PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT8300525

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BLUE UMBRELLA LLC	11/29/2023

RECEIVING PARTY DATA

Name:	GAMBA GROUP HOLDINGS LLC
Street Address:	8273 NW 127 LN
City:	PARKLAND
State/Country:	FLORIDA
Postal Code:	33076

PROPERTY NUMBERS Total: 19

Property Type	Number
Patent Number:	7899583
Patent Number:	8836580
Patent Number:	8896485
Patent Number:	7924149
Patent Number:	8866673
Patent Number:	9020687
Patent Number:	8941485
Patent Number:	9374673
Patent Number:	9204257
Patent Number:	9491584
Patent Number:	9602193
Patent Number:	9204251
Patent Number:	9420423
Patent Number:	9538332
Patent Number:	9674684
Patent Number:	9772193
Patent Number:	9961507
Patent Number:	10470013
Patent Number:	10117078

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 9542574319

Email: umendelson@gmail.com

Correspondent Name: EHUD MENDELSON

Address Line 1: 8273 NW 127 LN

Address Line 4: PARKLAND, FLORIDA 33076

ATTORNEY DOCKET NUMBER:	BLU2GAMBA PATENTS1-19
NAME OF SUBMITTER:	EHUD MENDELSON
SIGNATURE:	/EHUD MENDELSON/
DATE SIGNED:	11/29/2023
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 4

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PATENTS ASSIGNMENT AGREEMENT

THIS AGREEMENT is made this day of November 27, 2023, by and between Blue Umbrella llc represent by Ehud Mendelson (the "Assignor"), having its primary place of business at 8273 NW 127 Ln. Parkland Florida 33076 , and Gamba Group Holdings(the "Assignee") having its primary place of business at 8273 NW 127 Ln. Parkland, Florida 33076 (collectively the "Parties").

WHEREAS, Licensor is has invented RF Beacon and Method of use (the "Invention"), and has been granted United States Letters Patents for said invention, Patent No- .See Attach A (the "Patent"), granted on the patent application filed with the United States Patent and Trademark Office.

WHEREAS, Assignee wishes to acquire all right, title and interest in the Patent, and Assignor wishes to sell its interest in the Patent to Assignee.

NOW THEREFORE, in consideration of the mutual promises, covenants, warranties, and other good and valuable consideration set forth herein, and in accordance with applicable law, the Parties hereby agree as follows:

1. *Assignment*. Assignor hereby assigns to Assignee, and its successors, representatives and assigns, all right, title and interest in the Patent including all reexaminations, extensions and reissues thereof. Assignor hereby requests the Commissioner of Patents of the United States to record this assignment of all right, title and interest in the Patent to Assignee.

2. *Payment*. In consideration of the assignment of the Patent pursuant to this Agreement, and of the promises and covenants contained herein, Assignee shall pay to Assignor a fee in the amount Set in Attachment A of this agreement, payable upon execution of sale or licenses of a patent or patents from the list attach A to this Agreement, until such execution will take place it is agree that the Assignor Ehud Mendelson payment/fee will be conceders as a loan to the Gamba Group Holdings llc in the dynamic amount set in the attachment A. Until such execution of sale or license will take place, Ehud Mendelson will receive a personal loan to his business account in the USA (Dba. Blue Umbrella and or search4parking bank account), payment for the loan will payable upon execution of sale or licenses of a patent or patents from the list attach A to this Agreement.

Google Ex. 1022, p. 003

3. *Assignor's Representations and Warranties*. Assignor hereby represents and warrants
i) that it has the legal right and authority to execute this Agreement, and to validly assign the entire interest in the Patent to Assignee,

ii) that it has not executed any other agreement that would conflict with the terms of this Agreement, nor shall it execute any such agreement in the future, and

iii) that to the best of Assignor's knowledge, the Patent is valid and enforceable as of the date of this Agreement. Assignor makes no representations or warranties as to the validity or enforceability of the Patent subsequent to the date of this Agreement.

4. *Patent Status*. Assignee hereby acknowledges that any finding or ruling subsequent to the date of this Agreement that the Patent is invalid or unenforceable shall not give rise to a cause of action against Assignor under this Agreement.

5. *Further Actions*. Assignor hereby agrees to execute any further agreements and to take any further actions necessary to aid Assignee in perfecting its interest in the Patent and in enforcing any and all protections or privileges deriving from the Patent.

6. *Counterparts*. This Agreement may be executed in several counterparts, each of which shall constitute an original and all of which, when taken together, shall constitute one agreement.

7. *Severability*. If any part or parts of this Agreement shall be held unenforceable for any reason, the remainder of this Agreement shall continue in full force and effect. If any provision of this Agreement is deemed invalid or unenforceable by any court of competent jurisdiction, and if limiting such provision would make the provision valid, then such provision shall be deemed to be construed as so limited.
8. *Notice*. Any notice required or otherwise given pursuant to this Agreement shall be in writing and mailed certified return receipt requested, postage prepaid, or delivered by overnight delivery service, addressed as follows:

Google Ex. 1022, p. 004

If to Assignor: Blue Umbrella LLC by her president Ehud Mendelson 8273 NW 127 Ln. Parkland, Florida 33076

If to Assignee: Gamba Group Holdings LLC having its primary place of business at 8273 NW 127 Ln. Parkland, Florida 33076

9 *Headings*. The headings for section herein are for convenience only and shall not affect the meaning of the provisions of this Agreement.

10. Entire Agreement. This Agreement constitutes the entire agreement between Assignor and Assignee, and supersedes any prior understanding or representation of any kind preceding the date of this Agreement. There are no other promises, conditions, understandings or other agreements, whether oral or written, relating to the subject matter of this Agreement.

Attach A List of patents assignment:

Patents #:	Application #:
7899583	US11/396,843
8836580	US11/429,864
8896485	US11/472,706
7924149	US12/069,899
8866673	US12/587,042
9020687	US12/930,735
8941485	US12/932,811
9374673	US13/135,421
9204257	US13/135,421
9491584	US14/285,332
9602193	US14/285,273
9204251	US14/285,209
9420423	US15/086,028
9538332	US15/237,727
9674684	US15/397,685
9772193	US15/403,146
9961507	US15/687,445
10470013	US15/953,389
10117078	US15/972,074

Google Ex. 1022, p. 005

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed the day and year first above written.

ASSIGNOR
Ehud Mendelson
BLVD UMBRELLA LLC. MENDELSON
Signature
EHUD MENDELSON
Print Name

ASSIGNEE
Gamba Group Holdings President
MENDELSON
Signature
EHUD MENDELSON
Print Name

State of FLORIDA)
)
County of BROWARD)

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY THAT EHUD MENDELSON personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged that EHUD MENDELS signed, sealed and delivered the said instrument as his/her/their free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal, this 27th day of November, 2023

Signature of Notary Public

SELVIRA FLEURY
Notary Public, State of Florida
Commission# GG 958650
My comm. expires Feb. 16, 2024

(Seal) SELVIRA FLEURY
Printed Name of Notary

My commission expires on February 16, 2024

Google Ex. 1022, p. 006

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5756053

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GAMBA GROUP LIMITED	10/06/2019

RECEIVING PARTY DATA

Name:	BLUE UMBRELLA LLC
Street Address:	11190 HERON BAY BLVD SUITE 916
City:	CORAL SPRINGS
State/Country:	FLORIDA
Postal Code:	33076

PROPERTY NUMBERS Total: 16

Property Type	Number
Patent Number:	7899583
Patent Number:	7924149
Patent Number:	8836580
Patent Number:	8866673
Patent Number:	8896485
Patent Number:	8941485
Patent Number:	9020687
Patent Number:	9204251
Patent Number:	9204257
Patent Number:	9374673
Patent Number:	9420423
Patent Number:	9491584
Patent Number:	9538332
Patent Number:	9602193
Patent Number:	9674684
Patent Number:	9772193

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	9542574319
Email:	umen79@yahoo.com
Correspondent Name:	EHUD MENDELSON
Address Line 1:	11190 HERON BAY BLVD SUITE 916
Address Line 4:	CORAL SPRINGS, DELAWARE 33076

ATTORNEY DOCKET NUMBER:	ASSIGNMENT GAMBA TO BLU8X
NAME OF SUBMITTER:	EHUD MENDELSON
SIGNATURE:	/ehud mendelson/
DATE SIGNED:	10/06/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3
source=ASSIGNMENT of patents from gamba group to blue umbrella sign and ready#page1.tif
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source=ASSIGNMENT of patents from gamba group to blue umbrella sign and ready#page3.tif

ASSIGNMENT

WHEREAS, I:

Ehud Mendelson President of **Gamba Group Limited**, a For Profit Corporation organized and existing under the laws of the state of Malta, and having an office and place of business at 262 Triq San Alber, Gzira, Malta, GZR 1152, represent by Ehud Mendelson president of the company which residing, respectively, at: **11190 Heron Bay Blvd. Suite 916, Coral Springs, FL, 33076**,

Which own the patents listed as follow:

Patent#	Application #
7899583	11396843
7924149	12069899
8836580	11429864
8866673	12587042
8896485	11472706
8941485	12932811
9020687	12930735
9204251	14285209
9204257	14285273
9374673	13135421
9420423	15086028
9491584	14285332
9538332	15237727
9602193	14285406
9674684	15397685
9772193	15403146

Google Ex. 1022, p. 009

WHEREAS, **Blue Umbrella Limited Liability company** , a For Profit Corporation organized and existing under the laws of the state of **Nevada** and having an office and place of business at **11190 Heron Bay Blvd. Suite 916, Coral Springs, FL, 33076**,

, is desirous of acquiring the entire interest in said Patents, said United States patents which listed above (page 1) and Currently owns by Gamba Group Limited, and in any patents which may issue thereon

NOW, THEREFORE,

be it known that for and in consideration of **Blue Umbrella Limited Liability company**, and other good and valuable consideration, I do hereby sell, assign, and transfer unto **Blue Umbrella Limited Liability company**, its successors, assigns, and legal representatives, all right, title, and interest in and to said patents listed in page 1 and any improvements thereon for all countries of the world, and in and to said application, including any continuations and divisions thereof, and any substitute applications therefor, and any patents which may issue thereon, and any reissues of the same; and all right, title, and interest in and to every patents application filed on said patents listed in page 1 in any other country, including renewals, revivals, continuations, and divisions thereof, and any substitute applications therefor, and any and all patents which may issue thereon, and any reissues and extensions of the same; and we hereby authorize and request competent authorities to grant and issue any and all patents on said listed in page 1 to **Blue Umbrella Limited Liability company** as the assignee of the entire interest therein; and we further agree to execute upon request of the assignee such additional documents, if any, as are necessary and proper to secure patents protection on said patents throughout all countries of the world, and otherwise to give full effect to and perfect the rights of the assignee under this Assignment.

Google Ex. 1022, p. 010

In Testimony Whereof, I have hereunto signed my name on
The dates indicated hereinafter:

09/20/19
Date

Ehud Mendelson

State of Florida
Country of Broward

Before me a Notary Public for said county, personally appeared Ehud Mendelson, to me know and known to me to be the person who executed the foregoing instrument and acknowledged it to be a free act and deed.

Witness my hand and seal September 20th, 2019.

Notary Public

[Notary Seal]

My Commission expires:
Dec 8, 2019

Google Ex. 1022, p. 011

PTO/SB/47 (03-09)
Approved for use through 05/31/2015. OMB 0651-0016
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.

"FEE ADDRESS" INDICATION FORM

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

- OR -

Fax to:
571-273-6500

INSTRUCTIONS: The issue fee must have been paid for application(s) listed on this form. In addition, only an address represented by a Customer Number can be established as the fee address for maintenance fee purposes (hereafter, fee address). A fee address should be established when correspondence related to maintenance fees should be mailed to a different address than the correspondence address for the application. **When to check the first box below:** If you have a Customer Number to represent the fee address. **When to check the second box below:** If you have no Customer Number representing the desired fee address, in which case a completed Request for Customer Number (PTO/SB/125) must be attached to this form. For more information on Customer Numbers, see the Manual of Patent Examining Procedure (MPEP) § 403.

For the following listed application(s), please recognize as the "Fee Address" under the provisions of 37 CFR 1.363 the address associated with:

☑ Customer Number: 31877

OR

☐ The attached Request for Customer Number (PTO/SB/125) form.

PATENT NUMBER (if known)	APPLICATION NUMBER
8,836,580	11/429,864

Completed by (check one):

☐ Applicant/Inventor

☑ Attorney or Agent of record 50,942 (Reg. No.)

☐ Assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☐ Assignee recorded at Reel _____ Frame _____

Signature

Allen D. Hertz
Typed or printed name

561-716-3915
Requester's telephone number

March 11, 2019
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more that one signature is required, see below*.

☑ * Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.363. 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 5 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 COMPLETED FORMS TO THIS ADDRESS.
SEND TO: Mail Stop M Correspondence, 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 Acknowledgement Receipt

EFS ID:	35374759
Application Number:	11429864
International Application Number:	
Confirmation Number:	4194
Title of Invention:	RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE
First Named Inventor/Applicant Name:	Ehud Mendelson
Customer Number:	31877
Filer:	Allen D. Hertz
Filer Authorized By:	
Attorney Docket Number:	MEN-06-001
Receipt Date:	11-MAR-2019
Filing Date:	08-MAY-2006
Time Stamp:	00:36:49
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	Maintenance Fee Address Change	MEN-06-0031Mendelson_Fee_Address_Form_sb0047_Executed.pdf	488368 249ab20a99cbaf70e19305d781a7b6b852e808ee	no	1

Warnings:

Information:	
Total Files Size (in bytes):	488368

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

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.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	09/16/2014	8836580	MEN-06-001	4194

31877 7590 08/27/2014

ALLEN D. HERTZ
ALLEN D HERTZ, P.A.
12784 TULIPWOOD CIRCLE
BOCA RATON, FL 33428

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 565 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):

Ehud Mendelson, Coral Springs, FL;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

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	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
11/429,864	05/08/2006	3646	500	MEN-06-001	18	1

CONFIRMATION NO. 4194

CORRECTED FILING RECEIPT

31877
ALLEN D. HERTZ
ALLEN D HERTZ, P.A.
12784 TULIPWOOD CIRCLE
BOCA RATON, FL 33428

OC000000070288692

Date Mailed: 08/20/2014

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**

Inventor(s)

Ehud Mendelson, Coral Springs, FL;

Applicant(s)

Ehud Mendelson, Coral Springs, FL;

Power of Attorney: The patent practitioners associated with Customer Number 31877

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/678,947 05/09/2005

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

If Required, Foreign Filing License Granted: 06/05/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 11/429,864**

Projected Publication Date: Not Applicable

Non-Publication Request: No

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

Google Ex. 1022, p. 016

Title

RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE

Preliminary Class

342

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

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 (1-866-999-4258).

Google Ex. 1022, p. 017

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

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.
11/429,864	05/08/2006	Ehud Mendelson	MEN-06-001	4194

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EXAMINER	
PHAN, DAO LINDA	

ART UNIT	PAPER NUMBER
3646	

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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.

Response to Rule 312 Communication	Application No.	Applicant(s)
	11/429,864	MENDELSON, EHUD
	Examiner	Art Unit
	Dao Phan	3646

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

1. ☒ The amendment filed on *30 July 2014* 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.

/Dao Phan/
Primary Examiner, Art Unit 3646

OK TO ENTER: /D.P./

In The United States Patent and Trademark Office

Application No. : 11/429,864 Confirmation No. 4194
Applicant : Ehud Mendelson
Original Title : **System and method navigating indoors and outdoors without GPS. utilizing a network of sensors**

New Title : **RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE**

Filed : May 08, 2006
TC/A.U. : 3646
Examiner : Dao Linda Phan Tel: (571) 272-6976
Docket No. : MEN-06-001
Customer No. : 31877

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

Amendment Under 37 C.F.R. § 1.312

Sir:

Applicant respectfully requests the Examiner consider and enter the following Amendment into the file of the above-identified patent application to resolve informalities of the Title and within the Specification. This Amendment is being submitted prior to submission of the Issue Fee. Applicant earnestly believes the response is considered to be timely submitted.

Amendments to the Title, which begins on page 03 of this paper.

Amendments to the Specification, which begins on page 04 of this paper.

Remarks/Arguments begin on page 4 of this paper.

Conclusions begin on page 5 of this paper.

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BIB DATA SHEET

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SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/429,864	05/08/2006	342	3646	MEN-06-001

APPLICANTS

INVENTORS

Ehud Mendelson, Coral Springs, FL;

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

This appln claims benefit of 60/678,947 05/09/2005

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

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **

06/05/2006

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /DAO LINDA PHAN/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		FL	8	18	1

ADDRESS

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UNITED STATES

DP **TITLE** RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE

~~System and method navigating indoors and outdoors without GPS, utilizing a network of sensors~~

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

OK TO ENTER: /D.P./

RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE

RELATED APPLICATIONS

[0001] This application claims the benefit of US Provisional Application No. 60/678,947 filed May 9, 2005.

FIELD OF THE INVENTION

[0002] This invention is directed generally to the field of "location based navigation" and, more particularly, to such method to be used indoors or outdoors without GPS and utilizing a wireless sensor network.

BACKGROUND OF THE INVENTION

[0003] Introduction to location based services:

[0004] Location based services are rapidly expanding. Outdoor location technologies are mainly based on GPS technologies. GPS cannot perform properly indoors, and is therefore inadequate. As a result, indoor location systems are appearing on the market.

[0005] The need for a system, such as the indoor navigation system disclosed herein, arises from various market segments and applications. One example in the market is the GPS based systems that use integrated positioning and navigation systems based on GPS receivers as the primary positioning technology. Subsequent to the events of September 11th, the Federal government mandated that GPS capability be built in to all cellular phones. However, the fact that uninterrupted satellite reception is not possible in many locations is a major limitation of

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GPS based systems. Densely populated areas and radio-frequency-signal shadowed locations, such as urban centers (a.k.a. "urban canyons"), generally do not allow proper operation of GPS, yet it is in these locations that the need is greatest.

[0006] There is a clear need for a cost effective system that maintains performance indoors, in urban canyons and in city centers.

[0007] Another important consideration is that GPS itself is susceptible to jamming and other man-made interference.

[0008] Description of GPS System.

[0009] The Global Positioning System (GPS) is a satellite-based navigation and time transfer system developed by the U.S. Department of Defense. GPS serves marine, airborne and terrestrial users, military and civilian. Specifically, GPS includes the Standard Positioning Service (SPS) that provides civilian users with 100 meter accuracy as to the location or position of the user. For military users GPS provides the Precise Positioning Service that is accurate to within 20 meters. Both of these services are available worldwide with no requirement for any local equipment.

[0010] View of GPS limitations:

[0011] First limitation of GPS is that upon activation the GPS receiver scans for signals from the GPS satellites. A unit must locate and receive signals from at least four satellites to be able to determine its location. This process of locating the satellites, receiving the data and achieving a position fix can take several minutes. This delay is problematic for many GPS applications.

[0012] Second limitation of GPS is that the receiver needs a clear view of the sky to successfully receive signals from the satellites, again under unfriendly RF conditions such as inside buildings, or in "urban canyons" or in the shadows of high buildings, the GPS suffers from multi-path effects and therefore shows poor performance, or none at all.

[0013] Third Limitation—limited accuracy: There is a problem of limited accuracy of the civilian GPS signal. While knowing your position to within 50 to 200 feet anywhere on the

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planet is a major technological feat, it is still not accurate enough, to locate and navigate to an a store in a mall or to empty parking space, where each space measures about 10 feet, and most indoor store/malls are located where the GPS cannot work effectively.

[0014] Existing navigation systems, such as the new mandatory GPS equipped cellular phones, are based on GPS and have the aforementioned limitations.

[0015] Another significant factor adding to the limitations of the GPS based systems is the important role of map production; normally a user, requires a map to be as detailed and as up-to-date as possible. The existing maps used by the GPS based systems provide limited detail and are not able to reflect changes on a real time basis, more over there is no mapping for indoor facilities at all. The recent introduction of imagery services, such as Google Earth and its competitors, that are offered as an enhancement to GPS at a fee, still provide out of date information, with the unsatisfactory result that users encounter road changes and area development not shown on the maps and imagery.

[0016] Application:

[0017] In general, the disclosed system is based on applying machine-learning techniques to the task of inferring aspects of the user's status from a stream of input from sensors.

[0018] The system focuses on indoor navigation, or navigation in crowded urban areas, where GPS based systems, due to lack of access to satellites or the GPS limitations detailed previously, cannot achieve the required results.

[0019] The system have focuses on the task of interactively guiding the user to a desired indoor destination.

[0020] Examples of indoor applications:

[0021] The user may wish to locate an empty available parking space in his vicinity.

[0022] The user may wish to locate a specific store in a shopping mall, or a particular aisle in a department store, or a specific item on a shelf.

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[0023] The user may wish to locate a specific conference room in a convention center, or a point of interest in an amusement park or a point of interest in a museum.

[0024] The user may be looking for a train location in a station, or stops in a subway or underground train system.

PRIOR ART

[0025] At the present time, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a Global Positioning System (GPS) based system directly to the "user". Also most of systems are designed for the old query type search where interface to Internet and or database central system needed

[0026] The system disclosed herein automatically detects a signal directly from the sensors, no communication needed not even cellular communication. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

[0027] Even if the other systems have bandwidth, they still based on the existing search concept where under the user submits a query, searches and awaits for the response. All of this is impractical. The system disclosed herein provides the information automatically, without submitting any query, and the response is according to the user's location.

[0028] Again, most of the existing prior art is based on either a GPS based system or an existing GPS based car navigator. And the existing mapping that these systems use has the same limitations described previously and is impractical.

[0029] It is believed that the disclosed system and associated method bridges the gap between the GPS based navigation and provides a complete solution.

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[0030] Patent U.S. Pat. No. 7,031,875 Ellenby et al. describe a pointing system for addressing objects, provide a system and method based on GPS and Internet/database communication, it is not exactly a navigation but a information based system that need the GPS to locate the user location so indoor services is likely out of the question and the need for communication as well with GPS limit its availability and accuracy.

[0031] Indoor location technologies.

[0032] Various technologies are used for wireless indoor location. These may be classified in two aspects: The algorithm—i.e. the method of location used. The physical layer—i.e. the wireless technology used to communicate with the mobile device.

[0033] Location methods

[0034] Typically, the methods used in indoor locations are "borrowed" from the outdoor GPS location methods inventory. Specifically, four types of methods are used indoors:

Proximity Detection (PD),

Received Signal Strength (RSSI),

Time of Arrival (TOA),and

Angle of Arrival (AOA).

[0035] Proximity Detection (PD)

[0036] This method relies upon a dense grid of antennae, each having a well-known position. When a mobile is detected by a single antenna, it is considered to be collocated with it. When more than one antenna detects the mobile, it is considered to be collocated with the one that receives the strongest signal.

[0037] This method is relatively simple to implement. It can be implemented over different types of physical media. In particular, IR and RFID are based on this method.

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[0038] Triangulation

[0039] Triangulation takes PD a step further, in the sense that it is based on measuring the signal level measurements from each antenna (possibly by using a triangulation mechanism), with respect to each mobile device. Following that, mobile is located by using a triangulation algorithm.

[0040] Like the PD method, triangulation is relatively simple to implement.

[0041] Time of arrival (TOA)

[0042] TOA is based on triggering the mobile devices to respond, and measuring the time it takes for the response to transmit back to the antenna. The elapsed time represents the distance between the two. By using distances from few antennas, a mobile's position can be triangulated. TOA is considered to be the most accurate method, because multipath effects can be filtered out. Yet, it is considerably more complex to implement, as it requires a modification to the hardware on the mobile side, as well as special modifications on the antenna side.

[0043] Angle of Arrival (AOA)

[0044] AOA is based on finding the direction of maximal signal intensity for each antenna-device pair. By finding the intersection of several such direction vectors, a mobile's position can be estimated AOA is considerably less accurate than TOA, due to limited angular resolution and the fact that indoors much of the signal is reflected. Also, AOA antennae are more complex, as they require multi-section, highly directional antennas, and multiple RF circuitry.

[0045] WLAN (IEEE 802.11b)

[0046] This midrange wireless local networking standard, operating in the 2.4 G Hz ISM band, has become very popular in public hotspots and enterprise locations during the last few years. With a typical gross bit rate of 11 Mbps and a range of 50-100 m, IEEE 802.11b is currently the dominant local wireless networking standard.

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[0047] It is therefore appealing to use an existing WLAN infrastructure for indoor locations as well, by adding a location server. Such solutions do exist in the market, providing an accuracy of approximately two (2) meters.

[0048] One limitation of such systems is the fact that WLAN tags are relatively bulky and power hungry. Thus, such locators are mainly useful to locate WLAN enabled instruments, such as portable computers.

[0049] Note that in WLAN, antennae are actually part of access points (APs), through which devices communicate with the access network. This is also the case with Bluetooth.

[0050] Bluetooth (IEEE 802.15)

[0051] Bluetooth is a newer wireless local networking standard, that operates in the 2.4 GHz ISM band. Compared to WLAN, the gross bit rate is lower (1 Mbps), and the range is shorter (typically 10-15m, although there are tags with a range of over 300 feet). On the other hand, Bluetooth is a "lighter" standard, highly ubiquitous (embedded in most phones, PDAs, PC peripherals, etc.), and supports, in addition to IP, several other networking services. Notably, Bluetooth supports serial port emulation, voice, and various types of object exchange. Bluetooth tags are small, pocketsize transceivers.

[0052] Every Bluetooth device's tag has a unique ID. This ID can be used for locating the tag.

[0053] Bluetooth indoor location.

[0054] How does Bluetooth location work?

[0055] Bluetooth was not made originally for location. From the outset, the standard was designed for communication, in a personal area networking (PAN) environment. However, to facilitate this task, particularly in dynamic ad-hoc scenarios, devices need a mechanism to identify their neighbors, to synchronize, and finally to connect. Such mechanisms have indeed been built into Bluetooth. More importantly, these mechanisms can also be used to obtain an accurate location.

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[0056] There are two approaches to Bluetooth location:

[0057] Binary location—a room-oriented approach, uses the PD method. An access point is installed in every way point. For each tag, the system than finds the nearest AP, and respectively indicates its way point location.

[0058] Analog location—an X-Y oriented approach, based on the RSSI method. APs are installed more sparsely (typically, 10-15 meters apart). For each tag, the distance from each way point is measured, and the system triangulates the tag's position.

[0059] An AP finds a tag by using one of two Bluetooth mechanisms, Inquiry and Paging, that are used normally for link setup:

[0060] The Inquiry mechanism—provides a way for a Bluetooth device to discover its neighbor's Bluetooth ID. An inquiry process typically takes 5 seconds. It concludes with the inquirer (typically the AP) having the IDs of all those Bluetooth devices (tags) within its RF range. The relevant location scenario is that of browsing all tags nearby.

[0061] The Paging mechanism—following an inquiry, the inquirer can page (set up a link with) one or more of its discovered neighbors. A paging process typically takes 1-2 seconds. This mechanism is faster, but requires a previous knowledge of the tag's ID (as well as the Bluetooth clock phase). The relevant location scenario is that of searching for a certain tag. It is the most accurate and the faster response time and it is the disclosed method in door navigation when and where each tag is known address position—waypoint.

[0062] Why use Bluetooth for indoor location?

[0063] Bluetooth has some advantages in the context of indoor location. These include:

[0064] Bluetooth uses RF—in the 2.4 GHz ISM band, specifically. In this frequency range, radio waves penetrate obstacles, such as walls and human bodies, albeit with a substantial loss.

[0065] This has two implications:

[0066] Availability is high—there is always some signal received by the access point .

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[0067] AP density can be low the access points can be placed relatively far apart (typical range is 10-15 meters, i.e. not necessarily of one in each way point).

[0068] Bluetooth is ubiquitous—Bluetooth chipsets are being implanted everywhere nowadays (phones, accessories, computing devices, etc).

[0069] The fact that a Bluetooth location system can locate any Bluetooth enabled device, makes it more cost-effective. This means that an increasing fraction of humans and mobile assets around would become locatable in a Bluetooth covered site, with no additional hardware cost (no tags attached). The only need is to pre-register these devices. Bluetooth is a low power technology—tags need recharge, approx. once a week (or longer, depends on the usage scenario). Non tags (e.g. Bluetooth enabled phones), are being recharged anyway on a regular basis, so they do not need special recharges. If they are being used for location, the fraction added to their usual (no Bluetooth) power consumption is relatively small.

[0070] Bluetooth is a low cost technology—the high expected production volumes (hundreds of millions annually) lead to sub-$5 per chip. This goal has already been met by a few integrated circuit (IC) manufacturers. This would eventually result in a low price for the Bluetooth tags, if and when Bluetooth location systems would become sufficiently ubiquitous. Bluetooth is a multi-functional communication standard - location is only one of the services that can be supported by a Bluetooth infrastructure. The same infrastructure can be used to provide additional network services, particularly remote monitoring and control (by using a serial interface). In addition, Bluetooth provides voice and IP services (although for the later, WLAN is typically more suitable).

[0071] In open spaces, relatively free of obstructions and walls (e.g. A large warehouse or a public hotspot), Bluetooth alone would suffice to provide an approximate 2 meter error range.

[0072] Conclusion

[0073] The Bluetooth technology offers two unique advantages: one is the ability to locate ubiquitous “any tags” (any Bluetooth enabled device that is not a tag, e.g. most of the newer mobile phones). The other advantage is the multiservice nature of the Bluetooth infrastructure

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that enables using the location access points for other purposes, such as for navigating, remote monitoring and control, and for a variety of IP and messaging services.

SUMMARY OF THE INVENTION

[0074] In accordance with the present invention, these are the disclosed system or project's characteristics:

[0075] The disclosed system is a navigation method based on the following unique characteristics:

[0076] In an indoor or outdoor navigation situation, the associated sensor network, and sensor tags, replaces the satellites in a GPS based system, to provide the user with the information and directions needed to reach the destination.

[0077] The disclosed innovation has three major parts:

[0078] The navigator, the special method used to display the data and the sensors.

[0079] It is not a location and tracking system as offered by other systems.

[0080] Small RF tags are installed in each place designated as point of interest, be it at a mall, department store, product inside a store, street or garage parking, inside or outside location, public or commercial. The tags can be RFID (long range type), or a long range Bluetooth, or a Wi-Fi or any RF type. The tags broadcast a unique ID by wireless that identifies the location by the unique ID, the address and type of facility/store. The tag broadcasts its information to be picked up by the navigator, by the cellular phone or any other Bluetooth device application.

[0081] The system can serve as add on to the mall/store's guide/mapping to provide extra assistance to user.

[0082] The navigator.

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[0083] The navigator, cellular phone application Bluetooth application

[0084] The user will receive the data broadcast by the tags in the vicinity via the interface with a cellular telephone utilizing the cellular phone's Bluetooth capability. It is important to note that no cellular communication or Internet or database access is needed, and that any Bluetooth enabled device will operate the disclosed navigator application as a stand alone device. The disclosed system will interface with existing in-car navigation systems.

[0085] The display method.

[0086] The display method is the disclosed unique way to bridge existing devices like cellular phones, in—car navigation and other Bluetooth devices. The system provides an overlay navigation display method over the existing navigation system, as a real-time floating display, or as a waypoint to overcome the limitations of GPS based systems and the existing mapping systems.

[0087] Mapping can be offered as an additional service. No regenerating of mapping is necessary.

[0088] The disclosed navigation system method will enable remote planning based on downloaded local floor-plans, or local navigation, when the location's floor plan can be downloaded at the destination. An example of this would be at the entrance of a shopping mall, department store, amusement park, museum, parking garage or the down town area of a city.

[0089] The disclosed system is based on a network of sensors/tags that can be deployed anywhere. The system is accurate to within 10 feet, significantly better existing navigation systems and GPS. The system can work inside a building whereas GPS cannot.

[0090] Local detection is obtained via popular Bluetooth interface.

[0091] The system provides information about each facility/store, including information about the type of the facility, for example: type of store or product etc.

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[0092] By providing the ability to locate a the user in an area using a Bluetooth enabled device, or a cell phone with the associated navigation application, the system overcomes the anxiety of "Where will I am" and also facilitates finding a parked car later via the RTP (Return to Parking) feature.

[0093] The system has the capability to perform all the functions of a search for and can become the "Next generation search out of the box".

[0094] The disclosed system can be an attractive additional feature for cities that intend to deploy WIFI.

[0095] In case of an emergency or security situation, the system can provide authorities with information.

[0096] The system eases facilitates navigation to indoor locations, without a navigation map or GPS. Mapping background can be provided as an additional feature on the disclosed system. The system provides "local" navigation as well as "remote" detection.

[0097] The system allows easy interface with existing networks.

[0098] The system saves gas, time, money and eases global warming by reducing the time spent searching for destination.

[0099] The disclosed navigation method is unique. The base of the disclosed system utilizes RF tags with interface to Bluetooth enabled devices. This feature allows detection and navigation in locations where GPS cannot work, as well as outside, with the ability to guide the user to within 10 feet of the destination, significantly better than any other navigation and GPS based systems on the market.

[00100] The Bluetooth/RF tags are based on a long range version of the popular short distance communication. This unique feature affords the user the ability to plan ahead from a remote location, by obtaining data about the destination directly from the tags and by accessing the indoor floor plan to be navigated at the destination.

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[00101] A major problem with In-Car navigation and GPS mapping is that they cannot guide the user closer than 50 to 200 feet, and only in open places. The disclosed system can provide accurate directions to within 10 feet.

[00102] The disclosed system will be a challenge to navigation providers and GPS providers as they cannot provide mapping or navigation inside a mall, department store, a parking garage or lot, and anywhere the GPS /Navigation map cannot accurately help navigate.

[00103] Utilizing the disclosed innovation the facilities in the vicinity around the "user" car are displayed on a floating overlay using either a cellular phone application, or a stand-alone device, or an existing installed navigation system with or without any mapping.

[00104] The recent introduction of imagery services, such as Google Earth and its competitors, that are offered as an enhancement to GPS at a fee, still provide out of date information, with the unsatisfactory result that users encounter road changes and area development not shown on the maps and imagery.

[00105] Navigation using the mapping or floor-plan of a location can be offered as an additional service. The option of downloading a floor-plan can be exercised either remotely or locally.

[00106] The tags broadcast their signal continuously and any of the disclosed navigation devices will detect them and display the data on the user's device in an easy to understand method.

[00107] With the disclosed innovation you have the information that you want, when you want it, where you want it. (and at an affordable price).

[00108] Once you are in the vicinity of your destination and you switch on your navigation device, you will automatically receive the facility information along your waking route and in all directions around you.

[00109] No further action is required, there is no need to send a request or to access the Internet/web or log on and search a database or central system. Other systems must have

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bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

[00110] Even if the other systems have bandwidth, they are still based on the existing search concept where under the user submits a query, searches and awaits for the response. All impractical while the user need the information immediately. The disclosed system provides the information automatically, without submitting any query, and the response takes into account the user's location.

[00111] The unique approach of the disclosed system does not need an Internet bandwidth or cellular communication at all.

[00112] And as a result there is no delay or waiting for communication and access time, the communication is instantaneous, directly between the tags and the user's navigation device.

[00113] Additionally, each facility type can color-coded to identify the type of the store etc., e.g. restaurants, men's wear, women's wear etc.

[00114] Each color-coded display of facility can be accessed to obtain complete information about the store e.g., automatic waypoint information.

[00115] The ability to operate the disclosed innovation using the associated application on a cellular phone, the navigator, with no need for cellular connection, or on any stand alone Bluetooth enabled device, means the user does not need any GPS system.

[00116] Moreover, the disclosed innovation can solve the “RTP” (Return to parking) problem, where many forget where they parked their car. The system has an option to save the location on the “cellular phone—parking detector” application, that will make it easy to locate the parked car.

[00117] The disclosed solution is designed for global use and is not limited to malls, stores, amusement parks, museums, sports stadiums etc. It can be implemented in parking garages or parking spaces metered or not, almost anywhere and in any place

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[00118] In the future, all new construction could have the tags included in the design.

[00119] The disclosed system integrate the navigation as part of the NAV4 concept where it will provide complete solutions for local navigation in an area where the GPS can't work.

[00120] The disclosed system and method consists of three parts:

[00121] Part 1. A network of tags/sensors—each in a known location.

[00122] The disclosed system is based on navigation to a location, and its aim is to replace or supplement the mall/store guide/map, by installing the tags/sensors in each store or point of interest.

[00123] Part 2. The mapping. As GPS and GPS mapping is not available indoors, the disclosed system and method utilizes floor plan mapping available from each facility. For planning ahead, the floor plan can be downloaded to the user's navigation/cellular phone remotely—via the Internet before reaching the destination or locally via Bluetooth when the destination is reached.

[00124] Part 3. The Navigation uses the most commonly used device in the world today, the cellular phone with Bluetooth interface. The disclosed system method doesn't need any connection, communication, Internet or central system nor any cellular communication.

[00125] As a difference from other systems and other local based systems, the disclosed system offers a unique approach that can be described as the “Search out of the box” as neither query nor database search is needed; all communication is directly between the sensor/tags and the cellular phone, working as a Bluetooth device, that automatically recognizes and takes into account the “user's” location, and provides instant information.

[00126] A typical application is navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility, or any place when and where GPS cannot be provided or is not accurate or

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precise enough. The system will be used for navigation by first responders to emergencies or disasters.

[00127] The disclosed system method is part of a broad suite of applications that include a complete solution to the "user" from the time that they park, or begins to look for a space to park their car, walking to the store/mall to when they wants to return to their parked car, looking for the place that they parked.

[00128] The suite includes:

Parking detector—and navigation to the empty available parking space.

Nav4 mall/store navigation solution inside mall store.

RTP—return to parking—locate the place that you parked your car.

For example, a typical application could be:

A pedestrian asks the way in a mall to a specific store.

A pedestrian asks the way inside the store, to a specific aisle or product.

A shopper in a department store asks for a specific department.

A pedestrian asks the way to a point of interest. In an emergency, the first response team has to navigate inside a smoke filled building.

[00129] A system and method to provide user information that relates to the point of interest. The disclosed system provides detection and navigation reference, position determination and information related to the object—point of interest, directly and automatically to the user interface-cellular phone without any communication help of Internet/web or cellular needed.

[00130] Special operation mode:—Shopping—NAV4SALE—provides navigation to the special sale item in a department store.

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[00131] Special operating mode:—Museums—NAV4Museums provides navigation and interactive information from the museum's exhibition to the “user's” cellular phone device via Bluetooth interface.

[00132] Special operating mode:—Parking—NAV4PARKING provides empty parking space detection and navigation.

[00133] Special operating mode:—NAV4STORE provides navigation inside a store/department store to a specific department/aisle or specific product, with option for advertising method and special promotion.

[00134] Bluetooth indoor location:

[00135] How does Bluetooth location work?

[00136] Bluetooth was not made originally for location. From the outset, the standard was designed for communication, in a personal area networking (PAN) environment. However, to facilitate this task, particularly in dynamic ad-hoc scenarios, devices need a mechanism to identify their neighbors, to synchronize, and finally to connect. Such mechanisms have indeed been built into Bluetooth. More importantly, these mechanisms can also be used to obtain an accurate location.

[00137] There are two approaches to Bluetooth location:

[00138] Binary location—a room-oriented approach, uses the PD method. An access point is installed in every way point. For each tag, the system than finds the nearest AP, and respectively indicates its way point location.

[00139] Analog location—an X-Y oriented approach, based on the RSSI method. APs are installed more sparsely (typically, 10-15 m apart). For each tag, the distance from each way point is measured, and the system triangulates the tag's position.

[00140] An AP finds a tag by using one of two Bluetooth mechanisms, Inquiry and Paging, that are used normally for link setup:

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[00141] The Inquiry mechanism—provides a way for a Bluetooth device to discover its neighbor's Bluetooth ID. An inquiry process typically takes 5s. It concludes with the inquirer (typically the AP) having the IDs of all those Bluetooth devices (tags) within its RF range. The relevant location scenario is that of browsing all tags nearby.

[00142] The Paging mechanism—following an inquiry, the inquirer can page (set up a link with) one or more of its discovered neighbors. A paging process typically takes 1-2 seconds. This mechanism is faster, but requires a previous knowledge of the tag's ID (as well as the Bluetooth clock phase). The relevant location scenario is that of searching for a certain tag. It is the most accurate and the faster response time and it is the method indoor navigation when and where each tag is known address position—waypoint.

[00143] Why use Bluetooth for indoor location?

[00144] Bluetooth has some advantages in the context of indoor location. These include:

[00145] Bluetooth uses RF—in the 2.4 GHz ISM band, specifically. In this frequency range, radio waves penetrate obstacles, such as walls and human bodies, albeit with a substantial loss. This has two implications:

[00146] Availability is high—there is always some signal received by the access point . AP density can be low the access points can be placed relatively far apart (typical range is 10-15 meters, i.e. not necessarily of one in each way point).

[00147] Bluetooth is ubiquitous—Bluetooth chipsets are being implanted everywhere nowadays (phones, accessories, computing devices, etc). The fact that a Bluetooth location system can locate any Bluetooth enabled device, makes it more cost-effective. This means that an increasing fraction of humans and mobile assets around would become locatable in a Bluetooth covered site, with no additional hardware cost (no tags attached). The only need is to pre-register these devices.

[00148] Bluetooth is a low power technology—tags need recharge, approx. once a week (or longer, depends on the usage scenario). Non tags (e.g. BT enabled phones), are being recharged

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anyway on a regular basis, so they do not need special recharges. If they are being used for location, the fraction added to their usual (no Bluetooth) power consumption is relatively small.

[00149] Bluetooth is a low cost technology—the high expected production volumes (hundreds of millions annually) lead to sub-5$ per chip. This goal has already been met by few IC manufacturers. This would eventually result in a low price for the Bluetooth tags, if and when Bluetooth location systems would become sufficiently ubiquitous.

[00150] Bluetooth is a multi-functional communication standard—location is only one of the services that can be supported by a Bluetooth infrastructure. The same infrastructure can be used to provide additional network services, particularly remote monitoring and control (by using a serial interface). In addition, Bluetooth provides voice and IP services (although for the later, WLAN is typically more suitable).

[00151] In open spaces, relatively free of obstructions and walls (e.g. A large warehouse or a public hotspot), Bluetooth alone would suffice to provide an approximate 2 meter error range.

[00152] Waypoint Navigation

[00153] A waypoint is a fixed location with known address location, longitude and latitude and coordinates. The disclosed navigation system is capable of storing a database of waypoints for the following purpose:

[00154] Waypoints mark a destination, a point along the way to a destination, or a point of reference. Normally, in navigating, a “route” consists of one or more waypoints. To traverse a route, the user navigates to the nearest waypoint, then to the next one in turn until the destination is reached. The system has the ability to compute a great-circle route towards a waypoint, enabling them to find the shortest route even over long distances. The system enabling users to locate a destination on a map and define it as a waypoint. The system is intended for navigation; it can generate a suggested route between two waypoints, based on the cartographic database. The system indicates the user's current location and gives advance notice of an upcoming point.

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[00155] Because the system knows the waypoint positions, and the distance between them it, it is easy to determine the "user's" exact location.

[00156] Map Matching

[00157] The navigation solution is further enhanced, although it is not essential, when the system knows that the person or object being located is traveling along known routes on a map; for example, the system can assume that people can only follow certain routes in a mall. This is priori information that can be used to "force" the estimated position to be on the nearest point on the possible routes. The constraints of indoor construction similarly can be used to refine estimates of the position of a person or object moving within a building-people and objects do not pass through walls, they pass along corridors and through doorways. It is a best solution for a system in case of an emergency or for a system for homeland security or a system to locate and inform the subway location, a good example is the hotel exit floor map.

[00158] Configuration and Use

[00159] In the disclosed indoor application, instead of GPS, the disclosed system uses known waypoint positions that are manually detected and identified as a demonstration of the concept of using another sensing method, such as RFID, to detect and identify the waypoints. Theoretically, it would be possible to convert the waypoint positions into GPS coordinates and emulate an external GPS data source.

[00160] This system can be useful for providing navigation to first responder personnel indoors waypoints have been installed in a particular building in the form of RFID tags whose identities are associated with locations, then it may be possible to associate magnetic anomaly information with individual tags as well.

[00161] One of the important features of the disclosed indoor navigation techniques will enhance the ability of tactical team's first response team to navigate within the buildings in which it has been deployed. RF(Bluetooth) Tag/Sensor devices commonly are attached to persons or to moveable objects so that the objects can be tracked using fixed readers (special-purpose radios) at different locations. This is the most common indoor navigation that exists today. The disclosed

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method is the "flip side" of this practice and is based on the concept that the detection of an RF (Bluetooth) device, or RF Tags, in a known, fixed location, by a moving reader, such as a Bluetooth enabled cellular phone or other Bluetooth enabled device, provides a precise location of a person or a moving object, by the carrier of the telephone or device, who can supply indoor navigation without GPS.

[00162] The disclosed method provides a low-cost, reliable system for firefighters and other first responders, inside buildings, to navigate, where a GPS is not reliable-indeed, the GPS signal may have been disabled temporarily to prevent-exploitation by terrorists, or even more likely no signal can be received at all inside a building.

[00163] The disclosed system envisions this limitation of GPS based systems, and is intended for an environment that is potentially much less "friendly" to RF signals, the environment inside a building that first responders encounter may contain smoke, dust, or flames, and is intended to leverage advances in ubiquitous RF/Bluetooth tag technology. The disclosed system will exploit the capability of storing critical building information, such as the floor maps and the emergency escape plans, for retrieval and navigational assistance via a Bluetooth enabled cellular phone, when and where it is needed,

[00164] More over the disclosed system can serve as a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

[00165] Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

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[00166] From the outset, the disclosed system was been designed with the capability to utilize existing technology so it can be deployed as a stand-alone system, or in tandem with existing systems. The disclosed solution focused on technology already in place that simply needs to be expanded.

[00167] With the implementation of the disclosed system, a FIRST RESPONSE TEAM will be empowered to navigate and find its way in a case of emergency or a disaster. This capability can be a critical life saving power in modern congested urban living conditions, not available before now.

[00168] It is believes that implementation of the disclosed system will assist counter terrorism activities and more importantly will help the first response teams to save the lives of people trapped inside buildings.

[00169] Conclusion

[00170] The Bluetooth technology offers two unique advantages: one is the ability to locate ubiquitous "any tags" (any Bluetooth enabled device that is not a tag, e.g. most of the newer mobile phones).

[00171] The other advantage is the multiservice nature of the Bluetooth infrastructure that enables using the location access points for other purposes, such as for navigating, remote monitoring and control, and for a variety of IP and messaging services.

BRIEF DESCRIPTION OF THE DRAWINGS

[00172] A better understanding of the present invention may be obtained by reference to the accompanying drawings, which should be considered in conjunction with the detailed description, all in accordance with the present invention.

[00173] FIG. 1 is an illustration of the portable phone navigation method as application on a cellular phone in accordance with the present invention.

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[00174] FIG. 2 is illustration of the portable phone navigation as an application nav4 mall/store in accordance with the present invention.

[00175] FIG. 3 is illustration of the mobile unit application system in accordance with the present invention.

[00176] FIG. 4 is an illustration of the sensor tags in a network implement in a mall environment in accordance with the present invention.

[00177] FIG. 5 is a flow diagram of the navigation system in accordance with the present invention.

[00178] FIG. 6 is an illustration of the indoor navigation system in accordance with the present invention.

[00179] FIG. 7 is an illustration of the sensor tags in a network in accordance with the present invention.

[00180] FIG. 8 is an illustration of the possibility application for the disclosed navigation system in accordance with the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[00181] In all the figures of the drawings, sub-features and integral parts that correspond to one another bear the same reference symbol.

[00182] Referring now to the drawings in detail and first particularly to FIGS. 1-8 thereof.

[00183] These figures illustrate the method and system to navigate indoor without GPS using sensor in a network utilizing Bluetooth application on a cellular phone.

[00184] Referring to FIG. 1 This shows the cellular phone 101 with a floating display of information 105 received directly from sensors/tags 107 installed in this illustration in a mall

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facility 104 the only communication is between the sensors 107 and directly to the cellular phone 101 via a Bluetooth communication 102 where no cellular or any other connection needed at all. The system uses the cellular phone 101 as a Bluetooth enable device. The application will receive a signal directly from the sensor/tags 107 installed at the facility and allow to calculate and determine the exact location of the "user" and will allow navigation in the facility when the navigation display 105 of the application will be floating on the floor map of the facility that can be down load ether remotely before accessing the facility or locally via Bluetooth 102 when reaching the area.

[00185] Each sensor 107 represents a waypoint and will be shown with a simple color code to identify the type of the facility e.g. type of store.

[00186] When the user approaches a sensor/tag/way point 107 he will be able to receive additional-information regarding the store/product on his cellular phone/Bluetooth device 101 e.g. special promotions, coupons, advertising or special sales to the display 105 etc.

[00187] The promotion can be also delivering via Bluetooth voice option 106.

[00188] Referring to FIG. 2.This figure illustrate the cellular navigation application in a mall on a cellular phone, 101, as a Bluetooth cellular phone application; again, there is no need for cellular communication or any Internet web communication or any central system nor any access to a database.

[00189] The system utilizes the cellular phone, 101, only as a Bluetooth enabled device and the application overlay floating display over the floor map 201 where each store sensor/tag 202 represented as a waypoint, in this illustration the mall's store can be view and be search by store type, store directory 203, or by alphabetical order 204, where each store/waypoint will have a basic information—store information 205, like the store name, phone number, floor, address within the mall, and a small notes- small information representing the store. Again when the user approaches a sensor/tag/way point 202 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device 101 e.g. special promotions, coupons, advertising or special sales to the display 201 etc.

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[00190] The promotion can be also delivering via Bluetooth voice option utilize the Bluetooth options.

[00191] Turning now to FIG. 3. This figure shows the cellular phone mobile unit 101, in operation as a Bluetooth application, the procedure is firs to load the facility floor map 301, which can be done remotely as a planning via Internet or web site before reaching the area to be navigate, or locally via Bluetooth connections at the facility, most likely at the entrance. After loading the floor map to be a background for the navigation a position determination 302, done by calculating the signal receiving directly from the sensor/tags and then provide the heading navigation 303, and the current user location on the floor map, 301.

[00192] Referring to FIG. 4. This figure shows an illustration of the mall 402, when each store represented by sensor/tag waypoint 401, in this illustration the mall's store can be view and be search by store type, store directory, or by alphabetical order, where each store/waypoint 401, will have a basic information -store information, like the store name, phone number, floor, address within the mall, and a small notes-small information representing the store. Again when the user approaches a sensor/tag/way point 401 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device e.g. special promotions, coupons, advertising or special sales to the phone as Bluetooth application.

[00193] The promotion can be also delivering via Bluetooth voice option utilize the Bluetooth options.

[00194] Turning to FIG. 5. This figure shows the method of the disclosed system when the user reach the area 501,locally load the floor mapping 502, and navigate on the facility mapping 503.

[00195] Referring to FIG. 6. This figure shows an illustration of the disclosed navigation suite of application where the navigation is a cellular phone 101, as a Bluetooth device navigate on a background floor map of the facility 602, receiving a detect information and determination of the exact location of the user from a sensor base network implement in each known location like 601, store in a mall, the application in the disclosed suite of software to provide a navigation

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indoor or in a places where and when GPS signal is not available or not efficient to provide accurate to a waypoint/store, place:

[00196] Parking detector application 604, describe as a system and method to find an empty parking space from a sensor base network directly to the cellular phone utilize the cellular phone Bluetooth and no other communication needed.

[00197] Indoor navigation application 605, under Nav4 application that will describe in more details in FIG. 8 A typical application is navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility, or any place when and where GPS cannot be provided or is not accurate or precise enough. The system will be used for navigation by first responders to emergencies or disasters.

[00198] RTP 606 —returns to parking— locates the place that you parked your car.

[00199] The disclosed system and associated method of use is part of the disclosed broad suite of applications that include a complete solution to the "user" from the time that he parks, or begins looking for a space to park his car, walking to the store/mall to when he wants to return to his parked car, looking for the place that he parked.

[00200] The suite includes:

Parking detector—and navigation to the empty available parking space.

Nav4 mall/store navigation solution inside mall store.

RTP—return to parking—locate the place that you parked your car.

For example, a typical application could be:

A pedestrian asks the way in a mall to a specific store.

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A pedestrian asks the way inside the store, to a specific aisle or product. A shopper in a department store asks for a specific department.

A pedestrian asks the way to a point of interest. In an emergency, the first response team has to navigate inside a smoke filled building.

[00201] A system and method to provide user information that relates to the point of interest. The disclosed system provides detection and navigation reference, position determination and information related to the object—point of interest, directly and automatically to the user interface—cellular phone without any communication help of Internet/web or cellular needed

[00202] Turning to FIG. 7. the sensor base network 107, is show and illustrate the direct broadcasting RF information 701,to the cellular phone as a Bluetooth device 101, again, there is no need for cellular communication or any Internet web communication or any central system nor any access to a database.

[00203] Turning to FIG. 8, is an illustration of the possibility application for the disclosed navigation system The Nav4 indoor application: some of the possibilities of application are:

[00204] Special operation mode:—Shopping—NAV4SALE—806, provides navigation to the special sale item in a department store, coupons or other promotions and even audio or video via a Bluetooth interface as advertising directly push from the waypoint/store area to the user Bluetooth device/cellular phone.

[00205] Special operating mode:—Museums—NAV4Museums—804, provides navigation and interactive information from the museum's exhibition to the “user's” cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

[00206] Special operating mode:—NAV4STORE-805, provides navigation inside a store/department store to a specific department/aisle or specific product, with option for advertising method and special promotion.

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[00207] Special operating mode:—Amusement park—803, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability (lines) time to the show, type of the waypoint like restrooms, food area etc. more over the disclosed navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

[00208] Special operating mode:—First response navigation,802—More over the disclosed system can serve as a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

[00209] Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

[00210] Special operating mode:—NAV4Train-801, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, more over the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, no more walking to the mapping inside the station or try to figure out your location in the map inside the subway train, each station will have a tag/sensor all the route to provide the user accurate locating and additional information that he may need like schedule, restroom, food, emergency etc.

[00211] Since other modifications and changes varied to fit particular operating requirements and environments will be apparent to those skilled in the art, the invention is not considered

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limited to the example chosen for purposes of disclosure, and covers all changes and modifications which do not constitute departures from the true spirit and scope of this invention.

[00212] Having thus described the invention, what is desired to be protected by Letters Patent is presented in the subsequently appended claims.

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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)

31877 7590 07/10/2014
ALLEN D. HERTZ
ALLEN D HERTZ, P.A.
12784 TULIPWOOD CIRCLE
BOCA RATON, FL 33428

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.

Allen D. Hertz (Via EFS-web)	(Depositor's name)
	(Signature)
August 08, 2014	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	MEN-06-001	4194

TITLE OF INVENTION: System and method navigating indoors and outdoors without GPS, utilizing a network of sensors

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	10/10/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
PHAN, DAO LINDA	3646	342-463000

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 Allen D. Hertz, P.A.
2 Allen D. Hertz
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)

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. **Via EFS Credit Card Process**
- ☐ 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
  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.
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
  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.
- ☐ Applicant changing to regular undiscounted fee 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 _____ Date August 08, 2014

Typed or printed name Allen D Hertz Registration No. 50,942

Google Ex. 1022, p. 052

Electronic Patent Application Fee Transmittal

Application Number:	11429864
Filing Date:	08-May-2006
Title of Invention:	System and method navigating indoors and outdoors without GPS. utilizing a network of sensors
First Named Inventor/Applicant Name:	Ehud Mendelson
Filer:	Allen D. Hertz
Attorney Docket Number:	MEN-06-001

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:				
Utility Appl Issue Fee	2501	1	480	480
Extension-of-Time:				

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Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**480**

Electronic Acknowledgement Receipt

EFS ID:	19814055
Application Number:	11429864
International Application Number:	
Confirmation Number:	4194
Title of Invention:	System and method navigating indoors and outdoors without GPS. utilizing a network of sensors
First Named Inventor/Applicant Name:	Ehud Mendelson
Customer Number:	31877
Filer:	Allen D. Hertz
Filer Authorized By:	
Attorney Docket Number:	MEN-06-001
Receipt Date:	08-AUG-2014
Filing Date:	08-MAY-2006
Time Stamp:	12:26:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$480
RAM confirmation Number	9538
Deposit Account	
Authorized User	

File Listing:

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

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1	Issue Fee Payment (PTO-85B)	MEN-06-001_Mendelson_Issue_Fee_Submission_080814.pdf	1092717 6df3ba81d07b94e049ea9ce1610aeb34229934cb	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30085 212e485cec4d9c98a3ac221b69be3c0fda82082a	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	1122802	

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

Application No.	: 11/429,864	Confirmation No. 4194
Applicant	: Ehud Mendelson	
Original Title	: **System and method navigating indoors and outdoors without GPS. utilizing a network of sensors**	
New Title	: **RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE**	
Filed	: May 08, 2006	
TC/A.U.	: 3646	
Examiner	: Dao Linda Phan	Tel: (571) 272-6976
Docket No.	: MEN-06-001	
Customer No.	: 31877	

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

Amendment Under 37 C.F.R. § 1.312

Sir:

Applicant respectfully requests the Examiner consider and enter the following Amendment into the file of the above-identified patent application to resolve informalities of the Title and within the Specification. This Amendment is being submitted prior to submission of the Issue Fee. Applicant earnestly believes the response is considered to be timely submitted.

Amendments to the Title, which begins on page 03 of this paper.

Amendments to the Specification, which begins on page 04 of this paper.

Remarks/Arguments begin on page 4 of this paper.

Conclusions begin on page 5 of this paper.

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IN THE TITLE:

Please Revise the **Title** as follows:

From:

"*System and method navigating indoors and outdoors without GPS. utilizing a network of sensors.*"

To:

-- RF RF PROXIMITY TAGS PROVIDING A LOCAL GUIDE AND INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE --

Original Title	:	**System and method navigating indoors and outdoors without GPS. utilizing a network of sensors**
New Title	:	**RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE**

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IN THE SPECIFICATION:

Please amend the specification herein as follows (~~Strikethrough~~ or [within brackets] for deletions / Underline for additions):

1) Applicant desires to introduce Paragraph numbers to each of the Paragraphs.

2) Applicant desires to revise the line spacing and paragraph spacing to be 1 1/2 line spacing with 12 pt spacing between paragraphs.

3) Applicant has amended a variety of capitalizations, periods, spelling errors, etc., each of which are presented in the annotated version of the Specification submitted herewith.

4) Applicant has amended the Specification to remove references to the Inventor, such as "We ..." "Our...", and the like, each of which are presented in the annotated version of the Specification submitted herewith.

Applicant earnestly believes the amendment to the Specification has not introduced any new matter.

An annotated portion of the amended specification is submitted herein and identified in the top margin accordingly.

A substitute specification is submitted herein and identified in the top margin accordingly.

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REMARKS

Claims 19, 21-33, 36 and 37 remain pending in the application.

No claims have been amended herein.

No claims have been canceled herein.

No claims have been withdrawn herein.

No claims have been added herein.

Title

Applicant has amended the Title to better represent the present invention and correct typographical and grammatical errors.

