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(54) Title: NATURAL LANGUAGE NAVIGATION FOR POWER MONITORING SYSTEMS

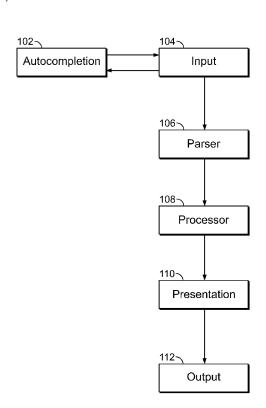


FIG. 1

(57) Abstract: A method of parsing a natural language phrase to retrieve data associated with a power monitoring system. An input receives a natural language phrase including terms, one of which indicates a data manipulation action for manipulating data of the power monitoring system. A parser component parses the phrase to extract the terms and maps those terms to corresponding category items. The parser component constructs a structured query based on the category items and provides the query to a processor component that retrieves the data from a data source specified in the submitted phrase. The processor component also manipulates the data according to the data manipulation action. The output from the processor component is provided to a presentation component that formats the manipulated data for presentation on a video display, and the formatted manipulated data is displayed on the video display.



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C. DOCUM	D. Parting to International Patent Classification (IPC) or to both national classification and IPC PELOS SEARCHED THELOS SEARCHED International Searched (classification system followed by classification symbols) Further documentation searched (classification system followed by classification symbols) Tronic data base consulted during the international search (name of data base and, where practical, search terms used) D—Internal COUMENTS CONSIDERED TO BE RELEVANT GODY Catation of document, with indication, where appropriate, of the relevant passages Flekward to claim No. US 2007/033005 A1 (CRISTO PHILIPPE [US] ET AL) 8 February 2007 (2007-02-08) paragraph [0.167] — paragraph [0.182] paragraph [0.189] — paragraph [0.182] paragraph [0.189] — paragraph [0.189] Paragraph [0.189] — paragraph [0.180] WO 2009/090262 A2 (AKUMUDIKE UGOCHUKWU [GB]) 23 July 2009 (2009-07-23) Further documents are listed in the continuation of Box C. In the								
Category*	Citation of document, with indication, where appropriate, of the rel	evant passages	Relevant to claim No.						
X	ET AL DI CRISTO PHILIPPE [US] ET 8 February 2007 (2007-02-08) paragraph [0167] - paragraph [018	1-20							
A	 WO 2009/090262 A2 (AKUWUDIKE UGOO	1–20							
A docume	ent defining the general state of the art which is not	or priority date and not in conflict with	the application but						
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Information on patent family members

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 2007033005	A1	08-02-2007	CN EP US WO	101297355 A 1922723 A2 2010057443 A1 2007019318 A2	29-10-2008 21-05-2008 04-03-2010 15-02-2007
WO 2009090262	A 2	23-07-2009	EP US	2243091 A2 2010312549 A1	27-10-2010 09-12-2010