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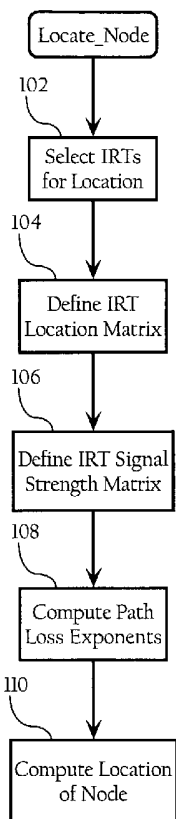
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**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a  
patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: WIRELESS NODE LOCATION MECHANISM RESPONSIVE TO OBSERVED PROPAGATION CHARACTERISTICS OF WIRELESS NETWORK INFRASTRUCTURE SIGNALS



(57) Abstract: A wireless node location mechanism that dynamically adapts to changes to a surrounding physical environment that affect the propagation of radio signals. The wireless node location mechanism assesses radio signals from transmitters associated with a wireless node location infrastructure to adjust one or more parameters used to estimate location of a wireless node. In one implementation, path loss exponents are re-computed based on the signals transmitted between infrastructure radio transceivers. These path loss exponents are used, in one implementation, to compute the distance between a wireless node and a given infrastructure radio transceiver and, ultimately, to determine the location of the wireless node based on triangulation. In one implementation, path loss exponents are computed on demand based on the signals observed between infrastructure radios that detect the wireless node whose location is to be estimated.

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

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# INTERNATIONAL SEARCH REPORT

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**A. CLASSIFICATION OF SUBJECT MATTER**  
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USPC: 342/463  
 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)  
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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)  
 US-PGPUG; USPAT; EPO; JPO; DERWENT

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,717,406 A (SANDERFORD et al.) 10 February 1998 (10.02.1998), see entire document.	1-43
X	US 5,570,412 A (LEBLANC) 29 October 1996 (29.10.1996), see entire document.	1-43
P	US 6,799,047 B1 (BAHL et al.) 28 September 2004 (28.09.2004), see entire document.	1-43
A	US 6,990,428 B1 (KAISER et al.) 24 January 2006 (24.01.2006).	
A	US 6,674,403 B2 (GRAY et al.) 06 January 2004 (06.01.2004).	

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
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"P"	document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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