Applicant has amended the Title as follows:

Original Title : **System and method navigating indoors and outdoors without GPS. utilizing a network of sensors**

New Title : **RF Proximity Tags Providing Indoor And Outdoor Navigation And Method Of Use**

SPECIFICATION

Applicant has amended the Specification to resolve various informalities and grammatical issues, including introduction of Paragraph Numbers, capitalizations, periods, spelling errors, etc. Additionally, Applicant has amended the Specification to remove references to the Inventor, such as "We ..." "Our...", and the like.

Applicant has provided a complete Annotated Specification to best describe and present all of the changes.

Applicant earnestly believes the amendment to the Specification has not introduced any new matter.

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An annotated portion of the amended specification is submitted herein and identified in the top margin accordingly.

A substitute specification is submitted herein and identified in the top margin accordingly.

Conclusions

Applicant respectfully requests the Examiner consider and enter the amendments to the Title and Specification under 37 CFR 1.312. The Amendments are directed towards grammar, spelling and informalities. The claims were not amended.

Applicant earnestly believes no new matter has been introduced by this amendment.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, a telephone call to the undersigned at (561) 716-3915 is respectfully solicited.

Respectfully submitted,
Allen D. Hertz
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Attachments:
Annotated Specification (29 pages)
Substitute Specification (29 pages)

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~~System and method navigating indoors and outdoors without GPS, utilizing a network of sensors~~

RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE

RELATED APPLICATIONS~~:~~

[0001] This application claims the benefit of US Provisional Application No. ~~US~~60/678,947 filed May 9, 2005.

FIELD OF THE INVENTION~~:~~

[0002] This invention is directed generally to the field of "location based navigation" and, more particularly, to such method to be used indoors or outdoors without GPS and utilizing a wireless sensor network.

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BACKGROUND OF THE INVENTION

[0003] Introduction to location based services:

[0004] Location based services are rapidly expanding. Outdoor location technologies are mainly based on GPS technologies. GPS cannot perform properly indoors, and is therefore inadequate. As a result, indoor location systems are appearing on the market.

[0005] The need for a system, such as ~~ours~~ the indoor navigation system disclosed herein, arises from various market segments and applications. One example in the market is the GPS based systems that use integrated positioning and navigation systems based on GPS receivers as the primary positioning technology. Subsequent to the events of September 11th, the Federal government mandated that GPS capability be built in to all cellular phones. However, the fact that uninterrupted satellite reception is not possible in many locations is a major limitation of GPS based systems. Densely populated areas and radio-frequency-signal shadowed locations, such as urban centers (a.k.a. "urban canyons"), generally do not allow proper operation of GPS, yet it is in these locations that the need is greatest.

[0006] There is a clear need for a cost effective system that maintains performance indoors, in urban canyons and in city centers.

[0007] Another important consideration is that GPS itself is susceptible to jamming and other man-made interference.

[0008] Description of GPS System.

[0009] The Global Positioning System (GPS) is a satellite-based navigation and time transfer system developed by the U.S. Department of Defense. GPS serves marine, airborne and terrestrial users, military and civilian. Specifically, GPS includes the Standard Positioning Service (SPS) that provides civilian users with 100 meter accuracy as to the location or position of the user. For military users GPS provides the Precise Positioning Service that is accurate to

Google Ex. 1022, p. 063

within 20 meters. Both of these services are available worldwide with no requirement for any local equipment.

[0010] View of GPS limitations:

[0011] First limitation of GPS is that upon activation the GPS receiver scans for signals from the GPS satellites. A unit must locate and receive signals from at least four satellites to be able to determine its location. This process of locating the satellites, receiving the data and achieving a position fix can take several minutes. This delay is problematic for many GPS applications.

[0012] Second limitation of GPS is that the receiver needs a clear view of the sky to successfully receive signals from the satellites, again under unfriendly RF conditions such as inside buildings, or in "urban canyons" or in the shadows of high buildings, the GPS suffers from multi-path effects and therefore shows poor performance, or none at all.

[0013] Third Limitation—limited accuracy: There is a problem of limited accuracy of the civilian GPS signal. While knowing your position to within 50 to 200 feet anywhere on the planet is a major technological feat, it is still not accurate enough, to locate and navigate to an a store in a mall or to empty parking space, where each space measures about 10 feet, and most indoor store/malls are located where the GPS cannot work effectively.

[0014] Existing navigation systems, such as the new mandatory GPS equipped cellular phones, are based on GPS and have the aforementioned limitations.

[0015] Another significant factor adding to the limitations of the GPS based systems is the important role of map production; normally a user, requires a map to be as detailed and as up-to-date as possible. The existing maps used by the GPS based systems provide limited detail and are not able to reflect changes on a real time basis, more over there is no mapping for indoor facilities at all. The recent introduction of imagery services, such as Google Earth and its ~~competitors,that~~competitors, that are offered as an enhancement to GPS at a fee, still provide out of date information, with the unsatisfactory result that users encounter road changes and area development not shown on the maps and imagery.

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[0016] Application:

[0017] In general, the disclosedour system is based on applying machine-learning techniques to the task of inferring aspects of the user's status from a stream of input from sensors.

[0018] The system We have focuseds on indoor navigation, or navigation in crowded urban areas, where GPS based systems, due to lack of access to satellites or the GPS limitations detailed previously, cannot achieve the required results.

[0019] The system We have focused focuses on the task of interactively guiding the user to a desired indoor destination.

[0020] Examples of indoor applications:

[0021] The user may wish to locate an empty available parking space in his vicinity.

[0022] The user may wish to locate a specific store in a shopping mall, or a particular aisle in a department store, or a specific item on a shelf.

[0023] The user may wish to locate a specific conference room in a convention center, or a point of interest in an amusement park or a point of interest in a museum.

[0024] The user may be looking for a train location in a station, or stops in a subway or underground train system.

PRIOR ART

[0025] At the present time, however, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a Global Positioning System (GPS) based system directly to the "user". Also most of systems are designed for the old query type search where interface to Internet and or database central system needed

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[0026] ~~Our~~ The system disclosed herein automatically detects a signal directly from the sensors, no communication needed not even cellular communication. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

[0027] Even if the other systems have bandwidth, they still based on the existing search concept where under the user submits a query, searches and awaits for the response. All of this is impractical. ~~Our~~ The system disclosed herein provides the information automatically, without submitting any query, and the response is according to the user's location.

[0028] Again, most of the existing prior art~~s are~~ is based ~~either~~ on either a GPS based system or ~~the~~ an existing GPS based car navigator~~, that depends on a GPS too~~. And the existing mapping that these systems use has the same limitations described previously and is impractical.

[0029] ~~We believe that our~~It is believed that the disclosed system and associated method bridges the gap between the GPS based navigation and provides a complete solution.

[0030] Patent U.S. Pat. No. 7,031,875 Ellenby et al. describe a pointing system for addressing objects, provide a system and method based on GPS and Internet/database communication, it is not exactly a navigation but a information based system that need the GPS to locate the user location so indoor services is likely out of the question~~s~~ and the need for communication as well with GPS limit its availability and accuracy.

[0031] Indoor location technologies.

[0032] Various technologies are used for wireless indoor location. These may be classified in two aspects: The algorithm—i.e. the method of location used. The physical layer—i.e. the wireless technology used to communicate with the mobile device.

[0033] Location methods

[0034] Typically, the methods used in indoor locations are “borrowed” from the outdoor GPS location methods inventory. Specifically, four types of methods are used indoors:

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Proximity Detection (PD),

Received Signal Strength (RSSI),

Time of Arrival (TOA), and

Angle of Arrival (AOA).

[0035] Proximity Detection (PD)

[0036] This method relies upon a dense grid of antennae, each having a well-known position. When a mobile is detected by a single antenna, it is considered to be collocated with it. When more than one antenna detects the mobile, it is considered to be collocated with the one that receives the strongest signal.

[0037] This method is relatively simple to implement. It can be implemented over different types of physical media. In particular, IR and RFID are based on this method.

[0038] Triangulation

[0039] Triangulation takes PD a step further, in the sense that it is based on measuring the signal level measurements from each antenna (possibly by using a triangulation mechanism), with respect to each mobile device. Following that, mobile is located by using a triangulation algorithm.

[0040] Like the PD method, triangulation is relatively simple to implement.

[0041] Time of arrival (TOA)

[0042] TOA is based on triggering the mobile devices to respond, and measuring the time it takes for the response to flytransmit back to the antenna. The elapsed time represents the distance between the two. By using distances from few antennas, a mobile's position can be triangulated. TOA is considered to be the most accurate method, because multipath effects can be filtered out. Yet, it is considerably more complex to implement, as it requires a modification to the hardware on the mobile side, as well as special modifications on the antenna side.

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[0043] Angle of Arrival (AOA)

[0044] AOA is based on finding the direction of maximal signal intensity for each antenna-device pair. By finding the intersection of several such direction vectors, a mobile's position can be estimated AOA is considerably less accurate than TOA, due to limited angular resolution and the fact that indoors much of the signal is reflected. Also, AOA antennae are more complex, as they require multi-section, highly directional antennas, and multiple RF circuitry.

[0045] WLAN (IEEE 802.11b)

[0046] This midrange wireless local networking standard, operating in the 2.4 G Hz ISM band, has become very popular in public hotspots and enterprise locations during the last few years. With a typical gross ~~bitrate~~bit rate of 11 Mbps and a range of 50-100 m, IEEE 802.11b is currently the dominant local wireless networking standard.

[0047] It is therefore appealing to use an existing WLAN infrastructure for indoor locations as well, by adding a location server. Such solutions do exist in the market, providing an accuracy of ~ approximately two (2) meters~~m~~.

[0048] One limitation of such systems is the fact that WLAN tags are relatively bulky and power hungry. Thus, such locators are mainly useful to locate WLAN enabled instruments, such as portable computers.

[0049] Note that in WLAN, antennae are actually part of access points (APs), through which devices communicate with the access network. This is also the case with Bluetooth.

[0050] Bluetooth (IEEE 802.15)

[0051] Bluetooth is a newer wireless local networking ~~standard,that~~standard, that operates in the 2.4 GHz ISM band. Compared to WLAN, the gross ~~bitrate~~bit rate is lower (1 Mbps), and the range is shorter (typically 10-15m, although there are tags with a range of over 300 feet). On the other hand, Bluetooth is a "lighter" standard, highly ubiquitous (embedded in most phones, PDAs, PC peripherals, etc.), and supports, in addition to IP, several other networking services.

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Notably, Bluetooth supports serial port emulation, voice, and various types of object exchange. Bluetooth tags are small, pocketsize transceivers.

[0052] Every Bluetooth device's tag has a unique ID. This ID can be used for locating the tag.

[0053] Bluetooth indoor location.

[0054] How does Bluetooth location work?

[0055] Bluetooth was not made originally for location. From the outset, the standard was designed for communication, in a personal area networking (PAN) environment. However, to facilitate this task, particularly in dynamic ad-hoc scenarios, devices need a mechanism to identify their neighbors, to synchronize, and finally to connect. Such mechanisms have indeed been built into Bluetooth. More importantly, these mechanisms can also be used to obtain an accurate location.

[0056] There are two approaches to Bluetooth location:

[0057] Binary location—a room-oriented approach, uses the PD method. An access point is installed in every way point. For each tag, the system than finds the nearest AP, and respectively indicates its way point location.

[0058] Analog location—an X-Y oriented approach, based on the RSSI method. APs are installed more sparsely (typically, 10-15 ~~m~~ meters apart). For each tag, the distance from each way point is measured, and the system triangulates the tag's position.

[0059] An AP finds a tag by using one of two Bluetooth mechanisms, Inquiry and Paging, that are used normally for link setup:

[0060] The Inquiry mechanism—provides a way for a Bluetooth device to discover its neighbor's Bluetooth ID. An inquiry process typically takes ~~s~~s5 seconds. It concludes with the inquirer (typically the AP) having the IDs of all those Bluetooth devices (tags) within its RF range. The relevant location scenario is that of browsing all tags nearby.

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[0061] The Paging mechanism—following an inquiry, the inquirer can page (set up a link with) one or more of its discovered neighbors. A paging process typically takes 1-~~2s~~2 seconds. This mechanism is faster, but requires a previous knowledge of the tag's ID (as well as the Bluetooth clock phase). The relevant location scenario is that of searching for a certain tag. It is the most accurate and the faster response time and it is the disclosed~~our~~ method in door navigation when and where each tag is known address position—waypoint.

[0062] Why use Bluetooth for indoor location?

[0063] Bluetooth has some advantages in the context of indoor location. These include:

[0064] Bluetooth uses RF—in the 2.4 GHz ISM band, specifically. In this frequency range, radio waves penetrate obstacles, such as walls and human bodies, albeit with a substantial loss.

[0065] This has two implications:

[0066] Availability is high—there is always some signal received by the access point .

[0067] AP density can be low the access points can be placed relatively far apart (typical range is 10-15 meters, i.e. not necessarily of one in each way point).

[0068] Bluetooth is ubiquitous—Bluetooth chipsets are being implanted everywhere nowadays (phones, accessories, computing devices, etc).

[0069] The fact that a Bluetooth location system can locate any Bluetooth enabled device, makes it more cost-effective. This means that an increasing fraction of humans and mobile assets around would become locatable in a Bluetooth covered site, with no additional hardware cost (no tags attached). The only need is to pre-register these devices. Bluetooth is a low power technology—tags need recharge, approx. once a week (or longer, depends on the usage scenario). ~~Nontags~~Non tags (e.g. ~~BT~~ Bluetooth enabled phones), are being recharged anyway on a regular basis, so they do not need special recharges. If they are being used for location, the fraction added to their usual (no Bluetooth) power consumption is relatively small.

Google Ex. 1022, p. 070

[0070] Bluetooth is a low cost technology—the high expected production volumes (hundreds of millions annually) lead to sub-$5 per chip. This goal has already been met by a few integrated circuit (IC) manufacturers. This would eventually result in a low price for the Bluetooth tags, if and when Bluetooth location systems would become sufficiently ubiquitous. Bluetooth is a multi-functional communication standard - location is only one of the services that can be supported by a Bluetooth infrastructure. The same infrastructure can be used to provide additional network services, particularly remote monitoring and control (by using a serial interface). In addition, Bluetooth provides voice and IP services (although for the later, WLAN is typically more suitable).

[0071] In open spaces, relatively free of obstructions and walls (e.g. a large warehouse or a public hotspot), Bluetooth alone would suffice to provide an approximate ~2 meter error range.

[0072] Conclusion

[0073] The Bluetooth technology offers two unique advantages: one is the ability to locate ubiquitous "anytagsany tags" (any Bluetooth enabled device that is not a tag, e.ge.g. most of the newer mobile phones). The other advantage is the multiservice nature of the Bluetooth infrastructure that enables using the location access points for other purposes, such as for navigating, remote monitoring and control, and for a variety of IP and messaging services.

SUMMARY OF THE INVENTION

[0074] In accordance with the present invention, these are the disclosedour system or project's characteristics:

[0075] The disclosed Our system is a navigation method based on the following unique characteristics:

[0076] In an indoor or outdoor navigation situation, our the associated sensor network, and sensor tags, replaces the satellites in a GPS based system, to provide the user with the information and directions needed to reach the destination.

Google Ex. 1022, p. 071

[0077] The disclosed~~Our~~ innovation has three major parts:

[0078] The navigator, the special method used to display the data and the sensors.

[0079] It is not a location and tracking system as offered by other systems.

[0080] Small RF tags are installed in each place designated as point of interest, be it at a mall, department store, product inside a store, street or garage parking, inside or outside location, public or commercial. The tags can be RFID (long range type), or a long range Bluetooth, or a ~~wifi~~ Wi-Fi or any RF type. The tags broadcast a unique ID by wireless that identifies the location by the unique ID, the address and type of facility/store. The tag broadcasts its information to be picked up by the navigator, ~~viz~~ by the cellular phone or any other Bluetooth device application.

[0081] The system can serve as add on to the mall/store's guide/mapping to provide extra assistance to user.

[0082] The navigator.

[0083] The navigator, cellular phone application ~~bluetooth~~Bluetooth application

[0084] The user will receive the data broadcast by the tags in the vicinity via the interface with a cellular telephone utilizing the cellular phone's Bluetooth capability. It is important to note that no cellular communication or ~~i~~Internet or database access is needed, and that any Bluetooth enabled device will operate the disclosed~~our~~ navigator application as a stand alone device. The disclosed~~Our~~ system will interface with existing in-car navigation systems.

[0085] The display method.

[0086] The display method is the disclosed~~our~~ unique way to bridge existing devices like cellular phones, in—car navigation and other Bluetooth devices. ~~We~~ The system provides an~~our~~ overlay navigation ~~method~~ display method over the existing navigation system, as a real-time floating display, or as a waypoint to overcome the limitations of GPS based systems and the existing mapping systems.

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[0087] Mapping can be offered as an additional service. No regenerating of mapping is necessary.

[0088] The disclosed~~Our~~ navigation system method will enable remote planning based on downloaded local floor-plans, or local navigation, when the location's floor plan can be downloaded at the destination. An example of this would be at the entrance of a shopping mall, department store, amusement park, museum, parking garage or the down town area of a city.

[0089] The disclosed~~Our~~ system is based on a network of sensors/tags that can be deployed anywhere. The system is accurate to within 10 feet, significantly better existing navigation systems and GPS. The system can work inside a building whereas GPS cannot.

[0090] Local detection is obtained via popular Bluetooth interface.

[0091] The system provides information about each facility/store, including information about the type of the facility, for example: type of store or product etc.

[0092] By providing the ability to locate a the user in an area using a Bluetooth enabled device, or a cell phone with ~~our~~ the associated navigation application, the system overcomes the anxiety of "Where will I am" and also facilitates finding a parked car later via the RTP (Return to Parking) feature.

[0093] The system has the capability to perform all the functions of a search for and can become the "Next generation search out of the box".

[0094] ~~Our~~ The disclosed system can be an attractive additional feature for cities that intend to deploy WIFI.

[0095] In case of an emergency or security situation, the system can provide authorities with information.

[0096] The system eases facilitates navigation to indoor locations, without a navigation map or GPS. Mapping background can be provided as an additional feature on ~~our~~ the disclosed system. The system provides "local" navigation as well as "remote" detection.

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[0097] The system allows easy interface with existing networks.

[0098] The system saves gas, time, money and eases global warming by reducing the time spent searching for destination.

[0099] The disclosed~~Our~~ navigation method is unique. ~~We~~ The base ~~our~~ of the disclosed system ~~on~~ utilizes RF tags with interface to Bluetooth enabled devices. This feature allows detection and navigation in locations where GPS cannot work, as well as outside, with the ability to guide the user to within 10 feet of the destination, significantly better than any other navigation and GPS based systems on the market.

[00100] ~~Our~~ The Bluetooth/RF tags are based on a long range version of the popular short distance communication. This unique feature affords the user the ability to plan ahead from a remote location, by obtaining data about the destination directly from the tags and by accessing the indoor floor plan to be navigated at the destination.

[00101] A major problem with In-Car navigation and GPS mapping is that they cannot guide the user closer than 50 to 200 feet, and only in open places. ~~Our~~ The disclosed system can provide accurate directions to within 10 feet.

[00102] ~~Our~~ The disclosed system will be a challenge to navigation providers and GPS providers as they cannot provide mapping or navigation inside a mall, department store, a parking garage or lot, and anywhere the GPS /Navigation map cannot accurately help navigate.

[00103] Utilizing the disclosed~~our~~ innovation the facilities in the vicinity around the "user" car are displayed on a floating overlay using either a cellular phone application, or a ~~stand alone~~stand-alone device, or an existing installed navigation system with or without any mapping.

[00104] The recent introduction of imagery services, such as Google Earth and its competitors, that are offered as an enhancement to GPS at a fee, still provide out of date information, with the unsatisfactory result that users encounter road changes and area development not shown on the maps and imagery.

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[00105] Navigation using the mapping or floor-plan of a location can be offered as an additional service. The option of downloading a floor-plan can be exercised either remotely or locally.

[00106] The tags broadcast their signal continuously and any of the disclosed~~our~~ navigation devices will detect them and display the data on the user's device in an easy to understand method.

[00107] With the disclosed~~our~~ innovation you have the information that you want, when you want it, where you want it~~.~~ (and at an affordable price).

[00108] Once you are in the vicinity of your destination and you switch on your navigation device, you will automatically receive the facility information along your waking route and in all directions around you.

[00109] No further action is required, there is no need to send a request or to access the Internet/web or log on and search a database or central system. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

[00110] Even if the other systems have bandwidth, they are still based on the existing search concept where under the user submits a query, searches and awaits for the response. All impractical while the user need the information immediately. The disclosed~~Our~~ system provides the information automatically, without submitting any query, and the response takes into account the user's location.

[00111] ~~Our~~ The unique approach of the disclosed system does not need an Internet bandwidth or cellular communication at all.

[00112] And as a result there is no delay or waiting for communication and access time, the communication is instantaneous, directly between the tags and the user's navigation device.

[00113] Additionally, each facility type can color-coded to identify the type of the store etc., e.g. restaurants, men's wear, women's wear etc.

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[00114] Each color-coded display of facility can be accessed to obtain complete information about the store e.g., automatic waypoint information.

[00115] The ability to operate the disclosed ~~our~~ innovation using the associated ~~our~~ application on a cellular phone, the navigator, with no need for cellular connection, or on any stand alone Bluetooth enabled device, means the user does not need any GPS system.

[00116] Moreover, the disclosed ~~our~~ innovation can solve the "RTP" (Return to parking) problem, where many forget where they parked their car. The system has an option to save the location on the "cellular phone—parking detector" application, that will make it easy to locate the parked car.

[00117] The disclosed~~Our~~ solution is designed for global use and is not limited to malls, stores, amusement parks, museums, sports stadiums etc. It can be implemented in parking garages or parking spaces metered or not, almost anywhere and in any place

[00118] In ~~It is our plan that in~~ the future, all new construction ~~will~~ could have the tags included in the design.

[00119] ~~We~~ The disclosed system integrate~~d~~ the navigation as part of ~~our~~ the NAV4 concept~~s~~ where it will provide complete solutions for local navigation in an area where the GPS can't work.

[00120] The disclosed ~~Our~~ system and method consists of three parts:

[00121] Part 1. A network of tags/sensors—each in a known location.

[00122] The disclosed ~~Our~~ system is based on navigation to a location, and its aim is to replace or supplement the mall/store guide/map, by installing the tags/sensors in each store or point of interest.

[00123] Part 2. The mapping. As GPS and GPS mapping is not available indoors, ~~we based~~ the disclosed~~our~~ system and method utilizes ~~on the~~ floor plan mapping available from each facility. For planning ahead, the floor plan can be downloaded to the user's navigation/cellular

Google Ex. 1022, p. 076

phone remotely—via the ~~i~~Internet before reaching the destination or locally via Bluetooth when the destination is reached.

[00124] Part 3. The Navigation uses the most commonly used device in the world today, the cellular phone with Bluetooth interface. The disclosed ~~Our~~ system method doesn't need any connection, communication, ~~internet~~ Internet or central system nor any cellular communication.

[00125] As a difference from other systems and other local based systems, the disclosed system ~~we~~ offers ~~our~~ a unique approach that can be described as the "Search out of the box" as neither query nor database search is needed; all communication is directly between the sensor/tags and the cellular phone, working as a Bluetooth device, that automatically recognizes and takes into account the "user's" location, and provides instant information.

[00126] A typical application is navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility, ~~,~~ or any place when and where GPS cannot be provided or is not accurate or precise enough. The system will be used for navigation by first responders to emergencies or disasters.

[00127] The disclosed~~Our~~ system method is part of ~~our~~ a broad suite of applications that include a complete solution to the "user" from the time that ~~he~~ they park~~s~~, or begins to look~~ing~~ for a space to park ~~his~~ their car, walking to the store/mall to when ~~he~~ they wants to return to ~~his~~ their parked car, looking for the place that they~~he~~ parked.

[00128] The suite includes:

Parking detector—and navigation to the empty available parking space.

Nav4 mall/store navigation solution inside mall store.

RTP—return to parking—locate the place that you parked your car.

For example, a typical application could be:

Google Ex. 1022, p. 077

A pedestrian asks the way in a mall to a specific store.

A pedestrian asks the way inside the store, to a specific aisle or product.

A shopper in a department store asks for a specific department.

A pedestrian asks the way to a point of interest. In an emergency, the first response team has to navigate inside a smoke filled building.

[00129] A system and method to provide user information ~~which~~ that ~~related~~ relates to the point of interest, The disclosed~~Our~~ system provides detection and navigation reference, position determination and information related to the object—point of interest, directly and automatically to the user interface-cellular phone ~~with out~~without any communication help of Internet/web or cellular needed.

[00130] Special operation mode:—Shopping—NAV4SALE—provides navigation to the special sale item in a department store.

[00131] Special operating mode:—Museums—NAV4Museums provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface.

[00132] Special operating mode:—Parking—NAV4PARKING ~~describe in 2 patent applications,~~ provides empty parking space detection and navigation.

[00133] Special operating mode:—NAV4STORE provides navigation inside a store/department store to a specific department/aisle or specific product, with option for advertising method and special promotion.

[00134] Bluetooth indoor location:

[00135] How does Bluetooth location work?

[00136] Bluetooth was not made originally for location. From the outset, the standard was designed for communication, in a personal area networking (PAN) environment. However, to

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facilitate this task, particularly in dynamic ad-hoc scenarios, devices need a mechanism to identify their neighbors, to synchronize, and finally to connect. Such mechanisms have indeed been built into Bluetooth. More importantly, these mechanisms can also be used to obtain an accurate location.

[00137] There are two approaches to Bluetooth location:

[00138] Binary location—a room-oriented approach, uses the PD method. An access point is installed in every way point. For each tag, the system than finds the nearest AP, and respectively indicates its way point location.

[00139] Analog location—an X-Y oriented approach, based on the RSSI method. APs are installed more sparsely (typically, 10-15 m apart). For each tag, the distance from each way point is measured, and the system triangulates the tag's position.

[00140] An AP finds a tag by using one of two Bluetooth mechanisms, Inquiry and Paging, that are used normally for link setup:

[00141] The Inquiry mechanism—provides a way for a Bluetooth device to discover its neighbor's Bluetooth ID. An inquiry process typically takes 5s. It concludes with the inquirer (typically the AP) having the IDs of all those Bluetooth devices (tags) within its RF range. The relevant location scenario is that of browsing all tags nearby.

[00142] The Paging mechanism—following an inquiry, the inquirer can page (set up a link with) one or more of its discovered neighbors. A paging process typically takes 1-2 seconds~~s~~. This mechanism is faster, but requires a previous knowledge of the tag's ID (as well as the Bluetooth clock phase). The relevant location scenario is that of searching for a certain tag. It is the most accurate and the faster response time and it is the ~~our~~ method in-door navigation when and where each tag is known address position—waypoint.

[00143] Why use Bluetooth for indoor location?

[00144] Bluetooth has some advantages in the context of indoor location. These include:

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[00145] Bluetooth uses RF—in the 2.4 GHz ISM band, specifically. In this frequency range, radio waves penetrate obstacles, such as walls and human bodies, albeit with a substantial loss. This has two implications:

[00146] Availability is high—there is always some signal received by the access point . AP density can be low the access points can be placed relatively far apart (typical range is 10-15 meters, i.e. not necessarily of one in each way point).

[00147] Bluetooth is ubiquitous—Bluetooth chipsets are being implanted everywhere nowadays (phones, accessories, computing devices, etc). The fact that a Bluetooth location system can locate any Bluetooth enabled device, makes it more cost-effective. This means that an increasing fraction of humans and mobile assets around would become locatable in a Bluetooth covered site, with no additional hardware cost (no tags attached). The only need is to pre-register these devices.

[00148] Bluetooth is a low power technology—tags need recharge, approx. once a week (or longer, depends on the usage scenario). Non tags (e.g. BT enabled phones), are being recharged anyway on a regular basis, so they do not need special recharges. If they are being used for location, the fraction added to their usual (no Bluetooth) power consumption is relatively small.

[00149] Bluetooth is a low cost technology—the high expected production volumes (hundreds of millions annually) lead to sub-5$ per chip. This goal has already been met by few IC manufacturers. This would eventually result in a low price for the Bluetooth tags, if and when Bluetooth location systems would become sufficiently ubiquitous.

[00150] Bluetooth is a multi-functional communication standard—location is only one of the services that can be supported by a Bluetooth infrastructure. The same infrastructure can be used to provide additional network services, particularly remote monitoring and control (by using a serial interface). In addition, Bluetooth provides voice and IP services (although for the later, WLAN is typically more suitable).

[00151] In open spaces, relatively free of obstructions and walls (e.g. ~~a~~ A large warehouse or a public hotspot), Bluetooth alone would suffice to provide an approximate ~2 meter error range.

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[00152] Waypoint Navigation

[00153] A waypoint is a fixed location with known address location, longitude and latitude and coordinates. The disclosed~~Our~~ navigation system is capable of storing a database of waypoints for the following purpose:

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o[00154] Waypoints mark a destination, a point along the way to a destination, or a point of reference. Normally, in navigating, a "route" consists of one or more waypoints. To traverse a route, the user navigates to the nearest waypoint, then to the next one in turn until the destination is reached. The system has the ability to compute a great-circle route towards a waypoint, enabling them to find the shortest route even over long distances. The system enabling users to locate a destination on a map and define it as a waypoint. The system is intended for navigation; it can generate a suggested route between two waypoints, based on the cartographic database. The system indicates the user's current location and gives advance notice of an upcoming point.

~~[00156]~~[00155] Because the system knows the waypoint positions, and the distance between them it, it is easy to determine the "user's" exact location.

~~[00157]~~[00156] Map Matching

~~[00158]~~[00157] The navigation solution is further enhanced, although it is not essential, when the system knows that the person or object being located is traveling along known routes on a map; for example, the system can assume that people can only follow certain routes in a mall. This is priori information that can be used to "force" the estimated position to be on the nearest point on the possible routes. The constraints of indoor construction similarly can be used to refine estimates of the position of a person or object moving within a building-people and objects do not pass through walls, they pass along corridors and through doorways. It is a best solution for a system in case of an emergency or for a system for homeland security or a system to locate and inform the subway location, a good example is the hotel exit floor map.

~~[00159]~~[00158] Configuration and Use

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[00160][00159] In the disclosed~~our~~ indoor application, instead of GPS, ~~we~~ the disclosed system uses known waypoint positions that are manually detected and identified as a demonstration of the concept of using ~~an other~~another sensing method, such as RFID, to detect and identify the waypoints. Theoretically, it would be possible to convert the waypoint positions into GPS coordinates and emulate an external GPS data source.

[00161][00160] This system can be useful for providing navigation to first responder personnel indoors waypoints have been installed in a particular building in the form of RFID tags whose identities are associated with locations, then it may be possible to associate magnetic anomaly information with individual tags as well.

[00162][00161] One of the important features of the disclosed~~our~~ indoor navigation techniques will enhance the ability of tactical team's first response team to navigate within the buildings in which it has been deployed. RF(Bluetooth) Tag/Sensor devices commonly are attached to persons or to moveable objects so that the objects can be tracked using fixed readers (special-purpose radios) at different locations. This is the most common indoor navigation that exists today. The disclosed~~Our~~ method is the “flip side” of this practice and is based on the concept that the detection of an RF (Bluetooth) device, or RF Tags, in a known, fixed location, by a moving reader, such as a Bluetooth enabled cellular phone or other Bluetooth enabled device, provides a precise location of a person or a moving object, by the carrier of the telephone or device, who can supply indoor navigation without GPS.

[00163][00162] The disclosed ~~Our~~ method provides a low-cost, reliable system for firefighters and other first responders, inside buildings, to navigate, where a GPS is not reliable-indeed, the GPS signal may have been disabled temporarily to prevent-exploitation by terrorists, or even more likely no signal can be received at all inside a building.

[00164][00163] The disclosed ~~Our~~ system ~~envisioned~~ envisions this limitation of GPS based systems, and is intended for an environment that is potentially much less “friendly” to RF signals, the environment inside a building that first responders encounter may contain smoke, dust, or flames, and is intended to leverage advances in ubiquitous RF/Bluetooth tag technology. The disclosed ~~Our~~ system will exploit the capability of storing critical building information, such

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as the floor maps and the emergency escape plans, for retrieval and navigational assistance via a Bluetooth enabled cellular phone, when and where it is needed,

[00165][00164] More over the disclosedour system can serve as a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

[00166][00165] Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

[00167][00166] From the outset, the disclosedour system was been designed with the capability to utilize existing technology so it can be deployed as a stand-alone system, or in tandem with existing systems. We The disclosed solution focused on technology already in place that simply needs to be expanded.

[00168][00167] With the implementation of the disclosedour system, a FIRST RESPONSE TEAM will be empowered to navigate and find its way in a case of emergency or a disaster. This capability can be a critical life saving power in modern congested urban living conditions, not available before now.

[00169][00168] We It is believes that implementation of the disclosedour system will assist counter terrorism activities and more importantly will help the first response teams to save the lives of people trapped inside buildings.

[00170][00169] Conclusion

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[00174][00170] The Bluetooth technology offers two unique advantages: one is the ability to locate ubiquitous "~~anytags~~any tags" (any Bluetooth enabled device that is not a tag, ~~e.g.~~ e.g. most of the newer mobile phones).

[00172][00171] The other advantage is the multiservice nature of the Bluetooth infrastructure that enables using the location access points for other purposes, such as for navigating, remote monitoring and control, and for a variety of IP and messaging services.

BRIEF DESCRIPTION OF THE DRAWINGS

[00173][00172] A better understanding of the present invention may be obtained by reference to the accompanying drawings, which should be considered in conjunction with the detailed description, all in accordance with the present invention.

[00174][00173] FIG. 1 is an illustration of the portable phone navigation method as application on a cellular phone in accordance with the present invention.

[00175][00174] FIG. 2 is illustration of the portable phone navigation as an application nav4 mall/store in accordance with the present invention.

[00176][00175] FIG. 3 is illustration of the mobile unit application system in accordance with the present invention.

[00177][00176] FIG. 4 is an illustration of the sensor tags in a network implement in a mall environment in accordance with the present invention.

[00178][00177] FIG. 5 is a flow diagram of the navigation system in accordance with the present invention.

[00179][00178] FIG. 6 is an illustration of the indoor navigation system in accordance with the present invention.

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[00179] FIG. 7 is an illustration of the sensor tags in a network in accordance with the present invention.

[00180] FIG. 8 is an illustration of the possibility application for the disclosed~~our~~ navigation system in accordance with the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[00181] In all the figures of the drawings, sub-features and integral parts that correspond to one another bear the same reference symbol.

[00182] Referring now to the drawings in detail and first particularly to FIGS. 1-8 thereof.

[00183] These figures illustrate the method and system to navigate indoor without GPS using sensor in a network utilizing Bluetooth application on a cellular phone.

[00184] Referring to FIG. 1 This shows the cellular phone 101 with a floating display of information 105 received directly from sensors/tags 107 installed in this illustration in a mall facility 104 the only communication is between the sensors 107 and directly to the cellular phone 101 via a Bluetooth communication 102 where no cellular or any other connection needed at all. ~~We~~ The system uses the cellular phone 101 as a Bluetooth enable device. The application will receive a signal directly from the sensor/tags 107 installed at the facility and allow to calculate and determine the exact location of the "user" and will allow navigation in the facility when the navigation display 105 of the application will be floating on the floor map of the facility that can be down load ether remotely before accessing the facility or locally via Bluetooth 102 when reaching the area.

[00185] Each sensor 107 represents a waypoint and will be shown with a simple color code to identify the type of the facility e.g. type of store.

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[00187][00186] When the user approaches a sensor/tag/way point 107 he will be able to receive additional-information regarding the store/product on his cellular phone/Bluetooth device 101 e.g. special promotions, coupons, advertising or special sales to the display 105 etc.

[00188][00187] The promotion can be also delivering via Bluetooth voice option 106.

[00189][00188] Referring to FIG. 2.This figure illustrate the cellular navigation application in a mall on a cellular phone, 101, as a Bluetooth cellular phone application; again, there is no need for cellular communication or any Internet web communication or any central system nor any access to a database.

[00190][00189] The system ~~We~~ utilizes the cellular phone, 101, only as a Bluetooth enabled device and the application overlay floating display over the floor map 201 where each store sensor/tag 202 represented as a waypoint, in this illustration the mall's store can be view and be search by store type, store directory 203, or by alphabetical order 204, where each store/waypoint will have a basic information—store information 205, like the store name, phone number, floor, address within the mall, and a small notes- small information representing the store. Again when the user approaches a sensor/tag/way point 202 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device 101 e.g. special promotions, coupons, advertising or special sales to the display 201 etc.

[00191][00190] The promotion can be also delivering via Bluetooth voice option utilize the Bluetooth options.

[00192][00191] Turning now to FIG. 3. This figure shows the cellular phone mobile unit 101, in operation as a Bluetooth application, the procedure is firs to load the facility floor map 301, which can be done remotely as a planning via Internet or web site before reaching the area to be navigate, or locally via Bluetooth connections at the facility, most likely at the entrance. After loading the floor map to be a background for the navigation a position determination 302, done by calculating the signal receiving directly from the sensor/tags and then provide the heading navigation 303, and the current user location on the floor map, 301.

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[00193][00192] Referring to FIG. 4. This figure shows an illustration of the mall 402, when each store represented by sensor/tag waypoint 401, in this illustration the mall's store can be view and be search by store type, store directory, or by alphabetical order, where each store/waypoint 401, will have a basic information -store information, like the store name, phone number, floor, address within the mall, and a small notes-small information representing the store. Again when the user approaches a sensor/tag/way point 401 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device e.g. special promotions, coupons, advertising or special sales to the phone as Bluetooth application.

[00194][00193] The promotion can be also delivering via Bluetooth voice option utilize the Bluetooth options.

[00195][00194] Turning to FIG. 5. This figure shows the method of the disclosed~~our~~ system when the user reach the area 501,locally load the floor mapping 502, and navigate on the facility mapping 503.

[00196][00195] Referring to FIG. 6. This figure shows an illustration of the disclosed~~our~~ navigation suite of application where the navigation is a cellular phone 101, as a Bluetooth device navigate on a background floor map of the facility 602, receiving a detect information and determination of the exact location of the user from a sensor base network implement in each known location like 601, store in a mall, the application in the disclosed~~our~~ suite of software to provide a navigation indoor or in a places where and when GPS signal is not available or not efficient to provide accurate to a waypoint/store, place:

[00197][00196] Parking detector application 604, describe as a system and method to find an empty parking space from a sensor base network directly to the cellular phone utilize the cellular phone Bluetooth and no other communication needed.

[00198][00197] Indoor navigation application 605, under Nav4 application that will describe in more details in FIG. 8 A typical application is navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility, ~~,~~ or any place when and where GPS cannot be

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provided or is not accurate or precise enough. The system will be used for navigation by first responders to emergencies or disasters.

[00199][00198] ~~606 represent~~RTP 606 —returns to parking— locates the place that you parked your car.

[00200][00199] The disclosed~~Our~~ system and associated method of use is part of the disclosed ~~our~~ broad suite of applications that include a complete solution to the "user" from the time that he parks, or begins looking for a space to park his car, walking to the store/mall to when he wants to return to his parked car, looking for the place that he parked.

[00201][00200] The suite includes:

Parking detector—and navigation to the empty available parking space.

Nav4 mall/store navigation solution inside mall store.

RTP—return to parking—locate the place that you parked your car.

For example, a typical application could be:

A pedestrian asks the way in a mall to a specific store.

A pedestrian asks the way inside the store, to a specific aisle or product. A shopper in a department store asks for a specific department.

A pedestrian asks the way to a point of interest. In an emergency, the first response team has to navigate inside a smoke filled building.

[00202][00201] A system and method to provide user information ~~which~~ that ~~related~~ relates to the point of interest. The disclosed ~~Our~~ system provides detection and navigation reference, position determination and information related to the object—point of interest, directly and automatically to the user interface—cellular phone ~~with out~~without any communication help of Internet/web or cellular needed

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[00203][00202] Turning to FIG. 7. the sensor base network 107, is show and illustrate the direct broadcasting RF information 701,to the cellular phone as a ~~bluetooth~~Bluetooth device 101, again, there is no need for cellular communication or any Internet web communication or any central system nor any access to a database.

[00204][00203] Turning to FIG. 8, is an illustration of the possibility application for the disclosed~~our~~ navigation system The Nav4 indoor application: some of the possibilities of application are:

[00205][00204] Special operation mode:—Shopping—NAV4SALE—806, provides navigation to the special sale item in a department store, coupons or other promotions and even audio or video via a Bluetooth interface as advertising directly push from the waypoint/store area to the user Bluetooth device/cellular phone.

[00206][00205] Special operating mode:—Museums—NAV4Museums—804, provides navigation and interactive information from the museum's exhibition to the “user's” cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

[00207][00206] Special operating mode:—NAV4STORE-805, provides navigation inside a store/department store to a specific department/aisle or specific product, with option for advertising method and special promotion.

[00208][00207] Special operating mode:—Amusement park—803, NAV4disney provides navigation and interactive information from amusements park exhibition to the “user's” cellular phone device via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability (lines.....) time to the show, type of the waypoint like restrooms, food area etc. more over the disclosed~~our~~ navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

[00209][00208] Special operating mode:—First response navigation,802—More over the disclosed~~our~~ system can serve as a navigator for the emergency exit route when and where

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needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

[00209] Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

[00210] Special operating mode:—NAV4Train-801, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, more over the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, no more walking to the mapping inside the station or try to figure out your location in the map inside the subway train, each station will have a tag/sensor all the route to provide the user accurate locating and additional information that he may need like schedule, restroom, food, emergency etc.

[00211] Since other modifications and changes varied to fit particular operating requirements and environments will be apparent to those skilled in the art, the invention is not considered limited to the example chosen for purposes of disclosure, and covers all changes and modifications which do not constitute departures from the true spirit and scope of this invention.

[00212] Having thus described the invention, what is desired to be protected by Letters Patent is presented in the subsequently appended claims.

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RF PROXIMITY TAGS PROVIDING INDOOR AND OUTDOOR NAVIGATION AND METHOD OF USE

RELATED APPLICATIONS

[0001] This application claims the benefit of US Provisional Application No. 60/678,947 filed May 9, 2005.

FIELD OF THE INVENTION

[0002] This invention is directed generally to the field of "location based navigation" and, more particularly, to such method to be used indoors or outdoors without GPS and utilizing a wireless sensor network.

BACKGROUND OF THE INVENTION

[0003] Introduction to location based services:

[0004] Location based services are rapidly expanding. Outdoor location technologies are mainly based on GPS technologies. GPS cannot perform properly indoors, and is therefore inadequate. As a result, indoor location systems are appearing on the market.

[0005] The need for a system, such as the indoor navigation system disclosed herein, arises from various market segments and applications. One example in the market is the GPS based systems that use integrated positioning and navigation systems based on GPS receivers as the primary positioning technology. Subsequent to the events of September 11th, the Federal government mandated that GPS capability be built in to all cellular phones. However, the fact that uninterrupted satellite reception is not possible in many locations is a major limitation of

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GPS based systems. Densely populated areas and radio-frequency-signal shadowed locations, such as urban centers (a.k.a. "urban canyons"), generally do not allow proper operation of GPS, yet it is in these locations that the need is greatest.

[0006] There is a clear need for a cost effective system that maintains performance indoors, in urban canyons and in city centers.

[0007] Another important consideration is that GPS itself is susceptible to jamming and other man-made interference.

[0008] Description of GPS System.

[0009] The Global Positioning System (GPS) is a satellite-based navigation and time transfer system developed by the U.S. Department of Defense. GPS serves marine, airborne and terrestrial users, military and civilian. Specifically, GPS includes the Standard Positioning Service (SPS) that provides civilian users with 100 meter accuracy as to the location or position of the user. For military users GPS provides the Precise Positioning Service that is accurate to within 20 meters. Both of these services are available worldwide with no requirement for any local equipment.

[0010] View of GPS limitations:

[0011] First limitation of GPS is that upon activation the GPS receiver scans for signals from the GPS satellites. A unit must locate and receive signals from at least four satellites to be able to determine its location. This process of locating the satellites, receiving the data and achieving a position fix can take several minutes. This delay is problematic for many GPS applications.

[0012] Second limitation of GPS is that the receiver needs a clear view of the sky to successfully receive signals from the satellites, again under unfriendly RF conditions such as inside buildings, or in "urban canyons" or in the shadows of high buildings, the GPS suffers from multi-path effects and therefore shows poor performance, or none at all.

[0013] Third Limitation—limited accuracy: There is a problem of limited accuracy of the civilian GPS signal. While knowing your position to within 50 to 200 feet anywhere on the

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planet is a major technological feat, it is still not accurate enough, to locate and navigate to an a store in a mall or to empty parking space, where each space measures about 10 feet, and most indoor store/malls are located where the GPS cannot work effectively.

[0014] Existing navigation systems, such as the new mandatory GPS equipped cellular phones, are based on GPS and have the aforementioned limitations.

[0015] Another significant factor adding to the limitations of the GPS based systems is the important role of map production; normally a user, requires a map to be as detailed and as up-to-date as possible. The existing maps used by the GPS based systems provide limited detail and are not able to reflect changes on a real time basis, more over there is no mapping for indoor facilities at all. The recent introduction of imagery services, such as Google Earth and its competitors, that are offered as an enhancement to GPS at a fee, still provide out of date information, with the unsatisfactory result that users encounter road changes and area development not shown on the maps and imagery.

[0016] Application:

[0017] In general, the disclosed system is based on applying machine-learning techniques to the task of inferring aspects of the user's status from a stream of input from sensors.

[0018] The system focuses on indoor navigation, or navigation in crowded urban areas, where GPS based systems, due to lack of access to satellites or the GPS limitations detailed previously, cannot achieve the required results.

[0019] The system have focuses on the task of interactively guiding the user to a desired indoor destination.

[0020] Examples of indoor applications:

[0021] The user may wish to locate an empty available parking space in his vicinity.

[0022] The user may wish to locate a specific store in a shopping mall, or a particular aisle in a department store, or a specific item on a shelf.

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[0023] The user may wish to locate a specific conference room in a convention center, or a point of interest in an amusement park or a point of interest in a museum.

[0024] The user may be looking for a train location in a station, or stops in a subway or underground train system.

PRIOR ART

[0025] At the present time, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a Global Positioning System (GPS) based system directly to the "user". Also most of systems are designed for the old query type search where interface to Internet and or database central system needed

[0026] The system disclosed herein automatically detects a signal directly from the sensors, no communication needed not even cellular communication. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

[0027] Even if the other systems have bandwidth, they still based on the existing search concept where under the user submits a query, searches and awaits for the response. All of this is impractical. The system disclosed herein provides the information automatically, without submitting any query, and the response is according to the user's location.

[0028] Again, most of the existing prior art is based on either a GPS based system or an existing GPS based car navigator. And the existing mapping that these systems use has the same limitations described previously and is impractical.

[0029] It is believed that the disclosed system and associated method bridges the gap between the GPS based navigation and provides a complete solution.

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[0030] Patent U.S. Pat. No. 7,031,875 Ellenby et al. describe a pointing system for addressing objects, provide a system and method based on GPS and Internet/database communication, it is not exactly a navigation but a information based system that need the GPS to locate the user location so indoor services is likely out of the question and the need for communication as well with GPS limit its availability and accuracy.

[0031] Indoor location technologies.

[0032] Various technologies are used for wireless indoor location. These may be classified in two aspects: The algorithm—i.e. the method of location used. The physical layer—i.e. the wireless technology used to communicate with the mobile device.

[0033] Location methods

[0034] Typically, the methods used in indoor locations are "borrowed" from the outdoor GPS location methods inventory. Specifically, four types of methods are used indoors:

Proximity Detection (PD),

Received Signal Strength (RSSI),

Time of Arrival (TOA),and

Angle of Arrival (AOA).

[0035] Proximity Detection (PD)

[0036] This method relies upon a dense grid of antennae, each having a well-known position. When a mobile is detected by a single antenna, it is considered to be collocated with it. When more than one antenna detects the mobile, it is considered to be collocated with the one that receives the strongest signal.

[0037] This method is relatively simple to implement. It can be implemented over different types of physical media. In particular, IR and RFID are based on this method.

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[0038] Triangulation

[0039] Triangulation takes PD a step further, in the sense that it is based on measuring the signal level measurements from each antenna (possibly by using a triangulation mechanism), with respect to each mobile device. Following that, mobile is located by using a triangulation algorithm.

[0040] Like the PD method, triangulation is relatively simple to implement.

[0041] Time of arrival (TOA)

[0042] TOA is based on triggering the mobile devices to respond, and measuring the time it takes for the response to transmit back to the antenna. The elapsed time represents the distance between the two. By using distances from few antennas, a mobile's position can be triangulated. TOA is considered to be the most accurate method, because multipath effects can be filtered out. Yet, it is considerably more complex to implement, as it requires a modification to the hardware on the mobile side, as well as special modifications on the antenna side.

[0043] Angle of Arrival (AOA)

[0044] AOA is based on finding the direction of maximal signal intensity for each antenna-device pair. By finding the intersection of several such direction vectors, a mobile's position can be estimated AOA is considerably less accurate than TOA, due to limited angular resolution and the fact that indoors much of the signal is reflected. Also, AOA antennae are more complex, as they require multi-section, highly directional antennas, and multiple RF circuitry.

[0045] WLAN (IEEE 802.11b)

[0046] This midrange wireless local networking standard, operating in the 2.4 G Hz ISM band, has become very popular in public hotspots and enterprise locations during the last few years. With a typical gross bit rate of 11 Mbps and a range of 50-100 m, IEEE 802.11b is currently the dominant local wireless networking standard.

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[0047] It is therefore appealing to use an existing WLAN infrastructure for indoor locations as well, by adding a location server. Such solutions do exist in the market, providing an accuracy of approximately two (2) meters.

[0048] One limitation of such systems is the fact that WLAN tags are relatively bulky and power hungry. Thus, such locators are mainly useful to locate WLAN enabled instruments, such as portable computers.

[0049] Note that in WLAN, antennae are actually part of access points (APs), through which devices communicate with the access network. This is also the case with Bluetooth.

[0050] Bluetooth (IEEE 802.15)

[0051] Bluetooth is a newer wireless local networking standard, that operates in the 2.4 GHz ISM band. Compared to WLAN, the gross bit rate is lower (1 Mbps), and the range is shorter (typically 10-15m, although there are tags with a range of over 300 feet). On the other hand, Bluetooth is a "lighter" standard, highly ubiquitous (embedded in most phones, PDAs, PC peripherals, etc.), and supports, in addition to IP, several other networking services. Notably, Bluetooth supports serial port emulation, voice, and various types of object exchange. Bluetooth tags are small, pocketsize transceivers.

[0052] Every Bluetooth device's tag has a unique ID. This ID can be used for locating the tag.

[0053] Bluetooth indoor location.

[0054] How does Bluetooth location work?

[0055] Bluetooth was not made originally for location. From the outset, the standard was designed for communication, in a personal area networking (PAN) environment. However, to facilitate this task, particularly in dynamic ad-hoc scenarios, devices need a mechanism to identify their neighbors, to synchronize, and finally to connect. Such mechanisms have indeed been built into Bluetooth. More importantly, these mechanisms can also be used to obtain an accurate location.

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[0056] There are two approaches to Bluetooth location:

[0057] Binary location—a room-oriented approach, uses the PD method. An access point is installed in every way point. For each tag, the system than finds the nearest AP, and respectively indicates its way point location.

[0058] Analog location—an X-Y oriented approach, based on the RSSI method. APs are installed more sparsely (typically, 10-15 meters apart). For each tag, the distance from each way point is measured, and the system triangulates the tag's position.

[0059] An AP finds a tag by using one of two Bluetooth mechanisms, Inquiry and Paging, that are used normally for link setup:

[0060] The Inquiry mechanism—provides a way for a Bluetooth device to discover its neighbor's Bluetooth ID. An inquiry process typically takes 5 seconds. It concludes with the inquirer (typically the AP) having the IDs of all those Bluetooth devices (tags) within its RF range. The relevant location scenario is that of browsing all tags nearby.

[0061] The Paging mechanism—following an inquiry, the inquirer can page (set up a link with) one or more of its discovered neighbors. A paging process typically takes 1-2 seconds. This mechanism is faster, but requires a previous knowledge of the tag's ID (as well as the Bluetooth clock phase). The relevant location scenario is that of searching for a certain tag. It is the most accurate and the faster response time and it is the disclosed method in door navigation when and where each tag is known address position—waypoint.

[0062] Why use Bluetooth for indoor location?

[0063] Bluetooth has some advantages in the context of indoor location. These include:

[0064] Bluetooth uses RF—in the 2.4 GHz ISM band, specifically. In this frequency range, radio waves penetrate obstacles, such as walls and human bodies, albeit with a substantial loss.

[0065] This has two implications:

[0066] Availability is high—there is always some signal received by the access point .

Google Ex. 1022, p. 098

[0067] AP density can be low the access points can be placed relatively far apart (typical range is 10-15 meters, i.e. not necessarily of one in each way point).

[0068] Bluetooth is ubiquitous—Bluetooth chipsets are being implanted everywhere nowadays (phones, accessories, computing devices, etc).

[0069] The fact that a Bluetooth location system can locate any Bluetooth enabled device, makes it more cost-effective. This means that an increasing fraction of humans and mobile assets around would become locatable in a Bluetooth covered site, with no additional hardware cost (no tags attached). The only need is to pre-register these devices. Bluetooth is a low power technology—tags need recharge, approx. once a week (or longer, depends on the usage scenario). Non tags (e.g. Bluetooth enabled phones), are being recharged anyway on a regular basis, so they do not need special recharges. If they are being used for location, the fraction added to their usual (no Bluetooth) power consumption is relatively small.

[0070] Bluetooth is a low cost technology—the high expected production volumes (hundreds of millions annually) lead to sub-$5 per chip. This goal has already been met by a few integrated circuit (IC) manufacturers. This would eventually result in a low price for the Bluetooth tags, if and when Bluetooth location systems would become sufficiently ubiquitous. Bluetooth is a multi-functional communication standard - location is only one of the services that can be supported by a Bluetooth infrastructure. The same infrastructure can be used to provide additional network services, particularly remote monitoring and control (by using a serial interface). In addition, Bluetooth provides voice and IP services (although for the later, WLAN is typically more suitable).

[0071] In open spaces, relatively free of obstructions and walls (e.g. A large warehouse or a public hotspot), Bluetooth alone would suffice to provide an approximate 2 meter error range.

[0072] Conclusion

[0073] The Bluetooth technology offers two unique advantages: one is the ability to locate ubiquitous “any tags” (any Bluetooth enabled device that is not a tag, e.g. most of the newer mobile phones). The other advantage is the multiservice nature of the Bluetooth infrastructure

Google Ex. 1022, p. 099

that enables using the location access points for other purposes, such as for navigating, remote monitoring and control, and for a variety of IP and messaging services.

SUMMARY OF THE INVENTION

[0074] In accordance with the present invention, these are the disclosed system or project's characteristics:

[0075] The disclosed system is a navigation method based on the following unique characteristics:

[0076] In an indoor or outdoor navigation situation, the associated sensor network, and sensor tags, replaces the satellites in a GPS based system, to provide the user with the information and directions needed to reach the destination.

[0077] The disclosed innovation has three major parts:

[0078] The navigator, the special method used to display the data and the sensors.

[0079] It is not a location and tracking system as offered by other systems.

[0080] Small RF tags are installed in each place designated as point of interest, be it at a mall, department store, product inside a store, street or garage parking, inside or outside location, public or commercial. The tags can be RFID (long range type), or a long range Bluetooth, or a Wi-Fi or any RF type. The tags broadcast a unique ID by wireless that identifies the location by the unique ID, the address and type of facility/store. The tag broadcasts its information to be picked up by the navigator, by the cellular phone or any other Bluetooth device application.

[0081] The system can serve as add on to the mall/store's guide/mapping to provide extra assistance to user.

[0082] The navigator.

Google Ex. 1022, p. 100

[0083] The navigator, cellular phone application Bluetooth application

[0084] The user will receive the data broadcast by the tags in the vicinity via the interface with a cellular telephone utilizing the cellular phone's Bluetooth capability. It is important to note that no cellular communication or Internet or database access is needed, and that any Bluetooth enabled device will operate the disclosed navigator application as a stand alone device. The disclosed system will interface with existing in-car navigation systems.

[0085] The display method.

[0086] The display method is the disclosed unique way to bridge existing devices like cellular phones, in—car navigation and other Bluetooth devices. The system provides an overlay navigation display method over the existing navigation system, as a real-time floating display, or as a waypoint to overcome the limitations of GPS based systems and the existing mapping systems.

[0087] Mapping can be offered as an additional service. No regenerating of mapping is necessary.

[0088] The disclosed navigation system method will enable remote planning based on downloaded local floor-plans, or local navigation, when the location's floor plan can be downloaded at the destination. An example of this would be at the entrance of a shopping mall, department store, amusement park, museum, parking garage or the down town area of a city.

[0089] The disclosed system is based on a network of sensors/tags that can be deployed anywhere. The system is accurate to within 10 feet, significantly better existing navigation systems and GPS. The system can work inside a building whereas GPS cannot.

[0090] Local detection is obtained via popular Bluetooth interface.

[0091] The system provides information about each facility/store, including information about the type of the facility, for example: type of store or product etc.

Google Ex. 1022, p. 101

[0092] By providing the ability to locate a the user in an area using a Bluetooth enabled device, or a cell phone with the associated navigation application, the system overcomes the anxiety of "Where will I am" and also facilitates finding a parked car later via the RTP (Return to Parking) feature.

[0093] The system has the capability to perform all the functions of a search for and can become the "Next generation search out of the box".

[0094] The disclosed system can be an attractive additional feature for cities that intend to deploy WIFI.

[0095] In case of an emergency or security situation, the system can provide authorities with information.

[0096] The system eases facilitates navigation to indoor locations, without a navigation map or GPS. Mapping background can be provided as an additional feature on the disclosed system. The system provides "local" navigation as well as "remote" detection.

[0097] The system allows easy interface with existing networks.

[0098] The system saves gas, time, money and eases global warming by reducing the time spent searching for destination.

[0099] The disclosed navigation method is unique. The base of the disclosed system utilizes RF tags with interface to Bluetooth enabled devices. This feature allows detection and navigation in locations where GPS cannot work, as well as outside, with the ability to guide the user to within 10 feet of the destination, significantly better than any other navigation and GPS based systems on the market.

[00100] The Bluetooth/RF tags are based on a long range version of the popular short distance communication. This unique feature affords the user the ability to plan ahead from a remote location, by obtaining data about the destination directly from the tags and by accessing the indoor floor plan to be navigated at the destination.

Google Ex. 1022, p. 102

[00101] A major problem with In-Car navigation and GPS mapping is that they cannot guide the user closer than 50 to 200 feet, and only in open places. The disclosed system can provide accurate directions to within 10 feet.

[00102] The disclosed system will be a challenge to navigation providers and GPS providers as they cannot provide mapping or navigation inside a mall, department store, a parking garage or lot, and anywhere the GPS /Navigation map cannot accurately help navigate.

[00103] Utilizing the disclosed innovation the facilities in the vicinity around the "user" car are displayed on a floating overlay using either a cellular phone application, or a stand-alone device, or an existing installed navigation system with or without any mapping.

[00104] The recent introduction of imagery services, such as Google Earth and its competitors, that are offered as an enhancement to GPS at a fee, still provide out of date information, with the unsatisfactory result that users encounter road changes and area development not shown on the maps and imagery.

