Robert Morgan/
Supervisory Patent Examiner, Art Unit 3626

Notice of References Cited	Application/Control No. 12/186,524	Applicant(s)/Patent Under Reexamination PU ET AL.	
	Examiner SEAN K. HUNTER	Art Unit 3626	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2007/0176932	08-2007	Salmre, Ivo William	345/440
*	B	US-6,697,734	02-2004	Suomela, Riku	701/212
*	C	US-2006/0206264	09-2006	Rasmussen, Jens Eilstrup	701/212
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	**Art Unit**
	SEAN K HUNTER	3626

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/29/2011								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
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	17	✓								
	18	✓								
	19	✓								
	20	✓								

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BIB DATA SHEET

CONFIRMATION NO. 1339

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/186,524	08/06/2008	701	3626	Kent-007

APPLICANTS

Kent Qing PU, San Diego, CA;
Ivan Angelov, Del Mar, CA;
David Thieme, Laguna Niguel, CA;

**** CONTINUING DATA ***************************

This appln claims benefit of 60/955,343 08/11/2007

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **
08/18/2008

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☐ No Verified and Acknowledged /SEAN K. HUNTER/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		CA	8	20	2

ADDRESS

SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO, CA 95014
UNITED STATES

TITLE

Method and apparatus for navigating on artistic maps

FILING FEE RECEIVED		
435	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	Art Unit
	SEAN K HUNTER	3626

SEARCHED			
Class	Subclass	Date	Examiner
701	200	8/28/2011	SKH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	8/28/2011	SKH

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

/S.K.H./ Examiner.Art Unit 3626	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	701/200, "201", "207".ccls.	US-PGPUB; USPAT	AND	ON	2011/08/29 08:18
L2	7129	701/200,201,207.ccls.	US-PGPUB; USPAT	AND	ON	2011/08/29 08:18
L3	3929	2 AND @pd<"20070810"	US-PGPUB; USPAT	AND	ON	2011/08/29 08:18
L4	1	3 AND (non-linearly scaled map)	US-PGPUB; USPAT	AND	ON	2011/08/29 08:19
L5	2830	3 AND (global positioning system OR (GPS))	US-PGPUB; USPAT	AND	ON	2011/08/29 08:25
L6	2296	5 AND (navigation)	US-PGPUB; USPAT	AND	ON	2011/08/29 08:25
L7	168	5 AND (navigation NEAR (maps))	US-PGPUB; USPAT	AND	ON	2011/08/29 08:26
L8	0	7 AND (nonlinearly scaled maps)	US-PGPUB; USPAT	AND	ON	2011/08/29 08:26
L9	0	7 AND (nonlinearly scaled)	US-PGPUB; USPAT	AND	ON	2011/08/29 08:27
L10	0	7 AND (non-linearly scaled)	US-PGPUB; USPAT	AND	ON	2011/08/29 08:27
L11	0	7 AND (non-linearly scaled map)	US-PGPUB; USPAT	AND	ON	2011/08/29 08:27
L12	4	7 AND (capturing (coordinates))	US-PGPUB; USPAT	AND	ON	2011/08/29 08:27
L13	0	12 AND (transforming (coordinates))	US-PGPUB; USPAT	AND	ON	2011/08/29 08:27

L14	1	"20070176932".pn.	US-PGPUB; USPAT	AND	ON	2011/08/29 08:29
L15	0	7 AND (nonlinear maps)	US-PGPUB; USPAT	AND	ON	2011/08/29 08:29
L16	0	7 AND (non-linear maps)	US-PGPUB; USPAT	AND	ON	2011/08/29 08:30
L17	1	"6697734".pn.	US-PGPUB; USPAT	AND	ON	2011/08/29 08:32
L18	1	"20060206264".pn.	US-PGPUB; USPAT	AND	ON	2011/08/29 09:02

8/29/2011 9:14:32 AM
C:\Documents and Settings\shunter2\My Documents\EAST\Workspaces\Applications\12186524\12186524 v1.wsp

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	ALGAHAIM, HELAL A
Group Art Unit:	3663
Docket No:	Kent-007

December 1, 2011

Mail Stop: No-Fee Amendments
Commissioner for Patents
P.O. Box 1450 Alexandria, VA 22313-1450

Response to 1st Office Action

Dear Sir:

In response to the Office Action dated 09/02/2011, the Applicant respectfully requests the Examiner to enter the following amendments before reconsidering the pending claims:

AMENDMENTS TO THE SPECIFICATION begin on page 2 of this Amendment.

AMENDMENTS TO THE DRAWINS begin on page 3 of this Amendment.

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 4 of this Amendment.

REMARKS/ARGUMENTS begin on page 9 of this Amendment.

AMENDMENTS TO THE DRAWINS

2 replacement sheets are enclosed herewith to correct some informalities in FIG. 3 and FIG. 4B.

REMARKS

Claims 1-20 were submitted for examination. In this Office Action, Claims 1-4 are rejected under 35 U.S.c. 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre"), Claims 5-9 are rejected under 35 U.S.c. 103(a) as being unpatentable over Salmre in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 U.S.c. 103(a) as being unpatentable over Salmre in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

The Examiner is appreciated for the thoughtful examination and comments in the Office Action. To further distinguish from the cited references, the Applicant has amended Claims 1 – 2, 5, 16, 19 – 23, and 39-40 in the foregoing amendments. No new matters have been introduced. As a result of the amendments, claims 1-15 and 18-40 are pending. Reconsideration of pending claims 1-15 and 18-40 is respectfully requested.

Patentability of Claim 1-4

As amended, Claim 1 now recites:

receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device, each of the objects represented by a plurality of points;
receiving a selection on one of the objects;
capturing coordinates of one of the points on one of the objects being selected;
transforming the coordinates to a physical point represented by a pair of latitude and longitude, wherein each of the points representing the one of

the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects when the user decides to travel to the one of the objects; and synchronizing the navigational direction with the map being displayed.

(*Emphasis added*)

As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. As clearly shown in FIG. 3, one object (i.e., the lion) is represented by many points (e.g., pixels when displayed on a screen). All of the coordinates of these points are mapped or corresponded to a single "physical" point in a real map (represented by a pair of latitude and longitude). When a user desires to travel to a location of the object (where the lion is), no matter of where (which point) the user has selected on the object, it always means the same physical point. As a result, a navigational direction can be determined from a current position to the physical point.

In contrast, Salmre teaches about linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. As further described in paragraph [0036], Salmre describes an example of Bob 206 and Julie 204 being at the exact same locations in the linear map 200 and the non-linear map 202, because these vertices have fixed them even the maps differ, despite their relative positions or distances look different in two maps.

FIG. 5 of Salmre further illustrates the transformation or conversation by the triangles with the vertices fixed. In other words, Salmre provided a one-to-one transformation or conversation between two maps, that is why can be done in symmetric fashion. Evidently, such a one-to-one transformation is mathematically

and operationally different from the many-to-one transformation in the present invention as claimed "*all of the points correspond substantially to the physical point when said transforming is performed*". Accordingly, the Applicant submits Salmre neither teaches nor suggests "*all of the points correspond substantially to the physical point when said transforming is performed*" recited in Claim 1, and "*all of the pairs of coordinates are transformed to the physical point represented by the latitude and longitude*" recited in Claim 2. In one perspective, Salmre teaches away from Claims 1-4 as amended. Claims 1-4 shall be allowable over Salmre. Reconsideration of Claims 1-4 is kindly requested.

Patentability of Claim 5 - 9

Claims 5-9 are rejected under 35 U.S.c. 103(a) as being unpatentable over Salmre in view of Suomela. The Examiner admits on page 6 of the Office Action that Salmre fails to disclose determining a set of instructions of how to move from the current location to the physical point as a destination. The Applicant respectfully contests the combination of Salmre and Suomela as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner. In order to establish a *prima facie* case of obviousness under 35 USC 103, *Graham v. John Deer Co. of Kansas City*, 383 US 1 (1966) requires determining, respectively, the scope and content of the prior art, the difference between the prior art and the claims at issue, and the level of ordinary skilled in the art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning, to support the legal conclusion of obviousness. *KSR v. Teleflex*, No. 04-1350 (US Apr. 30, 2007) (citing In re Kahn, 441 F. 3d 977, 988 (Canada Fed. 2006)). The suggestion to make the claim combination must be found in the prior art, not in the Applicant's disclosure. In re Vaek, 20 USPQ2d 1438 (Fed. Cir. 1991). Moreover, in accordance with MPEP 2142.02, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the

claimed invention. *W.L.Gore & Associates Inc. v. Garlock, Inc.* 220 USPQ 303 (Fed. Cir. 1993). A third essential requirement for establishing a *prima facie* case, set forth in MPEP 2143.01 is that the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

Suomela teaches about displaying a map in two different scales at the same time. Suomela goes on with the middle part of a map in one scale and the surrounding portion of the milled part in a second scale. Salmre states explicitly that two linear and non-linear maps are transformed back and forth. In other words, Salmre's two maps cannot be displayed at the same time. It would cause the mapping conversation in Salmre to fail if Salmre is to be modified with Suomela. It is respectfully concluded that the Examiner has made mere conclusory statements without articulated reasoning with some rational underpinning to render the obviousness rejection.

In any case, it has been proved that Salmre teaches away from Claim 1 as reasoned above. The combination of Salmre and Suomela would no longer stay to reject Claims 5-9. Claims 5-9 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claims 5-9 is kindly requested.

For the similar reason, the combination of Salmre and Rasmussen would no longer stay to reject Claim 10. Claim 10 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claim 10 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicant believes that Claims 1-22 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Amendment or an Examiner's

Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on **Dec. 2, 2011**.

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg. No.: 39,450

REMARKS

Claims 1-20 were submitted for examination. In this Office Action, Claims 1-4 are rejected under 35 U.S.c. 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre"), Claims 5-9 are rejected under 35 U.S.c. 103(a) as being unpatentable over Salmre in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 U.S.c. 103(a) as being unpatentable over Salmre in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

The Examiner is appreciated for the thoughtful examination and comments in the Office Action. To further distinguish from the cited references, the Applicant has amended Claims 1 – 2, 5, 16, 19 – 23, and 39-40 in the foregoing amendments. No new matters have been introduced. As a result of the amendments, claims 1-15 and 18-40 are pending. Reconsideration of pending claims 1-15 and 18-40 is respectfully requested.

Patentability of Claim 1-4

As amended, Claim 1 now recites:

receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device, <u>each of the objects represented by a plurality of points</u>;
receiving a selection on one of the objects;
capturing coordinates of one of the points on one of the objects being selected;
<u>transforming the coordinates to a physical point represented by a pair of latitude and longitude</u>, wherein each of the points representing the one of

the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects when the user decides to travel to the one of the objects; and synchronizing the navigational direction with the map being displayed.

(*Emphasis added*)

As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. As clearly shown in FIG. 3, one object (i.e., the lion) is represented by many points (e.g., pixels when displayed on a screen). All of the coordinates of these points are mapped or corresponded to a single "physical" point in a real map (represented by a pair of latitude and longitude). When a user desires to travel to a location of the object (where the lion is), no matter of where (which point) the user has selected on the object, it always means the same physical point. As a result, a navigational direction can be determined from a current position to the physical point.

In contrast, Salmre teaches about linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. As further described in paragraph [0036], Salmre describes an example of Bob 206 and Julie 204 being at the exact same locations in the linear map 200 and the non-linear map 202, because these vertices have fixed them even the maps differ, despite their relative positions or distances look different in two maps.

FIG. 5 of Salmre further illustrates the transformation or conversation by the triangles with the vertices fixed. In other words, Salmre provided a one-to-one transformation or conversation between two maps, that is why can be done in symmetric fashion. Evidently, such a one-to-one transformation is mathematically

and operationally different from the many-to-one transformation in the present invention as claimed "*all of the points correspond substantially to the physical point when said transforming is performed*". Accordingly, the Applicant submits Salmre neither teaches nor suggests "*all of the points correspond substantially to the physical point when said transforming is performed*" recited in Claim 1, and "*all of the pairs of coordinates are transformed to the physical point represented by the latitude and longitude*" recited in Claim 2. In one perspective, Salmre teaches away from Claims 1-4 as amended. Claims 1-4 shall be allowable over Salmre. Reconsideration of Claims 1-4 is kindly requested.

Patentability of Claim 5 - 9

Claims 5-9 are rejected under 35 U.S.c. 103(a) as being unpatentable over Salmre in view of Suomela. The Examiner admits on page 6 of the Office Action that Salmre fails to disclose determining a set of instructions of how to move from the current location to the physical point as a destination. The Applicant respectfully contests the combination of Salmre and Suomela as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner. In order to establish a *prima facie* case of obviousness under 35 USC 103, *Graham v. John Deer Co. of Kansas City*, 383 US 1 (1966) requires determining, respectively, the scope and content of the prior art, the difference between the prior art and the claims at issue, and the level of ordinary skilled in the art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning, to support the legal conclusion of obviousness. *KSR v. Teleflex*, No. 04-1350 (US Apr. 30, 2007) (citing In re Kahn, 441 F. 3d 977, 988 (Canada Fed. 2006)). The suggestion to make the claim combination must be found in the prior art, not in the Applicant's disclosure. In re Vaek, 20 USPQ2d 1438 (Fed. Cir. 1991). Moreover, in accordance with MPEP 2142.02, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the

claimed invention. *W.L.Gore & Associates Inc. v. Garlock, Inc.* 220 USPQ 303 (Fed. Cir. 1993). A third essential requirement for establishing a *prima facie* case, set forth in MPEP 2143.01 is that the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

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In any case, it has been proved that Salmre teaches away from Claim 1 as reasoned above. The combination of Salmre and Suomela would no longer stay to reject Claims 5-9. Claims 5-9 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claims 5-9 is kindly requested.

For the similar reason, the combination of Salmre and Rasmussen would no longer stay to reject Claim 10. Claim 10 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claim 10 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicant believes that Claims 1-22 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Amendment or an Examiner's

Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on **Dec. 2, 2011**.

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg. No.: 39,450

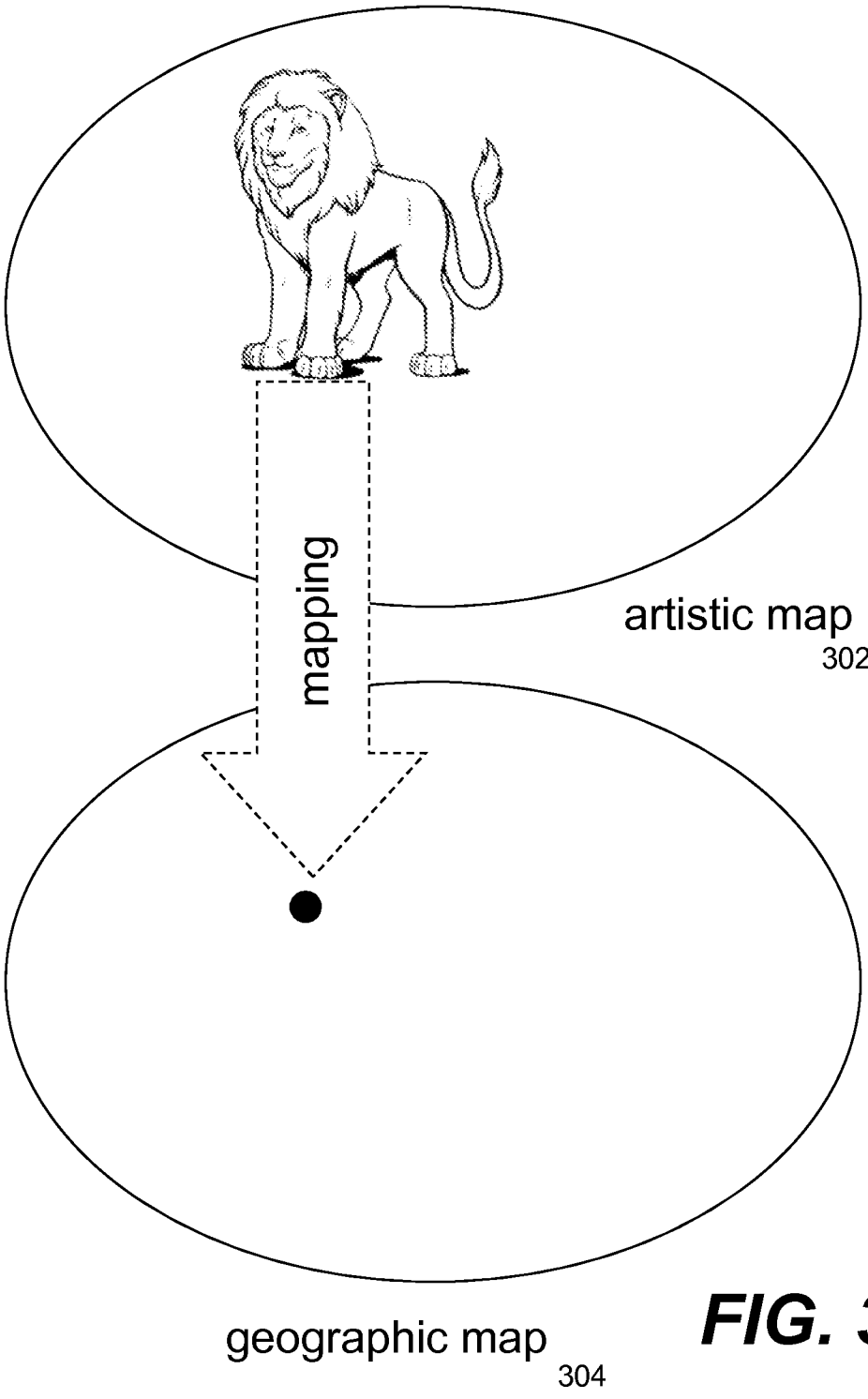


FIG. 3

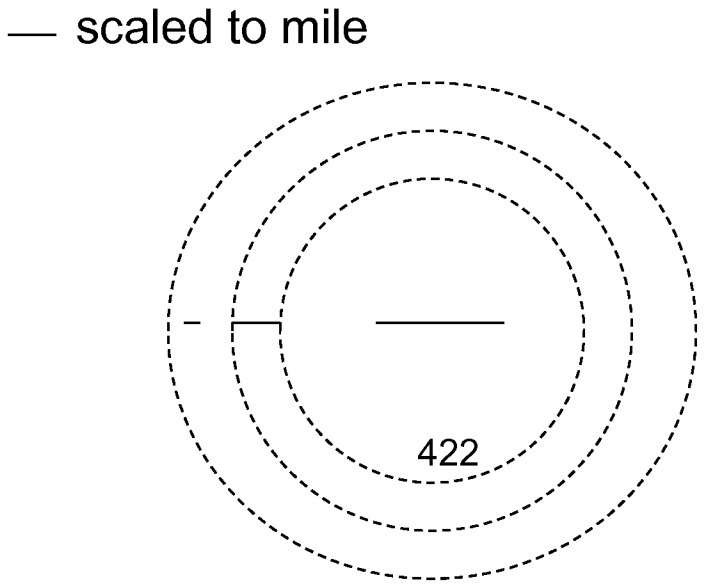

scaled to mile
422

FIG. 4B

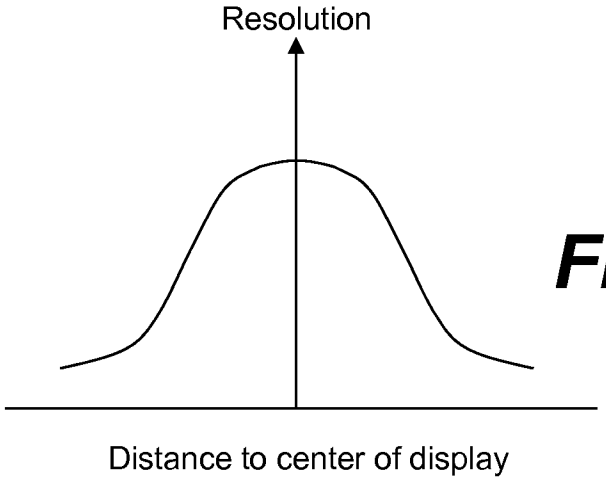

Resolution
Distance to center of display

FIG. 4C

Electronic Acknowledgement Receipt

EFS ID:	11534844
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	02-DEC-2011
Filing Date:	06-AUG-2008
Time Stamp:	16:54:39
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	ResponseTo1stOA.pdf	175045 269ca8baa21202bd49bc82b8a08b4b6c2df7ddbd	no	13

Warnings:	
Information:	

2	Amendment/Req. Reconsideration-After Non-Final Reject	AmendedDrawings.pdf	93215 422152137a9aae30295ff2e4a63475341ada8199	no	2

Warnings:	
Information:	
Total Files Size (in bytes):	268260

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

AMENDMENTS TO THE SPECIFICATION

1. Please amend paragraph [0035] as follows:

[0035] In one embodiment, the audio is synched with the artistic map and indicates a turn when the current location needs to turn in accordance with the directions. In another embodiment, the audio also provides commentary on the features and history of a particular location, and entertaining, relevant, organized and themed heritage interpretation, etc.. FIG. 4B shows an exemplary scheme of presenting a non-~~linaely~~ linearly scaled map. The center portion 422 of the screen 402 is more detailed than the surrounding areas. FIG. 4C shows a corresponding resolution curve to show the nonlinearity of the map being displayed on the screen 402. As a result, many objects near the center are clearly displayed in details

AMENDMENTS TO THE CLAIMS

Please amend Claims 1 – 2, 7, 10-11, and 20 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

~~providing~~ receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device, each of the objects represented by a plurality of points;

receiving a selection on one of the objects;

capturing coordinates of one of the points on one of the objects being selected;

transforming the coordinates to a physical point represented by a pair of latitude and longitude, wherein each of the points representing the one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a navigational direction from ~~a~~ the current location to the one of the objects ~~physical point~~when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

2. (*Currently amended*) The method as recited in claim 1, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are transformed to the physical point represented by the latitude and longitude.

3. (*Original*) The method as recited in claim 2, wherein the map corresponds to a geographical map, where the physical point is precisely located in accordance with the latitude and longitude.

4. (*Currently amended*) The method as recited in claim 3, wherein the determining of the navigational direction from the current location to the physical point is carried out in accordance with the geographical map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Currently amended*) The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the navigational direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

7. (*Currently amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Currently amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route ~~in~~ on the map.

9. (*Currently amended*) The method as recited in claim 5, wherein the synchronizing of the navigational direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

10.(*Currently amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the map, and the method further comprising: adjusting the color for the each of objects in the map, and generating a color definition map.

11.(*Currently amended*) A portable device for navigating a designed place, the portable device comprising:

a display screen configured to display a map including various objects being exaggeratedly shown, each of the objects represented by a plurality of points;

a memory for storing code;

a processor executing the code to perform operations of:

capturing coordinates of one of the points on one of the objects being selected in the map being displayed;

receiving a selection on one of the objects;

capturing coordinates of one of the points on one of the objects being selected;

transforming the coordinates of the one of the points to a physical point represented by a pair of latitude and longitude, wherein each of the points representing one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a direction from ~~a~~ the current location to the physical point; and

synchronizing the direction with the map being displayed.

12.(*Currently amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the

pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13.(*Original*) The portable device as recited in claim 12, wherein the map being an artistic map corresponds to a geographical map, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14.(*Original*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map.

15.(*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

17.(*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

18.(*Original*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the map.

19.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20.(*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
12/186,524	08/06/2008	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 12/02/2011	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 20	Minus	** 20	=	X $ =		OR	X $ =	
Independent (37 CFR 1.16(h))	* 2	Minus	***3	=	X $ =		OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

AMENDMENT	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/PEGGY YARBOROUGH/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

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SILICON VALLEY PATENT AGENCY
7394 WILDFLOWER WAY
CUPERTINO, CA 95014

EXAMINER	
HUNTER, SEAN KRISTOPHER	
ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
02/02/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Office Action Summary	Application No.	Applicant(s)	
	12/186,524	PU ET AL.	
	Examiner	Art Unit	
	SEAN K. HUNTER	3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 December 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

STATUS OF CLAIMS

This action is in reply to the Amendment/Response filed on 2 December 2011. The Examiner notes that in the Applicant's remarks [Applicant Remarks, p.9], the Applicant references amendments have been made to claims that do not exist in the present application. The Applicant also references Claims 1-15 and 18-40 as pending as well, and claims 21-40 do not exist in the present application. The aforementioned is being pointed out to the Applicant by the Examiner for the Applicant's clarification. The Examiner notes that Claims 1, 2, 4 and 6-12 have currently been amended by the Applicant. Claims 1-20 are currently pending and have been examined.

RESPONSE TO AMENDMENTS

The Applicant's amendment to independent Claim 1 has been noted by the Examiner. The Applicant's amendment to independent Claim 1 is sufficient to overcome the 35 U.S.C. §101 rejection as set forth in the previous office action. As such said rejection is herein withdrawn by the Examiner.

CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), hereinafter referred to as Salmre, respectively.

Claim 1 (Currently Amended) –

As per Claim 1, Salmre discloses a method for navigating in a particular area, the method comprising:

- receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device, each of the objects represented by a plurality of points [*see at least, Abstract; Figure 2; p. 1, ¶0007; p. 2, ¶0035; p. 6, ¶0071, of Salmre*];
- receiving a selection on one of the objects [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- capturing coordinates of one of the points on one of the objects being selected [*see at least, Abstract; p. 5, ¶0058, of Salmre*];
- transforming the coordinates to a physical point represented by a pair of latitude and longitude, wherein each of the points representing the one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed [*see at least, Abstract; p. 1, ¶0007; p. 5, ¶0058, of Salmre*];
- detecting a current location of the computing device [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- determining a navigational direction from the current location to the one of the objects when the user decides to travel to the one of the objects; and synchronizing the navigational direction with the map being displayed [*see at least, Abstract; p. 2, ¶0030-¶0031, of Salmre*].

Salmre does not *explicitly* disclose, wherein each of the points representing one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed. The Examiner respectfully notes that, the wherein clause merely

expresses the intended results; therefore it does not limit the claim and is not given patentable weight. [See MPEP §2111.04].

However, Salmre does disclose: …various software mapping aspects; …providing linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion, so that data in one map upon conversion is symmetric in another map with respect to the former map; …one way this is accomplished is by the use of dual-triangles that are mapped into the former and latter map, by having, in one exemplary aspect, the same vertices in both maps; [a]dditional features, such as selection regions for regions to be converted or not converted are used; …dual-triangle subdivision or aggregation techniques can be used to provide a desired mapping scenario. [See Abstract, of Salmre]. Salmre also discloses: …[t]echniques are provided that allow for the designing and using of arbitrary maps, whether these maps may be linear or non-linear. [p. 1, ¶0007, of Salmre]. Salmre further discloses: …shows how a round trip conversion…produces no spatial distortion for plotted data, thereby showing the quality of various transformation algorithms that can be visually evaluated; …X and Y coordinates on the non-linear map are transformed to latitude and longitude coordinates, and then back to X and Y coordinates… [p. 5, ¶0058, of Salmre]. It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, wherein each of the points representing one of the objects has different coordinates, but all of the points correspond substantially to the physical point when said transforming is performed.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 2 (Currently Amended) –

As per Claim 2, Salmre discloses the method as recited in Claim 1, wherein

- the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are transformed to the physical point represented by the latitude and longitude [*see at least, p. 5, ¶0058, of Salmre*].

Claim 3 (Original) –

As per Claim 3, Salmre discloses the method as recited in Claim 2, wherein

- the map corresponds to a geographical map, where the physical point is precisely located in accordance with the latitude and longitude [*see at least, p. 4, ¶0047; p. 5-6, ¶0065, of Salmre*].

Claim 4 (Currently Amended) –

As per Claim 4, Salmre discloses the method as recited in Claim 3, wherein

- the determining of the navigational direction from the current location to the physical point is carried out in accordance with the geographical map [*see at least, p. 2, ¶0030, of Salmre*].

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Suomela (US 6,697,734), hereinafter referred to as Salmre and Suomela, respectively.

Claim 5 (Original) –

As per Claim 5, Salmre discloses the method as recited in Claim 4, however Salmre does not explicitly disclose further comprising

- determining a set of instructions of how to move from the current location to the physical point as a destination.

Suomela discloses

- determining a set of instructions of how to move from the current location to the physical point as a destination [*see at least, col. 1, lines 21-26, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, determining a set of instructions of how to move from the current location to the physical point as a destination, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 6 (Currently Amended) –

As per Claim 6, Salmre in view of Suomela discloses the method as recited in Claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

- transforming the navigational direction with respect to the geographical map to the map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*]; and
- transforming the instructions with respect to the geographical map to the map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 7 (Currently Amended) –

As per Claim 7, Salmre in view of Suomela discloses the method as recited in Claim 6, wherein the navigational direction shows how to

- move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points [*see at least, Figure 4; Figure 5; Figure 6; col. 3 lines 37-47; col. 8, lines 26-27, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 8 (Currently Amended) –

As per Claim 8, Salmre in view of Suomela discloses the method as recited in Claim 7, further comprising

- connecting the pixel coordinates of the points to show the route on the map [*see at least, Figure 3; Figure 4; Figure 5; and Figure 6, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, connecting the pixel coordinates of the points to show the route in the map, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 9 (Currently Amended) –

As per Claim 9, Salmre in view of Suomela discloses the method as recited in Claim 5, wherein the synchronizing of the navigational direction with the map being displayed is

- carried out according to a transformation derived from a deformation of the geographical map to the map being displayed [*see at least, col. 2, lines 14-33, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Rasmussen (US 2006/0206264), hereinafter referred to as Salmre and Rasmussen, respectively.

Claim 10 (Currently Amended) –

As per Claim 10, Salmre discloses the method as recited in Claim 1, wherein there is a color map to define a color of each of the objects in the map, Salmre does not *explicitly* disclose and the method further comprising:

- adjusting the color for the each of objects in the map, and generating a color-definition map.

Rasmussen discloses

- adjusting the color for the each of objects in the map, and generating a color-definition map [*see at least, p. 3, ¶0023 and ¶0027, of Rasmussen*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, adjusting the color for the each of objects in the map, and generating a color-definition map, as disclosed by Rasmussen.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claims 11 through 20 (Currently Amended | Original) –

As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

RESPONSE TO ARGUMENTS

Applicant's arguments filed 2 December 2011 have been fully considered but they are not persuasive. Applicant's arguments will be addressed herein below in the order in which they appear in the response filed 2 December 2011.

In the remarks, the Applicant argues in substance, (1) that with respect to currently amended independent Claim 1, Salmre allegedly neither teaches or suggests "...all of the points correspond substantially to the physical point when said transforming is performed..."; (2) that with respect to currently amended independent Claim 1, Salmre allegedly teaches away from the claim language as currently recited; (3) that with respect to Claims 5-9, the Examiner has allegedly "...made mere conclusory statements without articulated reasoning with some rational underpinning to render the obviousness rejection..."; (4) that with respect to currently amended dependent Claim 10, said claim is allegedly allowable for substantially the same, or similar, reasons as set forth above regarding Claims 5-9; and (5) that with respect to Claims 11-20, said claims are allegedly allowable for substantially the same, or similar, reasons as set forth above regarding Claims 1-10.

In response to the Applicant's argument, (1) that with respect to currently amended independent Claim 1, Salmre allegedly neither teaches nor suggests "...all of the points correspond substantially to the physical point when said transforming is performed..." the Examiner respectfully disagrees. The Examiner respectfully notes that obviousness is not determined by what the references expressly state but by what they would reasonably ***suggest*** to one of ordinary skill in the art, as supported by decisions in *In re DeLisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (citing *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al*, 192 USPQ 278 (CCPA) that:

> (i) obviousness does not require absolute predictability;
> (ii) non-preferred embodiments of prior art must also be considered; and
> (iii) the question is not express teaching of references, but what they would suggest.

Moreover, the Examiner respectfully notes that, the wherein clause merely expresses the intended results; therefore it does not limit the claim and is not given patentable weight. [See MPEP §2111.04]. The Examiner also respectfully notes that, "A whereby clause in a method

claim is not given weight when it simply expresses the intended result of a process step positively recited." *Minton v. Nat'l Ass'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003). The Examiner still further notes that, "A whereby clause that merely states the result of the limitations in the claim adds nothing to the patentability or substance of the claim." *Tex. Instruments Inc. v. U.S. Int'l Trade Comm'n*, 988 F.2d 1165, 1172, 26 USPQ2d 1018, 1023 (Fed. Cir. 1993). Furthermore, the Applicant's argument with respect to currently amended independent Claim 1 has been considered but is moot in view of the new ground(s) of rejection.

In response to the Applicant's argument, (2) that with respect to currently amended independent Claim 1, Salmre allegedly teaches away from the claim language as currently recited, the Examiner respectfully disagrees. The Examiner respectfully submits that it has been held that a prior art reference must either be in the field of Applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the Applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Firstly, the Examiner respectfully submits that the prior art reference is in the field of Applicant's endeavor. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The Applicant's invention pertains to a method and apparatus for navigating in a particular area. The Examiner respectfully submits that Salmre was relied upon for teaching "…providing linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion, so that data in one map upon conversion is symmetric in another map with respect to the former map." [Abstract, of Salmre]. Thus it is the position of the Examiner that the Salmre reference is in fact in the field of the Applicant's endeavor (i.e., they relate to receiving a map that is non-linearly scaled, capturing coordinates of one of the points on one of the objects, transforming the coordinates to a physical point, detecting a current location, determining a navigational direction, etc. Secondly, the Examiner respectfully submits that the prior art references are reasonably pertinent to the particular problem with which the Applicant was concerned. Salmre is related to "…providing linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion, so that data in one map upon conversion is symmetric in another map with respect to the former map." [Abstract, of Salmre]. The present application is related to, "…navigation on non-linearly scaled maps and

how to display such non-linearly scaled maps with proper colors on a display screen." [Applicant's specification, ¶0002]. Thus it is the position of the Examiner that the prior art references are reasonably pertinent to the particular problem with which the Applicant was concerned and the applied references are analogous art. Furthermore, the Examiner respectfully notes that it has been held that prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

In response to the Applicant's argument, (3) that with respect to Claims 5-9, the Examiner has allegedly "...made mere conclusory statements without articulated reasoning with some rational underpinning to render the obviousness rejection...", the Examiner respectfully disagrees. The Examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). Moreover, the Examiner would like to direct the Applicant to §2143 of the MPEP. It is respectfully submitted that the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396. An example of rationale that may support a conclusion of obviousness include: (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention See MPEP § 2143. Furthermore, if the search of the prior art and the resolution of the *Graham* factual inquiries reveal that an obviousness rejection may be made using the familiar teaching-

suggestion-motivation (TSM) rationale, then such a rejection should be made. Although the Supreme Court in *KSR* cautioned against an overly rigid application of TSM, it also recognized that TSM was one of a number of valid rationales that could be used to determine obviousness. (According to the Supreme Court, establishment of the TSM approach to the question of obviousness "captured a helpful insight." 550 U.S. at ___, 82 USPQ2d at 1396 (citing *In re Bergel*, 292 F.2d 955, 956-57, 130 USPQ 206, 207-208 (1961)).). The MPEP, in §2143, further states that the Courts have made it clear that the teaching, suggestion, or motivation test is flexible and an explicit suggestion to combine the prior art is not necessary. It goes on to state that, *"[a]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the 'improvement' is technology-independent and* ***the combinations of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient****...we have held that there exists...a motivation to combine prior art references even absent any hint of suggestion in the references themselves."* The Examiner notes that in rejecting amended independent Claim 21, the following motivation statement, in part, was provided: *"...since it would allow for a more efficient and reliable method of delivering one or more goods or services via medium..."* Therefore, the Appellant's assumption regarding the motivation statement, as it pertains to the obviousness rejection as set forth in the previous office action is misplaced and inaccurate, at best.

In response to the Applicant's argument, (4) that with respect to currently amended dependent Claim 10, said claim is allegedly allowable for substantially the same, or similar, reasons as set forth above regarding Claims 5-9, the Examiner respectfully disagrees for reasons set forth above with respect to Claims 5-9.

In response to the Applicant's argument, (5) that with respect to Claims 11-20, said claims are allegedly allowable for substantially the same, or similar, reasons as set forth above regarding Claims 1-10, the Examiner respectfully disagrees for reasons set forth above with respect to Claims 1-10.

CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN K. HUNTER whose telephone number is 571.270.7791. The examiner can normally be reached on Monday through Thursday 9a through 5p. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT MORGAN can be reached on 571-272-6773. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. K. H./ Examiner, Art Unit 3626	/Robert Morgan/ Supervisory Patent Examiner, Art Unit

	3626

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	Art Unit
	SEAN K HUNTER	3626

SEARCHED			
Class	Subclass	Date	Examiner
701	200	8/28/2011	SKH
701	200	12/29/2011	SKH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	8/28/2011	SKH
Updated EAST search	12/29/2011	SKH

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

/S.K.H./ Examiner.Art Unit 3626	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	**Art Unit**
	SEAN K HUNTER	3626

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/29/2011	12/29/2011							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	✓							
	7	✓	✓							
	8	✓	✓							
	9	✓	✓							
	10	✓	✓							
	11	✓	✓							
	12	✓	✓							
	13	✓	✓							
	14	✓	✓							
	15	✓	✓							
	16	✓	✓							
	17	✓	✓							
	18	✓	✓							
	19	✓	✓							
	20	✓	✓							

PTO/SB/30 (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
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Request for Continued Examination (RCE) Transmittal

Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	12/186,524
Filing Date	08/06/2008
First Named Inventor	Kent Pu
Art Unit	3663
Examiner Name	Kristopher Sean Hunter
Attorney Docket Number	Kent-007

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

   a. ☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

      i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

      ii. ☐ Other _____

   b. ☑ Enclosed

      i. ☑ Amendment/Reply

      ii. ☐ Affidavit(s)/ Declaration(s)

      iii. ☐ Information Disclosure Statement (IDS)

      iv. ☑ Other Interview request form

2. Miscellaneous

   a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

   b. ☐ Other _____

3. Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

   a. ☐ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. _____.

      i. ☑ RCE fee required under 37 CFR 1.17(e)

      ii. ☑ Extension of time fee (37 CFR 1.136 and 1.17)

      iii. ☐ Other _____

   b. ☐ Check in the amount of $ _____ enclosed

   c. ☐ Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Signature	/ joe zheng /	Date	05/23/2012
Name (Print/Type)	Joe Zheng	Registration No.	39,450

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature	/ joe zheng /		
Name (Print/Type)	Joe Zheng	Date	05/23/2012

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

May 22, 2012

Mail Stop: AF/RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Response to Final Office Action

Preliminary amendments to be entered in a RCE filed concurrently

Dear Sir:

In response to the Office Action dated 02/02/2012, the Applicant respectfully requests the Examiner to enter the following amendments before reconsidering the pending claims:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Amendment;

REMARKS/ARGUMENTS begin on page 7 of this Amendment.

AMENDMENTS TO THE CLAIMS

Please amend Claims 1 - 3, 7, 11, and 13 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device;

receiving a selection on one of the objects from the user;

capturing a pair of coordinates ~~of~~ for one of the points on one of the objects being selected;

transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, ~~wherein~~ each of the points representing the one of the objects ~~has~~ having different pairs of coordinates, but all of the points correspond**ing** substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

2. (*Currently amended*) The method as recited in claim 1, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are ~~transformed~~ corresponding to to the physical point represented by the latitude and longitude.

3. (*Currently amended*) The method as recited in claim 2, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display~~corresponds to a geographical map, where the physical point is precisely located in accordance with the latitude and longitude~~.

4. (*Previously amended*) The method as recited in claim ~~3~~2, wherein the determining of the navigational direction from the current location to the physical point is carried out in accordance with the geographical map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the navigational direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

7. (*Currently amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of ~~every~~ each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

9. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the navigational direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

10.(*Previously amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the map, and the method further comprising: adjusting the color for the each of objects in the map, and generating a color definition map.

11.(*Currently amended*) A portable device for navigating a designed place, the portable device comprising:

a display screen configured to display an artistic map including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points;

a memory for storing code;

a processor executing the code to perform operations of:

capturing a pair of coordinates of one of the points representing ~~on one of the~~an objects being selected in the artistic map being displayed on the display screen;

~~receiving a selection on one of the objects;~~

~~capturing coordinates of one of the points on one of the objects being selected;~~

transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude, wherein each of the points representing ~~one of~~ the objects has different pairs of coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a direction from the current location to the physical point; and

synchronizing the direction with the map being displayed.

12.(*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13.(*Currently amended*) The portable device as recited in claim 12, wherein the ~~map being an~~ artistic map is not but corresponds to a geographical map, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14.(*Original*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map.

15.(*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

17.(*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the

points are used to transform geographic coordinates of the points to image coordinates of the points.

18.(*Original*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the map.

19.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20.(*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

REMARKS

Claims 1-20 were examined. In this Office Action, Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre"), Claims 5-9 are rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

In the foregoing amendments, the Applicant has amended Claims 11 - 3, 7, 11, and 13 to further distinguish from the cited references. No new matters have been introduced. As a result of the amendments, claims 1-20 are still pending. Reconsideration of pending claims 1-20 is respectfully requested.

Patentability of Claim 1-4

As amended, Claim 1 now recites:

receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device;

receiving a selection on one of the objects from the user;

capturing a pair of coordinates for one of the points on one of the objects being selected;

transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates,

but all of the points corresponding substantially to the physical point when said transforming is performed;

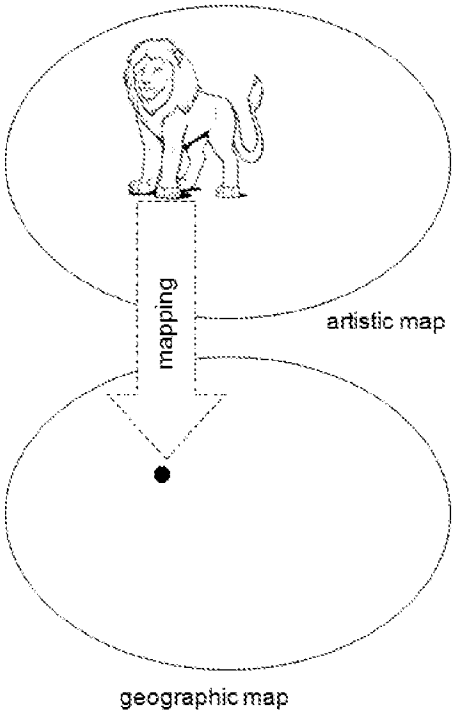
detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

(*Emphasis added*)

One of the objectives in the present invention is to help a user navigate in a specific zone (e.g., a zoo) by providing a zoom map, for example. To illustrate where the animals are located, the (artistic) map includes various animals or facilities being exaggeratedly shown on a display screen for a user to easily see and select one to navigate thereto. As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. FIG. 3 is duplicated below to show what the many-to-one transformation means.



The graphic lion is represented by a plurality of points. Regardless of how big the graphic lion may appear in the artistic map, all the points of the graphic lion correspond to one physical point in the geographic map. One of the purposes is to allow a user to select any part of the lion, if the user desires to see the lion cage shown in the artistic map. Thus the selected point(s) always corresponds to the same point, facilitating a navigational direction from the current location to the lion cage.

In contrast, Salmre teaches about a linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. In other words, there is a one-to-one corresponding relationship between the linear and non-linear maps (*see*, paragraph [0042]: *Since these six triangles get distorted, so do the corresponding points and data within them. One of the many advantages of the presently disclosed subject matter is that it can appropriately map such points and data from one set of triangles in a non-linear map space to another corresponding set of triangles in a linear map space (and vice versa)*).

It should be noted that FIG. 3 duplicated above shows a many-to-one transformation. That means the transformation is directional, namely only the points in the artistic map can be transformed to the geographic map, not the other way around. There is a fundamental operational difference between a one-to-one transformation (in Salmre) and a many-to-one transformation.

Accordingly, the Applicant submits Salmre neither teaches nor suggests "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed*" recited in Claim 1 as amended. In one perspective, Salmre teaches away from Claims 1-4 by explicitly specifying the bidirectional one-to-one

transformation between two linear and nonlinear maps. Claims 1-4 shall be allowable over Salmre. Reconsideration of Claims 1-4 is kindly requested.

Dependent Claim 3 has been amended to recite a varying resolution "*the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display*". None of the cited references have taught or suggested thus a feature.

Patentability of Claim 5 - 9

Claims 5-9 are rejected under 35 USC. 103(a) as being unpatentable over Salmre in view of. The Examiner admits on page 6 of the Office Action that Salmre fails to disclose determining a set of instructions of how to move from the current location to the physical point as a destination and then cites Suomela to show the teaching in combination. The Applicant respectfully contests the combination of Salmre and Suomela as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner.

Suomela teaches about displaying a map in <u>two different scales</u> at the same time. Suomela goes on with the middle part of a map in one scale and the surrounding portion of the milled part in a second scale. Suomela states explicitly that two linear and non-linear maps are transformed back and forth. Should Salmre be modified with Suomela, the modification would cause Salmre to display the linear map and non-linear map at the same time, which would make Salmre malfunction. The Applicant respectfully challenges the Examiner to show how Salmre could be modified with Suomela.

In any case, it has been proved that Salmre teaches away from Claim 1 as reasoned above. The combination of Salmre and Suomela would no longer stay to reject Claims 5-9. Claims 5-9 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claims 5-9 is kindly requested.

For the similar reason, the combination of Salmre and Rasmussen would no longer stay to reject Claim 10. Claim 10 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claim 10 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicant believes that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Amendment or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on **May 23, 2012** .

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg. No.: 39,450

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

May 22, 2012

Mail Stop: AF/RCE
Commissioner for Patents
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Alexandria, VA 22313-1450

Response to Final Office Action

Preliminary amendments to be entered in a RCE filed concurrently

Dear Sir:

In response to the Office Action dated 02/02/2012, the Applicant respectfully requests the Examiner to enter the following amendments before reconsidering the pending claims:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Amendment;

REMARKS/ARGUMENTS begin on page 7 of this Amendment.

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AMENDMENTS TO THE CLAIMS

Please amend Claims 1 - 3, 7, 11, and 13 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device;

receiving a selection on one of the objects from the user;

capturing a pair of coordinates ~~of~~ for one of the points on one of the objects being selected;

transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, ~~wherein~~ each of the points representing the one of the objects ~~has~~ having different pairs of coordinates, but all of the points correspond**ing** substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

2. (*Currently amended*) The method as recited in claim 1, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are ~~transformed~~ corresponding to to the physical point represented by the latitude and longitude.

3. (*Currently amended*) The method as recited in claim 2, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display~~corresponds to a geographical map, where the physical point is precisely located in accordance with the latitude and longitude~~.

4. (*Previously amended*) The method as recited in claim ~~3~~2, wherein the determining of the navigational direction from the current location to the physical point is carried out in accordance with the geographical map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the navigational direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

7. (*Currently amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of ~~every~~ each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

9. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the navigational direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

10.(*Previously amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the map, and the method further comprising: adjusting the color for the each of objects in the map, and generating a color definition map.

11.(*Currently amended*) A portable device for navigating a designed place, the portable device comprising:

a display screen configured to display an artistic map including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points;

a memory for storing code;

a processor executing the code to perform operations of:

capturing a pair of coordinates of one of the points representing ~~on one of the~~an objects being selected in the artistic map being displayed on the display screen;

~~receiving a selection on one of the objects;~~

~~capturing coordinates of one of the points on one of the objects being selected;~~

transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude, wherein each of the points representing ~~one of~~ the objects has different pairs of coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a direction from the current location to the physical point; and

synchronizing the direction with the map being displayed.

12.(*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13.(*Currently amended*) The portable device as recited in claim 12, wherein the ~~map being an~~ artistic map is not but corresponds to a geographical map, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14.(*Original*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map.

15.(*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

17.(*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the

points are used to transform geographic coordinates of the points to image coordinates of the points.

18.(*Original*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the map.

19.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20.(*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

REMARKS

Claims 1-20 were examined. In this Office Action, Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre"), Claims 5-9 are rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

In the foregoing amendments, the Applicant has amended Claims 11 - 3, 7, 11, and 13 to further distinguish from the cited references. No new matters have been introduced. As a result of the amendments, claims 1-20 are still pending. Reconsideration of pending claims 1-20 is respectfully requested.

Patentability of Claim 1-4

As amended, Claim 1 now recites:

receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device;

receiving a selection on one of the objects from the user;

capturing a pair of coordinates for one of the points on one of the objects being selected;

transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates,

but all of the points corresponding substantially to the physical point when said transforming is performed;

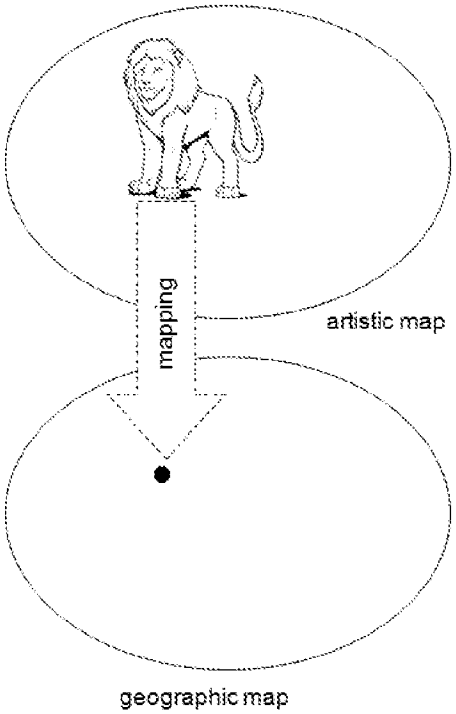
detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

(*Emphasis added*)

One of the objectives in the present invention is to help a user navigate in a specific zone (e.g., a zoo) by providing a zoom map, for example. To illustrate where the animals are located, the (artistic) map includes various animals or facilities being exaggeratedly shown on a display screen for a user to easily see and select one to navigate thereto. As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. FIG. 3 is duplicated below to show what the many-to-one transformation means.



The graphic lion is represented by a plurality of points. Regardless of how big the graphic lion may appear in the artistic map, all the points of the graphic lion correspond to one physical point in the geographic map. One of the purposes is to allow a user to select any part of the lion, if the user desires to see the lion cage shown in the artistic map. Thus the selected point(s) always corresponds to the same point, facilitating a navigational direction from the current location to the lion cage.

In contrast, Salmre teaches about a linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. In other words, there is a one-to-one corresponding relationship between the linear and non-linear maps (*see*, paragraph [0042]: *Since these six triangles get distorted, so do the corresponding points and data within them. One of the many advantages of the presently disclosed subject matter is that it can appropriately map such points and data from one set of triangles in a non-linear map space to another corresponding set of triangles in a linear map space (and vice versa)*).

It should be noted that FIG. 3 duplicated above shows a many-to-one transformation. That means the transformation is directional, namely only the points in the artistic map can be transformed to the geographic map, not the other way around. There is a fundamental operational difference between a one-to-one transformation (in Salmre) and a many-to-one transformation.

Accordingly, the Applicant submits Salmre neither teaches nor suggests "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed*" recited in Claim 1 as amended. In one perspective, Salmre teaches away from Claims 1-4 by explicitly specifying the bidirectional one-to-one

transformation between two linear and nonlinear maps. Claims 1-4 shall be allowable over Salmre. Reconsideration of Claims 1-4 is kindly requested.

Dependent Claim 3 has been amended to recite a varying resolution "*the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display*". None of the cited references have taught or suggested thus a feature.

Patentability of Claim 5 - 9

Claims 5-9 are rejected under 35 USC. 103(a) as being unpatentable over Salmre in view of. The Examiner admits on page 6 of the Office Action that Salmre fails to disclose determining a set of instructions of how to move from the current location to the physical point as a destination and then cites Suomela to show the teaching in combination. The Applicant respectfully contests the combination of Salmre and Suomela as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner.

Suomela teaches about displaying a map in <u>two different scales</u> at the same time. Suomela goes on with the middle part of a map in one scale and the surrounding portion of the milled part in a second scale. Suomela states explicitly that two linear and non-linear maps are transformed back and forth. Should Salmre be modified with Suomela, the modification would cause Salmre to display the linear map and non-linear map at the same time, which would make Salmre malfunction. The Applicant respectfully challenges the Examiner to show how Salmre could be modified with Suomela.

In any case, it has been proved that Salmre teaches away from Claim 1 as reasoned above. The combination of Salmre and Suomela would no longer stay to reject Claims 5-9. Claims 5-9 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claims 5-9 is kindly requested.

For the similar reason, the combination of Salmre and Rasmussen would no longer stay to reject Claim 10. Claim 10 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claim 10 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicant believes that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Amendment or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on **May 23, 2012** .

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg. No.: 39,450

AMENDMENTS TO THE CLAIMS

Please amend Claims 1 - 3, 7, 11, and 13 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device;

receiving a selection on one of the objects from the user;

capturing a pair of coordinates ~~of~~ for one of the points on one of the objects being selected;

transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, ~~wherein~~ each of the points representing the one of the objects ~~has~~ having different pairs of coordinates, but all of the points correspond**ing** substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

2. (*Currently amended*) The method as recited in claim 1, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are ~~transformed~~ corresponding to to the physical point represented by the latitude and longitude.

3. (*Currently amended*) The method as recited in claim 2, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display~~corresponds to a geographical map, where the physical point is precisely located in accordance with the latitude and longitude~~.

4. (*Previously amended*) The method as recited in claim ~~3~~2, wherein the determining of the navigational direction from the current location to the physical point is carried out in accordance with the geographical map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the navigational direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

7. (*Currently amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of ~~every~~ each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

9. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the navigational direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

10.(*Previously amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the map, and the method further comprising: adjusting the color for the each of objects in the map, and generating a color definition map.

11.(*Currently amended*) A portable device for navigating a designed place, the portable device comprising:

a display screen configured to display an artistic map including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points;

a memory for storing code;

a processor executing the code to perform operations of:

capturing a pair of coordinates of one of the points representing ~~on one of the~~an objects being selected in the artistic map being displayed on the display screen;

~~receiving a selection on one of the objects;~~

~~capturing coordinates of one of the points on one of the objects being selected;~~

transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude, wherein each of the points representing ~~one of~~ the objects has different pairs of coordinates, but all of the points correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a direction from the current location to the physical point; and

synchronizing the direction with the map being displayed.

12.(*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13.(*Currently amended*) The portable device as recited in claim 12, wherein the ~~map being an~~ artistic map is not but corresponds to a geographical map, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14.(*Original*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out in accordance with the geographical map.

15.(*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

17.(*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the

points are used to transform geographic coordinates of the points to image coordinates of the points.

18.(*Original*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the map.

19.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20.(*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

REMARKS

Claims 1-20 were examined. In this Office Action, Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre"), Claims 5-9 are rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

In the foregoing amendments, the Applicant has amended Claims 11 - 3, 7, 11, and 13 to further distinguish from the cited references. No new matters have been introduced. As a result of the amendments, claims 1-20 are still pending. Reconsideration of pending claims 1-20 is respectfully requested.

Patentability of Claim 1-4

As amended, Claim 1 now recites:

receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device;

receiving a selection on one of the objects from the user;

capturing a pair of coordinates for one of the points on one of the objects being selected;

transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates,

but all of the points corresponding substantially to the physical point when said transforming is performed;

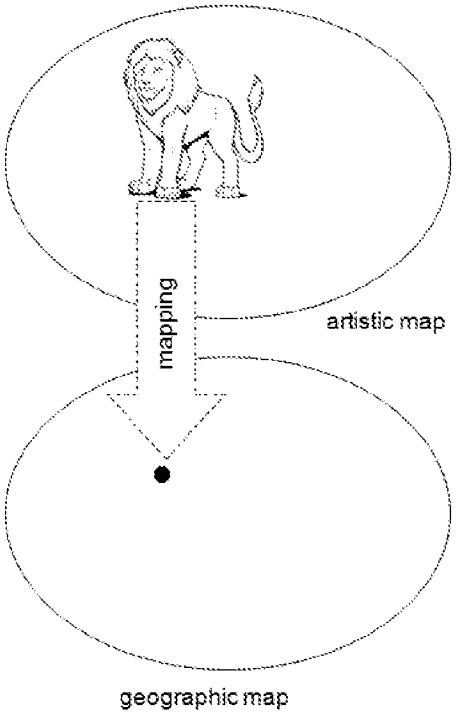
detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

(*Emphasis added*)

One of the objectives in the present invention is to help a user navigate in a specific zone (e.g., a zoo) by providing a zoom map, for example. To illustrate where the animals are located, the (artistic) map includes various animals or facilities being exaggeratedly shown on a display screen for a user to easily see and select one to navigate thereto. As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. FIG. 3 is duplicated below to show what the many-to-one transformation means.



The graphic lion is represented by a plurality of points. Regardless of how big the graphic lion may appear in the artistic map, all the points of the graphic lion correspond to one physical point in the geographic map. One of the purposes is to allow a user to select any part of the lion, if the user desires to see the lion cage shown in the artistic map. Thus the selected point(s) always corresponds to the same point, facilitating a navigational direction from the current location to the lion cage.

In contrast, Salmre teaches about a linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. In other words, there is a one-to-one corresponding relationship between the linear and non-linear maps (*see*, paragraph [0042]: *Since these six triangles get distorted, so do the corresponding points and data within them. One of the many advantages of the presently disclosed subject matter is that it can appropriately map such points and data from one set of triangles in a non-linear map space to another corresponding set of triangles in a linear map space (and vice versa)*).

It should be noted that FIG. 3 duplicated above shows a many-to-one transformation. That means the transformation is directional, namely only the points in the artistic map can be transformed to the geographic map, not the other way around. There is a fundamental operational difference between a one-to-one transformation (in Salmre) and a many-to-one transformation.

Accordingly, the Applicant submits Salmre neither teaches nor suggests "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed*" recited in Claim 1 as amended. In one perspective, Salmre teaches away from Claims 1-4 by explicitly specifying the bidirectional one-to-one

transformation between two linear and nonlinear maps. Claims 1-4 shall be allowable over Salmre. Reconsideration of Claims 1-4 is kindly requested.

Dependent Claim 3 has been amended to recite a varying resolution "*the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display*". None of the cited references have taught or suggested thus a feature.

Patentability of Claim 5 - 9

Claims 5-9 are rejected under 35 USC. 103(a) as being unpatentable over Salmre in view of. The Examiner admits on page 6 of the Office Action that Salmre fails to disclose determining a set of instructions of how to move from the current location to the physical point as a destination and then cites Suomela to show the teaching in combination. The Applicant respectfully contests the combination of Salmre and Suomela as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner.

Suomela teaches about displaying a map in <u>two different scales</u> at the same time. Suomela goes on with the middle part of a map in one scale and the surrounding portion of the milled part in a second scale. Suomela states explicitly that two linear and non-linear maps are transformed back and forth. Should Salmre be modified with Suomela, the modification would cause Salmre to display the linear map and non-linear map at the same time, which would make Salmre malfunction. The Applicant respectfully challenges the Examiner to show how Salmre could be modified with Suomela.

In any case, it has been proved that Salmre teaches away from Claim 1 as reasoned above. The combination of Salmre and Suomela would no longer stay to reject Claims 5-9. Claims 5-9 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claims 5-9 is kindly requested.

For the similar reason, the combination of Salmre and Rasmussen would no longer stay to reject Claim 10. Claim 10 shall be allowable over Salmre and Suomela, viewed alone or in combination. Reconsideration of Claim 10 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicant believes that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Amendment or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on **May 23, 2012** .

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg. No.: 39,450

Electronic Patent Application Fee Transmittal

Application Number:	12186524
Filing Date:	06-Aug-2008
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Filer:	Joe Zheng
Attorney Docket Number:	Kent-007

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 1 month with $0 paid	2251	1	75	75

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	2801	1	465	465
		Total in USD ($)		**540**

Electronic Acknowledgement Receipt

EFS ID:	12850882
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	23-MAY-2012
Filing Date:	06-AUG-2008
Time Stamp:	18:04:34
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$540
RAM confirmation Number	7118
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Miscellaneous Incoming Letter	InterviewRequest.pdf	236987 23a683e008a3ad99c42c01bb7d01097a63bbdbfc	no	1
Warnings:					
Information:					
2	Request for Continued Examination (RCE)	RECTransmittal.pdf	49730 4d4ac0a52fd95e4ab0a8c8459cb61c5a3c0c78b4	no	1
Warnings:					
This is not a USPTO supplied RCE SB30 form.					
Information:					
3	Amendment Submitted/Entered with Filing of CPA/RCE	ResponseToFinalOA.pdf	194855 c5c70e92ae44a55bfd67e2e15cece5535a3b895b	no	11
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	31658 ebc171ad528f6acc436aa45e91ed99a9c05a424f	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	513230		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Doc Code: M865 or FAI.REQ.INTV

PTOL-413A (08-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Applicant Initiated Interview Request Form

Application No.: 12/186,524 First Named Applicant: Kent Pu et al
Examiner: Kristopher Sean Hunter Art Unit: 3663 Status of Application: After Final OA

Tentative Participants:
(1) Joe Zheng (2) _____
(3) _____ (4) _____

Proposed Date of Interview: 06/19/2012 **Proposed Time:** 2:00PM EST **(AM/PM)**

Type of Interview Requested:
(1) [✓] Telephonic (2) [ ] Personal (3) [ ] Video Conference

Exhibit To Be Shown or Demonstrated: [ ] YES [✓] NO
If yes, provide brief description: _____

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) Rejection	1, 3	Salmre	[ ]	[ ]	[ ]
(2)			[ ]	[ ]	[ ]
(3)			[ ]	[ ]	[ ]
(4)			[ ]	[ ]	[ ]

[✓] Continuation Sheet Attached [✓] Proposed Amendment or Arguments Attached

Brief Description of Arguments to be Presented: to discuss if the amendments shall have overcome Salmre and how the Examiner interprets the amended claims.

An interview was conducted on the above-identified application on _____

NOTE: This form should be completed and filed by applicant in advance of the interview (see MPEP § 713.01). If this form is signed by a registered practitioner not of record, the Office will accept this as an indication that he or she is authorized to conduct an interview on behalf of the principal (37 CFR 1.32(a)(3)) pursuant to 37 CFR 1.34. This is not a power of attorney to any above named practitioner. See the Instruction Sheet for this form, which is incorporated by reference. By signing this form, applicant or practitioner is certifying that he or she has read the Instruction Sheet. After the interview is conducted, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible. This application will not be delayed from issue because of applicant's failure to submit a written record of this interview.

/ joe zheng /
Applicant/Applicant's Representative Signature

_____
Examiner/SPE Signature

Joe Zheng
Typed/Printed Name of Applicant or Representative

39,450
Registration Number, if applicable

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 24 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
12/186,524	08/06/2008	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	05/23/2012	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $30 =	0	OR	X $ =	
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $125 =	0	OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
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Legal Instrument Examiner:
/TIA BENTLEY/

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	12186524
Filing Date	2008-08-06
First Named Inventor	Kent Qing Pu
Art Unit	3626
Examiner Name	HUNTER, SEAN KRISTOPHER
Attorney Docket Number	KENT-007

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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	1	20050149303		2005-07-07	AGRAWALA MANEESH	[0012]. [0019]. [0020]. [0152]. [0265]. [0268]. [0272] * claim 1 *

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	1	DE 10 2005 020152	DE		2006-11-02	VOLKSWAGEN AG	[0001].[0005].[0006]. [0008].[0016] - [0018]. [0021].[0028]. [0033] - [0034].[0038]. [0042].[0056] & FIG 4,	☐

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	12186524
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	Attorney Docket Number	KENT-007

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	12186524
Filing Date	2008-08-06
First Named Inventor	Kent Qing Pu
Art Unit	3626
Examiner Name	HUNTER, SEAN KRISTOPHER
Attorney Docket Number	KENT-007

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/ joe zheng /	Date (YYYY-MM-DD)	2012-12-13
Name/Print	Joe Zheng	Registration Number	39450

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

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4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

December 13, 2012

Re: INFORMATION DISCLOSURE STATEMENT

UNDER 37 CFR 1.56 and 1.97(b)

Dear Sir:

The references listed in the attached IDS Form may be material to the examination of the above-identified patent application. These references are submitted in compliance with the applicants' duty of disclosure pursuant to 37 CFR §§1.56 and 1.97, and the Examiner is requested to make same of official record in this application.

This Information Disclosure Statement is from a search report of a corresponding patent application pending before the European Patent Office, and is not to be construed as a representation that additional information (material to the examination of this application) does not exist or an exhaustive search has been performed or the enclosed reference(s) constitute prior art.

This Information Disclosure Statement is believed to be filed before the mailing date of a first Office Action on the merits in the RCE proceeding considered as a new application. Accordingly, the applicants believe that there are no fees due in connection with the filing of this Information Disclosure Statement. However, if the PTO believes otherwise please charge our deposit account No. 50-2436 any fees

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that may be due. Please telephone the undersigned at (408)777-8873, if there are any questions.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on **December 13, 2012** .

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng

Reg. No.: 39,450

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(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 2 159 543 B1

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
20.07.2011 Bulletin 2011/29

(51) Int Cl.:
G01C 21/36 *(2006.01)* ***G09B 29/10*** *(2006.01)*

(21) Application number: **09011019.8**

(22) Date of filing: **27.08.2009**

(54) **Method and apparatus for operating displayed area of electronic map and recording medium**

Verfahren und Vorrichtung zur Einstellung des angezeigten Bereichs einer elektronischen Karte und Aufzeichnungsmedium

Procédé et appareil pour ajuster la région affichée d'une carte électronique et support d'enregistrement

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

(30) Priority: **29.08.2008 TW 97133282**

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03.03.2010 Bulletin 2010/09

(73) Proprietor: **HTC Corporation**
Taoyuan County 330 (TW)

(72) Inventors:
- **Lin, Bing-Sheng**
  Taoyuan City
  Tayouan County 330 (TW)
- **Chu, Rubens**
  Taoyuan City
  Tayouan County 330 (TW)

(74) Representative: **Wagner, Karl H.**
Wagner & Geyer
Gewürzmühlstrasse 5
80538 Munich (DE)

(56) References cited:
DE-A1-102005 020 152
US-A1- 2003 182 052
US-A1- 2007 188 408

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Description

BACKGROUND

[0001] Recently, with the continuous progress and development of electronic technology and communication technology, portable electronic devices occupying little space, for example, a cellular phone, a personal digital assistant (PDA) have been proposed. Almost all the portable electronic devices available on the market are integrated with various functions to improve the competitiveness thereof. In addition to the common photographing, calling, and internet browsing functions, a global positioning system (GPS) or other positioning systems, an electronic map, and a navigation system are further integrated in a current handheld communication apparatus. Accordingly, a user may obtain the self location through the positioning system at any time and any place, and finds out an optimal route through the planning and guiding of the navigation system to arrive at the destination.

[0002] The electronic map may be combined with the GPS or other positioning systems, such that the user can know a relative relation between the current location and the location of the destination. Specifically, the user First loads the electronic map into the electronic device, and then selects or inputs desired destinations or point of interests (POIs) through a touch screen, a keyboard, or other input devices of the electronic device, such that the electronic device displays the locations of the destinations or POIs on the electronic map.

[0003] However, since the size of the screen of the electronic device is limited, the electronic device usually can only display the electronic map on a suitable scale. Therefore, the electronic device can display only a certain area of the electronic map on the screen, for example, an area currently browsed by the user or an area around a certain POI. Under such a situation, if the user intends to check POIs dispersed outside the displayed area, many times of operations of zooming in, zooming out, map panning, map changing, and/or complicated menu selecting operations must be performed to show the POIs on the map, which is rather time-consuming and inconvenient. In addition, if the user intends to check the relative location among the POIs on the electronic map, the scale or the area of the electronic map must be adjusted to a suitable scale for displaying all the POIs on the same displayed area. The complicated operations are not only time-consuming, but also inconvenient for the user. US 2007/188408 A was used as a basis for the preamble of the independent claims and relates to a method for displaying graphic objects in which the graphic objects are arranged in a virtual surface field, the virtual surface field is larger than a display field, a section of the virtual surface field is displayed in the display field, and graphic objects which are arranged outside the displayed section of the virtual surface field are projected onto the edge of the display field. The projected objects are displayed in a displacing manner such that the projected graphic objects (PGO) displayed do not overlap.

[0004] DE 10 2005 020152 A1 discloses a method for controlling map display in a vehicle wherein a display device is controlled in such manner that section of geographical map is displayed in three-dimensionally non-linear scale. The map section is divided into at least two areas and the two areas are displayed in different linear scales. Also disclosed is a display device for displaying a graphical map; and a navigation system.

[0005] US 2003/182052 A discloses an Integrated Routing/Mapping Information System (IRMIS) which links desktop personal computer cartographic applications to one or more handheld organizer, personal digital assistant (PDA) or "palmtop" devices. Such devices may be optionally equipped with, or connected to, portable Global Positioning System (GPS) or equivalent position sensing device. Maps and related route information are configured with differential detail and levels of magnitude. Used in the field, in conjunction with GPS receiver, the PDA device is configured to display directions, text and map formats, the user's current position, heading, speed, elevation, and so forth. The user can pan across maps and zoom between two or more map scales, levels of detail, or magnitudes. The IRMIS also provides for "automatic zooming," e.g., to show greater detail or closer detail as the user approaches a destination, or to larger scale and lower resolution to show the user's overall planned route between points of interest. The IRMIS also enables the user to mark or record specific locations and/or log actual travel routes, using GPS position information.

SUMMARY OF THE APPLICATION

[0006] Accordingly, the present application is directed to a method for operating a displayed area of an electronic map, in which an indicating object corresponding to a POI located outside the displayed area is displayed on an edge of the displayed area, so as to enable a user to check the relative location among the POIs in the same visual range and conveniently operate the displayed area of the electronic map.

[0007] The present application is also directed to an apparatus for operating a displayed area of an electronic map, in which an indicating object corresponding to a POI located outside the displayed area is displayed on an edge of the displayed area, so as to enable the user to quickly change the displayed area of the electronic map to the displayed area comprising the POI by selecting the indicating object thereof.

[0008] The present application is further directed to a recording medium, in which a computer program is stored for being loaded into and executed by an electronic device, so as to enable the user to check the relative location among POIs in the same visual range and conveniently operate a displayed area of an electronic map.

[0009] As embodied and broadly described herein, the

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present application provides a method for operating a displayed area of an electronic map. In the method, a displayed area of an electronic map is displayed first. Then, an indicating object of a first POI located outside the displayed area is displayed on an edge of the displayed area towards a first direction of the first POI with respect to the displayed area. When the indicating object of the first POI is selected, the displayed area of the electronic map is changed to the displayed area comprising the first POI.

[0010] In an example of the present application, the first direction of the first POI with respect to the displayed area is the direction of the first POI with respect to a central point of the displayed area.

[0011] In an example of the present application, the displayed area of the electronic map comprises a second POI. After the step of changing the displayed area of the electronic map to the displayed area comprising the first POI, the method further comprises displaying an indicating object of the second POI on an edge of the displayed area comprising the first POI towards a second direction of the second POI with respect to the first POI.

[0012] In an example of the present application, the step of changing the displayed area of the electronic map to the displayed area comprising the first POI is in a sliding or switching manner.

[0013] In an example of the present application, the step of changing the displayed area of the electronic map to the displayed area comprising the first POI comprises displaying the displayed area of the electronic map by taking the first POI as a center.

[0014] In an example of the present application, the step of changing the displayed area of the electronic map to the displayed area comprising the first POI comprises displaying the displayed area of the electronic map on the same scale.

[0015] In an example of the present application, the step of changing the displayed area of the electronic map to the displayed area comprising the first POI comprises displaying the displayed area of the electronic map on the same scale and taking the first POI as a center.

[0016] In an example of the present application, the step of changing the displayed area of the electronic map to the displayed area comprising the first POI comprises adjusting the scale of the displayed area of the electronic map, such that the changed displayed area comprises both of the first POI and the second POI.

[0017] The present application also provides an apparatus for operating a displayed area of an electronic map, which comprises an input unit, a storage unit, a display unit, and a processing unit. The input unit is used for receiving an input signal input by a user. The storage unit is used for storing an electronic map. The display unit is used for displaying a displayed area of the electronic map. The processing unit is coupled to the input unit, the storage unit, and the display unit. The processing unit displays an indicating object of a first POI located outside the displayed area on an edge of the displayed area towards a first direction of the first POI with respect to the displayed area, then determines whether the indicating object of the first POI is selected according to the input signal, and then changes the displayed area of the electronic map displayed by the display unit to the displayed area comprising the first POI when the indicating object of the first POI is selected.

[0018] In an example of the present application, the first direction of the first POI with respect to the displayed area is the direction of the first POI with respect to a central point of the displayed area.

[0019] In an example of the present application, the displayed area of the electronic map displayed by the display unit comprises a second POI.

[0020] In an example of the present application, the processing unit further displays an indicating object of the second POI on an edge of the displayed area comprising the first POI towards a second direction of the second POI with respect to the first POI.

[0021] In an example of the present application, the display unit changes the displayed area of the electronic map to the first POI in a sliding or switching manner.

[0022] In an example of the present application, the processing unit controls the display unit to display the displayed area of the electronic map on the same scale and take the first POI as a center.

[0023] In an example of the present application, the processing unit adjusts the scale of the displayed area of the electronic map, such that the changed displayed area displayed by the display unit comprises both of the first POI and the second POI.

[0024] In an example of the present application, the processing unit presents the indicating objects in a semi-transparent or animation visual effect.

[0025] In an example of the present application, the indicating object comprises one of an indicating text, an indicating symbol, and an indicating icon, or a combination thereof. The indicating icon comprises an arrow pointing to the first direction, and the content of the indicating text comprises one of a name of the first POI and the distance between the first POI and a central point of the displayed area or the second POI, or a combination thereof.

[0026] The present application further provides a recording medium, which records a computer program to be loaded into an electronic device for executing the method for operating the displayed area of the electronic map described above. The computer program is basically consisted of a plurality of program code segments (for example, an organization chart establishing program code segment, a form signing program code segment, a setting program code segment, and a deployment program code segment). After the program code segments are loaded into the electronic device and are executed, the steps of the method for operating the displayed area of the electronic map and functions of the apparatus for operating the displayed area of the electronic map are executed.

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[0027] In the present application, the indicating object of the POI located outside the displayed area is displayed on an edge of the displayed area towards the direction of the POI with respect to the displayed area, so as to indicate the relative location of the POI outside the displayed area, and the user is able to quickly change the displayed area of the electronic map to the POI outside the displayed area by selecting the indicating object, thereby enhancing the convenience for operating the displayed area of the electronic map.

[0028] In order to make the aforementioned and other objectives, features and advantages of the present application comprehensible, examples accompanied with figures are described in detail below.

BRIEF DESCRIPTION OF THE DRAWINGS

[0029] The accompanying drawings are included to provide a further understanding of the application, and are incorporated in and constitute a part of this specification. The drawings illustrate examples of the application and, together with the description, serve to explain the principles of the application.

[0030] FIG 1 is a flow chart of a method for operating a displayed area of an electronic map according to an example of the present application.

[0031] FIGs. 2(a) and 2(b) are schematic diagrams illustrating a method for operating a displayed area of an electronic map according to an example of the present application.

[0032] FIG 3 is a flow chart of a method for operating a displayed area of an electronic map according to an example of the present application.

[0033] FIGs. 4(a) and 4(b) are schematic diagrams illustrating a method for operating a displayed area of an electronic map according to an example of the present application.

[0034] FIG 5 is a flow chart of a method for operating a displayed area of an electronic map according to an example of the present application.

[0035] FIGs. 6(a) and 6(b) are schematic diagrams illustrating a method for operating a displayed area of an electronic map according to an example of the present application.

[0036] FIG. 7 shows an example of a method for operating a displayed area of an electronic map according to an example of the present application.

[0037] FIG 8 is a block diagram of an apparatus for operating a displayed area of an electronic map according to an example of the present application.

DESCRIPTION

[0038] Reference will now be made in detail to the present examples of the application, examples of which are illustrated in the accompanying drawings. Wherever possible, the same reference numbers are used in the drawings and the description to refer to the same or like parts.

[0039] In the present application, as for a POI located outside a displayed area, a direction of the POI with respect to the current displayed area is determined according to a relative location of each POI on an electronic map, and then an indicating object corresponding to the POI is displayed on an edge of the displayed area towards the direction of the POI. In an example, the indicating icon is displayed on an edge inside the displayed area. In another example, the indicating icon is displayed on an edge outside the displayed area, for example a frame outside the displayed area. A user is able to quickly change the displayed area to show the POI by selecting the indicating object. In order to make the content of the present application more comprehensible, examples are given below for proving that the present application can be implemented accordingly.

