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 NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/966,360	12/13/2010	Omar SOUBRA	TRMB-2689	8592

112877 7590 12/06/2016

Kilpatrick Townsend & Stockton LLP
Trimble Navigation Limited
Mailstop: IP Docketing - 22
1100 Peachtree Street, Suite 2800
Atlanta, GA 30309

EXAMINER
ROTARU, OCTAVIAN

ART UNIT	PAPER NUMBER
3624	

NOTIFICATION DATE	DELIVERY MODE
12/06/2016	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):

ipefiling@kilpatricktownsend.com
jlhice@kilpatrick.foundationip.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte OMAR SOUBRA

Appeal 2014–005385
Application 12/966,360
Technology Center 3600

Before ANTON W. FETTING, JAMES A. WORTH, and BRUCE T. WIEDER, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE[1]

Omar Soubra (Appellant) seeks review under 35 U.S.C. § 134 of a final rejection of claims 1–38, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellant invented a real time site monitoring design system. Specification para. 18.

---

[1] Our decision will make reference to the Appellant's Appeal Brief ("Appeal Br.," filed December 16, 2013) and Reply Brief ("Reply Br.," filed March 17, 2014), and the Examiner's Answer ("Ans.," mailed January 17, 2014), and Final Action ("Final Act.," mailed August 16, 2013).

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

> 1. A method for designing a system for real-time site monitoring, said method comprising:
>
> accessing a three-dimensional (3-D) model of a site by a computer system;
>
> determining a location for placing a monitoring sensor at said site by said computer system;
>
> and
>
> determining by said computer system whether there is an obstruction at said site which inhibits receiving monitoring data by said monitoring sensor when at said location.

The Examiner relies upon the following prior art:

Chao	US 2002/0128918 A1	Sep. 12, 2002
Terry	US 2007/0124217 A1	May 31, 2007
Mathews	US 2007/0257831 A1	Nov. 8, 2007
Broughton	US 7,720,703 B1	May 18, 2010

Trimble, TerraSync Software Getting Started Guide, Version 3.30 Revision A, Dec. 2008

Claims 1–7, 11–19, 23–31, and 35–38 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Trimble and Mathews.

Claims 8, 20, and 32 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Trimble, Mathews, and Terry.

Claims 9, 21, and 33 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Trimble, Mathews, Terry, and Chao.

Claims 10, 22, and 34 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Trimble, Mathews, and Broughton.

ISSUES

The issues of obviousness turn primarily on whether the art applied describes the steps broadly recited in the claims.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to the Prior Art

Trimble

01. Trimble is directed to a getting started guide for TerraSync software. Trimble Title.

02. The TerraSync software collects and updates geographical data (GIS and spatial data) on a field computer. A field computer is a handheld device or a computer running the TerraSync software. You can connect a GPS receiver to a field computer that has the TerraSync software installed and use the software to track GPS status, log new data and update existing data, and navigate in the field. The TerraSync software acts as the controlling software. It communicates with a range of Trimble GPS receivers connected to the field computer, allowing you to set GPS parameters in the receiver, record GPS positions on the field computer, and update

existing GIS data. The software can be used with a wide variety of real-time differential correction sources. If the GPS receiver has an integrated receiver that allows it to receive real-time correction messages from a real-time differential correction source, then the source can be used directly with the GPS receiver. For example, if the receiver has integrated support for Satellite Based Augmentation Systems (SBAS) such as WAAS, EGNOS and MSAS, then SEAS corrections can be used directly by the GPS receiver. If the receiver is not able to receive these types of signals, use an external source to receive the correction messages and provide them to the GPS receiver. Trimble 12.

03. TerraSync monitors and displays the status of GPS reception. Trimble 51.

04. TerraSync provides for entering of waypoints, which are geographic points for subsequent use. TerraSync describes waypoints with three mutually perpendicular dimensions of North, East, and Altitude. Trimble 97.

Mathews

05. Mathews is directed to positioning remote assets and, more particularly, to operating in a local environment where a global navigation satellite system (GNSS) is not available. Mathews para. 2.

06. Mathews shows an illustrative example of three-dimensional positioning in which SCT units are located by intercepting emissions from RSTs placed in a non-coplanar configuration. In

this embodiment, a reference SCT intercepts emissions from RSTs, which are in the same horizontal plane. Additionally, emissions are intercepted by SCT from RST, which is located in a plane below the reference SCT. Additionally, a second SCT intercepts emissions from the four RSTs. The fact that the beacons are not necessarily in the same plane as the SCT sensors allows for vertical and horizontal positioning of the SCT units, resulting in a three dimensional position given the preferred geometry. Mathews para. 129.

07. Mathews illustrates one possible deployment scenario using both locally deployed RSTs together with GNSS satellites to provide physical state estimation in both GNSS obstructed and unobstructed cases comprising three operating environments: an obstructed GNSS environment, a semi-obstructed GNSS environment and an unobstructed GNSS environment with fringe coverage. Mathews illustrates the seamless transition from an outdoor wide-area solution using GNSS to a total local-area system where GNSS satellite signals are totally obstructed. Though simplified to a 2-D illustration for purposes of the present disclosure, this illustration is equally applicable to a 3-D deployment. The physical state contains two position state parameters: horizontal displacement and vertical displacement. Mathews para. 130.