[00105] Navigation using the mapping or floor-plan of a location can be offered as an additional service. The option of downloading a floor-plan can be exercised either remotely or locally.

[00106] The tags broadcast their signal continuously and any of the disclosed navigation devices will detect them and display the data on the user's device in an easy to understand method.

[00107] With the disclosed innovation you have the information that you want, when you want it, where you want it. (and at an affordable price).

[00108] Once you are in the vicinity of your destination and you switch on your navigation device, you will automatically receive the facility information along your waking route and in all directions around you.

[00109] No further action is required, there is no need to send a request or to access the Internet/web or log on and search a database or central system. Other systems must have

Google Ex. 1022, p. 103

bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

[00110] Even if the other systems have bandwidth, they are still based on the existing search concept where under the user submits a query, searches and awaits for the response. All impractical while the user need the information immediately. The disclosed system provides the information automatically, without submitting any query, and the response takes into account the user's location.

[00111] The unique approach of the disclosed system does not need an Internet bandwidth or cellular communication at all.

[00112] And as a result there is no delay or waiting for communication and access time, the communication is instantaneous, directly between the tags and the user's navigation device.

[00113] Additionally, each facility type can color-coded to identify the type of the store etc., e.g. restaurants, men's wear, women's wear etc.

[00114] Each color-coded display of facility can be accessed to obtain complete information about the store e.g., automatic waypoint information.

[00115] The ability to operate the disclosed innovation using the associated application on a cellular phone, the navigator, with no need for cellular connection, or on any stand alone Bluetooth enabled device, means the user does not need any GPS system.

[00116] Moreover, the disclosed innovation can solve the “RTP” (Return to parking) problem, where many forget where they parked their car. The system has an option to save the location on the “cellular phone—parking detector” application, that will make it easy to locate the parked car.

[00117] The disclosed solution is designed for global use and is not limited to malls, stores, amusement parks, museums, sports stadiums etc. It can be implemented in parking garages or parking spaces metered or not, almost anywhere and in any place

Google Ex. 1022, p. 104

[00118] In the future, all new construction could have the tags included in the design.

[00119] The disclosed system integrate the navigation as part of the NAV4 concept where it will provide complete solutions for local navigation in an area where the GPS can't work.

[00120] The disclosed system and method consists of three parts:

[00121] Part 1. A network of tags/sensors—each in a known location.

[00122] The disclosed system is based on navigation to a location, and its aim is to replace or supplement the mall/store guide/map, by installing the tags/sensors in each store or point of interest.

[00123] Part 2. The mapping. As GPS and GPS mapping is not available indoors, the disclosed system and method utilizes floor plan mapping available from each facility. For planning ahead, the floor plan can be downloaded to the user's navigation/cellular phone remotely—via the Internet before reaching the destination or locally via Bluetooth when the destination is reached.

[00124] Part 3. The Navigation uses the most commonly used device in the world today, the cellular phone with Bluetooth interface. The disclosed system method doesn't need any connection, communication, Internet or central system nor any cellular communication.

[00125] As a difference from other systems and other local based systems, the disclosed system offers a unique approach that can be described as the “Search out of the box” as neither query nor database search is needed; all communication is directly between the sensor/tags and the cellular phone, working as a Bluetooth device, that automatically recognizes and takes into account the “user's” location, and provides instant information.

[00126] A typical application is navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility, or any place when and where GPS cannot be provided or is not accurate or

Google Ex. 1022, p. 105

precise enough. The system will be used for navigation by first responders to emergencies or disasters.

[00127] The disclosed system method is part of a broad suite of applications that include a complete solution to the "user" from the time that they park, or begins to look for a space to park their car, walking to the store/mall to when they wants to return to their parked car, looking for the place that they parked.

[00128] The suite includes:

Parking detector—and navigation to the empty available parking space.

Nav4 mall/store navigation solution inside mall store.

RTP—return to parking—locate the place that you parked your car.

For example, a typical application could be:

A pedestrian asks the way in a mall to a specific store.

A pedestrian asks the way inside the store, to a specific aisle or product.

A shopper in a department store asks for a specific department.

A pedestrian asks the way to a point of interest. In an emergency, the first response team has to navigate inside a smoke filled building.

[00129] A system and method to provide user information that relates to the point of interest. The disclosed system provides detection and navigation reference, position determination and information related to the object—point of interest, directly and automatically to the user interface-cellular phone without any communication help of Internet/web or cellular needed.

[00130] Special operation mode:—Shopping—NAV4SALE—provides navigation to the special sale item in a department store.

Google Ex. 1022, p. 106

[00131] Special operating mode:—Museums—NAV4Museums provides navigation and interactive information from the museum's exhibition to the “user's” cellular phone device via Bluetooth interface.

[00132] Special operating mode:—Parking—NAV4PARKING provides empty parking space detection and navigation.

[00133] Special operating mode:—NAV4STORE provides navigation inside a store/department store to a specific department/aisle or specific product, with option for advertising method and special promotion.

[00134] Bluetooth indoor location:

[00135] How does Bluetooth location work?

[00136] Bluetooth was not made originally for location. From the outset, the standard was designed for communication, in a personal area networking (PAN) environment. However, to facilitate this task, particularly in dynamic ad-hoc scenarios, devices need a mechanism to identify their neighbors, to synchronize, and finally to connect. Such mechanisms have indeed been built into Bluetooth. More importantly, these mechanisms can also be used to obtain an accurate location.

[00137] There are two approaches to Bluetooth location:

[00138] Binary location—a room-oriented approach, uses the PD method. An access point is installed in every way point. For each tag, the system than finds the nearest AP, and respectively indicates its way point location.

[00139] Analog location—an X-Y oriented approach, based on the RSSI method. APs are installed more sparsely (typically, 10-15 m apart). For each tag, the distance from each way point is measured, and the system triangulates the tag's position.

[00140] An AP finds a tag by using one of two Bluetooth mechanisms, Inquiry and Paging, that are used normally for link setup:

Google Ex. 1022, p. 107

[00141] The Inquiry mechanism—provides a way for a Bluetooth device to discover its neighbor's Bluetooth ID. An inquiry process typically takes 5s. It concludes with the inquirer (typically the AP) having the IDs of all those Bluetooth devices (tags) within its RF range. The relevant location scenario is that of browsing all tags nearby.

[00142] The Paging mechanism—following an inquiry, the inquirer can page (set up a link with) one or more of its discovered neighbors. A paging process typically takes 1-2 seconds. This mechanism is faster, but requires a previous knowledge of the tag's ID (as well as the Bluetooth clock phase). The relevant location scenario is that of searching for a certain tag. It is the most accurate and the faster response time and it is the method indoor navigation when and where each tag is known address position—waypoint.

[00143] Why use Bluetooth for indoor location?

[00144] Bluetooth has some advantages in the context of indoor location. These include:

[00145] Bluetooth uses RF—in the 2.4 GHz ISM band, specifically. In this frequency range, radio waves penetrate obstacles, such as walls and human bodies, albeit with a substantial loss. This has two implications:

[00146] Availability is high—there is always some signal received by the access point . AP density can be low the access points can be placed relatively far apart (typical range is 10-15 meters, i.e. not necessarily of one in each way point).

[00147] Bluetooth is ubiquitous—Bluetooth chipsets are being implanted everywhere nowadays (phones, accessories, computing devices, etc). The fact that a Bluetooth location system can locate any Bluetooth enabled device, makes it more cost-effective. This means that an increasing fraction of humans and mobile assets around would become locatable in a Bluetooth covered site, with no additional hardware cost (no tags attached). The only need is to pre-register these devices.

[00148] Bluetooth is a low power technology—tags need recharge, approx. once a week (or longer, depends on the usage scenario). Non tags (e.g. BT enabled phones), are being recharged

Google Ex. 1022, p. 108

anyway on a regular basis, so they do not need special recharges. If they are being used for location, the fraction added to their usual (no Bluetooth) power consumption is relatively small.

[00149] Bluetooth is a low cost technology—the high expected production volumes (hundreds of millions annually) lead to sub-5$ per chip. This goal has already been met by few IC manufacturers. This would eventually result in a low price for the Bluetooth tags, if and when Bluetooth location systems would become sufficiently ubiquitous.

[00150] Bluetooth is a multi-functional communication standard—location is only one of the services that can be supported by a Bluetooth infrastructure. The same infrastructure can be used to provide additional network services, particularly remote monitoring and control (by using a serial interface). In addition, Bluetooth provides voice and IP services (although for the later, WLAN is typically more suitable).

[00151] In open spaces, relatively free of obstructions and walls (e.g. A large warehouse or a public hotspot), Bluetooth alone would suffice to provide an approximate 2 meter error range.

[00152] Waypoint Navigation

[00153] A waypoint is a fixed location with known address location, longitude and latitude and coordinates. The disclosed navigation system is capable of storing a database of waypoints for the following purpose:

[00154] Waypoints mark a destination, a point along the way to a destination, or a point of reference. Normally, in navigating, a “route” consists of one or more waypoints. To traverse a route, the user navigates to the nearest waypoint, then to the next one in turn until the destination is reached. The system has the ability to compute a great-circle route towards a waypoint, enabling them to find the shortest route even over long distances. The system enabling users to locate a destination on a map and define it as a waypoint. The system is intended for navigation; it can generate a suggested route between two waypoints, based on the cartographic database. The system indicates the user's current location and gives advance notice of an upcoming point.

Google Ex. 1022, p. 109

[00155] Because the system knows the waypoint positions, and the distance between them it, it is easy to determine the "user's" exact location.

[00156] Map Matching

[00157] The navigation solution is further enhanced, although it is not essential, when the system knows that the person or object being located is traveling along known routes on a map; for example, the system can assume that people can only follow certain routes in a mall. This is priori information that can be used to "force" the estimated position to be on the nearest point on the possible routes. The constraints of indoor construction similarly can be used to refine estimates of the position of a person or object moving within a building-people and objects do not pass through walls, they pass along corridors and through doorways. It is a best solution for a system in case of an emergency or for a system for homeland security or a system to locate and inform the subway location, a good example is the hotel exit floor map.

[00158] Configuration and Use

[00159] In the disclosed indoor application, instead of GPS, the disclosed system uses known waypoint positions that are manually detected and identified as a demonstration of the concept of using another sensing method, such as RFID, to detect and identify the waypoints. Theoretically, it would be possible to convert the waypoint positions into GPS coordinates and emulate an external GPS data source.

[00160] This system can be useful for providing navigation to first responder personnel indoors waypoints have been installed in a particular building in the form of RFID tags whose identities are associated with locations, then it may be possible to associate magnetic anomaly information with individual tags as well.

[00161] One of the important features of the disclosed indoor navigation techniques will enhance the ability of tactical team's first response team to navigate within the buildings in which it has been deployed. RF(Bluetooth) Tag/Sensor devices commonly are attached to persons or to moveable objects so that the objects can be tracked using fixed readers (special-purpose radios) at different locations. This is the most common indoor navigation that exists today. The disclosed

Google Ex. 1022, p. 110

method is the "flip side" of this practice and is based on the concept that the detection of an RF (Bluetooth) device, or RF Tags, in a known, fixed location, by a moving reader, such as a Bluetooth enabled cellular phone or other Bluetooth enabled device, provides a precise location of a person or a moving object, by the carrier of the telephone or device, who can supply indoor navigation without GPS.

[00162] The disclosed method provides a low-cost, reliable system for firefighters and other first responders, inside buildings, to navigate, where a GPS is not reliable-indeed, the GPS signal may have been disabled temporarily to prevent-exploitation by terrorists, or even more likely no signal can be received at all inside a building.

[00163] The disclosed system envisions this limitation of GPS based systems, and is intended for an environment that is potentially much less "friendly" to RF signals, the environment inside a building that first responders encounter may contain smoke, dust, or flames, and is intended to leverage advances in ubiquitous RF/Bluetooth tag technology. The disclosed system will exploit the capability of storing critical building information, such as the floor maps and the emergency escape plans, for retrieval and navigational assistance via a Bluetooth enabled cellular phone, when and where it is needed,

[00164] More over the disclosed system can serve as a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

[00165] Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

Google Ex. 1022, p. 111

[00166] From the outset, the disclosed system was been designed with the capability to utilize existing technology so it can be deployed as a stand-alone system, or in tandem with existing systems. The disclosed solution focused on technology already in place that simply needs to be expanded.

[00167] With the implementation of the disclosed system, a FIRST RESPONSE TEAM will be empowered to navigate and find its way in a case of emergency or a disaster. This capability can be a critical life saving power in modern congested urban living conditions, not available before now.

[00168] It is believes that implementation of the disclosed system will assist counter terrorism activities and more importantly will help the first response teams to save the lives of people trapped inside buildings.

[00169] Conclusion

[00170] The Bluetooth technology offers two unique advantages: one is the ability to locate ubiquitous "any tags" (any Bluetooth enabled device that is not a tag, e.g. most of the newer mobile phones).

[00171] The other advantage is the multiservice nature of the Bluetooth infrastructure that enables using the location access points for other purposes, such as for navigating, remote monitoring and control, and for a variety of IP and messaging services.

BRIEF DESCRIPTION OF THE DRAWINGS

[00172] A better understanding of the present invention may be obtained by reference to the accompanying drawings, which should be considered in conjunction with the detailed description, all in accordance with the present invention.

[00173] FIG. 1 is an illustration of the portable phone navigation method as application on a cellular phone in accordance with the present invention.

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[00174] FIG. 2 is illustration of the portable phone navigation as an application nav4 mall/store in accordance with the present invention.

[00175] FIG. 3 is illustration of the mobile unit application system in accordance with the present invention.

[00176] FIG. 4 is an illustration of the sensor tags in a network implement in a mall environment in accordance with the present invention.

[00177] FIG. 5 is a flow diagram of the navigation system in accordance with the present invention.

[00178] FIG. 6 is an illustration of the indoor navigation system in accordance with the present invention.

[00179] FIG. 7 is an illustration of the sensor tags in a network in accordance with the present invention.

[00180] FIG. 8 is an illustration of the possibility application for the disclosed navigation system in accordance with the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[00181] In all the figures of the drawings, sub-features and integral parts that correspond to one another bear the same reference symbol.

[00182] Referring now to the drawings in detail and first particularly to FIGS. 1-8 thereof.

[00183] These figures illustrate the method and system to navigate indoor without GPS using sensor in a network utilizing Bluetooth application on a cellular phone.

[00184] Referring to FIG. 1 This shows the cellular phone 101 with a floating display of information 105 received directly from sensors/tags 107 installed in this illustration in a mall

Google Ex. 1022, p. 113

facility 104 the only communication is between the sensors 107 and directly to the cellular phone 101 via a Bluetooth communication 102 where no cellular or any other connection needed at all. The system uses the cellular phone 101 as a Bluetooth enable device. The application will receive a signal directly from the sensor/tags 107 installed at the facility and allow to calculate and determine the exact location of the "user" and will allow navigation in the facility when the navigation display 105 of the application will be floating on the floor map of the facility that can be down load ether remotely before accessing the facility or locally via Bluetooth 102 when reaching the area.

[00185] Each sensor 107 represents a waypoint and will be shown with a simple color code to identify the type of the facility e.g. type of store.

[00186] When the user approaches a sensor/tag/way point 107 he will be able to receive additional-information regarding the store/product on his cellular phone/Bluetooth device 101 e.g. special promotions, coupons, advertising or special sales to the display 105 etc.

[00187] The promotion can be also delivering via Bluetooth voice option 106.

[00188] Referring to FIG. 2.This figure illustrate the cellular navigation application in a mall on a cellular phone, 101, as a Bluetooth cellular phone application; again, there is no need for cellular communication or any Internet web communication or any central system nor any access to a database.

[00189] The system utilizes the cellular phone, 101, only as a Bluetooth enabled device and the application overlay floating display over the floor map 201 where each store sensor/tag 202 represented as a waypoint, in this illustration the mall's store can be view and be search by store type, store directory 203, or by alphabetical order 204, where each store/waypoint will have a basic information—store information 205, like the store name, phone number, floor, address within the mall, and a small notes- small information representing the store. Again when the user approaches a sensor/tag/way point 202 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device 101 e.g. special promotions, coupons, advertising or special sales to the display 201 etc.

Google Ex. 1022, p. 114

[00190] The promotion can be also delivering via Bluetooth voice option utilize the Bluetooth options.

[00191] Turning now to FIG. 3. This figure shows the cellular phone mobile unit 101, in operation as a Bluetooth application, the procedure is firs to load the facility floor map 301, which can be done remotely as a planning via Internet or web site before reaching the area to be navigate, or locally via Bluetooth connections at the facility, most likely at the entrance. After loading the floor map to be a background for the navigation a position determination 302, done by calculating the signal receiving directly from the sensor/tags and then provide the heading navigation 303, and the current user location on the floor map, 301.

[00192] Referring to FIG. 4. This figure shows an illustration of the mall 402, when each store represented by sensor/tag waypoint 401, in this illustration the mall's store can be view and be search by store type, store directory, or by alphabetical order, where each store/waypoint 401, will have a basic information -store information, like the store name, phone number, floor, address within the mall, and a small notes-small information representing the store. Again when the user approaches a sensor/tag/way point 401 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device e.g. special promotions, coupons, advertising or special sales to the phone as Bluetooth application.

[00193] The promotion can be also delivering via Bluetooth voice option utilize the Bluetooth options.

[00194] Turning to FIG. 5. This figure shows the method of the disclosed system when the user reach the area 501,locally load the floor mapping 502, and navigate on the facility mapping 503.

[00195] Referring to FIG. 6. This figure shows an illustration of the disclosed navigation suite of application where the navigation is a cellular phone 101, as a Bluetooth device navigate on a background floor map of the facility 602, receiving a detect information and determination of the exact location of the user from a sensor base network implement in each known location like 601, store in a mall, the application in the disclosed suite of software to provide a navigation

Google Ex. 1022, p. 115

indoor or in a places where and when GPS signal is not available or not efficient to provide accurate to a waypoint/store, place:

[00196] Parking detector application 604, describe as a system and method to find an empty parking space from a sensor base network directly to the cellular phone utilize the cellular phone Bluetooth and no other communication needed.

[00197] Indoor navigation application 605, under Nav4 application that will describe in more details in FIG. 8 A typical application is navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility, or any place when and where GPS cannot be provided or is not accurate or precise enough. The system will be used for navigation by first responders to emergencies or disasters.

[00198] RTP 606 —returns to parking— locates the place that you parked your car.

[00199] The disclosed system and associated method of use is part of the disclosed broad suite of applications that include a complete solution to the "user" from the time that he parks, or begins looking for a space to park his car, walking to the store/mall to when he wants to return to his parked car, looking for the place that he parked.

[00200] The suite includes:

Parking detector—and navigation to the empty available parking space.

Nav4 mall/store navigation solution inside mall store.

RTP—return to parking—locate the place that you parked your car.

For example, a typical application could be:

A pedestrian asks the way in a mall to a specific store.

Google Ex. 1022, p. 116

A pedestrian asks the way inside the store, to a specific aisle or product. A shopper in a department store asks for a specific department.

A pedestrian asks the way to a point of interest. In an emergency, the first response team has to navigate inside a smoke filled building.

[00201] A system and method to provide user information that relates to the point of interest. The disclosed system provides detection and navigation reference, position determination and information related to the object—point of interest, directly and automatically to the user interface—cellular phone without any communication help of Internet/web or cellular needed

[00202] Turning to FIG. 7. the sensor base network 107, is show and illustrate the direct broadcasting RF information 701,to the cellular phone as a Bluetooth device 101, again, there is no need for cellular communication or any Internet web communication or any central system nor any access to a database.

[00203] Turning to FIG. 8, is an illustration of the possibility application for the disclosed navigation system The Nav4 indoor application: some of the possibilities of application are:

[00204] Special operation mode:—Shopping—NAV4SALE—806, provides navigation to the special sale item in a department store, coupons or other promotions and even audio or video via a Bluetooth interface as advertising directly push from the waypoint/store area to the user Bluetooth device/cellular phone.

[00205] Special operating mode:—Museums—NAV4Museums—804, provides navigation and interactive information from the museum's exhibition to the “user's” cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

[00206] Special operating mode:—NAV4STORE-805, provides navigation inside a store/department store to a specific department/aisle or specific product, with option for advertising method and special promotion.

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[00207] Special operating mode:—Amusement park—803, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability (lines) time to the show, type of the waypoint like restrooms, food area etc. more over the disclosed navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

[00208] Special operating mode:—First response navigation,802—More over the disclosed system can serve as a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

[00209] Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

[00210] Special operating mode:—NAV4Train-801, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, more over the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, no more walking to the mapping inside the station or try to figure out your location in the map inside the subway train, each station will have a tag/sensor all the route to provide the user accurate locating and additional information that he may need like schedule, restroom, food, emergency etc.

[00211] Since other modifications and changes varied to fit particular operating requirements and environments will be apparent to those skilled in the art, the invention is not considered

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limited to the example chosen for purposes of disclosure, and covers all changes and modifications which do not constitute departures from the true spirit and scope of this invention.

[00212] Having thus described the invention, what is desired to be protected by Letters Patent is presented in the subsequently appended claims.

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Electronic Acknowledgement Receipt

EFS ID:	19725010
Application Number:	11429864
International Application Number:	
Confirmation Number:	4194
Title of Invention:	System and method navigating indoors and outdoors without GPS. utilizing a network of sensors
First Named Inventor/Applicant Name:	Ehud Mendelson
Customer Number:	31877
Filer:	Allen D. Hertz
Filer Authorized By:	
Attorney Docket Number:	MEN-06-001
Receipt Date:	30-JUL-2014
Filing Date:	08-MAY-2006
Time Stamp:	12:20:51
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		MEN-06-001_Mendelson_NAV4_312-Amendment_073014.pdf	683047 d64b8a2b94143b72c64bb748a3fc3c30377c6fbe	yes	63

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment after Notice of Allowance (Rule 312)	1	5
	Specification	6	34
	Specification	35	63
Warnings:			
Information:			
	Total Files Size (in bytes):	683047	

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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NOTICE OF ALLOWANCE AND FEE(S) DUE

31877 7590 07/10/2014

ALLEN D. HERTZ
ALLEN D HERTZ, P.A.
12784 TULIPWOOD CIRCLE
BOCA RATON, FL 33428

EXAMINER
PHAN, DAO LINDA

ART UNIT	PAPER NUMBER
3646	

DATE MAILED: 07/10/2014

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	MEN-06-001	4194

TITLE OF INVENTION: System and method navigating indoors and outdoors without GPS. utilizing a network of sensors

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	10/10/2014

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE 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.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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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)

31877 7590 07/10/2014
ALLEN D. HERTZ
ALLEN D HERTZ, P.A.
12784 TULIPWOOD CIRCLE
BOCA RATON, FL 33428

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.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	MEN-06-001	4194

TITLE OF INVENTION: System and method navigating indoors and outdoors without GPS. utilizing a network of sensors

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	10/10/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
PHAN, DAO LINDA	3646	342-463000

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 _____
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)

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 — 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.
- ❑ Applicant asserting small entity status. See 37 CFR 1.27 — 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.
- ❑ Applicant changing to regular undiscounted fee 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 _____ Date _____

Typed or printed name _____ Registration No. _____

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	MEN-06-001	4194

31877 7590 07/10/2014

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BOCA RATON, FL 33428

EXAMINER	
PHAN, DAO LINDA	

ART UNIT	PAPER NUMBER
3646	

DATE MAILED: 07/10/2014

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.

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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. 11/429,864	Applicant(s) MENDELSON, EHUD	
	Examiner Dao Phan	Art Unit 3646	AIA (First Inventor to File) 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 *6/11/2014 & 6/26/2014*.
   ☐ 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 *19,21-33,36 and 37*. 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 a reply 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 _____.

/Dao Phan/
Primary Examiner, Art Unit 3646

1) The drawings filed on 8/4/2006 are accepted.

2) An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Allen Hertz on June 26, 2014.

To provide proper antecedent basis, the claims have been amended as follows:

In claim 36, line 14, deleted "said" before the words "RF tag identifier" and inserted --an--.

In claim 36, lines 15-16, deleted "said" before the words "vehicle computer" and inserted --a--.

In claim 36, line 17, deleted "said" before the word "road" and inserted --a--.

In claim 36, line 18, inserted --a-- before the words "speed change".

In claim 37, line 16, deleted "said" before the words "location of said user" and inserted --a--.

In claim 37, line 16, deleted "said" before the word "user" and inserted --a--.

In claim 37, lines 16-17, deleted "location" before the words "of said display device" and inserted --position--.

In claim 37, line 17, deleted "said" before the words "RF tag identifier" and inserted --an--.

In claim 37, line 17, deleted "and" before the words "a behavior".

3) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao Phan whose telephone number is (571)272-6976. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571)272-6878. 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.

/Dao Phan/
Primary Examiner, Art Unit 3646

EAST Search History

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	74	(triangulat$4 and tag$2 and map$5).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2014/06/27 09:15
L2	120	(triangulat$4 and tag$2 and display$3).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2014/06/27 09:19
L3	29	(triangulat$4 and tag$2 and display$3 and ((ID) or identifier$2)).clm.	US-PGPUB; USPAT; UPAD	OR	OFF	2014/06/27 09:21
L4	29	2 and 3	US-PGPUB; USPAT; UPAD	OR	OFF	2014/06/27 09:21
L5	91	2 not 4	US-PGPUB; USPAT; UPAD	OR	OFF	2014/06/27 09:21

6/27/2014 9:22:34 AM
C:\Users\dphan\Documents\EAST\Workspaces\Default EAST Workspace (Flat Panel LANDSCAPE).wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11429864	MENDELSON, EHUD
	Examiner	Art Unit
	Dao L Phan	3662

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
342	357.06, 357.12, 450, 457, 463-465	6/6/08	dp
455	456.6, 457		
701	213, 215		
342	357.21, 357.25, 450, 457, 463-465	6/5/14	dp
455	456.6, 457		
701	410, 412, 468		
Updated		6/30/14	dp

SEARCH NOTES		
Search Notes	Date	Examiner
East text searched (See searched history printout)	6/6/08	dp
East text (See attached)	6/5/14	dp
Updated	6/30/14	dp

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
See search history printout		6/30/14	dp

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BIB DATA SHEET

CONFIRMATION NO. 4194

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/429,864	05/08/2006	342	3646	MEN-06-001

APPLICANTS

INVENTORS

Ehud Mendelson, Coral Springs, FL;

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

This appln claims benefit of 60/678,947 05/09/2005

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

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **

06/05/2006

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /DAO LINDA PHAN/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		FL	8	18	1

ADDRESS

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TITLE

DP

System and method navigating indoors and outdoors without GPS, utilizing a network of sensors

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

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11429864	MENDELSON, EHUD
	Examiner	**Art Unit**
	DAO PHAN	3646

CPC							
Symbol						**Type**	**Version**
G06Q		30	/	0239		I	2013-01-01
G01C		21	/	206		I	2013-01-01
G01S		5	/	0226		I	2013-01-01
G01S		1	/	68		F	2013-01-01
G06Q		90	/	20		I	2013-01-01
G01S		5	/	02		I	2013-01-01
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CPC Combination Sets								
Symbol					**Type**	**Set**	**Ranking**	**Version**
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NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	16	
/DAO PHAN/ Primary Examiner.Art Unit 3646	6/30/14	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	15	3

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
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US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION	
CLASS	SUBCLASS	CLAIMED	NON-CLAIMED
342	463	G 0 1 S 3 / 02 (2006.01.01)	
		G 0 1 S 3 / 04 (2006.01.01)	

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
342	450	457			

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	16	
/DAO PHAN/ Primary Examiner.Art Unit 3646	6/30/14	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	15	3

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
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☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		17	14	33										
	2		18		34										
	3	1	19		35										
	4		20	15	36										
	5	2	21	16	37										
	6	3	22												
	7	4	23												
	8	5	24												
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	10	7	26												
	11	8	27												
	12	9	28												
	13	10	29												
	14	11	30												
	15	12	31												
	16	13	32												

NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 16	
/DAO PHAN/ Primary Examiner.Art Unit 3646 (Primary Examiner)	6/30/14 (Date)	O.G. Print Claim(s) 15	O.G. Print Figure 3

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11429864	MENDELSON, EHUD
	Examiner	Art Unit
	DAO PHAN	3646

✓	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	06/30/2014								
	1	-								
	2	-								
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	4	-								
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13	32	=								
14	33	=								
	34	-								
	35	-								
15	36	=								

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
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	Examiner	Art Unit
	DAO PHAN	3646

✓	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	06/30/2014								
16	37	=								

In The United States Patent and Trademark Office

Application No.	: 11/429,864	Confirmation No. 4194
Applicant	: Ehud Mendelson	
Title	: **System and method navigating indoors and outdoors without GPS. utilizing a network of sensors**	
Filed	: May 08, 2006	
TC/A.U.	: 3646	
Examiner	: Dao Linda Phan	Tel: (571) 272-6976
Docket No.	: MEN-06-001	
Customer No.	: 31877	

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

Reply to Non-Final Office Action dated June 10, 2014

Amendment Revised Under 37 C.F.R. § 1.121(b)

Sir:

Please enter the following Amendment into the file of the above-identified patent application, in response to the **Non-Final Office Action** dated June 10, 2014. The Examiner established a shortened statutory period of THREE (3) MONTHS. This amendment is being filed on or before Wednesday, September 10, 2014, the effective THREE (3) MONTH anniversary of the mailing date of the subject office action. Applicant earnestly believes the response is considered to be timely submitted.

Amendments to the Claims are reflected in the listing of claims, which begins on page 02 of this paper, with an amended version of the current claims beginning on page 03 of this paper.

Remarks/Arguments begin on page 11 of this paper.

Conclusions begin on page 22 of this paper.

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IN THE CLAIMS

Claims 1-18 were previously canceled.

Claims 19, 21-33, 36, and 37 are currently pending in the application.

Please cancel **Claims 20, 34, and 35** without prejudice in accordance with this correspondence.

Please amend **Claims 19 and 21-33** without prejudice in accordance with this correspondence.

Please add **Claims 36 and 37** without prejudice in accordance with this correspondence.

No claims are withdrawn.

An amended version of the pending claims starts on page 03 in accordance with 37 CFR § 1.121(c)(3) as follows: The status of each Claim is indicated adjacent the Claim Number in accordance with the proper status identifiers: (Original), (Currently Amended), (Canceled), (Previously Presented), (New), (Not Entered), (Withdrawn), and (Withdrawn-Currently Amended) in accordance with 37 CFR § 1.121. Any changes to the claims are shown by strikethrough (for deleted matter) and underlining (for added matter, excluding New Claims).

Thereafter, starting on a separate page, (page 11), is the Remarks portion in accordance with 37 CFR § 1.111.

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-18 (Canceled):

Claim 19 (Currently Amended): A method for ~~navigation indoor and outdoor~~ determining a position of a display device within ~~in~~ a facility area and providing navigation thereto, wherein navigation is provided on [[a]] said display device, wherein said display device is selected from a group consisting of a portable display device, a mobile phone, a hand held navigation system, a car navigation system and a Bluetooth enabled device, the method comprising steps of:

a) uploading an application onto said display device, wherein said application provides a mobile user with guidance and navigation about said local area, including said facility area,

b) downloading a facility indoor mapping of a local floor plan associated with said facility area to said display device prior to arriving to said facility area,

c) determining a current position of said display device by a proximity of said display device to RF tags installed in known positions in said facility area, wherein said RF tags emit at least one of a Bluetooth signal and a Wi-Fi signal, wherein said step of determining said current position is accomplished by at least one of: utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag and utilizing a triangulation calculation when said display device receives signals from multiple RF tags,

d) displaying a position marking representative said position of said display device within

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said facility area on a display device overlay layered over said facility area map,

e) navigating using said positions of said tags as displayed on said facility area maps,

[[g)]] f) displaying additional local based information on said display device, wherein said additional local based information includes information associated with elements within a vicinity of said facility area.

Claim 20 (Canceled):

Claim 21 (Currently Amended): The method according to claim 19 [[20]], further comprising a step of delivering local based services content to said display device, wherein said local based services content includes content information that is associated with a location of said display device.

Claim 22 (Currently Amended): The method according to claim 19 [[20]], further comprising steps of availing and making use of an indoor local base services application on said display device, said indoor local based services application comprises at least one of:

a) map and indoor guide and navigation - obtaining a local area map and application,

b) directory – obtaining at least one of a store/mall directory, a local area directory, a store type, and store information as part of-said local mapping information to said display device,

c) search and find- searching and locating at least one of a store, a place, an item, and a product, wherein said at least one of said store, said place, said item, and said product is associated with said at least one of said store/mall directory, said local area directory, said

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store type, and said store information,

d) sales/specials - obtaining at least one of a discount, a sale, and a coupon, presenting said at least one of said discount, said sale, and said coupon and providing store aisle navigation upon said display device, wherein said store aisle navigation directs said user to a store aisle containing an items associated with said at least one of said discount, said sale, and said coupon,

e) parking - determining available parking spaces in a vicinity of said display device and providing navigation to said user by displaying available parking spaces on said display device, wherein said parking spaces are associated with said location of said RF tag,

f) return to parking - identifying a location of a parked car associated with said display device and providing navigation to return said user to said location of said parked car through a display on said display device, wherein a parking space containing said parked car is associated with said location of said RF tag,

g) info -provide information about events, restrooms, ATM location, seating area, Kids playground, fountain, public phones,

h) emergency - obtaining emergency information and emergency navigation associated with said facility area, and displaying said emergency information and emergency navigation associated with said facility area on said display device, wherein said emergency navigation is based upon at least one of said location of said display device and said location of said RF tag, and

i) panic - emitting a panic alert, wherein said panic alert requests.

Claim 23 (Currently Amended): The method according to claim 19 [[20]], further comprising a step of displaying additional information associated with at least one waypoint, wherein said additional information includes at least one of a store, a department, a special sale, an event, and

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a coupon, wherein said information is updated in real time.

Claim 24 (Currently Amended): The method according to claim 19 [[20]]**,** further comprising a step of navigating between waypoints illustrated on said ~~floor map~~ local floor plan of said facility indoor mapping using said ~~mobile~~ application displaying said known waypoints, wherein at least one of said facility indoor mapping and said waypoints associated with RF tags that are in a proximity of said display device at said facility.

Claim 25 (Currently Amended): The method according to claim 19 [[20]], further comprising a step of determining a location of said display device indoor without aid of a global positioning satellite (GPS) system.

Claim 26 (Currently Amended): The method according to claim 19 [[20]], further comprising a step of providing said display device with application software for navigating using a display including at least one of a area map and a facility floor plan.

Claim 27 (Currently Amended): The method according to claim 19 [[20]], further comprising a step of providing navigation to a pedestrian within an environment within a facility selected from a facility group consisting of: a mall, a department store, a specialty store, a conference, a trade show, an amusement park, a stadium, an arena, a sporting event, a university, a hospital, a school, a municipal building, a museum, a subway, a train station, an airport, a down town center, a cruise ship, a financial banking location,-a parking facility and a covered structure.

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Claim 28 (Currently Amended): The method according to claim 19 [[20]], further comprising at least one of:

a step of determining available empty parking spaces in a vicinity of said display device and providing navigation to said user by displaying available parking spaces on said display device, wherein said parking spaces are associated with said location of said RF tag, and

steps of identifying a location of a parked car associated with said display device by associating a parking space containing said parked car with one RF tag and navigating said user to said parking space containing said parked car by referencing said RF tag associated with said parking space containing said parked car one through a display on said display device, thus providing a return to parking feature.

Claim 29 (Currently Amended): The method according to claim 19 [[20]], further comprising a step of providing an indoor guide and navigation within one of: a museum, within a show, a conference, and an exhibition, wherein guide and navigation information is determined by an RF tag identifier of said RF tag located proximate to a location of said display device, wherein said guide and navigation is provided to said user by at least one of audio, video, and content information using said display device.

Claim 30 (Currently Amended): The method according to claim 19 [[20]], further comprising a step of providing a local guide and navigation specifically associated with real estate, identifying local property that is available for at least one of sale, lease, and rent, wherein said real estate information is determined based upon said location of at least one of said display device and said location of said RF tag.

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Claim 31 (Currently Amended): The method according to claim 19 [[20]], further comprising steps of providing guidance and navigation associated with an amusement park having waypoints identifying specific points of interest within said amusement park, and

displaying information associated with said amusement park including at least one of a schedule of show, wait times for a show, time to said show, a restroom location, a food service area and a process for reducing a wait time for access to a show or attraction.

Claim 32 (Currently Amended): The method according to claim 19 [[20]], further comprising a step of providing navigation for an emergency exit route utilizing a location of at least one of said display device and said location of said proximate RF tag within said facility area to determine said emergency exit route and providing updated guidance for directing a user to safely exit said facility area.

Claim 33 (Currently Amended): The method according to claim 19 [[20]], further comprising steps of:

providing a display device with a current location of at least one of:-a train, a bus, and a subway train on a route directly to said display device, wherein said current location of at least one of said train, said bus, and said subway train is displayed upon a train/subway/underground map,

presenting the display device location in said route, and

presenting additional information including at least one of a schedule, a restroom location, a food serving location, and an emergency route, wherein said additional information is determined by said RF tag identifier of said RF tag located proximate to said display device.

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Claims 34-35 (Canceled):

Claim 36 (New): A method for determining a current position of a display device and providing road sign information to said display device, the method comprising steps of:

determining said current position of said display device by utilizing a proximity of said display device to RF tags installed in known positions in a regional area, wherein said step of determining said current position is accomplished by at least one of:

a) utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag,

b) utilizing signal strengths of said RF tags when said display device receives signals from multiple tags, and

c) utilizing a triangulation calculation when said display device receives signals from multiple tags;

obtaining and displaying road sign locations upon a local map collectively displayed upon one of said display device, a vehicle display, wherein said road sign locations are determined by said RF tag identifier of said RF tag located proximate to said display device, wherein said information is provided through an interface between said display device and said vehicle computer operating said vehicle display; and

in a condition where said road sign affects a speed, the method proceeds in alerting a driver to adjust a speed of said vehicle in accordance with speed change associated with said road sign located within a vicinity of said display device.

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Claim 37 (New): A method for determining a current position of a display device and providing location based service (LBS) application and information content to said display device, the method comprising steps of:

determining said current position of said display device by utilizing a proximity of said display device to RF tags installed in known positions in a facility area, wherein said step of determining said current position is accomplished by at least one of:

a) utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag,

b) utilizing signal strengths of said RF tags when said display device receives signals from multiple tags, and

c) utilizing a triangulation calculation when said display device receives signals from multiple tags;

providing a local business with information about customer behavior habit without compromising user ID or privacy;

providing said location based service (LBS) application and information content based on at least one of said location of said user as determined by at least one of said location of said display device and said location associated with said RF tag identifier, and a behavior habit obtained from said display device, and a profile provided by data obtained from said display device, wherein said LBS and information content comprises at least one of: a special, a sale, and a promotion events coupon; and

designating a business as a waypoint and presenting advertisements associated with the business on the display device.

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REMARKS

Claims 1-18 were previously canceled.

Claims 19, 21-33, 36 and 37 remain pending in the application.

Claims 19 and 31-33 have been amended without prejudice in this correspondence.

Claims 20, 34 and 35 have been canceled without prejudice in this correspondence.

Claims 36 and 37 have been added without prejudice in this correspondence.

No claims are withdrawn herein.

CLAIMS

Applicant has amended Dependent **Claims 21-33**, originally depending from Independent **Claim 20**, to depend from Independent **Claim 19**.

Applicant has canceled **Claim 20**, as the elements of **Claim 20** are currently included in Independent **Claim 19**.

Applicant has combined the elements of Independent **Claim 20** (canceled herein) and Dependent **Claim 34** as New **Claim 36**. The Examiner indicated that **Claim 34** would be allowable if combined with the base claim (**Claim 20**) and all intervening claims (none). Applicant has additionally addressed all of the rejections of **Claim 20** under 35 U.S.C. 112 (pre-AIA) in New **Claim 36**. Therefore, Applicant earnestly believes New **Claim 36** is in condition for allowance.

Applicant has combined the elements of Independent **Claim 20** (canceled herein) and Dependent **Claim 35** as New **Claim 37**. The Examiner indicated that **Claim 35** would be allowable if combined with the base claim (**Claim 20**) and all intervening claims (none). Applicant has additionally addressed all of the rejections of **Claim 20** under 35 U.S.C. 112 (pre-AIA) in New **Claim 37**. Therefore, Applicant earnestly believes New **Claim 37** is in condition for allowance.

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DETAILED ACTION

1. The Examiner objected to **Claim 20** because of the following informalities:

On line 7, "a signal strengths" appears to be incorrect. Appropriate correction is required.

1a. (Applicant's Remarks): Applicant has amended the language from Independent **Claim 20**, as introduced in each of new **Claims 36 and 37** as follows:

"b) **utilizing signal strengths** of said RF tags when said display device receives signals from multiple tags, and"

Applicant earnestly believes the objection to **Claim 20** because of informalities, as applied to New **Claims 36 and 37**, has been overcome by revising the language from **Claim 20** as introduced into New **Claims 36 and 37**. Applicant respectfully requests the Examiner to reconsider and withdraw the objection to **Claim 20**, as applied to New **Claims 36 and 37** because of informalities.

2. The Examiner rejected **Claims 20, 24** under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

2A. (Examiner's Position): As to **Claim 20**, line 2 and 4, "said current location" lacks antecedent basis.

2a. (Applicant's Remarks): Applicant has amended the language from Independent **Claim 20**, as introduced in each of new **Claims 36 and 37** by utilizing the term "current position" throughout the claim (as shown by example of **Claim 36**) as follows:

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"A method for determining **a current position** of a display device and providing road sign information to said display device, the method comprising steps of:

determining **said current position** of said display device by utilizing a proximity of said display device to RF tags installed in known positions in a regional area, wherein said step of determining **said current position** is accomplished by at least one of:

a) utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag,

b) utilizing signal strengths of said RF tags when said display device receives signals from multiple tags, and

c) utilizing a triangulation calculation when said display device receives signals from multiple tags;

obtaining and displaying road sign locations upon a local map collectively displayed upon one of said display device, a vehicle display, wherein said road sign locations are determined by said RF tag identifier of said RF tag located proximate to said display device, wherein said information is provided through an interface between said display device and said vehicle computer operating said vehicle display; and

in a condition where said road sign affects a speed, the method proceeds in alerting a driver to adjust a speed of said vehicle in accordance with speed change associated with said road sign located within a vicinity of said display device."

2B. (Examiner's Position): As to **Claim 20**, lines 2-3, 5, 7 and 9, and **Claim 24**, "said display device" lacks antecedent basis.

2b(1). (Applicant's Remarks): Applicant has amended the language from Independent **Claim 20**, as introduced in each of new **Claims 36 and 37** by utilizing the term "said display device" throughout the claim (as shown by example of **Claim 36**) as follows:

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"A method for determining a current position of **a display device** and providing road sign information to said display device, the method comprising steps of:

determining said current position of **said display device** by utilizing a proximity of **said display device** to RF tags installed in known positions in a regional area, wherein said step of determining said current position is accomplished by at least one of:

a) utilizing a location reference of said RF tags when **said display device** receives a signal from a single RF tag,

b) utilizing signal strengths of said RF tags when **said display device** receives signals from multiple tags, and

c) utilizing a triangulation calculation when **said display device** receives signals from multiple tags;

obtaining and displaying road sign locations upon a local map collectively displayed upon one of **said display device**, a vehicle display, wherein said road sign locations are determined by said RF tag identifier of said RF tag located proximate to **said display device**, wherein said information is provided through an interface between **said display device** and said vehicle computer operating said vehicle display; and

in a condition where said road sign affects a speed, the method proceeds in alerting a driver to adjust a speed of said vehicle in accordance with speed change associated with said road sign located within a vicinity of **said display device**."

2b(2). (Applicant's Remarks): Applicant has amended Dependent **Claim 24**, originally depending from Independent **Claim 20**, to depend from Independent **Claim 19**.

Independent **Claim 19** introduces the element of "a display device" in the preamble as follows:

"A method for ~~navigation indoor and outdoor~~ determining a position of **a display device**

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within ~~in~~ a facility area and providing navigation thereto, wherein navigation is provided on **[[a]]** **said display device**, wherein **said display device** is selected from a group consisting of a portable display device, a mobile phone, a hand held navigation system, a car navigation system and a Bluetooth enabled device, the method comprising steps of:**"**

2C. (Examiner's Position): As to **Claim 20**, line 3, "said facility area" lacks antecedent basis.

2c(1). (Applicant's Remarks): Applicant has amended the language from Independent **Claim 20**, as introduced into new **Claim 36** by utilizing the term "regional area" in placed of "said facility area" as follows:

Regarding Claim 36:"determining said current position of said display device by utilizing a proximity of said display device to RF tags installed in known positions in a **regional area**, wherein said step of determining said current position is accomplished by at least one of:"

2c(2). (Applicant's Remarks): Applicant has amended the language from Independent **Claim 20**, as introduced into new **Claim 37** by utilizing the term "a facility area" in placed of "said facility area" as follows:

Regarding Claim 37:"determining a current position of said display device by utilizing a proximity of said display device to RF tags installed in known positions in **a facility area**, wherein said step of determining said current position is accomplished by at least one of:"

2D. (Examiner's Position): As to **Claim 20**, line 2 and 4, "said step" lacks antecedent basis.

2d. (Applicant's Remarks): Applicant has amended the language from Independent **Claim 20**, as introduced in each of new **Claims 36 and 37** by utilizing the term "said step" throughout the claim (as shown by example of **Claim 36**) as follows:

"**determining said current position** of said display device by utilizing a proximity of

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said display device to RF tags installed in known positions in a regional area, wherein **said step of determining said current position** is accomplished by at least one of:"

2E. (Examiner's Position): As to **Claim 24**, line 3, "said floor map" lacks antecedent basis.

2e. (Applicant's Remarks): Applicant has amended Dependent **Claim 24**, originally depending from Independent **Claim 20**, to depend from Independent **Claim 19**.

Independent **Claim 19** introduces the element of "**a mapping of a local floor plan**" in Line 10 as follows:

"b) downloading **a mapping of a local floor plan** associated with said facility area to said display device prior to arriving to said facility area,**"**

Applicant has amended Dependent **Claim 24**, revising the term "floor map" to be –local floor plan-- as follows:

"The method according to claim 20**,** further comprising a step of navigating between waypoints illustrated on said ~~**floor map**~~ **local floor plan** of said facility indoor mapping using said ~~mobile~~ application displaying said known waypoints, wherein at least one of said facility indoor mapping and said waypoints associated with RF tags that are in a proximity of said display device at said facility."

2F. (Examiner's Position): As to **Claim 24**, lines 3-5, "said facility indoor mapping" lacks antecedent basis.

2f. (Applicant's Remarks): Applicant has amended Dependent **Claim 24**, originally depending from Independent **Claim 20**, to depend from Independent **Claim 19**.

Applicant has amended Independent **Claim 19** to more clearly introduce the element of

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"**a facility indoor mapping**" in Line 10 as follows:

"b) downloading **a facility indoor mapping** of a local floor plan associated with said facility area to said display device prior to arriving to said facility area,**"**

Applicant earnestly believes the introduction of the term "a facility indoor mapping" provides proper antecedent basis for the term "said facility indoor mapping".

2G. (Examiner's Position): As to **Claim 24**, lines 3-4, "said mobile application" lacks antecedent basis.

2g. (Applicant's Remarks): Applicant has amended Dependent **Claim 24**, originally depending from Independent **Claim 20**, to depend from Independent **Claim 19**.

Applicant respectfully notes, Independent **Claim 19** includes the following:

"a) uploading **an application** onto said display device, wherein said application provides a mobile user with guidance and navigation about said local area, including said facility area,"

Applicant has amended Dependent **Claim 24** to maintain consistency with Independent **Claim 19** as follows:

"The method according to claim 20**,** further comprising a step of navigating between waypoints illustrated on said ~~floor map~~ local floor plan of said facility indoor mapping using **said ~~mobile~~ application** displaying said known waypoints, wherein at least one of said facility indoor mapping and said waypoints associated with RF tags that are in a proximity of said display device at said facility.**"**

Applicant earnestly believes the introduction of the term "a application" provides proper antecedent basis for the term "said application".

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3. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21 (2) of such treaty in the English language.

4. The Examiner rejected **Claims 20-23** under pre-AIA 35 U.S.C. 102(e) as being anticipated by Neugebauer (US 2006/0163349).

Neugebauer discloses a method to determine a location a mobile device, wherein said current location of said mobile device is determined by a proximity of said display device to RF tags installed in known positions in said facility area, wherein said step of determining said current position is accomplished by at least one of:

utilizing a location reference of said RF tags (100; paragraph 0122) when said display device (129; fig. 1) receives a signal from a single RF tag (100, paragraph 0110),

utilizing a signal strengths of said RF tags (100; paragraphs 0088, 0120 and 0134) when said display device (129; fig. 1) receives signals from multiple tags (100, paragraph 0110); and

utilizing a triangulation calculation (paragraphs 0112,0122 and 0126-0131) when said display device (129; fig. 1; claim 19) receives signals from multiple tags (100, paragraph 0110).

Neugebauer further discloses a step of delivering local based services content to said display device, wherein said local based services content includes content information that is associated with a location of said display device (129; fig. 2), the steps of availing and making use of an indoor local base services application on said display device, said indoor local based services application comprises at least one of: d) sales/specials - obtaining at least one of a

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discount, a sale, and a coupon, presenting said at least one of said discount, said sale, and said coupon and providing store aisle navigation upon said display device, wherein said store aisle navigation directs said user to a store aisle containing an items associated with said at least one of said discount, said sale, and said coupon (paragraphs 0031-0047, 0095 and 0158-0165), a step of displaying additional information associated with at least one waypoint, wherein said additional information includes at least one of a store, a department, a special sale, an event, and a coupon, wherein said information is updated in real time (fig. 3, 4 and 8).

4a. (Applicant's Remarks): Applicant has canceled Independent **Claim 20** herein. Therefore, Applicant earnestly believes the rejection of Independent **Claim 20** under pre-AIA 35 U.S.C. 102(e) as being anticipated by Neugebauer is no longer applicable.

4b. (Applicant's Remarks): Applicant has amended Dependent **Claims 21-23**, originally depending from Independent **Claim 20**, to depend from Independent **Claim 19**.

The Examiner has indicated that Independent **Claim 19** is allowable.

Therefore, Applicant earnestly believes **Claims 21-23** are in condition for allowance.

5. The following is a quotation of pre-AIA 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.

6. The Examiner rejected **Claims 25-33** under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Neugebauer.

It is conventional in the art to employ the claimed features of dependent **Claims 25-33** in

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a method to determine a location of a mobile device. It would be obvious to modify Neugebauer to employ these dependent claimed features in a method to determine a location of a mobile device because these are just obvious ways of implementing Neugebauer's method and no new or unexpected results would occur.

6a. (Applicant's Remarks): Applicant has amended Dependent **Claims 25-33**, originally depending from Independent **Claim 20**, to depend from Independent **Claim 19**.

The Examiner has indicated that Independent **Claim 19** is allowable.

Therefore, Applicant earnestly believes **Claims 25-33** are in condition for allowance.

Allowable Subject Matter

7. **Claim 19** is allowed.

7a. (Applicant's Gratitude): Applicant expresses his sincerest gratitude to the Examiner for indicating the allowance of Independent **Claim 19**. Applicant has amended Dependent **Claims 21-33** to depend from Independent Claim 19. Therefore, Applicant earnestly believes **Claims 21-33** are in condition for allowance.

8. **Claims 34-35** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8a. (Applicant's Gratitude): Applicant expresses his sincerest gratitude to the Examiner for indicating the allowable subject matter of Dependent **Claims 34-35**.

Applicant has combined the elements of Dependent **Claim 34** and base **Claim 20** as New **Claim 36**. The Examiner indicated that **Claim 34** would be allowable if combined with the base

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claim (Independent **Claim 20**) and all intervening claims (none). Applicant has additionally addressed all of the rejections of **Claim 20** under 35 U.S.C. 112 (pre-AIA) in New **Claim 36**. Therefore, Applicant earnestly believes New **Claim 36** is in condition for allowance.

Applicant has combined the elements of Dependent **Claim 35** and base **Claim 20** as New **Claim 37**. The Examiner indicated that **Claim 35** would be allowable if combined with the base claim (Independent **Claim 20**) and all intervening claims (none). Applicant has additionally addressed all of the rejections of **Claim 20** under 35 U.S.C. 112 (pre-AIA) in New **Claim 37**. Therefore, Applicant earnestly believes New **Claim 37** is in condition for allowance.

Conclusions

Request for Examiner's Interview: Although Applicant earnestly believes the response is clear and concise, Applicant respectfully requests an Examiner's Interview prior to Examination of the response to the subject office action.

Claims 19, 21-33, 36, and 37 remain pending in the application. Applicant has amended **Claims 19 and 21-33** herein. Applicant earnestly believes the rejections of **Claims 19-33** have been overcome by amendments and remarks submitted herein.

The Subject Non-Final Office Action was mailed on June 10, 2014, with a shortened THREE (3) MONTH statutory period. This submission of corrected claims and response to the subject Non-Final Office Action is being filed within the effective THREE (3) MONTH anniversary of Wednesday, September 10, 2014, whereby Applicant earnestly believes the response is considered to be timely submitted.

Twenty-One (21) total claims, including Three (3) Independent claims remain pending in this application. Applicant has previously paid for Twenty-Three (23) total claims, including Three (3) Independent claims. Therefore Applicant believes the amendment has not necessitated any additional claims fees.

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Applicant believes the response to the subject Non-Final Office Action is complete.

Applicant earnestly believes no new matter has been introduced by this amendment.

Applicant earnestly believes the Application is in condition for Allowance.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, a telephone call to the undersigned at (561) 716-3915 is respectfully solicited.

Respectfully submitted,
Allen D. Hertz
(Customer No. 31877)

By _____
Allen D. Hertz
Reg. No.50,942
Allen D Hertz, P.A.

Representative for the Applicant
12784 Tulipwood Circle
Boca Raton, FL 33428
Tel.: (561) 883-0115
Cell: (561) 716-3915

Attachments:
None

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Electronic Acknowledgement Receipt

EFS ID:	19277339
Application Number:	11429864
International Application Number:	
Confirmation Number:	4194
Title of Invention:	System and method navigating indoors and outdoors without GPS. utilizing a network of sensors
First Named Inventor/Applicant Name:	Ehud Mendelson
Customer Number:	31877
Filer:	Allen D. Hertz
Filer Authorized By:	
Attorney Docket Number:	MEN-06-001
Receipt Date:	11-JUN-2014
Filing Date:	08-MAY-2006
Time Stamp:	16:48:25
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		MEN-06-001_Mendelson_NAV4_NFOA_061014_Reply_061114.pdf	391617 c5b6284ecfe4a20b925154a7001ae2cbf89f7594	yes	22

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	2
	Claims	3	10
	Applicant Arguments/Remarks Made in an Amendment	11	22
Warnings:			
Information:			
	Total Files Size (in bytes):	391617	

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 (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 11/429,864	Filing Date 05/08/2006	☐ 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	06/11/2014	(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))	* 16	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 3	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
/VANESSA BARBER/

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.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	MEN-06-001	4194

31877 7590 06/10/2014

ALLEN D. HERTZ
ALLEN D HERTZ, P.A.
12784 TULIPWOOD CIRCLE
BOCA RATON, FL 33428

EXAMINER	
PHAN, DAO LINDA	

ART UNIT	PAPER NUMBER
3646	

MAIL DATE	DELIVERY MODE
06/10/2014	PAPER

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.

Office Action Summary	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD	
	Examiner Dao Phan	Art Unit 3646	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 *3/13/2014*.

☐ 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) *19-35* is/are pending in the application.

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

6)☒ Claim(s) *19* is/are allowed.

7)☒ Claim(s) *20-33* is/are rejected.

8)☒ Claim(s) *34 and 35* 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: _____.

1) Claim 20 is objected to because of the following informalities:

On line 7, "a signal strengths" appears to be incorrect. Appropriate correction is required.

2) Claims 20, 24 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

As to claim 20, line 2 and 4, "said current location" lacks antecedent basis.

As to claim 20, lines 2-3, 5, 7 and 9, and claim 24, "said display device" lacks antecedent basis.

As to claim 20, line 3, "said facility area" lacks antecedent basis.

As to claim 20, line 2 and 4, "said step" lacks antecedent basis.

As to claim 24, line 3, "said floor map" lacks antecedent basis.

As to claim 24, lines 3-5, "said facility indoor mapping" lacks antecedent basis.

As to claim 24, lines 3-4, "said mobile application" lacks antecedent basis.

3) The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4) Claims 20-23 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Neugebauer (US 2006/0163349).

Neugebauer discloses a method to determine a location a mobile device, wherein said current location of said mobile device is determined by a proximity of said display device to RF tags installed in known positions in said facility area, wherein said step of determining said current position is accomplished by at least one of:

utilizing a location reference of said RF tags (100; paragraph 0122) when said display device (129; fig. 1) receives a signal from a single RF tag (100, paragraph 0110),

utilizing a signal strengths of said RF tags (100; paragraphs 0088, 0120 and 0134) when said display device (129; fig. 1) receives signals from multiple tags (100, paragraph 0110); and

utilizing a triangulation calculation (paragraphs 0112, 0122 and 0126-0131) when said display device (129; fig. 1; claim 19) receives signals from multiple tags (100, paragraph 0110).

Neugebauer further discloses a step of delivering local based services content to said display device, wherein said local based services content includes content information that is associated with a location of said display device (129; fig. 2), the steps of availing and making use of an indoor local base services application on said display device, said indoor local based services application comprises at least one of:

d) sales/specials - obtaining at least one of a discount, a sale, and a coupon, presenting said at least one of said discount, said sale, and said coupon and providing

store aisle navigation upon said display device, wherein said store aisle navigation directs said user to a store aisle containing an items associated with said at least one of said discount, said sale, and said coupon (paragraphs 0031-0047, 0095 and 0158-0165), a step of displaying additional information associated with at least one waypoint, wherein said additional information includes at least one of a store, a department, a special sale, an event, and a coupon, wherein said information is updated in real time (fig. 3, 4 and 8).

5) The following is a quotation of pre-AIA 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.

6) Claims 25-33 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Neugebauer.

It is conventional in the art to employ the claimed features of dependent claims 25-33 in a method to determine a location of a mobile device. It would be obvious to modify Neugebauer to employ these dependent claimed features in a method to determine a location of a mobile device because these are just obvious ways of implementing Neugebauer's method and no new or unexpected results would occur.

7) Claim 19 is allowed.

8) Claims 34-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao Phan whose telephone number is (571)272-6976. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571)272-6878. 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.

/Dao Phan/
Primary Examiner, Art Unit 3646

Notice of References Cited	Application/Control No. 11/429,864	Applicant(s)/Patent Under Reexamination MENDELSON, EHUD	
	Examiner Dao Phan	Art Unit 3646	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2006/0163349	07-2006	Neugebauer, Charles F.	235/383
	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.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11429864	MENDELSON, EHUD
	Examiner	Art Unit
	Dao L Phan	3662

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
342	357.06, 357.12, 450, 457, 463-465	6/6/08	dp
455	456.6, 457		
701	213, 215		
342	357.21, 357.25, 450, 457, 463-465	6/5/14	dp
455	456.6, 457		
701	410, 412, 468		

SEARCH NOTES		
Search Notes	Date	Examiner
East text searched (See searched history printout)	6/6/08	dp
East text (See attached)	6/5/14	dp

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	9824	tag$2 and triangulat$4 and display$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/04 10:14
L2	3466	(display$3 same tag$2) and 1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/04 10:15
L3	2645	2 and (gps or (global adj position$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/04 10:17
L4	2072	((triangulat$4 with calculat$6) or (triangulat$4 with determin$6) or (triangulat$4 with comput$6)) and 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/04 10:24
L5	1653	4 and 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/04 10:24
L6	1196	(display$3 with (receive$3 or receiving)) and 5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/04 10:26
L7	420	((receive$3 or receiving) with tag$2) and 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/04 10:28
L8	776	6 not 7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/06/04 10:29

6/4/2014 10:31:45 AM
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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT2861518

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
EHUD MENDELSON	04/10/2014

RECEIVING PARTY DATA

Name:	GAMBA GROUP LIMITED
Street Address:	260 TRIQ SAN ALBERT
City:	GZIRA
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	11429864

CORRESPONDENCE DATA

Fax Number: (561)883-0115

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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ATTORNEY DOCKET NUMBER:	MEN-06-001
NAME OF SUBMITTER:	ALLEN D. HERTZ
SIGNATURE:	/allen d hertz/
DATE SIGNED:	05/19/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3
source=MEN-06-001_Mendelson_Assignment-Executed#page1.tif
source=MEN-06-001_Mendelson_Assignment-Executed#page2.tif
source=MEN-06-001_Mendelson_Assignment-Executed#page3.tif

ASSIGNMENT

WHEREAS, I:

(4) **Ehud Mendelson**,

residing, respectively, at:

(4) **11190 Heron Bay Blvd. Suite 916, Coral Springs, FL, 33076**,

have made an invention entitled: **System And Method Navigating Indoors And Outdoors Without GPS. Utilizing A Network Of Sensors**

and [ ] are about to make application for United States Letters Patent therefor, the same being executed by us on _____, 2014; and

[X] have made application for United States Letters Patent thereof, filed **May 08, 2006**, under **Serial No. 11/429,864**, currently pending; and

WHEREAS, **Gamba Group Limited**, an For Profit Corporation organized and existing under the laws of the country of **Malta** and having an office and place of business at **265 Triq San Alber, Gzira, Malta, GZR 1155**, is desirous of acquiring the entire interest in said invention, said United States patent application, and in any Letters Patent which may issue thereon;

NOW, THEREFORE, be it known that for and in consideration of my employment **Gamba Group Limited**, and other good and valuable consideration, I do hereby sell, assign, and transfer unto **Gamba Group Limited**, its successors, assigns, and legal representatives, all right, title, and interest in and to said invention and any improvements thereon for all countries of the world, and in and to said application, including any continuations and divisions thereof, and any substitute applications therefor, and any patent which may issue thereon, and any reissues of the same; and all right, title, and interest in and to every patent application filed on said invention in any other country, including renewals, revivals, continuations, and divisions thereof, and any substitute applications therefor, and any and all patents which may issue thereon, and any reissues and extensions of the same; and we hereby authorize and request competent authorities to grant and issue any and all patents on said invention to **Gamba Group Limited** as the assignee of the entire interest therein; and we further agree to execute upon request of the assignee such additional documents, if any, as are necessary and proper to secure patent protection on said invention throughout all countries of the world, and otherwise to give full effect to and perfect the rights of the assignee under this Assignment.

IN TESTIMONY WHEREOF, I have hereunto signed my name on the dates indicated hereinafter:

04/10/2014
Date

Ehud Mendelson

STATE OF Florida)
) ss.:
COUNTY OF Broward)

Before me a Notary Public for Said County, personally appeared Ehud Mendelson, to me known and known to me to be the person who executed the foregoing instrument and acknowledged it to be a free act and deed.

Witness my hand and seal April, 10th, 2014.

Notary Public

[Notary Seal]

My Commission expires:

Dec, 18, 2015

In The United States Patent and Trademark Office

Application No.	: 11/429,864	Confirmation No. 4194
Applicant	: Ehud Mendelson	
Title	: **System and method navigating indoors and outdoors without GPS. utilizing a network of sensors**	
Filed	: May 08, 2006	
TC/A.U.	: 3646	
Examiner	: Dao Linda Phan	Tel: (571) 272-6976
Docket No.	: MEN-06-001	
Customer No.	: 31877	

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

Reply to Notice of Non-Compliant Amendment dated February 27, 2014

Amendment Revised Under 37 C.F.R. § 1.121(b)

Sir:

Please enter the following Amendment into the file of the above-identified patent application, in response to the **Notice of Non-Compliant Amendment** dated February 27, 2014. The Examiner established a shortened statutory period of TWO (2) MONTHS. This amendment is being filed on or before Monday, April 28, 2014, the effective TWO (2) MONTH anniversary of the mailing date of the subject office action. Applicant earnestly believes the response is considered to be timely submitted.

Amendments to the Claims are reflected in the listing of claims, which begins on page 02 of this paper, with an amended version of the current claims beginning on page 03 of this paper.

Remarks/Arguments begin on page 13 of this paper.

Conclusions begin on page 22 of this paper.

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IN THE CLAIMS

Claims 1-18 were previously canceled.

Claims 19-35 are currently pending in the application.

Please amend **Claims 1-35** without prejudice in accordance with this correspondence.

No claims are added.

No claims are canceled.

No claims are withdrawn.

An amended version of the pending claims starts on page 04 in accordance with 37 CFR § 1.121(c)(3) as follows: The status of each Claim is indicated adjacent the Claim Number in accordance with the proper status identifiers: (Original), (Currently Amended), (Canceled), (Previously Presented), (New), (Not Entered), (Withdrawn), and (Withdrawn-Currently Amended) in accordance with 37 CFR § 1.121. Any changes to the claims are shown by strikethrough (for deleted matter) and underlining (for added matter, excluding New Claims).

Thereafter, starting on a separate page, (page 13), is the Remarks portion in accordance with 37 CFR § 1.111.

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-18 (Canceled):

Claim 19 (Currently Amended): A method for navigation indoor and outdoor in a facility area ~~like mall department store down town center building~~ ~~where there is no~~ ~~GPS signal~~, wherein navigation is provided on ~~at least one~~ a display device, wherein said display device is selected from ~~the~~ a group consisting of a portable display device ~~devices~~, a mobile phone, a hand held navigation system, a car navigation system and a Bluetooth enabled device, ~~The~~ the method ~~comprises the~~ comprising steps of:

[[a.]] a) ~~Loading~~ uploading an application onto said display device, wherein said application provides a mobile user with guidance and navigation about said local area, including said facility area,

b) downloading a mapping of a local floor plan associated with ~~a local map of the~~ said facility area ~~area/facility~~ to ~~the~~ said display device ~~said map application can be pre download Before~~ prior to arriving to ~~the~~ said facility area ~~as mobile application or download at location stand~~,

[[b.]] c) ~~Determine~~ determining a current position of said display device by a proximity of said display device to RF ~~Bluetooth or wifi~~ tags installed in [[a]] known positions ~~position~~ in ~~the~~ said facility area, ~~facility/area~~ wherein said RF tags emit at least one of a Bluetooth signal and a Wi-Fi signal, wherein said step of determining said current position is accomplished by at least one of: utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag and utilizing a ~~said~~

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triangulation calculation when said display device receives signals from multiple RF tags ~~may needed~~,

[[c.]] d) ~~Display~~ displaying a position marking representative ~~the~~ said position of said display device within said facility area on ~~the~~ a display device overlay ~~on~~ layered over ~~the~~ said facility area ~~facility/area~~ map,

[[d.]] e) ~~Navigate~~ navigating using said positions of said tags as displayed ~~between tags position~~ on ~~the~~ said facility area ~~facility/area~~ maps,

[[e.]] ~~provide the mobile user with special application to guide and navigate the local area,~~

[[f.]] g) ~~provide~~ displaying ~~the mobile user with~~ additional local based information ~~and contents~~ on said display device, wherein said additional local based information includes information associated with elements within a vicinity of said facility area.

Claim 20 (Currently Amended): [[a]] A method to determine a location of ~~the~~ a mobile device, wherein said current location of said mobile device is determined by a proximity of said display device to RF tags installed in known positions in said facility area, wherein said step of determining said current position is accomplished by at least one of:

utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag,

utilizing a signal strengths of said RF tags when said display device receives signals from multiple tags; and

utilizing a triangulation calculation when said display device receives signals from multiple tags.

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~~by being in a proximity to a known location of RF Bluetooth or wifi tags/beacons in the facility/area, said a list table of the known tags ID are provided, if multiply beacons signal received a triangulation calculation will determine accuracy.~~

Claim 21 (Currently Amended): The method according to claim [[1]] 20, ~~which further comprises~~ further comprising a step of delivering ~~delivery~~ local based services content to said display device, wherein said local based services content includes content information that is associated with a location of said display device. ~~content will deliver to say user by reference to said location and or according to user search or preference/profile~~.

Claim 22 (Currently Amended): The method according to claim [[1]] 20, further comprising steps of availing and making use of ~~which further provide user of a Bluetooth enable device with a special~~ an indoor local base services application on said display device, said ~~the~~ indoor local based services application comprises at least one of:

[[1.]] a) ~~Map~~ map and indoor guide and navigation ~~Navigation~~ - ~~the~~ obtaining a local area map and application ~~can be download at the directory stand or pre download from internet site prior to arriving~~,

[[2.]] b) ~~Directory~~ directory – obtaining at least one of a store/mall directory, ~~or~~ a local area directory, a store type, and store information as part of ~~the~~ said local mapping information ~~downloads~~ to ~~the~~ said display device ~~mobile phone said directory may include store type, store information~~,

[[3.]] c) ~~Search and Find~~ search and find- searching and locating at least one of a store, a place, an item, and a product, wherein said at least one of said store, said place, said item,

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and said product is associated with said at least one of said store/mall directory, said local area directory, said store type, and said store information ~~allow search and find store/place/item products that are on the said directory and search can be by facility/store/place/item name or by type~~,

[[4.]] d) ~~Sales~~ sales/specials - obtaining at least one of a discount, a sale, and a coupon, presenting said at least one of said discount, said sale, and said coupon and providing store aisle navigation upon said display device, wherein said store aisle navigation directs said user to a store aisle containing an items associated with said at least one of said discount, said sale, and said coupon, ~~discounts, sales, and coupons, deals or specials said allow mobile user to be directed to the aisle with the products/coupons,~~

[[5.]] e) ~~Parking~~ parking - determining available parking spaces in a vicinity of said display device and providing navigation to said user by displaying available parking spaces on said display device, wherein said parking spaces are associated with said location of said RF tag, ~~and return2parking allows the user to find parking spaces and location of parked cars,~~

f) return to parking - identifying a location of a parked car associated with said display device and providing navigation to return said user to said location of said parked car through a display on said display device, wherein a parking space containing said parked car is associated with said location of said RF tag,

[[6.]] g) ~~Info~~ info -provide information about events, restrooms, ATM location, seating area, Kids playground, fountain, public phones,

[[7.]] h) ~~Emergency~~ emergency - obtaining emergency information and emergency navigation associated with said facility area, and displaying said emergency information and emergency navigation associated with said facility area on said display device, wherein said emergency navigation is based upon at least one of said location of said display device and said location of said RF tag, and ~~ability to provide with a unique alarm~~

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~~and notification to the user without depending on other communication links like cellular or internet provides the user with the building/mall/store/place emergency procedure said in emergency event will help navigate the user to safety,~~

[[8.]] i) ~~Panic~~ panic - emitting a panic alert, wherein said panic alert requests. ~~part of nav4emergency allows the user to request being located in an emergency.~~

Claim 23 (Currently Amended): The method according to claim [[1]] 20, ~~which further comprises~~ further comprising a step of displaying additional information ~~of a~~ associated with at least one waypoint, wherein said additional information includes at least one of a store, a department, a special sale, an event, and a coupon, wherein said information is updated in real time. ~~waypoints object and real-time update e.g. store, department, special sale, event, coupons as a waypoint~~.

Claim 24 (Currently Amended): The method according to claim [[1]] 20**,** ~~which further comprises~~ further comprising a step of navigating between ~~way point and~~ waypoints illustrated on said floor map of ~~the~~ said facility indoor ~~said the~~ mapping ~~and the~~ using said mobile application ~~with the~~ displaying said known waypoints, wherein at least one of said facility indoor mapping and said waypoints associated with RF tags that ~~can be pre-download or download~~ are in a proximity of said display device at ~~the~~ said facility.

Claim 25 (Currently Amended): The method according to claim [[1]] 20, ~~which further comprises~~ further comprising a step of ~~performing the~~ determining a location of said display device ~~step~~ indoor without ~~the~~ aid of a global positioning satellite (GPS) system~~, said no bandwidth or internet required~~.

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Claim 26 (Currently Amended): The method according to claim [[1]] 20, ~~which further comprises~~ further comprising a step of providing ~~the~~ said display device~~/cellular mobile device~~ with application software for navigating ~~on~~ using a display including at least one of a ~~pre-loaded~~ area map[[s]] ~~or~~ and a facility floor plan[[s]].

Claim 27 (Currently Amended): The method according to claim [[1]] 20, ~~which further comprises~~ further comprising a step of providing navigation to a pedestrian within an environment within ~~navigate and update waypoint in the type of the~~ a facility selected from ~~the~~ a facility group consisting ~~but not limit~~ of: ~~navigating a pedestrian in an environment like~~ a mall, a department store, a specialty store, a conference, a trade show, an amusement park, a stadium, an arena, a sporting event ~~sport events~~, a university, a hospital, a school, a municipal building, a museum, a subway, a train station, an airport, a down town center, a cruise ship, a financial banking location, ~~any type of~~ a parking facility ~~or~~ and a covered structure ~~any place when and where GPS cannot be provided or is not accurate or precise enough~~.

Claim 28 (Currently Amended): The method according to claim [[1]] 20, further comprising at least one of:

a step of determining available empty parking spaces in a vicinity of said display device and providing navigation to said user by displaying available parking spaces on said display device, wherein said parking spaces are associated with said location of said RF tag, and

steps of identifying a location of a parked car associated with said display device by associating a parking space containing said parked car with one RF tag and navigating said user to said parking space containing said parked car by referencing said RF tag associated with said parking space containing said parked car one through a display on said display device, thus

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providing a return to parking feature.

~~which further comprises navigate in a Special operation mode: Parking NAVPARKING, provides navigating to available empty parking spaces in the user location area and navigating to the parking car when return (Return To Parking).~~

Claim 29 (Currently Amended): The method according to claim [[13]] 20, further comprising a step of providing an indoor guide and navigation within one of: a museum, within a show, a conference, and an exhibition, wherein guide and navigation information is determined by an RF tag identifier of said RF tag located proximate to a location of said display device, wherein said guide and navigation is provided to said user by at least one of audio, video, and content information using said display device.

~~which further comprises special application to to navigate Special operating mode: Museums NAV4Museums, NAVSHOW, Navconference provides indoor navigation in the museum's the show or conference exhibition to the "user's" navigation and or cellular phone device on the area/facility map said the user can receive audio and video information and there is no need to have a rental headset or additional information.~~

Claim 30 (Currently Amended): The method according to claim [[1]] 20, further comprising a step of providing a local guide and navigation specifically associated with real estate, identifying local property that is available for at least one of sale, lease, and rent, wherein said real estate information is determined based upon said location of at least one of said display device and said location of said RF tag. ~~which further comprises special application to navigate Special operating mode: REALESTAE NAVREALTY, provides local navigation for the available real estate property for sale/lease/rent and navigation to the property according to the user location.~~

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Claim 31 (Currently Amended): The method according to claim [[1]] 20, further comprising steps of providing guidance and navigation associated with an amusement park having waypoints identifying specific points of interest within said amusement park, and

displaying information associated with said amusement park including at least one of a schedule of show, wait times for a show, time to said show, a restroom location, a food service area and a process for reducing a wait time for access to a show or attraction.

~~which further comprises special application to navigate Special operating mode: Special operating mode: Amusement park, NAV4disney provides exhibit and attractions waypoints and interactive information from amusements park exhibition to the "user's" navigation and or cellular phone device via Bluetooth interface. Said navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability, time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid in the amusement park, And provide a remote fast pass generation to eliminate lines.~~

Claim 32 (Currently Amended): The method according to claim [[1]] 20, further comprising a step of providing navigation for an emergency exit route utilizing a location of at least one of said display device and said location of said proximate RF tag within said facility area to determine said emergency exit route and providing updated guidance for directing a user to safely exit said facility area. ~~which further comprises special application to navigate Special operating mode: NAVEMERGENCY emergency alarming and notification navigation, which comprises a navigation for the emergency exit route when and where needed said each user can load the emergency procedure and exit floor plan and escape with the knowledge of the exact location In that route, Aspects of the scenarios may be included: Identifies and tracks the user (or a first response team member) Provides the user with notification and alarming of emergency situation~~

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~~and navigation information and directions for safely exiting of the building said the notification alarming and update can be done by FM-RDS or Bluetooth broadcast to the user display device or cell phone pinpoint directly to the area/facility.~~

Claim 33 (Currently Amended): The method according to claim [[1]] 20, further comprising steps of:

providing a display device with a current location of at least one of:-a train, a bus, and a subway train on a route directly to said display device, wherein said current location of at least one of said train, said bus, and said subway train is displayed upon a train/subway/underground map,

presenting the display device location in said route, and

presenting additional information including at least one of a schedule, a restroom location, a food serving location, and an emergency route, wherein said additional information is determined by said RF tag identifier of said RF tag located proximate to said display device.

~~which further comprises special application in train/bus stations to navigate Special operating mode: NAV4Train, provides The user with ability to know the exact location of the train, bus or subway_train on a route directly to his Cell phone and or Bluetooth device, which comprises the train/subway/underground map will be the background navigation and will show the user his location in the train/subway route, and additional information that he may need like schedule, restroom, food, emergency.~~

Claim 34 (Currently Amended): The method according to claim [[1]] 20, further comprising a step of obtaining and displaying road sign locations upon a local map collectively displayed upon one of said display device, a vehicle display, wherein said road sign locations are determined by said RF tag identifier of said RF tag located proximate to said display device,

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wherein said information is provided through an interface between said display device and said vehicle computer operating said vehicle display, and

in a condition where said road sign affects a speed, the method proceeds with a step of alerting a driver to adjust a speed of said vehicle in accordance with speed change associated with said road sign located within a vicinity of said display device.

~~which further comprises special application providing the road sign to be display on the user navigation separate device and or cellular phone as a way for safer driving, the information can interface to the car computer and or car navigation to alert the driver to slow down or adjust the car speed when enter school or according to speed zone NAVS\GN said the road and speed sign location are add-on to the GPS mapping.~~

Claim 35 (Currently Amended): A business model method according to claim [[1]] 20, ~~which further comprises~~ further comprising steps of

[[a)]] f) ~~Provide~~ providing a local business ~~a way to store or facility~~ with information about customer behavior habit without compromising user ID or privacy,

[[b)]] g) ~~Provides~~ providing a location based service (LBS) application and information content ~~contents~~ based on at least one of said location of said user as determined by at least one of said location of said display device and said location associated with said RF tag identifier, ~~user location~~ and ~~his~~ a behavior habit obtained from said display device, and a profile ~~key preference/profile provide~~ provided by ~~the~~ data obtained from said display device, wherein said LBS and information content comprises at least one of: ~~user said service can be but not limit of~~ a special, a sale ~~sales~~, and a promotion events coupon ~~coupons~~,

[[c)]] h) designating a business ~~Business designated~~ as a ~~way point~~ waypoint and presenting advertisements associated with the business on the display device ~~will pay~~

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~~additional fee or pay for the infrastructure and displaying additional waypoint information and advertising on the user navigation and or Cell Phone~~.

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REMARKS

Claims 3-23 were previously canceled.

Claims 1, 2, and 24-42 remain pending in the application.

Claims 1, 2, and 24-42 have been amended without prejudice in this correspondence.

No claims are added herein.

No claims are canceled herein.

No claims are withdrawn herein.

DETAILED ACTION

1. Applicant received a Notice of Non-Compliant Amendment dated January 28, 2014. Applicant was given a TWO (2) MONTH period to resolve the shortcomings of the Amendment submitted on October 23, 2013. Applicant is submitting this response on or before the TWO (2) MONTH anniversary of the January 28, 2014 mailing date of the Notice of Non-Compliant Amendment. Therefore, Applicant earnestly believes the response is timely submitted.

2. The Notice of Non-Compliant Amendment indicated that:

a) A complete listing of the claims was not present,

b) Each claim has not been provided with a proper status identifier, and

c) the text of the claims being currently amended is not presented with markings to show changes relative to the immediate prior version.

2a. Applicant earnestly believes the above submitted amended claims properly present a complete listing of **Claims 1-35**, wherein each claim is identified with a proper status identifier.

2b. Applicant earnestly believes the above submitted amended claims properly present the text of **Claims 19-35** with proper markings showing the changes relative to the immediate prior

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version.

3. Applicant respectfully notes, additional amendments have been submitted herein to correct grammatical issues, antecedent basis and correct or improve other non substantive issues.

Applicant earnestly believes the amendments submitted herein do not introduce any new matter.

4. The Examiner objected to Claim 18 because of the following informalities:

On line 2, "down town" should be --downtown--.

On line 5, "a display devices" appears to be incorrect.

Appropriate correction is required.

5. The Examiner rejected **Claims 19-35** under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

5A(1). (Examiner's Position): As to **Claim 19**, line 10, "said map application" lacks antecedent basis.

5a(1). (Applicant's Remarks): **Claim 19** is an Independent claim.

Applicant has amended Independent **Claim 19** as follows:

"b) downloading a digital image of a local floor plan associated with a~~local map of the~~ said facility area ~~area/facility~~ to ~~the~~ said display device **~~said map application~~** ~~can be pre download Before~~ prior to arriving to ~~the~~ said facility area ~~as mobile application or download at location stand~~,"

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Applicant respectfully directs the Examiner to summary section 5a(7).

5A(2). (Examiner's Position): As to **Claim 19**, line 14, "Determine current location" is indefinite. It's unclear as Determine current location of what.

5a(2). (Applicant's Remarks): **Claim 19** is an Independent claim.

Applicant respectfully understands the rejection is directed towards "Determine current position".

Applicant has amended Independent **Claim 19** as follows:

"[[b.]] c) ~~**Determine**~~ **determining a current position of said display device** by a proximity of said display device to RF ~~Bluetooth or wifi~~ tags installed in [[a]] known positions ~~position~~ in ~~the~~ said facility area ~~facility/area~~ , wherein said step of determining said current position is accomplished by at least one of: utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag and utilizing a ~~said~~ triangulation calculation when said display device receives signals from multiple tags ~~may needed~~,"

Applicant respectfully directs the Examiner to summary section 5a(7).

5A(3). (Examiner's Position): As to **Claim 19**, lines 16-17, "said triangulation calculation" lacks antecedent basis.

5a(3). (Applicant's Remarks): **Claim 19** is an Independent claim.

Applicant has amended Independent **Claim 19** as follows:

"[[b.]] c) ~~Determine~~ determining a current position of said display device by a proximity

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of said display device to RF ~~Bluetooth or wifi~~ tags installed in [[a]] known positions ~~position~~ in ~~the~~ said facility area ~~facility/area~~ , wherein said step of determining said current position is accomplished by at least one of: utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag and **utilizing a ~~said~~ triangulation calculation when said display device receives signals from multiple RF tags** ~~may needed~~,"

Applicant respectfully directs the Examiner to summary section 5a(7).

5A(4). (Examiner's Position): As to **Claim 19**, line 18, "Display the position" is indefinite. It's unclear as Display the position of what.

5a(4). (Applicant's Remarks): **Claim 19** is an Independent claim.

Applicant has amended Independent **Claim 19** as follows:

"[[c.]] d) ~~**Display**~~ **displaying a position marking representative** ~~**the**~~ **said position of said display device within said facility area** on ~~the~~ a display device overlay ~~on~~ layered over ~~the~~ said facility area ~~facility/area~~ map,"

Applicant respectfully directs the Examiner to summary section 5a(7).

5A(5). (Examiner's Position): As to **Claim 19**, lines 22 and 25, "the mobile user" lacks antecedent basis.

5a(5). (Applicant's Remarks): **Claim 19** is an Independent claim.

Applicant has amended Independent **Claim 19** as follows:

"[[e.]] ~~provide **the mobile user** with special application to guide and navigate the local area,~~"

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Applicant respectfully directs the Examiner to summary section 5a(7).

5A(6). (Examiner's Position): As to **Claim 19**, lines 25-26, "additional local based information and contents" is unclear. It's unclear as what the additional local based information and contents are.

5a(6). (Applicant's Remarks): **Claim 19** is an Independent claim.

Applicant has amended Independent **Claim 19** as follows:

"[[f.]] g) ~~provide~~ **displaying ~~the mobile user with~~ additional local based information ~~and contents~~ on said display device, wherein said additional local based information includes information associated with elements within a vicinity of said facility area**."

Applicant respectfully directs the Examiner to summary section 5a(7).

5a(7). (Applicant's Summary): Applicant earnestly believes the rejection of Independent **Claim 19** under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which, for pre-AIA, the applicant regards as the invention has been overcome by amendments submitted herein. Applicant respectfully requests the Examiner reconsider and withdraw the rejection of Independent **Claim 19** under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which, for pre-AIA, the applicant regards as the invention.

5B(1). (Examiner's Position): As to **Claim 20**, line 4, "said a list table of the known tags ID" lacks antecedent basis.

5b(1). (Applicant's Remarks): **Claim 20** is an Independent claim.

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Applicant has amended Independent **Claim 20** as follows:

"[[a]] A method to determine a location of ~~the~~ a mobile device, wherein said current location of said mobile device is determined by a proximity of said display device to RF tags installed in known positions in said facility area, wherein said step of determining said current position is accomplished by at least one of:

utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag,

utilizing a signal strengths of said RF tags when said display device receives signals from multiple tags; and

utilizing a triangulation calculation when said display device receives signals from multiple tags.

~~by being in a proximity to a known location of RF Bluetooth or wifi tags/beacons in the facility/area, said a **list table of the known tags ID** are provided, if multiply beacons signal received a triangulation calculation will determine accuracy.~~"

Applicant respectfully directs the Examiner to summary section 5b(3).

5B(2). (Examiner's Position): As to **Claim 20**, lines 5-7, "if multiply beacons signal received a triangulation calculation will determine accuracy" is unclear.

5b(2). (Applicant's Remarks): **Claim 20** is an Independent claim.

Applicant has amended Independent **Claim 20** as follows:

"[[a]] A method to determine a location of ~~the~~ a mobile device, wherein said current location of said mobile device is determined by a proximity of said display device to RF tags installed in known positions in said facility area, wherein said step of determining said current position is

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accomplished by at least one of:

utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag,

utilizing a signal strengths of said RF tags when said display device receives signals from multiple tags; and

utilizing a triangulation calculation when said display device receives signals from multiple tags.

~~by being in a proximity to a known location of RF Bluetooth or wifi tags/beacons in the facility/area, said a list table of the known tags ID are provided, **if multiply beacons signal received a triangulation calculation will determine accuracy**~~."

Applicant respectfully directs the Examiner to summary section 5b(3).

5b(3). (Applicant's Summary): Applicant earnestly believes the rejection of Independent **Claim 20** under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which, for pre-AIA, the applicant regards as the invention has been overcome by amendments submitted herein. Applicant respectfully requests the Examiner reconsider and withdraw the rejection of Independent **Claim 20** under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which, for pre-AIA, the applicant regards as the invention.

5C. (Examiner's Position): Claim 20 is indefinite because it's not a method claim. There are no steps of carrying out the method.

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5c. (Applicant's Remarks): Applicant has amended Independent **Claim 20** as follows:

"[[a]] A method to determine a location of ~~the~~ a mobile device, wherein said current location of said mobile device is determined by a proximity of said display device to RF tags installed in known positions in said facility area, wherein said step of determining said current position is accomplished by at least one of:

utilizing a location reference of said RF tags when said display device receives a signal from a single RF tag,

utilizing a signal strengths of said RF tags when said display device receives signals from multiple tags; and

utilizing a triangulation calculation when said display device receives signals from multiple tags.

~~by being in a proximity to a known location of RF Bluetooth or wifi tags/beacons in the facility/area, said a list table of the known tags ID are provided, if multiply beacons signal received a triangulation calculation will determine accuracy.~~**"**

Applicant earnestly believes the rejection of Independent **Claim 20** under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which, for pre-AIA, the applicant regards as the invention has been overcome by amendments submitted herein. Applicant respectfully requests the Examiner reconsider and withdraw the rejection of Independent **Claim 20** under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which, for pre-AIA, the applicant regards as the invention.

5D. (Examiner's Position): Claims 21-35 are improper dependent claims because they depend on the cancelled claims.

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5d. (Applicant's Remarks): Dependent **Claims 21-28 and 30-35** originally depended from Independent **Claim 1**, which had been canceled.

Applicant has amended Dependent **Claims 21-28 and 30-35** as follows:

"The method according to claim **[[1]]** 20,"

Dependent **Claim 29** originally depended from Dependent **Claim 13**, which had been canceled.

Applicant has amended Dependent **Claim 29** as follows:

"The method according to claim **[[13]]** 20,"

Applicant earnestly believes the rejection of Dependent **Claims 21-35** under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which, for pre-AIA, the applicant regards as the invention has been overcome by amendments submitted herein. Applicant respectfully requests the Examiner reconsider and withdraw the rejection of Dependent **Claims 21-35** under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which, for pre-AIA, the applicant regards as the invention.

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Conclusions

Request for Examiner's Interview: Although Applicant earnestly believes the response is clear and concise, Applicant respectfully requests an Examiner's Interview prior to Examination of the response to the subject office action.

Claims 19-35 remain pending in the application. Applicant has amended **Claims 19-35** herein. Applicant earnestly believes the rejections of **Claims 18-35** have been overcome by amendments and remarks submitted herein.

The Subject Notice of Non-Compliant Amendment was mailed on February 27, 2014, with a shortened TWO (2) MONTH statutory period. This submission of corrected claims and response to the subject Notice of Non-Compliant Amendment is being filed within the effective TWO (2) MONTH anniversary of Monday, April 28, 2014, whereby Applicant earnestly believes the response is considered to be timely submitted.

Twenty-One (21) total claims, including Two (2) Independent claims remain pending in this application. Applicant has previously paid for Twenty-Three (23) total claims, including Three (3) Independent claims. Therefore Applicant believes the amendment has not necessitated an additional claims fees.

Applicant believes the response to the subject Notice of Non-Compliant Amendment is complete.

Applicant earnestly believes no new matter has been introduced by this amendment.

Applicant earnestly believes the Application is in condition for Allowance.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, a telephone call to the undersigned at (561) 716-3915 is respectfully solicited.

Google Ex. 1022, p. 197

Respectfully submitted,
Allen D. Hertz
(Customer No. 31877)

By _____
Allen D. Hertz
Reg. No.50,942
Allen D Hertz, P.A.

Representative for the Applicant
12784 Tulipwood Circle
Boca Raton, FL 33428
Tel.: (561) 883-0115
Cell: (561) 716-3915

Attachments:
None

Google Ex. 1022, p. 198

Electronic Acknowledgement Receipt

EFS ID:	18466789
Application Number:	11429864
International Application Number:	
Confirmation Number:	4194
Title of Invention:	System and method navigating indoors and outdoors without GPS. utilizing a network of sensors
First Named Inventor/Applicant Name:	Ehud Mendelson
Customer Number:	31877
Filer:	Allen D. Hertz
Filer Authorized By:	
Attorney Docket Number:	MEN-06-001
Receipt Date:	13-MAR-2014
Filing Date:	08-MAY-2006
Time Stamp:	18:13:45
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		MEN-06-001_Mendelson_NAV4_NonCompliant_022714_Reply_031314.pdf	207108 657726e3ff4ac10c76310852bfd828cb94fb3825	yes	24

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	2
	Claims	3	13
	Applicant Arguments/Remarks Made in an Amendment	14	24
Warnings:			
Information:			
	Total Files Size (in bytes):	207108	

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 (09-11)
Approved for use through 1/31/2014. 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 11/429,864	Filing Date 05/08/2006	☒ 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	03/13/2014	(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))	* 17	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
/Katrina Harling/

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

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.
11/429,864	05/08/2006	Ehud Mendelson	MEN-06-001	4194

31877 7590 02/27/2014

ALLEN D. HERTZ
ALLEN D HERTZ, P.A.
12784 TULIPWOOD CIRCLE
BOCA RATON, FL 33428

EXAMINER	
PHAN, DAO LINDA	

ART UNIT	PAPER NUMBER
3646	

MAIL DATE	DELIVERY MODE
02/27/2014	PAPER

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 Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD
	Examiner Dao Phan	Art Unit 3646

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

The amendment document filed on *29 November 2013* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☐ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other _____.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☒ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☒ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *the text of the claims being currently amended must be presented with markings to show changes relative to immediate prior version.*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):

_____

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.
2. Applicant is given **two months** from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

   Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

   Failure to timely respond to this notice will result in:
   Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
   Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

/Dao Phan/ Primary Examiner, Art Unit 3646	

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
11/429,864	05/08/2006	Ehud Mendelson	MEN-06-001

CONFIRMATION NO. 4194

POA ACCEPTANCE LETTER

31877
ALLEN D. HERTZ
ALLEN D HERTZ, P.A.
12784 TULIPWOOD CIRCLE
BOCA RATON, FL 33428

OC00000066661670

Date Mailed: 02/24/2014

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 02/13/2014.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/nhassani/

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

Google Ex. 1022, p. 205

PTO/SB/81 (01-09)
Approved for use through 11/30/2011. OMB 0651-0035
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.

POWER OF ATTORNEY OR REVOCATION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS

Application Number	11/429,864
Filing Date	05-08-2006
First Named Inventor	Ehud Mendelson
Title	System and method navigating indoors ...
Art Unit	3646
Examiner Name	PHAN, DAO LINDA
Attorney Docket Number	MEN-06-001

I hereby revoke all previous powers of attorney given in the above-identified application.

☒ A Power of Attorney is submitted herewith.

OR

☐ I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

31877

OR

☐ I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified application to:

☒ The address associated with the above-mentioned Customer Number.

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the:

☒ Applicant/Inventor.

OR

☐ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on _____

SIGNATURE of Applicant or Assignee of Record

Signature		Date	January 17, 2014
Name	Ehud Mendelson	Telephone	954-257-4319
Title and Company	Inventor		

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. 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 3 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 Acknowledgement Receipt

EFS ID:	18195496
Application Number:	11429864
International Application Number:	
Confirmation Number:	4194
Title of Invention:	System and method navigating indoors and outdoors without GPS. utilizing a network of sensors
First Named Inventor/Applicant Name:	Ehud Mendelson
Customer Number:	61887
Filer:	Allen D. Hertz
Filer Authorized By:	
Attorney Docket Number:	NAV4
Receipt Date:	13-FEB-2014
Filing Date:	08-MAY-2006
Time Stamp:	11:33:03
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	Power of Attorney	MEN-06-001_11429864_4194_Mendelson_POA_Executed.pdf	913270 bcb7ee67f6fc7cf2b3cf136f7ef842ef0a774636	no	1

Warnings:	
Information:	

Total Files Size (in bytes):	913270

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.

OPAP AKIMA-16
NOV 29 2013
PATENT & TRADEMARK OFFICE

12-2-13

IFW

In The United States Patent Trademark Office

Application No.: 11/429,864 Confirmation No. 4194
Applicant : Ehud Mendelson
Filed : May 8,2006
Examiner : Phan,Dao Linda
Docket No. : NAV4 Art Unit: 3662
Customer No. : 000061887

"Express Mail" mailing label number : EI 425731293 US
Date of Deposit Nov 29, 2013

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

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

REPLY TO NON – COMPLIAN AMENDMENT DATED AUG 29 , 2013

Madam:

In response to the notice of non-compliant amendment dated Aug 29, 2013. The Examiner established a shortened statutory period for a response to the prior non compliant letter of (1) Months. Ended at Sep 29, 2013 This Amendment is being submitted in or before 2 month extensions of time (2) MONTHS anniversary of Sep 29, 2013, therefor an extension of time under 37 CFR 1.136(a) IS REQUESTED, a fee of $300 is attached.

Applicant provide the **complete** list of the claims pending in the application for the listed of **all claims**, include the proper status according to the applicant recent communications to the patent office , **the applicant ask to amendment the claims** and **he provide his signature as needed.**

12/02/2013 HVUONG1 00000002 11429864
01 FC:2252 300.00 OP

Amendments to the Claims are reflected in the listing of claims, which begins on page 04 of this paper.

It must be notice that the **applicant amended the claim listed** as requested.

Therefore applicant submits that patentable subject matter is clearly present, if the examiner agrees but does not feel that the present claims are technically adequate, applicant respectfully requests that the examiner write acceptable claims pursuant to MPEP 707.07(j).

Very Respectfully,submitted,
Ehud Mendelson
Applicant Pro Se

Address all correspondence and telephone calls to:

Ehud Mendelson
Patent office customer number:000061887
Gamba Group
11190 Heron bay blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:Ehud1@myacc.net

Attached: markup amended amend claim

Copy of office letter Aug 29, 2013

Check for the amount of $300 cover the requested 2 month ext.

Google Ex. 1022, p. 210

Amendments to the Claims are reflected in the listing of claims, which begins on page 4 of this paper.

IN THE CLAIMS

Claims 19-35 are currently amended

Please **amend Claims 19-35** in this amendment.

No claims were withdrawn in this amendment.

1. An amended version of the pending claims starts on page 3 in accordance with 37 CFR § 1.121(c)(3) as follows: The status of each Claim is indicated adjacent the Claim Number in accordance with the proper status identifiers: (Original), (Currently Amended), (Canceled), (Previously presented), (New), (Not Entered), (Withdrawn), and (Withdrawn-currently amended) in accordance with 37 CFR § 1.121. Any changes to the claims are shown by strikethrough (for deleted matter) and underlining (for added matter, excluding New Claims).

Please amend the claim.

Google Ex. 1022, p. 211

Claim Listing:

This listing of claims will replace all prior versions, and listings, of claims in the application please amended them:

Claim Amendments

Claim 19(Currently Amended)

A method for navigation indoor and outdoor in facility area like mall department store down town center building or any indoor facilities on at least one display device selected from the group consisting of a display devices, a mobile cell phone, hand held navigation system, tablet computer, car navigation system and a Bluetooth enabled device, The method comprises the steps of:

a. Loading local map of the area/facility to the display device said local map ~~application~~ can be pre download Before arriving to the area as mobile application or trigger download at location information stand,

b. Determine display device current position by proximity to RF Bluetooth or wifi ~~tags~~ beacons signals installed in a known position in the area/facility said for better accuracy a triangulation calculation may needed,

c. Display the display device current position ~~on the display device~~ overlay on the

Google Ex. 1022, p. 212

facility/area floor map said display current position floor map in a multi floor facility/area,

d. Navigate between tags position on the area/facility maps,

e. provide the display device ~~mobile user~~ with special application to guide and navigate the local area,

f. provide the display device ~~mobile user~~ with ~~additional~~ local based information contents related to his ~~location local based~~ location ~~information and contents~~.

Claim 20(Currently Amended)

The local mapping in claim 19, where is the area/~~building~~ facility first floor mapping will be ~~shown~~ default display when zooming on the ~~outdoor~~ area/facility map~~ping~~, said the floor in which the display ~~mobile user~~ device located will be shown in circle overly the floor map.

Google Ex. 1022, p. 213

Claim 21 (Currently Amended)

The method according to claim 19, which further comprises delivery local based services content said content will deliver to say user by reference to said location and or according to user search or preference/profile.

Claim 22 (Currently Amended)

The method according to claim 19, which further provide user of a display device/ mobile cellphone Bluetooth enable device with a special indoor local base services application said the application may include but not limited of the following elements:

1. Map and indoor guide and Navigation - the local area map and application can be triggered to download at the directory stand or pre download from internet site prior to arriving, said map and

Google Ex. 1022, p. 214

indoor guide and navigation are display device/mobile cell phone application,

2. Directory - store/mall or local area directory as part of the local mapping downloads to the mobile phone said directory may include store type, store information,

3. Search and Find - allow search and find store/place/item products that are on the said directory and search can be by facility/store/place/item name or by type,

4.Sales/specials - discounts, sales, and coupons, deals or specials said allow mobile user to be directed to the aisle with the products/coupons,

5. Parking and return2parking allows the user to find parking spaces and location of parked cars,

6. Info -provide information about events, restrooms, ATM location, seating area, Kids playground, fountain, public phones,

7. Emergency -ability to provide with a unique alarm and notification to the user without depending on other communication links like

Google Ex. 1022, p. 215

cellular or internet provides the user with the building/mall/store/place emergency procedure said in emergency event will help navigate the user to safety,

8. Panic- part of nav4emergency allows the user to request being located in an emergency.

Claim 23(Currently Amended)

The method according to claim 19, which further comprises displaying additional information of a waypoints object and real-time update e.g. store, department, special sale, event, coupons as a waypoint.

Claim 24(Currently Amended)

The method according to claim **19**, which further comprises navigating between way point and floor map of the facility indoor said the mapping and the mobile application with the known waypoints can be pre download or download at the facility.

Google Ex. 1022, p. 216

Claim 25(Currently Amended)

The method according to claim 19, which further comprises performing the determining step indoor without the aid of a global positioning satellite system, said no bandwidth or internet required.

Claim 26(Currently Amended)

The method according to claim 19, which further comprises providing the display device/cellular mobile device with application software for navigating on_pre-loaded area maps or facility floor plans.

Claim 27(Currently Amended)

The method according to claim 19, which further comprises navigate and update waypoint in the type of the facility selected from the group consisting but not limit of: navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, stadium, arena, sport events, university, hospital, school, municipal building, museum,

Google Ex. 1022, p. 217

subway, Cruise ships, train station, airport, down town center, cruise ship and any type of parking facility or any place when and where GPS cannot be provided or is not accurate or precise enough.

Claim 28(Currently Amended)

The method according to claim 19, which further comprises navigate in a Special operation mode:--Parking--NAVPARKING, provides navigating to available empty parking spaces in the user location area and navigating to the parking car when return (Return To Parking).

Claim 29(Currently Amended)

The method according to claim 19, which further comprises special application to to navigate Special operating mode:--Museums--NAV4Museums, NAVSHOW, Navconference provides indoor navigation in the museum's the show or conference exhibition to the "user's" navigation and or cellular phone device on the area/facility map said the user can receive audio and video information and there is no need to have a rental headset or additional information.

Google Ex. 1022, p. 218

Claim 30(Currently Amended)

The method according to claim 19, which further comprises special application to navigate Special operating mode:--REALESTAE NAVREALTY, provides local navigation for the available real estate property for sale/lease/rent and navigation to the property according to the user location.

Claim 31(Currently Amended)

The method according to claim 19, which further comprises special application to navigate Special operating mode:--Special operating mode:--Amusement park, NAV4disney provides exhibit and attractions waypoints and interactive information from amusements park exhibition to the "user's" navigation and or cellular phone device via Bluetooth interface. Said navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability , time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the

Google Ex. 1022, p. 219

user/kid in the amusement park, And provide a remote fast pass generation to eliminate lines.

Claim 32(Currently Amended)

The method according to claim 19, which further comprises special application to navigate Special operating mode:--NAVEMERGENCY emergency alarming and notification —navigation, which comprises a navigation for the emergency exit route when and where needed said each user can load the emergency procedure and exit floor plan and escape with the knowledge of the exact location in that route, Aspects of the scenarios may be included: Identifies and tracks the user (or a first response team member) Provides the user with notification and alarming of emergency situation and navigation information and directions for safely exiting of the building said the notification alarming and update can be done by FM-RDS or Bluetooth broadcast to the user display device or cell phone pinpoint directly to the area/facility.

Google Ex. 1022, p. 220

Claim 33(Currently Amended)

The method according to claim 19, which further comprises special application in train/bus stations to navigate Special operating mode: NAV4Train, provides The user with ability to know the exact location of the train, bus or subway_train—on a route directly to his Cell phone and or Bluetooth device, which comprises the train/subway/underground map will be the background navigation and will show the user his location in the train/subway route, and additional information that he may need like schedule, restroom, food, emergency.

Claim 34(Currently Amended)

The method according to claim 19, which further comprises special application providing the road sign to be display on the user navigation separate device and or cellular phone as a way for safer driving, the information can interface to the car computer and or car navigation to alert the driver to slow down or adjust the car speed when enter school or according to speed zone—NAVSIGN said the road and speed sign location are add-on to the GPS mapping.

Google Ex. 1022, p. 221

Claim 35(Currently Amended)

A business model method according to claim 19, which further comprises of:

a) Provide a way to store or register Bluetooth device information for customer behavior habit or profile without compromising user ID or privacy

b) Provides location based service and contents based on user location and his behavior habit and key preference/profile provide by the user said service can be but not limit of special, sales, promotion events coupons

c) Business designated as a way point will pay additional fee for the infrastructure and displaying additional waypoint information and advertising on the user navigation and or Cell Phone.

Google Ex. 1022, p. 222

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61887 e 2013-08-29

EHUD MENDELSON
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Paper No.

Application No.:	**11/429,864**	**Date Mailed:**	**2013-08-29**
First Named Inventor:	Mendelson, Ehud,	Examiner:	PHAN, DAO LINDA
Attorney Docket No.:	NAV4	Art Unit:	3646
Confirmation No.:	4194	Filing Date:	2006-05-08

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

Commissioner for Patents

PTO-90c (Rev.08-06)

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD
		Art Unit 3600

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

The amendment document filed on *21 February, 2013* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

☐ 1. Amendments to the specification:
- ☐ A. Amended paragraph(s) do not include markings.
- ☐ B. New paragraph(s) should not be underlined.
- ☐ C. Other _____.



☐ 2. Abstract:
- ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
- ☐ B. Other _____.

☐ 3. Amendments to the drawings:
- ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
- ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
- ☐ C. Other _____.

☒ 4. Amendments to the claims:
- ☒ A. A complete listing of all of the claims is not present.
- ☒ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
- ☒ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
- ☒ D. The claims of this amendment paper have not been presented in ascending numerical order.
- ☒ E. Other: *The amendment is unsigned.*

☒ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4): For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period if the non-compliant amendment is an** after-final amendment or an amendment filed after allowance, or a drawing submission (only) If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a Quayle action. If any of above boxes 1 to 4 are checked, the correction required is only the corrected section of the non-compliant amendment in compliance with 37 CFR 1.121.

Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

Failure to timely respond to this notice will result in:

Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or

Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Legal Instruments Examiner (LIE), if applicable /WANDA BROWN/ Telephone No: (571)272-6577

OPAP AKIMA-16
NOV 2 9 2013
PATENT & TRADEMARK OFFICE

12-2-13

IFW

In The United States Patent Trademark Office

Application No.: 11/429,864 Confirmation No. 4194
Applicant : Ehud Mendelson
Filed : May 8,2006
Examiner : Phan,Dao Linda
Docket No. : NAV4 Art Unit: 3662
Customer No. : 000061887

"Express Mail" mailing label number : EI 425731293 US
Date of Deposit Nov 29, 2013

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

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

REPLY TO NON – COMPLIAN AMENDMENT DATED AUG 29 , 2013

Madam:

In response to the notice of non-compliant amendment dated Aug 29, 2013. The Examiner established a shortened statutory period for a response to the prior non compliant letter of (1) Months. Ended at Sep 29, 2013 This Amendment is being submitted in or before 2 month extensions of time (2) MONTHS anniversary of Sep 29, 2013, therefor an extension of time under 37 CFR 1.136(a) IS REQUESTED, a fee of $300 is attached.

Applicant provide the **complete** list of the claims pending in the application for the listed of **all claims**, include the proper status according to the applicant recent communications to the patent office , **the applicant ask to amendment the claims** and **he provide his signature as needed.**

12/02/2013 HVUONG1 00000002 11429864
01 FC:2252 300.00 OP

Amendments to the Claims are reflected in the listing of claims, which begins on page 04 of this paper.

It must be notice that the **applicant amended the claim listed** as requested.

Therefore applicant submits that patentable subject matter is clearly present, if the examiner agrees but does not feel that the present claims are technically adequate, applicant respectfully requests that the examiner write acceptable claims pursuant to MPEP 707.07(j).

Very Respectfully,submitted,
Ehud Mendelson
Applicant Pro Se

Address all correspondence and telephone calls to:

Ehud Mendelson
Patent office customer number:000061887
Gamba Group
11190 Heron bay blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:Ehud1@myacc.net

Attached: markup amended amend claim

Copy of office letter Aug 29, 2013

Check for the amount of $300 cover the requested 2 month ext.

Google Ex. 1022, p. 226

Amendments to the Claims are reflected in the listing of claims, which begins on page 4 of this paper.

IN THE CLAIMS

Claims 19-35 are currently amended

Please **amend Claims 19-35** in this amendment.

No claims were withdrawn in this amendment.

1. An amended version of the pending claims starts on page 3 in accordance with 37 CFR § 1.121(c)(3) as follows: The status of each Claim is indicated adjacent the Claim Number in accordance with the proper status identifiers: (Original), (Currently Amended), (Canceled), (Previously presented), (New), (Not Entered), (Withdrawn), and (Withdrawn-currently amended) in accordance with 37 CFR § 1.121. Any changes to the claims are shown by strikethrough (for deleted matter) and underlining (for added matter, excluding New Claims).

Please amend the claim.

Google Ex. 1022, p. 227

PTO/SB/06 (09-11)
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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 11/429,864	Filing Date 05/08/2006	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)		
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)
☒ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	**150**
☐ 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	**150**

APPLICATION AS AMENDED – PART II

		(Column 1)		(Column 2)	(Column 3)		
AMENDMENT	**11/29/2013**	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 17	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 1	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**

		(Column 1)		(Column 2)	(Column 3)		
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	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
/GLORIA TRAMMELL/

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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61887 e 2013-08-29

EHUD MENDELSON
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Paper No.

Application No.:	**11/429,864**	**Date Mailed:**	**2013-08-29**
First Named Inventor:	Mendelson, Ehud,	Examiner:	PHAN, DAO LINDA
Attorney Docket No.:	NAV4	Art Unit:	3646
Confirmation No.:	4194	Filing Date:	2006-05-08

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

Commissioner for Patents

PTO-90c (Rev.08-06)

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD
		Art Unit 3600

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

The amendment document filed on *21 February, 2013* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☐ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other _____.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☒ A. A complete listing of all of the claims is not present.
  - ☒ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☒ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☒ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *The amendment is unsigned*.
- ☒ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4): For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period if the non-compliant amendment is an** after-final amendment or an amendment filed after allowance, or a drawing submission (only) If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a Quayle action. If any of above boxes 1 to 4 are checked, the correction required is only the corrected section of the non-compliant amendment in compliance with 37 CFR 1.121.

Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

Failure to timely respond to this notice will result in:

Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or

Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Legal Instruments Examiner (LIE), if applicable /WANDA BROWN/ Telephone No: (571)272-6577



REPLY TO OFFICE ACTION DATED NOV 21, 2012

Madam:

In response to the office action letter dated Nov 21, 2012 the examiner established a shortened statutory period for a response to the action letter of tree (3) Months. Ended at Feb 21, 2013 This Amendment is being submitted in time in Feb 21,2013.

The inventor, Ehud Mendelson made the following changes as requested by the examiner :

1. Examiner objected to claim 18 in page 2 (1) , claim 18 is not in the applicant claim list , please see the early communication,(Aug 15,2012).

2. Examiner rejection to claim 20 in page 2(2) , that claim is no longer in the applicant claim list as Early communication was restricted by the examiner and as such was remove from the application, please see early communication,(Aug 15,2012).

In page 2(2) examiner reject claims 19 under 35 U.S.C. 112 most of lacks of antecedent basis

According USPTO:

2173.05(e) Lack of Antecedent Basis

A claim is indefinite when it contains words or phrases whose meaning is unclear. The lack of clarity could arise where a claim refers to "said lever" or "the lever," where the claim contains no earlier recitation or limitation of a lever and where it would be unclear as to what element the limitation was making reference. Similarly, if two different levers are recited earlier in the claim, the recitation of "said lever" in the same or subsequent claim would be unclear where it is uncertain which of the two levers was intended. A claim which refers to "said aluminum lever," but recites only "a lever" earlier in the claim, is indefinite because it is uncertain as to the lever to which reference is made. Obviously, however, **the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite.** > *Energizer Holdings Inc. v. Int'l Trade Comm'n, 435 F.3d 1366, 77 USPQ2d 1625 (Fed. Cir. 2006)(holding that "anode gel" provided by implication the antecedent basis for "zinc anode");* < *Ex parte Porter,* 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992) ("controlled stream of fluid" provided reasonable antecedent basis for "the controlled fluid"). Inherent components of elements recited have antecedent basis in the recitation of the components themselves. For example, the limitation "the outer surface of said sphere" would not require an antecedent recitation that the sphere has an outer surface. See *Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1359, 61 USPQ2d 1216, 1218-19 (Fed. Cir 2001) (holding that recitation of "an ellipse" provided

antecedent basis for "an ellipse having a major diameter" because "[t]here can be no dispute that mathematically an inherent characteristic of an ellipse is a major diameter").

EXAMINER SHOULD SUGGEST CORRECTIONS TO ANTECEDENT PROBLEMS

Antecedent problems in the claims are typically drafting oversights that are easily corrected once they are brought to the attention of applicant. **The examiner's task of making sure the claim language complies with the requirements of the statute should be carried out in a positive and constructive way, so that minor problems can be identified and easily corrected, and so that the major effort is expended on more substantive issues.** However, even though indefiniteness in claim language is of semantic origin, it is not rendered unobjectionable simply because it could have been corrected. *In re Hammack*, 427 F.2d 1384 n.5, 166 USPQ 209 n.5 (CCPA 1970).

A CLAIM TERM WHICH HAS NO ANTECEDENT BASIS IN THE DISCLOSURE IS NOT NECESSARILY INDEFINITE

The mere fact that a term or phrase used in the claim has no antecedent basis in the specification disclosure does not mean, necessarily, that the term or phrase is indefinite. There is no requirement that the words in the claim must match those used in the specification disclosure. **Applicants are given a great deal of latitude in how they choose to define their invention so long as the terms and phrases used define the invention with a reasonable degree of clarity and precision.**

Argument

On page 2 of the Office Action, the Examiner objected to the specification as allegedly "failing to provide proper antecedent basis for the claimed subject matter." More specifically, the Office Action stated that " claim 19, line 10 "said map application" lacks antecedent basis Applicant respectfully submits that the objection is improper.

Applicant would like to change the "said map ~~application~~" to "said map" with the support that can be found on Fig 1, Fig,2, Fig 3,Fig 4,Fig 5, Fig 6, Fig 7, Fig 8 and at (0082).."guide/mapping" (0087) "...mapping system" (0088) "mapping.." (0089)"..local floor-plan.."(0104) and (0106) "..navigation using the mapping or floor-plan of a location..".

PEP § 608.01(g) states that the detailed description "should provide clear support **or** antecedent basis for the claims" (emphasis added). As such, there is no strict requirement that verbatim antecedent support for claim recitations (*i.e.*, the same exact words) be provided in the specification. Rather, it is sufficient that the claimed features be clearly supported by the specification. In the present case, the Office Action alleged that there is no support for map application, However, the drawing as well as and the associated description of the present application discuss and SUPPORT FOR FEATURE. See support at the description support that can be found on Fig 1, Fig,2, Fig 3,Fig 4,Fig 5, Fig 6, Fig 7, Fig 8 and at (0082).."guide/mapping" (0087) "...mapping system" (0088) "mapping.." (0089)"..local floor-plan.."(0104) and (0106) "..navigation using the mapping or floor-plan of a location..".

with the description support and the state in MPEP 608.01(g) above As such, Applicant respectfully submits that a person of ordinary skill in the art would readily appreciate that is clearly supported by the present specification.

Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

The examiner also state in page 2 (2) a rejection to claim 19,lines 22-25 "the mobile user" as lacks of antecedent basis, even so the applicant can state a clear support in the description to the same term the easy way is to change the "the mobile user" to "mobile cell phone" and support to it can be found in the description as well that a person of ordinary skill in the art would readily appreciate that is clearly supported by the present specification.

Same argument can be also for the examiner page 2 (2), rejection of claim 19,line 14 "determine current position" – a clear line of "determine current position of the user mobile device" may be a clear explanation.

Examiner reject claim 19, lines 16-17 "said triangulation calculation" as lacks antecedent basis

The applicant argument and support can be fount on (0039) "triangulation" as well as in (0041)

The same also to the examiner page 2(2) rejection of claim 19, line 18, "display the position" a change "display the user mobile device current position" to make it clear.

Examiner reject claim 19,lines 25-26 with a request to clear what additional local based information and contents are, support can be found at (0204) explain the additional information e.g. special promotions,coupons,advertising or special sales.."

In page 3 the examiner reject claims 21-35 because they depend on cancelled claims,

In All claims 21-35 the depended claim need to be change from according to claim ~~1~~ to according to claim 19, please make the changes in all the claims 21-35 .

B. An Office Action Should Provide a Sufficient Explanation

The Office action must set forth the specific term or phrase that is indefinite and why the metes and bounds are unclear. Since a rejection requires the applicant to respond by explaining why claim language is definite or by amending the claim, the Office action should provide enough information for the applicant to prepare a meaningful response. "Because claims delineate the patentee's right to exclude, the patent statute requires that the scope of the claims be sufficiently definite to inform the public of the bounds of the protected invention, i.e., what subject matter is covered by the exclusive rights of the patent." *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008). Thus, claims are given their broadest reasonable interpretation during prosecution "to facilitate sharpening and clarifying the claims at the application stage" when claims are readily changed. *In re Buszard*, 504 F.3d 1364, 1366 (Fed. Cir.

2007); see also *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984); *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989).

Accordingly, it is respectfully submitted that the rejection to claims 19 is overcome and respectfully requested that the rejection be withdrawn.

Also **EXAMINER SHOULD SUGGEST CORRECTIONS TO ANTECEDENT PROBLEMS**
Whereis the applicant provides a clear view to the claims and change to meet the examiner request even so it will make it easy if the examiner was suggest her corrections and sufficient explanation.

If the examiner agrees but does not feel that the present claims are technically adequate, **applicant respectfully requests that the examiner write acceptable claims pursuant to MPEP 707.07(j).**

Adding new claim:

A new claim , claim 20 is added instead of claim 20 that was remove by recent communication as restrict by the examiner,

Claim 20 (new)

The local mapping in claim 19, where is the area/building first floor mapping will be shown when zooming on the mapping said the floor in which the mobile user located will be shown in an overly the floor map.

Support for the claim can be found in Fig 1, Fig,2, Fig 3,Fig 4,Fig 5, Fig 6, Fig 7, Fig 8 and at (0082).."guide/mapping" (0087) "...mapping system" (0088) "mapping.." (0089)"..local floor-plan.."(0104) and (0106) "..navigation using the mapping or floor-plan of a location..".

Please add the claim and amend the claim.

Please amend the claims.

Summary:

1.Examiner request on page 2 (1) about claim 18- that claim is not on the application

2.claim 19, line 10 – "said map application" was change to "said map" and arguments and support was supply.