[0040] FIG 1 is a flow chart of a method for operating a displayed area of an electronic map according to an example of the present application. Referring to FIG. 1, this example is applicable to a car PC, a desktop, a laptop, a cellular phone, a smartphone, a personal digital assistant (PDA), a PDA phone, a navigation device, a music player, a game device, or other electronic devices installed with an electronic map, so as to provide the user with an approach for quickly browsing the POI located outside the displayed area, and the detailed steps are given as follows.

[0041] First, a displayed area of an electronic map is displayed on a screen of an electronic device (Step S110). Due to the limited size of the screen, when displaying the electronic map, the electronic device usually can only display a certain part (i.e., the displayed area) of the electronic map.

[0042] Next, the electronic device further displays an indicating object of a POI located outside the displayed area on an edge of the displayed area towards a direction of the POI with respect to the current displayed area (Step S120). In an example, the user may set the POI to be browsed or viewed on the electronic map in a manner of inputting coordinates, operating a menu, or searching for a list, database, or website, and meanwhile, the POI may be a destination or a scenic spot to be visited by the user, or a restaurant, a gas station, a scenic spot, etc. close to the current location, which is not limited thereto.

[0043] In an example, by comparing the relative location between the POI and a central point of the current displayed area, the direction of the POI with respect to the current displayed area may be predicted. Then, the indicating object representing the POI is displayed on the edge of the current displayed area towards the predicted direction. The indicating object may be an arrow pointing to the POI or any other combination of an indicating text, an indicating symbol, and an indicating icon. For example, a name of the POI and a distance from the POI may be displayed in or around the displayed arrow pointing to the POI.

[0044] It should be noted that, if more than one inter-

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ested POI exist outside the displayed area, the electronic device respectively displays the indicating objects of the POIs on the edges of the current displayed area towards the directions of the POIs in the same manner, wherein the amount of the POIs is not limited. In an example, the indicating object is presented in a semitransparent or animation visual effect. For example, if the indication object is displayed on the electronic map and the display range of the indicating object just overlaps a certain POI in the electronic map in the current displayed area, the indicating object may be presented in a semitransparent or animation visual effect and so that the indication object will not cover up the overlapped POI. Thus, the present application enables the user to observe the POI located outside the displayed area without affecting the user's capability of browsing the POIs in the displayed area by a visual interference of the indicating object.

[0045] Then, the electronic device detects an operation of the user (Step S130), so as to determines whether the indicating object of the POI is selected accordingly (Step S140). The user may select the indicating object by controlling a cursor on the screen through a mouse, an optical mouse, a keypad, a track ball, a joystick, a touch pad, a navigation key, a wheel, or a roller, etc.; select the indicating object by using a mouse, an optical mouse, a keypad, a track ball, a joystick, a touch pad, a navigation key, a wheel, or a roller, etc.; or select the indicating object by directly touching a touch screen, which is not limited thereto.

[0046] Finally, when the indicating object of the POI is selected, the electronic device automatically changes the current displayed area to the displayed area comprising the POI (Step S150). For the above manner of changing the displayed area, a sliding manner or a switching manner may be adopted to change the current displayed area to the POI, and the displayed area slid or switched to the POI is, for example, a displayed area displayed on the same scale by taking the POI as a center. By quickly sliding or switching the displayed area, the user may omit the complicated steps of zooming in, zooming out, and moving the map, so as to browse the location and the information of the POI in an extremely short time.

[0047] For example, FIGs. 2(a) and 2(b) are schematic diagrams illustrating a method for operating a displayed area of an electronic map according to an example of the present application. First, referring to FIG. 2(a), a displayed area 200 of an electronic map is, for example, a displayed area of the electronic map that is currently browsed by the user, wherein a visible range thereof is, for example, approximately 500 m and no POI is displayed within the visible range. A POI P1 falls, for example, at a location of 5 km away from the displayed area 200. In this case; the electronic device displays an indicating icon 210 on an edge of the displayed area 200 towards a direction of the POI P1 for the user to select. Next, referring to FIG 2(b), when the indicating icon 210 is selected, the electronic device changes the displayed area 200 to a displayed area comprising the POI P1. In an example, the electronic device also displays the displayed area by taking the POI P1 as a center. Accordingly, the user can quickly change the displayed area by selecting the indicating icon 210, so as to check the location and the related information of the POI P1.

[0048] It should be noted that, in this example, the displayed area originally displayed by the electronic device is the displayed area of the electronic map currently browsed by the user, and does not comprise POIs. In another example, the displayed area of the electronic map originally displayed by the electronic device may also comprise POIs, or may be a displayed area displayed by taking the certain POI as a center. Under such a situation, when the displayed area of the electronic map is changed to a POI located outside the displayed area, an indicating object of the POI in the original displayed area is further displayed in the changed displayed area, such that the user can conveniently change back to the original displayed area comprising the POI. An example is given below for detailed description.

[0049] FIG 3 is a flow chart of a method for operating a displayed area of an electronic map according to an example of the present application. Referring to FIG. 3, this example is applicable to a car PC, a desktop, a laptop, a cellular phone, a smartphone, a personal digital assistant (PDA), a PDA phone, a navigation device, a music player, a game device, or other electronic devices installed with an electronic map, so as to provide the user with an approach for quickly changing between a POI inside the displayed area and a POI outside the displayed area: Detailed steps thereof are given as follows.

[0050] First, a displayed area of an electronic map is displayed on a screen of an electronic device (Step S310). The displayed area comprises, for example, a second POI, and is displayed, for example, by taking the second POI as a center.

[0051] Next, the electronic device further displays an indicating object of a first POI located outside the displayed area on an edge of the displayed area towards a direction of the first POI with respect to the second POI (Step S320). Particularly, by comparing a relative location between the second POI and the first POI, the direction of the first POI with respect to the second POI may be predicted. Then, the indicating object representing the first POI is displayed on the edge of the current displayed area towards the predicted direction.

[0052] Then, the electronic device detects an operation of the user (Step S330), so as to determine whether the indicating object of the POI is selected (Step S340). When the indicating object of the first POI is selected, the electronic device automatically changes the displayed area of the electronic map to the displayed area comprising the first POI (Step S350). The displayed area comprising the first POI is, for example, a displayed area displayed by taking the first POI as a center and displayed on the same scale as the original displayed area.

[0053] At this time, the electronic device further displays an indicating object of the second POI on an edge

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of the changed displayed area towards a direction of the second POI with respect to the first POI (Step S360). Accordingly, the user may change the displayed area back to the original displayed area by selecting the indicating object of the second POI, and the manner of changing the displayed area by selecting the indicating object is the same as that of the above manner, so it is not repeated herein.

[0054] For example, FIGs. 4(a) and 4(b) are schematic diagrams illustrating a method for operating a displayed area of an electronic map according to an example of the present application. First, referring to FIG 4(a), a displayed area 400 of an electronic map is, for example, a displayed area of the electronic map that is currently browsed by the user, wherein a visible range thereof is, for example, approximately 500 m and a POI P2 is displayed within the visible range. A POI P1 falls, for example, at a location of 5 km away from the displayed area 400. In this case, the electronic device displays an indicating icon 410 of the POI P1 on an edge of the displayed area 400 towards a direction of the POI P1, such that the user may select the indicating icon 410. Next, referring to FIG 4(b), when the indicating icon 410 is selected, the electronic device changes the displayed area 400 to the displayed area of the POI P1. In an example, the electronic device also displays the displayed area by taking the POI P1 as a center. In addition, the electronic device further displays an indicating icon 420 of the P2 on an edge of the displayed area 400 towards a direction of the POI P2 for the user to select. Accordingly, the user can quickly change the displayed area between the POI P2 and the POI P1 by selecting the indicating icon 410 and the indicating icon 420 respectively, so as to check the locations and the related information of the POI P1 and the POI P2.

[0055] In addition, in an example of the present application, the user may also need to check a relative location between two POIs, so as to plan a traveling route therebetween. In this case, the scale of the displayed area needs to be adjusted, so that the two POIs can be accommodated in the same visible range, so as to enable the user to clearly know the relative location. An example is given below for detailed description.

[0056] FIG 5 is a flow chart of a method for operating a displayed area of an electronic map according to an example of the present application. Referring to FIG. 5, this example is applicable to a car PC, a desktop, a laptop, a cellular phone, a smartphone, a personal digital assistant (PDA), a PDA phone, a navigation device, a music player, a game device" or other electronic devices installed with an electronic map, so as to provide the user with an approach for checking location information and other information of more than two POIs within the same displayed area range. Detailed steps are given as follows.

[0057] First, a displayed area of an electronic map is displayed on a screen of an electronic device (Step S510). The displayed area comprises, for example, a second POI, and is displayed, for example, by taking the second POI as a center.

[0058] Next, the electronic device further displays an indicating object of a first POI located outside the displayed area on an edge of the displayed area towards a direction of the first POI with respect to the second POI (Step S520).

[0059] Then, the electronic device detects an operation of the user (Step S530), so as to determine whether the indicating object of the first POI is selected (Step S540). When the indicating object of the first POI is selected, the electronic device automatically adjusts the scale of the displayed area of the electronic map, so as to enable the changed displayed area to comprise both of the first POI and the second POI (Step S550). Accordingly, by selecting the indicating object of the first POI, the user can properly enlarge the displayed area to a range including the two POIs, so as to omit the complicated adjusting steps.

[0060] For example, FIGs. 6(a) and 6(b) are schematic diagrams illustrating a method for operating a displayed area of an electronic map according to an example of the present application. First, referring to FIG 6(a), a displayed area 600 of an electronic map is, for example, a displayed area of the electronic map that is currently browsed by the user, wherein a visible range thereof is, for example, approximately 500 m and a POI P2 is displayed within the visible range. A POI P1, for example, falls at a location of 5 km away from the displayed area 600. In this case, the electronic device displays an indicating icon 610 of the POI P1 on an edge of the displayed area 600 towards a direction of the POI P1 for the user to select. Next, referring to FIG 6(b), when the indicating icon 610 is selected, the electronic device automatically adjusts the scale of the displayed area 600, such that the changed displayed area 600 comprises both of the POI P1 and the POI P2. Accordingly, by selecting the indicating icon 610, the user can adjust the range of the displayed area, and check the relative location between the POI P1 and the POI P2.

[0061] It should be noted that, in the above examples, two POIs are set as an example for description, but it is not limited thereto. According to the practical demands, those skilled in the art may expand the present application to the applications for more than two POIs. For example, a plurality of POIs are displayed inside the displayed area, or the indicating objects of a plurality of POIs outside the displayed area are displayed on the edges of the displayed area, such that the user may check the locations and the related information of different POIs. In an example, the indicating object is presented in a semitransparent or animation visual effect. For example, under the situation of displaying a plurality of POIs inside the displayed area, in order to prevent the displayed indicating objects from covering up the POIs inside the displayed area, the indicating objects are presented in a semitransparent or animation visual effect.

[0062] For example, FIG. 7 shows an example of a

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method for operating a displayed area of an electronic map according to an example of the present application. Referring to FIG. 7, a displayed area 700 of an electronic map comprises POIs P2, P3, P4, and P5. A POI P1, for example, falls at a location of 5 km away from the displayed area 700. In this case, the electronic device displays an indicating icon 710 of the POI P1 on an edge of the displayed area 700 towards a direction of the POI P1, wherein because the location of the indicating icon 710 just overlaps the POI P2, the indicating icon 710 is presented in a semitransparent manner in this example, so as to avoid covering up the POI P2.

[0063] Corresponding to the above operating methods, an operating apparatus is provided in the present application, which may be applied to car PC, a desktop, a laptop, a cellular phone, a smartphone, a personal digital assistant (PDA), a PDA phone, a navigation device, a music player, a game device, or other electronic devices, so as to enable the user of the apparatus to quickly browse the locations and the related information of POIs. An example is given below for detailed description.

[0064] FIG. 8 is a block diagram of an apparatus for operating a displayed area of an electronic map according to an example of the present application. Referring to FIG. 8, an operating apparatus 800 is applicable to car PC, a desktop, a laptop, a cellular phone, a smartphone, a personal digital assistant (PDA), a PDA phone, a navigation device, a music player, a game device, or other electronic devices installed with an electronic map, such that the user can quickly change the displayed area of the electronic map, so as to browse a location and related information of a POI outside the displayed area. The operating apparatus 800 comprises an input unit 810, a storage unit 820, a display unit 830, and a processing unit 840, and the functions thereof are respectively described as follows.

[0065] The input unit 810 is, for example, a mouse, a keyboard, or another input device connected to a computer, or a touch screen, a touch pad, a mouse, a optical mouse, a keypad, a track ball, a joystick, a touch pad, a navigation key, a wheel, or a roller disposed on an electronic device, which generates a corresponding input signal according to an operation of the user.

[0066] The storage unit 820 is, for example, a hard disk, a memory, a flash memory, a storage card, or another storage medium, and is used for storing an electronic map. In an example, the electronic map may be downloaded from an internet database and stored in the storage unit 820 when the user browses the electronic map. The display unit 830 is, for example, a liquid crystal display (LCD), and is used for displaying the electronic map.

[0067] The processing unit 840 is coupled to the input unit 810, the storage unit 820, and the display unit 830. In addition to display an indicating object of a POI located outside the displayed area according to a relative location between the POI and the displayed area, the processing unit 840 further quickly changes the displayed area of the electronic map to the displayed area comprising the POI when the indicating object of the POI is selected.

[0068] Particularly, as for the POI located outside the displayed area, the processing unit 840 first determines a direction of the POI with respect to the displayed area, and displays the indicating object of the POI on an edge of the displayed area displayed by the display unit 830 towards the determined direction. In addition, the processing unit 840 further changes the displayed area displayed by the display unit 830 to the displayed area comprising the POI in a sliding or a switching manner when the indicating object of the POI is selected.

[0069] In addition, when the displayed area is slid or switched to the POI, the processing unit 840 further displays an indicating object of the POI in the original displayed area on an edge of the changed displayed area towards a direction of the POI, so as to provide the user with an approach for returning to the original displayed area. Accordingly, the user can quickly change the displayed area of the electronic map by operating the apparatus 800, so as to browse the locations and the related information of different POIs.

[0070] It should be noted that, in another example, when the user intends to check relative locations among more than two POIs at the same time, the processing unit 840 suitably adjusts the scale of the displayed area and changes the displayed area of the electronic map when the user clicks the indicating object, so as to display all the POIs in the same visual range. The implementation manner has been described in detail in the above examples, so the description thereof is not repeated herein.

[0071] The present application further provides a recording medium, which records a computer program to be loaded into an electronic device to execute aforesaid method for operating the displayed area of the electronic map. The computer program is basically consisted of a plurality of program code segments (for example, an organization chart establishing program code segment, a form signing program code segment, a setting program code segment, and a deployment program code segment). After the program code segments are loaded into an electronic device and are executed, the steps of the method for operating the displayed area of the electronic map and the functions of the apparatus for operating the displayed area of the electronic map are achieved.

[0072] To sum up, in the method and the apparatus for operating the displayed area of the electronic map and the recording medium, the indicating objects corresponding to the POIs located outside the displayed area are displayed on the edge of the displayed area of the electronic map towards the direction of the POIs, such that the usher can easily and clearly know the relative locations of different POIs. In addition, the user is able to quickly change the displayed area to the POIs outside the original displayed area by selecting the corresponding indicating objects, so as to browse the locations and the reflated information of different POIs, thereby enhancing the convenience for operating the displayed area

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of the electronic map.

[0073] It will be apparent to those skilled in the art that various modifications and variations can be made to the structure of the present application without departing from the scope of the following claims.

Claims

1. A method for operating a displayed area of an electronic map, comprising:

   displaying (S110) a displayed area (200) of an electronic map; and
   displaying (S120) an indicating object (210) of a first point of interest (POI) (P1) located outside the displayed area (200) on an edge of the displayed area (200) towards a first direction of the first POI (P1) with respect to the displayed area (200);
   characterized by:

   changing (S150) the displayed area (200) of the electronic map to the displayed area comprising the first POI (P1) when the indicating object (210) of the first POI is selected (S 140).

2. The method according to claim 1, wherein the originally displayed area (400) of the electronic map comprises a second POI (P2).

3. The method according to claim 2, wherein after the step (S350) of changing the displayed area of the electronic map to the displayed area comprising the first POI (P1), the method further comprises:

   displaying (S360) an indicating object (420) of the second POI (P2) on an edge of the displayed area (400) comprising the first POI (P1) towards a second direction of the second POI (P2) with respect to the first POI (P1).

4. The method according to claim 1, wherein the step (S150) of changing the displayed area (200) of the electronic map to the displayed area (200) comprising the first POI (P1) is in a sliding or switching manner.

5. The method according to claim 1, wherein the step (S150) of changing the displayed area (200) of the electronic map to the displayed area comprising the first POI (P1) comprises:

   displaying the displayed area (200) of the electronic map by taking the first POI (P1) as a center.

6. The method according to claim 1, wherein the step (S150) of changing the displayed area (200) of the electronic map to the displayed area comprising the first POI (P1) comprises:

   displaying the displayed area (200) of the electronic map on the same scale.

7. The method according to claim 2 or 3, wherein the step of changing the displayed area of the electronic map to the displayed area comprising the first POI comprises:

   adjusting (S550) the scale of the displayed area (600) of the electronic map and changing the displayed area (600) of the electronic map, such that the changed displayed area comprises both of the first POI (P1) and the second POI (P2).

8. The method according to claim 1, wherein the indicating object (210) is presented in a semitransparent or animation visual effect.

9. A recording medium, executing the method for operating a displayed area of an electronic map according to any of the preceding claims via an electronic device.

10. An apparatus (800) for operating a displayed area (200) of an electronic map, comprising:

    an input unit (810) for receiving an input signal;
    a storage unit (820) for storing an electronic map;
    a display unit (830) for displaying a displayed area of the electronic map; and
    a processing unit (840), coupled to the input unit (810), the storage unit (820), and the display unit (830), and configured to control the display unit (830) to display an indicating object (210) of a first point of interest (POI) (P1) located outside the displayed area (200) on an edge of the displayed area displayed by the display unit (830) towards a first direction of the first POI (P1) with respect to the displayed area (200);
    characterized in that
    said processing unit (840) is further configured to determine whether the indicating object (210) of the first POI (P1) is selected according to the input signal; and to change the displayed area (200) of the electronic map displayed by the display unit (830) to the displayed area (200) comprising the first POI (P1) when the indicating object (210) of the first POI (P1) is selected.

11. The apparatus according to claim 10, wherein the displayed area (400) of the electronic map originally displayed by the display unit (830) comprises

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a second POI (P2); and
the processing unit (840) is configured to control the display unit (830) to display an indicating object (420) of the second POI (P2) on an edge of the displayed area (400) comprising the first POI (P1) towards a second direction of the second POI (P2) with respect to the first POI (P2).

12. The apparatus according to claim 10, wherein the processing unit (840) is configured to control the display unit (830) to display the displayed area of the electronic map on the same scale and take the first POI as a center.

13. The apparatus according to claim 10, wherein the processing unit (840) is configured to adjust the scale of the displayed area (600) of the electronic map and changes the displayed area of the electronic map, such that the changed displayed area (600) displayed by the display unit (830) comprises both of the first POI (P1) and the second POI (P2).

14. The apparatus according to claim 10, wherein the indicating object (210, 410, 420, 610) comprises one of an indicating text, an indicating symbol, and an indicating icon, or a combination thereof.

Patentansprüche

1. Verfahren zum Betreiben eines Anzeigebereichs einer elektronischen Karte, das Folgendes aufweist:

Anzeigen (S110) eines Anzeigebereichs (200) einer elektronischen Karte; und
Anzeigen (S120) eines Kennzeichnungsobjekts (210) eines ersten Ortes von Interesse bzw. Point of Interest (POI) (P1), der außerhalb des Anzeigebereichs (200) auf einer Kante des Anzeigebereichs (200) in einer ersten Richtung des POI (P1) in Bezug auf den Anzeigebereich (200) gelegen ist;
gekennzeichnet durch:

das Verändern (S150) des Anzeigebereichs (200) der elektronischen Karte zu dem Anzeigebereich, der den ersten POI (P1) aufweist, wenn das Kennzeichnungsobjekt (210) des ersten POI ausgewählt wird (S140).

2. Verfahren gemäß Anspruch 1, wobei der ursprüngliche Anzeigebereich (400) der elektronischen Karte einen zweiten Point of Interest bzw. POI (P2) aufweist.

3. Verfahren gemäß Anspruch 2, wobei nach dem Schritt (S350) des Veränderns des Anzeigebereichs der elektronischen Karte zu dem Anzeigebereich, der den ersten POI (P1) aufweist, das Verfahren ferner Folgendes aufweist:

Anzeigen (S360) eines Kennzeichnungsobjekts (420) des zweiten POI (P2) auf einer Kante des Anzeigebereichs (400), der den ersten POI (P1) aufweist und zwar in einer zweiten Richtung des zweiten POI (P2) in Bezug auf den ersten POI (P1).

4. Verfahren gemäß Anspruch 1, wobei der Schritt (S150) des Veränderns des Anzeigebereichs (200) der elektronischen Karte zu dem Anzeigebereich (200), der den ersten POI (P1) aufweist, in einer gleitenden oder umschaltenden Art und Weise erfolgt.

5. Verfahren gemäß Anspruch 1, wobei der Schritt (S150) des Veränderns des Anzeigebereichs (200) der elektronischen Karte zu dem Anzeigebereich, der den ersten POI (P1) aufweist, Folgendes aufweist:

Anzeigen des Anzeigebereichs (200) der elektronischen Karte, wobei der erste POI (P1) als Mittelpunkt genommen wird.

6. Verfahren gemäß Anspruch 1, wobei der Schritt (S150) des Veränderns des Anzeigebereichs (200) der elektronischen Karte zu dem Anzeigebereich, der den ersten POI (P1) aufweist, Folgendes aufweist:

Anzeigen des Anzeigebereichs (200) der elektronischen Karte auf der gleichen Skala.

7. Verfahren gemäß Anspruch 2 oder 3, wobei der Schritt des Veränderns des Anzeigebereichs der elektronischen Karte zu dem Anzeigebereich, der den ersten POI aufweist, Folgendes aufweist:

Anpassen (S550) der Skala des Anzeigebereichs (600) der elektronischen Karte und Verändern des Anzeigebereichs (600) der elektronischen Karte, so dass der veränderte Anzeigebereich sowohl den ersten POI (P1) als auch den zweiten POI (P2) aufweist.

8. Verfahren gemäß Anspruch 1, wobei das Kennzeichnungsobjekt (210) in einem halbtransparenten oder animierten visuellen Effekt dargestellt wird.

9. Aufzeichnungsmedium, das das Verfahren zum Betätigen eines Anzeigebereichs einer elektronischen Karte gemäß den vorangehenden Ansprüchen über eine elektronische Vorrichtung ausführt.

10. Vorrichtung (800) zum Betätigen eines Anzeigebe-

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reichs (200) einer elektronischen Karte, die Folgendes aufweist:

eine Eingabeeinheit (810) zum Empfangen eines Eingabesignals;
eine Speichereinheit (820) zum Speichern einer elektronischen Karte;
eine Anzeigeeinheit (830) zum Anzeigen eines Anzeigebereichs der elektronischen Karte; und
eine Verarbeitungseinheit (840), die mit der Eingabeeinheit (810), der Speichereinheit (820) und der Anzeigeeinheit (830) gekoppelt ist und konfiguriert ist, um die Anzeigeeinheit (830) zu steuern, so dass sie ein Kennzeichnungsobjekt (210) eines ersten Point of Interest (POI) (P1) anzeigt, der außerhalb des Anzeigebereichs (200) auf einer Kante des Anzeigebereichs gelegen ist, der durch die Anzeigeeinheit (830) angezeigt wird, und zwar in einer ersten Richtung des ersten POI (P1) in Bezug auf den Anzeigebereich (200);
dadurch gekennzeichnet, dass
die Verarbeitungseinheit (840) ferner konfiguriert ist, um zu bestimmen, ob das Kennzeichnungsobjekt (210) des ersten POI (P1) gemäß dem Eingabesignal ausgewählt wird; und
um den Anzeigebereich (200) der elektronischen Karte zu verändern, der durch die Anzeigeeinheit (830) angezeigt wird, zu dem Anzeigebereich (200),
der den ersten POI (P1) aufweist, und zwar wenn das Kennzeichnungsobjekt (210) des ersten POI (P1) ausgewählt wird.

11. Vorrichtung gemäß Anspruch 10, wobei
der Anzeigebereich (400) der elektronischen Karte ursprünglich durch die Anzeigeeinheit (830) angezeigt wird, die einen zweiten POI (P2) aufweist; und
die Verarbeitungseinheit (840) konfiguriert ist, um die Anzeigeeinheit (830) so zu steuern, dass sie ein Kennzeichnungsobjekt (420) des zweiten POI (P2) auf einer Kante des Anzeigebereichs (400) anzeigt, der den ersten POI (P1) aufweist, und zwar zu einer zweiten Richtung des zweiten POI (P2) in Bezug auf den ersten POI (P2) hin.

12. Vorrichtung gemäß Anspruch 10, wobei die Verarbeitungseinheit (840) konfiguriert ist, um die Anzeigeeinheit (830) zu steuern, so dass sie den Anzeigebereich der elektronischen Karte auf der gleichen Skala und mit dem ersten POI als Mittelpunkt anzeigt.

13. Vorrichtung gemäß Anspruch 10, wobei die Verarbeitungseinheit (840) konfiguriert ist, um die Skala des Anzeigebereichs (600) der elektronischen Karte anzupassen und verändert den Anzeigebereich der elektronischen Karte, so dass der veränderte Anzeigebereich (600), der durch die Anzeigeeinheit (830) angezeigt wird, sowohl einen ersten POI (P1) als auch den zweiten POI (P2) aufweist.

14. Vorrichtung gemäß Anspruch 10, wobei das Kennzeichnungsobjekt (210, 410, 420, 610) einen Kennzeichnungstext und/oder ein Kennzeichen und/oder ein Kennzeichnungssymbol oder eine Kombination dieser aufweist.

Revendications

1. Procédé d'utilisation d'une région affichée d'une carte électronique, comprenant :

l'affichage (S110) d'une région affichée (200) d'une carte électronique ; et
l'affichage (S120) d'un objet d'indication (210) d'un premier point d'intérêt POI (P1) situé à l'extérieur de la région affichée (200) sur un bord de la région affichée (200) vers une première direction du premier POI (P1) vis-à-vis de la région affichée (200) ;
caractérisé par :

le passage (S150) de la région affichée (200) de la carte électronique à la région affichée comprenant le premier POI (P1) lorsque l'objet d'indication (210) du premier POI est sélectionné (S140).

2. Procédé selon la revendication 1, dans lequel la région affichée à l'origine (400) de la carte électronique comprend un second POI (P2).

3. Procédé selon la revendication 2, dans lequel après l'étape (S350) de passage de la région affichée de la carte électronique à la région affichée comprenant le premier POI (P1), le procédé comprend en outre :

l'affichage (S360) d'un objet d'indication (420) du second POI (P2) sur un bord de la région affichée (400) comprenant le premier POI (P1) vers une seconde direction du second POI (P2) vis-à-vis du premier POI (P1).

4. Procédé selon la revendication 1, dans lequel l'étape (S150) de passage de la région affichée (200) de la carte électronique à la région affichée (200) comprenant le premier POI (P1) s'effectue de manière glissante ou permutante.

5. Procédé selon la revendication 1, dans lequel l'étape (S150) de passage de la région affichée (200) de la carte électronique à la région affichée comprenant le premier POI (P1) comprend :

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l'affichage de la région affichée (200) de la carte électronique en prenant le premier POI (P1) comme centre.

6. Procédé selon la revendication 1, dans lequel l'étape (S150) de passage de la région affichée (200) de la carte électronique à la région affichée comprenant le premier POI (P1) comprend :

l'affichage de la région affichée (200) de la carte électronique à la même échelle.

7. Procédé selon la revendication 2 ou 3, dans lequel l'étape de passage de la région affichée de la carte électronique à la région affichée comprenant le premier POI (P1) comprend :

l'ajustement (S550) de l'échelle de la région affichée (600) de la carte électronique et le changement de la région affichée (600) de la carte électronique, de sorte que la région affichée changée comprend à la fois le premier POI (P1) et le second POI (P2).

8. Procédé selon la revendication 1, dans lequel l'objet d'indication (210) est présenté dans un effet visuel semi-transparent ou animé.

9. Support d'enregistrement, exécutant le procédé d'utilisation d'une région affichée d'une carte électronique selon l'une quelconque des revendications précédentes par l'intermédiaire d'un dispositif électronique.

10. Appareil (800) pour utiliser une région affichée (200) d'une carte électronique, comprenant :

une unité d'entrée (810) pour recevoir un signal d'entrée ;
une unité de stockage (820) pour stocker une carte électronique ;
une unité d'affichage (830) pour afficher une région affichée de la carte électronique ; et
une unité de traitement (840), couplée à l'unité d'entrée (810), à l'unité de stockage (820) et à l'unité d'affichage (830), et configurée pour commander l'unité d'affichage (830) afin d'afficher un objet d'indication (210) d'un premier point d'intérêt POI (P1) situé à l'extérieur de la région affichée (200) sur un bord de la région affichée par l'unité d'affichage (830) vers une première direction du premier POI (P1) vis-à-vis de la région affichée (200) ;
caractérisé en ce que
ladite unité de traitement (840) est en outre configurée pour déterminer si l'objet d'indication (210) du premier POI (P1) est sélectionné selon le signal d'entrée ; et
pour faire passer la région affichée (200) de la carte électronique affichée par l'unité d'affichage (830) à la région affichée (200) comprenant le premier POI (P1) lorsque l'objet d'indication (210) du premier POI (P1) est sélectionné.

11. Appareil selon la revendication 10, dans lequel
la région affichée (400) de la carte électronique affichée à l'origine par l'unité d'affichage (830) comprend un second POI (P2) ; et
l'unité de traitement (840) est configurée pour commander l'unité d'affichage (830) afin d'afficher un objet d'indication (420) du second POI (P2) sur un bord de la région affichée (400) comprenant le premier POI (P1) vers une seconde direction du second POI (P2) vis-à-vis du premier POI (P1).

12. Appareil selon la revendication 10, dans lequel l'unité de traitement (840) est configurée pour commander l'unité d'affichage (830) afin d'afficher la région affichée de la carte électronique à la même échelle et de prendre un premier POI comme centre.

13. Appareil selon la revendication 10, dans lequel l'unité de traitement (840) est configurée pour ajuster l'échelle de la région affichée (600) de la carte électronique et change la région affichée de la carte électronique, de sorte que la région affichée changée (600) affichée par l'unité d'affichage (830) comprend à la fois le premier POI (P1) et le second POI (P2).

14. Appareil selon la revendication 10, dans lequel l'objet d'indication (210, 410, 420, 610) comprend un élément parmi un texte d'indication, un symbole d'indication et une icône d'indication, ou l'une de leurs combinaisons.

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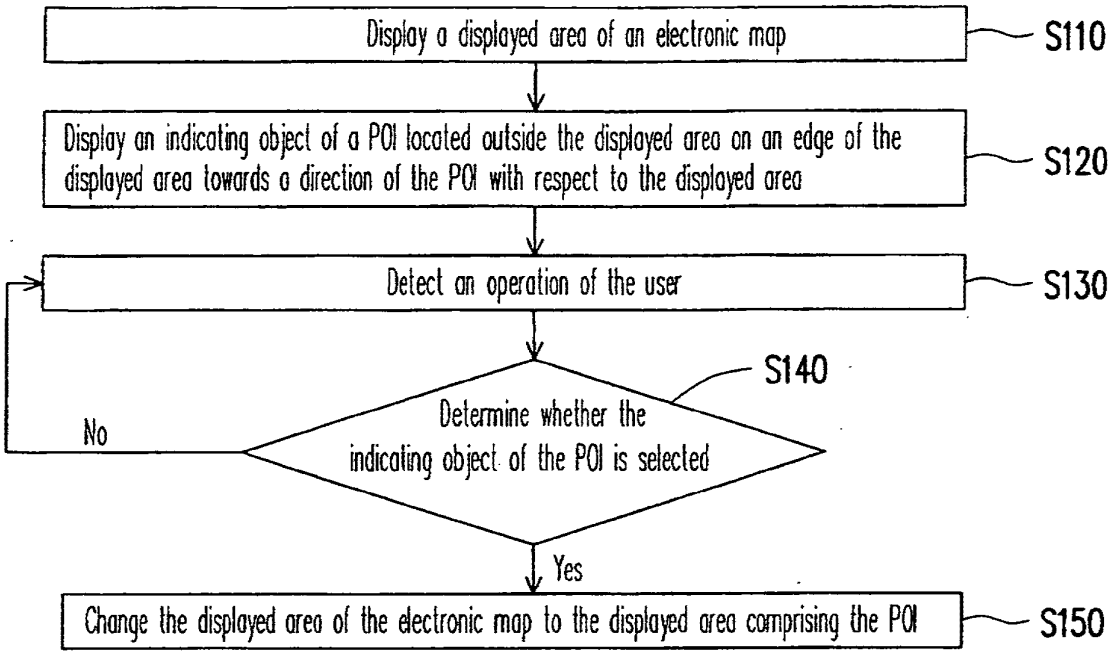


FIG. 1

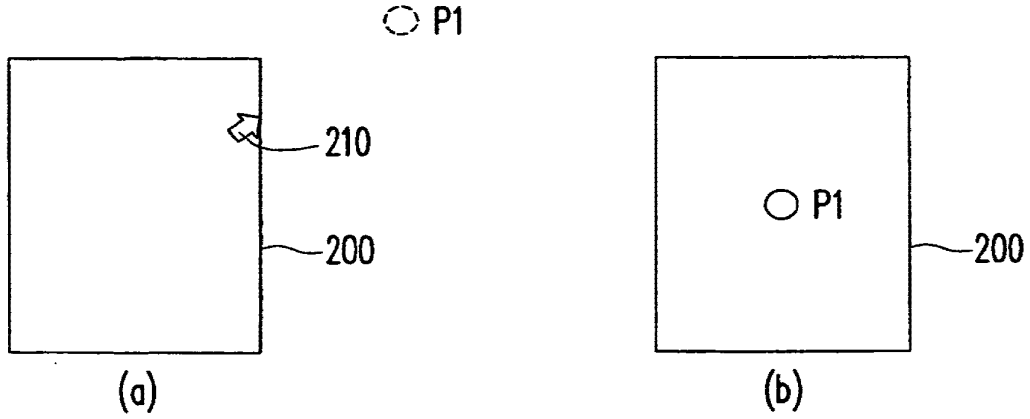


FIG. 2

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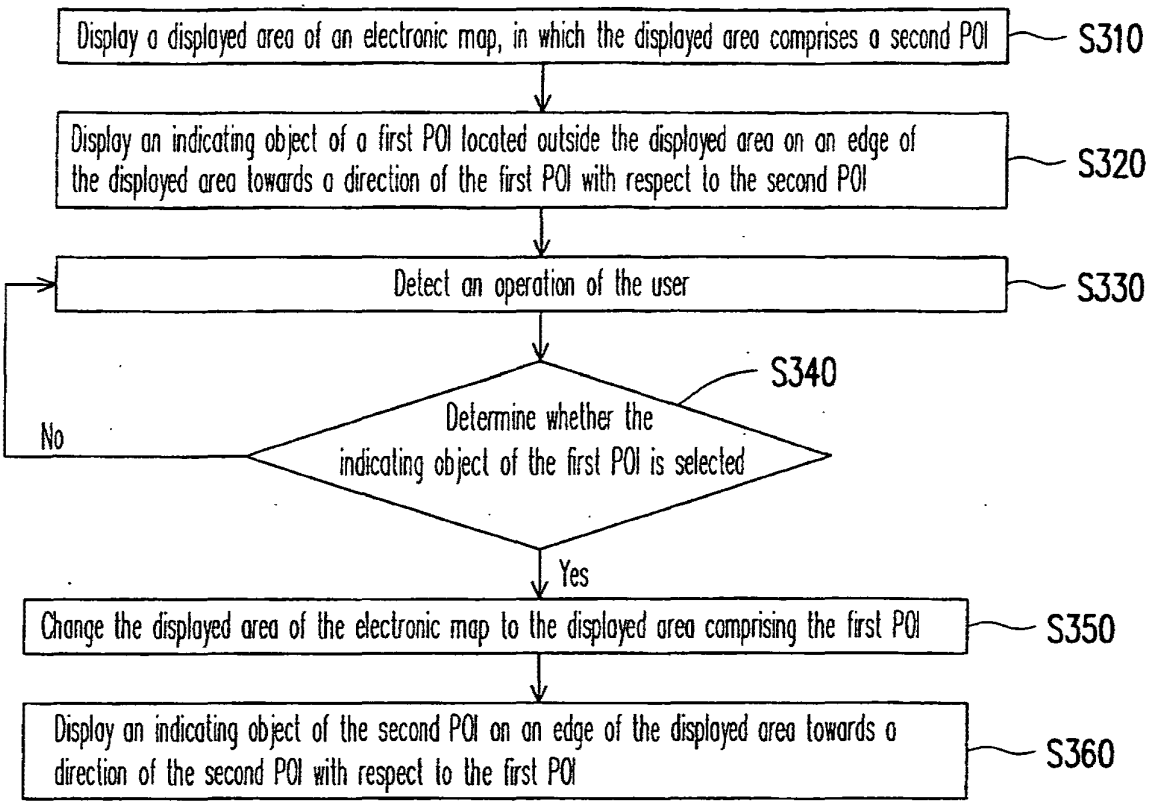


FIG. 3

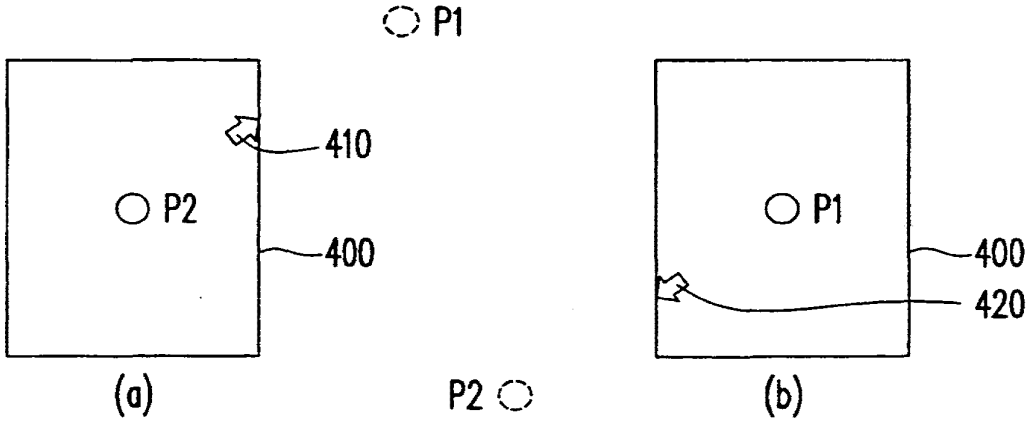


FIG. 4

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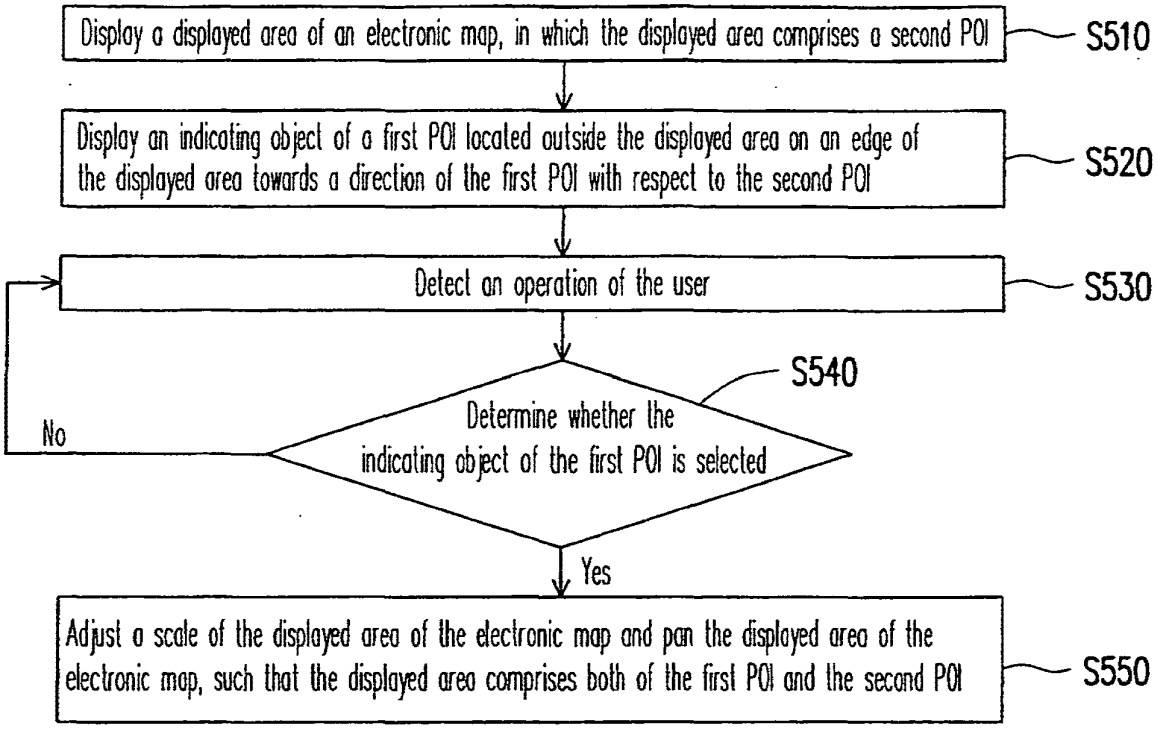


FIG. 5

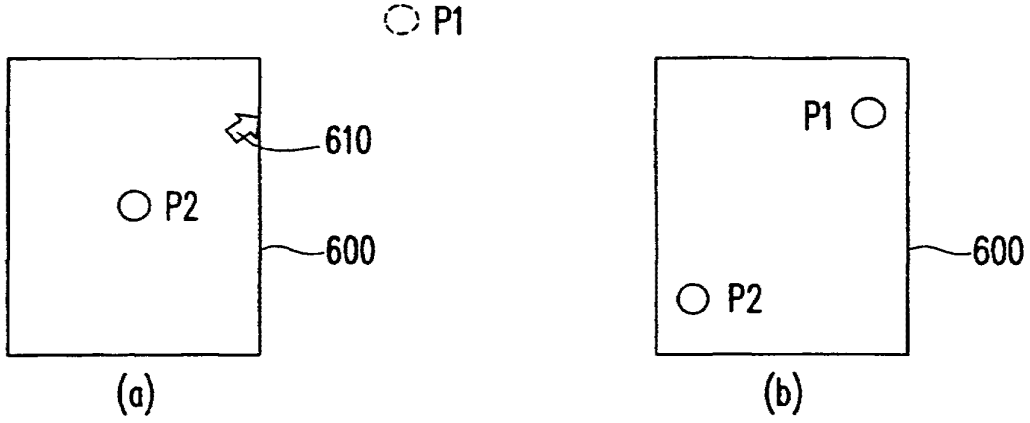


FIG. 6

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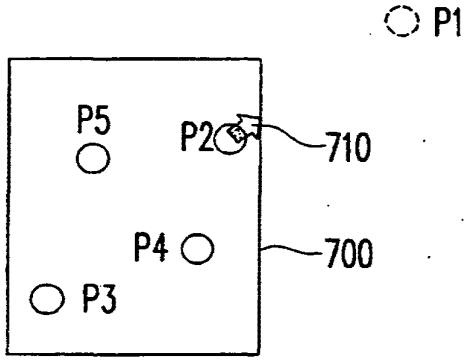


FIG. 7

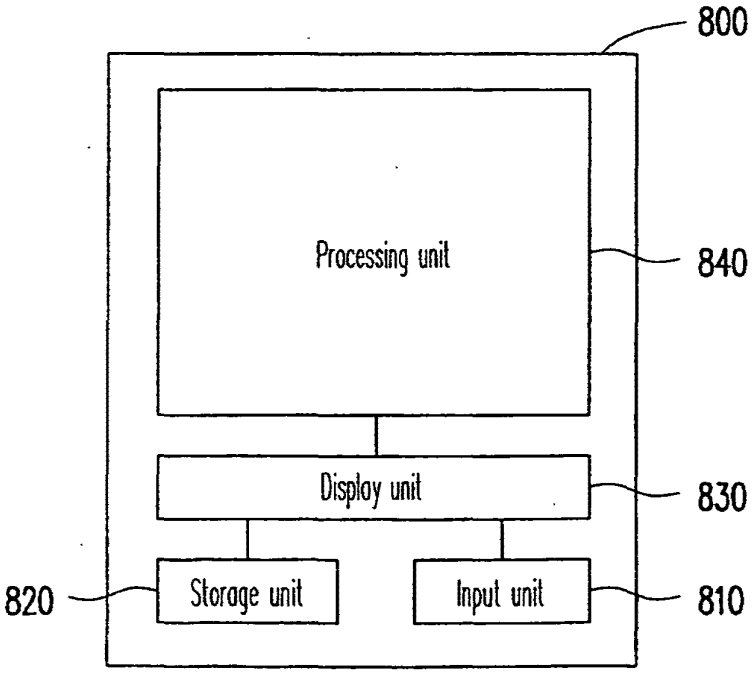


FIG. 8

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REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- US 2007188408 A **[0003]**
- DE 102005020152 A1 **[0004]**
- US 2003182052 A **[0005]**

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Page 180 of 434

Electronic Acknowledgement Receipt

EFS ID:	14467488
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	13-DEC-2012
Filing Date:	06-AUG-2008
Time Stamp:	22:36:30
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	IDSAsFiled.pdf	612367 d8a1a7255f3dc490f2d66d140a229d19b230d807	no	4

Warnings:	
Information:	

2	Information Disclosure Statement (IDS) Form (SB08)	IDSEPOcover.pdf	126155 68aad160d5d575ee0915b1902792bc10c30f1e6a	no	2
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Foreign Reference	EP2159543B1.pdf	232996 97649b8e75665cdd4a488bb546699db96bef42cf	no	16
Warnings:					
Information:					
		Total Files Size (in bytes):	971518		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

26797 7590 11/26/2013
SILICON VALLEY PATENT AGENCY
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER	
HUNTER, SEAN KRISTOPHER	
ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
11/26/2013	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Office Action Summary	Application No. 12/186,524	Applicant(s) PU ET AL.	
	Examiner SEAN K. HUNTER	Art Unit 3626	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2012*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some * c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

CONTINUED EXAMINATION UNDER 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 May 2012 has been entered.

STATUS OF CLAIMS

This action is in reply to the Amendment/Response/RCE filed on 23 May 2012. Claims 1-20 are currently pending and have been examined.

INFORMATION DISCLOSURE STATEMENT

The Information Disclosure Statement filed on 13 December 2012 has been considered. An initialed copy of the Form 1449 is enclosed herewith.

RESPONSE TO AMENDMENTS

The Applicant's amendments to claims 1-3, 7, 11 and 13 have been noted by the Examiner.

CLAIM OBJECTIONS

Claim 2 is objected to because of the following informalities: The word "to" appears to be duplicated in the claim. Appropriate correction is required.

Claim 4 is objected to because of the following informalities: The claim is denoted as "Previously amended", however there is an amendment submitted by the Applicant in the body of the claim language. Appropriate correction is required.

CLAIM REJECTIONS - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter for which applicant regards as the invention. Claim 13 recites in part, "…the artistic map is not but corresponds to a geographical map,…" It is unclear what Applicant means by the above limitations. Examiner requests clarification.

CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala et al. (US 2005/0149303), hereinafter referred to as Salmre and Agrawala, respectively.

Claim 1 (Currently Amended) –

As per Claim 1, Salmre discloses a method for navigating in a particular area, the method comprising:

- receiving in a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device [*see at least, Abstract; Figure 2; p. 1, ¶0007; p. 2, ¶0035; p. 6, ¶0071, of Salmre*];
- receiving a selection on one of the objects from the user [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- capturing a pair of coordinates for one of the points on one of the objects being selected [*see at least, Abstract; p. 5, ¶0058, of Salmre*];
- detecting a current location of the computing device [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- determining a navigational direction from the current location to the one of the objects when the user decides to travel to the one of the objects being selected; and synchronizing the navigational direction with the map being displayed [*see at least, Abstract; p. 2, ¶0030-¶0031, of Salmre*].

Salmre does not *explicitly* disclose,

- transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed [*see at least, Abstract; p. 1, ¶0007; p. 5, ¶0058, of Salmre*];

Agrawala discloses

- transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding

substantially to the physical point when said transforming is performed [see at least, p. 3, ¶0019-0020; p. 13, ¶0152; p. 22, ¶0268, of Agrawala]

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 2 (Currently Amended) –

As per Claim 2, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein

- the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are corresponding to to the physical point represented by the latitude and longitude [*see at least, p. 5, ¶0058, of Salmre*].

Claim 3 (Currently Amended) –

As per Claim 3, Salmre in view of Agrawala discloses the method as recited in Claim 2, wherein

- the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display [*see at least, p. 7 ¶0099; p. 13, ¶0149; p. 25, ¶0293 & ¶0299, of Agrawala*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 4 (Previously Amended) –

As per Claim 4 Salmre in view of Agrawala discloses the method as recited in Claim 3, wherein

- the determining of the navigational direction from the current location to the physical point is carried out in accordance with the geographical map [*see at least, p. 2, ¶0030, of Salmre*].

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Suomela (US 6,697,734), hereinafter referred to as Salmre, Agrawala and Suomela, respectively.

Claim 5 (Original) –

As per Claim 5, Salmre in view of Agrawala discloses the method as recited in Claim 4, however Salmre does not explicitly disclose further comprising

- determining a set of instructions of how to move from the current location to the physical point as a destination.

Suomela discloses

- determining a set of instructions of how to move from the current location to the physical point as a destination [*see at least, col. 1, lines 21-26, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, determining a set of instructions of how to move from the current location to the physical point as a destination, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 6 (Previously Amended) –

As per Claim 6, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

- transforming the navigational direction with respect to the geographical map to the map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*]; and
- transforming the instructions with respect to the geographical map to the map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 7 (Currently Amended) –

As per Claim 7, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 6, wherein the navigational direction shows how to

- move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points [*see at least, Figure 4; Figure 5; Figure 6; col. 3 lines 37-47; col. 8, lines 26-27, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 8 (Previously Amended) –

As per Claim 8, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 7, further comprising

- connecting the pixel coordinates of the points to show the route on the map [*see at least, Figure 3; Figure 4; Figure 5; and Figure 6, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, connecting the pixel coordinates of the points to show the route in the map, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 9 (Previously Amended) –

As per Claim 9, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein the synchronizing of the navigational direction with the map being displayed is

- carried out according to a transformation derived from a deformation of the geographical map to the map being displayed [*see at least, col. 2, lines 14-33, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Rasmussen (US 2006/0206264), hereinafter referred to as Salmre, Agrawala and Rasmussen, respectively.

Claim 10 (Previously Amended) –

As per Claim 10, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein there is a color map to define a color of each of the objects in the map, Salmre does not *explicitly* disclose and the method further comprising:

- adjusting the color for the each of objects in the map, and generating a color-definition map.

Rasmussen discloses

- adjusting the color for the each of objects in the map, and generating a color-definition map [*see at least, p. 3, ¶0023 and ¶0027, of Rasmussen*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, adjusting the color for the each of objects in the map, and generating a color-definition map, as disclosed by Rasmussen.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claims 11 through 20 (Currently Amended | Previously Amended | Original) –
As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

RESPONSE TO ARGUMENTS

Applicant's arguments filed 23 May 2012 have been fully considered but they are not persuasive. Applicant's arguments with respect to the claims, as currently amended, have been considered but are moot in light of the new ground(s) of rejection being used in the current rejection.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN K. HUNTER whose telephone number is 571.270.7791. The examiner can normally be reached on Monday through Thursday 9a through 5p. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT MORGAN can be reached on 571-272-6773. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEAN K HUNTER/ Primary Examiner, Art Unit 3626	

Notice of References Cited	Application/Control No. 12/186,524	Applicant(s)/Patent Under Reexamination PU ET AL.	
	Examiner SEAN K. HUNTER	Art Unit 3626	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2005/0149303	07-2005	Agrawala et al.	703/002
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	**Art Unit**
	SEAN K HUNTER	3626

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/29/2011	12/29/2011	11/07/2013						
	1	✓	✓	✓						
	2	✓	✓	✓						
	3	✓	✓	✓						
	4	✓	✓	✓						
	5	✓	✓	✓						
	6	✓	✓	✓						
	7	✓	✓	✓						
	8	✓	✓	✓						
	9	✓	✓	✓						
	10	✓	✓	✓						
	11	✓	✓	✓						
	12	✓	✓	✓						
	13	✓	✓	✓						
	14	✓	✓	✓						
	15	✓	✓	✓						
	16	✓	✓	✓						
	17	✓	✓	✓						
	18	✓	✓	✓						
	19	✓	✓	✓						
	20	✓	✓	✓						

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	Art Unit
	SEAN K HUNTER	3626

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
701	200	8/28/2011	SKH
701	200	12/29/2011	SKH
701	200	11/7/2013	SKH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	8/28/2011	SKH
Updated EAST search	12/29/2011	SKH
Updated EAST search	11/7/2013	SKH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/SEAN K HUNTER/ Primary Examiner.Art Unit 3626

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	12186524
Filing Date	2008-08-06
First Named Inventor	Kent Qing Pu
Art Unit	3626
Examiner Name	HUNTER, SEAN KRISTOPHER
Attorney Docket Number	KENT-007

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20050149303		2005-07-07	AGRAWALA MANEESH	[0012]. [0019]. [0020]. [0152]. [0265]. [0268]. [0272] * claim 1 *

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	DE 10 2005 020152	DE		2006-11-02	VOLKSWAGEN AG	[0001].[0005].[0006]. [0008].[0016] - [0018]. [0021].[0028]. [0033] - [0034].[0038]. [0042].[0056] & FIG 4,	☐

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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

Receipt date: 12/13/2012	Application Number	12186524 12186524 - GAU: 3626
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**	Filing Date	2008-08-06
	First Named Inventor	Kent Qing Pu
	Art Unit	3626
	Examiner Name	HUNTER, SEAN KRISTOPHER
	Attorney Docket Number	KENT-007

	1		☐

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EXAMINER SIGNATURE

Examiner Signature	/Sean Hunter/	Date Considered	11/04/2013

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /S.K.H./

Receipt date: 12/13/2012	Application Number	12186524 12186524 - GAU: 3626
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99**)	Filing Date	2008-08-06
	First Named Inventor	Kent Qing Pu
	Art Unit	3626
	Examiner Name	HUNTER, SEAN KRISTOPHER
	Attorney Docket Number	KENT-007

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/ joe zheng /	Date (YYYY-MM-DD)	2012-12-13
Name/Print	Joe Zheng	Registration Number	39450

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Courtesy Reminder for
Application Serial No: 12/186,524

Attorney Docket No: Kent-007
Customer Number: 26797
Date of Electronic Notification: 11/26/2013

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

February 26, 2014

Mail Stop: No-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Response to First Office Action (RCE)

Dear Sir:

In response to the Office Action dated 11/26/2013, the Applicant respectfully requests the Examiner to enter the following amendments before reconsidering the pending claims:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Amendment;

REMARKS/ARGUMENTS begin on page 7 of this Amendment.

PAGE 1/13 * RCVD AT 2/27/2014 1:52:08 AM [Eastern Standard Time] * SVR:W-PTOFAX-001/13 * DNIS:2738300 * CSID:051085191297 * DURATION (mm-ss):02-33

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AMENDMENTS TO THE CLAIMS

Please amend Claims 1-2, 4, 11 and 14 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

~~receiving in~~ displaying on a display of a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device;

receiving a selection on the one of the objects from the user as a selected object;

capturing a pair of coordinates for one of the points on the selected object~~one of the objects being selected~~;

transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, ~~each of~~ the points representing the ~~one of the~~ selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object ~~all of the points~~ corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

2. (*Currently amended*) The method as recited in claim 1, wherein the computing device is a portable device ~~the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are corresponding to to the physical point represented by the latitude and longitude~~.

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3. (*Previously amended*) The method as recited in claim 2, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display.

4. (*Currently amended*) The method as recited in claim 2, wherein the determining of the navigational direction from the current location to the physical point is carried out by the computing device in accordance with the geographical map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the navigational direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

7. (*Previously amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

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9. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the navigational direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

10.(*Previously amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the map, and the method further comprising: adjusting the color for the each of objects in the map, and generating a color definition map.

11.(*Currently amended*) A portable device for navigating a designed place, the portable device comprising:

a display screen configured to display an artistic map including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points;

a memory for storing code;

a processor executing the code to perform operations of:

capturing a pair of coordinates of one of the points representing an object being selected in the artistic map being displayed on the display screen;

transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, wherein ~~each of~~ the points representing the object ~~has~~ have different pairs of coordinates, but all of the different pairs of coordinates ~~points~~ correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining a direction from the current location to the physical point; and

synchronizing the direction with the map being displayed.

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12.(*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13.(*Previously amended*) The portable device as recited in claim 12, wherein the artistic map is not but corresponds to a geographical map, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14.(*Currently amended*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out by portable device in accordance with the geographical map.

15.(*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

17.(*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

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18.(*Original*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the map.

19.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20.(*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

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REMARKS

Claims 1-20 were examined. In this Office Action, Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre") in view of Agrawala et al. (US 2005/0149303, hereinafter "Agrawala"), Claims 5-9 are rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

In the foregoing amendments, the Applicant has amended Claims 1-2, 4, 11 and 14 to further distinguish from the cited references. No new matters have been introduced. As a result of the amendments, claims 1-20 are still pending. Reconsideration of pending claims 1-20 is respectfully requested.

Patentability of Claim 1-4

As amended, Claim 1 now recites:

displaying on a display of a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device;
receiving a selection on the one of the objects from the user as a selected object;
capturing a pair of coordinates for one of the points on the selected object;
transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected

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object corresponding substantially to the physical point when said transforming is performed;

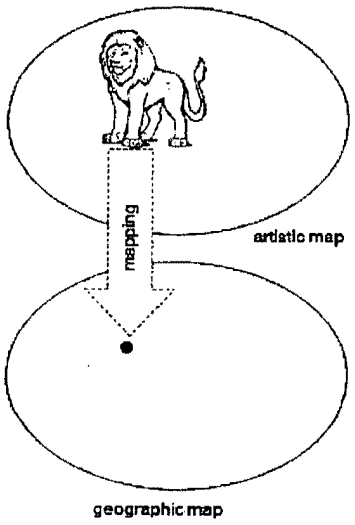
detecting a current location of the computing device;

determining a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

(*Emphasis added*)

One of the objectives in the present invention is to help a user navigate in a specific zone (e.g., a zoo) by providing an artistic map. An artistic map is different from the traditional geographical map that is often used for direction. For example, a zoo map with all animals highlighted is an example of the artistic map. To illustrate where the animals are located, the (artistic) map includes various animals or facilities being exaggeratedly shown on a display screen for a user to easily see and select one to navigate thereto. In the contest of the present invention, the geographical map is *NOT* shown on the computing device. As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. FIG. 3 is duplicated below to show what the many-to-one transformation means.



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The graphic lion is represented by a plurality of points in an artistic map. Regardless of how big the graphic lion may appear in the artistic map, all the points of the graphic lion correspond to one physical point in the geographic map. One of the purposes is to allow a user to select any part of the lion, if the user desires to see the lion cage shown in the artistic map. Thus the selected point(s) always corresponds to the same point, thus facilitating a navigational direction from the current location to the lion cage.

In contrast, besides teaching that a linear map and a non-linear map can be alternatively shown on a same device in FIG. 1 or FIG. 7B, Salmre further teaches about a linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. In other words, there is a one-to-one corresponding relationship between the linear and non-linear maps (*see*, paragraph [0042]: *Since these six triangles get distorted, so do the corresponding points and data within them. One of the many advantages of the presently disclosed subject matter is that it can appropriately map such points and data from one set of triangles in a non-linear map space to another corresponding set of triangles in a linear map space (and vice versa)*).

It should be noted that FIG. 3 duplicated above shows a many-to-one transformation. That means the transformation is directional, namely only the points in the artistic map can be transformed to the geographic map, not the other way around. Accordingly, the Applicant submits Salmre neither teaches nor suggests "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed*" recited in Claim 1 as amended. In one perspective, Salmre teaches

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away from Claims 1-4 by explicitly specifying the bidirectional one-to-one transformation between two linear and nonlinear maps and teaching that the two linear and nonlinear maps can be alternatively shown. Claims 1-4 shall be allowable over Salmre.

On page 4 of the Office Action, the Examiner agrees that Salmre does not explicitly disclose "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed*" and then cites Agrawala to show the teaching in combination.

The Applicant respectfully contests the combination of Salmre and Agrawala as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner. In order to establish a *prima facie* case of obviousness under 35 USC 103, *Graham v. John Deer Co. of Kansas City*, 383 US 1 (1966) requires determining, respectively, the scope and content of the prior art, the difference between the prior art and the claims at issue, and the level of ordinary skilled in the art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning, to support the legal conclusion of obviousness. *KSR v. Teleflex*, No. 04-1350 (US Apr. 30, 2007) (citing In re Kahn, 441 F. 3d 977, 988 (Canada Fed. 2006)). The suggestion to make the claim combination must be found in the prior art, not in the Applicant's disclosure. In re Vaek, 20 USPQ2d 1438 (Fed. Cir. 1991). Moreover, in accordance with MPEP 2142.02, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L.Gore & Associates Inc. v. Garlock, Inc.* 220 USPQ 303 (Fed. Cir. 1993). A third essential requirement for establishing a *prima facie* case, set forth in MPEP 2143.01 is that the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

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Agrawala teaches about making computer-generated maps including a different scale factor for each road in a route. Instead of uniformly scaling a map, Agrawala shows specifically in FIG. 8 and the description thereof that a scale factor is used to size a map in a way that it fits within the dimensions of the desired viewport. In paragraph [0019], Agrawala explicitly states that a search algorithm is used to facilitate the scaling, which is contradictory to "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display*" as recited in Claim 1 as amended. In order words, Agrawala is silent about using coordinates in one map corresponding to a pair of latitude and longitude in another map. Further, Agrawala uses the scaling approach, the scaled map must be bounded by the criteria listed in paragraphs [0087]-[0094]. As a contradictory example, FIG. 1 of the instant application shows that the size of an animal is much bigger than a road section (which would not be the case per one of the criteria [0089] in Agrawala). Thus, the Applicant submits Agrawala teaches away from "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display*" and there is no reasonable way to modify Salmre with Agrawala to render Claim 1 as amended obvious. Claim 1 shall be allowable over Salmre and Agrawala, viewed alone or in combination. Reconsideration of Claims 1-10 is kinedly requested.

On page 5 of the Office Action, the Examiner alleges that Salmre in view of Agrawala suggest Claim 3 (see at least, p.7 pp[0099]; p.13, pp[0149]; p.25, pp[0293] & [0299] of Agrawala). However, a careful review of Agrawala shows that Agrawala teaches optimizing the dimensions of a scaled route map to the dimensions of the viewport used to display the scaled route map. Agrawala is silent about "*the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display*". In other words, Agrawala only teaches "display optimization". There is no technical base to infer that Agrawala implies the specific display uniqueness recited in Claim 3. It is believed that the rejection on Claim 3 on obviousness grounds is made by

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mere conclusory statements. Instead, there shall be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. The Applicant submits Claim 3 together with Claim 1 shall be allowable over Salmre and Agrawala, viewed alone or in combination.

Patentability of Claim 5 - 9

Claims 5-9 are rejected under 35 USC. 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Suomela. The Examiner admits on page 6 of the Office Action that Salmre fails to disclose determining a set of instructions of how to move from the current location to the physical point as a destination and then cites Agrawala and Suomela to show the teaching in combination. The Applicant respectfully contests the combination of Salmre, Agrawala and Suomela as it is believed that there is no motivation to combine these three references in the manner proposed by the Examiner.

As reasoned above, Agrawala neither teaches nor suggests "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display*". Suomela teaches about displaying a map in two different scales at the same time. Suomela goes on with the middle part of a map in one scale and the surrounding portion of the milled part in a second scale. Suomela states explicitly that two linear and non-linear maps are transformed back and forth. Should Salmre be modified with Suomela, the modification would cause Salmre to display the linear map and non-linear map at the same time, which would make Salmre malfunction. The Applicant respectfully challenges the Examiner to show how Salmre could be modified with Agrawala and Suomela.

The Applicant submits that Salmre teaches away from Claim 1 as reasoned above. The combination of Salmre, Agrawala and Suomela would no longer stay to reject Claims 5-9. Claims 5-9 shall be allowable over Salmre,

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Agrawala and Suomela, viewed alone or in combination. Reconsideration of Claims 5-9 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicant believes that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Amendment or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on **February 26, 2014**.

Faxed to 571-273-8300

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg. No.: 39,450

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PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 12/186,524	Filing Date 08/06/2008	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **02/27/2014**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/SHARAIN MORELAND/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

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SILICON VALLEY PATENT AGENCY
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER	
HUNTER, SEAN KRISTOPHER	
ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
07/14/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Office Action Summary	Application No. 12/186,524	Applicant(s) PU ET AL.	
	Examiner SEAN K. HUNTER	Art Unit 3626	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2014*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

STATUS OF CLAIMS

This action is in reply to the Amendment/Response filed on 27 February 2014. Applicant has amended claims 1, 2, 4, 11 and 14. Claims 1-20 are currently pending and have been examined.

RESPONSE TO AMENDMENTS

The Applicant's amendments to claims 2 and 4 have been noted by the Examiner. The Applicant's amendments to claims 2 and 4 are sufficient to overcome the claim objections as set forth in the previous office action. As such, said claim objections are herein withdrawn by the Examiner. The Examiner notes that the Applicant has chosen to ignore the 35 U.S.C. §112 2nd paragraph rejection, as set forth in the previous office action. As such, said rejection is herein maintained by the Examiner for reasons set forth below.

CLAIM REJECTIONS - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter for which applicant regards as the invention. Claim 13 recites in part, "…the artistic map is not but corresponds to a geographical map,…" It is unclear what Applicant means by the above limitations. Examiner requests clarification.

CLAIM REJECTIONS - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-20 are herein rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are drawn to an abstract idea, that abstract idea being a basic concept of providing navigation. The claims do not amount to significantly more than the abstract idea itself such as not being an improvement to the functioning of a computer itself. Also, the computer related claims require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.

CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala et al. (US 2005/0149303), hereinafter referred to as Salmre and Agrawala, respectively.

Claim 1 (Currently Amended) –

As per Claim 1, Salmre discloses a method for navigating in a particular area, the method comprising:

- displaying on a display of a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, each of the objects represented by a plurality of points on a display of the computing device [*see at least, Abstract; Figure 2; p. 1, ¶0007; p. 2, ¶0035; p. 6, ¶0071, of Salmre*];
- receiving a selection on the one of the objects from the user as a selected object [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- capturing a pair of coordinates for one of the points on the selected object [*see at least, Abstract; p. 5, ¶0058, of Salmre*];
- detecting a current location of the computing device [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- determining a navigational direction from the current location to the one of the objects when the user decides to travel to the one of the objects being selected; and synchronizing the navigational direction with the map being displayed [*see at least, Abstract; p. 2, ¶0030-¶0031, of Salmre*].

Salmre does not *explicitly* disclose,

- transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the

physical point when said transforming is performed [*see at least, Abstract; p. 1, ¶0007; p. 5, ¶0058, of Salmre*];

Agrawala discloses

- transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed [see at least, p. 3, ¶0019-0020; p. 13, ¶0152; p. 22, ¶0268, of Agrawala]

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 2 (Currently Amended) –

As per Claim 2, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein

- the computing device is a portable device [*see at least, p. 1, ¶0001 (mobile device), of Salmre*].

Claim 3 (Previously Amended) –

As per Claim 3, Salmre in view of Agrawala discloses the method as recited in Claim 2, wherein

- the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display [*see at least, p. 7 ¶0099; p. 13, ¶0149; p. 25, ¶0293 & ¶0299, of Agrawala*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 4 (Currently Amended) –

As per Claim 4 Salmre in view of Agrawala discloses the method as recited in Claim 3, wherein

- the determining of the navigational direction from the current location to the physical point is carried out by the computing device in accordance with the geographical map [*see at least, p. 2, ¶0030, of Salmre*].

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Suomela (US 6,697,734), hereinafter referred to as Salmre, Agrawala and Suomela, respectively.

Claim 5 (Original) –

As per Claim 5, Salmre in view of Agrawala discloses the method as recited in Claim 4, however Salmre does not explicitly disclose further comprising

- determining a set of instructions of how to move from the current location to the physical point as a destination.

Suomela discloses

- determining a set of instructions of how to move from the current location to the physical point as a destination [*see at least, col. 1, lines 21-26, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, determining a set of instructions of how to move from the current location to the physical point as a destination, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 6 (Previously Amended) –

As per Claim 6, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

- transforming the navigational direction with respect to the geographical map to the map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*]; and
- transforming the instructions with respect to the geographical map to the map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer

generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 7 (Previously Amended) –

As per Claim 7, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 6, wherein the navigational direction shows how to

- move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points [*see at least, Figure 4; Figure 5; Figure 6; col. 3 lines 37-47; col. 8, lines 26-27, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 8 (Previously Amended) –

As per Claim 8, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 7, further comprising

- connecting the pixel coordinates of the points to show the route on the map [*see at least, Figure 3; Figure 4; Figure 5; and Figure 6, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, connecting the pixel coordinates of the points to show the route in the map, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer

generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 9 (Previously Amended) –

As per Claim 9, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein the synchronizing of the navigational direction with the map being displayed is

- carried out according to a transformation derived from a deformation of the geographical map to the map being displayed [*see at least, col. 2, lines 14-33, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Rasmussen (US 2006/0206264), hereinafter referred to as Salmre, Agrawala and Rasmussen, respectively.

Claim 10 (Previously Amended) –

As per Claim 10, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein there is a color map to define a color of each of the objects in the map, Salmre does not *explicitly* disclose and the method further comprising:

- adjusting the color for the each of objects in the map, and generating a color-definition map.

Rasmussen discloses

- adjusting the color for the each of objects in the map, and generating a color-definition map [*see at least, p. 3, ¶0023 and ¶0027, of Rasmussen*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, adjusting the color for the each of objects in the map, and generating a color-definition map, as disclosed by Rasmussen.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claims 11 through 20 (Currently Amended | Previously Amended | Original) –
As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

RESPONSE TO ARGUMENTS

The Applicant's arguments filed 27 February 2014 have been fully considered but they are not persuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, the Examiner recognizes obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions in *In re DeLisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (citing *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al*, 192 USPQ 278 (CCPA) that:

> (i) obviousness does not require absolute predictability;
> (ii) non-preferred embodiments of prior art must also be considered; and
> **(iii) the question is not express teaching of references, but *what they would suggest*.**

Moreover, the Examiner notes that this second non-final office action has been made primarily

for the purposes of clarifying claim rejections under 35 U.S.C. §101 for the Applicant.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN K. HUNTER whose telephone number is 571.270.7791. The examiner can normally be reached on Monday through Thursday 9a through 5p. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT MORGAN can be reached on 571-272-6773. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEAN K HUNTER/ Primary Examiner, Art Unit 3626	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	**Art Unit**
	SEAN K HUNTER	3626

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/29/2011	12/29/2011	11/07/2013	06/28/2014					
	1	✓	✓	✓	✓					
	2	✓	✓	✓	✓					
	3	✓	✓	✓	✓					
	4	✓	✓	✓	✓					
	5	✓	✓	✓	✓					
	6	✓	✓	✓	✓					
	7	✓	✓	✓	✓					
	8	✓	✓	✓	✓					
	9	✓	✓	✓	✓					
	10	✓	✓	✓	✓					
	11	✓	✓	✓	✓					
	12	✓	✓	✓	✓					
	13	✓	✓	✓	✓					
	14	✓	✓	✓	✓					
	15	✓	✓	✓	✓					
	16	✓	✓	✓	✓					
	17	✓	✓	✓	✓					
	18	✓	✓	✓	✓					
	19	✓	✓	✓	✓					
	20	✓	✓	✓	✓					

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	Art Unit
	SEAN K HUNTER	3626

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
701	200	8/28/2011	SKH
701	200	12/29/2011	SKH
701	200	11/7/2013	SKH
701	200	6/25/2014	SKH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	8/28/2011	SKH
Updated EAST search	12/29/2011	SKH
Updated EAST search	11/7/2013	SKH
Updated EAST search	6/25/2014	SKH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/SEAN K HUNTER/ Primary Examiner.Art Unit 3626

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Courtesy Reminder for
Application Serial No: 12/186,524

Attorney Docket No: Kent-007
Customer Number: 26797
Date of Electronic Notification: 07/14/2014

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:
uspatents@sbcglobal.net

To view your correspondence online or update your email addresses, please visit us anytime at **https://sportal.uspto.gov/secure/myportal/privatepair.** If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

October 13, 2014

Mail Stop: No-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Response to Second Office Action (RCE)

Dear Sir:

In response to the Office Action dated 07/14/2014, the Applicant respectfully requests the Examiner to enter the following amendments before reconsidering the pending claims:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Amendment;

REMARKS/ARGUMENTS begin on page 7 of this Amendment.

AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 11 and 13 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

displaying on a display of a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, wherein the map cannot be not used directly on the computing device for navigation, and each of the objects is represented by a plurality of points on ~~a~~ the display of the computing device;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

capturing by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining according to the geographical map a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

2. (*Previously amended*) The method as recited in claim 1, wherein the computing device is a portable device.

3. (*Previously amended*) The method as recited in claim 2, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display.

4. (*Previously amended*) The method as recited in claim 2, wherein the determining of the navigational direction from the current location to the physical point is carried out by the computing device in accordance with the geographical map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the navigational direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

7. (*Previously amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

9. (*Previously amended*) The method as recited in claim 5, wherein the synchronizing of the navigational direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

10.(*Previously amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the map, and the method further comprising: adjusting the color for the each of objects in the map, and generating a color definition map.

11.(*Currently amended*) A portable device for navigating a designed place, the portable device comprising:

a display screen configured to display an artistic map including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points, wherein the artistic map cannot be used directly on the computing device for navigation;

a memory for storing code;

a processor executing the code to perform operations of:

capturing a pair of coordinates of one of the points representing an object being selected in the artistic map being displayed on the display screen;

transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, wherein the points representing the object have different pairs of coordinates, but all of the different pairs of coordinates correspond substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

determining according to the geographical map a direction from the current location to the physical point; and

synchronizing the direction with the map being displayed.

12.(*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13.(*Currently amended*) The portable device as recited in claim 12, wherein the artistic map is ~~not~~ non-linearly scaled but corresponds to a geographical map, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14.(*Previously amended*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out by portable device in accordance with the geographical map.

15.(*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed comprises:

transforming the direction with respect to the geographical map to the map being displayed; and

transforming the instructions with respect to the geographical map to the map being displayed.

17.(*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the

points are used to transform geographic coordinates of the points to image coordinates of the points.

18.(*Original*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the map.

19.(*Original*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20.(*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

REMARKS

Claims 1-20 were examined. In this Office Action, Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre") in view of Agrawala et al. (US 2005/0149303, hereinafter "Agrawala"), Claims 5-9 are rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

The Applicant wishes to thank the Examiner for sending out this second non-final Office Action. In the foregoing amendments, the Applicant has amended Claims 1, 11 and 13 to further distinguish from the cited references. No new matters have been introduced. As a result of the amendments, claims 1-20 are still pending. Reconsideration of pending claims 1-20 is respectfully requested.

CLAIM REJECTIONS - 35 USC § 112

On Page 2 of this Office Action, Claim 13 is rejected as failing to define the invention in the manner required by 35 USC 112, second paragraph. Claim 13 has been amended in the foregoing amendments. It is believed that the claim rejections under 35 USC 112 shall have been overcome.

CLAIM REJECTIONS - 35 USC § 101

On Page 3 of this Office Action, Claims 1-20 are rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. The claims are drawn to an abstract idea, that abstract idea being a basic

concept of providing navigation. The claims do not amount to significantly more than the abstract idea itself such as not being an improvement to the functioning of a computer itself.

