



(51) International Patent Classification:

G08G 1/0967 (2006.01) G01C 21/34 (2006.01)  
G01C 21/30 (2006.01) G09B 29/10 (2006.01)

(21) International Application Number:

PCT/US2008/014104

(22) International Filing Date:

30 December 2008 (30.12.2008)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant (for all designated States except US): **TELE ATLAS NORTH AMERICA, INC.** [US/US]; 11 Lafayette Street, Lebanon, New Hampshire 03766-1445 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KUZNETSOV, Tsia** [US/US]; 10148 Cass Place, Cupertino, California 95014 (US).

(74) Agent: **DALEY, Donald J.**; 11730 Plaza America Drive, Harness, Dickey & Pierce, P.L.C., Reston, Virginia 20190 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

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

26 August 2010

(54) Title: A METHOD AND SYSTEM FOR TRANSMITTING AND/OR RECEIVING A LOCATION REFERENCE, ENHANCED BY A FOCUSING FACTOR

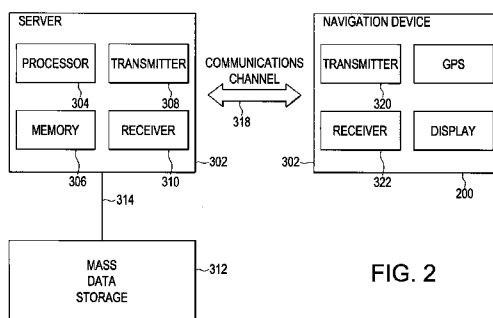


FIG. 2

(57) Abstract: A method and end user mapping device (200) are disclosed. In at least one embodiment, the method includes receiving information from a remote server (302), at a device, the received information including at least one location reference enhanced by at least one focusing factor, computed at the remote server (302) based upon encoded information corresponding to at least one path of the at least one location reference; and reconstructing the at least one path of the at least one location reference at the device, based upon the received at least one location reference enhanced by the at least one focusing factor.



WO 2010/077225 A3

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2008/014104

## A. CLASSIFICATION OF SUBJECT MATTER

INV. G08G1/0967 G01C21/30 G01C21/34 G09B29/10  
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G08G G01C G09B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 273 883 A1 (MATSUSHITA ELECTRIC IND CO LTD [JP]) 8 January 2003 (2003-01-08) * abstract paragraphs [0001] - [0018] paragraphs [0020] - [0056]; figures 1-8 paragraphs [0060], [0080] - [0083]	1-36
X	WARTENBERG ET AL: "Algorithms for Location Referencing" JAHRESBERICHT DER DEUTSCHEN MATHEMATIKER VEREINIGUNG,, vol. 108, no. 1, 1 January 2006 (2006-01-01), pages 33-44, XP009135554 ISSN: 0012-0456 the whole document	1-36

 Further documents are listed in the continuation of Box C. See patent family annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

2 July 2010

Date of mailing of the international search report

09/07/2010

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040,  
Fax: (+31-70) 340-3016

Authorized officer

Meyer, Jan

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2008/014104

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SCHNEEBAUER C ET AL: "On-The-Fly Location Referencing Methods for Establishing Traffic Information Services" IEEE AEROSPACE AND ELECTRONIC SYSTEMS MAGAZINE, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 22, no. 2, 1 February 2007 (2007-02-01), pages 14-21, XP011184157 ISSN: 0885-8985 * abstract section "INTRODUCTION" section "METHOD FOR..." on page 20 -----	1-36
X	DE 10 2005 041123 A1 (BOSCH GMBH ROBERT [DE]) 1 March 2007 (2007-03-01) paragraphs [0001] - [0015] paragraphs [0023] - [0042]; figures 1-7 -----	1-36
A	US 2008/046176 A1 (JURGENS SVEN [CA]) 21 February 2008 (2008-02-21) paragraphs [0004] - [0010] paragraphs [0024] - [0065]; figures 2,3 -----	1-36
A	US 2008/228393 A1 (GEELEN PIETER [NL] ET AL) 18 September 2008 (2008-09-18) paragraphs [0020], [0021] paragraphs [0051] - [0074]; figures 2,3 -----	1-36

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/014104

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1273883	A1	08-01-2003	AT 274688 T 15-09-2004
			AT 459860 T 15-03-2010
			CA 2431650 A1 08-08-2002
			CN 1488067 A 07-04-2004
			CN 101514904 A 26-08-2009
			DE 60201051 D1 30-09-2004
			DE 60201051 T2 29-09-2005
			EP 1429117 A1 16-06-2004
			EP 2031351 A1 04-03-2009
			EP 2053359 A1 29-04-2009
			EP 2161541 A1 10-03-2010
			ES 2227440 T3 01-04-2005
			ES 2340033 T3 28-05-2010
			WO 02061374 A1 08-08-2002
			JP 2002228468 A 14-08-2002
			KR 20080042939 A 15-05-2008
			US 2008198043 A1 21-08-2008
			US 2003004636 A1 02-01-2003
			US 2004039524 A1 26-02-2004
-----			
DE 102005041123	A1	01-03-2007	NONE
-----			
US 2008046176	A1	21-02-2008	AU 2007222528 A1 13-09-2007
			AU 2007222529 A1 13-09-2007
			AU 2007222539 A1 13-09-2007
			AU 2007222542 A1 13-09-2007
			AU 2007222543 A1 13-09-2007
			AU 2007222544 A1 13-09-2007
			AU 2007222545 A1 13-09-2007
			AU 2007222547 A1 13-09-2007
			AU 2007222548 A1 13-09-2007
			AU 2007222549 A1 13-09-2007
			AU 2007222550 A1 13-09-2007
			AU 2007222553 A1 13-09-2007
			AU 2007222554 A1 13-09-2007
			AU 2007222555 A1 13-09-2007
			AU 2007222558 A1 13-09-2007
			AU 2007222559 A1 13-09-2007
			CA 2643689 A1 13-09-2007
			CA 2643724 A1 13-09-2007
			CA 2643752 A1 13-09-2007
			CA 2643753 A1 13-09-2007
			CA 2643766 A1 13-09-2007
			CA 2644076 A1 13-09-2007
			CA 2644256 A1 13-09-2007
			CA 2644538 A1 13-09-2007
US 2008046176	A1		CA 2644542 A1 13-09-2007
			CA 2644546 A1 13-09-2007
			CA 2644890 A1 13-09-2007
			CA 2644891 A1 13-09-2007
			CA 2644893 A1 13-09-2007
			CA 2644895 A1 13-09-2007
			CA 2644973 A1 13-09-2007
			CA 2644987 A1 13-09-2007
			CA 2645008 A1 13-09-2007
			EP 1991827 A2 19-11-2008
			EP 2008061 A2 31-12-2008

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/014104

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		EP 2013583 A2	14-01-2009
		EP 2014106 A2	14-01-2009
		EP 1991830 A2	19-11-2008
		EP 2013573 A2	14-01-2009
		EP 1991831 A2	19-11-2008
		EP 1991828 A2	19-11-2008
		EP 1991832 A2	19-11-2008
		EP 2013574 A2	14-01-2009
		EP 2008063 A2	31-12-2008
		EP 2013577 A2	14-01-2009
		EP 2013578 A2	14-01-2009
		EP 1991833 A2	19-11-2008
		EP 2013575 A2	14-01-2009
		EP 1991974 A2	19-11-2008
<hr style="border-top: 1px dashed black;"/>			
US 2008228393	A1	18-09-2008	AR 064836 A1
			WO 2008083978 A1
<hr style="border-top: 1px dashed black;"/>			