3.claim 19 line 14- clear the determine current location by adding "..current location of user mobile device" with support .

4.claim 19, lines 16-17 , triangulation , applicant provides support .

5.claim 19, lines 22 and 25 , the "mobile user" was change to "mobile cell phone" with support .

6.claim 19, line 25-26 a support and clear to what additional local based information was supply by the applicant.

7 . A new claim , claim 20 is added instead of claim 20 that was remove by recent communication as restrict by the examiner,

Claim 20 (new)

The local mapping in claim 19, where is the area/building first floor mapping will be shown when zooming on the mapping said the floor in which the mobile user located will be shown in an overlay the floor map.

Support for the claim can be found in Fig 1, Fig,2, Fig 3,Fig 4,Fig 5, Fig 6, Fig 7, Fig 8 and at (0082).."guide/mapping" (0087) "...mapping system" (0088) "mapping.." (0089)"..local floor-plan.."(0104) and (0106) "..navigation using the mapping or floor-plan of a location..".

Very respectfully, submitted,

Ehud Mendelson

Applicant Pro Se

Ehud Mendelson

Patent office customer number:000061887

Gamba Group LLC

11190 Heron bay blvd. Suite 916

Coral Springs, Florida 33076

Tel:954-2574319

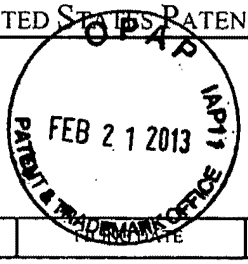
Email:Ehud1@myacc.net

Attached:

Copy of office letter



UNITED STATES PATENT AND TRADEMARK OFFICE



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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 11/21/2012

EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
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CORAL SPRINGS, FL 33076

EXAMINER	
PHAN, DAO LINDA	

ART UNIT	PAPER NUMBER
3646	

MAIL DATE	DELIVERY MODE
11/21/2012	PAPER

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.

Google Ex. 1022, p. 237

OPAP
FEB 21 2013
PATENT & TRADEMARK OFFICE

Office Action Summary	Application No.	Applicant(s)	
	11/429,864	MENDELSON, EHUD	
	Examiner	Art Unit	
	Dao Phan	3646	

-- *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 *15 August 2012*.

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) *19-35* 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) *19-35* 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).

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) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

4) ☐ Other: _____.

1) Claims 18 is objected to because of the following informalities:

On line 2, "down town" should be --downtown--.

On line 5, "a display devices" appears to be incorrect.

Appropriate correction is required.

2) Claims 19-35 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

As to claim 19, line 10, "said map application" lacks antecedent basis.

As to claim 19, line 14, "Determine current location" is indefinite. It's unclear as Determine current location of what.

As to claim 19, lines 16-17, "said triangulation calculation" lacks antecedent basis.

As to claim 19, line 18, "Display the position" is indefinite. It's unclear as Display the position of what.

As to claim 19, lines 22 and 25, "the mobile user" lacks antecedent basis.

As to claim 19, lines 25-26, "additional local based information and contents" is unclear. It's unclear as what the additional local based information and contents are.

As to claim 20, line 4, "said a list table of the known tags ID" lacks antecedent basis.

As to claim 20, lines 5-7, "if multiply beacons signal received a triangulation calculation will determine accuracy" is unclear.

Claim 20 is indefinite because it's not a method claim. There are no steps of carrying out the method.

Claims 21-35 are improper dependent claims because they depend on the cancelled claims.

3) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao Phan whose telephone number is (571)272-6976. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571)272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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OPAP
FEB 21 2013
PATENT & TRADEMARK OFFICE
IAP11

02-22-13

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In The United States Patent Trademark Office

Application No. : 11/429,864

Confirmation No. :3646

Applicant :Ehud Mendelson

Filed :May 8, 2006

Examiner : Phan,Dao Linda

Docket No. :Nav4

Customer No. : 000061887

"Express Mail" mailing label number : EI 063421132 US

Date of Deposit Feb 21, 2013

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

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UNITED STATES DEPARTMENT OF COMMERCE
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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 11/21/2012

EHUD MENDELSON
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EXAMINER	
PHAN, DAO LINDA	
ART UNIT	**PAPER NUMBER**
3646	

MAIL DATE	DELIVERY MODE
11/21/2012	PAPER

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.

Office Action Summary	Application No.	Applicant(s)	
	11/429,864	MENDELSON, EHUD	
	Examiner	Art Unit	
	Dao Phan	3646	

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

Period for Reply

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Status

1)☒ Responsive to communication(s) filed on *15 August 2012*.

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) *19-35* 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) *19-35* 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).

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) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

Google Ex. 1022, p. 243

1) Claims 18 is objected to because of the following informalities:

On line 2, “down town” should be --downtown--.

On line 5, “a display devices” appears to be incorrect.

Appropriate correction is required.

2) Claims 19-35 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

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As to claim 19, line 14, “Determine current location” is indefinite. It's unclear as Determine current location of what.

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As to claim 20, line 4, “said a list table of the known tags ID” lacks antecedent basis.

As to claim 20, lines 5-7, “if multiply beacons signal received a triangulation calculation will determine accuracy” is unclear.

Claim 20 is indefinite because it's not a method claim. There are no steps of carrying out the method.

Claims 21-35 are improper dependent claims because they depend on the cancelled claims.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571)272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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OPAP IAP16
AUG 15 2012
PATENT & TRADEMARK OFFICE

08/16/12

1Fu

In The United States Patent Trademark Office

Application No.: 11/429,864 Confirmation No. 4194
Applicant : Ehud Mendelson
Filed : May 8, 2006
Examiner : Phan, Dao Linda
Docket No. : Nav4 Art Unit: 3646
Customer No. : 000061887

"Express Mail" mailing label number: EI 467272602 US
Date of Deposit Aug, 16 2012

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

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

REPLY TO RESTRICTION AND OR ELECTION REQ DATED JULY 17, 2012

Madam:

In response to the restriction and or election request by the examiner dated July 17, 2012. The Examiner established a shortened statutory period for a response to letter of one (1) Months. Ended at Aug 17, 2012. Answer is provides before the statutory end.

Applicant state that he accepts the examiner restriction with traverse and elect Claim group I (designated by the examiner as group I in her letter attached), containing claims 19, 21-35 to be examined and cancel/elect not to continue examine of claim 20 (group II per the examiner) as recommended by the examiner to continue processing.

The applicant argues that the method in claim 20 are integrated element of indoor navigation and represent the "locating engine" essential to be able to navigate in any place, the method in claim 20 represent the way to find where the

user is in a building /area indoor and accordingly use his location to navigate the area.

Moreover, claim 20 explain the method to determine the location of a user where a list table of the known tags ID are provides – our innovation are not depend on central system or internet data base to search and match the ID to the location, all its done on the phone himself without need to any communication.

Even so the "locating engine" can work separately – to locate and Track where the "user" is, the applicant chose and describe in the descriptions [80]"it is not a location and tracking system as offered by other system" meaning not as a standalone "locating system", the locating is used as element in a navigation system (key element, without knowing where the "user" is, and without providing "locating engine" there is no navigation!).

Therefore applicant submits that patentable subject matter is clearly present, if the examiner agrees but does not feel that the present claims are technically adequate, applicant respectfully requests that the examiner write acceptable claims pursuant to MPEP 707.07(j).

Very respectfully, submitted,
Ehud Mendelson
Applicant Pro Se

Address all correspondence and telephone calls to:

Ehud Mendelson
Patent office customer number: 000061887
Gamba Group LLC
11190 Heron bay blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:Ehud1@myacc.net
Attached: copy of office letter

Google Ex. 1022, p. 247

OPAP
AUG 15 2012
IAP19
PATENT & TRADEMARK OFFICE

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 07/17/2012

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GAMBA GROUP LLC
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CORAL SPRINGS, FL 33076

EXAMINER	
PHAN, DAO LINDA	
ART UNIT	**PAPER NUMBER**
3646	

MAIL DATE	DELIVERY MODE
07/17/2012	PAPER

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

OPAP
AUG 15 2012
PATENT & TRADEMARK OFFICE
IAP10

Office Action Summary

Application No.	Applicant(s)	
11/429,864	MENDELSON, EHUD	
Examiner	**Art Unit**	
Dao Phan	3646	

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

Period for Reply

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Status

1)☒ Responsive to communication(s) filed on *30 March 2012*.

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) *19-35* 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) _____ is/are rejected.

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

9)☒ Claim(s) *19-35* are subject to restriction and/or election requirement.

Application Papers

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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)).

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Attachment(s)

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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: _____.

USPTO
AUG 15 2012
PATENT & TRADEMARK OFFICE
LAP10

1) Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 19, 21-35, drawn to a method for navigation indoor and outdoor in facility area like mall department store down town center building.

II. Claim 20, drawn to a method to determine location of the mobile device.

2) The inventions are distinct, each from the other because of the following reasons: Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they are shown to be separately usable. In the instant case, invention I has separate utility such as a method for navigation indoor and outdoor in facility area like mall department store down town center building. Invention II has separate utility such as a method to determine location of the mobile device.

3) Inventions group 1 and group 2 are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention group 2 has separate utility such as in carrying out the method without navigate between tags position on the area/facility maps, and provide the mobile user with special application to guide and navigate the local area.

4) Inventions group 1 and group 2 are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention group 1 has separate utility such as in carrying out the method without a list table of the known

tags ID are provided, if multiply beacons signal received a triangulation calculation will determine accuracy.

5) Because these inventions are distinct for the reasons given above, and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6) Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and/or examination burden if restriction were not required because at least the following reason(s) apply:

the inventions have acquired a separate status in the art due to their recognized divergent subject matter.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention**.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after

the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao Phan whose telephone number is (571)272-6976. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571)272-6878. 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.

/Dao Phan/
Primary Examiner, Art Unit 3646

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.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 07/17/2012

EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

EXAMINER	
PHAN, DAO LINDA	
ART UNIT	**PAPER NUMBER**
3646	

MAIL DATE	DELIVERY MODE
07/17/2012	PAPER

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.

Office Action Summary	Application No.	Applicant(s)	
	11/429,864	MENDELSON, EHUD	
	Examiner	Art Unit	
	Dao Phan	3646	

-- 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 1 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 *30 March 2012*.

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) *19-35* 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) _____ is/are rejected.

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

9)☒ Claim(s) *19-35* 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: _____.

1) Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 19, 21-35, drawn to a method for navigation indoor and outdoor in facility area like mall department store down town center building.

II. Claim 20, drawn to a method to determine location of the mobile device.

2) The inventions are distinct, each from the other because of the following reasons: Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they are shown to be separately usable. In the instant case, invention I has separate utility such as a method for navigation indoor and outdoor in facility area like mall department store down town center building. Invention II has separate utility such as a method to determine location of the mobile device.

3) Inventions group 1 and group 2 are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention group 2 has separate utility such as in carrying out the method without navigate between tags position on the area/facility maps, and provide the mobile user with special application to guide and navigate the local area.

4) Inventions group 1 and group 2 are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention group 1 has separate utility such as in carrying out the method without a list table of the known

tags ID are provided, if multiply beacons signal received a triangulation calculation will determine accuracy.

5) Because these inventions are distinct for the reasons given above, and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6) Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and/or examination burden if restriction were not required because at least the following reason(s) apply:

the inventions have acquired a separate status in the art due to their recognized divergent subject matter.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention**.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after

the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao Phan whose telephone number is (571)272-6976. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571)272-6878. 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.

/Dao Phan/
Primary Examiner, Art Unit 3646

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

EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

MAILED

APR 30 2012

OFFICE OF PETITIONS

In re Application of :
Ehud Mendelson :
Application No. 11/429,864 : ON PETITION
Filed: May 8, 2006 :
Attorney Docket No. NAV4 :

This is a decision on the petition under 37 CFR 1.137(b), filed March 30, 2012, to revive the above-identified application.

The petition satisfies the requirements of 37 CFR 1.137(b) in that petitioner has supplied (1) the reply in the form of an amendment; (2) the petition fee of $930; and (3) a proper statement of unintentional delay. Therefore, the petition is **GRANTED**.

Petitioner should note that the grant of a petition under 37 CFR 1.137 is not a determination that any reply is complete. After revival of the application, the patent examiner may, upon a more detailed review, determine that the reply is lacking in some respect.

This application file is being referred to Technology Center Art Unit 3662 for review of the amendment filed with the present petition.

Telephone inquiries concerning this decision should be directed to the undersigned at (571) 272-3226.

/Andrea Smith/
Andrea Smith
Petitions Examiner
Office of Petitions

Doc Code: PET.OP

Document Description: Petition for Review by the Office of Petitions

4/02/12

DAC / JDW

PTO/SB/64 (07-09)

Approved for use through 07/31/2012. OMB 0651-0031

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.

PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.137(b)	Docket Number (Optional)

First named inventor: EHUD MENDELSON

Application No.: 11/429,864 Art Unit: 3662

Filed: MAY 8, 2006 Examiner: PHAN, DAO LINDA

Title: SYSTEM AND METHOD FOR NAVIGATING INDOORS WITHOUT GPS, UTILIZING A NETWORK OF SENSORS.

OPAP IAP1 MAR 30 2012 PATENT & TRADEMARK OFFICE

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 for failure to file a timely and proper reply to a notice or action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the office notice or action plus any extensions of time actually obtained.

APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION

NOTE: A grantable petition requires the following items:
(1) Petition fee;
(2) Reply and/or issue fee;
(3) Terminal disclaimer with disclaimer fee - required for all utility and plant applications filed before June 8, 1995; and for all design applications; and
(4) Statement that the entire delay was unintentional

1. Petition Fee

[X] Small entity-fee $ 930 (37 CFR 1.17(m)). Application claims small entity status. See 37 CFR 1.27.

[ ] Other than small entity-fee $ _____ (37 CFR 1.17(m))

2. Reply and/or fee

A. The reply and/or fee to the above-noted Office action in the form of _____ (identify type of reply):

[ ] has been filed previously on _____.

[ ] is enclosed herewith.

04/03/2012 SDIRETA1 00000041 11429864
01 FC:2453 930.00 OP

B. The issue fee and publication fee (if applicable) of $_____.

[ ] has been paid previously on _____.

[ ] is enclosed herewith.

This collection of information is required by 37 CFR 1.137(b). 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.

3. Terminal disclaimer with disclaimer fee

☐ Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.

☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of $_____ for a small entity or $_____ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. STATEMENT: The entire delay in filing the required reply from the due date for the required reply 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.

Signature	Date: 03/30/2012
Type or Printed name: CHAD MCNOCLEGOW	Registration Number, If applicable: COSTM # 061887
Address: 11190 HERON BAY BLVD. #916	Telephone Number: 954-2873227
Address: CORAL SPRINGS FL 33076	

Enclosures:

☒ Fee Payment

☒ Reply

☐ Terminal Disclaimer Form

☐ 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.

Date: 03/30/2012	Signature
	Typed or printed name of person signing certificate: CHAD MCNOCLEGOW

Google Ex. 1022, p. 262

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 the Freedom of Information Act requires disclosure of these records.
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 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.



Response to office letter
Application:11/429,864

Mail stop petition
Hon. Commission for patents
P.O. Box 1450
Alexandria,VA 22313-1450
"Express Mail" mailing label number : EQ 314746612 US
Mar 30, 2012

Sir, Madam:

Responsive to the petition decision letter dated Jan, 30 2012.

The letter above inform of dismissed of the petition to withdraw the holding of abandonment of the application above do to "Non compliant (the text of the cancelled claim must not presented)" – The examiner Dao L. Phan claim. mail June 25,2010 and the applicant response filed on 07/22/2010.

According to the letter above, there is no evidence of record that shows that the amendment files by the applicant on July 22,2010, contain a complete response to the notice mailed June 25,2010.

the letter above dismiss the petition and allow two (2) months to ask for reconsideration , its also suggest and encouraged to file a petition under 37 CRFR 1.137(b) to revive an unintentionally abandoned application.

Even so that according to your office record all the need market claim include the "missing" claim 5 are found and posted in your office record as well as the abstract amendment (see record from 07/31/2009 and 07/22/2010) the applicant choose to accept the suggestion to file a petition under 37 CRFR 1.137(b) to revive an unintentionally abandoned application , for sure the intention of the applicant is to continue with the patent process as soon as possible therefore the applicant state that the delay in the required replay was unintentional and is asking to revive the abandoned application.

Accordingly, the applicant provide the following answer to the examiner notice date June 25,2010.

The non compliant notice state – "marking must be include in the amended abstract to show relative to immediate prior version "

Also the examiner request a text of all claims being currently amended must be presented with marking..."

Google Ex. 1022, p. 264

Claims 1-18 are **canceled** and a **new** claims are added and amended.
no marking needed for cancel claims.

the abstract is attached and amended. no change was done so no marking needed!.

claim1 (cancel)
claim2 (cancel)
claim3 (cancel)
claim4 (cancel)
claim5 (cancel)
claim6 (cancel)
claim7 (cancel)
claim8 (cancel)
claim9 (cancel)
claim10 (cancel)
claim11 (cancel)
claim12 (cancel)
claim13 (cancel)
claim14 (cancel)
claim15 (cancel)
claim16 (cancel)
claim17 (cancel)
claim18 (cancel)
claim19-35 are new and amended.

the following page contain the claims amendments.
arguments to the examiner was provides by early communication.

Google Ex. 1022, p. 265

Claim amendments

claim1 (cancel)
claim2 (cancel)
claim3 (cancel)
claim4 (cancel)
claim5 (cancel)
claim6 (cancel)
claim7 (cancel)
claim8 (cancel)
claim9 (cancel)
claim10 (cancel)
claim11 (cancel)
claim12 (cancel)
claim13 (cancel)
claim14 (cancel)
claim15 (cancel)
claim16 (cancel)
claim17 (cancel)
claim18 (cancel)

Claim 19 (new)

A method for navigation indoor and outdoor in facility area like mall department store down town center building where there is no GPS signal on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, car navigation system and a Bluetooth enabled device, The method comprises the steps of:

a. Loading local map of the area/facility to the device said map application can be pre download Before arriving to the area as mobile application or download at location stand,

Google Ex. 1022, p. 266

b. Determine current position by proximity to RF Bluetooth or wifi tags installed in a known position in the area/facility said triangulation calculation may needed,

c. Display the position on the display device overlay on the facility/area map,

d. Navigate between tags position on the area/facility maps,

e. provide the mobile user with special application to guide and navigate the local area,

f. provide the mobile user with additional local based information and contents.

Claim 20(new)

a method to determine location of the mobile device by being in a proximity to a known location of RF Bluetooth or wifi tags/beacons in the facility/area, said a list table of the known tags ID are provided, if multiply beacons signal received a triangulation calculation will determine accuracy.

Google Ex. 1022, p. 267

Claim 21(new)

The method according to claim 1, which further comprises delivery local based services content said content will deliver to say user by reference to said location and or according to user search or preference/profile.

Claim 22(new)

The method according to claim 1, which further provide user of a Bluetooth enable device with a special indoor local base services application said the application may include but not limited of the following elements:

1. Map and indoor guide and Navigation - the local area map and application can be download at the directory stand or pre download from internet site prior to arriving,

2. Directory - store/mall or local area directory as part of the local mapping downloads to the mobile phone said directory may include store type, store information,

3. Search and Find - allow search and find store/place/item products that are on the said

Google Ex. 1022, p. 268

directory and search can be by facility/store/place/item name or by type,

4.Sales/specials - discounts, sales, and coupons, deals or specials said allow mobile user to be directed to the aisle with the products/coupons,

5. Parking and return2parking allows the user to find parking spaces and location of parked cars,

6. Info -provide information about events, restrooms, ATM location, seating area, Kids playground, fountain, public phones,

7. Emergency -ability to provide with a unique alarm and notification to the user without depending on other communication links like cellular or internet provides the user with the building/mall/store/place emergency procedure said in emergency event will help navigate the user to safety,

8. Panic- part of nav4emergency allows the user to request being located in an emergency.

Claim 23(new)

The method according to claim 1, which further comprises displaying additional information of a waypoints object and real-time update e.g. store, department, special sale, event, coupons as a waypoint.

Google Ex. 1022, p. 269

Claim 24(new)

The method according to claim **1**, which further comprises navigating between way point and floor map of the facility indoor said the mapping and the mobile application with the known waypoints can be pre download or download at the facility.

Claim 25(new)

The method according to claim 1, which further comprises performing the determining step indoor without the aid of a global positioning satellite system, said no bandwidth or internet required.

Claim 26(new)

The method according to claim 1, which further comprises providing the display device/cellular mobile device with application software for navigating on pre-loaded area maps or facility floor plans.

Claim 27(new)

The method according to claim 1, which further comprises navigate and update waypoint in the type of the facility selected from the group consisting but not limit of: navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement

Google Ex. 1022, p. 270

park, stadium, arena, sport events, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, cruise ship and any type of parking facility or any place when and where GPS cannot be provided or is not accurate or precise enough.

Claim 28(new)

The method according to claim **1**, which further comprises navigate in a Special operation mode:--Parking--NAVPARKING, provides navigating to available empty parking spaces in the user location area and navigating to the parking car when return (Return To Parking).

Claim 29(new)

The method according to claim 13, which further comprises special application to to navigate Special operating mode:Museums NAV4Museums, NAVSHOW, Navconference provides indoor navigation in the museum's the show or conference exhibition to the "user's" navigation and or cellular phone device on the area/facility map said the user can receive audio and video information and there is no need to have a rental headset or additional information.

Google Ex. 1022, p. 271

Claim 30(new)

The method according to claim 1, which further comprises special application to navigate Special operating mode:REALESTAE NAVREALTY, provides local navigation for the available real estate property for sale/lease/rent and navigation to the property according to the user location.

Claim 31(new)

The method according to claim 1, which further comprises special application to navigate Special operating mode:--Special operating mode:Amusement park, NAV4disney provides exhibit and attractions waypoints and interactive information from amusements park exhibition to the "user's" navigation and or cellular phone device via Bluetooth interface. Said navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability , time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid in the amusement park, And provide a remote fast pass generation to eliminate lines.

Claim 32(new)

The method according to claim 1, which further comprises special application to navigate Special operating mode: NAVEMERGENCY emergency alarming and notification navigation, which comprises a navigation for the emergency exit route when and where needed said each user can load the emergency

Google Ex. 1022, p. 272

procedure and exit floor plan and escape with the knowledge of the exact location in that route, Aspects of the scenarios may be included: Identifies and tracks the user (or a first response team member) Provides the user with notification and alarming of emergency situation and navigation information and directions for safely exiting of the building said the notification alarming and update can be done by FM-RDS or Bluetooth broadcast to the user display device or cell phone pinpoint directly to the area/facility.

Claim 33(new)

The method according to claim 1, which further comprises special application in train/bus stations to navigate Special operating mode: NAV4Train, provides The user with ability to know the exact location of the train, bus or subway_train—on a route directly to his Cell phone and or Bluetooth device, which comprises the train/subway/underground map will be the background navigation and will show the user his location in the train/subway route, and additional information that he may need like schedule, restroom, food, emergency.

Claim 34(new)

The method according to claim **1**, which further comprises special application providing the road sign to be display on the user navigation separate device and or cellular phone as a way for safer driving, the information can interface to the car computer and or car navigation to alert the driver to slow down or adjust the car speed when enter

Google Ex. 1022, p. 273

school or according to speed zone—NAVSIGN said the road and speed sign location are add-on to the GPS mapping.

Claim 35 (new)

A business model method according to claim 1, which further comprises of:

a) Provide a way to store or register Bluetooth device information for customer behavior habit without compromising user ID or privacy

b) Provides location based service and contents based on user location and his behavior habit and key preference/profile provide by the user said service can be but not limit of special, sales, promotion events coupons

c) Business designated as a way point will pay additional fee for the infrastructure and displaying additional waypoint information and advertising on the user navigation and or mobile Cell Phone.

Google Ex. 1022, p. 274

ABSTRACT amendment

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites. The information will be received directly from RF sensors and will display on the existing cellular phone as Bluetooth application.

Google Ex. 1022, p. 275

As a result I need to ask the patent office to reinstate of the application from the abandon stage and Please INFORM ME OF THE ACCESEPTENCE AND THE REINSTATE OF THE APPLICATION, my phone # 954-2574319 and email:ehud1@myacc.net

Therefore applicant submits that patentable subject matter is clearly present, if the examiner agrees but does not feel that the present claims are technically adequate, applicant respectfully requests that the examiner write acceptable claims pursuant to MPEP 707.07(j).

Respectfully submitted,

Ehud Mendelson
Gamba Group LLC
11190 Heron bay blvd.
Suite 916
Coral Springs , FL 33076
TEL:954-2373227
Email:ehud1@myacc.net
Customer No. 061887

Attached :
Patent office letter from Jan,30,2011
Certificate of mailing
amended to the claims
amended to the abstract
petition for revival of an application for patent abandoned unintentionally under 37 CFR 1.137(b)
check for the amount of $930 as small entity.

Google Ex. 1022, p. 276

As a result I need to ask the patent office to reinstate of the application from the abandon stage and Please INFORM ME OF THE ACCESEPTENCE AND THE REINSTATE OF THE APPLICATION, my phone # 954-2574319 and email:ehud1@myacc.net

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check for the amount of $930 as small entity.

Google Ex. 1022, p. 277

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

OPAP IAP1
MAR 30 2012
PATENT & TRADEMARK OFFICE

EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

MAILED

JAN 30 2012

OFFICE OF PETITIONS

In re Application of :
Ehud Mendelson :
Application No. 11/429,864 : ON PETITION
Filed: May 8, 2006 :
Attorney Docket No. NAV4 :

This is a decision on the petition under 37 CFR 1.181 (no fee) filed on July 6, 2011, to withdraw the holding of abandonment in the above application.

The application became abandoned for failure to file a reply to the Notice of Non-Compliant Amendment (37 CFR 1.121) (Notice) mailed June 25, 2010. A Notice of Abandonment was mailed on April 19, 2011.

In the present petition, petitioner requests that the holding of abandonment be withdrawn.

A review of the Official file record shows that a Notice of Non-Compliant Amendment (37 CFR 1.121) mailed July 2, 2009. On July 31, 2009, a response was timely filed. On November 13, 2009, a Notice of Non-Compliant Amendment was mailed. On December 11, 2009, a response was filed. On June 25, 2010, a Notice of Non-Compliant Amendment was mailed. On July 22, 2010, a response was filed. On April 19, 2011, a Notice of Abandonment was mailed.

Petitioner states "Attached is a copy of the answer to your office letter mail 06/25/2010 with the explanation as well as the copy of the head letter answer by the applicant by 07/23/2010 And a copy (from the patent office PAIR) of the marked claim amended, please see page 5 with the wrong marking on claim 5, and view the attached right page 5 where there is no marking on claim 5 just the word cancel , the page that is missing."

Petitioner should note that there is no evidence of record that shows that the amendment filed on July 22, 2010, contained a complete response to the Notice mailed June 25, 2010. Therefore, this application was properly held abandoned for failure to timely respond to the Notice, unless petitioner has evidence to show otherwise.

In view of the above the present petition is **dismissed**. Accordingly, petitioner is encouraged to consider filing a petition under 37 CFR 1.137(b) to revive an unintentionally abandoned application.

A grantable petition pursuant to 37 CFR 1.137(b) must be accompanied by:

(1) The reply required to the outstanding Office action or notice, unless previously filed.

(2) The petition fee as set forth in 37 CFR 1.17(m), $930 for small entity or $1,860 for large entity;

(3) A statement that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition was unintentional. The Director may require additional information where there is a question whether the delay was unintentional.

A form for filing a petition to revive an unintentionally abandoned application is enclosed with this decision.

Any request for reconsideration of this decision should be submitted within **TWO (2) MONTHS** from the mail date of this decision.

Further correspondence with respect to this matter should be addressed as follows:

By mail: Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX: (571) 273-8300
Attn: Office of Petitions

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Telephone inquiries related to this decision may be directed to the undersigned at (571) 272-3226.

/Andrea Smith/
Andrea Smith
Petitions Examiner
Office of Petitions

Enclosures: Privacy Act Statement; and
Petition for Revival of an Application for Patent Abandoned Unintentionally under 37 CFR 1.137(b) – Form PTO/SB/64

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 11/429,864	Filing Date 05/08/2006	☐ To be Mailed

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☒		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ 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

		(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
	03/30/2012	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
AMENDMENT	Total (37 CFR 1.16(i))	* 17	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	

		(Column 1)		(Column 2)	(Column 3)					
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
AMENDMENT	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:
/WANDA BROWN/

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

EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

MAILED

JAN 30 2012

OFFICE OF PETITIONS

In re Application of
Ehud Mendelson
Application No. 11/429,864
Filed: May 8, 2006
Attorney Docket No. NAV4

ON PETITION

This is a decision on the petition under 37 CFR 1.181 (no fee) filed on July 6, 2011, to withdraw the holding of abandonment in the above application.

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Petitioner states "Attached is a copy of the answer to your office letter mail 06/25/2010 with the explanation as well as the copy of the head letter answer by the applicant by 07/23/2010 And a copy (from the patent office PAIR) of the marked claim amended, please see page 5 with the wrong marking on claim 5, and view the attached right page 5 where there is no marking on claim 5 just the word cancel , the page that is missing."

Petitioner should note that there is no evidence of record that shows that the amendment filed on July 22, 2010, contained a complete response to the Notice mailed June 25, 2010. Therefore, this application was properly held abandoned for failure to timely respond to the Notice, unless petitioner has evidence to show otherwise.

In view of the above the present petition is **dismissed**. Accordingly, petitioner is encouraged to consider filing a petition under 37 CFR 1.137(b) to revive an unintentionally abandoned application.

A grantable petition pursuant to 37 CFR 1.137(b) must be accompanied by:

(1) The reply required to the outstanding Office action or notice, unless previously filed.

(2) The petition fee as set forth in 37 CFR 1.17(m), $930 for small entity or $1,860 for large entity;

(3) A statement that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition was unintentional. The Director may require additional information where there is a question whether the delay was unintentional.

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Any request for reconsideration of this decision should be submitted within **TWO (2) MONTHS** from the mail date of this decision.

Further correspondence with respect to this matter should be addressed as follows:

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX: (571) 273-8300
Attn: Office of Petitions

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Telephone inquiries related to this decision may be directed to the undersigned at (571) 272-3226.

/Andrea Smith/
Andrea Smith
Petitions Examiner
Office of Petitions

Enclosures: Privacy Act Statement; and
Petition for Revival of an Application for Patent Abandoned Unintentionally under 37 CFR 1.137(b) – Form PTO/SB/64

7-7-11

1 Fw



Response to office letter
Application:11/429,864

Hon. Commission for patents
P.O. Box 1450
Alexandria,VA 22313-1450
"Express Mail" mailing label number :EG 956934900 US
July 06, 2011

Sir, Madam:

Responsive to the office letter dated April, 19 2011 application #:11/429,864 confirmation #:4194 art unit: 3662.

The office letter above inform of abandonment of the application above do to "Non compliant (the text of the cancelled claim must not presented)" – The examiner Dao L. Phan claim. About That the amendment filed on 07/22/2010 .

The amendment 0f 07/22/2010 was in answer to the examiner request send by

06/25/2010 state – "marking must be include in the amended abstract to show relative to immediate prior version "

Also the examiner request a text of all claims being currently amended must be presented with marking..."

The abstract marking was send by the applicant to the patent office and shown on the FAIR by mistake under spec. **on the FAIR 07/31/2009**.

The marking of the claim shown in many times on the FAIR , the last one was sent to the patent office by the applicant where page 5 of the marked claim was sent by mistake with the marked on the claim 5, where it suppose to be wrote (cancel) only.

The right page was send to the patent office with only word cancel on claim 5 and a new was amended instead, but it wasn't publish on the fair and didn't conceder by the examiner, it may be that the page went missing.

I must state that I call and talk to the examiner twice during that time to ask about the process and never was inform that there is any problem or miss paper .(II have the record with me if needed.)

After receiving the abandon letter I call the examiner as well to the examiner supervisor The examiner supervisor state after view the files that it's look like a mistake by the patent office and ask me to talk directly to the examiner as I did, she request me to ask for Reinstate the application from Abandon and continue the process.

Google Ex. 1022, p. 283

I must state that it is the second time that application is abandon by mistake by the same examiner. (the other application – Coolspot application # 11/472,706) that now reinstate and in process.

As to the information above it look like your office mishandle or lost the part of my answer from 2009!.

Attached is a copy of the answer to your office letter mail 06/25/2010 with the explanation as well as the copy of the head letter answer by the applicant by 07/23/2010 And a copy (from the patent office FAIR) of the marked claim amended , please see page 5 with the wrong marking on claim 5 , and view the attached right page 5 where there is no marking on claim 5 just the word cancel , the page that it missing .

Also please view the copy of the marked abstract printed from patent office FAIR from 07/31/2009!, under spec . and the clear abstract also from 07/31/2009.

It is the abstract that the examiner ask by June 25,2010 for the marking..
It was received by your office almost a year before.

As a result I need to ask the patent office to reinstate of the application from the abandon stage and Please INFORM ME OF THE ACCESEPTENCE AND THE REINSTATE OF THE APPLICATION, my phone # 954-2574319 and email:ehud1@myacc.net

Respectfully submitted,

Ehud Mendelson
Gamba Group LLC
11190 Heron bay blvd.
Suite 916
Coral Springs , FL 33076
TEL:954-2373227
Email:ehud1@myacc.net
Customer No. 061887

Attached :
Patent office letter from 06/25/2010
Certificate of mailing
Copy of answer to your office from 07/23/2010
Marked claim from patent office 07/22/2010 with mistake in page 5, claim 5 only.
A copy of page 5 that was sent to the patent office with the right page 5 .
A copy of the marked abstract from the patent office FAIR date 07/31/2009 under spec.
A copy of the abstract from 07/31/2009

Google Ex. 1022, p. 284

PATENT OFFICE 06/25/2010.

OPAP IAP11 JUL 06 2011 PATENT & TRADEMARK OFFICE

Continuation of 2(b) Other: Markings must be included in the amended abstract to show all changes relative to immediate prior version.

Continuation of 4(e) Other: the text of all claims being currently amended must be presented with markings to show changes relative to immediate prior version.

SENT TO PATENT OFFICE BY 07/22/2010 PAGE 5, MISTAKLY SENT WITH MARK ON CLAIMS - THE RIGHT PAGE WAS SENT WITH ONLY CANCEL ON 5.

WAS SENT TO PATENT OFFICE BY 07/31/2009 SHOWN ON FAIR UNDER SPEC 07/31/2009.

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

OIPE
IAP11
JUL 06 2011
PATENT & TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 06/25/2010

EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

EXAMINER	
PHAN, DAO LINDA	
ART UNIT	PAPER NUMBER
3662	

MAIL DATE	DELIVERY MODE
06/25/2010	PAPER

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 Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD	
	Examiner Dao L. Phan	Art Unit 3662	

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

The amendment document filed on *11 December 2009* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☒ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☒ B. Other *See Continuation Sheet*.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *See Continuation Sheet*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):

_____

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.
2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

   Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

   Failure to timely respond to this notice will result in:
   Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
   Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

/Dao L. Phan/ Primary Examiner, Art Unit 3662	

OPAP IAP8 JUL 22 2010 PATENT & TRADEMARK OFFICE

OPAP IAP11 JUL 06 2011 PATENT & TRADEMARK OFFICE

07-23-10

APPLICANT LETTER 07/23/2010

In The United States Patent Trademark Office

Application No.: 11/429,864 Confirmation No. 4194
Applicant : Ehud Mendelson
Filed : May 5,2006
Examiner : Phan,Dao Linda Tel:
Docket No. : Nav4 Art Unit: 3662
Customer No. : 000061887
"Express Mail" mailing label number : EG 513017873 US
Date of Deposit July 21, 2010

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

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

REPLY TO OFFICE LETTER DATED JUN 25, 2010

Sir:

In response to the office action dated June 25,2010. The Examiner established a shortened statutory period for a response of one (1) Months. This Amendment is being submitted on or before the one (1) MONTH anniversary of July 25, 2010.

Attached is a copy of applicant letter to patent office date July 29,2009 INCLUDE amendments to the claims and specifications (starting on page 2) as well as clear claims (page 10) –from DEC 11, 2009

OPAP IAP8 JUL 22 2010 PATENT & TRADEMARK OFFICE

OPAP IAP11 JUL 06 2011 PATENT & TRADEMARK OFFICE

07-23-10

ZLW

In The United States Patent Trademark Office

Application No.: 11/429,864 Confirmation No. 4194
Applicant : Ehud Mendelson
Filed : May 5,2006
Examiner : Phan,Dao Linda Tel:
Docket No. : Nav4 Art Unit: 3662
Customer No. : 000061887
"Express Mail" mailing label number : EG 513017873 US
Date of Deposit July 23, 2010

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

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

REPLY TO OFFICE LETTER DATED JUN 25, 2010

Sir:

In response to the office action dated June 25,2010. The Examiner established a shortened statutory period for a response of one (1) Months. This Amendment is being submitted on or before the one (1) MONTH anniversary of July 25, 2010.

Attached is a copy of applicant letter to patent office date July 29,2009 INCLUDE amendments to the claims and specifications (starting on page 2) as well as clear claims (page 10) -from DEC 11, 2009

CLAIM FROM 07/22/2010 PAGE 5, MISTAKE

Claim Amendments

1. (currently amended) A method for navigating in doors or in area where there is no GPS signal in or on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, car navigation and a Bluetooth enabled device, The method comprising: ~~the steps of:~~

a. loading floor/area map of the facility/area with list of the installed Bluetooth tags/sensor in a known locations in the area/facility.

b. Receiving signal directly ~~data~~ from a ~~RF~~ Bluetooth Tags/sensor installed in a known location in the area/facility, and not required a central system nor cellular communication or internet. ~~Tags/sensor, the data including positional data, type of the facility data selected from the group consisting of information guide provided at each facility. and displaying information as a floating on the display device.~~

c. receiving a signal from a tag/sensor enables proximity detection of the exact location , if more then one signal triangulation calculation will determining a current position of a user.

d. providing navigation on the floor/area map without the aid of GPS navigation.

Google Ex. 1022, p. 290

Applicant has amended the Specification. Applicant has submitted an annotated version of the Specification. clean version as a substitute specification herewith, both versions being identified in the top margin accordingly.

Applicant asserts that the amendments to the specification, and the amendments to the claims, as well as the traverses above clearly show that the present claims are patentable over the cited references and therefore should be allowed. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, a telephone call to the undersigned is respectfully solicited.

Very Respectfully,submitted,
Ehud Mendelson
Applicant Pro Se

Address all correspondence and telephone calls to:

Ehud Mendelson
Patent office customer number:000061887
Gamba Group LLC
11190 Heron bay blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:Ehud1@nav4emergency.com

Google Ex. 1022, p. 291

2. (currently amended) The method according to Claim 1, werein said ~~RF~~ Bluetooth tag/sensor can be installed on any place that designated as a waypoint.

3. (currently amended)The method according to Claim 1, which further comprises displaying the information over a facility map, area map, or floor plan downloaded to the display device at the area/facility or pre download from the web.

4. (original)The method according to Claim 1, wherein the information pertains to navigating a current facility area.

~~5.~~ (Canceled) ~~The method according to Claim 1, which further comprises determining a current position of a user by a triangulation calculation based on known positions of a plurality of wireless sensors implements in a known positions in the facility.~~

5. (new) The method according to claim 1 which further comprises floating the information on the area/facility map on the display device.

6. (currently amended)The method according to Claim 1, which further comprises displaying additional information of a facility object e.g. store , department ,special sales , coupons ,area information as a waypoint.

Google Ex. 1022, p. 292

7. (currently amended)The method according to Claim ~~5~~ 1, which further comprises navigating to the current way point using a floor map of the facility.

8.(currently amended)The method according to Claim 5 1, which further comprises allowing to convert the waypoint positions into GPS coordinates and emulate an external GPS data source. performing the determining step without the aid of a global positioning satellite system.

9. (original) The method according to Claim 1, which further comprises providing the display device/cellular phone with application software for displaying pre-loaded area maps or facility floor plans.

10. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors according to the user position/area and no bandwidth or internet needed.

11. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors without sending a request or a query for search in a database or internet.

12. (original)The method according to Claim 1, which further comprises navigation type of the facility selected from the group consisting but not limit of:

Google Ex. 1022, p. 293

navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough.

13. (currently amended)The method according to Claim 12, which further comprises navigation in a Special operation mode: - Shopping – NAV4SALE, provides navigation to the special sale item in a department store, coupons , specials or other promotions and even audio or video via a Bluetooth interface as advertising directly ~~push from the waypoint /store area~~ to the user Bluetooth device/cellular phone.

14. (Original)The method according to Claim 12, which further comprises navigation Special operating mode: –
Museums – NAV4Museums, provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

15. (currently amended)The method according to Claim 12, which further comprises navigation Special operating mode: – Special operating mode: – NAV4STORE,NAVSALE provides navigation to and inside a store / department store to a specific department/aisle or specific product, special sales and coupons with option

Google Ex. 1022, p. 294

for advertising method and special promotion.

16. (currently amended)The method according to Claim 12,

which further comprises navigation Special operating mode: – Special operating mode: – Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device

via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show,

availability (lines...) fast pass, time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode: –

~~First response navigation~~ NAVEMERGENCY , which comprises a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

Identifies and tracks the user (a first response team member),
Provides the user with navigation information and directions for safely exiting of the Building area/facility,

Provides location information of all team members, via an ad hoc network of radio

Google Ex. 1022, p. 295

terminals that combine RF/Bluetooth readings and radio communication.
Provide alarm and notification of emergency situations to the user cellphone/Bluetooth.

18. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode:

NAV4Train, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, which comprises the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, ~~no more walking to the mapping inside the station or try to figure out your location in the map inside the subway train, each station will have~~ a tag/sensor installed in all the route to provide the user accurate locating and additional information that he may need like schedule , restroom , food, emergency information .

19. (new) The method according to Claim 12, which further comprises navigation Special operating mode: – Parking – NAV4PARKING a Bluetooth tag/sensors installed in a parking facility provide empty parking space detection and navigation to the empty parking available and RTP- return to parking – locate the place that you parked your car

Google Ex. 1022, p. 296

THE RIGHT PAGE 5 from 07/22/2010

2. (currently amended) The method according to Claim 1, werein said ~~RF~~ Bluetooth tag/sensor can be installed on any place that designated as a waypoint.

3. (currently amended)The method according to Claim 1, which further comprises displaying the information over a facility map, area map, or floor plan downloaded to the display device at the area/facility or pre download from the web.

4. (original)The method according to Claim 1, wherein the information pertains to navigating a current facility area.

5. (canceled)

5. (new) The method according to claim 1 which further comprises floating the information on the area/facility map on the display device.

6. (currently amended)The method according to Claim 1, which further comprises displaying additional information of a facility object e.g. store , department ,special sales , coupons ,area information as a waypoint.

Google Ex. 1022, p. 297

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Google Ex. 1022, p. 298

THE MARKED ABSTRACT 07/31/2009

Specification Amendments

Please replace the abstract of the disclosure, with the following amended abstract of the disclosure:

ABSTRACT OF THE DISCLOSURE

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites. The information will be received directly from ~~RF~~ Bluetooth sensors and will display on the existing cellular phone as Bluetooth application .

MARK ABSTRACT FROM PATENT OFFICE FAIR 07/31/2009 SPEC

Google Ex. 1022, p. 299

Specification Amendments

Please replace the abstract of the disclosure, with the following amended abstract of the disclosure:

ABSTRACT OF THE DISCLOSURE

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites. The information will be received directly from ~~RF~~ Bluetooth sensors and will display on the existing cellular phone as Bluetooth application .

MARK ABSTRACT FROM PATENT OFFICE FAIR 07/31/2009 SPEC

Google Ex. 1022, p. 300

Abstract of the disclosure

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites. The information will be received directly from Bluetooth sensors and will display on the existing cellular phone as Bluetooth application.

07/31/2009 ABSTRACT.

Google Ex. 1022, p. 301

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11/429,864 System and method navigating indoors and outdoors without GPS. utilizing a network of sensors

Select New Case | Application Data | Transaction History | Image File Wrapper | Continuity Data | Published Documents | Address & Attorney/Agent

This application is officially maintained in electronic form. To View: Click the desired Document Description. To Download and Print: Check the desired document(s) and click Start Download.

Available Documents

Mail Room Date	Document Code	Document Description	Document Category	Page Count	PDF
04-19-2011	ABN	Abandonment	PROSECUTION	2	☐
07-22-2010	A.I.	Informal or Non-Responsive Amendment	PROSECUTION	2	☐
07-22-2010	LET.	Miscellaneous Incoming Letter	PROSECUTION	5	☐
07-22-2010	SPEC	Specification	PROSECUTION	1	☐
07-22-2010	CLM.NE	Claim-Amendment Not Entered	PROSECUTION	6	☐
07-22-2010	SPEC	Specification	PROSECUTION	1	☐
07-22-2010	ABST	Abstract	PROSECUTION	1	☐
07-22-2010	CLM	Claims	PROSECUTION	6	☐
07-22-2010	REM	Applicant Arguments/Remarks Made in an Amendment	PROSECUTION	11	☐
06-25-2010	NTC.A.NONCPL	Notice to the applicant regarding a non-compliant or non-responsive amendment	PROSECUTION	3	☐
12-11-2009	A...	Amendment/Req. Reconsideration-After Non-Final Reject	PROSECUTION	1	☐
12-11-2009	SPEC	Specification	PROSECUTION	1	☐
12-11-2009	ABST	Abstract	PROSECUTION	1	☐
12-11-2009	CLM	Claims	PROSECUTION	6	☐
12-11-2009	REM	Applicant Arguments/Remarks Made in an Amendment	PROSECUTION	11	☐
12-11-2009	LET.	Miscellaneous Incoming Letter	PROSECUTION	1	☐
12-11-2009	WFEE	Fee Worksheet (PTO-875)	PROSECUTION	1	☐
11-13-2009	NTC.A.NONCPL	Notice to the applicant regarding a non-compliant or non-responsive amendment	PROSECUTION	3	☐
07-31-2009	A...	Amendment/Req. Reconsideration-After Non-Final Reject	PROSECUTION	1	☐
07-31-2009	SPEC	Specification	PROSECUTION	1	☐
07-31-2009	ABST	Abstract	PROSECUTION	1	☐
07-31-2009	CLM	Claims	PROSECUTION	12	☐
		Applicant			

THE MARKED ABSTRACT! →

Google Ex. 1022, p. 302

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 04/19/2011

EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

EXAMINER	
PHAN, DAO LINDA	
ART UNIT	**PAPER NUMBER**
3662	

MAIL DATE	DELIVERY MODE
04/19/2011	PAPER

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 Abandonment	Application No.	Applicant(s)	
	11/429,864	MENDELSON, EHUD	
	Examiner	Art Unit	
	Dao L. Phan	3662	

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

This application is abandoned in view of:

1. ☐ Applicant's failure to timely file a proper reply to the Office letter mailed on _____.
   (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
   (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
   (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
   (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
   (d) ☐ No reply has been received.

2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
   (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
   (b) ☐ The submitted fee of $_____ is insufficient. A balance of $_____ is due.
   The issue fee required by 37 CFR 1.18 is $_____. The publication fee, if required by 37 CFR 1.18(d), is $_____.
   (c) ☐ The issue fee and publication fee, if applicable, has not been received.

3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
   (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
   (b) ☐ No corrected drawings have been received.

4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.

5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.

6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.

7. ☒ The reason(s) below:

The amendment filed on 7/22/2010 is still non-compliant (the text of the cancelled claim must not be presented). Applicant can not be given more time.

/Dao L. Phan/
Primary Examiner, Art Unit 3662

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

07-23-10

ZW



In The United States Patent Trademark Office

Application No.: 11/429,864 Confirmation No. 4194
Applicant : Ehud Mendelson
Filed : May 5,2006
Examiner : Phan,Dao Linda Tel:
Docket No. : Nav4 Art Unit: 3662
Customer No. : 000061887

"Express Mail" mailing label number : EG 513017873 US
Date of Deposit July 22, 2010

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

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

REPLY TO OFFICE LETTER DATED JUN 25, 2010

Sir:

In response to the office action dated June 25,2010. The Examiner established a shortened statutory period for a response of one (1) Months. This Amendment is being submitted on or before the one (1) MONTH anniversary of July 25, 2010.

Attached is a copy of applicant letter to patent office date July 29,2009 INCLUDE amendments to the claims and specifications (starting on page 2) as well as clear claims (page 10) -from DEC 11, 2009

Applicant has amended the Specification. Applicant has submitted an annotated version of the Specification. clean version as a substitute specification herewith, both versions being identified in the top margin accordingly.

Applicant asserts that the amendments to the specification, and the amendments to the claims, as well as the traverses above clearly show that the present claims are patentable over the cited references and therefore should be allowed. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, a telephone call to the undersigned is respectfully solicited.

Very Respectfully,submitted,
Ehud Mendelson
Applicant Pro Se

Address all correspondence and telephone calls to:

Ehud Mendelson
Patent office customer number:000061887
Gamba Group LLC
11190 Heron bay blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:Ehud1@nav4emergency.com

Google Ex. 1022, p. 306

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UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 06/25/2010

EHUD MENDELSON
GAMBA GROUP LLC
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EXAMINER	
PHAN, DAO LINDA	

ART UNIT	PAPER NUMBER
3662	

MAIL DATE	DELIVERY MODE
06/25/2010	PAPER

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.

Google Ex. 1022, p. 307

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Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD	
	Examiner Dao L. Phan	Art Unit 3662	

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

The amendment document filed on *11 December 2009* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☒ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☒ B. Other *See Continuation Sheet*.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *See Continuation Sheet*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.
2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

   Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

   Failure to timely respond to this notice will result in:
   Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
   Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

/Dao L. Phan/
Primary Examiner, Art Unit 3662

Google Ex. 1022, p. 308

Best Available Copy

Continuation of 2(b) Other: Markings must be included in the amended abstract to show all changes relative to immediate prior version.

Continuation of 4(e) Other: the text of all claims being currently amended must be presented with markings to show changes relative to immediate prior version.

OPAP IAP8
JUL 22 2010
PATENT & TRADEMARK OFFICE

Response to office letter
Application:11/429,864

Mail stop fee amendment
Hon. Commission for patents
P.O. Box 1450
Alexandria,VA 22313-1450
"Express Mail" mailing label number :EH 573131235 US
Wednesday, July 29, 2009

Sir, Madam:

Responsive to the office letter dated July 02, 2009 application #:11/429,864 confirmation #:4194 art unit: 3662 Kindly identified the separate
Pages for the amendments and claims as requested .

Amendments to the specification begin on page 2-3 of this paper.

Amendments to the claims begin on page 4 of this paper.

Remarks/Arguments begin on page 16 of this paper.

Page 22 present a comparable matrix between our innovation and the others include Cohen et al

Please update in the publishing : Related Applications:

This application claims the benefit of US Provisional Application No. US60/678,947 filed May 9,2005.

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OPAP IAP8 JUL 22 2010 PATENT & TRADEMARK OFFICE

Response to office letter
Application:11/429,864

Mail stop fee amendment
Hon. Commission for patents
P.O. Box 1450
Alexandria,VA 22313-1450
"Express Mail" mailing label number :EH 947604304 US
Friday, December 11, 2009

Sir, Madam:

Responsive to the office letter dated Nov 13, 2009 application #:11/429,864 confirmation #:4194 art unit: 3662 Kindly identified the separate Pages for the amendment marked-up abstract and the marked-up amendments of claims as requested .

Amendments to the specification begin on page 2-3 of this paper.

Amendments to the claims begin on page 4 of this paper.

Remarks/Arguments begin on page 10 of this paper.

Page 16 present a comparable matrix between our innovation and the others include Cohen et al

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Google Ex. 1022, p. 311

OPAP IAP8 JUL 2 2 2010 PATENT & TRADEMARK OFFICE

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Google Ex. 1022, p. 312

Claim Amendments

1. (currently amended) A method for navigating in doors or in area where there is no GPS signal in or on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, car navigation and a Bluetooth enabled device, The method comprising: ~~the steps of:~~

a. loading floor/area map of the facility/area with list of the installed Bluetooth tags/sensor in a known locations in the area/facility.

b. Receiving signal directly ~~data~~ from a ~~RF~~ Bluetooth Tags/sensor installed in a known location in the area/facility, and not required a central system nor cellular communication or internet. ~~Tags/sensor, the data including positional data, type of the facility data selected from the group consisting of information guide provided at each facility. and displaying information as a floating on the display device.~~

c. receiving a signal from a tag/sensor enables proximity detection of the exact location , if more then one signal triangulation calculation will determining a current position of a user.

d. providing navigation on the floor/area map without the aid of GPS navigation.

Google Ex. 1022, p. 313

2. (currently amended) The method according to Claim 1, werein said ~~RF~~ Bluetooth tag/sensor can be installed on any place that designated as a waypoint.

3. (currently amended)The method according to Claim 1, which further comprises displaying the information over a facility map, area map, or floor plan downloaded to the display device at the area/facility or pre download from the web.

4. (original)The method according to Claim 1, wherein the information pertains to navigating a current facility area.

~~5.~~ (Canceled) ~~The method according to Claim 1, which further comprises determining a current position of a user by a triangulation calculation based on known positions of a plurality of wireless sensors implements in a known positions in the facility.~~

5. (new) The method according to claim 1 which further comprises floating the information on the area/facility map on the display device.

6. (currently amended)The method according to Claim 1, which further comprises displaying additional information of a facility object e.g. store , department ,special sales , coupons ,area information as a waypoint.

Google Ex. 1022, p. 314

7. (currently amended)The method according to Claim ~~5~~ 1, which further comprises navigating to the current way point using a floor map of the facility.

8.(currently amended)The method according to Claim 5 1, which further comprises allowing to convert the waypoint positions into GPS coordinates and emulate an external GPS data source. performing the determining step without the aid of a global positioning satellite system.

9. (original) The method according to Claim 1, which further comprises providing the display device/cellular phone with application software for displaying pre-loaded area maps or facility floor plans.

10. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors according to the user position/area and no bandwidth or internet needed.

11. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors without sending a request or a query for search in a database or internet.

12. (original)The method according to Claim 1, which further comprises navigation type of the facility selected from the group consisting but not limit of:

Google Ex. 1022, p. 315

navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough.

13. (currently amended)The method according to Claim 12, which further comprises navigation in a Special operation mode: - Shopping – NAV4SALE, provides navigation to the special sale item in a department store, coupons , specials or other promotions and even audio or video via a Bluetooth interface as advertising directly ~~push from the waypoint /store area~~ to the user Bluetooth device/cellular phone.

14. (Original)The method according to Claim 12, which further comprises navigation Special operating mode: – Museums – NAV4Museums, provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

15. (currently amended)The method according to Claim 12, which further comprises navigation Special operating mode: – Special operating mode: – NAV4STORE,NAVSALE provides navigation to and inside a store / department store to a specific department/aisle or specific product, special sales and coupons with option

Google Ex. 1022, p. 316

for advertising method and special promotion.

16. (currently amended)The method according to Claim 12,

which further comprises navigation Special operating mode: – Special operating mode: – Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device

via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show,

availability (lines...) fast pass, time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode: –

~~First response navigation~~ NAVEMERGENCY , which comprises a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

Identifies and tracks the user (a first response team member),
Provides the user with navigation information and directions for safely exiting of the Building area/facility,

Provides location information of all team members, via an ad hoc network of radio

Google Ex. 1022, p. 317

terminals that combine RF/Bluetooth readings and radio communication.
Provide alarm and notification of emergency situations to the user cellphone/Bluetooth.

18. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode:

NAV4Train, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, which comprises the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, ~~no more walking to the mapping inside the station or try to figure out your location in the map inside the subway train, each station will have a~~ tag/sensor installed in all the route to provide the user accurate locating and additional information that he may need like schedule , restroom , food, emergency information .

19. (new) The method according to Claim 12, which further comprises navigation Special operating mode: – Parking – NAV4PARKING a Bluetooth tag/sensors installed in a parking facility provide empty parking space detection and navigation to the empty parking available and RTP- return to parking – locate the place that you parked your car

Google Ex. 1022, p. 318

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Specification Amendments

Please replace the abstract of the disclosure, with the following amended abstract of the disclosure on page 3:

Google Ex. 1022, p. 319

Abstract of the disclosure

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites. The information will be received directly from Bluetooth sensors and will display on the existing cellular phone and or navigation devices.

Google Ex. 1022, p. 320

Claim Amendments

1. (currently amended) A method for navigating in doors or in area where there is no GPS signal in or on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, car navigation and a Bluetooth enabled device, The method comprising:

a. loading floor/area map of the facility/area with list of the installed Bluetooth tags/sensor in a known locations in the area/facility.

b. Receiving signal directly from a Bluetooth Tags/sensor installed in a known location in the area/facility, and not required a central system nor cellular communication or internet.

c. receiving a signal from a tag/sensor enables proximity detection of the exact location , if more then one signal triangulation calculation will determining a current position of a user.

d. providing navigation on the floor/area map without the aid of GPS navigation.

2. (currently amended) The method according to Claim 1, werein said Bluetooth tag/sensor can be installed on any place that designated as a waypoint.

Google Ex. 1022, p. 321

3. (currently amended)The method according to Claim 1, which further comprises displaying the information over a facility map, area map, or floor plan downloaded to the display device at the area/facility or pre download from the web.

4. (original)The method according to Claim 1, wherein the information pertains to navigating a current facility area.

5. (new) The method according to claim 1 which further comprises floating the information on the area/facility map on the display device.

6. (currently amended)The method according to Claim 1, which further comprises displaying additional information of a facility object e.g. store , department ,special sales , coupons ,area information as a waypoint.

7. (currently amended)The method according to Claim 1, which further comprises navigating to the current way point using a floor map of the facility.

8.(currently amended)The method according to Claim 1, which further comprises

Google Ex. 1022, p. 322

allowing to convert the waypoint positions into GPS coordinates and emulate an external GPS data source. performing the determining step without the aid of a global positioning satellite system.

9. (original) The method according to Claim 1, which further comprises providing the display device/cellular phone with application software for displaying pre-loaded area maps or facility floor plans.

10. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors according to the user position/area and no bandwidth or internet needed.

11. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors without sending a request or a query for search in a database or internet.

12. (original)The method according to Claim 1, which further comprises navigation type of the facility selected from the group consisting but not limit of:

Google Ex. 1022, p. 323

navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough.

13. (currently amended)The method according to Claim 12, which further comprises navigation in a Special operation mode: - Shopping – NAV4SALE, provides navigation to the special sale item in a department store, coupons ,_specials or other promotions and even audio or video via a Bluetooth interface as advertising directly to the user Bluetooth device/cellular phone.

14. (Original)The method according to Claim 12, which further comprises navigation Special operating mode: –
Museums – NAV4Museums, provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

15. (currently amended)The method according to Claim 12, which further comprises navigation Special operating mode: – Special operating mode: –

Google Ex. 1022, p. 324

NAV4STORE,NAVSALE provides navigation to and inside a store / department store to a specific department/aisle or specific product, special sales and coupons with option for advertising method and special promotion.