The Applicant respectfully disagrees with the Examiner in view of the structure of Claims 1-20. 35 USC 101 is broad and general in its language describing patentable subject matter: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." Patentable statutory subject matter is seen to be either a useful "process," "machine," "article of manufacture" or "composition of matter." Thus, this statute limits patent protection to inventions that possess a certain level of real world value as opposed to those that just represent nothing more than an idea or concept.

The new USPTO guidelines for the examination of inventions related to computer software (See Manual of Patent Examining Procedure §2106 - Patentable Subject Matter, Computer-Related Inventions) indicate that there are three general ways whereby software can be used in an invention to satisfy the statutory subject matter requirement. First, software can be used to create a "machine" when a computer is included in the claims as having its operation controlled by the software, as illustrated in *In re Alappat.* Second, software can be claimed as a "process" when it is described as a series of operational steps to be performed on or with the aid of a computer. And finally, a computer-readable memory (e.g., floppy disks, CD-ROM, system memory) containing the software that can be used to direct a computer to function in a particular manner can be considered as an "article of manufacture."

The Applicant submits that claims 1-10 are directed to a method implemented in a computing device for navigating in a particular area, which means that "*software can be used to create a machine when a computer is included in the claims as having its operation controlled by the software*". For example, as recited Claim 1, "receiving in the computing device a selection ...

from the user ..." and "capturing by the computing device a pair of coordinates for one of the points on the selected object" clearly indicate that the operation of a computing device is controlled to operate in a way implemented per one embodiment of the present invention. Further "transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display" recited in Claim 1 is evident to those skilled in the art that it is NOT a generic computer function, neither a well-understood routine nor a conventional activity. Accordingly, Claims 1-10 are believed to satisfy the statutory subject matter requirement. The Applicant respectfully requests the Examiner to withdraw the rejection of Claims 1-10 under 35 USC 101.

Claims 11-20 are directed to a portable device for navigating a designed place. As stated above, the operations as recited in Claim 11 that must be performed by a portable device are NOT generic computer functions. These operations are neither well-understood routine nor conventional activities previously known to the industry. Accordingly, Claims 11-20 are believed to satisfy the statutory subject matter requirement. The Applicant respectfully requests the Examiner to withdraw the rejection of Claims 11-20 under 35 USC 101.

CLAIM REJECTIONS - 35 USC § 103

As amended, Claim 1 now recites:

displaying on a display of a computing device with navigation capability a map that is non-linearly scaled, the map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto, wherein the map cannot be not used directly on the computing device for navigation, and each of the objects is represented by a plurality of points on the display of the computing device;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

capturing by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device;

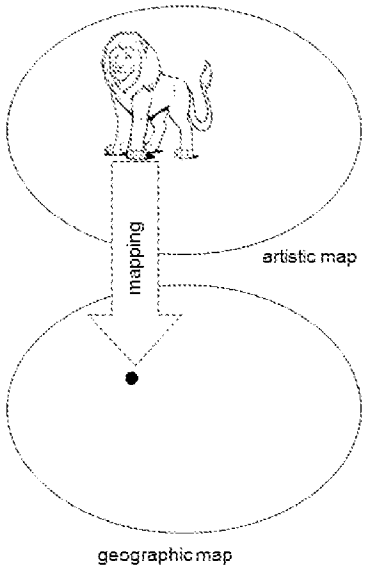
determining according to the geographical map a navigational direction from the current location to the one of the objects being selected when the user decides to travel to the one of the objects; and

synchronizing the navigational direction with the map being displayed.

(*Emphasis added*)

One of the objectives in the present invention is to help a user navigate in a specific zone (e.g., a zoo) by providing an artistic map. An artistic map is different from the traditional geographical map that is often used for direction. In other words, the artistic map cannot be not used directly on the computing device for navigation. For example, a zoo map with all animals highlighted is an example of the artistic map. Such a zoo map would not be supported on a GPS device without backend operations disclosed in one embodiment of the present invention.

To illustrate where the animals are located, the (artistic) map includes various animals or facilities being exaggeratedly shown on a display screen for a user to easily see and select one to navigate thereto. In the context of the present invention, the geographical map is *NOT* shown on the computing device but used for navigational direction. As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. FIG. 3 is duplicated below to show what the many-to-one transformation means.



The graphic lion is represented by a plurality of points in an artistic map. Regardless of how big the graphic lion may appear in the artistic map, all the points of the graphic lion correspond to one physical point in the geographic map. One of the purposes is to allow a user to select any part of the lion, if the user desires to see the lion cage shown in the artistic map. Thus the selected point(s) always corresponds to the same point, thus facilitating a navigational direction from the current location to the lion cage.

In contrast, Salmre teaches about a linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. In other words, there is a one-to-one corresponding relationship between the linear and non-linear maps.

In view of the amendments to Claim 1 of the instant application, it can be noted that Salmre is silent about whether the non-linear map can be or cannot be used directly on the computing device for navigation. Claim 1 of the instant application recites the "artistic" map cannot be not used directly on the computing device for navigation, the geographic map is referenced for the navigational

direction that is then synchronized into the "artistic" map. Because Salmre does not care whether the non-linear map can be or cannot be used directly on the computing device for navigation, the Applicant submits Salmre neither teaches nor suggests "determining according to the geographical map a navigational direction ..." and "synchronizing the navigational direction with the map being displayed".

On page 4 of the Office Action, the Examiner admits that Salmre does not explicitly disclose "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed*" and then cites Agrawala to show the teaching in combination.

The Applicant respectfully contests the combination of Salmre and Agrawala as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner. In order to establish a *prima facie* case of obviousness under 35 USC 103, *Graham v. John Deer Co. of Kansas City*, 383 US 1 (1966) requires determining, respectively, the scope and content of the prior art, the difference between the prior art and the claims at issue, and the level of ordinary skilled in the art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning, to support the legal conclusion of obviousness. *KSR v. Teleflex*, No. 04-1350 (US Apr. 30, 2007) (citing In re Kahn, 441 F. 3d 977, 988 (Canada Fed. 2006)). The suggestion to make the claim combination must be found in the prior art, not in the Applicant's disclosure. In re Vaek, 20 USPQ2d 1438 (Fed. Cir. 1991). Moreover, in accordance with MPEP 2142.02, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L.Gore & Associates Inc. v. Garlock, Inc.* 220 USPQ 303 (Fed. Cir. 1993). A third essential requirement for establishing a *prima*

facie case, set forth in MPEP 2143.01 is that the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

Salmre teaches about the conversation between a linear map and a non-linear map in a symmetric fashion while Agrawala teaches about making computer-generated maps including a different scale factor for each road in a route, where Agrawala's non-linear map is explicitly for navigation. Should the non-linear map in Salmre be modified for navigation, as suggested by Agrawala, there would be no need for "determining according to the geographical map a navigational direction ..." and "synchronizing the navigational direction with the map being displayed" as explicitly recited in Claim 1 of the instant application. Accordingly, the Applicant submits the combination of Salmre and Agrawala proposed by the Examiner is not proper.

Further, Agrawala explicitly states such a non-linear map is created to best fit the display aspect ratio, *see* paragraph [0021]. In other words, such a non-linear map can be used directly for navigation purpose, which contradicts Claim 1 of the instant application. When such a non-linear map is used directly for navigation purpose, there would be no need for "determining according to the geographical map a navigational direction ..." and "synchronizing the navigational direction with the map being displayed" as explicitly recited in Claim 1 of the instant application. Accordingly, the Applicant submits Claim 1 as amended shall be allowable over Salmre and Agrawala, viewed alone on in combination. Reconsideration of Claims 1-10 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicant believes that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Amendment or an Examiner's

Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to " Mail Stop: No-Fee Amendment , Commissioner for Patents , P.O. Box 1450, Alexandria, VA 22313-1450", on **October 14, 2014** .

Filed via EFS

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg. No.: 39,450

Electronic Acknowledgement Receipt

EFS ID:	20415952
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	14-OCT-2014
Filing Date:	06-AUG-2008
Time Stamp:	20:45:46
Application Type:	Utility under 35 USC 111(a)

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	ResponseTo2ndOARCE.pdf	246716 1a599c0dff625bf23e53b149d8532d50240e1021	no	14

Warnings:	
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 12/186,524	Filing Date 08/06/2008	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **10/14/2014**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/TRINA STEPTOE/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

December 3, 2014

Mail Stop: No-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Supplemental Response to Second Office Action (RCE)

Dear Sir:

This is a supplemental response to the Response filed on Oct. 14, 2014. This supplemental response is necessary after an interview with the Examiner on November 12, 2014. The Applicant respectfully requests the Examiner to enter the following additional amendments before reconsidering the pending claims:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Amendment;

REMARKS/ARGUMENTS begin on page 7 of this Amendment.

AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 3-4, 6, 9-11, 13-14, 16, and 18-19 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

~~displaying on a display of a computing device with navigation capability~~ downloading from a network into a computing device an artistic map that is non-linearly scaled, the artistic map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the artistic map cannot be not used directly on the computing device for navigation without a corresponding geographical map thereof, ~~and~~ each of the objects is represented by a plurality of points on ~~the~~ a display of the computing device, and the geographical map is not being displayed on the display;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

capturing by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in ~~a~~ the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device in the geographical map;

determining according to the geographical map a navigational direction from the current location to the one of the objects being selected ~~when the user decides to travel to the one of the objects~~; and

~~synchronizing~~ showing the navigational direction ~~with~~ on the artistic map being displayed.

2. (*Previously amended*) The method as recited in claim 1, wherein the computing device is a portable device.

3. (*Currently amended*) The method as recited in claim 2, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of ~~a~~ the display to an edge of the display.

4. (*Currently amended*) The method as recited in claim ~~2~~1, wherein said showing the navigational direction on the artistic map being displayed comprises transforming in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map.~~the determining of the navigational direction from the current location to the physical point is carried out by the computing device in accordance with the geographical map.~~

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Currently amended*) The method as recited in claim 5, wherein said showing the navigational direction on the artistic map being displayed comprises:~~the synchronizing of the direction with the map being displayed comprises:~~

~~transforming the navigational direction with respect to the geographical map to the map being displayed; and~~

transforming the instructions with respect to the geographical map to the artistic map being displayed.

7. (*Previously amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the

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destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

9. (*Currently amended*) The method as recited in claim 5, wherein ~~the synchronizing of the navigational direction with the map being displayed~~ said showing the navigational direction on the artistic map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the artistic map being displayed.

10.(*Currently amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the artistic map, and the method further comprising: adjusting the color for the each of objects in the artistic map, and generating a color definition map.

11.(*Currently amended*) A portable device for navigating a ~~designed~~ designated place, the portable device comprising:

a display screen configured to display an artistic map downloaded from a network, the artistic map including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points, wherein the artistic map cannot be used directly on the computing device for navigation without a corresponding geographical map;

a memory for storing code;

a processor executing the code to perform operations of:

capturing a pair of coordinates of one of the points representing an object being selected in the artistic map being displayed on the display screen;

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transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude in ~~a~~ the geographical map not being shown on the display, wherein the points representing the object have different pairs of coordinates, but all of the different pairs of coordinates correspond substantially to the physical point ~~when said transforming is performed~~;

detecting a current location of the computing device in the geographic map;

determining according to the geographical map a direction from the current location to the physical point; and

~~synchronizing~~ showing the direction ~~with~~ in the artistic map being displayed.

12.(*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13.(*Currently amended*) The portable device as recited in claim 12, wherein the artistic map is non-linearly scaled ~~but corresponds to a geographical map~~, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14.(*Currently amended*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out by the portable device in accordance with the geographical map.

15.(*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

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16.(*Currently amended*) The portable device as recited in claim 15, wherein ~~the synchronizing of the direction with the map being displayed~~ said showing the direction in the artistic map being displayed comprises:

transforming the direction with respect to the geographical map to the artistic map being displayed; and

transforming the instructions with respect to the geographical map to the artistic map being displayed.

17.(*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

18.(*Currently amended*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the artistic map.

19.(*Currently amended*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the artistic map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20.(*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

REMARKS

Claims 1-20 were examined. In this Office Action, Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre") in view of Agrawala et al. (US 2005/0149303, hereinafter "Agrawala"), Claims 5-9 are rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

In the foregoing amendments, Claims 1, 3-4, 6, 9-11, 13-14, 16, and 18-19 have been amended after an interview with the Examiner on November 12, 2014. No new matters have been introduced. As a result of the amendments, Claims 1-20 are still pending. Reconsideration of pending claims 1-20 is respectfully requested.

Interview Summary

The Applicant appreciates the Examiner for granting a telephonic interview that took place on November 12, 2014. The participants included Mr. Examiner Kristopher Sean Hunter and the undersigned representative Joe Zheng. The Applicant had the opportunity to listen to how the Examiner interpreted the pending claims and the cited references. Claim 1 as amended in the Response filed on October 14 was discussed under 35 USC 103 and 35 USC 101. The Examiner made some suggestions. No agreement was reached. The Examiner will conduct another search after a supplemental response is filed.

CLAIM REJECTIONS - 35 *USC* § *101*

Claims 1-20 are currently rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. The claims are

drawn to an abstract idea, that abstract idea being a basic concept of providing navigation. The claims do not amount to significantly more than the abstract idea itself such as not being an improvement to the functioning of a computer itself.

The Applicant respectfully disagrees with the Examiner in view of the amendments to Claims 1-20 and submits the invention as claimed does not involve an abstract idea and is more than an abstract idea being a basic concept of providing navigation. To determine if an application is patent eligible, the MEMORANDUM, entitled " Preliminary Examination Instructions in view of the Supreme Court Decision in Alice Corporation Pty. Ltd. v. CLS Bank International, et al." and dated June 25, 2014, requires a Two-part Analysis for Abstract Ideas.

Part I: Determine whether the claim is directed to an abstract idea

The Applicant submits that Claims 1-10 are directed to a method implemented in a computing device for navigating in a particular area, which means that "*software-implementation is used to create a machine when a computer is included in the claims as having its operation controlled by the software-implementation*". Claim 1 recites:

downloading from a network into a computing device an artistic map...;
receiving in the computing device a selection on the one of the objects from the user as a selected object;
capturing by the computing device a pair of coordinates for one of the points on the selected object;
transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display...;
detecting a current location of the computing device in the geographical map;
determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and
showing the navigational direction on the artistic map being displayed.

Given the substance and data manipulation operations in Claim 1, it is believed that the Examiner would appreciate that Claim 1 is not involved in any of the following:

- Fundamental economic practices;
- “Certain methods” of organizing human activities;
- “[A]n idea of itself ”; and
- Mathematical relationships/formulas.

Claim 1 is evident to those skilled in the art that it is NOT a generic computer function, neither a well-understood routine nor a conventional activity. Accordingly, Claims 1-10 are believed to satisfy the statutory subject matter requirement. The Applicant respectfully requests the Examiner to withdraw the rejection of Claims 1-10 under 35 USC 101.

Part 2: If an abstract idea is present in the claim, determine whether any element, or combination of elements, in the claim is sufficient to ensure that the claim amounts to significantly more than the abstract idea itself

Should the Examiner disagree with the Applicant regarding whether Claim 1 recites an abstract idea or not, the part 2 of the MEMORANDUM provides a venue to further determine if Claim 1 is patent eligible or not. An invention is not ineligible simply because it involves an abstract idea.

From a real-life perspective, the invention as claimed in Claim 1 indicates that an artistic map must be downloaded from a network (e.g., the Internet) into a (portable) computing device, where the artistic map cannot be used directly for navigation without a corresponding geographical map thereof. For the artistic map to be used for navigation to a selected location, the geographical map must be used to determine a route in latitude and longitude. Thus the computing device has to be configured to map the selected location in the artistic map to the geographical map. To reflect the route on the artistic map, the computing device has to be configured to map the route in the geographic map to the artistic map.

Those skilled in the art understand that the above functions would not be simply performed in a generic computer. First of all, the computing device recited

in Claim 1 must be equipped with GPS capability. Instead of working as a regular GPS device that always shows a geographic map, the computing device recited in Claim 1 must be configured not to show the geographic map, instead, to show an artistic map downloaded from a network. Further the computing device must be configured to perform a series of data manipulation operations to achieve the navigation on the artistic map. Considering claim 1 as a whole, the Applicant submits Claim 1 does amount to significantly more than the abstract idea itself. There are sufficient elements or combinations of elements in Claim 1 to show a patent-eligible application of the abstract idea from Part 1 should the Examiner consider Claim 1 involves an abstract idea.

35 USC 101 is broad and general in its language describing patentable subject matter: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." Patentable statutory subject matter is seen to be either a useful "process," "machine," "article of manufacture" or "composition of matter." Thus, this statute limits patent protection to inventions that possess a certain level of real world value as opposed to those that just represent nothing more than an idea or concept. Accordingly, Claims 1-10 are believed to satisfy the statutory subject matter requirement. The Applicant respectfully requests the Examiner to withdraw the rejection of Claims 1-10 under 35 USC 101.

Claims 11-20 are directed to a portable device for navigating a designated place. Without repeating the same, the Applicant wishes to rely upon the above reasoning supporting Claims 1-10 to support Claims 11-20, and submits Claims 11-20 present a certain level of real world value and would not be simply performed in a generic computer. Accordingly, Claims 11-20 are believed to satisfy the statutory subject matter requirement. The Applicant respectfully requests the Examiner to withdraw the rejection of Claims 11-20 under 35 USC 101.

CLAIM REJECTIONS - 35 USC § 103

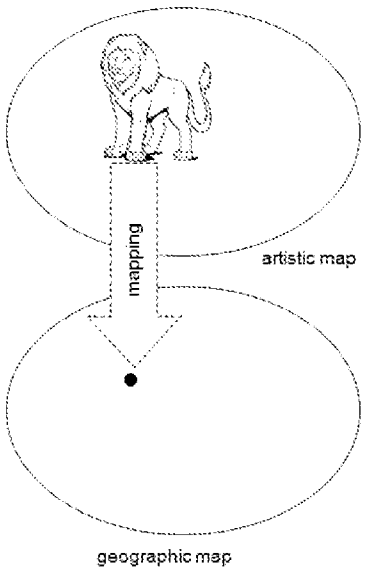
As amended, Claim 1 now recites:

downloading from a network into a computing device an artistic map that is non-linearly scaled, the artistic map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the artistic map cannot be not used directly on the computing device for navigation without a corresponding geographical map thereof, each of the objects is represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display;
receiving in the computing device a selection on the one of the objects from the user as a selected object;
capturing by the computing device a pair of coordinates for one of the points on the selected object;
transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;
detecting a current location of the computing device in the geographical map;
determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and
showing the navigational direction on the artistic map being displayed.

(*Emphasis added*)

One of the objectives in the present invention is to help a user navigate in a specific zone (e.g., a zoo) by providing an artistic map. An artistic map is different from the traditional geographical map that is often used for direction. In other words, the artistic map cannot be not used directly on the computing device for navigation without a corresponding geographical map thereof. For example, a zoo map with all animals highlighted is an example of the artistic map. Such a zoo map would not be supported on a GPS device without backend operations of a geographical map thereof.

To illustrate where the animals are located, the (artistic) map includes various animals or facilities being exaggeratedly shown on a display screen for a user to easily see and select one to navigate thereto. In the context of the present invention, the geographical map is *NOT* shown on the computing device but used for navigational direction. As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. FIG. 3 is duplicated below to show what the many-to-one transformation means.



The graphic lion is represented by a plurality of points in an artistic map. Regardless of how big the graphic lion may appear in the artistic map, all the points of the graphic lion correspond to one physical point in the geographic map. One of the purposes is to allow a user to select any part of the lion, if the user desires to see the lion cage shown in the artistic map. Thus the selected point(s) always corresponds to the same point, thus facilitating a navigational direction from the current location to the lion cage.

In contrast, Salmre teaches about a linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or

conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. In other words, there is a one-to-one corresponding relationship between the linear and non-linear maps.

In view of the amendments to Claim 1 of the instant application, it can be noted that Salmre is silent about whether the non-linear map can be or cannot be used directly on the computing device for navigation. Claim 1 of the instant application recites the "artistic" map cannot be not used directly on the computing device for navigation, the geographic map is referenced for the navigational direction that is then synchronized into the "artistic" map. Because Salmre does not care whether the non-linear map can be or cannot be used directly on the computing device for navigation, the Applicant submits Salmre neither teaches nor suggests "determining according to the geographical map a navigational direction ..." and "synchronizing the navigational direction with the map being displayed".

On page 4 of the Office Action, the Examiner admits that Salmre does not explicitly disclose "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed*" and then cites Agrawala to show the teaching in combination.

The Applicant respectfully contests the combination of Salmre and Agrawala as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner. In order to establish a *prima facie* case of obviousness under 35 USC 103, *Graham v. John Deer Co. of Kansas City*, 383 US 1 (1966) requires determining, respectively, the scope and content of the prior art, the difference between the prior art and the claims at issue, and the level of ordinary skilled in the art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning, to support

the legal conclusion of obviousness. *KSR v. Teleflex*, No. 04-1350 (US Apr. 30, 2007) (citing In re Kahn, 441 F. 3d 977, 988 (Canada Fed. 2006)). The suggestion to make the claim combination must be found in the prior art, not in the Applicant's disclosure. In re Vaek, 20 USPQ2d 1438 (Fed. Cir. 1991). Moreover, in accordance with MPEP 2142.02, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L.Gore & Associates Inc. v. Garlock, Inc.* 220 USPQ 303 (Fed. Cir. 1993). A third essential requirement for establishing a *prima facie* case, set forth in MPEP 2143.01 is that the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

Salmre teaches about the conversation between a linear map and a non-linear map in a symmetric fashion while Agrawala teaches about making computer-generated maps including a different scale factor for each road in a route, where Agrawala's non-linear map is explicitly for navigation. Should the non-linear map in Salmre be modified for navigation, as suggested by Agrawala, there would be no need for "determining according to the geographical map a navigational direction ..." and "synchronizing the navigational direction with the map being displayed" as explicitly recited in Claim 1 of the instant application. Accordingly, the Applicant submits the combination of Salmre and Agrawala proposed by the Examiner is not proper.

Further, Agrawala explicitly states such a non-linear map is created to best fit the display aspect ratio, *see* paragraph [0021]. In other words, such a non-linear map can be used directly for navigation purpose, which contradicts Claim 1 of the instant application. When such a non-linear map is used directly for navigation purpose, there would be no need for "determining according to the geographical map a navigational direction ..." and "synchronizing the navigational direction with the map being displayed" as explicitly recited in Claim 1 of the instant application. Accordingly, the Applicant submits Claim 1 as amended shall be allowable over Salmre and Agrawala, viewed alone on in combination. Reconsideration of Claims 1-10 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicants believe that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the EFS of the United States Patent and Trademark Office and addressed to "Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450", on December 3, 2014.

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg.: No. 39,450

Electronic Acknowledgement Receipt

EFS ID:	20858565
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	03-DEC-2014
Filing Date:	06-AUG-2008
Time Stamp:	17:56:16
Application Type:	Utility under 35 USC 111(a)

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Supplemental Response or Supplemental Amendment	SupplementalResponseTo2ndOARCE.pdf	253655 835ae2c2d76e68c716058ef3efb49bf33285d8e2	no	15

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New International Application Filed with the USPTO as a Receiving Office

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 12/186,524	Filing Date 08/06/2008	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	12/03/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/YOLANDA CHADWICK/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

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LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER
HUNTER, SEAN KRISTOPHER

ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
03/26/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Office Action Summary	Application No. 12/186,524	Applicant(s) PU ET AL.	
	Examiner SEAN K. HUNTER	Art Unit 3626	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3 December 2014*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

STATUS OF CLAIMS

This action is in reply to the Amendment/Response filed on 3 December 2014. Claims 1-20 are currently pending and have been examined.

RESPONSE TO AMENDMENTS

The Applicant's amendments to claims 1, 3-4, 6, 9-11, 13, 14, 16, 18 and 19 have been noted by the Examiner. The Applicant's amendments are sufficient to overcome the 35 U.S.C. ¶112 2nd paragraph rejection for Claim 13 as set forth in the previous office action. As such, said rejection is herein withdrawn by the Examiner. The Applicant's amendments are not sufficient to overcome the 35 U.S.C. §101 rejections as set forth in the previous office action. As such, said rejections are herein maintained and made **FINAL** for reasons set forth below by the Examiner.

CLAIM REJECTIONS - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter for which applicant regards as the invention. Claim 1 recites in part, "…wherein the map cannot be not used…" It is unclear what Applicant means by the above limitations. Examiner requests clarification.

CLAIM REJECTIONS - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-20 are herein rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are drawn to an abstract idea, that abstract idea being a basic concept of providing navigation. The claims do not amount to significantly more than the abstract idea itself such as not being an improvement to the functioning of a computer itself. Also, the computer related claims require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.

CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala et al. (US 2005/0149303), hereinafter referred to as Salmre and Agrawala, respectively.

Claim 1 (Currently Amended) –

As per Claim 1, Salmre discloses a method for navigating in a particular area, the method comprising:

- downloading from a network into a computing device an artistic map that is non-linearly scaled, the artistic map including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the artistic map cannot be not used directly on the computing device for navigation without a corresponding geographical map thereof, each of the objects represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display [*see at least, Abstract; Figure 2; p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071-¶0074, of Salmre*];
- receiving in the computing device a selection on the one of the objects from the user as a selected object [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- capturing by the computing device a pair of coordinates for one of the points on the selected object [*see at least, Abstract; p. 5, ¶0058, of Salmre*];
- detecting a current location of the computing device in the geographical map [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and showing the navigational direction on the artistic map being displayed [*see at least, Abstract; p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0030-¶0031; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071-¶0074, of Salmre*].

Salmre *may not explicitly* disclose

- transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed [*see at least, Abstract; p. 1, ¶0007; p. 5, ¶0058, of Salmre*];

Agrawala discloses

- transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed [see at least, p. 3, ¶0019-0020; p. 13, ¶0152; p. 22, ¶0268, of Agrawala]

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 2 (Previously Amended) –

As per Claim 2, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein

- the computing device is a portable device [*see at least, p. 1, ¶0001 (mobile device), of Salmre*].

Claim 3 (Currently Amended) –

As per Claim 3, Salmre in view of Agrawala discloses the method as recited in Claim 2, wherein

- the map is presented in such a way that a display resolution of the map goes lower from a center of the display to an edge of the display [*see at least, p. 7 ¶0099; p. 13, ¶0149; p. 25, ¶0293 & ¶0299, of Agrawala*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 4 (Currently Amended) –

As per Claim 4 Salmre in view of Agrawala discloses the method as recited in Claim 3, wherein

- said showing the navigational direction on the artistic may being displayed comprises transforming in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map. [*see at least, Abstract; p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0030-¶0031; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071-¶0074, of Salmre*]

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Suomela (US 6,697,734), hereinafter referred to as Salmre, Agrawala and Suomela, respectively.

Claim 5 (Original) –

As per Claim 5, Salmre in view of Agrawala discloses the method as recited in Claim 4, however Salmre does not explicitly disclose further comprising

- determining a set of instructions of how to move from the current location to the physical point as a destination.

Suomela discloses

- determining a set of instructions of how to move from the current location to the physical point as a destination [*see at least, col. 1, lines 21-26, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, determining a set of instructions of how to move from the current location to the physical point as a destination, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 6 (Currently Amended) –

As per Claim 6, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein said showing the navigational direction on the artistic map being displayed comprises:

- transforming the instructions with respect to the geographical map to the artistic map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming the instructions with respect to the geographical map to the artistic map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 7 (Previously Amended) –

As per Claim 7, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 6, wherein the navigational direction shows how to

- move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points [*see at least, Figure 4; Figure 5; Figure 6; col. 3 lines 37-47; col. 8, lines 26-27, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 8 (Previously Amended) –

As per Claim 8, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 7, further comprising

- connecting the pixel coordinates of the points to show the route on the map [*see at least, Figure 3; Figure 4; Figure 5; and Figure 6, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, connecting the pixel coordinates of the points to show the route in the map, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 9 (Currently Amended) –

As per Claim 9, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein said showing the navigational direction on the artistic map being displayed is

- carried out according to a transformation derived from a deformation of the geographical map to the map being displayed [*see at least, col. 2, lines 14-33, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Rasmussen (US 2006/0206264), hereinafter referred to as Salmre, Agrawala and Rasmussen, respectively.

Claim 10 (Currently Amended) –

As per Claim 10, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein there is a color map to define a color of each of the objects in the artistic map, Salmre *may not explicitly* disclose and the method further comprising:

- adjusting the color for the each of objects in the artistic map, and generating a color-definition map.

Rasmussen discloses

- adjusting the color for the each of objects in the artistic map, and generating a color-definition map [*see at least, p. 3, ¶0023 and ¶0027, of Rasmussen*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, adjusting the color for the each of objects in the map, and generating a color-definition map, as disclosed by Rasmussen.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claims 11 through 20 (Currently Amended | Previously Amended | Original) –

As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

RESPONSE TO ARGUMENTS

The Applicant's arguments filed 3 December 2014 have been fully considered but they are not persuasive. The Examiner respectfully notes that the features upon which the Applicant relies in their arguments were not present during examination at the time the previous office action was issued, as such said features were not addressed by the Examiner at that time. Moreover, the Applicant's arguments with respect to the claims as currently amended have been considered but are moot in light of the new grounds of rejection being used in the current rejection.

In response to the Applicant's argument, (1) that with respect to claims as currently amended, said claims are allegedly statutory under 35 U.S.C. §101, the Examiner respectfully disagrees. The analysis under 35 U.S.C. §101 currently involves a two prong test, said prongs being: (1) are the claims directed to an abstract idea and (2) if an abstract idea is present in the claim, is there any element, or combination of elements, present in the claim that are sufficient to ensure that the claim amounts to significantly more than the abstract idea itself. The inquiry in the 2nd prong could also be articulated as, is there more than a mere instruction to apply the abstract idea. With that, the Examiner respectfully submits the following analysis. The Examiner respectfully notes that the claims as currently submitted by the Applicant are directed to the abstract idea of comparing new and stored information and using rules to identify options. While the claims may not explicitly recite, "comparing new and stored information and using rules to identify options", the concept of "comparing new and stored information and using rules to identify options" is described, for example, by the displaying, receiving, capturing, transforming, detecting, determining and synchronizing steps as recited in Claim 1. With that, the Examiner respectfully asserts that under the first prong of the analysis under 35 U.S.C. §101, the Applicant's claims are in fact directed to an abstract idea. As such, the Examiner proceeds to the second prong of the analysis. In looking at the second prong of the analysis, the Examiner respectfully notes that limitations that may be enough to qualify as significantly more when recited in a claim with an abstract idea include, as non-limiting and/or non-exclusive examples: improvements to another technology or technical field, improvements to the functioning of the computer itself, meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. The Examiner further respectfully notes that the following non-limiting and/or or

non-exclusive examples are **NOT** enough to qualify as significantly more when recited in a claim with an abstract idea, those examples are: adding the words "apply it" (or an equivalent) with an abstract idea, or more instructions to implement an abstract idea on a computer; requiring no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry. In looking at the Applicant's specification regarding the claimed invention, the Examiner notes the following. The Applicant's specification recites in part, "…map in a data file may be downloadable to a portable device or a personal computer that can be configured to perform as…" [p. 7, ¶0028 of Applicant's Specification] The Applicant's specification also recites in part, "[o]ther devices (e.g. a computing device, a handheld device) may also be configured to practice the present invention." [p. 10, ¶0037 of Applicant's Specification]. With that, the Examiner respectfully asserts that the computer(s), as recited, is a generic computer component that performs functions (i.e., downloading from a network into a computing device an artistic map…, receiving in the computing device a selection…, capturing by the computing device a pair of coordinates…, transforming in the computing device the pair of coordinates…, detecting a current location of the computing device…, determining…a navigational direction…, and showing the navigational direction…). These are all generic computer functions (i.e., downloading data, receiving data, etc.) that are well-understood, routine, and conventional activities previously known to the industry. The claim also recites an artistic map and a geographical map, which do NOT add meaningful limitations to the idea of comparing new and stored information and using rules to identify options beyond generally linking the method to a particular technological environment, that is, implementation via computers. As such, the claims do not amount to significantly more than the underlying abstract idea of comparing new and stored information and using rules to identify options. Accordingly, the claims as currently submitted are ineligible and NOT statutory under 35 U.S.C. §101. As such, the rejections made under 35 U.S.C. §101 are herein maintained and made **FINAL** for the reasons set forth above by the Examiner.

CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN K. HUNTER whose telephone number is 571.270.7791. The examiner can normally be reached on Monday through Thursday 9a through 5p. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT MORGAN can be reached on 571-272-6773. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/SEAN K HUNTER/ Primary Examiner, Art Unit 3626	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	**Art Unit**
	SEAN K HUNTER	3626

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/29/2011	12/29/2011	11/07/2013	06/28/2014	03/20/2015				
	1	✓	✓	✓	✓	✓				
	2	✓	✓	✓	✓	✓				
	3	✓	✓	✓	✓	✓				
	4	✓	✓	✓	✓	✓				
	5	✓	✓	✓	✓	✓				
	6	✓	✓	✓	✓	✓				
	7	✓	✓	✓	✓	✓				
	8	✓	✓	✓	✓	✓				
	9	✓	✓	✓	✓	✓				
	10	✓	✓	✓	✓	✓				
	11	✓	✓	✓	✓	✓				
	12	✓	✓	✓	✓	✓				
	13	✓	✓	✓	✓	✓				
	14	✓	✓	✓	✓	✓				
	15	✓	✓	✓	✓	✓				
	16	✓	✓	✓	✓	✓				
	17	✓	✓	✓	✓	✓				
	18	✓	✓	✓	✓	✓				
	19	✓	✓	✓	✓	✓				
	20	✓	✓	✓	✓	✓				

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	Art Unit
	SEAN K HUNTER	3626

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
701	200	8/28/2011	SKH
701	200	12/29/2011	SKH
701	200	11/7/2013	SKH
701	200	6/25/2014	SKH
701	200	3/18/2015	SKH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	8/28/2011	SKH
Updated EAST search	12/29/2011	SKH
Updated EAST search	11/7/2013	SKH
Updated EAST search	6/25/2014	SKH
Updated EAST search	3/18/2015	SKH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/SEAN K HUNTER/ Primary Examiner.Art Unit 3626

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CUPERTINO, CA 95015

Courtesy Reminder for
Application Serial No: 12/186,524

Attorney Docket No: Kent-007
Customer Number: 26797
Date of Electronic Notification: 03/26/2015

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Request for Continued Examination (RCE) Transmittal

Address to:
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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	12/186,524
Filing Date	08/06/2008
First Named Inventor	Kent Pu
Art Unit	3663
Examiner Name	Kristopher Sean Hunter
Attorney Docket Number	Kent-007

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

   a. ☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

      i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

      ii. ☐ Other _____

   b. ☑ Enclosed

      I. ☑ Amendment/Reply

      ii. ☐ Affidavit(s)/ Declaration(s)

      iii. ☐ Information Disclosure Statement (IDS)

      iv. ☐ Other _____

2. Miscellaneous

   a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

   b. ☐ Other _____

3. Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

   a. ☐ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. _____.

      i. ☑ RCE fee required under 37 CFR 1.17(e)

      ii. ☐ Extension of time fee (37 CFR 1.136 and 1.17)

      iii. ☐ Other _____

   b. ☐ Check in the amount of $ _____ enclosed

   c. ☐ Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Signature	/ joe zheng /	Date	06/29/2015
Name (Print/Type)	Joe Zheng	Registration No.	39,450

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature	/ joe zheng /		
Name (Print/Type)	Joe Zheng	Date	06/29/2015

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

June 29, 2015

Mail Stop: AF/RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Response to Final Office Action (2nd RCE)

Dear Sir:

This is to respond to the Final Office Action dated 03/26/2015. The Applicant respectfully requests the Examiner to enter the following additional amendments before reconsidering the pending claims:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Amendment;

REMARKS/ARGUMENTS begin on page 7 of this Amendment.

AMENDMENTS TO THE CLAIMS

Please amend Claims 1-3, and 11 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

downloading from a network into a computing device an artistic map ~~that is non-linearly scaled~~, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map, the artistic map ~~cannot be~~is not used directly ~~on~~ by the computing device for navigation, ~~without a corresponding geographical map thereof,~~ each of the objects is represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

~~capturing~~ determining by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device in the geographical map;

determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and

showing the navigational direction on the artistic map being displayed.

2. (*Currently amended*) The method as recited in claim 1, wherein the artistic map is a theme park map, each of the objects represents an attraction ~~computing device is a portable device~~.

3. (*Currently amended*) The method as recited in claim ~~2~~1, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of the display to an edge of the display.

4. (*Previously amended*) The method as recited in claim 1, wherein said showing the navigational direction on the artistic map being displayed comprises transforming in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Previously amended*) The method as recited in claim 5, wherein said showing the navigational direction on the artistic map being displayed comprises:

transforming the instructions with respect to the geographical map to the artistic map being displayed.

7. (*Previously amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

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9. (*Previously amended*) The method as recited in claim 5, wherein said showing the navigational direction on the artistic map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the artistic map being displayed.

10. (*Previously amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the artistic map, and the method further comprising: adjusting the color for the each of objects in the artistic map, and generating a color definition map.

11. (*Currently amended*) A portable device for navigating a designated place, the portable device comprising:

a display screen configured to display an artistic map downloaded from a network, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points, wherein the portable device is equipped with navigation capability and provides a traveling guidance on a geographical map, the artistic map ~~cannot be~~is not used directly ~~on~~ by the ~~computing~~ portable device for navigation, and wherein the geographical map is not being shown on the display screen ~~without a corresponding geographical map~~;

a memory for storing code;

a processor executing the code to perform operations of:

~~capturing~~ determining a pair of coordinates of one of the points representing an object being selected in the artistic map being displayed on the display screen;

transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, wherein the points

representing the object have different pairs of coordinates, but all of the different pairs of coordinates correspond substantially to the physical point;

detecting a current location of the computing device in the geographic map;

determining according to the geographical map a direction from the current location to the physical point; and

showing the direction in the artistic map being displayed.

12. (*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13. (*Previously amended*) The portable device as recited in claim 12, wherein the artistic map is non-linearly scaled, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14. (*Previously amended*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out by the portable device in accordance with the geographical map.

