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PCT/US2007/083427

(41) Classification:
G06F 9/44 (2006.01)

(51) International Classification:
G06F 9/44 (2006.01)

(57) Abstract:
A radiative sensor is positioned to observe an area of interest. At least one frame of data of the area of interest is electronically acquired from the radiative sensor. The acquired frame of data is electronically processing to determine the presence or absence of at least one object in the area of interest. Based on the presence or absence of the object in the area of interest, (1) an alert is generated in response to detecting a state of the at least one object in the area of interest; (2) an alert is generated in response to detecting a state of another object in another area of interest; (3) a timer initiates or terminates counting a period of time in response to detecting the same state or a different state associated with the at least one object; and/or (4) data is caused to be stored.


Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(54) Title: MEASUREMENT, MONITORING AND MANAGEMENT OF SERVICE AND OF BULK AND DISCRETE FOOD PRODUCTS

FIG. 3

(Continued on next page)
Date of publication of the international search report:
7 August 2008
### INTERNATIONAL SEARCH REPORT

**A  CLASSIFICATION OF SUBJECT MATTER**

<table>
<thead>
<tr>
<th>IPC(8)</th>
<th>USPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>G06F 9/44 (2008.04)</td>
<td>705/7</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>IPC(8)</th>
<th>USPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>G06F 9/44 (2008 04)</td>
<td>705/7</td>
</tr>
</tbody>
</table>

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

705/1, 7, 10, 15, 22, 340/500, 501, 540

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

USPTO WEST (PGPB, USPT, EPAB, JPAB), GOOGLE

### C  DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 2005/0154560 A1 (Fitzpatrick et al.) 14 July 2005 (14.07.2005), entire document, especially para [0024], [0051], [0061] and Fig 3</td>
<td>1-19</td>
</tr>
</tbody>
</table>

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 application or patent 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

Later document published after the international filing date or priority date and 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 novel or 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: 16 May 2008 (16.05.2008)

Date of mailing of the international search report: 05 JUN 2008

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: Lee W Young

Form PCT/ISA/2 10 (second sheet) (April 2007)
**INTERNATIONAL SEARCH REPORT**

**International application No**
PCT/US 07/83427

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**Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

<table>
<thead>
<tr>
<th>No.</th>
<th>Claims Nos</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>because they relate to subject matter not required to be searched by this Authority, namely</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)</td>
</tr>
</tbody>
</table>

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**Box No. III  Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

- **Group I**: Claims 1-19 - drawn to a method of providing service management
- **Group II**: Claims 20-40 - drawn to a method of real-time food production management

The inventions listed as Groups I - II do not relate to a single general inventive concept under PCT Rule 13 1 because, under PCT Rule 13 2, they lack the same or corresponding special technical features for the following reasons:

Group I requires the special technical features of electronically acquiring at least one frame of data from a radiative sensor, electronically processing the acquired frame of data to determine the presence or absence of an object in the area of interest, and taking some action (alert, timer manipulation, or data storage) based on the presence or absence of the object in the area of interest, none of which are required by the claims of Group II.

<table>
<thead>
<tr>
<th>No.</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims</td>
</tr>
<tr>
<td>2</td>
<td>As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees</td>
</tr>
<tr>
<td>3</td>
<td>As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.</td>
</tr>
<tr>
<td>4</td>
<td>No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims, it is covered by claims Nos. 1-19</td>
</tr>
</tbody>
</table>

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee |
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation |
- No protest accompanied the payment of additional search fees |

Form PCT/ISA/210 (continuation of first sheet (2)) (April 2007)