16. (currently amended)The method according to Claim 12,

which further comprises navigation Special operating mode: – Special operating mode: – Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device

via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show,

availability (lines...) fast pass, time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode: –

NAVEMERGENCY , which comprises a navigator for the

emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

Identifies and tracks the user (a first response team member),
Provides the user with navigation information and directions for safely exiting of the Building area/facility,

Google Ex. 1022, p. 325

Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.
Provide alarm and notification of emergency situations to the user cellphone/Bluetooth.

18. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode:

NAV4Train, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, which comprises the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, tag/sensor installed in all the route to provide the user accurate locating and additional information that he may need like schedule , restroom , food, emergency information .

19. (new) The method according to Claim 12, which further comprises navigation Special operating mode: – Parking – NAV4PARKING a Bluetooth tag/sensors installed in a parking facility provide empty parking space detection and navigation to the empty parking available and RTP- return to parking – locate the place that you parked your car.

Google Ex. 1022, p. 326

OPAP IAP8 JUL 2 2 2010 PATENT & TRADEMARK OFFICE

Remarks

Reconsideration of the application is requested.

Cohen et el teach a method for Tracking and not **navigating!!!!**..., and there is a big deferent between a tracking system and method as he describe and a navigating system,

Tracking/locating is to find where the "user"/assets /cars/fleet/people are, navigating is to provide users with a way to go from point to point in an area most likely on a map of the area/facility ..searching the internet : there is tracking system to find where assest and users are and there is navigation system – it is not the same and I will explain in more details:

Cohen et al : describe a ground base tracking system to find Doctors in an hospital etc.. The fact is that he didn't even mention the word navigation in his claims at all…

More over even in paragraph (0056) that was mention in your letter (the examination letter) "Although the present invention is illustrated in FIG. 1 and described herein with reference to a GPS 105, it will be appreciated **that the ground-based tracking system** 115 can also effect **accurate tracking** of the WID 125 in the interior of the hospital 120 without the use of the GPS 105. For instance, **the ground-based tracking system** 115 may rely entirely on a large number of indoor communication units that receive RF or other signals transmitted by the WID 125 as it moves through the hospital, which are in turn used to accurately identify the position of the WID 125. For example, the rough position of the WID 125 may be obtained by determining which local antennas receive communications from the WID 125, and more precise location information may be obtained using time-of-flight and triangulation techniques, as are known in the art."

The word navigation not mention at all, only tracking or tracking system...

Again the fact is that the ONLY TIME the word NAVIGATION mention
With a connection to Navigation system is in (0054) when discuss option to put an GPS antenna at the top of the building for option to integrated the signal of GPS to the innovation TRACKING SYSTEM …

The other 2 times that the word navigation mention is with navigation button keys and not navigation system…

To the contra the innovation idea as a TRACKING SYSTEM or a ground based TRACKING SYSTEM mentions over then 35 times over the application.

More over the word "MAPPING" as need in navigation not mention at all in Cohen application.

Google Ex. 1022, p. 327

The information below is from Cohen, Mark et el 20050021369,

And my notation: marks (EHUD MENDELSON NOTE) ******

(Abstract)"A wireless information device provides a user with context relevant information. The precise location of the wireless device is monitored by a **tracking system**. Using the location of the wireless device and the identity of the user, **context relevant information is transmitted to the device**, where the context relevant information is pre-defined, at least in part, by the user. Context relevant information served to the device depends on the identity of the user, the location of the device, and the proximity of the device to persons or objects. The wireless information device **may be used by healthcare workers, such as physicians, in hospitals,** although other environments are contemplated, such as hotels, airports, zoos, theme parks, and the like."

(EHUD MENDELSON NOTE) ****** Cohen innovation is a TRACKING SYSTEM and not navigation at all...

(Claim 8)" 8. The method of claim 7, **where the display rules are stored external to the wireless information device"**

(EHUD MENDELSON NOTE) ****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 9) "9. the method of claim 1, further comprising the steps of: receiving user-input information at the wireless information device, and **transmitting the user-input information to a server."**

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(claim10). "The method of claim 1, wherein the step of determining the location of the wireless information device comprises determining the location of the wireless information device **using a tracking system** selected from the group of tracking systems consisting of a global positioning system and a radio frequency-based positioning system."

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM that consisting of a GPS and a RF..., GPS not working indoor, our system do not use GPS.

Google Ex. 1022, p. 328

(Claim 14) "14. The method of claim 13, wherein the step of accessing information rules comprises the step of accessing information rules **stored remote from the wireless information device**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 21) "A system for displaying information, comprising: an information device, **the information device being associated with a user; and at least one server,** in wireless communication with the information device, wherein the at least one server is operable to transmit context relevant information to the information device, where the context-relevant information is based at least in part on the identity of the user, the location of the wireless information device, and the proximity of the wireless information device to at least one object."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 22) "The system of claim 21, further **comprising at least one database in communication with the at least one server,** where the at least one database is operable to store information from which the context relevant information is retrieved"

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 23) "The system of claim 22, **wherein the at least one server is associated with a facility, and wherein the at least one database stores facility** information."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 24) "The system of claim 22, **wherein the at least one database** comprises a hospital database, wherein the hospital database stores patient information".

Google Ex. 1022, p. 329

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 27) "The system of claim 21, further **comprising a tracking system**, in communication with the information device, for identifying the location of the information device"

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM

(Claim 30) "The system of claim 29, wherein the information device is operable to transmit the information **input by the user to the server**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 34) "The computer program product of claim 33, **wherein the computer readable code portions are executed at a server local to a hospital**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 36) "An apparatus for receiving information, comprising: a wireless receiver, wherein the wireless receiver is operable to receive context relevant information; and at least one display operable to present the context relevant information to a user, **wherein the context relevant information is transmitted to the apparatus by at least one server in communication with the apparatus,** where the context-relevant information based at least in part on the identity of a user associated with the apparatus, the location of the apparatus, and the proximity of the apparatus to a person or object."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

Google Ex. 1022, p. 330

The facts is that Cohen et el never intend nor there is any anticipation to use his system the TRACKING SYSTEM as navigation as he describe the use by Healthcare WORKERS... and the need to LOCATE AND TRACK THEM , our system instead is for people that need to know where they are (Employee for sure know that...) and NAVIGATE IN A FACILITY MOST LIKELY NOT FAMILER WITH THEM... on a mapping (not mention at all by Cohen ..) of the facility with a direct connection between the user device and the sensors /Tags WHERE Cohen et el innovation is for a TRACKING SYSTEM used by at least one server and to be used for tracking the workers (most likely familiar with the area and the facility) to track where they are so they can provide a better service to the Hospital patient , and in Hotel to find where the staff are and inform them of the customers need ....

Our system is deferent by providing NAVIGATION and not tracking system, it use the facility mapping and sensors / Tags in a known location to allow navigation – most likely to people hospital visitors, mall or hotels customers ...

Our system uses the user cellular phone as a device with Bluetooth...

Our system method is a direct communication between the device and the sensors/tags – NO NEED TO SERVER LIKE Cohen et el system, NO communication between the device and back server or DATA BASE OR SET OF RULES ETC... THAT NEEDS AT LEAST ONE SERVER... as mention in Cohen et el TRACKING SYSTEM.

As we can see from (0014)...information to be manage or resides in a central computer...

(0022) access info. Rules store in a remote system...

(0024) the system includes info device and at least one server...

(0025)...one database with one server...

(0026) server needed...

The display method describe in Cohen et el innovation is more on the way of display on the external system/server for tracking the user and not allow NAVIGATION like our method , the floating information describe in our innovation allow NAVIGATION And it's floating on a facility map and or stands alone for NAVIGATING THE FACILITY, Cohen information, most likely text about the Hospital patient or Hotel customers that need service/help... etc...

Our system contain the user cell phone with Bluetooth device to be able to id his location and allow him to NAVIGATE IN AND ON THE FACILITY on the facility/area mapping without need for GPS or GPS antenna as mention at (0054) of Cohen et al.

Google Ex. 1022, p. 331

From our application :

[0025] At present, however, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a GPS based system directly to the "user". Also most of systems are designed for the old query type search where interface to internet and or database central system needed

Cohen et el system above needed server or ext database

[0026] Our system automatically detects a signal directly from the sensors, no communication needed not even cellular communication. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

Cohen et el system above needed server or ext database

[0027] Even if the other systems have bandwidth, they still based on the existing search concept where under the user submits a query, searches and awaits for the response. All impractical. Our system provides the information automatically, without submitting any query, and the response is according to the user's location.

Cohen et el system above needed server or ext database

[0028] Again, most of the existing prior arts are based either on a GPS based system or the existing car navigator, that depends on a GPS too. And the existing mapping that these systems use has the same limitations described previously and is impractical.

Cohen et el system not mention Navigation method – just tracking system and no mention of mapping at all..

[0029] We believe that our system method bridges the gap between the GPS based navigation and provides a complete solution.

[0077] In an indoor or outdoor navigation situation our sensor net, and sensor tags, replace the satellite in a GPS based system, to provide the user with the information and directions needed to reach the destination.

[0078] Our innovation has three major parts:

[0079] The navigator, the special method used to display the data and the sensors.

[0080] It is not a location and tracking system as offered by other systems.

Google Ex. 1022, p. 332

In review to the un comparable between mendelson innovation and Squire it is to ask the examiner to approve mendelson innovation application .

To help we provide a comparable matrix of the deference's between our innovation and others include Cohen et el:

Comparable matrix

Compare our innovation to others	our	others
Scoop of innovation	Indoor Navigation	Locating/ Tracking assets ,people
Technology	Bluetooth No GPS needed	RF GPS may needed
Display	Cellular phone standard bluetooth	Special display , special RF
Connections	Direct ,no need of central system nor other communication	Required central system and or internet, not a direct connection
Database	Not req.	Req. central database
infrastructure	Simple, no central cpu , no central Database no other comm.	Complex, need complex central system and comm.
benefit	To user	Tracking /locating the user or assets from outside

Example of Locating/tracking from today market news:

Google Ex. 1022, p. 333

A GPS based locating/tracking

Real-time child tracker goes mobile

Jul 28, 2009

Tags: GPS child locator GPS child tracker LBS location based services mobile LBS mobile location based services

The Amber Alert GPS 2G is a real-time child tracker that attempts to close the stable door before the horse bolts, as it were ...



The world's smallest AAGPS tracking device was designed to fit into a pocket, purse, backpack or car, or attach to a wrist, ankle, or belt.

A parent can then track his child by calling the device or texting the word "where", and within seconds a detailed map and street address of the device's exact location will be sent to the parent's web-enabled cell -phone.

Parents can also track one or more devices from a PC.

The water-resistant device includes the following features:

- **Safe Zone:** Parents can define a virtual boundary. The device will send an alert when it carried outside this safe zone, and will continue to send safe zone alerts by text or email every five minutes, leaving a virtual breadcrumb location trail. Parents can change or cancel the safe zone from a cell-phone or computer.
- **Monitoring:** This feature allows parents to call the device from a cell-phone and listen to any actual conversations or ambient noise.
- **Real-time tracking:** Within seconds, any request to the device is answered with up-to-the-second displays of maps and addresses.
- **Memory:** If a child enters an area where there is no GPS signal, e.g. an underground parking garage, the device remembers that entry point.
- **Temperature alert:** The device will alert parents if the ambient temperature rises above or drops below user-defined thresholds.
- **Speed:** If the device is attached to a vehicle, the parent will be notified if the device exceeds a pre-defined speed limit. If the device is attached to an individual child, the parent will know immediately that the child is in a moving car.
- **SOS:** If a child is in a dangerous or threatening situation, he can press and hold the SOS button. The device will then send a "HELP ME" text and email to five pre-selected individuals and will

An email quotation from Hi technical person in Navteq (the biggest known providers of NAVIGATION,MAPPING technologies

Google Ex. 1022, p. 334

today) about our technology innovation and how unique it is to the existing methods known today !!!..

Quotation

From: Naqi, Athar naqi@navteq.com]
Sent: Thursday, April 10, 2008 7:38 PM
To: Ehud1; Wheeler, Doug
Subject: RE: Sign Nda
Sensitivity: Confidential

Udi,

Thank you – I have forwarded it to our legal for their signature. Will send you a signed copy as soon as it is completed.

In the meantime, I have given your contact info and the brochure to our product management – I believe that it is the right place.

Doug, by copy of this email – please note that NDA is in process. I should be receiving it from our legal shortly. I would recommend having a call with Udi and his team. Sounds like a cool technology (better than wi-fi or RFID to track inside the building). I worked in the wi-fi and RFID for many of years, and these technologies for tracking assets, people are oversold, with not a significant market penetration. What Udi is offering, can be very compelling.

Thank you,

Naqi

Google Ex. 1022, p. 335

Explain about the claims changes on page 4-15 on this document:

Claim 1-18 are fixed as requested by the office

Claims 1 -3 are change and currently amended ,

claims 5- canceled and a new one (5) amended

claim 6 - 8 change and currently amended

claim 9-12 are original

claims 13 is change and currently amended

Claims 14 are original

Claims 15-18 change and currently amended

Claim 19 is new and amended

Google Ex. 1022, p. 336

Petition for extension is **made and paid**. The extension fee for response within a period of 3 months pursuant to section 1.136(a) in the amount of $555.00 in accordance with section 1.17 **was sent and paid.**

Respectfully submitted,

Ehud Mendelson
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Coral Springs , FL 33076
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Email:ehud1@myacc.net
Customer No. 061887

Attached :
Patent office letter from 11/13/2009
Certificate of mailing

Google Ex. 1022, p. 337

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 06/25/2010

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EXAMINER	
PHAN, DAO LINDA	
ART UNIT	**PAPER NUMBER**
3662	

MAIL DATE	DELIVERY MODE
06/25/2010	PAPER

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 Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD	
	Examiner Dao L. Phan	Art Unit 3662	

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

The amendment document filed on *11 December 2009* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☒ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☒ B. Other *See Continuation Sheet*.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *See Continuation Sheet*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):

_____

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

   Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

   Failure to timely respond to this notice will result in:
   Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
   Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

/Dao L. Phan/
Primary Examiner, Art Unit 3662

Continuation of 2(b) Other: Markings must be included in the amended abstract to show all changes relative to immediate prior version.

Continuation of 4(e) Other: the text of all claims being currently amended must be presented with markings to show changes relative to immediate prior version.

OIPE IAP68
DEC 11 2009
PATENT & TRADEMARK OFFICE

12-14-09

IFW

Response to office letter
Application:11/429,864

Mail stop fee amendment
Hon. Commission for patents
P.O. Box 1450
Alexandria,VA 22313-1450
"Express Mail" mailing label number :EH 947604304 US
Friday, December 11, 2009

Sir, Madam:

Responsive to the office letter dated Nov 13, 2009 application #:11/429,864 confirmation #:4194 art unit: 3662 Kindly identified the separate Pages for the amendment marked-up abstract and the marked-up amendments of claims as requested .

Amendments to the specification begin on page 2-3 of this paper.

Amendments to the claims begin on page 4 of this paper.

Remarks/Arguments begin on page 10 of this paper.

Page 16 present a comparable matrix between our innovation and the others include Cohen et al

Please update in the publishing : Related Applications:

This application claims the benefit of US Provisional Application No. US60/678,947 filed May 9,2005.

Google Ex. 1022, p. 341

Specification Amendments

Please replace the abstract of the disclosure, with the following amended abstract of the disclosure on page 3:

Google Ex. 1022, p. 342

Abstract of the disclosure

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites. The information will be received directly from Bluetooth sensors and will display on the existing cellular phone and or navigation devices.

Google Ex. 1022, p. 343

Claim Amendments

1. (currently amended) A method for navigating in doors or in area where there is no GPS signal in or on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, car navigation and a Bluetooth enabled device, The method comprising:

a. loading floor/area map of the facility/area with list of the installed Bluetooth tags/sensor in a known locations in the area/facility.

b. Receiving signal directly from a Bluetooth Tags/sensor installed in a known location in the area/facility, and not required a central system nor cellular communication or internet.

c. receiving a signal from a tag/sensor enables proximity detection of the exact location , if more then one signal triangulation calculation will determining a current position of a user.

d. providing navigation on the floor/area map without the aid of GPS navigation.

2. (currently amended) The method according to Claim 1, werein said Bluetooth tag/sensor can be installed on any place that designated as a waypoint.

Google Ex. 1022, p. 344

3. (currently amended)The method according to Claim 1, which further comprises displaying the information over a facility map, area map, or floor plan downloaded to the display device at the area/facility or pre download from the web.

4. (original)The method according to Claim 1, wherein the information pertains to navigating a current facility area.

5. (new) The method according to claim 1 which further comprises floating the information on the area/facility map on the display device.

6. (currently amended)The method according to Claim 1, which further comprises displaying additional information of a facility object e.g. store , department ,special sales , coupons ,area information as a waypoint.

7. (currently amended)The method according to Claim 1, which further comprises navigating to the current way point using a floor map of the facility.

8.(currently amended)The method according to Claim 1, which further comprises

Google Ex. 1022, p. 345

allowing to convert the waypoint positions into GPS coordinates and emulate an external GPS data source. performing the determining step without the aid of a global positioning satellite system.

9. (original) The method according to Claim 1, which further comprises providing the display device/cellular phone with application software for displaying pre-loaded area maps or facility floor plans.

10. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors according to the user position/area and no bandwidth or internet needed.

11. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors without sending a request or a query for search in a database or internet.

12. (original)The method according to Claim 1, which further comprises navigation type of the facility selected from the group consisting but not limit of:

Google Ex. 1022, p. 346

navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough.

13. (currently amended)The method according to Claim 12, which further comprises navigation in a Special operation mode: - Shopping – NAV4SALE, provides navigation to the special sale item in a department store, coupons ,_specials or other promotions and even audio or video via a Bluetooth interface as advertising directly to the user Bluetooth device/cellular phone.

14. (Original)The method according to Claim 12, which further comprises navigation Special operating mode: –
Museums – NAV4Museums, provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

15. (currently amended)The method according to Claim 12, which further comprises navigation Special operating mode: – Special operating mode: –

Google Ex. 1022, p. 347

NAV4STORE,NAVSALE provides navigation to and inside a store / department store to a specific department/aisle or specific product, special sales and coupons with option for advertising method and special promotion.

16. (currently amended)The method according to Claim 12,

which further comprises navigation Special operating mode: – Special operating mode: – Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device

via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show,

availability (lines...) fast pass, time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode: –

NAVEMERGENCY , which comprises a navigator for the

emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

Identifies and tracks the user (a first response team member),
Provides the user with navigation information and directions for safely exiting of the

Google Ex. 1022, p. 348

Building area/facility,

Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.
Provide alarm and notification of emergency situations to the user cellphone/Bluetooth.

18. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode:

NAV4Train, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, which comprises the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, tag/sensor installed in all the route to provide the user accurate locating and additional information that he may need like schedule , restroom , food, emergency information .

19. (new) The method according to Claim 12, which further comprises navigation Special operating mode: – Parking – NAV4PARKING a Bluetooth tag/sensors installed in a parking facility provide empty parking space detection and navigation to the empty parking available and RTP- return to parking – locate the place that you parked your car.

Google Ex. 1022, p. 349

Remarks

Reconsideration of the application is requested.

Cohen et el teach a method for Tracking and not **navigating!!!!**..., and there is a big deferent between a tracking system and method as he describe and a navigating system,

Tracking/locating is to find where the "user"/assets /cars/fleet/people are, navigating is to provide users with a way to go from point to point in an area most likely on a map of the area/facility ..searching the internet : there is tracking system to find where assest and users are and there is navigation system – it is not the same and I will explain in more details:

Cohen et al : describe a ground base tracking system to find Doctors in an hospital etc.. The fact is that he didn't even mention the word navigation in his claims at all...

More over even in paragraph (0056) that was mention in your letter (the examination letter) "Although the present invention is illustrated in FIG. 1 and described herein with reference to a GPS 105, it will be appreciated **that the ground-based tracking system** 115 can also effect **accurate tracking** of the WID 125 in the interior of the hospital 120 without the use of the GPS 105. For instance, **the ground-based tracking system** 115 may rely entirely on a large number of indoor communication units that receive RF or other signals transmitted by the WID 125 as it moves through the hospital, which are in turn used to accurately identify the position of the WID 125. For example, the rough position of the WID 125 may be obtained by determining which local antennas receive communications from the WID 125, and more precise location information may be obtained using time-of-flight and triangulation techniques, as are known in the art."

The word navigation not mention at all, only tracking or tracking system...

Again the fact is that the ONLY TIME the word NAVIGATION mention
With a connection to Navigation system is in (0054) when discuss option to put an GPS antenna at the top of the building for option to integrated the signal of GPS to the innovation TRACKING SYSTEM ...

The other 2 times that the word navigation mention is with navigation button keys and not navigation system...

To the contra the innovation idea as a TRACKING SYSTEM or a ground based TRACKING SYSTEM mentions over then 35 times over the application.

More over the word "MAPPING" as need in navigation not mention at all in Cohen application.

Google Ex. 1022, p. 350

The information below is from Cohen, Mark et el 20050021369,

And my notation: marks (EHUD MENDELSON NOTE) ******

(Abstract)"A wireless information device provides a user with context relevant information. The precise location of the wireless device is monitored by a **tracking system**. Using the location of the wireless device and the identity of the user, **context relevant information is transmitted to the device**, where the context relevant information is pre-defined, at least in part, by the user. Context relevant information served to the device depends on the identity of the user, the location of the device, and the proximity of the device to persons or objects. The wireless information device **may be used by healthcare workers, such as physicians, in hospitals,** although other environments are contemplated, such as hotels, airports, zoos, theme parks, and the like."

(EHUD MENDELSON NOTE) ****** Cohen innovation is a TRACKING SYSTEM and not navigation at all...

(Claim 8)" 8. The method of claim 7, **where the display rules are stored external to the wireless information device"**

(EHUD MENDELSON NOTE) ****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 9) "9. the method of claim 1, further comprising the steps of: receiving user-input information at the wireless information device, and **transmitting the user-input information to a server."**

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(claim10). "The method of claim 1, wherein the step of determining the location of the wireless information device comprises determining the location of the wireless information device **using a tracking system** selected from the group of tracking systems consisting of a global positioning system and a radio frequency-based positioning system."

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM that consisting of a GPS and a RF..., GPS not working indoor, our system do not use GPS.

Google Ex. 1022, p. 351

(Claim 14) "14. The method of claim 13, wherein the step of accessing information rules comprises the step of accessing information rules **stored remote from the wireless information device**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 21) "A system for displaying information, comprising: an information device, **the information device being associated with a user; and at least one server,** in wireless communication with the information device, wherein the at least one server is operable to transmit context relevant information to the information device, where the context-relevant information is based at least in part on the identity of the user, the location of the wireless information device, and the proximity of the wireless information device to at least one object."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 22) "The system of claim 21, further **comprising at least one database in communication with the at least one server,** where the at least one database is operable to store information from which the context relevant information is retrieved"

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 23) "The system of claim 22, **wherein the at least one server is associated with a facility, and wherein the at least one database stores facility** information."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 24) "The system of claim 22, **wherein the at least one database** comprises a hospital database, wherein the hospital database stores patient information".

Google Ex. 1022, p. 352

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 27) "The system of claim 21, further **comprising a tracking system**, in communication with the information device, for identifying the location of the information device"

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM

(Claim 30) "The system of claim 29, wherein the information device is operable to transmit the information **input by the user to the server**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 34) "The computer program product of claim 33, **wherein the computer readable code portions are executed at a server local to a hospital**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 36) "An apparatus for receiving information, comprising: a wireless receiver, wherein the wireless receiver is operable to receive context relevant information; and at least one display operable to present the context relevant information to a user, **wherein the context relevant information is transmitted to the apparatus by at least one server in communication with the apparatus,** where the context-relevant information based at least in part on the identity of a user associated with the apparatus, the location of the apparatus, and the proximity of the apparatus to a person or object."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

Google Ex. 1022, p. 353

The facts is that Cohen et el never intend nor there is any anticipation to use his system the TRACKING SYSTEM as navigation as he describe the use by Healthcare WORKERS... and the need to LOCATE AND TRACK THEM , our system instead is for people that need to know where they are (Employee for sure know that...) and NAVIGATE IN A FACILITY MOST LIKELY NOT FAMILER WITH THEM... on a mapping (not mention at all by Cohen ..) of the facility with a direct connection between the user device and the sensors /Tags WHERE Cohen et el innovation is for a TRACKING SYSTEM used by at least one server and to be used for tracking the workers (most likely familiar with the area and the facility) to track where they are so they can provide a better service to the Hospital patient , and in Hotel to find where the staff are and inform them of the customers need ....

Our system is deferent by providing NAVIGATION and not tracking system, it use the facility mapping and sensors / Tags in a known location to allow navigation – most likely to people hospital visitors, mall or hotels customers ...

Our system uses the user cellular phone as a device with Bluetooth...

Our system method is a direct communication between the device and the sensors/tags – NO NEED TO SERVER LIKE Cohen et el system, NO communication between the device and back server or DATA BASE OR SET OF RULES ETC... THAT NEEDS AT LEAST ONE SERVER... as mention in Cohen et el TRACKING SYSTEM.

As we can see from (0014)...information to be manage or resides in a central computer...

(0022) access info. Rules store in a remote system...

(0024) the system includes info device and at least one server...

(0025)...one database with one server...

(0026) server needed...

The display method describe in Cohen et el innovation is more on the way of display on the external system/server for tracking the user and not allow NAVIGATION like our method , the floating information describe in our innovation allow NAVIGATION And it's floating on a facility map and or stands alone for NAVIGATING THE FACILITY, Cohen information, most likely text about the Hospital patient or Hotel customers that need service/help... etc...

Our system contain the user cell phone with Bluetooth device to be able to id his location and allow him to NAVIGATE IN AND ON THE FACILITY on the facility/area mapping without need for GPS or GPS antenna as mention at (0054) of Cohen et al.

Google Ex. 1022, p. 354

From our application :

[0025] At present, however, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a GPS based system directly to the "user". Also most of systems are designed for the old query type search where interface to internet and or database central system needed

Cohen et el system above needed server or ext database

[0026] Our system automatically detects a signal directly from the sensors, no communication needed not even cellular communication. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

Cohen et el system above needed server or ext database

[0027] Even if the other systems have bandwidth, they still based on the existing search concept where under the user submits a query, searches and awaits for the response. All impractical. Our system provides the information automatically, without submitting any query, and the response is according to the user's location.

Cohen et el system above needed server or ext database

[0028] Again, most of the existing prior arts are based either on a GPS based system or the existing car navigator, that depends on a GPS too. And the existing mapping that these systems use has the same limitations described previously and is impractical.

Cohen et el system not mention Navigation method – just tracking system and no mention of mapping at all..

[0029] We believe that our system method bridges the gap between the GPS based navigation and provides a complete solution.

[0077] In an indoor or outdoor navigation situation our sensor net, and sensor tags, replace the satellite in a GPS based system, to provide the user with the information and directions needed to reach the destination.

[0078] Our innovation has three major parts:

[0079] The navigator, the special method used to display the data and the sensors.

[0080] It is not a location and tracking system as offered by other systems.

Google Ex. 1022, p. 355

In review to the un comparable between mendelson innovation and Squire it is to ask the examiner to approve mendelson innovation application .

To help we provide a comparable matrix of the deference's between our innovation and others include Cohen et el:

Comparable matrix

Compare our innovation to others	our	others
Scoop of innovation	Indoor Navigation	Locating/ Tracking assets ,people
Technology	Bluetooth No GPS needed	RF GPS may needed
Display	Cellular phone standard bluetooth	Special display , special RF
Connections	Direct ,no need of central system nor other communication	Required central system and or internet, not a direct connection
Database	Not req.	Req. central database
infrastructure	Simple, no central cpu , no central Database no other comm.	Complex, need complex central system and comm.
benefit	To user	Tracking /locating the user or assets from outside

Example of Locating/tracking from today market news:

Google Ex. 1022, p. 356

A GPS based locating/tracking

Real-time child tracker goes mobile

Jul 28, 2009

Tags: GPS child locator GPS child tracker LBS location based services mobile LBS mobile location based services

The Amber Alert GPS 2G is a real-time child tracker that attempts to close the stable door before the horse bolts, as it were ...



The world's smallest AAGPS tracking device was designed to fit into a pocket, purse, backpack or car, or attach to a wrist, ankle, or belt.

A parent can then track his child by calling the device or texting the word "where", and within seconds a detailed map and street address of the device's exact location will be sent to the parent's web-enabled cell -phone.

Parents can also track one or more devices from a PC.

The water-resistant device includes the following features:

- **Safe Zone:** Parents can define a virtual boundary. The device will send an alert when it carried outside this safe zone, and will continue to send safe zone alerts by text or email every five minutes, leaving a virtual breadcrumb location trail. Parents can change or cancel the safe zone from a cell-phone or computer.
- **Monitoring:** This feature allows parents to call the device from a cell-phone and listen to any actual conversations or ambient noise.
- **Real-time tracking:** Within seconds, any request to the device is answered with up-to-the-second displays of maps and addresses.
- **Memory:** If a child enters an area where there is no GPS signal, e.g. an underground parking garage, the device remembers that entry point.
- **Temperature alert:** The device will alert parents if the ambient temperature rises above or drops below user-defined thresholds.
- **Speed:** If the device is attached to a vehicle, the parent will be notified if the device exceeds a pre-defined speed limit. If the device is attached to an individual child, the parent will know immediately that the child is in a moving car.
- **SOS:** If a child is in a dangerous or threatening situation, he can press and hold the SOS button. The device will then send a "HELP ME" text and email to five pre-selected individuals and will

An email quotation from Hi technical person in Navteq (the biggest known providers of NAVIGATION,MAPPING technologies

Google Ex. 1022, p. 357

today) about our technology innovation and how unique it is to the existing methods known today !!!..

Quotation

From: Naqi, Athar naqi@navteq.com]
Sent: Thursday, April 10, 2008 7:38 PM
To: Ehud1; Wheeler, Doug
Subject: RE: Sign Nda
Sensitivity: Confidential

Udi,

Thank you – I have forwarded it to our legal for their signature. Will send you a signed copy as soon as it is completed.

In the meantime, I have given your contact info and the brochure to our product management – I believe that it is the right place.

Doug, by copy of this email – please note that NDA is in process. I should be receiving it from our legal shortly. I would recommend having a call with Udi and his team. Sounds like a cool technology (better than wi-fi or RFID to track inside the building). I worked in the wi-fi and RFID for many of years, and these technologies for tracking assets, people are oversold, with not a significant market penetration. What Udi is offering, can be very compelling.

Thank you,

Naqi

Google Ex. 1022, p. 358

Explain about the claims changes on page 4-15 on this document:

Claim 1-18 are fixed as requested by the office

Claims 1 -3 are change and currently amended ,

claims 5- canceled and a new one (5) amended

claim 6 - 8 change and currently amended

claim 9-12 are original

claims 13 is change and currently amended

Claims 14 are original

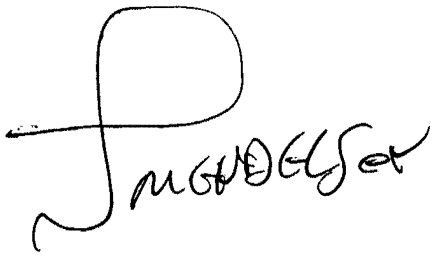
Claims 15-18 change and currently amended

Claim 19 is new and amended

Google Ex. 1022, p. 359

Petition for extension is **made and paid**. The extension fee for response within a period of 3 months pursuant to section 1.136(a) in the amount of $555.00 in accordance with section 1.17 **was sent and paid.**

Respectfully submitted,



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Email:ehud1@myacc.net
Customer No. 061887

Attached :
Patent office letter from 11/13/2009
Certificate of mailing

Google Ex. 1022, p. 360

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 11/13/2009

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EXAMINER	
PHAN, DAO LINDA	
ART UNIT	**PAPER NUMBER**
3662	

MAIL DATE	DELIVERY MODE
11/13/2009	PAPER

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.

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
11/429,864	05/08/2006	

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 12/11/2009

	(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))	* 19	Minus	** 20	= 0	X $26 =	0	OR	X $ =	
Independent (37 CFR 1.16(h))	* 1	Minus	***3	= 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 ($)	ADDITIONAL FEE ($)		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:
/ANNIE c. SINGLETON/

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.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 11/13/2009

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EXAMINER	
PHAN, DAO LINDA	
ART UNIT	PAPER NUMBER
3662	

MAIL DATE	DELIVERY MODE
11/13/2009	PAPER

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 Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD	
	Examiner Dao L. Phan	Art Unit 3662	

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

The amendment document filed on *31 July 2009* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☒ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☒ B. Other *Marked-up abstract need to be submitted only.*.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *See Continuation Sheet*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):

_____

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

   Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

   Failure to timely respond to this notice will result in:
   Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
   Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

/Dao L. Phan/ Primary Examiner, Art Unit 3662	

Continuation of 4(e) Other: The text of a cancelled claim must not be presented. Marked-up claims need to submitted only.

08-03-09 IFW



Response to office letter
Application:11/429,864

Mail stop fee amendment
Hon. Commission for patents
P.O. Box 1450
Alexandria,VA 22313-1450
"Express Mail" mailing label number :EH 573131235 US
Wednesday, July 29, 2009

Sir, Madam:

Responsive to the office letter dated July 02, 2009 application #:11/429,864 confirmation #:4194 art unit: 3662 Kindly identified the separate
Pages for the amendments and claims as requested .

Amendments to the specification begin on page 2-3 of this paper.

Amendments to the claims begin on page 4 of this paper.

Remarks/Arguments begin on page 16 of this paper.

Page 22 present a comparable matrix between our innovation and the others include Cohen et al

Please update in the publishing : Related Applications:

This application claims the benefit of US Provisional Application No. US60/678,947 filed May 9,2005.

Google Ex. 1022, p. 366

Specification Amendments

Please replace the abstract of the disclosure, with the following amended abstract of the disclosure:

ABSTRACT OF THE DISCLOSURE

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites. The information will be received directly from ~~RF~~ Bluetooth sensors and will display on the existing cellular phone as Bluetooth application .

Google Ex. 1022, p. 367

Abstract of the disclosure

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites. The information will be received directly from Bluetooth sensors and will display on the existing cellular phone as Bluetooth application.

Google Ex. 1022, p. 368

Claim Amendments

1. (currently amended) A method for navigating in doors or in area where there is no GPS signal in or on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, car navigation and a Bluetooth enabled device, The method comprising: ~~the steps of:~~

a. loading floor/area map of the facility/area with list of the installed Bluetooth tags/sensor in a known locations in the area/facility.

b. Receiving signal directly ~~data~~ from a ~~RF~~ Bluetooth Tags/sensor installed in a known location in the area/facility, and not required a central system nor cellular communication or internet. ~~Tags/sensor, the data including positional data, type of the facility data selected from the group consisting of information guide provided at each facility. and displaying information as a floating on the display device.~~

c. receiving a signal from a tag/sensor enables proximity detection of the exact location , if more then one signal triangulation calculation will determining a current position of a user.

d. providing navigation on the floor/area map without the aid of GPS navigation.

Google Ex. 1022, p. 369

2. (currently amended) The method according to Claim 1, werein said ~~RF~~ Bluetooth tag/sensor can be installed on any place that designated as a waypoint.

3. (currently amended)The method according to Claim 1, which further comprises displaying the information over a facility map, area map, or floor plan downloaded to the display device at the area/facility or pre download from the web.

4. (original)The method according to Claim 1, wherein the information pertains to navigating a current facility area.

~~5.~~ (Canceled) ~~The method according to Claim 1, which further comprises determining a current position of a user by a triangulation calculation based on known positions of a plurality of wireless sensors implements in a known positions in the facility.~~

5. (new) The method according to claim 1 which further comprises floating the information on the area/facility map on the display device.

6. (currently amended)The method according to Claim 1, which further comprises displaying additional information of a facility object e.g. store , department ,special sales , coupons ,area information as a waypoint.

Google Ex. 1022, p. 370

7. (currently amended)The method according to Claim ~~5~~ 1, which further comprises navigating to the current way point using a floor map of the facility.

8.(currently amended)The method according to Claim 5 1, which further comprises allowing to convert the waypoint positions into GPS coordinates and emulate an external GPS data source. performing the determining step without the aid of a global positioning satellite system.

9. (original) The method according to Claim 1, which further comprises providing the display device/cellular phone with application software for displaying pre-loaded area maps or facility floor plans.

10. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors according to the user position/area and no bandwidth or internet needed.

11. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors without sending a request or a query for search in a database or internet.

12. (original)The method according to Claim 1, which further comprises navigation type of the facility selected from the group consisting but not limit of:

Google Ex. 1022, p. 371

navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough.

13. (currently amended)The method according to Claim 12, which further comprises navigation in a Special operation mode: - Shopping – NAV4SALE, provides navigation to the special sale item in a department store, coupons , specials or other promotions and even audio or video via a Bluetooth interface as advertising directly ~~push from the waypoint /store area~~ to the user Bluetooth device/cellular phone.

14. (Original)The method according to Claim 12, which further comprises navigation Special operating mode: – Museums – NAV4Museums, provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

15. (currently amended)The method according to Claim 12, which further comprises navigation Special operating mode: – Special operating mode: – NAV4STORE,NAVSALE provides navigation to and inside a store / department store to a specific department/aisle or specific product, special sales and coupons with option

Google Ex. 1022, p. 372

for advertising method and special promotion.

16. (currently amended)The method according to Claim 12,

which further comprises navigation Special operating mode: – Special operating mode: – Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device

via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show,

availability (lines...) fast pass, time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode: –

~~First response navigation~~ NAVEMERGENCY , which comprises a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

Identifies and tracks the user (a first response team member),
Provides the user with navigation information and directions for safely exiting of the Building area/facility,

Provides location information of all team members, via an ad hoc network of radio

Google Ex. 1022, p. 373

terminals that combine RF/Bluetooth readings and radio communication.
Provide alarm and notification of emergency situations to the user cellphone/Bluetooth.

18. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode:

NAV4Train, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, which comprises the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, ~~no more walking to the mapping inside the station or try to figure out your location in the map inside the subway train, each station will have a~~ tag/sensor installed in all the route to provide the user accurate locating and additional information that he may need like schedule , restroom , food, emergency information .

19. (new) The method according to Claim 12, which further comprises navigation Special operating mode: – Parking – NAV4PARKING a Bluetooth tag/sensors installed in a parking facility provide empty parking space detection and navigation to the empty parking available and RTP- return to parking – locate the place that you parked your car

Google Ex. 1022, p. 374

Amendments claim in a clear edited text
Claim Amendments

1. (currently amended) A method for navigating in doors or in area where there is no GPS signal in or on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, car navigation and a Bluetooth enabled device, The method comprising:

a. loading floor/area map of the facility/area with list of the installed Bluetooth tags/sensor in a known locations in the area/facility.

b. Receiving signal directly from a Bluetooth Tags/sensor installed in a known location in the area/facility, and not required a central system nor cellular communication or internet.

c. receiving a signal from a tag/sensor enables proximity detection of the exact location , if more then one signal triangulation calculation will determining a current position of a user.

d. providing navigation on the floor/area map without the aid of GPS navigation.

Google Ex. 1022, p. 375

2. (currently amended) The method according to Claim 1, werein said Bluetooth tag/sensor can be installed on any place that designated as a waypoint.

3. (currently amended)The method according to Claim 1, which further comprises displaying the information over a facility map, area map, or floor plan downloaded to the display device at the area/facility or pre download from the web.

4. (original)The method according to Claim 1, wherein the information pertains to navigating a current facility area.

5. (new) The method according to claim 1 which further comprises floating the information on the area/facility map on the display device.

6. (currently amended)The method according to Claim 1, which further comprises displaying additional information of a facility object e.g. store , department ,special sales , coupons ,area information as a waypoint.

Google Ex. 1022, p. 376

7. (currently amended)The method according to Claim 1, which further comprises navigating to the current way point using a floor map of the facility.

8.(currently amended)The method according to Claim 1, which further comprises allowing to convert the waypoint positions into GPS coordinates and emulate an external GPS data source. performing the determining step without the aid of a global positioning satellite system.

9. (original) The method according to Claim 1, which further comprises providing the display device/cellular phone with application software for displaying pre-loaded area maps or facility floor plans.

10. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors according to the user position/area and no bandwidth or internet needed.

11. (original)The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors without sending a request or a query for search in a database or internet.

Google Ex. 1022, p. 377

12. (original)The method according to Claim 1, which further comprises navigation type of the facility selected from the group consisting but not limit of:
navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough.

13. (currently amended)The method according to Claim 12, which further comprises navigation in a Special operation mode: - Shopping – NAV4SALE, provides navigation to the special sale item in a department store, coupons ,_specials or other promotions and even audio or video via a Bluetooth interface as advertising directly to the user Bluetooth device/cellular phone.

14. (Original)The method according to Claim 12, which further
comprises navigation Special operating mode: –
Museums – NAV4Museums, provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

Google Ex. 1022, p. 378

15. (currently amended)The method according to Claim 12, which further comprises navigation Special operating mode: – Special operating mode: – NAV4STORE,NAVSALE provides navigation to and inside a store / department store to a specific department/aisle or specific product, special sales and coupons with option for advertising method and special promotion.

16. (currently amended)The method according to Claim 12, which further comprises navigation Special operating mode: – Special operating mode: – Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability (lines...) fast pass, time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. (currently amended)The method according to Claim 12, which further comprises navigation Special operating mode: – NAVEMERGENCY , which comprises a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Google Ex. 1022, p. 379

Aspects of the scenarios to be included:

Identifies and tracks the user (a first response team member),
Provides the user with navigation information and directions for safely exiting of the Building area/facility,

Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.
Provide alarm and notification of emergency situations to the user cellphone/Bluetooth.

18. (currently amended)The method according to Claim 12, which further

comprises navigation Special operating mode:

NAV4Train, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, which comprises the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, tag/sensor installed in all the route to provide the user accurate locating and additional information that he may need like schedule , restroom , food, emergency information .

19. (new) The method according to Claim 12, which further comprises navigation Special operating mode: – Parking – NAV4PARKING a Bluetooth tag/sensors installed in a parking facility provide empty parking space detection and navigation to the empty parking available and RTP- return to parking – locate the place that you parked your car.

Google Ex. 1022, p. 380

Remarks

Reconsideration of the application is requested.

Cohen et el teach a method for Tracking and not **navigating!!!!**..., and there is a big deferent between a tracking system and method as he describe and a navigating system,

Tracking/locating is to find where the "user"/assets /cars/fleet/people are, navigating is to provide users with a way to go from point to point in an area most likely on a map of the area/facility ..searching the internet : there is tracking system to find where assest and users are and there is navigation system – it is not the same and I will explain in more details:

Cohen et al : describe a ground base tracking system to find Doctors in an hospital etc.. The fact is that he didn't even mention the word navigation in his claims at all...

More over even in paragraph (0056) that was mention in your letter (the examination letter) "Although the present invention is illustrated in FIG. 1 and described herein with reference to a GPS 105, it will be appreciated **that the ground-based tracking system** 115 can also effect **accurate tracking** of the WID 125 in the interior of the hospital 120 without the use of the GPS 105. For instance, **the ground-based tracking system** 115 may rely entirely on a large number of indoor communication units that receive RF or other signals transmitted by the WID 125 as it moves through the hospital, which are in turn used to accurately identify the position of the WID 125. For example, the rough position of the WID 125 may be obtained by determining which local antennas receive communications from the WID 125, and more precise location information may be obtained using time-of-flight and triangulation techniques, as are known in the art."

The word navigation not mention at all, only tracking or tracking system...

Again the fact is that the ONLY TIME the word NAVIGATION mention
With a connection to Navigation system is in (0054) when discuss option to put an GPS antenna at the top of the building for option to integrated the signal of GPS to the innovation TRACKING SYSTEM ...

The other 2 times that the word navigation mention is with navigation button keys and not navigation system...

To the contra the innovation idea as a TRACKING SYSTEM or a ground based TRACKING SYSTEM mentions over then 35 times over the application.

More over the word "MAPPING" as need in navigation not mention at all in Cohen application.

Google Ex. 1022, p. 381

The information below is from Cohen, Mark et el 20050021369,

And my notation: marks (EHUD MENDELSON NOTE) ******

(Abstract)"A wireless information device provides a user with context relevant information. The precise location of the wireless device is monitored by a **tracking system**. Using the location of the wireless device and the identity of the user, **context relevant information is transmitted to the device**, where the context relevant information is pre-defined, at least in part, by the user. Context relevant information served to the device depends on the identity of the user, the location of the device, and the proximity of the device to persons or objects. The wireless information device **may be used by healthcare workers, such as physicians, in hospitals,** although other environments are contemplated, such as hotels, airports, zoos, theme parks, and the like."

(EHUD MENDELSON NOTE) ****** Cohen innovation is a TRACKING SYSTEM and not navigation at all...

(Claim 8)" 8. The method of claim 7, **where the display rules are stored external to the wireless information device"**

(EHUD MENDELSON NOTE) ****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 9) "9. the method of claim 1, further comprising the steps of: receiving user-input information at the wireless information device, and **transmitting the user-input information to a server."**

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(claim10). "The method of claim 1, wherein the step of determining the location of the wireless information device comprises determining the location of the wireless information device **using a tracking system** selected from the group of tracking systems consisting of a global positioning system and a radio frequency-based positioning system."

Google Ex. 1022, p. 382

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM that consisting of a GPS and a RF..., GPS not working indoor, our system do not use GPS.

(Claim 14) "14. The method of claim 13, wherein the step of accessing information rules comprises the step of accessing information rules **stored remote from the wireless information device**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 21) "A system for displaying information, comprising: an information device, **the information device being associated with a user; and at least one server,** in wireless communication with the information device, wherein the at least one server is operable to transmit context relevant information to the information device, where the context-relevant information is based at least in part on the identity of the user, the location of the wireless information device, and the proximity of the wireless information device to at least one object."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 22) "The system of claim 21, further **comprising at least one database in communication with the at least one server,** where the at least one database is operable to store information from which the context relevant information is retrieved"

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 23) "The system of claim 22, **wherein the at least one server is associated with a facility, and wherein the at least one database stores facility** information."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

Google Ex. 1022, p. 383

(Claim 24) "The system of claim 22, **wherein the at least one database** comprises a hospital database, wherein the hospital database stores patient information".

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 27) "The system of claim 21, further **comprising a tracking system**, in communication with the information device, for identifying the location of the information device"

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM

(Claim 30) "The system of claim 29, wherein the information device is operable to transmit the information **input by the user to the server**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 34) "The computer program product of claim 33, **wherein the computer readable code portions are executed at a server local to a hospital**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 36) "An apparatus for receiving information, comprising: a wireless receiver, wherein the wireless receiver is operable to receive context relevant information; and at least one display operable to present the context relevant information to a user, **wherein the context relevant information is transmitted to the apparatus by at least one server in communication with the apparatus,** where the context-relevant information based at least in part on the identity of a user associated with the apparatus, the location of the apparatus, and the proximity of the apparatus to a person or object."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server

Google Ex. 1022, p. 384

needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

The facts is that Cohen et el never intend nor there is any anticipation to use his system the TRACKING SYSTEM as navigation as he describe the use by Healthcare WORKERS... and the need to LOCATE AND TRACK THEM , our system instead is for people that need to know where they are (Employee for sure know that...) and NAVIGATE IN A FACILITY MOST LIKELY NOT FAMILER WITH THEM... on a mapping (not mention at all by Cohen ..) of the facility with a direct connection between the user device and the sensors /Tags WHERE Cohen et el innovation is for a TRACKING SYSTEM used by at least one server and to be used for tracking the workers (most likely familiar with the area and the facility) to track where they are so they can provide a better service to the Hospital patient , and in Hotel to find where the staff are and inform them of the customers need ....

Our system is deferent by providing NAVIGATION and not tracking system, it use the facility mapping and sensors / Tags in a known location to allow navigation – most likely to people hospital visitors, mall or hotels customers ...

Our system uses the user cellular phone as a device with Bluetooth...

Our system method is a direct communication between the device and the sensors/tags – NO NEED TO SERVER LIKE Cohen et el system, NO communication between the device and back server or DATA BASE OR SET OF RULES ETC... THAT NEEDS AT LEAST ONE SERVER... as mention in Cohen et el TRACKING SYSTEM.

As we can see from (0014)...information to be manage or resides in a central computer...

(0022) access info. Rules store in a remote system...

(0024) the system includes info device and at least one server...

(0025)...one database with one server...

(0026) server needed...

The display method describe in Cohen et el innovation is more on the way of display on the external system/server for tracking the user and not allow NAVIGATION like our method , the floating information describe in our innovation allow NAVIGATION And it's floating on a facility map and or stands alone for NAVIGATING THE FACILITY, Cohen information, most likely text about the Hospital patient or Hotel customers that need service/help... etc...

Our system contain the user cell phone with Bluetooth device to be able to id his location and allow him to NAVIGATE IN AND ON THE FACILITY on the facility/area mapping without need for GPS or GPS antenna as mention at (0054) of Cohen et al.

Google Ex. 1022, p. 385

From our application :

[0025] At present, however, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a GPS based system directly to the "user". Also most of systems are designed for the old query type search where interface to internet and or database central system needed

Cohen et el system above needed server or ext database

[0026] Our system automatically detects a signal directly from the sensors, no communication needed not even cellular communication. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

Cohen et el system above needed server or ext database

[0027] Even if the other systems have bandwidth, they still based on the existing search concept where under the user submits a query, searches and awaits for the response. All impractical. Our system provides the information automatically, without submitting any query, and the response is according to the user's location.

Cohen et el system above needed server or ext database

[0028] Again, most of the existing prior arts are based either on a GPS based system or the existing car navigator, that depends on a GPS too. And the existing mapping that these systems use has the same limitations described previously and is impractical.

Cohen et el system not mention Navigation method – just tracking system and no mention of mapping at all..

[0029] We believe that our system method bridges the gap between the GPS based navigation and provides a complete solution.

[0077] In an indoor or outdoor navigation situation our sensor net, and sensor tags, replace the satellite in a GPS based system, to provide the user with the information and directions needed to reach the destination.

[0078] Our innovation has three major parts:

[0079] The navigator, the special method used to display the data and the sensors.

Google Ex. 1022, p. 386

[0080] It is not a location and tracking system as offered by other systems.

In review to the un comparable between mendelson innovation and Squire it is to ask the examiner to approve mendelson innovation application .

To help we provide a comparable matrix of the deference's between our innovation and others include Cohen et el:

Comparable matrix

Compare our innovation to others	our	others
Scoop of innovation	Indoor Navigation	Locating/ Tracking assets ,people
Technology	Bluetooth No GPS needed	RF GPS may needed
Display	Cellular phone standard bluetooth	Special display , special RF
Connections	Direct ,no need of central system nor other communication	Required central system and or internet, not a direct connection
Database	Not req.	Req. central database
infrastructure	Simple, no central cpu , no central Database no other comm.	Complex, need complex central system and comm.
benefit	To user	Tracking /locating the user or assets from outside

Google Ex. 1022, p. 387

Example of Locating/tracking from today market news:

A GPS based
locating/tracking

Real-time child tracker goes mobile

Jul 28, 2009

Tags: GPS child locator GPS child tracker LBS location based services mobile LBS mobile location based services

The Amber Alert GPS 2G is a real-time child tracker that attempts to close the stable door before the horse bolts, as it were ...



The world's smallest AAGPS tracking device was designed to fit into a pocket, purse, backpack or car, or attach to a wrist, ankle, or belt.

A parent can then track his child by calling the device or texting the word "where", and within seconds a detailed map and street address of the device's exact location will be sent to the parent's web-enabled cell -phone.

Parents can also track one or more devices from a PC.

The water-resistant device includes the following features:

- **Safe Zone:** Parents can define a virtual boundary. The device will send an alert when it carried outside this safe zone, and will continue to send safe zone alerts by text or email every five minutes, leaving a virtual breadcrumb location trail. Parents can change or cancel the safe zone from a cell-phone or computer.
- **Monitoring:** This feature allows parents to call the device from a cell-phone and listen to any actual conversations or ambient noise.
- **Real-time tracking:** Within seconds, any request to the device is answered with up-to-the-second displays of maps and addresses.
- **Memory:** If a child enters an area where there is no GPS signal, e.g. an underground parking garage, the device remembers that entry point.
- **Temperature alert:** The device will alert parents if the ambient temperature rises above or drops below user-defined thresholds.
- **Speed:** If the device is attached to a vehicle, the parent will be notified if the device exceeds a pre-defined speed limit. If the device is attached to an individual child, the parent will know immediately that the child is in a moving car.
- **SOS:** If a child is in a dangerous or threatening situation, he can press and hold the SOS button. The device will then send a "HELP ME" text and email to five pre-selected individuals and will

Google Ex. 1022, p. 388

An email quotation from Hi technical person in Navteq (the biggest known providers of NAVIGATION,MAPPING technologies today) about our technology innovation and how unique it is to the existing methods known today !!!..

Quotation

From: Naqi, Athar naqi@navteq.com]
Sent: Thursday, April 10, 2008 7:38 PM
To: Ehud1; Wheeler, Doug
Subject: RE: Sign Nda
Sensitivity: Confidential

Udi,

Thank you – I have forwarded it to our legal for their signature. Will send you a signed copy as soon as it is completed.

In the meantime, I have given your contact info and the brochure to our product management – I believe that it is the right place.

Doug, by copy of this email – please note that NDA is in process. I should be receiving it from our legal shortly. I would recommend having a call with Udi and his team. Sounds like a cool technology (better than wi-fi or RFID to track inside the building). I worked in the wi-fi and RFID for many of years, and these technologies for tracking assets, people are oversold, with not a significant market penetration. What Udi is offering, can be very compelling.

Thank you,

Naqi

Google Ex. 1022, p. 389

Explain about the claims changes on page 4-15 on this document:

Claim 1-18 are fixed as requested by the office

Claims 1 -3 are change and currently amended ,

claims 5- canceled and a new one (5) amended

claim 6 - 8 change and currently amended

claim 9-12 are original

claims 13 is change and currently amended

Claims 14 are original

Claims 15-18 change and currently amended

Claim 19 is new and amended

Google Ex. 1022, p. 390

Petition for extension is **made and paid**. The extension fee for response within a period of 3 months pursuant to section 1.136(a) in the amount of $555.00 in accordance with section 1.17 **was sent and paid.**

Respectfully submitted,

Ehud Mendelson
Gamba Group LLC
11190 Heron bay blvd.
Suite 916
Coral Springs , FL 33076
TEL:954-2373227
Email:ehud1@myacc.net
Customer No. 061887

Attached :
Patent office letter from 07/02/2009
Certificate of mailing

Google Ex. 1022, p. 391

UNITED STATES PATENT AND TRADEMARK OFFICE

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JUL 31 2009
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PATENT & TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 07/02/2009

EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

EXAMINER	
PHAN, DAO LINDA	
ART UNIT	PAPER NUMBER
3662	

MAIL DATE	DELIVERY MODE
07/02/2009	PAPER

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.

O.I.P.E. JUL 31 2009 PATENT & TRADEMARK OFFICE

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD	
	Examiner Dao L. Phan	Art Unit 3662	

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

The amendment document filed on *12 December 2008* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☐ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other _____.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☒ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☒ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *A claim listing must include markings to show the changes made only in the current amendment relative to immediate prior version*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.
2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

   Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

   Failure to timely respond to this notice will result in:
   Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
   Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

/Dao L. Phan/
Primary Examiner, Art Unit 3662

Best Available Copy

Notice of Non-Compliant Amendment (37 CFR 1.121)

Google Ex. 1022, p. 394

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 11/429,864	Filing Date 05/08/2006	☐ To be Mailed

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☒		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ 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	07/31/2009	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 19	Minus	** 20	= 0	X $26 =	0	OR	X $ =	
	Independent (37 CFR 1.16(h))	* 1	Minus	***3	= 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 ($)	ADDITIONAL FEE ($)		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:
/ANTHONY WILLIAMS/

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.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 07/02/2009

EHUD MENDELSON
GAMBA GROUP LLC
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SUITE 916
CORAL SPRINGS, FL 33076

EXAMINER	
PHAN, DAO LINDA	
ART UNIT	**PAPER NUMBER**
3662	

MAIL DATE	DELIVERY MODE
07/02/2009	PAPER

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 Non-Compliant Amendment (37 CFR 1.121)	Application No. 11/429,864	Applicant(s) MENDELSON, EHUD	
	Examiner Dao L. Phan	Art Unit 3662	

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

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  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☐ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other _____.
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  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
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- ☒ 4. Amendments to the claims:
  - ☒ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☒ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *A claim listing must include markings to show the changes made only in the current amendment relative to immediate prior version*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):

_____

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

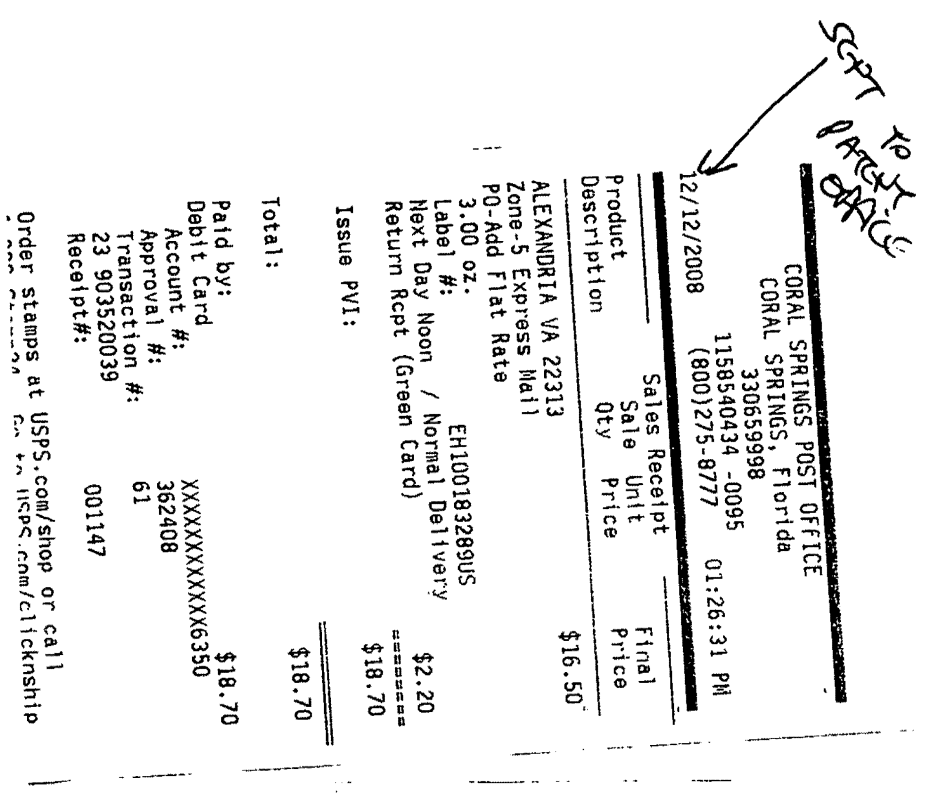
1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

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   Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
   Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

/Dao L. Phan/ Primary Examiner, Art Unit 3662	



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			$18.70
Issue PVI:			
Total:			$18.70

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Approval #: 362408
Transaction #: 61
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JAN 30 2009
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IAP3

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Thursday, December 11, 2008

United States Department of Commerce
United States Patent and Trademark office
Commissioner for patents
P.O. BOX 1450
Alexandria , VA 22313-1450

Application Number: 11/429,864
Docket No;NAV4
Conf. No:4194
Art Unit:3662
Examiner:Phan,Dao Linda

Dear Mr. Dao L. Phan,

In answer to your letter attached, Please except our answer below in the 6 Month's time limit from the communication letter date.

Cohen et el teach a method for Tracking and not **navigating!!!!**..., and there is a big deferent between a tracking system and method as he describe and a navigating system,

The fact is that he didn't even mention the word navigation in his claims at all...

More over even in paragraph (0056) that was mention in your letter (the examination letter) "Although the present invention is illustrated in FIG. 1 and described herein with reference to a GPS 105, it will be appreciated **that the ground-based tracking system** 115 can also effect **accurate tracking** of the WID 125 in the interior of the hospital 120 without the use of the GPS 105. For instance, **the ground-based tracking system** 115 may rely entirely on a large number of indoor communication units that receive RF or other signals transmitted by the WID 125 as it moves through the hospital, which are in turn used to accurately identify the position of the WID 125. For example, the rough position of the WID 125 may be obtained by determining which local antennas receive communications from the WID 125, and more precise location information may be obtained using time-of-flight and triangulation techniques, as are known in the art."

The word navigation not mention at all, only tracking or tracking system...

Again the fact is that the ONLY TIME the word NAVIGATION mention
With a connection to Navigation system is in (0054) when discuss option to put an GPS antenna at the top of the building for option to integrated the signal of GPS to the innovation TRACKING SYSTEM ...

The other 2 times that the word navigation mention is with navigation button keys and not navigation system...

To the contra the innovation idea as a TRACKING SYSTEM or a ground based TRACKING SYSTEM mentions over then 35 times over the application.

More over the word "MAPPING" as need in navigation not mention at all in Cohen application.

The information below is from Cohen, Mark et el 20050021369,

And my notation: marks (EHUD MENDELSON NOTE) ******

(Abstract)"A wireless information device provides a user with context relevant information. The precise location of the wireless device is monitored by a **tracking system**. Using the location of the wireless device and the identity of the user, **context relevant information is transmitted to the device**, where the context relevant information is pre-defined, at least in part, by the user. Context relevant information served to the device depends on the identity of the user, the location of the device, and the proximity of the device to persons or objects. The wireless information device **may be used by healthcare workers, such as physicians, in hospitals,** although other environments are contemplated, such as hotels, airports, zoos, theme parks, and the like."

(EHUD MENDELSON NOTE) ****** Cohen innovation is a TRACKING SYSTEM and not navigation at all...

(Claim 8)" 8. The method of claim 7, **where the display rules are stored external to the wireless information device"**

(EHUD MENDELSON NOTE) ****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 9) "9. the method of claim 1, further comprising the steps of: receiving user-input information at the wireless information device, and **transmitting the user-input information to a server."**

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(claim10). "The method of claim 1, wherein the step of determining the location of the wireless information device comprises determining the location of the wireless information device **using a tracking system** selected from the group of tracking systems consisting of a global positioning system and a radio frequency-based positioning system."

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM

(Claim 14) "14. The method of claim 13, wherein the step of accessing information rules comprises the step of accessing information rules **stored remote from the wireless information device**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 21) "A system for displaying information, comprising: an information device, **the information device being associated with a user; and at least one server,** in wireless communication with the information device, wherein the at least one server is operable to transmit context relevant information to the information device, where the context-relevant information is based at least in part on the identity of the user, the location of the wireless information device, and the proximity of the wireless information device to at least one object."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 22) "The system of claim 21, further **comprising at least one database in communication with the at least one server,** where the at least one database is operable to store information from which the context relevant information is retrieved"

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 23) "The system of claim 22, **wherein the at least one server is associated with a facility, and wherein the at least one database stores facility** information."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server

needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 24) "The system of claim 22, **wherein the at least one database** comprises a hospital database, wherein the hospital database stores patient information".

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 27) "The system of claim 21, further **comprising a tracking system**, in communication with the information device, for identifying the location of the information device"

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM

(Claim 30) "The system of claim 29, wherein the information device is operable to transmit the information **input by the user to the server**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 34) "The computer program product of claim 33, **wherein the computer readable code portions are executed at a server local to a hospital**."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 36) "An apparatus for receiving information, comprising: a wireless receiver, wherein the wireless receiver is operable to receive context relevant information; and at least one display operable to present the context relevant information to a user, **wherein the context relevant information is transmitted to the apparatus by at least one server in communication with the apparatus,** where the context-relevant information based at least in part on the identity of a user associated with the apparatus, the location of the apparatus, and the proximity of the apparatus to a person or object."

(EHUD MENDELSON NOTE)****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

The facts is that Cohen et el never intend nor there is any anticipation to use his system the TRACKING SYSTEM as navigation as he describe the use by Healthcare WORKERS... and the need to LOCATE AND TRACK THEM , our system instead is for people that need to know where they are (Employee for sure know that...) and NAVIGATE IN A FACILITY MOST LIKELY NOT FAMILER WITH THEM... on a mapping (not mention at all by Cohen ..) of the facility with a direct connection between the user device and the sensors /Tags WHERE Cohen et el innovation is for a TRACKING SYSTEM used by at least one server and to be used for tracking the workers (most likely familer with the area and the facility) to track where they are so they can provide a better service to the Hospital patient , and in Hotel to find where the staff are and inform them of the customers need ....

Our system is deferent by providing NAVIGATION and not tracking system, it use the facility mapping and sensors / Tags in a known location to allow navigation – most likely to people hospital visitors, mall or hotels customers ...

Our system uses the user cellular phone as a device with Bluetooth...

Our system method is a direct communication between the device and the sensors/tags – NO NEED TO SERVER LIKE Cohen et el system, NO communication between the device and back server or DATA BASE OR SET OF RULES ETC... THAT NEEDS AT LEAST ONE SERVER... as mention in Cohen et el TRACKING SYSTEM.

As we can see from (0014)...information to be manage or resides in a central computer...

(0022) access info. Rules store in a remote system...

(0024) the system includes info device and at least one server...

(0025)...one database with one server...

(0026) server needed...

The display method describe in Cohen et el innovation is more on the way of display on the external system/server for tracking the user and not allow NAVIGATION like our method , the floating information describe in our innovation allow NAVIGATION And it's floating on a facility map and or stands alone for NAVIGATING THE FACILITY, Cohen information, most likely text about the Hospital patient or Hotel customers that need service/help... etc...

Our system contain the user cell phone with Bluetooth device to be able to id his location and allow him to NAVIGATE IN AND ON THE FACILITY on the facility/area mapping without need for GPS or GPS antenna as mention at (0054).

From our application :

[0025] At present, however, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a GPS based system directly to the "user". Also most of systems are designed for the old query type search where interface to internet and or database central system needed

Cohen et el system above needed server or ext database

[0026] Our system automatically detects a signal directly from the sensors, no communication needed not even cellular communication. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

Cohen et el system above needed server or ext database

[0027] Even if the other systems have bandwidth, they still based on the existing search concept where under the user submits a query, searches and awaits for the response. All impractical. Our system provides the information automatically, without submitting any query, and the response is according to the user's location.

Cohen et el system above needed server or ext database

[0028] Again, most of the existing prior arts are based either on a GPS based system or the existing car navigator, that depends on a GPS too. And the existing mapping that these systems use has the same limitations described previously and is impractical.

Cohen et el system not mention Navigation method – just tracking system and no mention of mapping at all..

[0029] We believe that our system method bridges the gap between the GPS based navigation and provides a complete solution.

[0077] In an indoor or outdoor navigation situation our sensor net, and sensor tags, replace the satellite in a GPS based system, to provide the user with the information and directions needed to reach the destination.

[0078] Our innovation has three major parts:

[0079] The navigator, the special method used to display the data and the sensors.

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[0080] It is not a location and tracking system as offered by other systems.

According to the above we find our system method completely deferent from Cohen system TRACKING SYSTEM METHOD and we ask you Mr. Dao L. Phan to allow our Claim 1-18 to be exist in our application.

Please correct our claim 16-17 to as follow;

16. The method according to claim 12, which further comprises navigation Special operating mode:--Special operating mode:--Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device via Bluetooth interface that will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability (lines . . .) time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. The method according to claim 12, which further comprises navigation Special operating mode:--First response navigation, which comprises a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route and allow to identifies and tracks the user (a first response team member)and provides the user with navigation information and directions for safely exiting of the building also. provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

Regards,

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JAN 30 2009
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02-02-09

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Thursday, January 29, 2009
By Certified mail USPS # EH 100183292 US

United States Department of Commerce
United States Patent and Trademark office
Commissioner for patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Application Number: 11/429,864
Docket No; NAV4
Conf. No: 4194
Art Unit: 3662
Examiner:Phan,Dao Linda

Dear Miss. Dao L. Phan,

As to our conversation in the phone from today Jan 29, 2009 I am sending to you the extension fee that went missing from my answer to your office from Thursday, December 11, 2008.

The petition for extension is herewith. Extension - Third Month (Small Entity)The extension fee for response within a period of three months pursuant to section 1.136(a) in the amount of $555 in accordance with section 1.17 is enclosed herewith.

Please kindly except my amendment to the claims 16 and 17 with the corrections At page 7 of the letter.

Remarks/arguments begin on page 1 of the letter from December 11, 2008 (Copy attached).

Please except my apology, I was sick for a few months and only now I back to work.

Respectfully submitted,

Ehud Mendelson
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Coral Springs , FL 33076
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12-15-08 IFW

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 06/12/2008

EHUD MENDELSON
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EXAMINER	
PHAN, DAO LINDA	
ART UNIT	PAPER NUMBER
3662	
MAIL DATE	DELIVERY MODE
06/12/2008	PAPER

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.

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DEC 12 2008
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12-15-08 IFW

Thursday, December 11, 2008

United States Department of Commerce
United States Patent and Trademark office
Commissioner for patents
P.O. BOX 1450
Alexandria , VA 22313-1450

Application Number: 11/429,864
Docket No;NAV4
Conf. No:4194
Art Unit:3662
Examiner:Phan,Dao Linda

Dear Mr. Dao L. Phan,

In answer to your letter attached, Please except our answer below in the 6 Month's time limit from the communication letter date.

Cohen et el teach a method for Tracking and not **navigating!!!!**..., and there is a big deferent between a tracking system and method as he describe and a navigating system,

The fact is that he didn't even mention the word navigation in his claims at all...

More over even in paragraph (0056) that was mention in your letter (the examination letter) "Although the present invention is illustrated in FIG. 1 and described herein with reference to a GPS 105, it will be appreciated **that the ground-based tracking system** 115 can also effect **accurate tracking** of the WID 125 in the interior of the hospital 120 without the use of the GPS 105. For instance, **the ground-based tracking system** 115 may rely entirely on a large number of indoor communication units that receive RF or other signals transmitted by the WID 125 as it moves through the hospital, which are in turn used to accurately identify the position of the WID 125. For example, the rough position of the WID 125 may be obtained by determining which local antennas receive communications from the WID 125, and more precise location information may be obtained using time-of-flight and triangulation techniques, as are known in the art."

The word navigation not mention at all, only tracking or tracking system...

Again the fact is that the ONLY TIME the word NAVIGATION mention
With a connection to Navigation system is in (0054) when discuss option to put an GPS antenna at the top of the building for option to integrated the signal of GPS to the innovation TRACKING SYSTEM ...

The other 2 times that the word navigation mention is with navigation button keys and not navigation system...

To the contra the innovation idea as a TRACKING SYSTEM or a ground based TRACKING SYSTEM mentions over then 35 times over the application.

More over the word "MAPPING" as need in navigation not mention at all in Cohen application.

The information below is from Cohen, Mark et el 20050021369,

And my notation: marks (EHUD MENDELSON NOTE) ******

(Abstract)"A wireless information device provides a user with context relevant information. The precise location of the wireless device is monitored by a **tracking system**. Using the location of the wireless device and the identity of the user, **context relevant information is transmitted to the device**, where the context relevant information is pre-defined, at least in part, by the user. Context relevant information served to the device depends on the identity of the user, the location of the device, and the proximity of the device to persons or objects. The wireless information device **may be used by healthcare workers, such as physicians, in hospitals,** although other environments are contemplated, such as hotels, airports, zoos, theme parks, and the like."

(EHUD MENDELSON NOTE) ****** Cohen innovation is a TRACKING SYSTEM and not navigation at all...

(Claim 8)" 8. The method of claim 7, **where the display rules are stored external to the wireless information device"**

(EHUD MENDELSON NOTE) ****** Cohen innovation – the tracking system needed an external server that contains the display rules and a database, at least one server needed... our method is a direct communication between the device and the sensors and NO SERVER OR EXTERNAL SYSTEM NEEDED...******

(Claim 9) "9. the method of claim 1, further comprising the steps of: receiving user-input information at the wireless information device, and **transmitting the user-input information to a server."**

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(claim10). "The method of claim 1, wherein the step of determining the location of the wireless information device comprises determining the location of the wireless information device **using a tracking system** selected from the group of tracking systems consisting of a global positioning system and a radio frequency-based positioning system."

(EHUD MENDELSON NOTE)****** Cohen innovation – the TRACKING SYSTEM

(Claim 14) "14. The method of claim 13, wherein the step of accessing information rules comprises the step of accessing information rules **stored remote from the wireless information device**."

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As we can see from (0014)...information to be manage or resides in a central computer...

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From our application :

[0025] At present, however, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a GPS based system directly to the "user". Also most of systems are designed for the old query type search where interface to internet and or database central system needed

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[0077] In an indoor or outdoor navigation situation our sensor net, and sensor tags, replace the satellite in a GPS based system, to provide the user with the information and directions needed to reach the destination.

[0078] Our innovation has three major parts:

[0079] The navigator, the special method used to display the data and the sensors.

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[0080] It is not a location and tracking system as offered by other systems.

According to the above we find our system method completely deferent from Cohen system TRACKING SYSTEM METHOD and we ask you Mr. Dao L. Phan to allow our Claim 1-18 to be exist in our application.

Please correct our claim 16-17 to as follow;

16. The method according to claim 12, which further comprises navigation Special operating mode:--Special operating mode:--Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device via Bluetooth interface that will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability (lines ,Fast pass registration. etc..) time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. The method according to claim 12, which further comprises navigation Special operating mode:--Nav4emergency navigation, which comprises a navigator and alerting for the emergency exit route when and where needed each user can load the emergency exit floor plan map of the facility and escape with the knowledge of his exact location in that route and allow to identifies and tracks the user (a first response team member)and provides the user with navigation information and directions for safely exiting of the building also. provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

Regards,

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/429,864	05/08/2006	Ehud Mendelson	NAV4	4194

61887 7590 06/12/2008

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EXAMINER	
PHAN, DAO LINDA	
ART UNIT	**PAPER NUMBER**
3662	

MAIL DATE	DELIVERY MODE
06/12/2008	PAPER

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.

Office Action Summary	Application No.	Applicant(s)	
	11/429,864	MENDELSON, EHUD	
	Examiner	Art Unit	
	Dao L. Phan	3662	

-- 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 *08 May 2006*.

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

3)☐ 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

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

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

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

Application Papers

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

10)☐ 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).

11)☐ 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

12)☐ 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 *5/8/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claims 16-17 are objected to because each of these claims should have only one period. Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Cohen et al (US 2005/0021369).

Cohen et al teach a method for navigating in doors or in area where there is no GPS signal (paragraph 0056) in or on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, and a Bluetooth enabled device including the steps of receiving 125 data from a RF tags/sensor 220, 215 , the data including positional data, type of the facility data selected from the group consisting of information guide provided at each facility, and displaying 345, 640, 905 information as a floating on the display device.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao L. Phan whose telephone number is (571)272-6976. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)272-6979. 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.

/Dao L. Phan/
Primary Examiner, Art Unit 3662

Notice of References Cited	Application/Control No. 11/429,864	Applicant(s)/Patent Under Reexamination MENDELSON, EHUD	
	Examiner Dao L. Phan	Art Unit 3662	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2005/0021369	01-2005	Cohen et al.	705/002
*	B	US-2007/0032225	02-2007	Konicek et al.	455/417
	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.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11429864	MENDELSON, EHUD
	Examiner	**Art Unit**
	Dao L Phan	3662

SEARCHED			
Class	**Subclass**	**Date**	**Examiner**
342	357.06, 357.12, 450, 457, 463-465	6/6/08	dp
455	456.6, 457		
701	213, 215		

SEARCH NOTES		
Search Notes	**Date**	**Examiner**
East text searched (See searched history printout)	6/6/08	dp

INTERFERENCE SEARCH			
Class	**Subclass**	**Date**	**Examiner**

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2626238	guide$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:40
L2	458054	gps	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:40
L3	61318	global adj position$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:40
L4	467427	2 or 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:40
L5	215956	navigat$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:41
L6	1203	RF adj sensor$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:42
L7	970	no adj 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:45

L8	586	without adj 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:46
L9	1497	7 or 8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:46
L10	5497	RF adj5 sensor$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:47
L11	4667	RF adj4 sensor$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:48
L12	5497	10 or 11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:48
L13	7795	RF adj4 tag $2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:48
L14	12777	13 or 10	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:49
L15	49	14 and 9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:50

L16	295	1 and 9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:54
L17	2928920	display$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:55
L18	214	17 and 16	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:55
L19	81	16 not 18	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/06 16:56

6/6/08 4:57:28 PM
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PTO/SB/08A (07-05)
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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 1

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	ehud mendelson
Art Unit	
Examiner Name	
Attorney Docket Number	NAV4

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/DP/		US- 7,031,875	0418-2006	Ellenby et al	
		US-			
		US-			
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]

Examiner Signature	/Dao Phan/	Date Considered	06/06/2008

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

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 2 hours 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, 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 NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/429,864	05/08/2006	Ehud Mendelson	NAV4

CONFIRMATION NO. 4194

61887
EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL33076

Title: System and method navigating indoors and outdoors without GPS. utilizing a network of sensors

Publication No. US-2007-0001904-A1
Publication Date: 01/04/2007

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 703-305-3028.

Pre-Grant Publication Division, 703-605-4283

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EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS FL 33076

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OCT 2 0 2006
OFFICE OF PETITIONS

In re Application of :
MENDELSON :
Application No. 11/429,864 : DECISION ON PETITION
Filed: May 8, 2006 : TO MAKE SPECIAL UNDER
Attorney Docket No. NAV4 : 37 CFR 1.102(c)(2)
:

This is a decision on a renewed petition under 37 CFR 1.102(c)(2)(iii), filed May 8, 2006, to make the above-identified application special based on the invention materially contributing to countering terrorism as set forth in M.P.E.P. § 708.02, Section XI.

The petition is **DISMISSED**.

A grantable petition to make an application special under 37 CFR 1.102(c)(2)(iii) and MPEP § 708.02, Section XI: Inventions for Countering Terrorism, should state that special status is sought because the invention materially contributes to countering terrorism. International terrorism as defined in 18 U.S.C. 2331 includes:

> activities that - (A) involve violent acts or acts dangerous to human life that are a violation of the criminal laws of the United States or of any State, or that would be a criminal violation if committed within the jurisdiction of the United States or of any State; [and] (B) appear to be intended - (i) to intimidate or coerce a civilian population; (ii) to influence the policy of a government by intimidation or coercion; or (iii) to affect the conduct of a government by assassination or kidnapping...

If the disclosure it not clear on its face that the claimed invention is materially directed to countering terrorism, the petition must be accompanied by a statement by the applicant, assignee or a registered attorney/agent explaining how the materiality standard is met. The types of technology for countering terrorism could include, but are not limited to, systems for detecting/identifying explosives, aircraft sensors/security systems, and vehicular barricades/disabling systems. No fee is required.

The USPTO's final rule amending 37 CFR 1.102(c)(2) states:

> The materially standard does not permit an applicant to speculate as to how a hypothetical end-user might specially apply the invention in a manner that could counter terrorism. Nor does such

> standard permit an applicant to enjoy the benefit of advance examination merely because some minor aspect of the claimed invention may be directed to countering terrorism...[Response to Comment 65] applicants should not expect to have their petitions granted without a clear demonstration that the claimed invention is materially related to countering terrorism. 69 Fed. Reg. 56511 (Sept. 21, 2004)

The instant petition fails to include any explanation of how the claimed invention counters terrorism. The claimed invention is directed toward a method for navigating indoors or an area where there is no GPS signal. The petition focuses on a discussion of the indoor navigation techniques of the invention and how the invention will enhance the ability of tactical team to navigate within and exit a building. The petition also states the technique has "a critical life saving power in modern congested urban living conditions." However, the above discussion does not explain how this invention will actually counter terrorism. Further steps than claimed would be required to actually offset or nullify terrorism. Additionally, the petition and disclosure do not satisfy the materiality standard or demonstrate that the claimed invention materially counters terrorism. In conclusion, no advancement in the technology of countering terrorism has been persuasively shown.

Further correspondence with respect to this matter should be addressed as follows:

By Mail: Mail Stop PETITION
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

By hand: U. S. Patent and Trademark Office
Customer Service Window, Mail Stop Petitions
Randolph Building
401 Dulany Street
Alexandria, VA 22314

By FAX: (571) 273-8300

Telephone inquiries concerning this decision should be directed to the undersigned at 571-272-4787.

All other inquiries concerning either the examination or status of the application should be directed to the Technology Center.

The application is being forwarded to the Technology Center Art Unit 3662 for action in its regular turn.

Denise Pothier
Petitions Examiner
Office of Petitions

08-07-06

IFW

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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/429,864	05/08/2006	Ehud Mendelson	NAV4

OIPE
AUG 04 2006
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IAP46

CONFIRMATION NO. 4194

FORMALITIES LETTER

00061887
EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

Date Mailed: 06/06/2006

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given TWO MONTHS from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

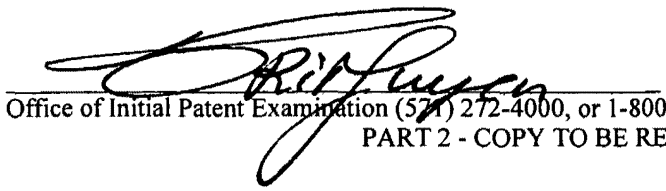
The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
  - The drawings submitted to the Office are not electronically reproducible. Drawing sheets must be submitted on paper, which is flexible, strong, white, smooth, non-shiny, and durable (see 37 CFR 1.84(e)). See Figure(s) Fig.1,2,4,6-8.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

Replies should be mailed to: Mail Stop Missing Parts
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A copy of this notice <u>MUST</u> be returned with the reply.



Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 2 - COPY TO BE RETURNED WITH RESPONSE



Ehud Mendelson

11190 Heron Bay Blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:umendels@search4parking.com
Customer No. 061887

"Express Mail" mailing label number : EQ 919498295 US
Date of Deposit Aug 4,2006

I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

Docket No.: NAV4
Date: Aug 4, 2006

Missing Parts
Commission for patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir,

Enclosed herewith are the necessary replacement drawing for application 11/429,864 file at May 8, 2006. as to your confirmation No. 4194 dated:06/06/2006, attached .

Respectfully submitted,
Ehud Mendelson
Applicant Pro Se
Customer No. 061887

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OIPE IAP46
AUG 04 2006
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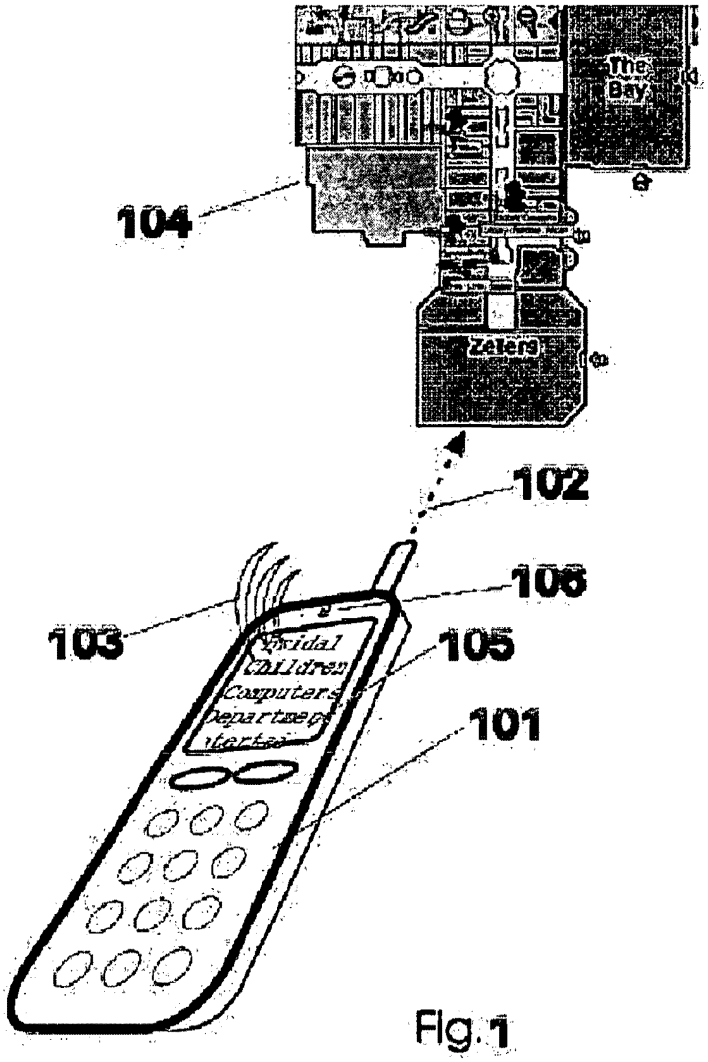


Fig. 1

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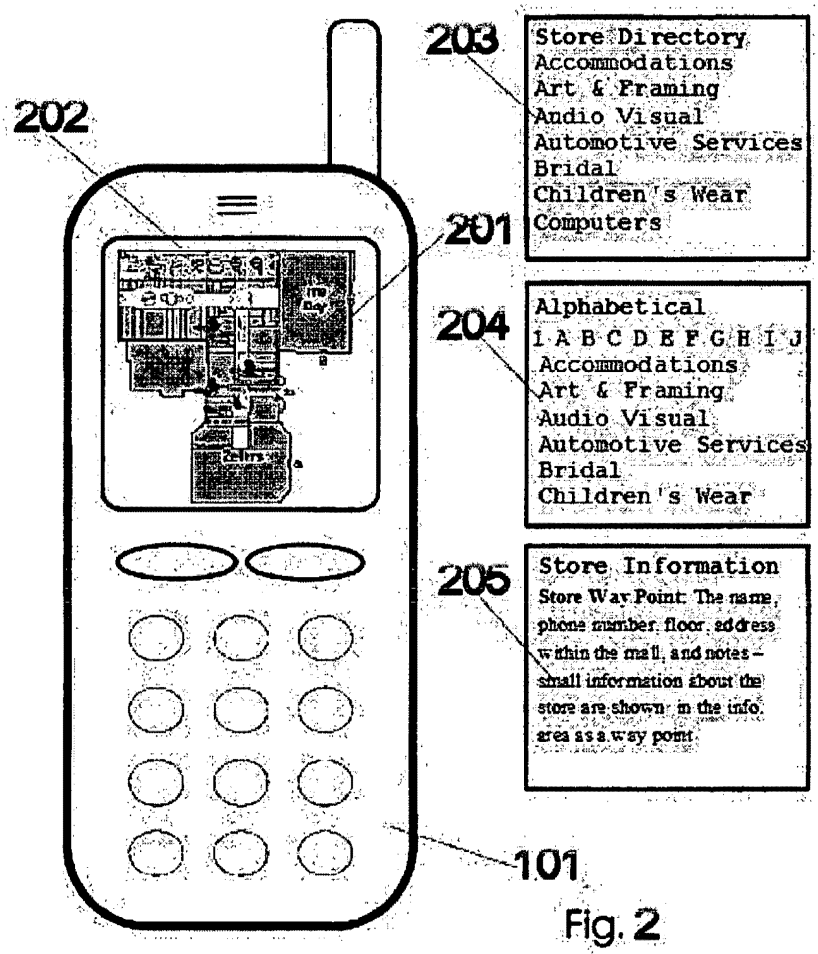


Fig. 2

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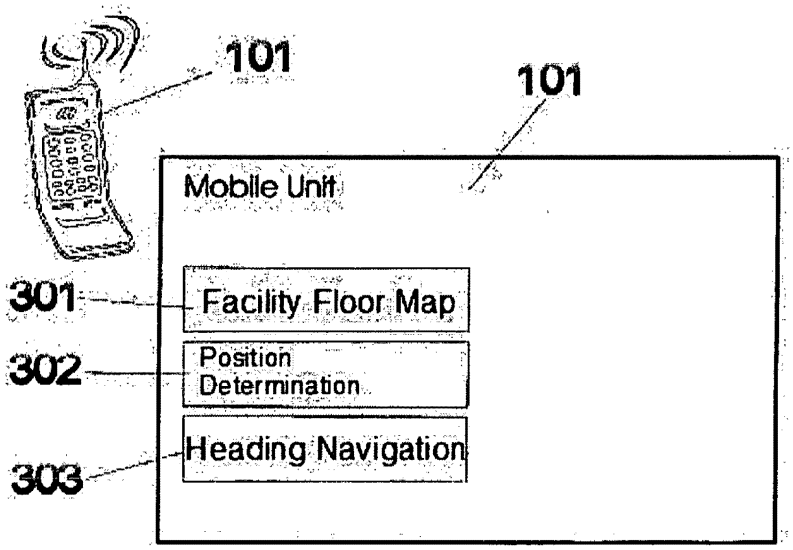


Fig.3

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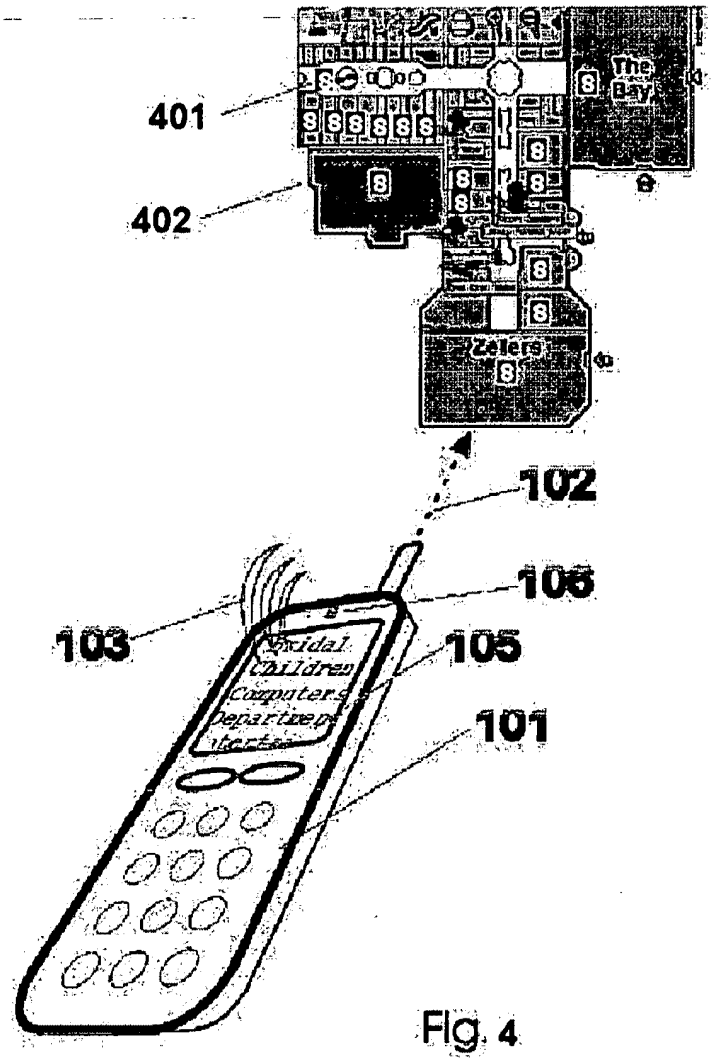


Fig. 4

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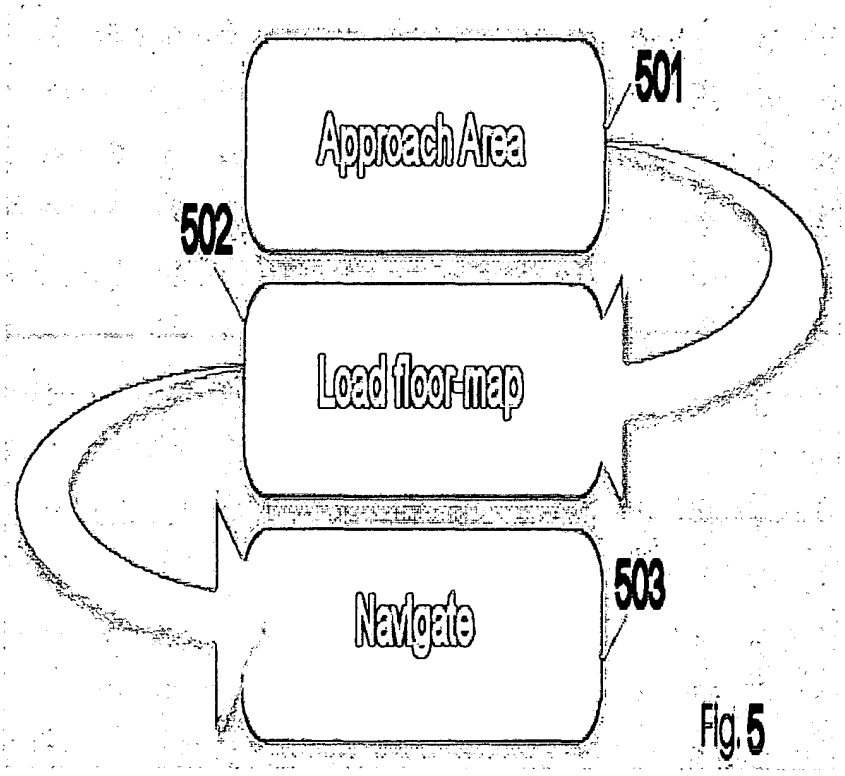


Fig. 5

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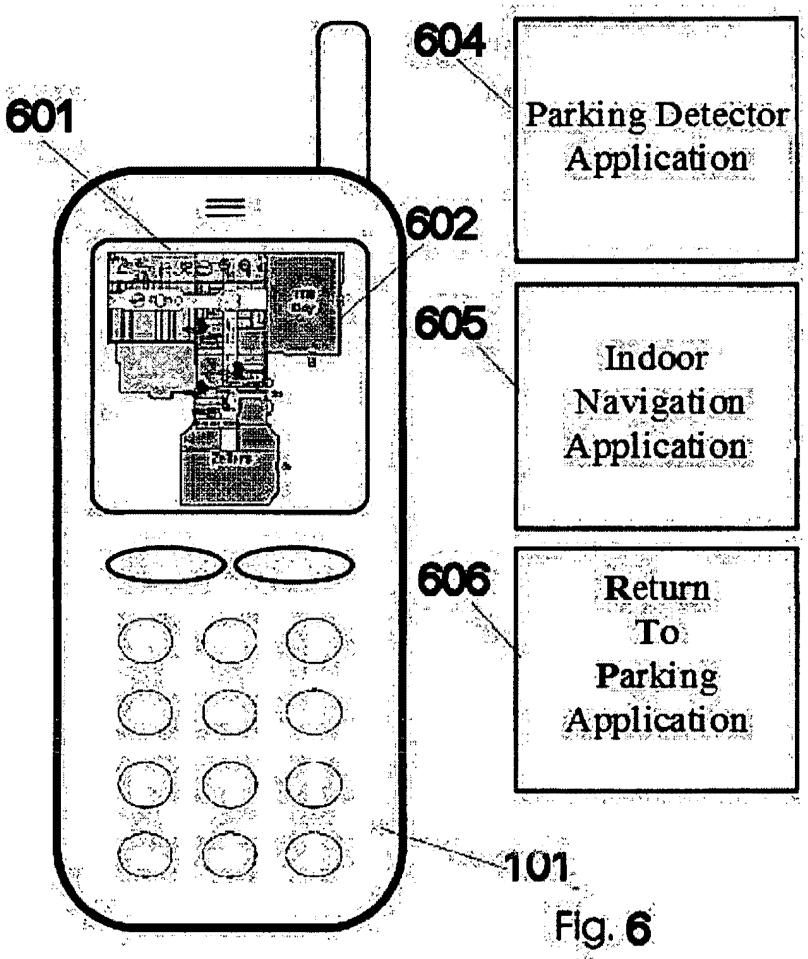


Fig. 6

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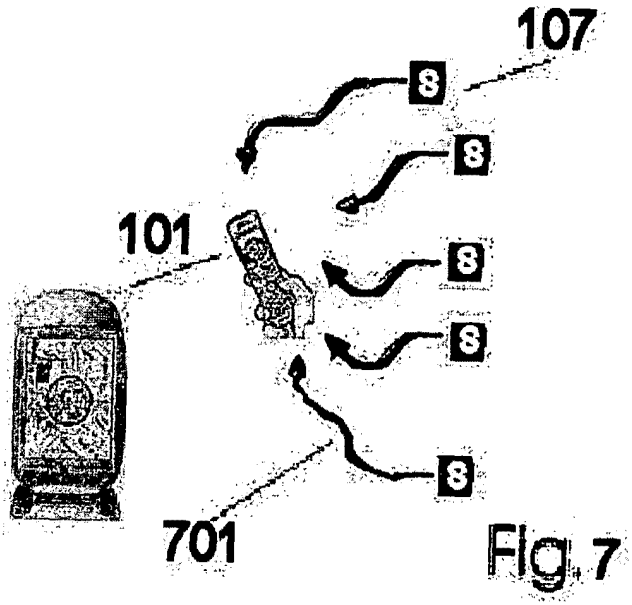


Fig. 7

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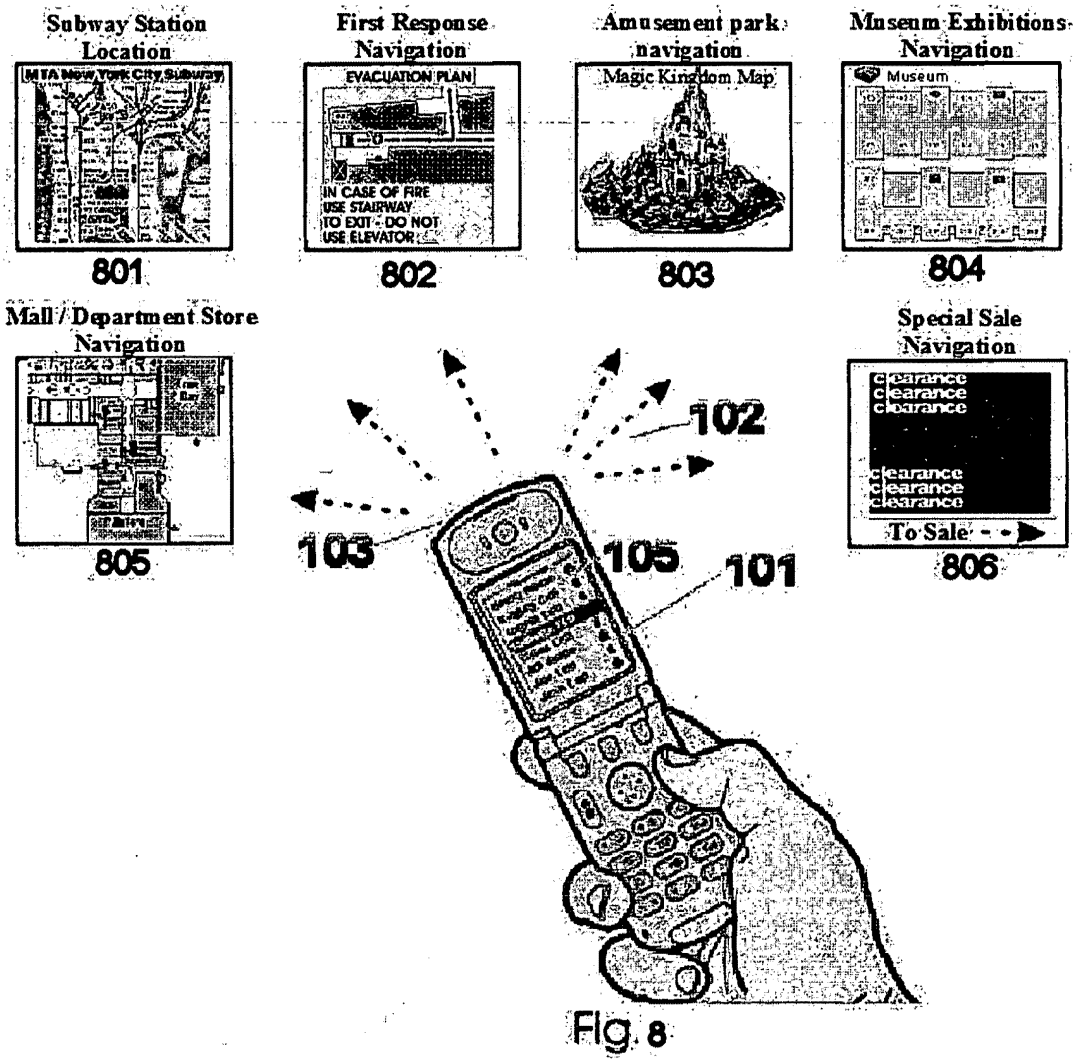


Fig. 8

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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/429,864	05/08/2006	Ehud Mendelson	NAV4

CONFIRMATION NO. 4194

FORMALITIES LETTER

00061887
EHUD MENDELSON
GAMBA GROUP LLC
11190 HERON BAY BLVD.
SUITE 916
CORAL SPRINGS, FL 33076

Date Mailed: 06/06/2006

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given TWO MONTHS from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
    - The drawings submitted to the Office are not electronically reproducible. Drawing sheets must be submitted on paper, which is flexible, strong, white, smooth, non-shiny, and durable (see 37 CFR 1.84(e)). See Figure(s) Fig.1,2,4,6-8.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	NAV4
First Inventor	ehud mendelson
Title	System & method navigating indoor
Express Mail Label No.	EQ 314726330

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☑ **Fee Transmittal Form** (e.g., PTO/SB/17) *(Submit an original and a duplicate for fee processing)*
2. ☑ **Applicant claims small entity status.** See 37 CFR 1.27.
3. ☑ **Specification** [*Total Pages* 47] Both the claims and abstract must start on a new page *(For information on the preferred arrangement, see MPEP 608.01(a))*
4. ☑ **Drawing(s)** (*35 U.S.C. 113*) [*Total Sheets* 8]
5. **Oath or Declaration** [*Total Sheets* 2]
   a. ☑ Newly executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional with Box 18 completed)*
      i. ☐ DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ **Application Data Sheet.** See 37 CFR 1.76
7. ☐ **CD-ROM or CD-R** in duplicate, large table or Computer Program *(Appendix)*
   ☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission** *(if applicable, items a. – c. are required)*
   a. ☐ Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ADDRESS TO: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**

113374 U.S. PTO 11/429864 050806

ACCOMPANYING APPLICATION PARTS

9. ☐ **Assignment Papers** (cover sheet & document(s))
   Name of Assignee _____
10. ☐ **37 CFR 3.73(b) Statement** *(when there is an assignee)* ☐ **Power of Attorney**
11. ☐ **English Translation Document** *(if applicable)*
12. ☑ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☑ Copies of citations attached
13. ☐ **Preliminary Amendment**
14. ☑ **Return Receipt Postcard** (MPEP 503) *(Should be specifically itemized)*
15. ☐ **Certified Copy of Priority Document(s)** *(if foreign priority is claimed)*
16. ☐ **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
17. ☐ Other: _____

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:*

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: .....

Prior application information: *Examiner* _____ *Art Unit:* _____

19. CORRESPONDENCE ADDRESS

☑ The address associated with Customer Number: 00061887 *OR* ☑ Correspondence address below

Name	ehud mendelson				
Address	11190 heron bay blvd. suite 916				
City	coral springs	State	florida	Zip Code	33076
Country	USA	Telephone	954-2574319	Email	umendels@search4parking.com

Signature	Ehud Mendelson	Date	05/08/2006
Name (Print/Type)	ehud mendelson	Registration No. (Attorney/Agent)	

This collection of information is required by 37 CFR 1.53(b). 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: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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17667 U.S. PTO

050806

PTO/SB/17 (01-06)
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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2006

☑ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 500.00

Complete if Known	
Application Number	
Filing Date	05/02/2006
First Named Inventor	ehud mendelson
Examiner Name	
Art Unit	
Attorney Docket No.	NAV4

METHOD OF PAYMENT (check all that apply)

☑ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account Deposit Account Number: _____ Deposit Account Name: _____

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☐ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments

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FEE CALCULATION (All the fees below are due upon filing or may be subject to a surcharge.)

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

	FILING FEES		SEARCH FEES		EXAMINATION FEES		
		Small Entity		Small Entity		Small Entity	
Application Type	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	500
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims		Extra Claims	Fee ($)		Fee Paid ($)
_____	- 20 or HP =	0	x 0	=	_____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims		Extra Claims	Fee ($)		Fee Paid ($)
_____	- 3 or HP =	_____	x _____	=	_____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims	
Fee ($)	Fee Paid ($)
_____	_____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), 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).

Total Sheets		Extra Sheets		Number of each additional 50 or fraction thereof		Fee ($)		Fee Paid ($)
_____	- 100 =	_____	/ 50 =	_____	(round up to a whole number) x	_____	=	_____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	_____
Other (e.g., late filing surcharge): _____	_____

SUBMITTED BY

Signature	MENDELSON	Registration No. (Attorney/Agent)	Telephone 954-2574319
Name (Print/Type)	ehud mendelson		Date 05/08/2006

This collection of information is required by 37 CFR 1.136. 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 30 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.

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	
Filing Date	
First Named Inventor	Ehud Mendelson
Art Unit	
Examiner Name	
Attorney Docket Number	NAV4

Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- ☑ Fee Transmittal Form
- ☑ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☑ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
- ☐ After Allowance communication to Technology Center (TC)
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Other Enclosure(s) (please Identify below):

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Ehud Mendelson
Signature	
Date	05/08/2006

CERTIFICATE OF TRANSMISSION/MAILING

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

Typed or printed name	EHUD MENDELSON		
Signature		Date	05/08/2006

This collection of information is required by 37 CFR 1.5. 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 2 hours 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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Certificate of Mailing under 37 CFR 1.8

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on 05/08/2006
Date

Signature

EHUD MCNOCKSON

Typed or printed name of person signing Certificate

Registration Number, if applicable

954-2574319
Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

This collection of information is required by 37 CFR 1.8. 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 1.8 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.

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)

ehud mendelson
search4parking llc

11190 heron bay blvd. suite 916
Coral Springs, Florida 33076

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.

EHUD MENDELSON	(Depositor's name)
EMENDELSON	(Signature)
05/08/2006	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
		EHUD MENDELSON	NAV4	

TITLE OF INVENTION: SYSTEM AND METHOD FOR NAVIGATING INDOOR AND OUTDOOR WITHOUT GPS UTILIZING A NETWORK OF SENSORS.

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
utility	x			500.00	

EXAMINER	ART UNIT	CLASS-SUBCLASS

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 _____
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)

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 enclosed:
☑ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):
☑ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
☑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.
NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature EMENDELSON Date 05/08/2006

Typed or printed name EHUD MENDELSON Registration No. _____

This collection of information 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.

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Google Ex. 1022, p. 446

Ehud Mendelson

11190 Heron Bay Blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:umendels@search4parking.com

"Express Mail" mailing label number : EQ 314726330 US
Date of Deposit May 8,2006

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. ,22313

Docket No.: NAV4
Date: May 8, 2006

Commission for patents
P.O.Box 1450
Alexandria, VA 22313-1450

Sir,

Enclosed herewith are the necessary papers for filling the following application for letters patent:

Applicant: Ehud Mendelson

Title: System and method for navigating indoors and outdoors without GPS, utilizing a network of sensors.

.

8 sheets of drawings.
The payment in the amount of $500.00 covering the filling fee. Applicant is entitled to small entity status.
Information Disclosure Statement and __ Referenced.
Signed Declaration amendment.

Respectfully submitted,
Ehud Mendelson
Applicant Pro Se

Ehud Mendelson

11190 Heron Bay Blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:umendels@search4parking.com

Docket No.: nav4
Date: May 8, 2006
Applicant: Ehud Mendelson

Commission for patents
P.O.Box 1450
Alexandria, VA 22313-1450

Sir,

In accordance with 37 C.F.R. 1.98, the following patents and/or publications are cited herewith:

U.S. Pat. No. 7,031,875 Ellenby et al. April 18,2006

The above mentioned references were cited in an Information Disclosure Statement dated May 8,2006, in the parent application.

Respectfully submitted,

Ehud Mendelson
Applicant Pro Se

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.

Application
For
United States Letters Patent

Title: System and method for navigating indoors and outdoors without GPS, utilizing a network of sensors.

Inventor: Ehud Mendelson
11190 Heron Bay Blvd. Suite 916
Coral Springs, Fl, 33076

System and method for navigating indoors and outdoors without GPS, utilizing a network of sensors.

Related Applications:

This application claims the benefit of US Provisional Application No. US60/678,947 filed May 9,2005.

Field of the Invention:

This invention is directed generally to the field of "location based navigation" and, more particularly, to such method to be used indoors or outdoors without GPS and utilizing a wireless sensor network.

Google Ex. 1022, p. 451

BACKGROUND OF THE INVENTION

Introduction to location based services:

Location based services are rapidly expanding. Outdoor location technologies are mainly based on GPS technologies. GPS cannot perform properly indoors, and is therefore inadequate. As a result, indoor location systems are appearing on the market.

The need for a system such as ours arises from various market segments and applications. One example in the market is the GPS based systems that use integrated positioning and navigation systems based on GPS receivers as the primary positioning technology. Subsequent to the events of September 11th., the Federal government mandated that GPS capability be built in to all cellular phones.

However, the fact that uninterrupted satellite reception is not possible in many locations is a major limitation of GPS based systems. Densely populated areas and radio-frequency-signal shadowed locations, such as urban centers (a.k.a. "urban canyons"), generally do not allow proper operation of GPS, yet it is in these locations that the need is greatest.

There is a clear need for a cost effective system that maintains performance indoors, in urban canyons and in city centers.

Another important consideration is that GPS itself is susceptible to jamming and other man-made interference.

Google Ex. 1022, p. 452

Description of GPS System.
The Global Positioning System (GPS) is a satellite-based navigation and time transfer system developed by the U.S. Department of Defense. GPS serves marine, airborne and terrestrial users, military and civilian. Specifically, GPS includes the Standard Positioning Service (SPS) that provides civilian users with 100 meter accuracy as to the location or position of the user. For military users GPS provides the Precise Positioning Service that is accurate to within 20 meters. Both of these services are available worldwide with no requirement for any local equipment.

View of GPS limitations:

First limitation of GPS is that upon activation the GPS receiver scans for signals from the GPS satellites. A unit must locate and receive signals from at least four satellites to be able to determine its location. This process of locating the satellites, receiving the data and achieving a position fix can take several minutes. This delay is problematic for many GPS applications.

Second limitation of GPS is that the receiver needs a clear view of the sky to successfully receive signals from the satellites, again under unfriendly RF conditions such as inside buildings, or in "urban canyons" or in the shadows of high buildings, the GPS suffers from multi-path effects and therefore shows poor performance, or none at all.

Third Limitation - limited accuracy: There is a problem of limited accuracy of the civilian GPS signal. While knowing your position to within 50 to 200 feet anywhere on the planet is a major technological feat, it is still not accurate enough, to locate and navigate to an a store in a

Google Ex. 1022, p. 453

mall or to empty parking space, where each space measures about 10 feet, and most indoor store/malls are located where the GPS cannot work effectively.

Existing navigation systems, such as the new mandatory GPS equipped cellular phones, are based on GPS and have the aforementioned limitations.

Another significant factor adding to the limitations of the GPS based systems is the important role of map production; normally a user, requires a map to be as detailed and as up-to-date as possible. The existing maps used by the GPS based systems provide limited detail and are not able to reflect changes on a real time basis, more over there is no mapping for indoor facilities at all. The recent introduction of imagery services, such as Google Earth and its competitors,that are offered as an enhancement to GPS at a fee, still provide out of date information, with the unsatisfactory result that users encounter road changes and area development not shown on the maps and imagery.

Application:

In general, our system is based on applying machine-learning techniques to the task of inferring aspects of the user's status from a stream of input from sensors.

We have focused on indoor navigation, or navigation in crowded urban areas, where GPS based systems, due to lack of access to satellites or the GPS limitations detailed previously, cannot achieve the required results.

We have focused on the task of interactively guiding the user to a desired indoor destination.

Google Ex. 1022, p. 454

Examples of indoor applications:

The user may wish to locate an empty available parking space in his vicinity.

The user may wish to locate a specific store in a shopping mall, or a particular aisle in a department store, or a specific item on a shelf.

The user may wish to locate a specific conference room in a convention center, or a point of interest in an amusement park or a point of interest in a museum.

The user may be looking for a train location in a station, or stops in a subway or underground train system.

Prior art

At present, however, no prior art device utilizes the capabilities to display a real-time representation of navigating directly from the sensors without a central system; and without using a GPS based system directly to the "user". Also most of systems are designed for the old query type search where interface to internet and or database central system needed .

Our system automatically detects a signal directly from the sensors, no communication needed not even cellular communication. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

Even if the other systems have bandwidth, they still based on the existing search concept where

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under the user submits a query, searches and awaits for the response. All impractical. Our system provides the information automatically, without submitting any query, and the response is according to the user's location.

Again, most of the existing prior arts are based either on a GPS based system or the existing car navigator, that depends on a GPS too.
And the existing mapping that these systems use has the same limitations described previously and is impractical.

We believe that our system method bridges the gap between the GPS based navigation and provides a complete solution.

Patent US 7,031,875 Ellenby et al. describe a pointing system for addressing objects, provide a system and method based on GPS and internet/database communication, it is not exactly a navigation but a information based system that need the GPS to locate the user location so indoor services is likely out of the questions and the need for communication as well with GPS limit its availability and accuracy.

Indoor location technologies.

Various technologies are used for wireless indoor location. These may be classified in two aspects:
The algorithm - i.e. the method of location used.
The physical layer - i.e. the wireless technology used to communicate with the mobile device.

Location methods
Typically, the methods used in indoor locations are "borrowed" from the outdoor GPS location methods inventory. Specifically, four types of methods are used indoors:

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Proximity Detection (PD), Received Signal Strength (RSSI), Time of Arrival (TOA)~ and Angle of Arrival (AOA).

Proximity Detection (PD)
This method relies upon a dense grid of antennae, each having a well-known position. When a mobile is detected by a single antenna, it is considered to be collocated with it. When more than one antenna detects the mobile, it is considered to be collocated with the one that receives the strongest signal.
This method is relatively simple to implement. It can be implemented over different types of physical media. In particular, IR and RFID are based on this method.

Triangulation
Triangulation takes PD a step further, in the sense that it is based on measuring the signal level measurements from each antenna (possibly by using a triangulation mechanism), with respect to each mobile device. Following that, mobile is located by using a triangulation algorithm.

Like the PD method, triangulation is relatively simple to implement.

Time of arrival (TOA)
TOA is based on triggering the mobile devices to respond, and measuring the time it takes for the response to flyback to the antenna. The elapsed time represents the distance between the two. By using distances from few antennas, a mobile's position can be triangulated. TOA is considered to be the most accurate method, because multipath effects can be filtered out. Yet, it is considerably more complex to implement, as it requires a modification to the hardware on the

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mobile side, as well as special modifications on the antenna side.

Angle of Arrival (AOA)
AOA is based on finding the direction of maximal signal intensity for each antenna-device pair. By finding the intersection of several such direction vectors, a mobile's position can be estimated
AOA is considerably less accurate than TOA, due to limited angular resolution and the fact that indoors much of the signal is reflected. Also, AOA antennae are more complex, as they require multi-section, highly directional antennas, and multiple RF circuitry.

WLAN (IEEE 802.11b)
This midrange wireless local networking standard, operating in the 2.4GHz ISM band, has become very popular in public hotspots and enterprise locations during the last few years. With a typical gross bitrate of 11 Mbps and a range of 50-100 m, IEEE 802.11b is currently the dominant local wireless networking standard.

It is therefore appealing to use an existing WLAN infrastructure for indoor locations as well, by adding a location server. Such solutions do exist in the market, providing an accuracy of ~2m.

One limitation of such systems is the fact that WLAN tags are relatively bulky and power hungry. Thus, such locators are mainly useful to locate WLAN enabled instruments, such as portable computers.
Note that in WLAN, antennae are actually part of access points (APs), through which devices communicate with the access network. This is also the case with Bluetooth.

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Bluetooth (IEEE 802.15)
Bluetooth is a newer wireless local networking standard, that operates in the 2.4 GHz ISM band. Compared to WLAN, the gross bitrate is lower (1 Mbps), and the range is shorter (typically 10-15 m, although there are tags with a range of over 300 feet). On the other hand, Bluetooth is a "lighter" standard, highly ubiquitous (embedded in most phones, PDAs, PC peripherals, etc.) and supports, in addition to IP, several other networking services. Notably, Bluetooth supports serial port emulation, voice, and various types of object exchange.
Bluetooth tags are small, pocketsize transceivers.

Every Bluetooth device's tag has a unique ID. This ID can be used for locating the tag.

Bluetooth indoor location
How does Bluetooth location work?
Bluetooth was not made originally for location. From the outset, the standard was designed for communication, in a personal area networking (PAN) environment. However, to facilitate this task, particularly in dynamic ad-hoc scenarios, devices need a mechanism to identify their neighbors, to synchronize, and finally to connect. Such mechanisms have indeed been built into Bluetooth. More importantly, these mechanisms can also be used to obtain an accurate location.

There are two approaches to Bluetooth location:

Binary location - a room-oriented approach, uses the PD method. An access point is installed in every way point. For each tag, the system than finds the nearest AP, and respectively indicates its way point location.

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Analog location - an X-Y oriented approach, based on the RSSI method. APs are installed more sparsely (typically, 10-15 m apart). For each tag, the distance from each way point is measured, and the system triangulates the tag's position.

An AP finds a tag by using one of two Bluetooth mechanisms, Inquiry and Paging, that are used normally for link setup:
The Inquiry mechanism - provides a way for a Bluetooth device to discover its neighbor's Bluetooth ID. An inquiry process typically takes 5s. It concludes with the inquirer (typically the AP) having the IDs of all those Bluetooth devices (tags) within its RF range. The relevant location scenario is that of browsing all tags nearby.

The Paging mechanism - following an inquiry, the inquirer can page (set up a link with) one or more of its discovered neighbors. A paging process typically takes 1-2s. This mechanism is faster, but requires a previous knowledge of the tag's ID (as well as the Bluetooth clock phase). The relevant location scenario is that of searching for a certain tag. It is the most accurate and the faster response time and it is our method in door navigation when and where each tag is known address position - waypoint.

Why use Bluetooth for indoor location?
Bluetooth has some advantages in the context of indoor location. These include:
Bluetooth uses RF - in the 2.4GHz ISM band, specifically. In this frequency range, radio waves penetrate obstacles, such as walls and human bodies, albeit with a substantial loss.
This has two implications:

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Availability is high - there is always some signal received by the access point .
AP density can be low- the access points can be placed relatively far apart (typical range is 10-15 meters, i.e. not necessarily of one in each way point).

Bluetooth is ubiquitous - Bluetooth chipsets are being implanted everywhere nowadays (phones, accessories, computing devices, etc).
The fact that a Bluetooth location system can locate any Bluetooth enabled device, makes it more cost-effective. This means that an increasing fraction of humans and mobile assets around would become locatable in a Bluetooth covered site, with no additional hardware cost (no tags attached). The only need is to pre-register these devices.

Bluetooth is a low power technology - tags need recharge, approx. once a week (or longer, depends on the usage scenario). Nontags (e.g. BT enabled phones), are being recharged anyway on a regular basis, so they do not need special recharges. If they are being used for location, the fraction added to their usual (no Bluetooth) power consumption is relatively small.

Bluetooth is a low cost technology - the high expected production volumes (hundreds of millions annually) lead to sub-5$ per chip. This goal has already been met by few IC manufacturers. This would eventually result in a low price for the Bluetooth tags, if and when Bluetooth location systems would become sufficiently ubiquitous.

Bluetooth is a multi-functional communication standard - location is only one of the services that can be supported by a Bluetooth infrastructure. The same infrastructure can be used to provide additional network services,

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particularly remote monitoring and control (by using a serial interface). In addition, Bluetooth provides voice and IP services (although for the later, WLAN is typically more suitable).

In open spaces, relatively free of obstructions and walls (e.g. a large warehouse or a public hotspot), Bluetooth alone would suffice to provide a ~2 meter error range.

Conclusion
the Bluetooth technology offers two unique advantages: one is the ability to locate ubiquitous "anytags" (any Bluetooth enabled device that is not a tag, e.g most of the newer mobile phones). The other advantage is the multiservice nature of the Bluetooth infrastructure that enables using the location access points for other purposes, such as for navigating ,remote monitoring and control, and for a variety of IP and messaging services.

SUMMARY OF THE INVENTION

In accordance with the present invention, these are our project's characteristics:

Our system is a navigation method based on the following unique characteristics:

In an indoor or outdoor navigation situation our sensor net, and sensor tags, replace the satellite in a GPS based system, to provide the user with the information and directions needed to reach the destination.

Our innovation has three major parts:

The navigator, the special method used to display the data and the sensors.

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It is not a location and tracking system as offered by other systems.

Small RF tags are installed in each place designated as point of interest, be it at a mall, department store, product inside a store, street or garage parking, inside or outside location, public or commercial. The tags can be RFID (long range type), or a long range Bluetooth, or a wifi or any RF type. The tags broadcast a unique ID by wireless that identifies the location by the unique ID, the address and type of facility/store. The tag broadcasts its information to be picked up by the navigator, viz the cellular phone or other Bluetooth device application.

The system can serve as add on to the mall/store's guide/mapping to provide extra assistance to user.

The navigator.

The navigator, cellular phone application bluetooth application .
The user will receive the data broadcast by the tags in the vicinity via the interface with a cellular telephone utilizing the cellular phone's Bluetooth capability. It is important to note that no cellular communication or internet or database access is needed, and that any Bluetooth enabled device will operate our navigator application as a stand alone device. Our system will interface with existing in-car navigation systems. .

The display method.
The display method is our unique way to bridge existing devices like cellular phones, in - car

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navigation and other Bluetooth devices. We provide our overlay navigation method display method over the existing navigation system, as a real-time floating display, or as a waypoint to overcome the limitations of GPS based systems and the existing mapping systems.

Mapping can be offered as an additional service. No regenerating of mapping is necessary.

Our navigation system method will enable remote planning based on downloaded local floor-plans, or local navigation, when the location's floor plan can be downloaded at the destination. An example of this would be at the entrance of a shopping mall, department store, amusement park, museum, parking garage or the down town area of a city.

Our system is based on a network of sensors/tags that can be deployed anywhere. The system is accurate to within 10 feet, significantly better existing navigation systems and GPS.
The system can work inside a building whereas GPS cannot.
Local detection is obtained via popular Bluetooth interface.

The system provides information about each facility/store, including information about the type of the facility, for example: type of store or product etc.

By providing the ability to locate a the user in an area using a Bluetooth enabled device, or a cell phone with our navigation application, the system overcomes the anxiety of "Where will I am" and also facilitates finding a parked car later via the RTP (Return to Parking) feature.

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The system has the capability to perform all the functions of a search for and can become the "Next generation search out of the box".

Our system can be an attractive additional feature for cities that intend to deploy WIFI.

In case of an emergency or security situation, the system can provide authorities with information.

The system eases facilitates navigation to indoor locations, without a navigation map or GPS.
Mapping background can be provided as an additional feature on our system.
The system provides "local" navigation as well as "remote" detection.
The system allows easy interface with existing networks.
The system saves gas, time, money and eases global warming by reducing the time spent searching for destination.

Our navigation method is unique. We base our system on RF tags with interface to Bluetooth enabled devices. This feature allows detection and navigation in locations where GPS cannot work, as well as outside, with the ability to guide the user to within 10 feet of the destination, significantly better than any other navigation and GPS based systems on the market.

Our Bluetooth/RF tags are based on a long range version of the popular short distance communication. This unique feature affords the user the ability to plan ahead from a remote location, by obtaining data about the destination directly from the tags and by accessing the indoor floor plan to be navigated at the destination.

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A major problem with In-Car navigation and GPS mapping is that they cannot guide the user closer than 50 to 200 feet, and only in open places. ∓ Our system can provide accurate directions to within 10 feet.

Our system will be a challenge to navigation providers and GPS providers as they cannot provide mapping or navigation inside a mall, department store, a parking garage or lot, and anywhere the GPS /Navigation map cannot accurately help navigate.
Utilizing our innovation the facilities in the vicinity around the "user" car are displayed on a floating overlay using either a cellular phone application, or a stand alone device, or an existing installed navigation system with or without any mapping.

The recent introduction of imagery services, such as Google Earth and its competitors, that are offered as an enhancement to GPS at a fee, still provide out of date information, with the unsatisfactory result that users encounter road changes and area development not shown on the maps and imagery.

Navigation using the mapping or floor-plan of a location can be offered as an additional service.

The option of downloading a floor-plan can be exercised either remotely or locally.

The tags broadcast their signal continuously and any of our navigation devices will detect them and display the data on the user's device in an easy to understand method.

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With our innovation you have the information that you want, when you want it, where you want it... (and at an affordable price)

Once you are in the vicinity of your destination and you switch on your navigation device, you will automatically receive the facility information along your waking route and in all directions around you.

No further action is required, there is no need to send a request or to access the internet /web or log on and search a database or central system. Other systems must have bandwidth available, over which to send a request to a central system, or to a database, and then must wait for a response. This takes time!

Even if the other systems have bandwidth, they are still based on the existing search concept where under the user submits a query, searches and awaits for the response. All impractical while the user need the information immediately. Our system provides the information automatically, without submitting any query, and the response takes into account the user's location.

Our unique approach does not need an internet bandwidth or cellular communication at all.

And as a result there is no delay or waiting for communication and access time, the communication is instantaneous, directly between the tags and the user's navigation device.

Additionally, each facility type can color-coded to identify the type of the store etc., e.g. restaurants, men's wear, women's wear etc.

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Each color-coded display of facility can be accessed to obtain complete information about the store e.g., automatic waypoint information.

The ability to operate our innovation using our application on a cellular phone, the navigator, with no need for cellular connection, or on any stand alone Bluetooth enabled device, means the user does not need any GPS system.

Moreover, our innovation can solve the "RTP" (Return to parking) problem, where many forget where they parked their car. The system has an option to save the location on the "cellular phone - parking detector" application, that will make it easy to locate the parked car.

Our solution is designed for global use and is not limited to malls, stores, amusement parks, museums, sports stadiums etc. It can be implemented in parking garages or parking spaces metered or not, almost anywhere and in any place .

It is our plan that in the future all new construction will have the tags included in the design.

We integrated the navigation as part of our NAV4 concepts where it will provide complete solutions for local navigation in an area where the GPS can't work.

Our system method consists of three parts:

Part 1. A network of tags/sensors - each in a known location.

Our system is based on navigation to a location, and its aim is to replace or supplement the

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mall/store guide/map, by installing the tags/sensors in each store or point of interest.

Part 2. The mapping. As GPS and GPS mapping is not available indoors, we based our system method on the floor plan mapping available from each facility. For planning ahead, the floor plan can be downloaded to the user's navigation/cellular phone remotely - via internet before reaching the destination or locally via Bluetooth when the destination is reached.

Part 3. The Navigation uses the most commonly used device in the world today, the cellular phone with Bluetooth interface. Our system method doesn't need any connection, communication, internet or central system nor any cellular communication.
As a difference from other systems and other local based systems, we offer our unique approach that can be described as the "Search out of the box" as neither query nor database search is needed; all communication is directly between the sensor/tags and the cellular phone, working as a Bluetooth device, that automatically recognizes and takes into account the "user's" location, and provides instant information.

A typical application is navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough. The system will be used for navigation by first responders to emergencies or disasters.

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Our system method is part of our broad suite of applications that include a complete solution to the "user" from the time that he parks, or begins looking for a space to park his car, walking to the store/mall to when he wants to return to his parked car, looking for the place that he parked.

The suite includes:

Parking detector- and navigation to the empty available parking space.
Nav4 mall/store navigation solution inside mall store.
RTP- return to parking - locate the place that you parked your car.

For example, a typical application could be:

A pedestrian asks the way in a mall to a specific store.
A pedestrian asks the way inside the store, to a specific aisle or product.
A shopper in a department store asks for a specific department.

A pedestrian asks the way to a point of interest.
In an emergency, the first response team has to navigate inside a smoke filled building.

A system and method to provide user information which related to the point of interest
Our system provides detection and navigation reference, position determination and information related to the object - point of interest, directly and automatically to the user interface- cellular phone with out any communication help of internet/web or cellular needed ..

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Special operation mode:- Shopping - NAV4SALE- provides navigation to the special sale item in a department store.

Special operating mode: - Museums - NAV4Museums provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface.

Special operating mode: - Parking - NAV4PARKING describe in 2 patent applications, provide empty parking space detection and navigation.

Special operating mode: - NAV4STORE provides navigation inside a store / department store to a specific department/aisle or specific product, with option for advertising method and special promotion.

Bluetooth indoor location
How does Bluetooth location work?
Bluetooth was not made originally for location. From the outset, the standard was designed for communication, in a personal area networking (PAN) environment. However, to facilitate this task, particularly in dynamic ad-hoc scenarios, devices need a mechanism to identify their neighbors, to synchronize, and finally to connect. Such mechanisms have indeed been built into Bluetooth. More importantly, these mechanisms can also be used to obtain an accurate location.

There are two approaches to Bluetooth location:

Binary location - a room-oriented approach, uses the PD method. An access point is installed in every way point. For each tag, the system than finds the nearest AP, and respectively indicates its way point location.

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Analog location - an X-Y oriented approach, based on the RSSI method. APs are installed more sparsely (typically, 10-15 m apart). For each tag, the distance from each way point is measured, and the system triangulates the tag's position.

An AP finds a tag by using one of two Bluetooth mechanisms, Inquiry and Paging, that are used normally for link setup:
The Inquiry mechanism - provides a way for a Bluetooth device to discover its neighbor's Bluetooth ID. An inquiry process typically takes 5s. It concludes with the inquirer (typically the AP) having the IDs of all those Bluetooth devices (tags) within its RF range. The relevant location scenario is that of browsing all tags nearby.

The Paging mechanism - following an inquiry, the inquirer can page (set up a link with) one or more of its discovered neighbors. A paging process typically takes 1-2s. This mechanism is faster, but requires a previous knowledge of the tag's ID (as well as the Bluetooth clock phase). The relevant location scenario is that of searching for a certain tag. It is the most accurate and the faster response time and it is our method in door navigation when and where each tag is known address position - waypoint.

Why use Bluetooth for indoor location?
Bluetooth has some advantages in the context of indoor location. These include:
Bluetooth uses RF - in the 2.4GHz ISM band, specifically. In this frequency range, radio waves penetrate obstacles, such as walls and human bodies, albeit with a substantial loss.
This has two implications:

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Availability is high - there is always some signal received by the access point .
AP density can be low- the access points can be placed relatively far apart (typical range is 10-15 meters, i.e. not necessarily of one in each way point).

Bluetooth is ubiquitous - Bluetooth chipsets are being implanted everywhere nowadays (phones, accessories, computing devices, etc).
The fact that a Bluetooth location system can locate any Bluetooth enabled device, makes it more cost-effective. This means that an increasing fraction of humans and mobile assets around would become locatable in a Bluetooth covered site, with no additional hardware cost (no tags attached). The only need is to pre-register these devices.

Bluetooth is a low power technology - tags need recharge, approx. once a week (or longer, depends on the usage scenario). Nontags (e.g. BT enabled phones), are being recharged anyway on a regular basis, so they do not need special recharges. If they are being used for location, the fraction added to their usual (no Bluetooth) power consumption is relatively small.

Bluetooth is a low cost technology - the high expected production volumes (hundreds of millions annually) lead to sub-5$ per chip. This goal has already been met by few IC manufacturers. This would eventually result in a low price for the Bluetooth tags, if and when Bluetooth location systems would become sufficiently ubiquitous.

Bluetooth is a multi-functional communication standard - location is only one of the services that can be supported by a Bluetooth infrastructure. The same infrastructure can be used to provide additional network services,

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particularly remote monitoring and control (by using a serial interface). In addition, Bluetooth provides voice and IP services (although for the later, WLAN is typically more suitable).

In open spaces, relatively free of obstructions and walls (e.g. a large warehouse or a public hotspot), Bluetooth alone would suffice to provide a ~2 meter error range.

Waypoint Navigation

A waypoint is a fixed location with known address location, longitude and latitude and coordinates. Our navigation system is capable of storing a database of waypoints for the following purpose:

> Waypoints mark a destination, a point along the way to a destination, or a point of reference. Normally, in navigating, a "route" consists of one or more waypoints. To traverse a route, the user navigates to the nearest waypoint, then to the next one in turn until the destination is reached. The system has the ability to compute a great-circle route towards a waypoint, enabling them to find the shortest route even over long distances. The system enabling users to locate a destination on a map and define it as a waypoint. The system is intended for navigation; it can generate a suggested route between two waypoints, based on the cartographic database. The system indicates the user's current location and gives advance notice of an upcoming point.

Because the system knows the waypoint positions, and the distance between them it, it is easy to determine the "user's" exact location.

Map Matching

The navigation solution is further enhanced, although it is not essential, when the system knows that the person or object being located is

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traveling along known routes on a map; for example, the system can assume that people can only follow certain routes in a mall. This is priori information that can be used to "force" the estimated position to be on the nearest point on the possible routes. The constraints of indoor construction similarly can be used to refine estimates of the position of a person or object moving within a building—people and objects do not pass through walls, they pass along corridors and through doorways. It is a best solution for a system in case of an emergency or for a system for homeland security or a system to locate and inform the subway location, a good example is the hotel exit floor map.

Configuration and Use

In our indoor application, instead of GPS, we use known waypoint positions that are manually detected and identified as a demonstration of the concept of using an other sensing method, such as RFID, to detect and identify the waypoints.
Theoretically, it would be possible to convert the waypoint positions into GPS coordinates and emulate an external GPS data source.

This system can be useful for providing navigation to first responder personnel indoors. waypoints have been installed in a particular building in the form of RFID tags whose identities are associated with locations, then it may be possible to associate magnetic anomaly information with individual tags as well.

One of the important features of our indoor navigation techniques will enhance the ability of tactical team's first response team to navigate within the buildings in which it has been deployed.

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RF(Bluetooth) Tag/Sensor devices commonly are attached to persons or to moveable objects so that the objects can be tracked using fixed readers (special-purpose radios) at different locations. This is the most common indoor navigation that exists today. Our method is the "flip side" of this practice and is based on the concept that the detection of an RF (Bluetooth) device, or RF Tags, in a known, fixed location, by a moving reader, such as a Bluetooth enabled cellular phone or other Bluetooth enabled device, provides a precise location of a person or a moving object, by the carrier of the telephone or device, who can supply indoor navigation without GPS.

Our method provides a low-cost, reliable system for firefighters and other first responders, inside buildings, to navigate, where a GPS is not reliable—indeed, the GPS signal may have been disabled temporarily to prevent exploitation by terrorists, or even more likely no signal can be received at all inside a building.

Our system envisioned this limitation of GPS based systems, and is intended for an environment that is potentially much less "friendly" to RF signals, the environment inside a building that first responders encounter may contain smoke, dust, or flames, and is intended to leverage advances in ubiquitous RF/Bluetooth tag technology.
Our system will exploit the capability of storing critical building information, such as the floor maps and the emergency escape plans, for retrieval and navigational assistance via a Bluetooth enabled cellular phone, when and where it is needed, .

More over our system can serve as a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan

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and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

From the outset, our system was been designed with the capability to utilize existing technology so it can be deployed as a stand-alone system, or in tandem with existing systems. We focused on technology already in place that simply needs to be expanded.

With the implementation of our system, a FIRST RESPONSE TEAM will be empowered to navigate and find its way in a case of emergency or a disaster. This capability can be a critical life saving power in modern congested urban living conditions, not available before now.

We believe that implementation of our system will assist counter terrorism activities and more importantly will help the first response teams to save the lives of people trapped inside buildings.

Conclusion

the Bluetooth technology offers two unique advantages: one is the ability to locate ubiquitous "anytags" (any Bluetooth enabled device that is not a tag, e.g most of the newer mobile phones).

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The other advantage is the multiservice nature of the Bluetooth infrastructure that enables using the location access points for other purposes, such as for navigating ,remote monitoring and control, and for a variety of IP and messaging services.

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BRIEF DESCRIPTION OF THE DRAWINGS

A better understanding of the present invention may be obtained by reference to the accompanying drawings, which should be considered in conjunction with the detailed description, all in accordance with the present invention.

Figure 1 is an illustration of the portable phone navigation method as application on a cellular phone in accordance with the present invention.

Figure 2 is illustration of the portable phone navigation as an application nav4 mall/store in accordance with the present invention.

Figure 3 is illustration of the mobile unit application system in accordance with the present invention.

Figure 4 is an illustration of the sensor tags in a network implement in a mall environment in accordance with the present invention.

Figure 5 is a flow diagram of the navigation system in accordance with the present invention.

Figure 6 is an illustration of the indoor navigation system in accordance with the present invention.

Figure 7 is an illustration of the sensor tags in a network in accordance with the present invention.

Figure 8 is an illustration of the possibility application for our navigation system in accordance with the present invention.

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DESCRIPTION OF THE PREFERRED EMBODIMENT

In all the figures of the drawings, sub-features and integral parts that correspond to one another bear the same reference symbol.

Referring now to the drawings in detail and first particularly to Figures 1-8 thereof.

These figures illustrate the method and system to navigate indoor without GPS using sensor in a network utilizing Bluetooth application on a cellular phone.

Referring to Fig 1 This shows the cellular phone 101 with a floating display of information 105 received directly from sensors/tags 107 installed in this illustration in a mall facility 104 the only communication is between the sensors 107 and directly to the cellular phone 101 via a Bluetooth communication 102 where no cellular or any other connection needed at all. We use the cellular phone 101 as a Bluetooth enable device. The application will receive a signal directly from the sensor/tags 107 installed at the facility and allow to calculate and determine the exact location of the "user" and will allow navigation in the facility when the navigation display 105 of the application will be floating on the floor map of the facility that can be down load ether remotely before accessing the facility or locally via Bluetooth 102 when reaching the area.

Each sensor 107 represents a waypoint and will be shown with a simple color code to identify the type of the facility e.g. type of store.

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When the user approaches a sensor/tag/ way point 107 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device 101 e.g. special promotions, coupons, advertising or special sales to the display 105 etc.

The promotion can be also delivering via Bluetooth voice option 106.

Referring to Fig 2.This figure illustrate the cellular navigation application in a mall on a cellular phone, 101, as a Bluetooth cellular phone application; again, there is no need for cellular communication or any internet web communication or any central system nor any access to a database.

We utilize the cellular phone, 101, only as a Bluetooth enabled device and the application overlay floating display over the floor map 201 where each store sensor/tag 202 represented as a waypoint, in this illustration the mall's store can be view and be search by store type , store directory 203, or by alphabetical order 204, where each store/waypoint will have a basic information - store information 205, like the store name, phone number,floor,address within the mall, and a small notes- small information representing the store. Again when the user approaches a sensor/tag/ way point 202 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device 101 e.g. special promotions, coupons, advertising or special sales to the display 201 etc.

The promotion can be also delivering via Bluetooth voice option utilize the Bluetooth options.

Google Ex. 1022, p. 481

Turning now to Fig 3. This figure shows the cellular phone mobile unit 101, in operation as a Bluetooth application, the procedure is firs to load the facility floor map 301, which can be done remotely as a planning via internet or web site before reaching the area to be navigate, or locally via Bluetooth connections at the facility, most likely at the entrance. After loading the floor map to be a background for the navigation a position determination 302, done by calculating the signal receiving directly from the sensor/tags and then provide the heading navigation 303, and the current user location on the floor map, 301.

Referring to Fig 4. This figure shows an illustration of the mall 402, when each store represented by sensor/tag waypoint 401, in this illustration the mall's store can be view and be search by store type, store directory, or by alphabetical order, where each store/waypoint 401, will have a basic information -store information, like the store name, phone number, floor, address within the mall, and a small notes- small information representing the store. Again when the user approaches a sensor/tag/ way point 401 he will be able to receive additional information regarding the store/product on his cellular phone/Bluetooth device e.g. special promotions, coupons, advertising or special sales to the phone as Bluetooth application.

The promotion can be also delivering via Bluetooth voice option utilize the Bluetooth options.

Google Ex. 1022, p. 482

Turning to Fig 5. This figure shows the method of our system when the user reach the area 501,locally load the floor mapping 502, and navigate on the facility mapping 503.

Referring to Fig 6. This figure shows an illustration of our navigation suite of application where the navigation is a cellular phone 101, as a Bluetooth device navigate on a background floor map of the facility 602, receiving a detect information and determination of the exact location of the user from a sensor base network implement in each known location like 601, store in a mall, the application in our suite of software to provide a navigation indoor or in a places where and when GPS signal is not available or not efficient to provide accurate to a waypoint /store , place :

Parking detector application 604, describe as a system and method to find an empty parking space from a sensor base network directly to the cellular phone utilize the cellular phone Bluetooth and no other communication needed.

Indoor navigation application 605, under Nav4 application that will describe in more details in fig. 8 A typical application is navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough. The system will be used for navigation by first responders to emergencies or disasters.

606 represent RTP- returns to parking - locate the place that you parked your car.

Google Ex. 1022, p. 483

Our system method is part of our broad suite of applications that include a complete solution to the "user" from the time that he parks, or begins looking for a space to park his car, walking to the store/mall to when he wants to return to his parked car, looking for the place that he parked.

The suite includes:

Parking detector- and navigation to the empty available parking space.
Nav4 mall/store navigation solution inside mall store.
RTP- return to parking - locate the place that you parked your car.

For example, a typical application could be:

A pedestrian asks the way in a mall to a specific store.
A pedestrian asks the way inside the store, to a specific aisle or product.
A shopper in a department store asks for a specific department.

A pedestrian asks the way to a point of interest.
In an emergency, the first response team has to navigate inside a smoke filled building.

A system and method to provide user information which related to the point of interest
Our system provides detection and navigation reference, position determination and information related to the object - point of interest, directly and automatically to the user interface- cellular phone with out any communication help of internet/web or cellular needed...

Google Ex. 1022, p. 484

Turning to Fig 7. the sensor base network 107, is show and illustrate the direct broadcasting RF information 701,to the cellular phone as a bluetooth device 101, again, there is no need for cellular communication or any internet web communication or any central system nor any access to a database.

Turning to Figure 8, is an illustration of the possibility application for our navigation system The Nav4 indoor application: some of the possibilities of application are:

Special operation mode: - Shopping - NAV4SALE- 806, provides navigation to the special sale item in a department store, coupons or other promotions and even audio or video via a Bluetooth interface as advertising directly push from the waypoint /store area to the user Bluetooth device/cellular phone.

Special operating mode: - Museums - NAV4Museums-804, provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

Special operating mode: - NAV4STORE-805, provides navigation inside a store / department store to a specific department/aisle or specific product, with option for advertising method and special promotion.

Special operating mode: - Amusement park - 803, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device via Bluetooth

Google Ex. 1022, p. 485

interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability (lines...) time to the show, type of the waypoint like restrooms, food area etc...more over our navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

Special operating mode: - First response navigation,802 - More over our system can serve as a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

Special operating mode: - NAV4Train-801, provides

The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, more over the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, no more walking to the mapping inside the station or try to figure out your location in the map inside the subway train, each station will have a tag/sensor all the route to provide the user accurate locating

Google Ex. 1022, p. 486

and additional information that he may need like schedule , restroom , food, emergency etc..

Since other modifications and changes varied to fit particular operating requirements and environments will be apparent to those skilled in the art, the invention is not considered limited to the example chosen for purposes of disclosure, and covers all changes and modifications which do not constitute departures from the true spirit and scope of this invention.

Having thus described the invention, what is desired to be protected by Letters Patent is presented in the subsequently appended claims.

Google Ex. 1022, p. 487

I claim:

1. A method for navigating in doors or in area where there is no GPS signal in or on at least one display device selected from the group consisting of a display devices, a mobile phone, hand held navigation system, and a Bluetooth enabled device, The method comprises the steps of:

Receiving data from a RF Tags/sensor, the data including positional data, type of the facility data selected from the group consisting of information guide provided at each facility. and displaying information as a floating on the display device.

2. the wireless sensor according to claim 1, werein said RF sensor can be installed on any place that designated as a waypoint.

Google Ex. 1022, p. 488

3. The method according to Claim 1, which further comprises displaying the information over a facility map, area map, or floor plan downloaded to the display device.

4. The method according to Claim 1, wherein the information pertains to navigating a current facility area.

5. The method according to Claim 1, which further comprises determining a current position of a user by a triangulation calculation based on known positions of a plurality of wireless sensors implements in a known positions in the facility.

6. The method according to Claim 1, which further comprises displaying additional information of a facility object e.g. store , department as a waypoint.

Google Ex. 1022, p. 489

7. The method according to Claim 5, which further comprises navigating to the current way point using a floor map of the facility.

8. The method according to Claim 5, which further comprises performing the determining step without the aid of a global positioning satellite system.

9. The method according to Claim 1, which further comprises providing the display device/cellular phone with application software for displaying pre-loaded area maps or facility floor plans.

10. The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors according to the user position/area and no bandwidth or internet needed.

Google Ex. 1022, p. 490

11. The method according to Claim 1, which further comprises receiving automatically and directly the information from the sensors without sending a request or a query for search in a database or internet.

12. The method according to Claim 1, which further comprises navigation type of the facility selected from the group consisting but not limit of: navigating a pedestrian in an environment like a mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal building, museum, subway, train station, airport, down town center, any type of parking facility... or any place when and where GPS cannot be provided or is not accurate or precise enough.

13. The method according to Claim 12, which further comprises navigation in a Special operation mode: -

Google Ex. 1022, p. 491

Shopping - NAV4SALE, provides navigation to the special sale item in a department store, coupons or other promotions and even audio or video via a Bluetooth interface as advertising directly push from the waypoint /store area to the user Bluetooth device/cellular phone.

14. The method according to Claim 12, which further comprises navigation Special operating mode: - Museums - NAV4Museums, provides navigation and interactive information from the museum's exhibition to the "user's" cellular phone device via Bluetooth interface, utilizing the Bluetooth the user can receive even audio and video information and there is no need to have a rental headset or additional information.

15. The method according to Claim 12, which further comprises navigation Special operating mode: - Special operating mode: - NAV4STORE, provides navigation inside a store / department store to a

Google Ex. 1022, p. 492

specific department/aisle or specific product, with option for advertising method and special promotion.

16. The method according to Claim 12, which further comprises navigation Special operating mode: - Special operating mode: - Amusement park, NAV4disney provides navigation and interactive information from amusements park exhibition to the "user's" cellular phone device via Bluetooth interface. Will provide navigation on the amusement map, the exhibition as a waypoint to provide information like schedule of show, availability (lines...) time to the show, type of the waypoint like restrooms, food area and provide navigating system method can provide also a user locating when and where there is need to locate the user/kid for example in the amusement park.

17. The method according to Claim 12, which further

Google Ex. 1022, p. 493

comprises navigation Special operating mode: -

First response navigation, which comprises a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.
- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

18. The method according to Claim 12, which further

comprises navigation Special operating mode:

NAV4Train, provides The user with ability to know his exact location in the train, subway station on a route directly to his phone as a Bluetooth device, which comprises the train/subway/underground map will be the basic for the background navigation and will show the user his location in the train/subway route, no more walking to the mapping inside the station or try to figure out your location in the map inside the subway train, each station will have a tag/sensor

Google Ex. 1022, p. 494

all the route to provide the user accurate locating and additional information that he may need like schedule , restroom , food, emergency

Google Ex. 1022, p. 495

ABSTRACT OF THE DISCLOSURE

The navigation system method described herein could guide people around urban environments, detect guide and navigate them to destinations, add-on to the portable phone. We have focused on the task of detecting and navigating even in situations in which Global Positioning Systems (GPS) cannot provide this information, such as when the person is indoors or in crowded urban areas where there is no line of site to the GPS satellites.
The information will be received directly from RF sensors and will display on the existing cellular phone as Bluetooth application .

Google Ex. 1022, p. 496

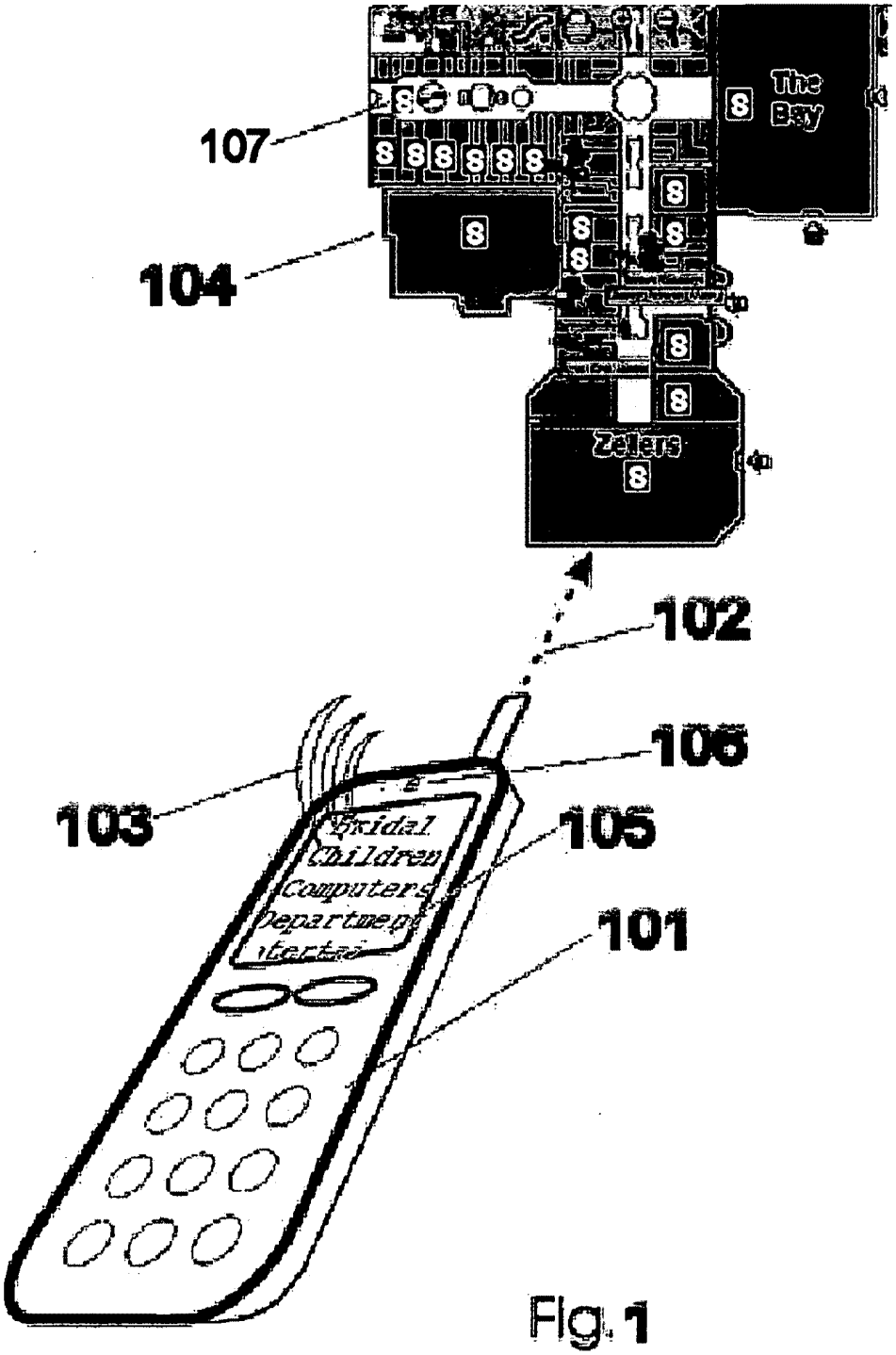
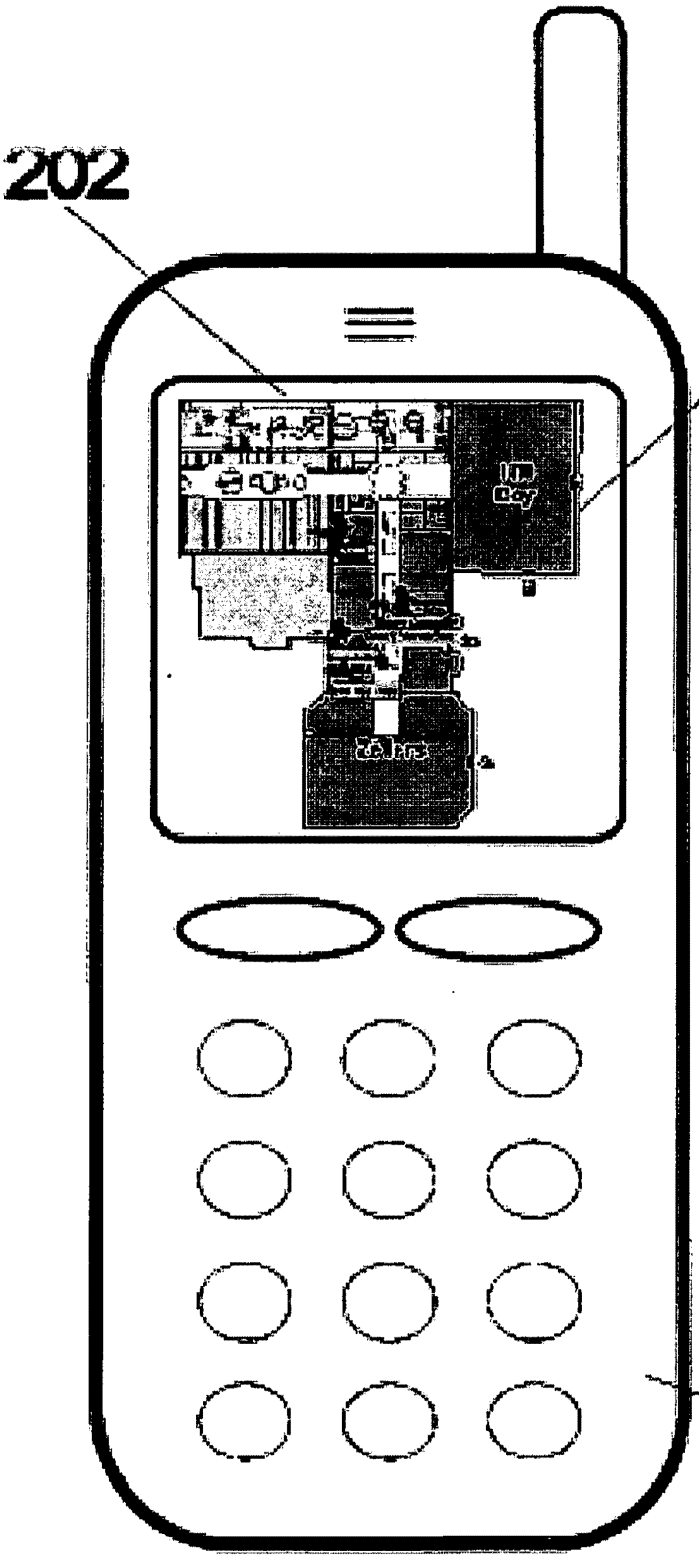


Fig. 1

BEST AVAILABLE COPY



203
Store Directory
Accommodations
Art & Framing
Audio Visual
Automotive Services
Bridal
Children's Wear
Computers

204
Alphabetical
1 A B C D E F G H I J
Accommodations
Art & Framing
Audio Visual
Automotive Services
Bridal
Children's Wear

205
Store Information
Store Way Point: The name, phone number, floor, address within the mall, and notes – small information about the store are shown in the info. area as a way point

Fig. 2

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Fig. 3

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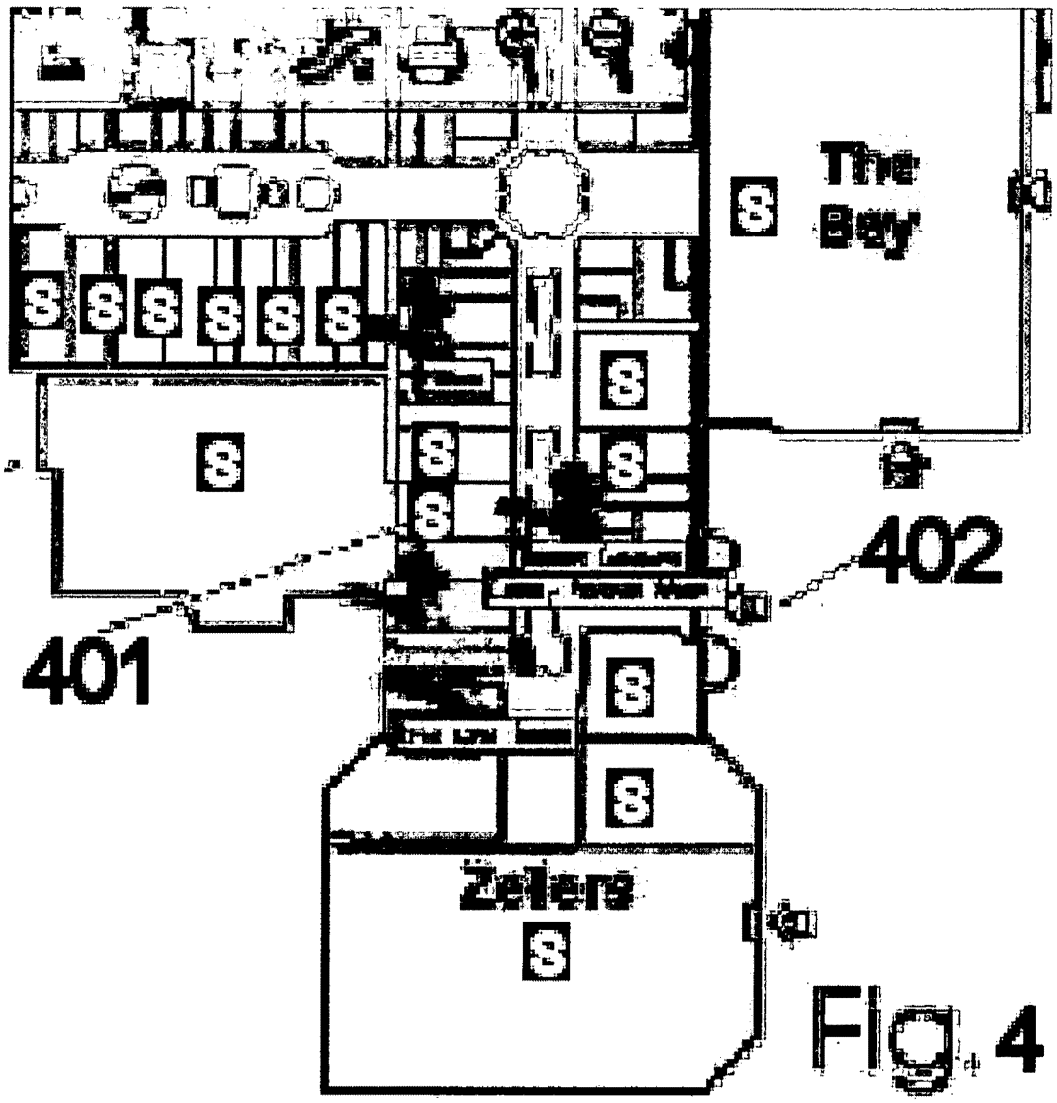


Fig. 4

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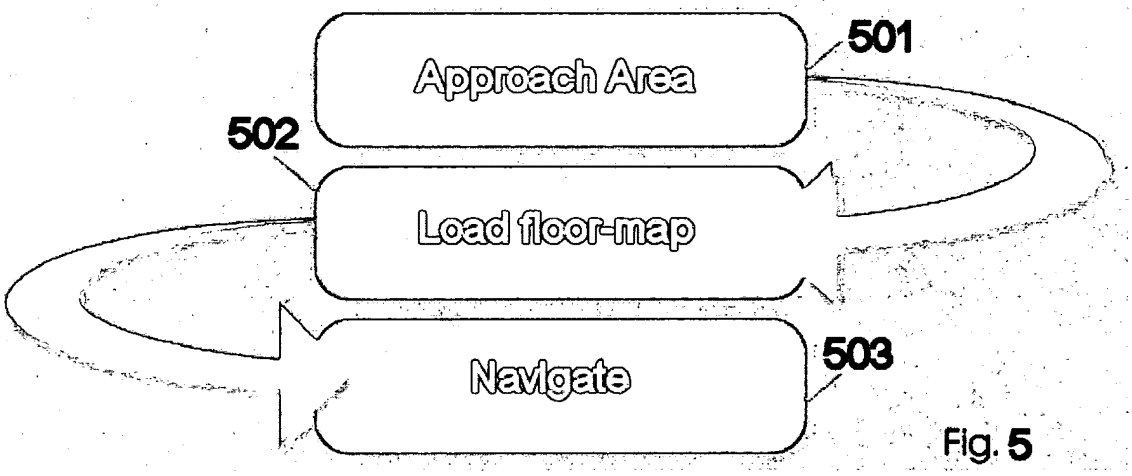


Fig. 5

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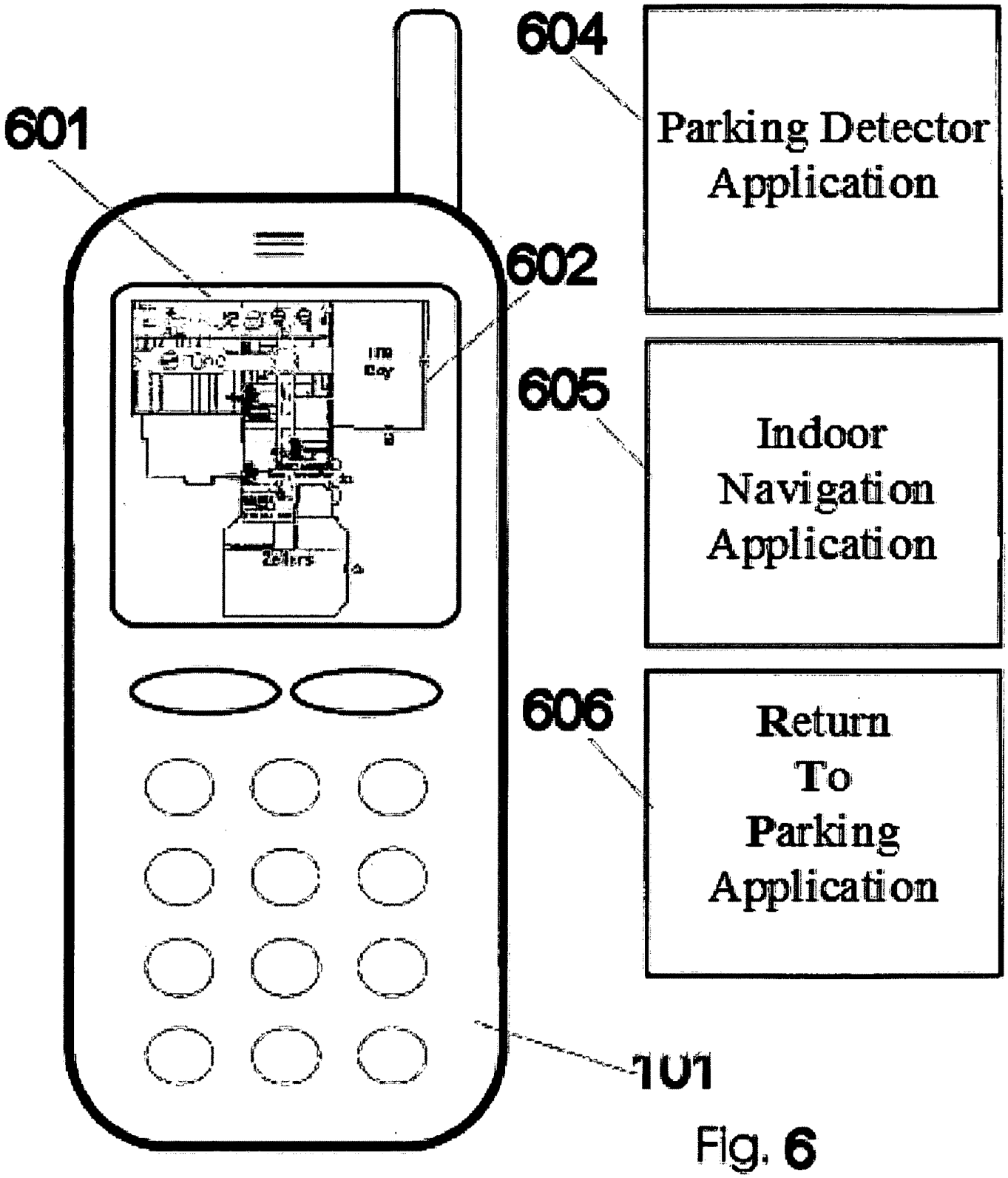


Fig. 6

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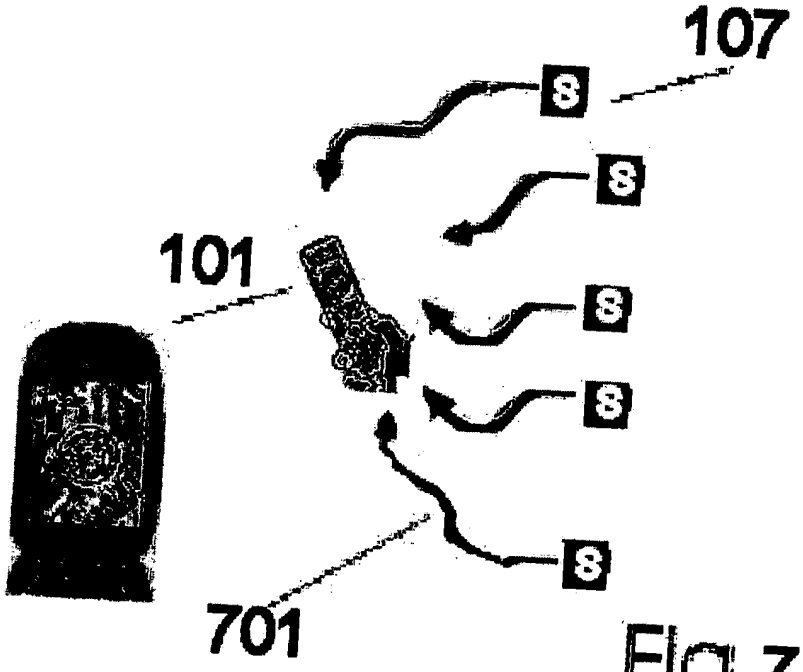
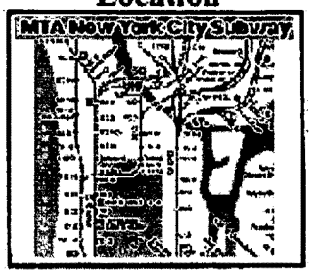


Fig. 7

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Subway Station Location



801

First Response Navigation



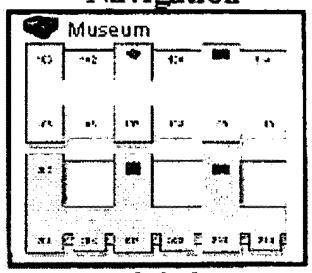
802

Amusement park navigation



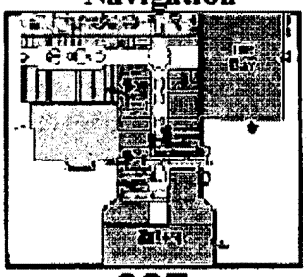
803

Museum Exhibitions Navigation



804

Mall / Department Store Navigation



805

Special Sale Navigation



806

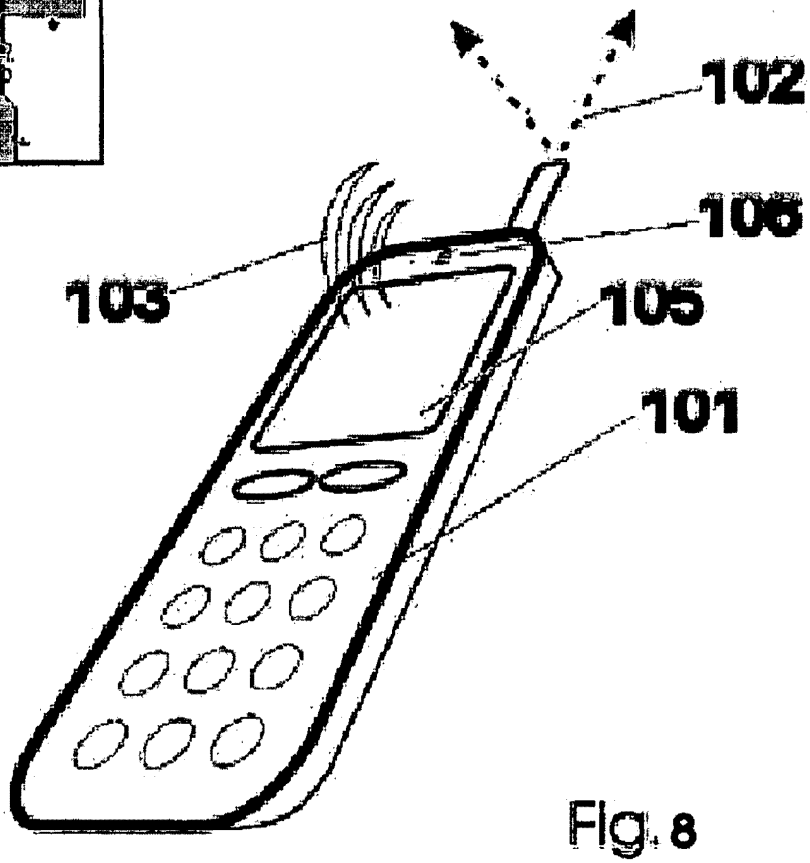


Fig. 8

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

☑ Declaration Submitted With Initial Filing **OR** ☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	NAV4
First Named Inventor	ehud mendelson
COMPLETE IF KNOWN	
Application Number	
Filing Date	05/08/2006
Art Unit	
Examiner Name	

I hereby declare that:

Each inventor's residence, mailing address, and citizenship are as stated below next to their name.

I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

System and method for navigating indoors and outdoors without GPS, utilizing a network of sensors.

(Title of the Invention)

the specification of which

☑ 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, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), 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, inventor's or plant breeder's rights certificate(s), or 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.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. 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 21 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 completing the form, call 1-800-PTO-9199 and select option 2.

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DECLARATION — Utility or Design Patent Application

Direct all correspondence to:	☑ The address associated with Customer Number:	00061887	OR	☑	Correspondence address below

Name		
ehud mendelson		
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11190 Heron bay blvd. suite 916		
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Country	Telephone	Email
USA	954-2574319	umendels@search4parking.com

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.

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	
ehud		mendelson	
Inventor's Signature		Date	
		05/08/2006	
Residence: City	State	Country	Citizenship
coral springs	florida	usa	israel
Mailing Address			
11190 Heron Bay blvd. Suite 916			
City	State	Zip	Country
coral springs	florida	33076	USA

☐ Additional inventors or a legal representative are being named on the _____ supplemental sheet(s) PTO/SB/02A or 02LR attached hereto.

Google Ex. 1022, p. 506

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS

(37 C.F.R. 1.9(f) and 1.27(b)-INDEPENDENT INVENTOR

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 C.F.R. 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled:___ System and method for navigating indoors and outdoors without GPS, utilizing a network of sensors.

described in [ ] the specification filed herewith

[ ] application serial no._____, filed_____.

[ ] patent no. _____, issued_____.

I have not assigned, granted conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent invention under 37 C.F.R. 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. 1.9(d) or a nonprofit organization under 37 C.F.R. 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

[ ] no such person, concern, or organization

[ ] persons, concerns or organizations listed below*

*NOTE: separate verified statements are required from each person, concern or organization having rights to the invention averring to their status as small entities. (37 C.F.R. 1.27)

NAME _____Ehud Mendelson___

ADDRESS _____11190 Heron Bay Blvd. #916 Coral Springs Florida 33076

[x] INDIVIDUAL [ ] SMALL BUSINESS CONCERN [ ] NONPROFIT ORGANIZATION

NAME_____
_____

ADDRESS_____
_____

[ ] INDIVIDUAL [ ] SMALL BUSINESS CONCERN [ ] NONPROFIT ORGANIZATION

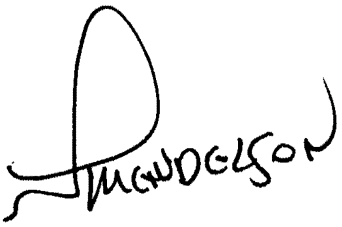
I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 C.F.R. I.28(b))

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 section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Ehud mendelson

NAME OF INVENTOR



Signature of Inventor

05/08/2006

Date

Ehud Mendelson

11190 Heron Bay Blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
Email:umendels@search4parking.com

Commission for patents
P.O.Box 1450
Alexandria, VA 22313-1450

Amendment A

Prior to examination, please amend the above application as follows:

Cross Reference to related application
This application is entitled to the benefit of Provisional patent application Ser. No. US60/678,947 filed May 9,2005.

The priority of which is claimed under 35 U.S.C. &119(e).

Remarks
The above amendment is provided in additional to the insert reference in the patent application.

Very Respectfully,
Ehud Mendelson
Applicant Pro Se

Address all correspondence and telephone calls to:

Ehud Mendelson
Patent office customer number:000061887
Search4Parking llc
11190 Heron bay blvd. Suite 916
Coral Springs, Florida 33076
Tel:954-2574319
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Ehud Mendelson

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Coral Springs, Florida 33076
Tel:954-2574319
Email:umendels@search4parking.com

IN THE UNITED STATES PATENT OFFICE
Re Application:

Title: System and method for navigating indoors and outdoors without GPS, utilizing a network of sensors.

Inventors: Ehud Mendelson

Filing Date: _05/08/2006 [filed by Express mail.)

PETITION TO MAKE SPECIAL

Commissioner of Patents and Trademarks
P.O. BOX 1450
Alexandria, VA 22313-1450

Sir:

The inventor(s) of the above named application for patent respectfully petition(s) that the application receive advancement of examination per MPEP 708.02 (V) and (VI)and 37CFR 1.102(c) by reason of XI The types of technology for countering terrorism –NAVIGATING OF FIRST RESPONSE TEAMS, part of our Indoor navigation system method.

Attachments: supporting Declaration letter

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 statement were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Respectfully submitted,
Ehud Mendelson
Applicant Pro Se



Discover things we can do to save the world

Monday, May 08, 2006

Experts see technology as key to saving life in a disasters situation

One of the important features of our indoor navigation techniques will enhance the ability of tactical team's first response team to navigate within the buildings in which it has been deployed.

RF(Bluetooth) Tag/Sensor devices commonly are attached to persons or to moveable objects so that the objects can be tracked using fixed readers (special-purpose radios) at different locations. This is the most common indoor navigation that exists today. Our method is the "flip side" of this practice and is based on the concept that the detection of an RF (Bluetooth) device, or RF Tags, in a known, fixed location, by a moving reader, such as a Bluetooth enabled cellular phone or other Bluetooth enabled device, provides a precise location of a person or a moving object, by the carrier of the telephone or device, who can supply indoor navigation without GPS.

Our method provides a low-cost, reliable system for firefighters and other first responders, inside buildings, to navigate, where a GPS is not reliable—indeed, the GPS signal may have been disabled temporarily to prevent exploitation by terrorists, or even more likely no signal can be received at all inside a building.

Our system envisioned this limitation of GPS based systems, and is intended for an environment that is potentially much less "friendly", the environment inside a building that first responders encounter may contain smoke, dust, or flames, and is intended to leverage advances in ubiquitous RF/Bluetooth tag technology.
Our system will exploit the capability of storing critical building information, such as the floor maps and the emergency escape plans, for retrieval and navigational assistance via a Bluetooth enabled cellular phone, when and where it is needed,
.

More over our system can serve as a navigator for the emergency exit route when and where needed each user can load the emergency exit floor plan and escape with the knowledge of his exact location in that route.

Aspects of the scenarios to be included:

- Identifies and tracks the user (a first response team member).
- Provides the user with navigation information and directions for safely exiting of the building.

- Provides location information of all team members, via an ad hoc network of radio terminals that combine RF/Bluetooth readings and radio communication.

From the outset, our system was been designed with the capability to utilize existing technology so it can be deployed as a stand-alone system, or in tandem with existing systems. We focused on technology already in place that simply needs to be expanded.

With the implementation of our system, a FIRST RESPONSE TEAM will be empowered to navigate and find its way in a case of emergency or a disaster. This capability can be a critical life saving power in modern congested urban living conditions, not available before now.

We believe that implementation of our system will assist counter terrorism activities and more importantly will help the first response teams to save the lives of people trapped inside buildings.

Sincerely,

Ehud Mendelson

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

05/10/2006 SDIRETA1 00000010 11429864

01 FC:2011	150.00	OP
02 FC:2111	250.00	OP
03 FC:2311	100.00	OP

PTO-1556
(5/87)

*U.S. Government Printing Office: 2002 — 489-287/69033

PTO/SB/06 (12-04)
Approved for use through 7/31/2006. 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 Effective December 8, 2004

Application or Docket Number: 11429.864

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	150.00		N/A	300.00
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	$250		N/A	$500
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	$100		N/A	$200
TOTAL CLAIMS (37 CFR 1.16(i))	16 minus 20 =	* 0	X$ 25 =		OR	X$50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	* 0	X100 =			X200 =	
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))			+180=			+360=	
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	500		TOTAL	

14

APPLICATION AS AMENDED – PART II

AMENDMENT A

	(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))	*	Minus	**	=	X$ 25 =		OR	X$50 =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X100 =		OR	X200 =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					+180=		OR	+360=	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

AMENDMENT B

	(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))	*	Minus	**	=	X$ 25 =		OR	X$50 =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X100 =		OR	X200 =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					+180=		OR	+360=	
					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.

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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PTO/SB/08A (07-05)
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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 1

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	ehud mendelson
Art Unit	
Examiner Name	
Attorney Docket Number	NAV4

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 7,031,875	0418-2006	Ellenby et al	
		US-			
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

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