15. (*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16. (*Previously amended*) The portable device as recited in claim 15, wherein said showing the direction in the artistic map being displayed comprises:

transforming the direction with respect to the geographical map to the artistic map being displayed; and

transforming the instructions with respect to the geographical map to the artistic map being displayed.

17. (*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

18. (*Previously amended*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the artistic map.

19. (*Previously amended*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the artistic map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20. (*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

REMARKS

Claims 1-20 were examined. In this Office Action, Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Salmre (US2007/0176932, hereinafter "Salmre") in view of Agrawala et al. (US 2005/0149303, hereinafter "Agrawala"), Claims 5-9 are rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Suomela (US 6,697,734, hereinafter "Suomela"), Claim 10 is rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala, and further in view of Rasmussen (US 2006/0206264, hereinafter "Rasmussen"). As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

In the foregoing amendments, Claims 1-3, and 11 have been amended. No new matters have been introduced. As a result of the amendments, Claims 1-20 are still pending. Reconsideration of pending claims 1-20 is respectfully requested.

CLAIM REJECTIONS - 35 USC § 101

Claims 1-20 are currently rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. The claims are drawn to an abstract idea, that abstract idea being a basic concept of providing navigation. The claims do not amount to significantly more than the abstract idea itself such as not being an improvement to the functioning of a computer itself.

The Applicant respectfully disagrees with the Examiner in view of the amendments to Claims 1-20 and submits the invention as claimed does not involve an abstract idea and is more than an abstract idea being a basic concept of providing navigation for the following reasons.

1. A Prima facie Case of Unpatentability Has Not Been Established

In the Office Action, Claims 1-20 were rejected under 35 U.S.C. §101 as being directed to an abstract idea. Applicant respectfully reminds the Examiner that the Examiner "bears the initial burden ... of presenting a *prima facie* case of unpatentability." *In re Oetiker,* 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992) and MPEP 2106(III). A proper *prima facie* case of unpatentability requires that the Examiner provide "clear rationale supporting the determination that an abstract idea has been claimed." MPEP 2106(II)(B)(2). In other words, in making a rejection under § 101, the Examiner "should specifically point out the factors that are relied upon in making the determination." *Id.* By specifically identifying the factors used in the analysis, it will allow "the applicant to make specific arguments in response to the rejection if the applicant believes that the conclusion that the claim is directed to an abstract idea is in error." *Id.*

With regard to the present application, the Final Office Action fails to specifically point out factual evidence that supports a finding that Claims 1-20 are directed to an abstract idea. First, the Office Action simply states that the claims are directed to "a basic concept of providing navigation" without identifying the relevant factors considered or providing any factual evidence to support this conclusion. Second, the Office Action states that "The claims do not amount to significantly more than the abstract idea itself such as not being an improvement to the functioning of a computer itself. Also, the computer related claims require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry" without identifying the specific limitations considered or any support or rationale as to why these limitations are not enough to qualify as "something more." *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.,* 573 U.S._,_ (2014) (slip op. at 2, 6). Thus, The Final Office Action fails to provide any clear rationale supporting the determination that Claims 1-20 are directed to an abstract without including limitations that are enough to qualify as "something more" than the abstract idea. *Id.* Therefore, Applicant respectfully submits that the Examiner has not established a *prima facie* case of unpatentability, which

would have allowed Applicant an opportunity to make specific arguments in response to the rejection. Accordingly, Applicant further submits that the Examiner's rejection was *void ab initio* and requests that the rejection be withdrawn.

2. Each of Claims 1-20 Has Not Been Considered As a Whole

Applicant respectfully reminds the Examiner that the Examiner should consider elements of each claim, both "individually" and "as an ordered combination" for purposes of determining whether the elements in the claims are directed to "something more" and are thereby transformed into a patent-eligible invention. *Alice,* 573 U.S. at_,_ (slip op. at 2, 6). In other words, the Examiner is to consider the recited invention in each claim as a whole. Applicant respectfully submits that the Examiner has engaged in impermissible piecemeal analysis in evaluating the claims for subject matter eligibility and has therefore not considered each of Claims 1-20 as a whole. Accordingly, Applicant respectfully requests that the rejection of these claims be withdrawn.

3. Claims 1-20 are Not Directed to an Abstract Idea

For a claim falling into one of the statutory classes of invention (i.e., process, machine, manufacture, or composition of matter), determining whether the claim is directed to nonstatutory subject matter follows a two-part analysis. *Memorandum,* p. 2. The first part of the analysis requires determining whether the claim is directed to a judicial exception, i.e., a law of nature, a natural phenomenon, or an abstract idea. *Id.* In this context, if an abstract idea is present in the claim, the second part of the analysis requires determining whether any element, or combination of elements, in the claim is sufficient to ensure that the claim amounts to *something more* than the abstract idea itself. *Alice,* 573 U.S. at_,_ (slip op. at 2, 6).

In *Alice,* four examples of abstract ideas were referenced: fundamental economic practices; certain methods of organizing human activities; abstract

ideas themselves; and mathematical relationships and mathematical formulas. *Memorandum,* pp. 2-3.

i. Claims 1-20 are Not Directed to Fundamental Economic Practices

It is believed that the Examiner would agree that the claims are not directed to any fundamental economic practices.

ii. Claims 1-20 are Not Directed to Organizing Human Activities

It is believed that the Examiner would agree that the claims are not directed to organizing human activities.

iii. Claims 1-20 are Not Directed to Abstract Ideas

In *Alice,* the Supreme Court noted that an abstract idea itself is not eligible for patent protection since it is considered "a principle, an original cause, a motive." Alice, 573 U.S. at_(slip op., at 7-8) (citing *Gottschalk v. Benson,* 409 US. 63, 67 (1972) and *Le Roy v. Tatham,* 55 U.S. (14 How.) 156 (1852)). The line of cases, *Le Roy, Rubber-Tip Pencil Co., Benson,* cited in *Alice* establish the longstanding principle that an idea of itself is not patentable: the abstract ideas in these cases are directed to discovered principles, prominent ideas in the mind, and generalized algorithms.

As shown in these cases that establish the longstanding principle that an idea of itself is not patentable, the Supreme Court has held that discovered principles, prominent ideas in the mind, and generalized algorithms are to be considered unpatentable abstract ideas. However, Claims 1-20 are not directed to any such exceptions as defined by the Supreme Court, rather Claims 1-20 are directed to *navigating on an artistic map that is non-linear and cannot be used directly for navigation use since all navigation is provided on a geographic map*. Accordingly, new techniques must be invented to make it possible to navigate on an artistic map.

As a whole, the recitations in Claim 1 are not discovered principles, prominent ideas in the mind, or generalized algorithms. Rather, they are a practical application for users to navigate a local non-linear map showing some prominent targets out of scale. Thus, Applicant respectfully submits that Claims 1-20 are not directed to an abstract idea and therefore requests that the rejection of these claims be withdrawn.

iv. Claims 1-20 are Not Directed to Mathematical Relationships or Formulas

It is believed that the Examiner would agree that the claims are not directed to mathematical relationships or formulars.

v. Something More

As discussed above, Applicant respectfully submits that Claims 1-20 are not abstract ideas under the first part of the two-part analysis. That is, Claims 1-20 do not fall within the judicial exception of an abstract idea. However, assuming *arguendo,* that Claims 1-20 were considered to be an abstract idea, Applicant respectfully submits that Claims 1-20 are directed *"something more"* than an abstract idea. *Alice,* 573 U.S. at_,_ (slip op. at 2, 6). As noted by the Court in *Alice,* non-limiting examples of *something more* that transforms an invention into patent-eligible subject matter include:

(1) Improvements to another technology or technical field. *Id.* at_ (slip op. at 2-3, 6, and 15) (quoting *Diamond* v. *Diehr,* 450 U.S. 175, 187 (1981)). (2) Improvements to the functioning of the computer itself. *Id.* (3) Meaningful limitations beyond generally linking the user of an abstract idea to a particular technological environment. *Id.* (quoting *Bilski,* 561 U.S., at 610-611). (4) A "new and useful application" of ineligible subject matter in the physical realm. *Id.* (quoting *Gottschalk* v. *Benson,* 409 U.S. 63, 67 (1972).

In the present application, Applicant respectfully submits that Claims 1-20 include (1) improvements to technology or technical field; (2) meaningful limitations beyond generally linking the user of an abstract idea to a particular technological environment; and (3) a "new and useful application" in the physical realm. In particular, Claims 1-20 are directed to facilitating the navigation on a non-linear artistic map that is traditional non-usable for navigation. To do so, Claims 1-20 are directed to using a geographic map as a base (not displayed but used hidden). A portable computing device is equipped with navigation capability and provides a traveling guidance on a geographical map. Applicant submits a general computer is not capable of doing so without adding satellite receivers.

Accordingly, Applicant respectfully submits that Claims 1-20 are directed to something more and significantly more and therefore overcome and alleviate any abstract idea concerns. In fact, as noted by the Supreme Court in *Alice,* "the concern that drives this exclusionary principle [is] one of pre-emption." *Alice,* 573 U.S. at_ (slip op., at 5) (citing *Bilski,* 561 U.S. at 611-612 (2010)). Accordingly, once an identified abstract idea is practically applied so as not to pre-empt the underlying abstract idea that is the end of the analysis. Thus, regardless of whether Claims 1-20 are directed to an abstract idea, these claims recite *something more* than an abstract idea so as not to pre-empt the abstract idea itself. Accordingly, Applicant respectfully submits that Claims 1-20 are not directed to an abstract idea and therefore requests that the rejection of these claims be withdrawn.

4. Conclusion

Applicant respectfully reminds the Examiner that the Supreme Court has cautioned tribunals and agencies to "tread carefully" when excluding subject matter under§ 101. *Alice,* 573 U.S. at_ (slip. op. at 6) (citing *Diamond v. Chakrabarty,* 447 U.S. 303 (1980)). In particular, the Court specifically noted that all should "tread carefully in construing this exclusionary principle lest it swallow

all of patent law." *Id.* at_ (slip op. at 15). This is because "[a]t some level, 'all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.'" *Id.* This admonition was echoed by the Office's *Memorandum: Alice* "neither creates a per se excluded category of subject matter, such as software or business methods, nor imposes any special requirements for eligibility of software or business methods." Memorandum, p. 1. Applicant further notes that abstract ideas are excluded from patent eligibility based on a concern of monopolizing "basic tools of scientific research and technological work." *Alice,* 573 U.S. at _ (slip op. at 6). Applicant respectfully submits that Claims 1-20 are not directed to basic tools of scientific research and technological work.

Based on the foregoing, Applicant respectfully submits that (1) the Examiner has not established a *prima facie* case of unpatentability, (2) the Examiner has not properly consider each of Claims 1-20 as a whole, (3) Claims 1-20 are not directed to an abstract idea under the first part of the two-part analysis, and (4) assuming *arguendo* that Claims 1-20 are considered to be an abstract idea under the first part of the two-part analysis, Claims 1-20 recite *something more* under the second part of the two-part analysis. Accordingly, Applicant respectfully submits that Claims 1-20 are not directed to an abstract idea and therefore requests that the rejection of these claims be withdrawn.

Claim Rejections - 35 USC § 103

On Page 4 of the Office Action, Claims 1-4 are rejected under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala.

As amended, Claim 1 now recites:

downloading from a network into a computing device an artistic map, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using

the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map, the artistic map is not used directly by the computing device for navigation, each of the objects is represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

determining by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device in the geographical map;

determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and

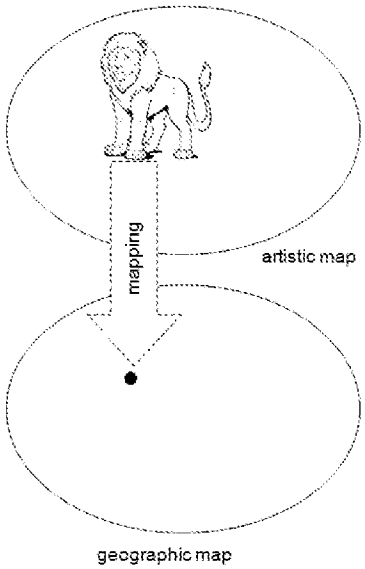
showing the navigational direction on the artistic map being displayed.

(*Emphasis added*)

One of the objectives in the present invention is to help a user navigate in a specific zone (e.g., a theme part) by providing an artistic map to show all the attractions. An artistic map is different from a geographical map that is often used by a GPS for navigation. In other words, the artistic map cannot be not used directly by the computing device for navigation. For example, a zoo map with all animals highlighted is an example of the artistic map. Such a zoo map would not be supported on a regular GPS device.

To illustrate where the animals are located, the (artistic) map includes various animals or facilities being exaggeratedly shown on a display screen for a user to easily see and select one to navigate thereto. In the context of the

present invention, the geographical map is *NOT* shown on the computing device but used for navigational direction. As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the present invention teaches a transformation of many-to-one. FIG. 3 is duplicated below to show what the many-to-one transformation means.



The graphic lion is represented by a plurality of points in an artistic map. Regardless of how big the graphic lion may appear in the artistic map, all the points of the graphic lion correspond to one physical point in the geographic map. One of the purposes is to allow a user to select any part of the lion, if the user desires to see the lion cage shown in the artistic map. Thus the selected point(s) always corresponds to the same point, thus facilitating a navigational direction from the current location to the lion cage.

In contrast, Salmre teaches about a linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. In other words, there is a one-to-one corresponding relationship between the linear and non-linear maps.

In view of the amendments to Claim 1 of the instant application, it can be noted that Salmre is silent about whether the non-linear map can be or cannot be used directly on the computing device for navigation. Claim 1 of the instant application recites the "artistic" map is not used directly by the computing device for navigation, instead, the geographic map is referenced for the navigational direction that is then synchronized into the "artistic" map. Because Salmre does not care whether the non-linear map can be or cannot be used directly on the computing device for navigation, the Applicant submits Salmre neither teaches nor suggests " *determining according to the geographical map a navigational direction from the current location to the one of the objects being selected* ..." and "*showing the navigational direction on the artistic map being displayed* ".

On page 5 of the Office Action, the Examiner admits that Salmre does not explicitly disclose "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed*" and then cites Agrawala to show the teaching in combination.

The Applicant respectfully contests the combination of Salmre and Agrawala as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner. In order to establish a *prima facie* case of obviousness under 35 USC 103, *Graham v. John Deer Co. of Kansas City*, 383 US 1 (1966) requires determining, respectively, the scope and content of the prior art, the difference between the prior art and the claims at issue, and the level of ordinary skilled in the art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning, to support the legal conclusion of obviousness. *KSR v. Teleflex*, No. 04-1350 (US Apr. 30, 2007) (citing In re Kahn, 441 F. 3d 977, 988 (Canada Fed. 2006)). The suggestion to make the claim combination must be found in the prior art, not in

the Applicant's disclosure. In re Vaek, 20 USPQ2d 1438 (Fed. Cir. 1991). Moreover, in accordance with MPEP 2142.02, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L.Gore & Associates Inc. v. Garlock, Inc.* 220 USPQ 303 (Fed. Cir. 1993). A third essential requirement for establishing a *prima facie* case, set forth in MPEP 2143.01 is that the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

Salmre teaches about the conversation between a linear map and a non-linear map in a symmetric fashion while Agrawala teaches about making computer-generated maps including a different scale factor for each road in a route, where Agrawala's non-linear map is explicitly for navigation. Should the non-linear map in Salmre be modified for navigation, as suggested by Agrawala, there would be no need for "determining according to the geographical map a navigational direction ..." and "synchronizing the navigational direction with the map being displayed" as explicitly recited in Claim 1 of the instant application. Accordingly, the Applicant submits the combination of Salmre and Agrawala proposed by the Examiner is not proper.

Further, Agrawala explicitly states such a non-linear map is created to best fit the display aspect ratio, *see* paragraph [0021]. In other words, such a non-linear map can be used directly for navigation purpose, which contradicts Claim 1 of the instant application. When such a non-linear map is used directly for navigation purpose, there would be no need for "determining according to the geographical map a navigational direction ..." and "synchronizing the navigational direction with the map being displayed" as explicitly recited in Claim 1 of the instant application. Accordingly, the Applicant submits Claim 1 as amended shall be allowable over Salmre and Agrawala, viewed alone on in combination. Reconsideration of Claims 1-10 is kindly requested.

The above reasons are equally applied to support Claims 11-20.

In view of the above amendments and remarks, the Applicants believe that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the EFS of the United States Patent and Trademark Office and addressed to "Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450", on June 29, 2015.

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg.: No. 39,450

Electronic Patent Application Fee Transmittal

Application Number:	12186524
Filing Date:	06-Aug-2008
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Filer:	Joe Zheng
Attorney Docket Number:	Kent-007

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
RCE- 2nd and Subsequent Request	2820	1	850	850
		Total in USD ($)		**850**

Electronic Acknowledgement Receipt

EFS ID:	22779004
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	29-JUN-2015
Filing Date:	06-AUG-2008
Time Stamp:	21:17:07
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Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$850
RAM confirmation Number	8116
Deposit Account	502436
Authorized User	ZHENG, JOE

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	2RECTransmittal.pdf	147890 c0f6e759669eeb171d33262f01397f7d790e92b2	no	1
Warnings:					
This is not a USPTO supplied RCE SB30 form.					
Information:					
2	Amendment Submitted/Entered with Filing of CPA/RCE	ResponseToFinalOARCE.pdf	274502 7355f6068c4935fc9206bfcc8a19a328132e9ccc	no	18
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30261 97aae3f2e1333b83e889af2bb91733f2ee22f123	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	452653		

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<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 12/186,524	Filing Date 08/06/2008	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **06/29/2015**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/YUVANNA CHAPHIV/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Document code: WFEE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

26797 7590 10/07/2015

LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER
HUNTER, SEAN KRISTOPHER

ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
10/07/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Office Action Summary	Application No. 12/186,524	Applicant(s) PU ET AL.	
	Examiner SEAN K. HUNTER	Art Unit 3626	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2015*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

CONTINUED EXAMINATION UNDER 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 June 2015 has been entered.

STATUS OF CLAIMS

This action is in reply to the Amendment/Response/RCE filed on 29 June 2015. Claims 1-20 are currently pending and have been examined.

RESPONSE TO AMENDMENTS

The Applicant's amendments to Claims 1-3 and 11 have been noted by the Examiner. Said amendments are sufficient to overcome the rejections set forth under 35 U.S.C. §112 2nd paragraph, as set forth in the previous office action. As such, said rejections are herein withdrawn by the Examiner. However, said amendments are not sufficient to overcome the rejections as set forth under 35 U.S.C. §101, as set forth in the previous office action. As such, said rejections are herein maintained for reasons set forth below by the Examiner.

CLAIM REJECTIONS - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-20 are rejected under 35 U.S.C. §101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. **Claims 1-20** are directed to the abstract idea of comparing new and stored information and using rules to identify options. While the claims may not explicitly recite, "comparing new and stored information and using rules to identify options", the concept of "comparing new and stored information and using rules to identify options" is described, for example, by the downloading, receiving, determining, transforming, detecting, determining and showing steps as recited in currently amended independent Claim 1. The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements or combination of elements in the claims in conjunction with the abstract idea per se amounts to no more than mere instructions to implement the idea on a computer, and/or the recitation of generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry.

CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala et al. (US 2005/0149303), hereinafter referred to as Salmre and Agrawala, respectively.

Claim 1 (Currently Amended) –

As per Claim 1, Salmre discloses a method for navigating in a particular area, the method comprising:

- downloading from a network into a computing device an artistic map, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map, the artistic map is not used directly by the computing device for navigation, each of the objects represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display [*see at least, Abstract; Figure 2; p. 1, ¶0001 (mobile device from application incorporated into current application); p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071(mobile devices); p. 6, ¶0072-¶0074, of Salmre*];
- receiving in the computing device a selection on the one of the objects from the user as a selected object [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];

- determining by the computing device a pair of coordinates for one of the points on the selected object [*see at least, Abstract; p. 4, ¶0047; p. 4, ¶0053; p. 5, ¶0058-0059; p. 6, ¶0068, of Salmre*];
- detecting a current location of the computing device in the geographical map [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and showing the navigational direction on the artistic map being displayed [*see at least, Abstract; p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0030-¶0031; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071-¶0074, of Salmre*].

Salmre *may not explicitly* disclose

- transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed [*see at least, Abstract; p. 1, ¶0007; p. 5, ¶0058, of Salmre*];

Agrawala discloses

- transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed [see at least, p. 3, ¶0019-0020; p. 13, ¶0152; p. 22, ¶0268, of Agrawala]

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object

corresponding substantially to the physical point when said transforming is performed, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 2 (Currently Amended) –

As per Claim 2, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein

- the artistic map is a theme park map, each of the objects represents an attraction [*see at least, Figure 1; Figure 2; Figure 3; Figure 6, of Salmre*].

Claim 3 (Currently Amended) –

As per Claim 3, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein

- the map is presented in such a way that a display resolution of the map goes lower from a center of the display to an edge of the display [*see at least, p. 7 ¶0099; p. 13, ¶0149; p. 25, ¶0293 & ¶0299, of Agrawala*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 4 (Previously Amended) –

As per Claim 4 Salmre in view of Agrawala discloses the method as recited in Claim 3, wherein

- said showing the navigational direction on the artistic may being displayed comprises transforming in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map. [*see at least, Abstract; p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0030-¶0031; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071-¶0074, of Salmre*]

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Suomela (US 6,697,734), hereinafter referred to as Salmre, Agrawala and Suomela, respectively.

Claim 5 (Original) –

As per Claim 5, Salmre in view of Agrawala discloses the method as recited in Claim 4, however Salmre does not explicitly disclose further comprising

- determining a set of instructions of how to move from the current location to the physical point as a destination.

Suomela discloses

- determining a set of instructions of how to move from the current location to the physical point as a destination [*see at least, col. 1, lines 21-26, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, determining a set of instructions of how to move from the current location to the physical point as a destination, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 6 (Previously Amended) –

As per Claim 6, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein said showing the navigational direction on the artistic map being displayed comprises:

- transforming the instructions with respect to the geographical map to the artistic map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming the instructions with respect to the geographical map to the artistic map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 7 (Previously Amended) –

As per Claim 7, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 6, wherein the navigational direction shows how to

- move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points [*see at least, Figure 4; Figure 5; Figure 6; col. 3 lines 37-47; col. 8, lines 26-27, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer

generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 8 (Previously Amended) –

As per Claim 8, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 7, further comprising

- connecting the pixel coordinates of the points to show the route on the map [*see at least, Figure 3; Figure 4; Figure 5; and Figure 6, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, connecting the pixel coordinates of the points to show the route in the map, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 9 (Previously Amended) –

As per Claim 9, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein said showing the navigational direction on the artistic map being displayed is

- carried out according to a transformation derived from a deformation of the geographical map to the map being displayed [*see at least, col. 2, lines 14-33, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer

generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Rasmussen (US 2006/0206264), hereinafter referred to as Salmre, Agrawala and Rasmussen, respectively.

Claim 10 (Previously Amended) –

As per Claim 10, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein there is a color map to define a color of each of the objects in the artistic map, Salmre *may not explicitly* disclose and the method further comprising:

- adjusting the color for the each of objects in the artistic map, and generating a color-definition map.

Rasmussen discloses

- adjusting the color for the each of objects in the artistic map, and generating a color-definition map [*see at least, p. 3, ¶0023 and ¶0027, of Rasmussen*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, adjusting the color for the each of objects in the map, and generating a color-definition map, as disclosed by Rasmussen.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claims 11 through 20 (Currently Amended | Previously Amended | Original) –

As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

RESPONSE TO ARGUMENTS

The Applicant's arguments filed 29 June 2015 have been fully considered but they are not persuasive. The Examiner recognizes obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions in *In re DeLisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (citing *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al*, 192 USPQ 278 (CCPA) that:

(i) obviousness does not require absolute predictability;
(ii) non-preferred embodiments of prior art must also be considered; and
(iii) the question is not express teaching of references, but *what they would suggest*.

With that, the Examiner respectfully notes that the Applicant's arguments with respect to the claims as currently amended and submitted have been considered but are moot in light of the new grounds of rejection being used in the current rejection.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN K. HUNTER whose telephone number is 571.270.7791. The examiner can normally be reached on Monday through Thursday 9a through 5p. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT MORGAN can be reached on 571-272-6773. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEAN K HUNTER/ Primary Examiner, Art Unit 3626	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	**Art Unit**
	SEAN K HUNTER	3626

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/29/2011	12/29/2011	11/07/2013	06/28/2014	03/20/2015	09/28/2015			
	1	✓	✓	✓	✓	✓	✓			
	2	✓	✓	✓	✓	✓	✓			
	3	✓	✓	✓	✓	✓	✓			
	4	✓	✓	✓	✓	✓	✓			
	5	✓	✓	✓	✓	✓	✓			
	6	✓	✓	✓	✓	✓	✓			
	7	✓	✓	✓	✓	✓	✓			
	8	✓	✓	✓	✓	✓	✓			
	9	✓	✓	✓	✓	✓	✓			
	10	✓	✓	✓	✓	✓	✓			
	11	✓	✓	✓	✓	✓	✓			
	12	✓	✓	✓	✓	✓	✓			
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	17	✓	✓	✓	✓	✓	✓			
	18	✓	✓	✓	✓	✓	✓			
	19	✓	✓	✓	✓	✓	✓			
	20	✓	✓	✓	✓	✓	✓			

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12186524	PU ET AL.
	Examiner	Art Unit
	SEAN K HUNTER	3626

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
701	200	8/28/2011	SKH
701	200	12/29/2011	SKH
701	200	11/7/2013	SKH
701	200	6/25/2014	SKH
701	200	3/18/2015	SKH
701	200	9/25/2015	SKH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	8/28/2011	SKH
Updated EAST search	12/29/2011	SKH
Updated EAST search	11/7/2013	SKH
Updated EAST search	6/25/2014	SKH
Updated EAST search	3/18/2015	SKH
Updated EAST search	9/25/2015	SKH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/SEAN K HUNTER/ Primary Examiner.Art Unit 3626

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Courtesy Reminder for
Application Serial No: 12/186,524

Attorney Docket No: Kent-007
Customer Number: 26797
Date of Electronic Notification: 10/07/2015

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:
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PTO/AIA/31 (03-14)
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NOTICE OF APPEAL FROM THE EXAMINER TO THE PATENT TRIAL AND APPEAL BOARD

Docket Number (Optional): Kent-007

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Signature: / joe zheng /

Typed or printed name: Joe Zheng

In re Application of: Kent Pu

Application Number	Filed
12/186,524	08/06/2008

For: Method and apparatus for navigating on artistic maps

Art Unit	Examiner
3663	Kristopher Sean Hunter

Applicant hereby **appeals** to the Patent Trial and Appeal Board from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) $ 800.00

[✓] Applicant asserts small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by 50%, and the resulting fee is: $ 400

[ ] Applicant certifies micro entity status. See 37 CFR 1.29. Therefore, the fee shown above is reduced by 75%, and the resulting fee is: $ _____
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

[ ] A check in the amount of the fee is enclosed.

[ ] Payment by credit card. Form PTO-2038 is attached.

[ ] The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. _____.

[✓] Payment made via EFS-Web.

[ ] A petition for an extension of time under 37 CFR 1.136(a) (PTO/AIA/22 or equivalent) is enclosed.
For extensions of time in reexamination proceedings, see 37 CFR 1.550.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

[ ] applicant

[✓] attorney or agent of record. Registration number 39,450

[ ] attorney or agent acting under 37 CFR 1.34. Registration number _____

Signature: / joe zheng /

Typed or printed name: Joe Zheng

Telephone Number: 408-777-8873

Date: February 4, 2017

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

[ ] * Total of _____ forms are submitted.

This collection of information is required by 37 CFR 41.20(b)(1) and 41.31. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:	12186524
Filing Date:	06-Aug-2008
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Filer:	Joe Zheng
Attorney Docket Number:	Kent-007

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Notice of Appeal	2401	1	400	400
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
		Total in USD ($)		**500**

Electronic Acknowledgement Receipt

EFS ID:	24826415
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	04-FEB-2016
Filing Date:	06-AUG-2008
Time Stamp:	16:41:45
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$500
RAM confirmation Number	3663
Deposit Account	502436
Authorized User	ZHENG, JOE

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Charge any Additional Fees required under 37 CFR 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 CFR 1.19 (Document supply fees)

Charge any Additional Fees required under 37 CFR 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Notice of Appeal Filed	NoticeOfAppeal.pdf	155618 77239d4f3831dd6c7ed98fa69a55791ef9e41988	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31737 855b26745d2665c579b8fbca1d7e618d9feccedc	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	187355		

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

EX PARTE

US Patent Application Number 12/186,524

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

APPEAL BRIEF

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service via USPTO electronic filing system addressed to: Appeal Brief-Patent, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: April 1, 2016

Signed: / joe zheng /
Joe Zheng

PAGE 2/27 * RCVD AT 4/4/2016 10:16:07 PM [Eastern Daylight Time] * SVR:W-PTOFAX-001/9 * DNIS:2738300 * CSID:051085191297 * DURATION (mm-ss):12-20

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Toyota Petition '628 Exhibit 1002
Page 331 of 434

I. REAL PARTY IN INTEREST

Information Corporation

II. RELATED APPEALS AND INTERFERENCES

None

III. STATUS OF THE CLAIMS

Claims 1 – 20 are pending. On February 4, 2016, the Appellant appealed from the 6th Rejection, dated 10/07/2015, of Claims 1 -20 that are rejected under 35 USC 101(a) as the claimed invention is not directed to patent eligible subject matter, where Claims 1-20 are further rejected under 35 U.S.C. 103(a) over Salmre (US 2007/0176932, hereinafter "Salmre") in view of Agrawala et al. (US 2005/0149303, hereinafter "Agrawala") in further view of Suomela (US 6,697,734, hereinafter "Suomela") or Rasmussen (US2006/0206264, hereinafter "Rasmussen").

A. Total number of claims in Application

The claims in the application are: 1 – 20

B. Status of all the claims in Application

Claims 1-10 were initially filed
Claims cancelled: None
Claims pending: 1-20
Claims allowed: None
Claims rejected: 1-20
Claims objected to: None

C. Claims on Appeal

Claims 1 – 20

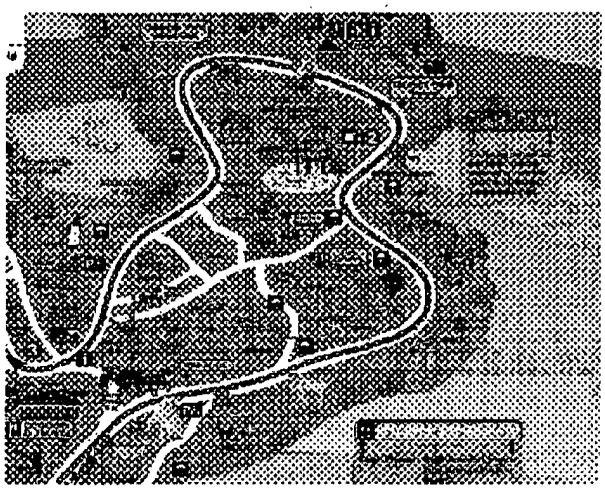
PAGE 4/27 * RCVD AT 4/4/2016 10:16:07 PM [Eastern Daylight Time] * SVR:W-PTOFAX-001/9 * DNIS:2738300 * CSID:051085191297 * DURATION (mm-ss):12-20

IV. STATUS OF AMENDMENTS

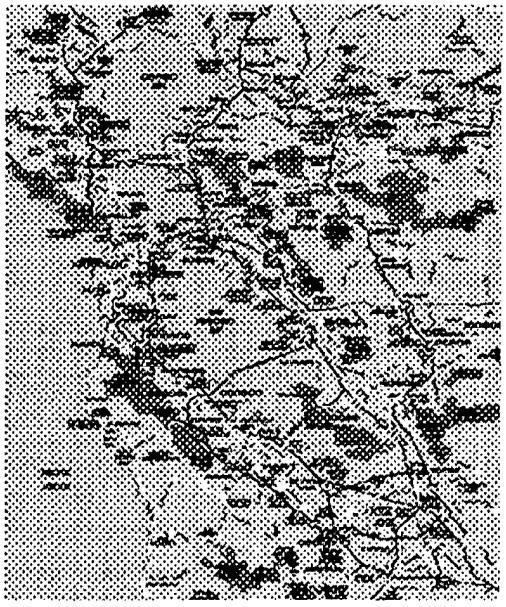
Claims 1-20 on appeal herein are as amended in the Response dated June 29, 2015 to the Office Action dated March 26, 2015.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention pertains to techniques for providing a navigation experience on a non-linearly scaled map, wherein the non-linearly scaled map is also referred to an artistic map to show exaggeratedly some objects (or points of interest) to help a user locate where he/she is and visit what he/she needs to visit. Two figures below show a non-linearly scaled map (left) and a geographical map (right).



Non-linearly scaled map
(also known as artistic)



Geographical map

A non-linearly scaled map is commonly used for a local area (e.g., theme park or zoo). In general, electronic navigation is provided on a geographical map, that is how a GPS device operates. The GPS system won't work directly with a non-linearly scaled map because latitudes and longitudes are scaled linearly. The key feature in the instant invention is to provide navigation on a non-linearly scaled map with an

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underlying corresponding geographical map. When a destination is selected on an artistic map being shown, the coordinates of the destination in the artistic map are determined and a corresponding point in terms of latitude and longitude in the geographical map are calculated via a (many-to-one) transformation. A navigational direction is then determined from a detected current location to the destination in the geographical map (not shown). Such a navigational direction is then shown on the non-linearly scaled map.

One of the benefits, objectives and advantages of this invention is to allow a user to navigate an artistic map (e.g., a zoo map or an amusement park) on their portable devices.

In accordance with 37 CFR 41.37 (c)(1)(v) "A concise explanation of the subject matter defined in each of the independent claims involved in the appeal, which must refer to the specification by page and line number, and to the drawing, if any, by reference characters." All page and line numbers and the drawing are in *italic* and inserted directly in the independent claims below.

Claim 1:

A method for navigating in a particular area, the method comprising:

downloading from a network into a computing device an artistic map (FIG. 2 and *FIG. 3*), the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map (*FIG. 2, paragraph [0029]*), wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map (*FIG. 4A, paragraph [0033]*), the artistic map is not used directly by the computing device for navigation, each of the objects is represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display (*paragraphs [0029]- [0030] and [0041]- [0043]*);

receiving in the computing device a selection on the one of the objects from the user as a selected object (*FIG. 5, paragraphs [0011], [0034] and [0040]*);

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determining by the computing device a pair of coordinates for one of the points on the selected object (*FIG. 5, paragraphs [0029] and [0040]*);

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed (*FIG. 3, paragraphs [0029] and [0040]*);

detecting a current location of the computing device in the geographical map (*paragraph [0028] and in any GPS device*);

determining according to the geographical map a navigational direction from the current location to the one of the objects being selected object (*FIG. 5, paragraphs [0028] and [0041]*); and

showing the navigational direction on the artistic map being displayed (*FIG. 5, paragraph [0041]*).

Claim 11:

A portable device for navigating a designated place, the portable device comprising:

a display screen configured to display an artistic map downloaded from a network (FIG. 2 and *FIG. 3*), the artistic map being non-linearly scaled and including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points (*FIG. 2, paragraph [0029]*), wherein the portable device is equipped with navigation capability and provides a traveling guidance on a geographical map (*FIG. 4A, paragraph [0033]*), the artistic map is not used directly by the portable device for navigation, and wherein the geographical map is not being shown on the display screen (*paragraphs [0029]- [0030] and [0041]- [0043]*);

a memory for storing code;

a processor executing the code to perform operations of:

determining a pair of coordinates of one of the points representing an object being selected in the artistic map being displayed on the display screen (*FIG. 5, paragraphs [0011], [0034] and [0040]*);

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transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, wherein the points representing the object have different pairs of coordinates, but all of the different pairs of coordinates correspond substantially to the physical point (*FIG. 3, paragraphs [0029] and [0040]*);

detecting a current location of the computing device in the geographic map (*paragraph [0028] and in any GPS device*);

determining according to the geographical map a direction from the current location to the physical point (*FIG. 5, paragraphs [0028] and [0041]*); and

showing the direction in the artistic map being displayed (*FIG. 5, paragraph [0041]*).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection which the Appellant believes to be most pertinent to the present appeal include the following issues:

A. Grand of rejection on Claims 1-20 under 35 USC 101 because the claimed invention is directed to non-statutory subject matter;

B. Grand of rejection on Claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Salmre in view of Agrawala;

C. Grand of rejection on Claims 5-9 under 35 U.S.C. 103(a) as being unpatentable over Salmre in view of Agrawala further in view of Suomela; and

D. Grand of rejection on Claim 10 under 35 U.S.C. 103(a) as being unpatentable over Salmre in view of Agrawala further in view of Rasmussen

VII. ARGUMENT

1. Arguments with respect to Issue A:

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Claims 1-20 are currently rejected under 35 USC 101 because the Examiner alleges that the claimed invention is directed to non-statutory subject matter. The Examiner continues, on Page 3, in the Office Action, *Claims 1-20 are directed to the abstract idea of comparing new and stored information and using rules to identify options. While the claims may not explicitly recite, "comparing new and stored information and using rules to identify options", the concept of "comparing new and stored information and using rules to identify options" is described, for example, by the downloading, receiving, determining, transforming, detecting, determining and showing steps as recited in currently amended independent Claim 1. The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements or combination of elements in the claims in conjunction with the abstract idea per se amounts to no more than mere instructions to implement the idea on a computer, and/or the recitation of generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry.*

The Appellant respectfully disagrees with the Examiner on the grand of rejection on Claims 1-20 under 35 USC 101 and submits the invention as claimed does not involve an abstract idea and is more than simply "*the judicial exception*" for the following reasons.

1. A Prima facie Case of Unpatentability Has Not Been Established

In the Final Rejection, Claims 1-20 were rejected under 35 U.S.C. §101 as being directed to an abstract idea. The Appellant respectfully reminds the Examiner that the Examiner "*bears the initial burden ... of presenting a prima facie case of unpatentability.*" *In re Oetiker,* 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992) and MPEP 2106(III). A proper *prima facie* case of unpatentability requires that the Examiner provide "*clear rationale supporting the determination that an abstract idea has been claimed.*" MPEP 2106(II)(B)(2). In other words, in making a rejection under § 101, the Examiner "*should specifically point out the factors that are relied upon in making the determination.*" *Id.* By specifically identifying the factors used in the analysis, it will allow "*the Applicant to make specific arguments in*

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response to the rejection if the Applicant believes that the conclusion that the claim is directed to an abstract idea is in error." Id.

