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**Datasheet for the decision
of 14 July 2015**

Case Number: T 2349/13 - 3.5.05

Application Number: 08857700.2

Publication Number: 2217137

IPC: A61B5/02, G06F19/00, G09B23/28

Language of the proceedings: EN

Title of invention:
State machine user and validation interface system

Applicant:
Gripping Heart AB

Headword:
Modelling heart states/GRIPPING HEART

Relevant legal provisions:
EPC Art. 123(2), 83, 84
RPBA Art. 15(3)

Keyword:
Oral proceedings - non-attendance of the party
Added subject-matter - (yes)
Clarity - (no)
Sufficiency of disclosure - (no)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 2349/13 - 3.5.05

**D E C I S I O N
of Technical Board of Appeal 3.5.05
of 14 July 2015**

Appellant: Gripping Heart AB
(Applicant) Alfred Nobels Allé 10
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Representative: Brann AB
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 29 May 2013
refusing European patent application
No. 08857700.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: K. Bengi-Akyuerek
F. Blumer

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse the present European patent application on the grounds of lack of inventive step (Article 56 EPC) with respect to the claims of a main request and an auxiliary request, having regard to notorious prior art relating to general-purpose computing technology.
- II. With the statement setting out the grounds of appeal, the appellant requested that the decision of the examining division be set aside and that a patent be granted on the basis of the main request or the auxiliary request underlying the appealed decision. In addition, oral proceedings were requested as an auxiliary measure.
- III. In an annex to the summons to oral proceedings pursuant to Article 15(1) RPBA, the board gave its preliminary opinion on the appeal. In particular, it raised objections under Articles 123(2), 84 and 83 EPC. As to the question of inventive step, it also stated that the subject-matter of claim 1 of both claim requests on file did not appear to go beyond the mere straightforward computer-based implementation of a heart diagnosis system based on aggregated abstract models and different ways of displaying medical data (cf. board's communication, section 3.2.8).
- IV. By its letter of reply, the appellant informed the board that it would not be attending the scheduled oral proceedings. Nor did it submit any comments on the substance of the board's communication under Article 15(1) RPBA.

V. Oral proceedings were held as scheduled on 14 July 2015 in the absence of the appellant. The board established from the file that the appellant's final request was that the decision under appeal be set aside and that a patent be granted on the basis of the main request or the auxiliary request underlying the appealed decision.

After due deliberation on the basis of those requests and the written submissions, the decision of the board was announced at the end of the oral proceedings.

VI. Claim 1 of the **main request** reads as follows:

"State machine interface system comprising an input means, a processing means and a graphical user interface, wherein said input means is adapted to receive signals from at least one sensor device, wherein said signals are related to physiological activities of the heart and/or the circulatory system of a living being and are transformed to time related triggering points, and wherein said input means is adapted to apply said triggering points to said processing means which is adapted to use state machine analyzer algorithms to determine phases of heart cycles based upon said signals including said triggering points, wherein said different phases of the heart cycle are determined by said state machine algorithms in a heart cluster state machine simulating the heart, and optionally the circulatory system, achieved by fusions of finite heart muscle cell state machines to form a ΔV -pump state machine, characterized in that said processing means is adapted to:

- evaluate said determined heart cycle phases by determining their respective local state diagram based upon said signals and determine the respective time

duration for each heart cycle phase,
- determine the statistically most representative global state diagram, made up by said local state diagrams, and to
- present said determined local and global state diagrams at the graphical user interface such that the temporal relations between the different phases are illustrated,
wherein the heart cycle phases are graphically presented as one or several graphical illustrations, e.g. overlapping circle diagrams, rings or bars, presenting different activities of the heart and circulatory system at one to several locations, arranged as state diagrams, where the phases are represented as time segments with lengths depending on the duration of the respective phase, and wherein each presented heart cycle phase, and/or sub-part of heart cycle phase, has been assigned related values from said input signals and/or other related signals, and wherein the displayed information is continuously updated in real-time."

Claim 1 of the **auxiliary request** comprises all the features of claim 1 of the main request and adds the following phrase:

"and wherein said established values are communicated to a database that includes stored values representing individual and/or global related values, said established values are compared to said stored values and a status signal or report is generated in dependence of said comparison, wherein said status signal or report is used e.g. to determine and communicate correct medical therapy, to determine and communicate the

correct medical diagnosis, and/or to improve a training program for an athlete."

Reasons for the Decision

1. *Non-attendance of the appellant at oral proceedings*

1.1 The appellant decided not to attend the scheduled oral proceedings before the board (cf. point IV above). Pursuant to Article 15(3) RPBA, the board is not "obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as relying only on its written case."

1.2 In the present case, the appellant did not submit any comments in response to the objections raised in the board's communication under Article 15(1) RPBA. The board reconsidered those objections to the requests on file and did not see any good reason to depart from them. In the exercise of its discretion conferred by Article 15(3) RPBA, the board took a decision at the end of the oral proceedings held in the absence of the appellant (Article 15(6) RPBA).

2. MAIN AND AUXILIARY REQUEST

2.1 Article 123(2) EPC

The board judges that claim 1 of both claim requests is not allowable under Article 123(2) EPC, for the following reasons:

The feature of claim 1 as originally filed, namely

"determining the most representative global state diagram", was amended to "determine the statistically most representative global state diagram, made up by said local state diagrams" (emphasis added by the board) in the first-instance proceedings (see applicant's submissions dated 22 February 2012 and 6 November 2012). The application as filed, however, teaches that the most representative global state diagram (whatever that may be; see point 2.2.2 below) is supposed to be statistically determined (cf. page 19, lines 4-7 and page 21, lines 14-18) rather than determining the "statistically most representative global state diagram" as claimed. Furthermore, the original application is completely silent as to whether global state diagrams are indeed "made up by said local state diagrams".

2.2 Articles 84 and 83 EPC

The board holds that claim 1 of both claim requests does not meet the requirements of Article 84 and/or 83 EPC either, for the following reasons:

- 2.2.1 The term "triggering points" is not clear, since the claim and the description fail to reveal what should be actually *triggered* by the heart-related measurement points applied to the processing means.
- 2.2.2 Moreover, it is unclear what the "local state diagram(s)" really are and how they are supposed to be established and presented. In this regard, the description as filed merely states that they are "registered from one or more sites" (see page 19, lines 5-6), while the statement setting out the grounds of appeal indicates that the "local state diagrams are put together to a global state diagram" (cf. page 5,

second paragraph). Also, the claim and the description are silent as to which properties exactly qualify a global state diagram as the "most representative global state diagram" and how it ought to be determined, i.e. what kind of statistics should be applied.

2.2.3 Also, the board finds that it is unclear to what "related values" and "said established values" actually refer and what "individual and/or global related values" are meant to be.

2.2.4 Lastly, as regards the feature that "the displayed information is continuously updated in real-time", real-time updating of the displayed data is nowhere disclosed in the description, nor is it clear how this is supposed to be achieved according to the present invention.

2.3 In conclusion, neither the main nor the auxiliary request is allowable under (at least) Articles 123(2), 84 and 83 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated