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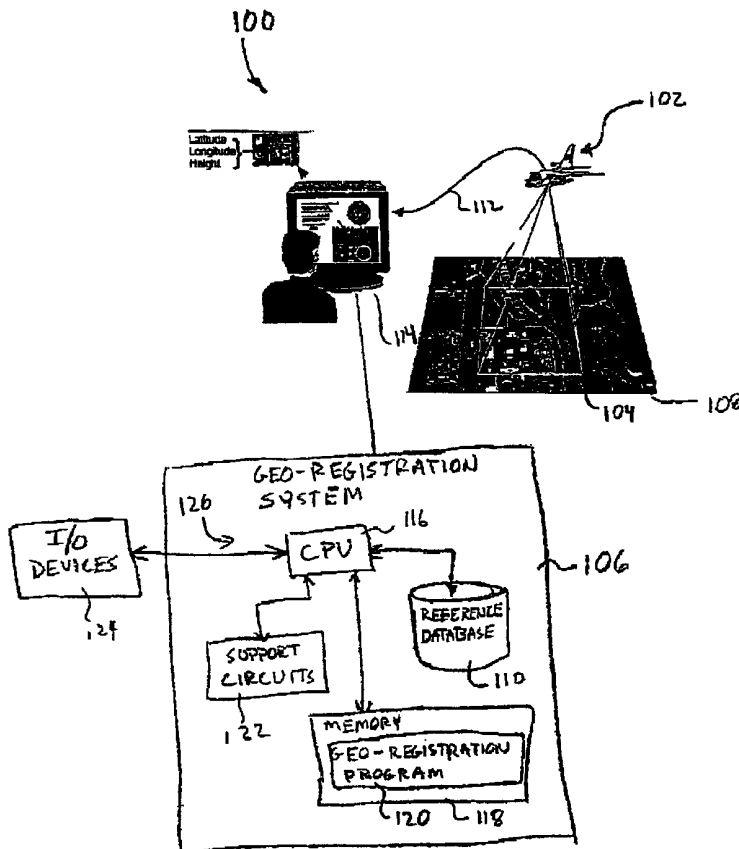
Drive, Cranbury, NJ 08512 (US). HANNA, Keith; 212 John Street, Princeton, NJ 08546 (US). SAMARASEKERA, Supun; 24 Blackstone, Princeton, NJ 08540 (US). WILDES, Richard, Patrick; 42 Markham Road, Princeton, NJ 08540 (US). HIRVONEN, David, James; 208 Ewing Street, Princeton, NJ 08540 (US). KLINEDINST, Thomas, Edward; 5272 Windtree Drive, Doylestown, PA 18901 (US). LEHMAN, William, Brian; 9 Gladiola Lane, Mount Holly, NJ 08060 (US). MATEL, Bodgan; 23805 Bpo Way, Piscataway, NJ 08854 (US). ZHAO, Wenyi; 4608 Fox Run Drive, Plainsboro, NJ 08536 (US). LEVIENAISE-OBADIA, Barbara; 212 John Street, Princeton, NJ 08540 (US).

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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PERFORMING GEO-SPATIAL REGISTRATION OF IMAGERY



(57) Abstract: A system and method for accurately mapping between image coordinates and geo-coordinates, called geo-spatial registration. The system utilizes the imagery and terrain information contained in the geo-spatial database to precisely align geodetically calibrated reference imagery with an input image, e.g., dynamically generated video images, and thus achieve a high accuracy identification of locations within the scene. When a sensor, such as a video camera, images a scene contained in the geo-spatial database, the system recalls a reference image pertaining to the imaged scene. This reference image is aligned very accurately with the sensor's images using a parametric transformation. Thereafter, other information that is associated with the reference image can easily be overlaid upon or otherwise associated with the sensor imagery.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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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 practical, search terms used)

WPI Data, PAJ, INSPEC, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KUMAR R ET AL: "Registration of video to geo-referenced imagery" PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION, XX, XX, vol. 2, 16 August 1998 (1998-08-16), pages 1393-1400, XP002148465	1,3-6
A	abstract page 1393, paragraph 1.1	2
X	WO 95 32483 A (GEOSPAN CORP) 30 November 1995 (1995-11-30)	1,3-6
A	abstract	2
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- *&* document member of the same patent family

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

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