With regard to the present application, the Appellant respectfully submits the Office Action fails to specifically point out the factual evidence that supports a finding that Claims 1-20 are directed to an abstract idea. The Office Action simply states *Claims 1-20 are directed to the abstract idea of comparing new and stored information and using rules to identify options.* The Appellant respectfully submits that the Examiner has mischaracterized the claims. Neither the Specification nor the claims indicate any operation involving a set of data being compared with a stored data. The Examiner then continues with the self-contradictory statement *While the claims may not explicitly recite, "comparing new and stored information and using rules to identify options", the concept of "comparing new and stored information and using rules to identify options" is described, for example, by the downloading, receiving, determining, transforming, detecting, determining and showing steps as recited in currently amended independent Claim 1.* As will be further described below, Claim 1 neither recites nor indicates anything related to *comparing new and stored information and using rules to identify options* as is being alleged by the Office Action but rather to the (many-to-one) transformation of coordinates in an artistic map to a pair of latitude and longitude in the geographical map.

It is believed that the Examiner alleges Claims 1-20 being an abstract idea based on these isolated words, downloading, receiving, determining, transforming, detecting, determining and showing steps as recited in Claim 1, without identifying the specific limitations considered or any support or rationale as to why these limitations are not enough to qualify as something more the judicial exception. *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*, 573 U.S._,_ (2014) (slip op. at 2, 6).

The Appellant respectfully points out that the Examiner has mischaracterized the uniquely combined computational processes (limitations) in Claim 1 as individually performed steps that are no more than mere instructions to implement the idea on a computer. First, Claim 1 is related to a computing device with GPS capability. In other words, the recited computing device must be able to detect itself

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where it is located geographically on a geographical map. It is well known to those skilled in the art that *a generic computer does not have the ability to detect itself where it is located geographically on a geographical map* because there is no such need in a generic computer that is commonly defined as a general purpose device programmed to carry out a set of arithmetic or logical operations automatically, *see* the wikipedia definition of computer at https://en.wikipedia.org/wiki/Computer. In other words, the instant invention can only be used in a specially purposed computing device that must have the GPS capability.

Next such a device must be loaded with two types of corresponding maps, one being an artistic map and the other being a geographical map. The artistic map is being shown to show the navigation and used for destination selection while the geographical map is used underneath to determine the navigation therefrom. The Appellant respectfully challenges the Examiner to give an example of a generic computer that routinely needs two types of such maps for generic operations.

2. Two-part Analysis for Abstract Ideas

Given the fact that a generic computer does not have the GPS capability, neither the need of an artistic map and a geographical map for generic operations, the Appellant presents the Two-part Analysis for Abstract Ideas below:

Part I: Determine whether the claim is directed to an abstract idea

The Appellant submits that Claims 1-10 are directed to a technique implemented in a computing device with GPS functions for navigating on a non-linearly scaled (artistic) map.

Claim 1 recites a series of acts for the device to perform data transformation of a pair of coordinates of a selected object as destination on an artistic map (being shown) to a physical point represented by a pair of latitude and longitude in a geographical map (not being shown), where points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object correspond to a physical point in a geographical map. In other words, all coordinates representing the selected object in the artistic map are now represented by only a pair of latitude and longitude, which is inherently a many-to-

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one data conversion or transformation. Thus, the claim is directed to a process to be performed specially in the device with GPS capability, which is one of the statutory categories of invention (Step 1: YES).

Part 2: If an abstract idea is present in the claim, determine whether any element, or combination of elements, in the claim is sufficient to ensure that the claim amounts to significantly more than the abstract idea itself

Next, the claim is analyzed to determine whether it is directed to a judicial exception. Claim 1 recites the steps of *downloading, receiving, determining, transforming, detecting, determining and showing*, all must be performed by the GPS computing device. In other words, these steps alone without considering the physical and inherent limitations, such as the GPS functionalities and the requirement of two different but corresponding maps present at the same time, may be performed mentally or is an idea of itself. Therefore, the claim appears directed to an abstract idea (Step 2A: YES).

Next, the claim as a whole is analyzed to determine whether any element, or combination of elements, is sufficient to ensure that the claim amounts to significantly more than the exception. Claim 1 recites the limitations of a computing device being portable, equipped with navigation capability and providing a traveling guidance on a displayed artistic map, where a corresponding geographical map is used to determine the navigation from a current position to a destination. Since an artistic map can be very deformed and different from the corresponding real geographic map, it is not a simple data transformation from one space to another, As shown in FIG. 3, a single selection on the entire object (e.g., a lion) occupying a group of coordinates is transformed to only a pair of longitude and latitude. In other words, it is a many-to-one transformation, the same transformation, if reversed, does not work. Evidently, the act "*transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed*" cannot be mentally performed or by a general computer.

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The Appellant submits these are meaningful limitations that add more than generally linking the use of the abstract idea, because they solve a navigation problem that can only be provided on a geographical map but not on a locally exaggerated non-linear map with a claimed solution that is necessarily rooted in navigation technology, similar to the additional elements in DDR Holdings. These limitations, when taken as an ordered combination, provide unconventional steps that confine the abstract idea (e.g., *downloading, receiving, or showing* data) to a particular useful application (e.g., allowing visitors to tour a theme park with their own portable device with GPS functions). Therefore, Claim 1 recites patent eligible subject matter (Step 2B: YES).

Given the above analysis on Claim 1, the Appellant respectfully submits that Claims 1-10 include (1) improvements to technology or technical field; (2) meaningful limitations beyond generally linking the user of an abstract idea to a particular technological environment; and (3) a "new and useful application" in the physical realm. In particular, Claims 1-10 are directed to a technique of providing navigation in non-linear scaled map which help visitors to navigate a large setting without missing a point of interest, such as a zoo or an amusement park. The Appellant submits a general computer is not capable of doing so.

Accordingly, the Appellant respectfully submits that Claims 1-10 are directed to something more and significantly more than an abstract idea and therefore overcome and alleviate any abstract idea concerns. In fact, as noted by the Supreme Court in *Alice,* "the concern that drives this exclusionary principle [is] one of pre-emption." *Alice,* 573 U.S. at_ (slip op., at 5) (citing *Bilski,* 561 U.S. at 611-612 (2010)). Accordingly, once an identified abstract idea is practically applied so as not to pre-empt the underlying abstract idea that is the end of the analysis. Thus, regardless of whether Claims 1-10 are directed to an abstract idea, these claims recite *something more* than an abstract idea so as not to pre-empt the abstract idea itself. Accordingly, as Claims 11-20 are substantially similar to Claims 1-10, the Appellant respectfully submits that Claims 1-20 are not directed to an abstract idea and therefore requests that the rejection of these claims under 35 U.S.C. §101 be reversed.

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The Appellant respectfully concludes that the rejection of Claims 1-20 is defective for the reason that the Office Action: 1) improperly identifies the claims as being directed to the judicial exception of an abstract idea; 2) fails to allege an abstract idea in accordance with the published Interim Guidance on Patent Subject Matter Eligibility; and 3) fails to recognize limitations in the claims that add "significantly more" to the abstract idea that is being alleged.

2. Arguments with respect to Issue B:

On Page 4, the Examiner has rejected Claims 1- 4 under 35 USC 103(a) as being unpatentable over Salmre in view of Agrawala.

Claim 1 recites:

downloading from a network into a computing device an artistic map, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map, the artistic map is not used directly by the computing device for navigation, each of the objects is represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

determining by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device in the geographical map;

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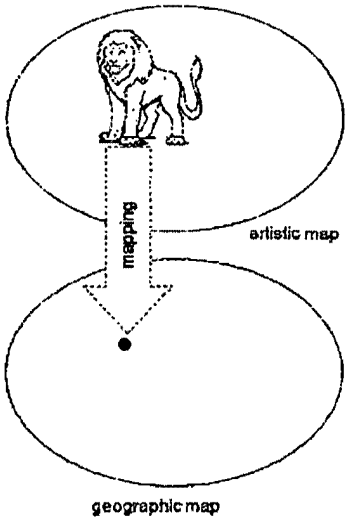
determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and

showing the navigational direction on the artistic map being displayed.

(*Emphasis added*)

One of the objectives in the instant invention is to help a user navigate in a specific zone (e.g., a theme park or zoo) by providing an artistic map to show all the attractions. An artistic map is different from a geographical map that is often used by a GPS for navigation. In other words, the artistic map cannot be used directly by the computing device for navigation. For example, a zoo map with all animals highlighted is an example of the artistic map. Such a zoo map would not be supported on a regular GPS device.

To illustrate where the animals are located, a (artistic) zoo map includes various animals or facilities being exaggeratedly shown on a display screen for a user to easily see and select one to navigate thereto. In the context of the present invention, the geographical map is *NOT* shown on the computing device because it won't be able to show the highlights in the zoo, but used for determining a navigational direction. As shown in FIG. 3 and described in paragraphs [0030] - [0032], one embodiment of the instant invention teaches a transformation of many-to-one. FIG. 3 is duplicated below to show what the many-to-one transformation means.



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A graphic lion is represented by a plurality of points in an artistic map. Regardless of how big the graphic lion may appear in the artistic map, all the points of the graphic lion correspond to one physical point in the geographic map. One of the purposes of having such a large graphic lion is to allow a user to select any part of the lion, if the user desires to see the lion cage shown in the artistic map. Thus the selected point, regardless of which part of the lion, always corresponds to the same point in the geographic map, thus making it possible to derive a navigational direction from the current location to the lion cage.

In contrast, Salmre teaches about a linear map to non-linear map conversion or transformation (and vice versa) in a symmetric fashion. As explicitly stated in Abstract, Salmre accomplishes the transformation or conversation by using dual-triangles that are mapped between the linear map and non-linear map with the same vertices in both maps. In other words, there is a one-to-one corresponding relationship between the linear and non-linear maps as explicitly taught by Salmre. In operation, a reverse transformation always works in Salmre but such a many-to-one transformation in the instant application would never work. Thus Salmre neither teaches or suggests "*... the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point*".

Further, Salmre is silent about whether the non-linear map can be or cannot be used directly on the computing device for navigation. Claim 1 of the instant application recites the "artistic" map is not used directly by the computing device for navigation, instead, the geographical map is referenced for the navigational direction that is then shown onto the artistic map by "*showing the navigational direction on the artistic map being displayed*". Given the one-to-one transformation, Salmre does not care whether the non-linear map can be or cannot be used directly on the computing device for navigation, the Appellant submits Salmre neither teaches nor suggests "*determining according to the geographical map a navigational direction from the current location to the one of the objects being selected*" and "*showing the navigational direction on the artistic map being displayed* ".

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On page 5 of the Office Action, the Examiner admits that Salmre does not explicitly disclose "*transforming the pair of coordinates to a physical point represented by a pair of latitude and longitude in a geographical map, each of the points representing the one of the objects having different pairs of coordinates, but all of the points corresponding substantially to the physical point when said transforming is performed*" and then cites Agrawala to show the teaching in combination.

The Appellant respectfully contests the combination of Salmre and Agrawala as it is believed that there is no motivation to combine these two references in the manner proposed by the Examiner. In order to establish a *prima facie* case of obviousness under 35 USC 103, *Graham v. John Deer Co. of Kansas City*, 383 US 1 (1966) requires determining, respectively, the scope and content of the prior art, the difference between the prior art and the claims at issue, and the level of ordinary skilled in the art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning, to support the legal conclusion of obviousness. *KSR v. Teleflex*, No. 04-1350 (US Apr. 30, 2007) (citing In re Kahn, 441 F. 3d 977, 988 (Canada Fed. 2006)). The suggestion to make the claim combination must be found in the prior art, not in the Appellant's disclosure. In re Vaek, 20 USPQ2d 1438 (Fed. Cir. 1991). Moreover, in accordance with MPEP 2142.02, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L.Gore & Associates Inc. v. Garlock, Inc.* 220 USPQ 303 (Fed. Cir. 1993). A third essential requirement for establishing a *prima facie* case, set forth in MPEP 2143.01 is that the proposed modification cannot render the prior art unsatisfactory for its intended purpose.

Salmre teaches about the conversation between a linear map and a non-linear map in a symmetric fashion while Agrawala teaches about making computer-generated maps including a different scale factor for each road in a route, where Agrawala's non-linear map is created to best fit the display aspect ratio, *see* paragraph [0021] and explicitly used for navigation. Should the non-linear map in Salmre be modified with Agrawala for navigation, as suggested by Agrawala, there would be no need for "*determining according to the geographical map a navigational*

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direction ..." and "*showing the navigational direction on the artistic map being displayed*" as recited in Claim 1 of the instant application. Accordingly, the Appellant submits the combination of Salmre and Agrawala proposed by the Examiner is not proper, and does not render Claim 1 obvious even if they were so combined. The rejection of Claims 1- 4 under 35 USC 103(a) over Salmre in view of Agrawala should be reversed.

3. Arguments with respect to Issue C:

On Page 7, the Examiner has rejected Claims 5-9 under 35 U.S.C. 103(a) as being unpatentable over Salmre in view of Agrawala further in view of Suomela.

The Appellant states these dependent claims shall be examined in view of the corresponding independent and any intervening dependent claims. Claim 1 has been argued above and is believed to be allowable over Salmre in view of Agrawala. In addition, Claim 4 recites "*said showing the navigational direction on the artistic map being displayed comprises transforming in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map*". Given the relevant paragraphs in Agrawala pointed out by the Examiner on Page 7 of the Office Action, it is clear that the Examiner may have either misunderstood what Claim 4 means or interpreted Agrawala beyond the original intent.

Agrawala explicitly states such a non-linear map is created to best fit the display aspect ratio, *see* paragraph [0021]. In other words, such a non-linear map can be used directly for navigation purpose. There is no need for Agrawala to *transform in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map*. Evidently, Claim 4 is believed to be allowable over Salmre in view of Agrawala. Accordngly, Claims 5-9 depending on Claim 4 shall also be allowable over Salmre in view of Agrawala. The rejection of Claims 5-9 under 35 USC 103(a) over Salmre in view of Agrawala should be reversed.

4. Arguments with respect to Issue D:

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On Page 10 of this Office Action, the Examiner rejects Claim 10 under 35 U.S.C. 103(a) as being unpatentable over Salmre in view of Agrawala further in view of Rasmussen. The Appellant states these dependent claims shall be examined in view of the corresponding independent and any intervening dependent claims. Claim 10 depends Claim 1 that has been argued above and is believed to be allowable over Salmre in view of Agrawala.

The Examiner admits that Salmre in view of Agrawala does not disclose Claim 10 and then cites Rasmussen. The Appellant respectfully contests the combination of Salmre, Agrawala and Rasmussen as it is believed that there is no motivation to combine these three references in the manner proposed by the Examiner. Given the relevant paragraphs in Rasmussen referred to by the Examiner on Page 10 of the Office Action, it is clear that the Examiner may have either misunderstood what Claim 10 means or interpreted Rasmussen beyond the original intent.

As clearly described in paragraph [0050], when an artistic map or artificial scene is displayed on a GPS receiver, a color map is provided to define a color of each of the objects in the artistic map. The color of each of the objects in the artistic map can be adjusted to an individual need, resulting in a revised artificial map which is referred to as a color-definition map.

In contrast, Rasmussen teaches a combined map scale and measuring tool that can be presented in colors, especially, a zoom scale. Each scale is in a color. The Examiner seems to assume such a scale as a map even through the scale is designed for a map. The Appellant believes such an interpretation is beyond the original intent. As described in Rasmussen, the colored scale is used to show a particular zoom factor for a map, but not being part of the map. Nevertheless, the colors for the scale cannot be adjusted once defined (*see* paragraphs [0023] and [0024] in Rasmussen). Rasmussen is completely silent about "*adjusting the color for the each of objects in the artistic map, and generating a color definition map*". Accordingly, the rejection of Claim 10 under 35 USC 103(a) over Salmre in view of Agrawala further in view of Rasmussen should be reversed.

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VIII. CLAIMS APPENDIX

1. (*Previously amended*) A method for navigating in a particular area, the method comprising:

downloading from a network into a computing device an artistic map, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map, the artistic map is not used directly by the computing device for navigation, each of the objects is represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

determining by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device in the geographical map;

determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and

showing the navigational direction on the artistic map being displayed.

2. (*Previously amended*) The method as recited in claim 1, wherein the artistic map is a theme park map, each of the objects represents an attraction.

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3. (*Previously amended*) The method as recited in claim 1, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of the display to an edge of the display.

4. (*Previously amended*) The method as recited in claim 1, wherein said showing the navigational direction on the artistic map being displayed comprises transforming in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Previously amended*) The method as recited in claim 5, wherein said showing the navigational direction on the artistic map being displayed comprises:

transforming the instructions with respect to the geographical map to the artistic map being displayed.

7. (*Previously amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

9. (*Previously amended*) The method as recited in claim 5, wherein said showing the navigational direction on the artistic map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the artistic map being displayed.

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10. (*Previously amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the artistic map, and the method further comprising: adjusting the color for the each of objects in the artistic map, and generating a color definition map.

11. (*Previously amended*) A portable device for navigating a designated place, the portable device comprising:

a display screen configured to display an artistic map downloaded from a network, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points, wherein the portable device is equipped with navigation capability and provides a traveling guidance on a geographical map, the artistic map is not used directly by the portable device for navigation, and wherein the geographical map is not being shown on the display screen;

a memory for storing code;

a processor executing the code to perform operations of:

determining a pair of coordinates of one of the points representing an object being selected in the artistic map being displayed on the display screen;

transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, wherein the points representing the object have different pairs of coordinates, but all of the different pairs of coordinates correspond substantially to the physical point;

detecting a current location of the computing device in the geographic map;

determining according to the geographical map a direction from the current location to the physical point; and

showing the direction in the artistic map being displayed.

12. (*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of

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coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13. (*Previously amended*) The portable device as recited in claim 12, wherein the artistic map is non-linearly scaled, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14. (*Previously amended*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out by the portable device in accordance with the geographical map.

15. (*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16. (*Previously amended*) The portable device as recited in claim 15, wherein said showing the direction in the artistic map being displayed comprises:

transforming the direction with respect to the geographical map to the artistic map being displayed; and

transforming the instructions with respect to the geographical map to the artistic map being displayed.

17. (*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

18. (*Previously amended*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the artistic map.

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Toyota Petition '628 Exhibit 1002
Page 351 of 434

19. (*Previously amended*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the artistic map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20. (*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDING APPENDIX

Notification of Allowance on a corresponding Chinese Application No.: 2008801030473 issued on March 2, 2016 by State Intellectual Property Office of PRC (SIPO)

Summary

In view of the foregoing, it is respectfully submitted that the combined features in claims 1-20 are neither non-eligible subjects nor taught by Abramson. Accordingly, the rejections of the pending claims 1-20 under 35 USC 101and 103 should be hereby reversed.

Respectfully Submitted,

/ joe zheng /

Joe Zheng
Reg. No.: 39,450
Tel: (408)777-8873

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APPENDIX

Notification of Allowance on a corresponding Chinese Application No.: 2008801030473 issued on March 2, 2016 by State Intellectual Property Office of PRC (SIPO).

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10-61

200063

上海市中山北路1958号华源世界广场27楼2716-2718室 上海翼胜专利商标事务所（普通合伙）
翟羽

发文日：

2016年03月02日

申请号或专利号：200880103047.3 发文序号：2016022600044490

申请人或专利权人： 英菲科迅公司

发明创造名称： 在艺术地图上导航的方法和装置

办理登记手续通知书

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翟羽

发文日：

2016 年 03 月 02 日

申请号或专利号：200880103047.3　　发文序号：2016021600719610

申请人或专利权人：英菲科迅公司

发明创造名称：在艺术地图上导航的方法和装置

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

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LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER
HUNTER, SEAN KRISTOPHER

ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Application Number: 12/186,524
Filing Date: August 06, 2008
Appellant(s): PU ET AL.

Joe Zheng
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4 April 2016 appealing from the Office Action mailed 7 October 2015.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Every ground of rejection set forth in the Office Action dated 7 October 2015 from which the appeal is taken is being maintained by the Examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

RESTATEMENT OF REJECTION

The following ground(s) of rejection are applicable to the appealed claims.

CLAIM REJECTIONS - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-20 are rejected under 35 U.S.C. §101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. **Claims 1-20** are directed to the abstract idea of comparing new and stored information and using rules to identify options. While the claims may not explicitly recite, "comparing new and stored information and using rules to identify options", the concept of "comparing new and stored information and using rules to identify options" is described, for example, by the downloading, receiving, determining, transforming, detecting, determining and showing steps as recited in currently amended independent Claim 1. The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements or combination of elements in the claims in conjunction with the abstract idea per se amounts to no more than mere instructions to implement the idea on a computer, and/or the recitation of generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry.

CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala et al. (US 2005/0149303), hereinafter referred to as Salmre and Agrawala, respectively.

Claim 1 (Currently Amended) –

As per Claim 1, Salmre discloses a method for navigating in a particular area, the method comprising:

- downloading from a network into a computing device an artistic map, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map, the artistic map is not used directly by the computing device for navigation, each of the objects represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display [*see at*

least, Abstract; Figure 2; p. 1, ¶0001 (mobile device from application incorporated into current application); p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071(mobile devices); p. 6, ¶0072-¶0074, of Salmre];

- receiving in the computing device a selection on the one of the objects from the user as a selected object [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- determining by the computing device a pair of coordinates for one of the points on the selected object [*see at least, Abstract; p. 4, ¶0047; p. 4, ¶0053; p. 5, ¶0058-0059; p. 6, ¶0068, of Salmre*];
- detecting a current location of the computing device in the geographical map [*see at least, Abstract; p. 6, ¶0066-¶0068; and ¶0071, of Salmre*];
- determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and showing the navigational direction on the artistic map being displayed [*see at least, Abstract; p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0030-¶0031; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071-¶0074, of Salmre*].

Salmre *may not explicitly* disclose

- transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed [*see at least, Abstract; p. 1, ¶0007; p. 5, ¶0058, of Salmre*];

Agrawala discloses

- transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed [see at least, p. 3, ¶0019-0020; p. 13, ¶0152; p. 22, ¶0268, of Agrawala]

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected objects having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 2 (Currently Amended) –

As per Claim 2, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein

- the artistic map is a theme park map, each of the objects represents an attraction [*see at least, Figure 1; Figure 2; Figure 3; Figure 6, of Salmre*].

Claim 3 (Currently Amended) –

As per Claim 3, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein

- the map is presented in such a way that a display resolution of the map goes lower from a center of the display to an edge of the display [*see at least, p. 7 ¶0099; p. 13, ¶0149; p. 25, ¶0293 & ¶0299, of Agrawala*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map is presented in such a way that a display resolution of the map goes lower from a center of a display to an edge of the display, as taught by Agrawala.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer

generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 4 (Previously Amended) –

As per Claim 4 Salmre in view of Agrawala discloses the method as recited in Claim 3, wherein

- said showing the navigational direction on the artistic may being displayed comprises transforming in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map. [*see at least, Abstract; p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0030-¶0031; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071-¶0074, of Salmre*]

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Suomela (US 6,697,734), hereinafter referred to as Salmre, Agrawala and Suomela, respectively.

Claim 5 (Original) –

As per Claim 5, Salmre in view of Agrawala discloses the method as recited in Claim 4, however Salmre does not explicitly disclose further comprising

- determining a set of instructions of how to move from the current location to the physical point as a destination.

Suomela discloses

- determining a set of instructions of how to move from the current location to the physical point as a destination [*see at least, col. 1, lines 21-26, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, determining a set of instructions of how to move from the current location to the physical point as a destination, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system

and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 6 (Previously Amended) –

As per Claim 6, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein said showing the navigational direction on the artistic map being displayed comprises:

- transforming the instructions with respect to the geographical map to the artistic map being displayed [*see at least, Figure 4; Figure 5; Figure 6; and col. 3, lines 40-47, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming the instructions with respect to the geographical map to the artistic map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 7 (Previously Amended) –

As per Claim 7, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 6, wherein the navigational direction shows how to

- move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points [*see at least, Figure 4; Figure 5; Figure 6; col. 3 lines 37-47; col. 8, lines 26-27, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, transforming both the direction and the instructions with respect to the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 8 (Previously Amended) –

As per Claim 8, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 7, further comprising

- connecting the pixel coordinates of the points to show the route on the map [*see at least, Figure 3; Figure 4; Figure 5; and Figure 6, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, connecting the pixel coordinates of the points to show the route in the map, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 9 (Previously Amended) –

As per Claim 9, Salmre in view of Agrawala, further in view of Suomela discloses the method as recited in Claim 5, wherein said showing the navigational direction on the artistic map being displayed is

- carried out according to a transformation derived from a deformation of the geographical map to the map being displayed [*see at least, col. 2, lines 14-33, of Suomela*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, the map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed, as disclosed by Suomela.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since there is an apparent need for an improved system and method for making computer generated maps as well as a need for making computer generated maps that avoid the pitfalls found in existing map-making algorithms, such as the use of extraneous information and constant scaling. [p. 3, ¶0018 of Agrawala].

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmre (US 2007/0176932), in view of Agrawala (US 2005/0149303), further in view of Rasmussen (US 2006/0206264), hereinafter referred to as Salmre, Agrawala and Rasmussen, respectively.

Claim 10 (Previously Amended) –

As per Claim 10, Salmre in view of Agrawala discloses the method as recited in Claim 1, wherein there is a color map to define a color of each of the objects in the artistic map, Salmre *may not explicitly* disclose and the method further comprising:

- adjusting the color for the each of objects in the artistic map, and generating a color-definition map.

Rasmussen discloses

- adjusting the color for the each of objects in the artistic map, and generating a color-definition map [*see at least, p. 3, ¶0023 and ¶0027, of Rasmussen*].

It would have been obvious to one of ordinary skill at the time of the invention to expand the method of Salmre to further include, adjusting the color for the each of objects in the map, and generating a color-definition map, as disclosed by Rasmussen.

One of ordinary skill in the art at the time of the invention would have been motivated to expand the method of Salmre in this way since it would provide a more reliable and efficient method for navigating in a particular area for a particular user.

Claims 11 through 20 (Currently Amended | Previously Amended | Original) –

As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the Examiner. *Not applicable.*

RESPONSE TO ARGUMENTS

In the Appeal Brief filed 4 April 2016, the Appellant makes the following arguments:

1. With respect to Claims 1-20, said claims are allegedly directed to statutory subject matter under 35 U.S.C. §101.
2. With respect to Claims 1-4, Salmre in view of Agrawala allegedly "…neither teaches or suggests '…the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point'".
3. With respect to Claims 1-4, Salmre in view of Agrawala allegedly "…neither teaches nor suggests 'determining according to the geographical map a navigational direction from the current location to one of the objects being selected' and 'showing the navigational direction on the artistic map being displayed.'"
4. With respect to Claims 1-4, there is allegedly "no motivation to combine these two references".
5. With respect to Claims 5-9, said claims are allegedly allowable based upon their dependency upon Claim 4 and the limitations recited in Claim 4.
6. With respect to Claim 10, said claim is allegedly allowable based upon its dependency upon allegedly allowable Claim 1.
7. With respect to Claim 10, there is allegedly "no motivation to combine these three references", i.e., Salmre in view of Agrawala, further in view of Rasmussen.

The Examiner will address the Appellant's arguments in the order in which they appear in the Appeal Brief filed 4 April 2016.

RESPONSE TO ARGUMENT (1)

In response to the Appellant's argument that, with respect to Claims 1-20, said claims are allegedly directed to statutory subject matter under 35 U.S.C. §101, the Examiner respectfully disagrees. The Examiner respectfully notes that the claims as currently submitted by the Appellant are directed to the abstract idea of comparing new and stored information and using rules to identify options. Several cases have found concepts relating to processes of comparing data that can be performed mentally abstract, such as comparing new and stored information and using rules to identify options (*SmartGene*). While the claims may not explicitly recite the abstract idea of comparing new and stored information and using rules to identify options, the concept of "comparing new and stored information and using rules to identify options" is described, for example, by the downloading, receiving, determining, transforming, detecting, determining and showing steps as recited in the language of independent Claim 1. With that, the Examiner respectfully asserts that under the first prong of the analysis under 35 U.S.C. §101, the Applicant's claims are in fact directed to an abstract idea. As such, the Examiner proceeds to the second prong of the analysis. In looking at the second prong of the analysis, the Examiner respectfully notes that limitations that may be enough to qualify as significantly more when recited in a claim with an abstract idea include, as non-limiting and/or non-exclusive examples: improvements to another technology or technical field, improvements to the functioning of the computer itself, meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. The Examiner further respectfully notes that the following non-limiting and/or or non-exclusive examples are **NOT** enough to qualify as significantly more when recited in a claim with an abstract idea, those examples are: adding the words "apply it" (or an equivalent) with an abstract idea, or more instructions to implement an abstract idea on a computer; requiring no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry. In looking at the Appellant's Specification regarding the claimed invention, the Examiner notes the following. The Appellant's Specification recites in part, "…map in a data file may be downloadable to a portable device or a ***personal computer*** that can be configured to perform as…" (Emphasis added by the Examiner) [p. 7, ¶0028 of Applicant's Specification]. The Applicant's specification also recites in part, "[o]ther devices (e.g. ***a computing device***, a

handheld device) may also be configured to practice the present invention." (Emphasis added by the Examiner) [p. 10, ¶0037 of Applicant's Specification]. With that, the Examiner respectfully asserts that the computer(s), as recited, is a generic computer component that performs functions (i.e., downloading…an artistic map, receiving…a selection, determining…a pair of coordinates, transforming…the pair of coordinates, detecting a current location…, determining…a navigational direction, and showing the navigational direction…). These are all generic computer functions (i.e., downloading, receiving, determining, transforming, detecting, determining and showing) that are well-understood, routine, and conventional activities previously known to the industry. The claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception because the elements when considered both individually and as an ordered combination do not amount to significantly more than the abstract idea. The claim recites "a network", "a computing device", "an artistic map", and "a geographical map", which do NOT add meaningful limitations to the idea of comparing new and stored information and using rules to identify options beyond generally linking the method to a particular technological environment, that is, implementation via computers. Generic computer components recited as performing generic computer functions that are well-understood, routine and conventional activities amount to no more than implementing the abstract idea with a computerized system. Thus, taken alone, the additional elements do not amount to significantly more than the above identified judicial exception (the abstract idea). Looking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions merely provide conventional computer implementation. A *prima facie* case is made when the rejection: i. identifies and clearly articulates the judicial exception recited in the claims, ii. identifies any additional elements recited in the claims, and iii. explains why the additional elements do not amount to significantly more than the exception. Notably, documentary evidence is not required to make a prima facie case of patent ineligibility. Numerous court cases (*Alice, Bilski, Diehr, Flook, Benson*) did not rely on evidence to find the claims to be directed to a judicial exception without significantly more. Because the claims have been shown to recite an abstract idea that is similar to abstract ideas previously found by the

courts to be abstract, and the additional elements do not amount to significantly more than the abstract idea, a *prima facie* case of patent ineligibility has been established. While it is acknowledged that preemption is the concern driving judicial exceptions to patent eligibility, preemption is not a stand-alone test for eligibility. Rather, the results of applying the two-part framework from Alice Corp. and Mayo answer the question of whether the claims are preemptive. Where the claims are deemed only to be directed to patent ineligible subject matter under the two-part framework, as they are in this case, preemption concerns are fully addressed and made moot. As shown above, the claims are directed to an abstract idea and the additional elements do not amount to significantly more than the abstract idea. Accordingly, the claims as currently submitted are ineligible and not statutory under 35 U.S.C. §101.

RESPONSE TO ARGUMENT (2)

In response to the Appellant's argument that, with respect to Claims 1-4, Salmre in view of Agrawala allegedly "…neither teaches or suggests '…the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point'", the Examiner respectfully disagrees. For the purpose of providing clarity, the Examiner respectfully notes that the particular limitation to which the Appellant is referring to in independent Claim 1 recites the following, "*…transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed…*" In response to the Appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, the Examiner recognizes obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions in *In re DeLisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598

(Fed. Cir. 1988) (citing *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al*, 192 USPQ 278 (CCPA) that:

> (i) obviousness does not require absolute predictability;
> (ii) non-preferred embodiments of prior art must also be considered; and
> **(iii) the question is not express teaching of references, but *what they would suggest*.**

With that the Examiner notes that Salmre in view of Agrawala discloses: "…[t]echniques are provided that allow for the designing and using of arbitrary maps, whether these maps may be linear or non-linear; …any points that are converted from the first map image to the second map image (or vice versa) are converted symmetrically…" [p. 1, ¶0007 of Salmre]. Salmre in view of Agrawala also discloses: "…shows how a round trip conversion…produces no spatial distortion for plotted data, thereby showing the quality of various transformation algorithms that can be visually enhanced; …X and Y coordinates are transformed to latitude and longitude coordinates, and then back to X and Y coordinates; …the quality of various transformation algorithms can be visually evaluated." [p. 5, ¶0058 of Salmre]. As such, the Examiner respectfully submits that Salmre in view of Agrawala more than seemingly suggests, "…transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed…", as recited by the Appellant in the language of independent Claim 1.

RESPONSE TO ARGUMENT (3)

In response to the Appellant's argument that, with respect to Claims 1-4, Salmre in view of Agrawala allegedly "…neither teaches nor suggests 'determining according to the geographical map a navigational direction from the current location to one of the objects being selected' and 'showing the navigational direction on the artistic map being displayed'", the Examiner respectfully disagrees. In response to the Appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, the Examiner recognizes obviousness is not determined by what the references

expressly state but by what they would reasonably suggest to one of ordinary skill in the art, as supported by decisions in *In re DeLisle* 406 Fed 1326, 160 USPQ 806; *In re Kell, Terry and Davies* 208 USPQ 871; and *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ 2d 1596, 1598 (Fed. Cir. 1988) (citing *In re Lalu*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)). Further, it was determined in *In re Lamberti et al*, 192 USPQ 278 (CCPA) that:

> (i) obviousness does not require absolute predictability;
> (ii) non-preferred embodiments of prior art must also be considered; and
> **(iii) the question is not express teaching of references, but *what they would suggest*.**

With that the Examiner notes that Salmre in view of Agrawala discloses: "…the ability of switching back between linear and non-linear maps; [b]y shifting between different maps, users can quickly determine the distance, direction…to arrive at a desired location…or for still other purposes." [p. 2, ¶0030 of Salmre]. Salmre in view of Agrawala also discloses: "…switching back and forth between linear and non-linear maps can be done indefinitely; …such switching may be down without any distortions as to the actual location…on the linear and non-linear maps." [p. 2, ¶0034 of Salmre]. Salmre in view of Agrawala further discloses: "…moderately skilled programmers and other non-experts...working with map images can apply and/or use them in the following manner: (1) import existing non-liner and irregularly spaced map images into the system; (2) quickly annotate the non-linear map's images with real world physical location data (using, for instance, a ***combination of other maps*** to help guide their mapping process); (3) design a set of triangle shapes on map surfaces that connect known points and define boundary conditions inside which translations between real-world coordinates and points on the non-linear map can take place; (4) project these triangles and location points onto a variety of maps to audit the area covered...; "… (8) use these maps at run-time in arbitrary software applications that utilize the maps, simultaneously conveying to users map data on both linear and non-linear surfaces…" [p. 6, ¶0067 of Salmre]. Salmre in view of Agrawala still further discloses: "…system provides a mechanism for non-experts to quickly and with predictable accuracy to annotate arbitrary non-linear and irregularly spaced maps, allowing for the projection of location based data onto these maps in software applications. This is useful for all kinds of software applications, and particularly useful for mobile devices used by individuals in real-world environments in need of these maps." [p. 6, ¶0071 of Salmre]. Salmre in view of Agrawala still further discloses: "…a map design surface…supported by an application

programming interface (API) can be used to allow developers to easily work with a wide variety of linear and non-linear maps. Non-expert developers (or other designers) can be given any easy programming and graphical interface…to define these dual-triangle systems and to use them to project location data onto map image(s)." [p. 6, ¶0072 of Salmre]. Salmre in view of Agrawala still further discloses: "…may allow for simultaneous display of the sets of mapping triangles on both the non-linear map and the other map representations…result may be flexible and useful in allowing for the rapid use of non-linear maps in software applications…" [p. 6, ¶0074 of Salmre]. As such, the Examiner respectfully notes that Salmre in view of Agrawala more than seemingly suggests, "…'determining according to the geographical map a navigational direction from the current location to one of the objects being selected' and 'showing the navigational direction on the artistic map being displayed'", as recited by the Appellant in the language of independent Claim 1.

RESPONSE TO ARGUMENT (4)

In response to the Appellant's argument that, with respect to Claims 1-4, there is allegedly "no motivation to combine these two references", the Examiner respectfully disagrees. The Examiner respectfully notes the language of §2143 of the MPEP. It is respectfully noted that the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396. An example of rationale that may support a conclusion of obviousness include: (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention See MPEP § 2143. Furthermore, if the search of the prior art and the resolution of the *Graham* factual inquiries reveal that an obviousness rejection may be made using the familiar teaching-suggestion-motivation (TSM) rationale, then such a rejection should be made. Although the

Supreme Court in *KSR* cautioned against an overly rigid application of TSM, it also recognized that **TSM was one of a number of valid rationales that could be used to determine obviousness**. (According to the Supreme Court, establishment of the TSM approach to the question of obviousness "captured a helpful insight." 550 U.S. at ___, 82 USPQ2d at 1396 (citing *In re Bergel*, 292 F.2d 955, 956-57, 130 USPQ 206, 207-208 (1961)).). The MPEP, in §2143, further states that the ***Courts have made it clear that the teaching, suggestion, or motivation test is flexible*** and an explicit suggestion to combine the prior art is not necessary. It goes on to state that, *"[a]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the 'improvement' is technology-independent and* ***the combinations of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient****...we have held that there exists...a motivation to combine prior art references even absent any hint of suggestion in the references themselves*." In the Application at hand, the Examiner respectfully asserts that an adequate teaching, suggestion, or motivation has been provided to the Appellant, as set forth above, in the rejection of independent Claim 1. More specifically, the Examiner respectfully notes that the motivation, as provided in the rejection of independent Claim 1 under 35 U.S.C. §103, is gleaned from one of the prior art references, e.g. Agrawala ("…there is an apparent need for an improved system and method for making computer generated maps that avoid the pitfalls found in existing map-making algorithms…"). Said motivation is found on p. 3, in ¶0018 of the Agrawala reference. As such, the Examiner respectfully submits that there is indeed motivation to combine the references in the manner set forth above in the rejection(s) of Claims 1-4 as set forth above.