ANALYSIS

We are not persuaded by Appellant's argument that "the 'illustrations' of Matthews are not 'real-time,' as claimed but are 'examples' that may or may not have been physically implemented and are definitely not a real-time model, as claimed." Appeal Br. 5.

The limitation at issue is "[a] method for designing a system for real-time site monitoring." The limitation is in the preamble and does not limit the claim structure as this is a process claim or breath life and meaning into the body of the claim. Also, the steps are for designing such a system. The steps themselves are not recited as being real-time. For that matter, the limitation does not recite that the system is a real-time system per se, only that the system would ideally be used in real time context. Thus, the modifier "real-time" is aspirational and not functional. For all of these reasons, the modifier "real-time" is undeserving of patentable weight. In any event, as the Examiner finds, Trimble describes real-time monitoring. Final Act. 15. The way points thus provide a 3D model of the portion of the Earth containing those way points.

We are not persuaded by Appellant's argument that

> The cited portions of Matthews merely show an "illustrative example of three dimensional positioning." The "illustration" of Matthews hardly constitutes a three dimensional model, as claimed. Merely showing positioning of SCT units is not the same as "accessing a three-dimensional (3-D) model of a site by a computer system," as claimed.

Appeal Br. 5. The limitation at issue is "accessing a three-dimensional (3-D) model of a site by a computer system." The limitation does not narrow or recite how the access or model is implemented. As a model is simply a

representation, any representation of a site using three dimensions is within the scope of the limitation. As the Examiner finds, Trimble builds up a set of way points that represent places on the Earth and the representation is characterized by three mutually perpendicular dimensions. Final Act. 16–17. The way points thus provide a 3D model of the portion of the Earth containing those way points.

We are not persuaded by Appellant's argument that

> the features described by TerraSync rely on manual user input and manual user activity. TerraSync also requires both a handheld and desktop system, thus requiring multiple "computers" in different locations. With TerraSync, all data is collected manually by the user, inputted by the user, location determination is performed manually by the user and obstructions are determined manually by the user. This is very different from performing the claimed features by a computer, as taught by the present invention.

Appeal Br. 5–6. The limitation at issue is "determining a location for placing a monitoring sensor at said site by said computer system." The limitation does not narrow or recite how the determining is implemented or the degree to which this is done by a computer. As the Examiner finds, Trimble describes generally determining a location for things prospectively by entering way points and point features characterized by their coordinates. Final Act. 17. The data that is entered thus causes the computer to determine the location for that way point and point feature. A computer that takes data that is entered, even manually, and translates it to conform to the representation and organizes it into a comprehensive model including the computer implemented representations of such locations, is within the scope of a computer that determines the location within that model.

We are not persuaded by Appellant's argument that

> [r]egarding the claimed feature of "determining by said computer system whether there is an obstruction at said site which inhibits receiving monitoring data by said monitoring sensor when at said location," Appellants respectfully submit that the cited passages of TerraSync describe a user manually collecting a "tree feature." Specifically, on page 170, TerraSync describes "if you cannot travel over the top of, or right next to, a feature, you can enter an offset and record it at a specified distance." TerraSync describes this action in the context of a user physically not being able to record position data at a specific location. The user then chooses a suitable location and offset. The computer does not do this for the user and the activity is not described as being performed by a computer, as claimed.

Appeal Br. 7. The limitation at issue is "determining by said computer system whether there is an obstruction at said site which inhibits receiving monitoring data by said monitoring sensor when at said location." The limitation does not narrow or recite how the determining is implemented or the degree to which this is done by a computer. As the Examiner finds, Trimble describes determining that a GPS signal cannot be received which implies some obstruction (even by the Earth itself) that inhibits reception at that location. Final Act. 17–20. The computer thus determines whether there is such an obstruction. The claim does not recite or even imply that the model is used for such determination. Appellants seek much broader scope.

Appellants repeat the above arguments for separately argued claims 8 and 9 and rely on the patentability of the independent claims for the remaining dependent claims.

CONCLUSIONS OF LAW

The rejection of claims 1–7, 11–19, 23–31, and 35–38 under 35 U.S.C. § 103(a) as unpatentable over Trimble and Mathews is proper.

The rejection of claims 8, 20, and 32 under 35 U.S.C. § 103(a) as unpatentable over Trimble, Mathews, and Terry is proper.

The rejection of claims 9, 21, and 33 under 35 U.S.C. § 103(a) as unpatentable over Trimble, Mathews, Terry, and Chao is proper.

The rejection of claims 10, 22, and 34 under 35 U.S.C. § 103(a) as unpatentable over Trimble, Mathews, and Broughton is proper.

DECISION

The rejection of claims 1–38 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED