

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
21 February 2008 (21.02.2008)

PCT

(10) International Publication Number  
**WO 2008/021551 A3**

- (51) International Patent Classification:  
*G06F 19/00* (2006.01)     *G06F 7/76* (2006.01)  
*G06F 7/70* (2006.01)
- (21) International Application Number:  
PCT/US2007/018389
- (22) International Filing Date: 16 August 2007 (16.08.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/838,761     18 August 2006 (18.08.2006)     US  
11/835,357     7 August 2007 (07.08.2007)     US
- (71) Applicant (for all designated States except US): **INRIX, INC.** [US/US]; 4055 Lake Washington Boulevard North-east, Suite 200, Kirkland, Washington 98033 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **DOWNS, Oliver, B.** [US/US]; 22179 Northeast 93rd Street, Redmond, Washington 98053 (US). **HERSCH, Jesse, S.** [US/US]; 1020 158th Place Southeast, Bellevue, Washington 98008 (US). **CHAPMAN, Craig, H.** [US/US]; 21724 Northeast 86th Street, Redmond, Washington 98053 (US).
- (74) Agents: **WHITE, James, A. D.** et al.; Seed Intellectual Property Law Group PLLC, Suite 5400, 701 Fifth Avenue, Seattle, Washington 98104-7064 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

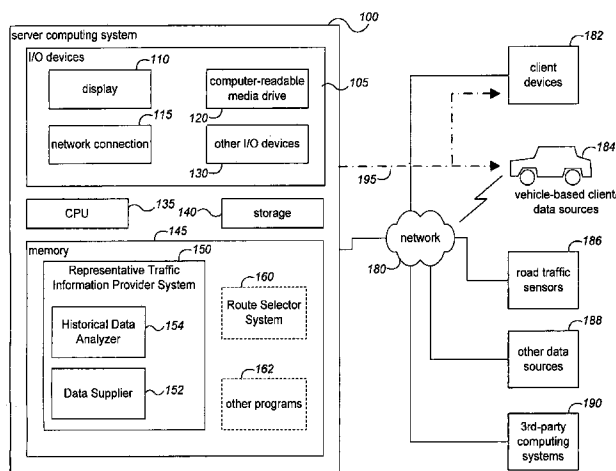
— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

**Published:**

— with international search report

(88) Date of publication of the international search report:  
16 October 2008

(54) Title: REPRESENTATIVE ROAD TRAFFIC FLOW INFORMATION BASED ON HISTORICAL DATA



(57) Abstract: Techniques are described for automatically analyzing historical information about road traffic flow in order to generate representative information regarding current or future road traffic flow, and for using such generated representative traffic flow information. Representative traffic flow information may be generated for a variety of types of useful measures of traffic flow, such as for average speed at each of multiple road locations during each of multiple time periods. Generated representative traffic flow information may be used in various ways to assist in travel and for other purposes, such as to determine likely travel times and plan optimal routes. The historical traffic data used to generate the representative traffic flow information may include data readings from physical sensors that are near or embedded in the roads, and/or data samples from vehicles and other mobile data sources traveling on the roads.

WO 2008/021551 A3

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US07/18389

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC: G06F 19/00( 2006.01),7/70( 2006.01),7/76( 2006.01)  
  
 USPC: 701/117,118,119  
 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)  
 U.S. : 701/117,118,119  
  
 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 practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,587,781 (Feldman et al.) 1 July 2003 (.01.07.2009)	
A	US 6,882,930 B2 (Trayford et al.) 19 April 2005 (19.04.2005)	
A	US 7,363,144 B2 (Liu et al) 22 April 2008 (22.04.2008)	
A	US 2001/0027373 A1 (Bates et al.) 4 October 2001 (04.10.2001)	
A	US 2005/0140525 A1 (Tomita et al.) 30 June 2005 (30.06.2005)	
A	US 2005/0206534 A1 (Yamane et al.) 22 September 2005 (22.09.2005)	
A	US 2006/0025925 A1 (Fushiki et al.) 2 February 2006 (02.02.2006)	

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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"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	"&"	document member of the same patent family

Date of the actual completion of the international search 12 June 2008 (12.06.2008)	Date of mailing of the international search report <b>16 JUL 2008</b>
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Brian J. Broadhead <i>[Signature]</i> Telephone No. 571-272-3600