Diabetes health management systems comprising a portable device having a user interface, a processor, a memory, and a communication circuit are disclosed. In one embodiment, a diabetes health management system has program code including a communications module, a data module, a therapy module, and an analysis module. The communications module wirelessly couples the portable device to a plurality of user devices. The data module receives and stores into the memory blood glucose measurement values, insulin dosage data, and health data entries. The therapy module determines a therapy advice message based at least in part on the received blood glucose measurement values, the received insulin dosage data, and displays the therapy advice message on the user interface. The analysis module displays on the user interface a graphical representation of selected blood glucose measurement values, selected insulin dosage data, selected health data entries, or combinations thereof.
— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(3))

Published:
— with international search report (Art. 21(3))

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
7 July 2011
# INTERNATIONAL SEARCH REPORT

**International application No**

PCT/EP201Q/006997

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### A. CLASSIFICATION OF SUBJECT MATTER

**INV.** G06F19/00  A61M5/142

**ADD.**

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)

G06F  A61M

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

Electronic database consulted during the international search (name of database and, where practical, search terms used)

EPO-Internal

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### C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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* 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 document 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

- "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
- "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 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.

- "Z" document member of the same patent family

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**Date of the actual completion of the international search**

17 March 2011

**Date of mailing of the international search report**

20/05/2011

**Name and mailing address of the ISA**

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Form PCT/ISA/210 (second sheet) (April 2005)
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**INTERNATIONAL SEARCH REPORT**

**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:

1. □ Claims Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:

2. □ Claims Nos.:
   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:

3. □ Claims Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**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:

see additional sheet

1. □ All required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. □ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. □ 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.:

4. □ 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.:

   1-3, 6-10 (completely) ; 5(partially)

**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.
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-3, 6-10(completely) ; 5(partially)
   diabetes health management system in which a portable device transmits the blood glucose measurement values, the insulin dosage data, the health data entries, or combinations thereof to a health network server. 
   technical problem: enable centralized processing and storage of data from a patient population.

2. claim: 4
   diabetes health management system which generates an emergency alarm based at least in part on blood glucose measurement values and wirelessly transmits the emergency alarm to a caregiver.
   technical problem: provide remote monitoring and emergency care to diabetic patients.

3. claim: 5(partially)
   diabetes health management system which determines a basal rate recommendation.
   technical problem: determine a basal rate recommendation.

4. claim: 11
   diabetes health management system which comprises an accelerometer and determines the physical activity undertaken by the patient from the measured acceleration signal.
   technical problem: determines the physical activity undertaken by the patient.

5. claims: 12, 13
   diabetes health management system which comprises a food database and receives and stores serving size information, photographs and voice recordings associated with food items.
   technical problem: enable selection of food items in the user interface based on presentation of food item photographs and voice recordings associated with food items.

6. claims: 14-18, 22
   diabetes health management system which compiles food intake profiles and exercise profiles of the patient, determines the location of the patient and generates location profiles.
detects changes of the time zone of the patient and operates in a plurality of user selectable life modes.

Technical problem: adapt the design and operation of the diabetes health management system for repeatable operation modes.

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7. claims: 19-21, 23

diabetes health management system which displays blood glucose measurement reminders in accordance with hypoglycemia and hyperglycemia schedules and displays hypoglycemic and hyperglycemic state reports.

Technical problem: classification of received data into hypoglycemic and hyperglycemic sets and subsequent processing.

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