RESPONSE TO ARGUMENT (5)

In response to the Appellant's argument that, with respect to Claims 5-9, said claims are allegedly allowable based upon their dependency upon Claim 4 and the limitations recited in Claim 4, the Examiner respectfully disagrees. Claim 4 is not allowable for reasons set forth above by the Examiner. As such, dependent Claims 5-9 are not allowable for substantially the same, or similar, reasons as set forth above by the Examiner with respect to Claim 4 as well as the rejections of their own respective limitations as set forth above as well.

RESPONSE TO ARGUMENT (6)

In response to the Appellant's argument that, with respect to Claim 10, said claim is allegedly allowable based upon its dependency upon allegedly allowable Claim 1, the Examiner respectfully disagrees. The Examiner respectfully notes that Claim 1 is not allowable for reasons set forth above by the Examiner. As such, Claim 10 is not allowable for substantially the same, or similar, reasons as set forth above by the Examiner with respect to Claim 1.

RESPONSE TO ARGUMENT (7)

In response to the Appellant's argument that, with respect to Claim 10, there is allegedly "no motivation to combine these three references", i.e., Salmre in view of Agrawala, further in view of Rasmussen, the Examiner respectfully disagrees. The Examiner respectfully notes the language of §2143 of the MPEP. It is respectfully noted that the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396. An example of rationale that may support a conclusion of obviousness include: (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention See MPEP § 2143. Furthermore, if the search of the prior art and the resolution of the *Graham* factual inquiries reveal that an obviousness rejection may be made using the familiar teaching-suggestion-motivation (TSM) rationale, then such a rejection should be made. Although the Supreme Court in *KSR* cautioned against an overly rigid application of TSM, it also recognized that **TSM was one of a number of valid rationales that could be used to determine obviousness**. (According to the Supreme Court, establishment of the TSM approach to the question of obviousness "captured a helpful insight." 550 U.S. at ___, 82 USPQ2d at 1396 (citing *In re Bergel*, 292 F.2d 955, 956-57, 130 USPQ 206, 207-208 (1961)).). The MPEP, in §2143, further states that the ***Courts have made it clear that the teaching,***

suggestion, or motivation test is flexible and an explicit suggestion to combine the prior art is not necessary. It goes on to state that, *"[a]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the 'improvement' is technology-independent and* ***the combinations of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient*** *...we have held that there exists...a motivation to combine prior art references even absent any hint of suggestion in the references themselves*." In the Application at hand, the Examiner respectfully asserts that an adequate teaching, suggestion, or motivation has been provided to the Appellant, as set forth above, in the rejection of independent Claim 10 (i.e., "more reliable and efficient method for navigating"). As such, the Examiner respectfully submits that there is indeed motivation to combine the references in the manner set forth above in the rejection(s) of Claim 10 as set forth above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/SEAN K HUNTER/
Primary Examiner, Art Unit 3626

Conferees:

/C. Luke Gilligan/
Acting Supervisory Examiner, Art Unit 3626

/NEHA PATEL/
Primary Examiner, Art Unit 3686
Neha Patel

Requirement to pay appeal forwarding fee. In order to avoid dismissal of the instant appeal in any application or ex parte reexamination proceeding, 37 CFR 41.45 requires payment of an appeal forwarding fee within the time permitted by 37 CFR 41.45(a), unless appellant had timely

paid the fee for filing a brief required by 37 CFR 41.20(b) in effect on March 18, 2013.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

EX PARTE

US Patent Application Number 12/186,524

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

REPLY BRIEF UNDER 37 CFR § 37 CFR 41.41

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service via USPTO electronic filing system addressed to: Appeal Brief-Patent, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: January 3, 2017

Signed: / joe zheng /
Joe Zheng

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
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January 3, 2017

Mail Stop: PTAB
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF UNDER 37 CFR § 37 CFR 41.41

Dear Sir:

This Reply Brief is being filed in response to the Examiner's Answer mailed on November 9, 2006. This Reply Brief is being filed in accordance with the requirements of 37 CFR 41.41 to maintain the appeal of the rejection of the above-identified patent application. It is not believed that any fee is required for filing this Reply Brief, however, in the event that any fees are required, the Commissioner is hereby authorized to deduct such fees from Deposit Account No.: 502436.

STATUS OF THE CLAIMS

All of the claims pending in the instant patent application (Claims 1 - 20) are under final rejection with this rejection being appealed. A complete copy of claims 1 – 20 is in the Claims Appendix to the Appellant's Brief filed on February 4, 2016.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection which the Appellant believes to be most pertinent to the present appeal include the following issues:

A. Grand of rejection on Claims 1-20 under 35 USC 101 because the claimed invention is directed to non-statutory subject matter;
B. Grand of rejection on Claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Salmre in view of Agrawala;
C. Grand of rejection on Claims 5-9 under 35 U.S.C. 103(a) as being unpatentable over Salmre in view of Agrawala further in view of Suomela; and
D. Grand of rejection on Claim 10 under 35 U.S.C. 103(a) as being unpatentable over Salmre in view of Agrawala further in view of Rasmussen

RESPONSE TO EXAMINER'S ANSWER

1. Further arguments with respect to Issue A:

The Appellant observed that the Examiner only looked at the gerund or verbal nouns "downloading, receiving, determining, transforming, detecting, determining and showing" without considering the specific limitations after these words in Claim 1, and concluded that this is an invention of abstract idea of comparing new and stored information and using rules to identify options. The Appellant submits that Claim 1, as a whole, is not related to comparing new and stored information and using rules to identify options. Specifically, Claim 1 is related to providing navigation on a non-linearly scaled map with an underlying corresponding geographical (linear) map, where the non-linearly scaled map is defined explicitly to include objects being exaggeratedly shown and any point in such an object means ONLY a single location (a pair of coordinates in latitude and longitude) in the actual geographic map. In other words, the relationship between a non-linearly scaled map with an underlying corresponding geographical (linear) map is many-to-one. Operationally different from the common GPS devices that operate directly on a geographical (linear) map, Claim 1 recites a collection of processes navigating a non-linearly scaled map, which is an improvement to another technology or technical field, to the functioning of the computer itself, includes meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. On Page 11 of the Examiner's answer, the Examiner even admits that limitations in Claim 1 may be enough to qualify as significantly more when recited in a claim with an abstract idea.

Further, the Appellant respectfully submits that the rejection of Claims 1-20 under 35 USC 101 in the Office Action dated 10/07/2015 is *defective* in view of the USPTO's MEMORANDUM dated May 19, 2016, for the reason that the Office Action: 1) fails to compare the claim to claims already found to be directed to an abstract idea in a previous court decision when determining whether a claim is directed to an abstract idea, 2) fails to apply a filter to the claims, when interpreted in view of the specification, based on whether their character as a whole is directed to a patent

ineligible concept, 3) interprets or describes a claim at a high level of abstraction untethered from the language of the claim when determining the focus of the claimed invention, and 4) fail to realize the fact that an invention's ability to run on a general purpose computer does not automatically doom the claim.

2. Further arguments with respect to Issue B:

The Examiner's Answer replicates the rejections stated in the Office Action dated 10/07/2015, the Appellant's arguments have been presented in the Brief filed on February 4, 2016.

3. Further arguments with respect to Issue C:

The Examiner's Answer replicates the rejections stated in the Office Action dated 10/07/2015, the Appellant's arguments have been presented in the Brief filed on February 4, 2016.

4. Further arguments with respect to Issue D:

The Examiner's Answer replicates the rejections stated in the Office Action dated 10/07/2015, the Appellant's arguments have been presented in the Brief filed on February 4, 2016.

For the reasons delineated herein and in the Appellant's Brief filed on February 4, 2016, the claims pending in the instant patent application are not obvious over the teachings of Salmre in view of Agrawala. It is, accordingly, appropriate for the Examiner's rejections to be reversed.

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg.: No. 39,450

Electronic Patent Application Fee Transmittal

Application Number:	12186524
Filing Date:	06-Aug-2008
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Filer:	Joe Zheng
Attorney Docket Number:	Kent-007

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
APPEAL FORWARDING FEE	2413	1	1000	1000
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**1000**

Electronic Acknowledgement Receipt

EFS ID:	27960163
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	03-JAN-2017
Filing Date:	06-AUG-2008
Time Stamp:	20:09:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$1000
RAM confirmation Number	010417INTEFSW20114000
Deposit Account	502436
Authorized User	Joe Zheng

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Reply Brief Filed	AppealReplyBriefForm.pdf	165362 7ec9f89e025648bea1c1957add56437519a62dff	no	6
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30451 1d6a1c8c5e9649fa431267cf938aec35f6faec4b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	195813		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

26797 7590 01/26/2017

LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER
HUNTER, SEAN KRISTOPHER

ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
01/26/2017	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

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CUPERTINO, CA 95015

Appeal No: 2017-003775
Application: 12/186,524
Appellant: Kent Qing PU et al.

Patent Trial and Appeal Board Docketing Notice

Application 12/186,524 was received from the Technology Center at the Board on January 19, 2017 and has been assigned Appeal No: 2017-003775.

In all future communications regarding this appeal, please include both the application number and the appeal number.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

26797 7590 06/27/2018

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21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER
MORGAN, ROBERT W

ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KENT QING PU, IVAN ANGELOV, and DAVID THIEME

Appeal 2017-003775
Application 12/186,524
Technology Center 3600

Before ST. JOHN COURTENAY III, BETH Z. SHAW, and SCOTT B. HOWARD, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] appeal under 35 U.S.C. § 134(a) from the Examiner's Non-Final Rejection of claims 1–20, which are all the claims pending in this application. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We reverse.

STATEMENT OF THE CASE

Introduction

Exemplary embodiments of Appellants' invention relate generally to "the area of Global Positioning System (GPS)." Spec. ¶ 2. In particular, the invention on appeal "is related to navigation on non-linearly scaled maps

[1] The real party in interest is Information Corporation. App. Br. 1.

and how to display such non-linearly scaled maps with proper colors on a display screen." *Id.*

Exemplary Claim

1. A method for navigating in a particular area, the method comprising:

downloading from a network into a computing device an artistic map, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map, *the artistic map is not used directly by the computing device for navigation*, each of the objects is represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

determining by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display,

the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device in the geographical map;

determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and

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showing the navigational direction on the artistic map being displayed.

Emphasis added regarding the contested negative limitation.

Rejections[2]

A. Claims 1–20 are rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Non-Final Act. 3.

B. Claims 1–4 and 11–14 are rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Salmre (US 2007/0176932 A1, published Aug. 2, 2007), in view of Agrawala et al. (US 2005/0149303 A1, published July 7, 2005), hereinafter referred to as Salmre and Agrawala, respectively. Non-Final Act. 4.

C. Claims 5–9 and 15–19 are rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Salmre and Agrawala, and further in view of Suomela (US 6,697,734 B1, issued Feb. 24, 2004). Non-Final Act. 7.

D. Claims 10 and 20 are rejected under pre-AIA 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Salmre and Agrawala, and further in view of Rasmussen (US 2006/0206264 A1, published Sept. 14, 2006). Non-Final Act. 10.

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[2] Regarding the rejections of claims 11–20, the Examiner indicates: "As per Claims 11-20, Claims 11-20 are directed to a portable device. Claims 11-20 recite the same or similar limitations as those addressed above for Claims 1-10. Claims 11-20 are therefore rejected for the same reasons set forth above for Claims 1-10." Non-Final Act. 10. *We have corrected the headings of rejections B, C, and D, accordingly, as shown above.*

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Issues on Appeal

Did the Examiner err in rejecting claims 1–20 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter?

Did the Examiner err in rejecting claims 1–20 under pre-AIA 35 U.S.C. § 103(a) as being obvious over the cited combinations of references?

ANALYSIS

We have considered all of Appellants' arguments and any evidence presented. To the extent Appellants have not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We highlight and address specific findings and arguments for emphasis in our analysis below.

Mayo/Alice Analysis under 35 U.S.C. § 101

Under 35 U.S.C. § 101, a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The Supreme Court has "long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). The Supreme Court in *Alice* reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 82–84 (2012), "for distinguishing patents that claim laws of

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nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355.

The first step in that analysis is to determine whether the claims at issue are directed to one of those patent-ineligible concepts, such as an *abstract idea.* Abstract ideas may include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Id.* at 2355–57.

If the claims are *not directed* to a patent-ineligible concept, *the inquiry ends. See Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017).

Otherwise, the inquiry proceeds to the second step in which the elements of the claims are considered "individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78). We consider the question of whether the claims are directed to a *specific improvement* in the capabilities of the computing devices, or, instead, "a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

We, therefore, decide under step two whether the claims: (a) set forth an *inventive concept* that provides a specific means or method that *improves* the relevant technology, or (b) are directed to a result or effect that itself is the abstract idea, in which the claims merely invoke generic processes and machinery. *See Enfish*, 822 F.3d at 1336.

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The Examiner's Rejection A under 35 U.S.C. § 101

Regarding the first step of the *Alice/Mayo* analysis, the Examiner concludes claims 1–20 are directed to:

> the *abstract idea of comparing new and stored information and using rules to identify options*. While the claims may not explicitly recite, "comparing new and stored information and using rules to identify options", the concept of "comparing new and stored information and using rules to identify options" is described, for example, by the downloading, receiving, determining, transforming, detecting, determining and showing steps as recited in currently amended independent Claim 1.

Non-Final Act. 3 (emphasis added).[3]

Regarding the second step of the *Mayo/Alice* analysis, the Examiner finds the claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception,

> because the additional elements or combination of elements in the claims in conjunction with the abstract idea per se amounts to no more than mere instructions to implement the idea on a computer, and/or the recitation of generic computer structure that serves to perform generic computer functions that are *well-understood, routine, and conventional activities* previously known to the pertinent industry.

Non-Final Act. 3, emphasis added.[4]

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[3] "Patent eligibility under § 101 presents an issue of law." *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1340 (Fed. Cir. 2013).

[4] The patent eligibility inquiry may contain underlying issues of fact. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016). In particular, "[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

For these reasons, the Examiner concludes that all claims 1–20 on appeal are not patent-eligible under 35 U.S.C. § 101.

Mayo/Alice Analysis — Step 1

Regarding *Alice* Step 1, Appellants contend, *inter alia*:

> [T]he Examiner has *mischaracterized* the claims. *Neither the Specification nor the claims indicate any operation involving a set of data being compared with a stored data.* The Examiner then continues with the self-contradictory statement While the claims may not explicitly recite, "comparing new and stored information and using rules to identify options", the concept of "comparing new and stored information and using rules to identify options" is described, for example, by the downloading, receiving, determining, transforming, detecting, determining and showing steps as recited in currently amended independent Claim 1. As will be further described below, *Claim 1 neither recites nor indicates anything related to comparing new and stored information and using rules to identify options as is being alleged by the Office Action* but rather to the (many-to-one) transformation of coordinates in an artistic map to a pair of latitude and longitude in the geographical map.

App. Br. 7, emphasis added and omitted.

At the outset, we agree with the Appellants' that the Examiner has mischaracterized the claim language. App. Br. 7. We particularly note the Examiner expressly acknowledges the "claims may not explicitly recite, 'comparing new and stored information and using rules to identify options,'" which is the sole basis proffered by the Examiner to support the legal conclusion that Appellants' claims are directed to an abstract idea. *See* Non-Final Act. 3. Nor does the Examiner conclude that Appellants' claims are directed to a fundamental economic practice, a method of doing business, or

a method of organizing human activity. The Examiner's citation in the Answer (11) to the non-precedential *SmartGene* Federal Circuit opinion (as a persuasive but not mandatory authority) does little to support the Examiner's position.[5] Nor has the Examiner identified any specific rules recited in claim 1. Therefore, we agree with Appellants that the Examiner has not established that the claims are directed to an abstract idea under *Alice*, step 1. If the claims are *not directed* to a patent-ineligible concept, *the inquiry ends. See Visual Memory LLC*, 867 F.3d at 1262.

Accordingly, for at least these reasons, we are constrained on this record to reverse the Examiner's rejection under 35 U.S.C. § 101 of claims 1–20, as being purportedly directed to patent-ineligible subject matter in light of *Alice* and its progeny.

Rejection B of Claims 1–4 and 11–14 under § 103(a)

As an initial matter of claim construction, we focus on the contested *negative limitation* that was added by amendment during prosecution: "*the artistic map is not used directly by the computing device for navigation.*" Claim 1, emphasis added.

We have reviewed Appellants' cited support for the aforementioned negative limitation, as found in the Specification (App. Br. 3 referring to

[5] The Examiner is referring to *SmartGene, Inc. v. Advanced Biological Laboratories*, SA, 555 F. App'x 950, 955 (Fed. Cir. 2014) ("Whatever the boundaries of the 'abstract ideas' category, the claim at issue here involves a mental process excluded from section 101: the mental steps of comparing new and stored information and using rules to identify medical options.") (nonprecedential).

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¶¶ 29, 30, 41–43). Our reviewing court guides that "[n]egative claim limitations are adequately supported when the specification describes a reason to exclude the relevant limitation. Such written description support need not rise to the level of disclaimer. In fact, it is possible for the patentee to support both the inclusion and exclusion of the same material." *Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012). *See also* MPEP § 2173.05(i) ("Any negative limitation or exclusionary proviso must have basis in the original disclosure. . . . The mere absence of a positive recitation is not basis for an exclusion.").

Turning to the proffered support found in Appellants' Specification, at paragraph 43, we find sufficient support that would lead an artisan to use a geographic map and *exclude using a "deformed" artistic map* for navigation purposes:

> A user of a GPS device showing a local artistic map needs to visualize the current position in the artistic map. While the current position is presented by the GPS device per a pair of geographic coordinates (longitude/latitude). According to one embodiment, a transformation from the geographic coordinates to image pixel coordinates is carried out to ensure that the current position or a destination is correctly presented in the artistic map. *Since the artistic map can be very deformed and different from the corresponding real geographic map*, different approaches may be applied for implementing such a transformation.

Spec. ¶ 43.

Thus, we find the originally-filed Specification sufficiently identifies a description of "a reason to exclude the relevant limitation" to satisfy the requirements under pre-AIA 35 U.S.C. § 112, first paragraph. *See Santarus*, 694 F.3d at 1351.

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Further regarding the contested negative limitation ("*the artistic map is not used directly by the computing device for navigation*"), Appellants contend:

> Salmre is *silent* about whether the non-linear map can be or cannot be used directly on the computing device for navigation. Claim 1 of the instant application recites the "artistic" map is not used directly by the computing device for navigation, instead, the geographical map is referenced for the navigational direction that is then shown onto the artistic map by "showing the navigational direction on the artistic map being displayed." Given the one-to-one transformation, *Salmre does not care whether the non-linear map can be or cannot be used directly on the computing device for navigation*.

App. Br. 13 (emphasis added and omitted).

We note the Examiner relies on Salmre as teaching or suggesting the contested negative limitation. Non-Final Act. 4. However, we find the Examiner provides no specific mapping which reads the contested negative limitation on a *particular* feature found in Salmre (or in Agrawala).[6] We reproduce the pertinent portion of the Examiner's rejection below:

> As per Claim 1, Salmre discloses a method for navigating in a particular area, the method comprising:
>
> - downloading from a network into a computing device an artistic map, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the

[6] *See* 37 C.F.R. § 1.104(c)(2) ("When a reference is complex or shows or describes inventions other than that claimed by the applicant, *the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained* and each rejected claim specified." Emphasis added.

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> objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance on a geographical map, **the artistic map is not used directly by the computing device for navigation**, each of the objects represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display [*see at least, Abstract; Figure 2; p. 1, ¶0001 (mobile device from application incorporated into current application); p. 1, ¶0007; p. 1, ¶0008; p. 1, ¶0011; p. 2, ¶0034; p. 2, ¶0035; p. 6, ¶0067; p. 6, ¶0071 (mobile devices); p. 6, ¶[0072-¶007 4, of Salmre*];

Non-Final Act. 4 (bold added for emphasis, italic in original).

In reviewing the record, we particularly note the Examiner does not further respond in the Answer to Appellants' arguments regarding the contested negative limitation. Because the Examiner has not fully developed the record to establish how Salmre (or Agrawala) teaches or suggests the disputed negative limitation, we find speculation would be required to affirm the Examiner on this record. We decline to engage in speculation. "A rejection . . . must rest on a factual basis . . . ." *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967). "The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not . . . resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis." *Id.*

Therefore, we are constrained by the record before us to find the Examiner erred in concluding the combination of Salmre and Agrawala renders obvious Appellants' independent claim 1.

Accordingly, we reverse the Examiner's § 103(a) rejection B of independent claim 1, and for the same reasons we also reverse rejection B of

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remaining independent claim 11, which recites the aforementioned contested negative limitation using similar language of commensurate scope. Because we have reversed rejection B of all independent claims, for the same reasons we reverse the Examiner's § 103(a) rejection of all dependent claims also rejected under rejection B.

Remaining § 103 Rejections C and D all Remaining Dependent Claims

In light of our reversal of rejection B of independent claims 1 and 11, *supra*, we also reverse rejections C and D of all remaining dependent claims which variously and ultimately depend therefrom. On this record, we find the Examiner has not shown how the additionally cited secondary references overcome the aforementioned deficiency of the base combination of Salmre and Agrawala, as discussed above regarding claim 1, and the contested negative limitation.

Conclusions

The Examiner erred in rejecting claims 1–20, under 35 U.S.C. § 101, as being directed to patent-ineligible subject matter.

The Examiner erred in rejecting claims 1–20 as being obvious over the cited combinations of references under pre-AIA 35 U.S.C. § 103(a).

DECISION

We reverse the Examiner's decision rejecting claims 1–20.

REVERSED

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Attorney Docket No: Kent-007
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EXAMINER
GILLIGAN, CHRISTOPHER L

ART UNIT	PAPER NUMBER
3626	

DATE MAILED: 08/31/2018

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

TITLE OF INVENTION: Method and apparatus for navigating on artistic maps

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	11/30/2018

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

TITLE OF INVENTION: Method and apparatus for navigating on artistic maps

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	11/30/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
GILLIGAN, CHRISTOPHER L	3626	701-201000

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❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

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Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

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❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

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CUPERTINO, CA 95015

EXAMINER	
GILLIGAN, CHRISTOPHER L	
ART UNIT	PAPER NUMBER
3626	

DATE MAILED: 08/31/2018

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 12/186,524	Applicant(s) PU et al.	
	Examiner C. Luke Gilligan	Art Unit 3626	AIA Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to PTAB decision of 6/27/2018.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1-20 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file areply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/CHRISTOPHER L GILLIGAN/
Primary Examiner, Art Unit 3626

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

Allowable Subject Matter

Claims 1-20 are allowed. The following is an examiner's statement of reasons for allowance: In the decision by the Patent Trial and Appeal Board mailed on 06/27/2018, all of the outstanding rejections of claims 1-20 were reversed. Based on this reversal, claims 1-20 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Luke Gilligan whose telephone number is (571)272-6770. The examiner can normally be reached on Monday through Friday 8:45-5:15.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Morgan can be reached on 571-272-6773. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C. Luke Gilligan
Primary Examiner
Art Unit 3626

/CHRISTOPHER L GILLIGAN/
Primary Examiner, Art Unit 3626

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12/186,524	PU et al.
	Examiner	Art Unit
	C. Luke Gilligan	3626

CPC - Searched*		
Symbol	Date	Examiner
G01C21/20 G01C21/3614 G01C21/3667 G09B29/007	08/24/2018	/CLG/

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
701	200	8/28/2011	SKH
701	200	12/29/2011	SKH
701	200	11/7/2013	SKH
701	200	6/25/2014	SKH
701	200	3/18/2015	SKH
701	200	9/25/2015	SKH

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST	8/28/2011	SKH
Updated EAST search	12/29/2011	SKH
Updated EAST search	11/7/2013	SKH
Updated EAST search	6/25/2014	SKH
Updated EAST search	3/18/2015	SKH
Updated EAST search	9/25/2015	SKH
ProQuest text search (see attached)	08/24/2018	/CLG/

/SEAN K HUNTER/ Primary Examiner.Art Unit 3626	/CHRISTOPHER L GILLIGAN/ Primary Examiner, Art Unit 3626

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12/186,524	PU et al.
	Examiner	Art Unit
	C. Luke Gilligan	3626

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
G01C	21/20	08/24/2018	/CLG/

/SEAN K HUNTER/ Primary Examiner.Art Unit 3626	/CHRISTOPHER L GILLIGAN/ Primary Examiner, Art Unit 3626

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12/186,524	PU et al.
	Examiner	**Art Unit**
	C. Luke Gilligan	3626

CPC								
Symbol							**Type**	**Version**
G01C	/	21	/	20			F	2013-01-01
G01C	/	21	/	3667			I	2013-01-01
G09B	/	29	/	007			I	2013-01-01
G01C	/	21	/	3614			I	2013-01-01

CPC Combination Sets								
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/CHRISTOPHER L GILLIGAN/ Primary Examiner, Art Unit 3626	24 August 2018	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	3

U.S. Patent and Trademark Office

Part of Paper No.: 20180824

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12/186,524	PU et al.
	Examiner	**Art Unit**
	C. Luke Gilligan	3626

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G01C21/20	/	21	/	20
G01C21/36	/	21	/	36
G09B29/00	/	29	/	00

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/CHRISTOPHER L GILLIGAN/ Primary Examiner, Art Unit 3626	24 August 2018	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	3

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12/186,524	PU et al.
	Examiner	**Art Unit**
	C. Luke Gilligan	3626

☑ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/CHRISTOPHER L GILLIGAN/ Primary Examiner, Art Unit 3626	24 August 2018	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	3

U.S. Patent and Trademark Office

Part of Paper No.: 20180824

Bibliographic Data

Application No: 12/186,524

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /C Luke Gilligan/ Examiner's Signature | Initials

Title: Method and apparatus for navigating on artistic maps

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
08/06/2008	701	3626	Kent-007
RULE			

APPLICANTS

INVENTORS

Kent Qing PU San Diego, CA, UNITED STATES

Ivan Angelov Del Mar, CA, UNITED STATES

David Thieme Laguna Niguel, CA, UNITED STATES

CONTINUING DATA

This application has PRO of 60955343 08/11/2007

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

08/18/2008

**** SMALL ENTITY ****

STATE OR COUNTRY

UNITED STATES

ADDRESS

LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015
UNITED STATES

FILING FEE RECEIVED

$435



Search Strategy from ProQuest Dialog

August 24 2018 17:06

Search Strategy

Databases: AdisInsight: Drugs, AdisInsight: Safety Reports, AdisInsight: Trials, Adis Pharmacoeconomics & Outcomes News, Allied & Complementary Medicine™, Analytical Abstracts, Aqualine, Aquatic Science & Fisheries Abstracts (ASFA), BIOSIS Previews®, CAB ABSTRACTS, Chemical Engineering & Biotechnology Abstracts, EconLit, Ei Compendex®, Embase®, Foodline®: MARKET, Foodline®: PRODUCT, Foodline®: SCIENCE, FSTA®, Gale Group Health Periodicals Database, Gale Group PharmaBiomed Business Journals, Gale Group PROMT®, GeoRef, Global Health, Inspec®, KOSMET: Cosmetic Science, MEDLINE®, Meteorological & Geoastrophysical Abstracts, Northern Light Life Sciences Conference Abstracts, NTIS: National Technical Information Service, Oceanic Abstracts, Polymer Library, ProQuest Technology Research Professional, SciSearch®: a Cited Reference Science Database, ToxFile®, TULSA™ (Petroleum Abstracts)

Set#	Searched for	Results
S1	(nonlinear* or "non-linearly" or scale or scaled) with (map or coordinate or geographic) with (display* or interface or gui)	301104*
S2	S1 and (gps or "global positioning")	19108*
S3	S2 and ((object or landmark) w/10 (scale or scaled or size))	32°

* Duplicates are removed from the search, but included in the result count.

° Duplicates are removed from the search and from the result count.

Contact ProQuest
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PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

26797 7590 08/31/2018
LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Joe Zheng	(Depositor's name)
/ joe zheng /	(Signature)
09/04/2018	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

TITLE OF INVENTION: Method and apparatus for navigating on artistic maps

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	11/30/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
GILLIGAN, CHRISTOPHER L	3626	701-201000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1
2 Joe Zheng
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Infogation Corporation (San Diego, CA)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

☐ A check is enclosed.

☒ Payment by credit card. Form PTO-2038 is attached.

☐ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature / joe zheng / Date 09/04/2018

Typed or printed name Joe Zheng Registration No. 39,450

Toyota Petition '628 Exhibit 1002
Page 419 of 434

Electronic Patent Application Fee Transmittal

Application Number:	12186524
Filing Date:	06-Aug-2008
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Filer:	Joe Zheng
Attorney Docket Number:	Kent-007

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	2501	1	500	500

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**500**

Electronic Acknowledgement Receipt

EFS ID:	33617545
Application Number:	12186524
International Application Number:	
Confirmation Number:	1339
Title of Invention:	Method and apparatus for navigating on artistic maps
First Named Inventor/Applicant Name:	Kent Qing PU
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	Kent-007
Receipt Date:	04-SEP-2018
Filing Date:	06-AUG-2008
Time Stamp:	14:47:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$500
RAM confirmation Number	090518INTEFSW14490500
Deposit Account	502436
Authorized User	Joe Zheng

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment after Notice of Allowance (Rule 312)	ResponseToAllowanceWith312Amendments.pdf	143434 26e1ff432a09c2e66293b08daaaa64c25b1d9494	no	7
Warnings:					
Information:					
2	Issue Fee Payment (PTO-85B)	FeeTransmittal.pdf	317537 b3cbad718b1855cb0c19bfe0d782fe81588f3a73	no	1
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	29883 d10ca661cd8ca7e67b05bbc05ca64becff8eb2a8	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	490854		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

Sept. 4, 2018

Mail Stop: Issue
Commissioner for Patents
PO BOX 1450
Alexandria, VA 22313-1450

Response to Notice of Allowance
&
Amendments under Rule 312

Dear Sir:

This is to respond to the Notice of Allowance dated 08/31/2018. The Applicant appreciates the Examiner for allowing the above-reference application, but notices that there are some informalities in the claims, thus respectfully requests the Examiner to enter the following amendments:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Response.

REMARKS/ARGUMENTS begin on page 6 of this Response.

REMARKS

Claims 1 - 20 are examined and now stand allowed.

In the foregoing amendments, Claims 1 and 11 have been amended to correct some informalities. No new matters are introduced.

In response to the Notice of Allowance, the Applicants submit the following items:

1. An original Issue Fee Transmittal; and
2. An issue fee is enclosed via EFS.

The Applicant appreciates the Examiner for allowing this application. It is hereby respectfully submitted that the enclosed items complete the requirement for the issuance of the above-identified application.

The Commissioner is authorized to charge any other fees that may be due to the Deposit Account Number 502436. Please telephone the undersigned at (408)777-8873, if there are any questions.

I hereby certify that this correspondence is being deposited with the EFS of the United States Patent and Trademark Office and addressed to "Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450", on Sept. 4, 2018.

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg.: No. 39,450

AMENDMENTS TO THE CLAIMS

Please amend Claims 1 and 11 as follows:

1. (*Currently amended*) A method for navigating in a particular area, the method comprising:

downloading from a network into a computing device an artistic map, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown on the computing device to facilitate a user using the computing device to view and select one of the objects to navigate thereto in the artistic map, wherein the computing device is portable, equipped with navigation capability and provides a traveling guidance based on a geographical map, the artistic map is not used directly by the computing device for navigation, each of the objects is represented by a plurality of points on a display of the computing device, and the geographical map is not being displayed on the display;

receiving in the computing device a selection on the one of the objects from the user as a selected object;

determining by the computing device a pair of coordinates for one of the points on the selected object;

transforming in the computing device the pair of coordinates to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, the points representing the selected object having different pairs of coordinates, but all of the different pairs of coordinates for the selected object corresponding substantially to the physical point when said transforming is performed;

detecting a current location of the computing device in the geographical map;

determining according to the geographical map a navigational direction from the current location to the one of the objects being selected; and

showing the navigational direction on the artistic map being displayed.

2. (*Previously amended*) The method as recited in claim 1, wherein the artistic map is a theme park map, each of the objects represents an attraction.

3. (*Previously amended*) The method as recited in claim 1, wherein the map is presented in such a way that a display resolution of the map goes lower from a center of the display to an edge of the display.

4. (*Previously amended*) The method as recited in claim 1, wherein said showing the navigational direction on the artistic map being displayed comprises transforming in the computing device the navigational direction based on the geographical map to a navigation direction based on the artistic map.

5. (*Original*) The method as recited in claim 4, further comprising determining a set of instructions of how to move from the current location to the physical point as a destination.

6. (*Previously amended*) The method as recited in claim 5, wherein said showing the navigational direction on the artistic map being displayed comprises:

transforming the instructions with respect to the geographical map to the artistic map being displayed.

7. (*Previously amended*) The method as recited in claim 6, wherein the navigational direction shows how to move from the current location to the destination among a route, points of the route belonging to a road network, so pixel coordinates of each of the points are used to transform geographic coordinates of the points to image coordinates of the points.

8. (*Previously amended*) The method as recited in claim 7, further comprising connecting the pixel coordinates of the points to show the route on the map.

9. (*Previously amended*) The method as recited in claim 5, wherein said showing the navigational direction on the artistic map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the artistic map being displayed.

10. (*Previously amended*) The method as recited in claim 1, wherein there is a color map to define a color of each of the objects in the artistic map, and the method further comprising: adjusting the color for the each of objects in the artistic map, and generating a color definition map.

11. (*Currently amended*) A portable device for navigating a designated place, the portable device comprising:

a display screen configured to display an artistic map downloaded from a network, the artistic map being non-linearly scaled and including various objects being exaggeratedly shown therein, each of the objects represented by a plurality of points, wherein the portable device is equipped with navigation capability and provides a traveling guidance based on a geographical map, the artistic map is not used directly by the portable device for navigation, and wherein the geographical map is not being shown on the display screen;

a memory for storing code;

a processor executing the code to perform operations of:

determining a pair of coordinates of one of the points representing an object being selected in the artistic map being displayed on the display screen;

transforming the pair of coordinates of the one of the points to a physical point represented by a pair of latitude and longitude in the geographical map not being shown on the display, wherein the points representing the object have different pairs of coordinates, but all of

the different pairs of coordinates correspond substantially to the physical point;

detecting a current location of the computing device in the geographic map;

determining according to the geographical map a direction from the current location to the physical point; and

showing the direction in the artistic map being displayed.

12. (*Previously amended*) The portable device as recited in claim 11, wherein the selected object is represented by a plurality of pairs of coordinates, all of the pairs of coordinates are substantially transformed to the physical point represented by the latitude and longitude.

13. (*Previously amended*) The portable device as recited in claim 12, wherein the artistic map is non-linearly scaled, where the physical point is located in the geographical map in accordance with the latitude and longitude.

14. (*Previously amended*) The portable device as recited in claim 13, wherein the determining of the direction from the current location to the physical point is carried out by the portable device in accordance with the geographical map.

15. (*Original*) The portable device as recited in claim 14, where the operations further comprises determining a set of instructions of how to move from the current location to the physical point as a destination.

16. (*Previously amended*) The portable device as recited in claim 15, wherein said showing the direction in the artistic map being displayed comprises:

transforming the direction with respect to the geographical map to the artistic map being displayed; and

transforming the instructions with respect to the geographical map to the artistic map being displayed.

17. (*Original*) The portable device as recited in claim 16, wherein the direction shows how to move from the current location to the destination among a route, points of the route belong to a road network, so pixel coordinates of every of the points are used to transform geographic coordinates of the points to image coordinates of the points.

18. (*Previously amended*) The portable device as recited in claim 17, wherein the operations further comprises connecting the pixel coordinates of the points to show the route in the artistic map.

19. (*Previously amended*) The portable device as recited in claim 15, wherein the synchronizing of the direction with the artistic map being displayed is carried out according to a transformation derived from a deformation of the geographical map to the map being displayed.

20. (*Previously amended*) The portable device as recited in claim 11, wherein colors of various objects are displayed thereon in accordance with a color definition map that is generated after an adjustment of the colors originally produced according to a color map.

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	08/06/2008	Kent Qing PU	Kent-007	1339

26797 7590 09/17/2018

LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER	
GILLIGAN, CHRISTOPHER L	

ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
09/17/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Response to Rule 312 Communication	Application No.	Applicant(s)	
	12/186,524	PU et al.	
	Examiner	Art Unit	AIA Status
	C. Luke Gilligan	3626	No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☑ The amendment filed on 04 September 2018 under 37 CFR 1.312 has been considered, and has been:
   a) ☑ entered.
   b) ☐ entered as directed to matters of form not affecting the scope of the invention.
   c) ☐ disapproved because the amendment was filed after the payment of the issue fee.
      Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.
   d) ☐ disapproved. See explanation below.
   e) ☐ entered in part. See explanation below.

/CHRISTOPHER L GILLIGAN/
Primary Examiner, Art Unit 3626

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Kent Pu et al
Title:	Method and apparatus for navigating on artistic maps
Serial No.:	12/186,524
Confirmation No.:	1339
Filing Date:	08/06/2008
Examiner:	Kristopher Sean Hunter
Group Art Unit:	3663
Docket No:	Kent-007

Sept. 4, 2018

Mail Stop: Issue
Commissioner for Patents
PO BOX 1450
Alexandria, VA 22313-1450

OK TO ENTER: /C.L.G/

Response to Notice of Allowance
&
Amendments under Rule 312

Dear Sir:

This is to respond to the Notice of Allowance dated 08/31/2018. The Applicant appreciates the Examiner for allowing the above-reference application, but notices that there are some informalities in the claims, thus respectfully requests the Examiner to enter the following amendments:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Response.

REMARKS/ARGUMENTS begin on page 6 of this Response.

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/186,524	10/23/2018	10107628	Kent-007	1339

26797 7590 10/03/2018

LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 1815 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Kent Qing PU, San Diego, CA;
Ivan Angelov, Del Mar, CA;
David Thieme, Laguna Niguel, CA;

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