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**Datasheet for the decision  
of 5 May 2011**

**Case Number:** T 1325/07 - 3.5.06

**Application Number:** 00973856.8

**Publication Number:** 1248981

**IPC:** G06F 11/25

**Language of the proceedings:** EN

**Title of invention:**

Apparatus and method for performance and fault data analysis

**Patentee:**

GENERAL ELECTRIC COMPANY

**Opponent:**

SIEMENS AKTIENGESELLSCHAFT

**Headword:**

Performance data analysis/GENERAL ELECTRIC

**Relevant legal provisions:**

EPC Art. 123(2)

**Relevant legal provisions (EPC 1973):**

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**Keyword:**

-

**Decisions cited:**

G 0009/91

**Catchword:**

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Case Number: T 1325/07 - 3.5.06

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.06  
of 5 May 2011

**Appellant:** SIEMENS AKTIENGESELLSCHAFT  
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**Representative:** -

**Respondent:** GENERAL ELECTRIC COMPANY  
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**Representative:** Bedford, Grant Richard  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
1 June 2007 concerning maintenance of European  
patent No. 1248981 in amended form.

**Composition of the Board:**

**Chairman:** D. H. Rees  
**Members:** M. Müller  
W. Sekretaruk

## Summary of Facts and Submissions

I. The appeal lies against the interlocutory decision of the opposition division to maintain the European patent no. 1248981 in amended form. The decision was delivered during oral proceedings on 29 March 2007 and dispatched with letter dated 1 June 2007.

II. Claims 1, 5 and 6 as maintained in the decision read as follows, with the additions and deletions vis-à-vis the patent as granted set in boldface and struck through, respectively.

"1. A method for scheduling the execution of ~~one or~~  
~~more~~ **a plurality of** analysis tools (110, 112, 114, 116, 128, 130) operating on performance data of a plurality of mobile assets (2), to assess the need for remedial action to one or more of the mobile assets (2), comprising:

- a) receiving the performance data (124);
- b) storing the performance data;
- c) selecting the highest priority unanalyzed performance data (61);
- d) establishing a limit on the number of executions available to be performed during a predetermined time interval for each of the ~~one or more~~  
**plurality of** analysis tools; (62)
- e) providing the selected unanalyzed performance data to ~~one or more of~~ the **plurality of** analysis tools if the execution limit for ~~that~~ **the** tools has not been reached (63); and
- f) generating a mobile asset specific recommendation based on the results derived from the ~~one or more~~

**plurality of** analysis tools (306, 318, 332, 344, 360)."

"5. An article of manufacture comprising:  
a computer program product comprising a computer-usable medium having a computer-readable code therein for scheduling the execution of ~~one or more~~ **a plurality of** analysis tools operating on performance data of a plurality of mobile assets, to assess the need for remedial action to one or more of the mobile assets, the computer-readable code in the article of manufacturer comprising:

    a computer-readable program code module for storing the performance data;

    a computer-readable program code module for selecting the highest priority unanalyzed data (61);

    a computer-readable program code module for establishing a limit on the number of executions available to be performed during a predetermined time interval for ~~each of the one or more~~ **plurality of** analysis tools (62);

    a computer-readable program code module for providing using an analysis scheduler (15) the selected unanalyzed performance data to ~~one or more of the~~ **plurality of** analysis tools if the execution limit for ~~that the~~ **tools** has not been reached (63), and

    a computer-readable program code module for generating a mobile asset specific recommendation based on the results derived from the ~~one or more~~ **plurality of** analysis tools (306, 318, 332, 344, 360)."

"6. An apparatus for scheduling the execution of ~~one or more~~ **a plurality of** analysis tools operating on performance data of a plurality of mobile assets to

assess the need for remedial action to one or more of the mobile assets, wherein each analysis tool includes a predetermined limit on the number of executions available to be performed during a predetermined time interval, said apparatus comprising:

a receiving device (20) for receiving the performance data;

a storage device (211) for storing the performance data;

an analysis scheduler (15) for selecting the highest priority unanalyzed data from said storage device (21) and for providing the selected performance data as an input to ~~one or more of~~ the **plurality of** analysis tools (110, 112, 114, 116, 128, 130) if the number of executions available to be performed during a predetermined time interval for ~~that~~ **the** tools has not been reached; and

a recommendation creation module (186) for creating a mobile asset specific recommendation based on the results from the ~~one or more of~~ **plurality of** analysis tools."

III. Appeal against the decision by the opponent was received on 31 July 2007 and the appeal fee was paid on the same day. A statement of grounds of appeal was received on 28 September 2007. It was argued that the claims maintained in the decision lacked an inventive step over

D1: WO97/13064

IV. With summons to oral proceedings the board informed the parties of its preliminary opinion. Therein the board of its own motion raised the question whether the

amendments to the granted claims filed during the opposition procedure conformed with Article 123 (2) EPC. On the one hand, the board noted that a central notion of the original (and amended) claims, the "limit on the number of executions available to be performed during a predetermined time interval" (cf. e.g. claim 1, step d) seemed not to be disclosed in the description as originally filed which therefore could not be invoked to justify the amendments under Article 123 (2) EPC. On the other hand the board considered that the amended claims were not supported by the original claims alone, especially as regards the question of whether limits are established and checked for and whether data is provided to each tool individually or for all tools collectively.

- V. In reply to the summons, the appellant (opponent) argued that the amended claims did not comply with Article 123 (2) EPC and that they lacked novelty and inventive step over D1. The appellant further argued that the independent claims did not comply with Article 57 EPC because steps d and e of claim 1 were neither disclosed in nor supported by the description so that the skilled person was unable to perform the method of claim 1. The respondent (proprietor) did not reply to the summons in writing.
- VI. On 5 May 2011 oral proceedings took place. During the oral proceedings the respondent argued that the amendments were equivalent to the omission of the option "one" from "one or more analysis tools" throughout the independent claims, and that hence they complied with Article 123 (2) EPC. The original claims had to be construed as requiring a separate limit, limit

checking and data provision for each tool, and this applied to the amended claims as well, as was evident from the application as a whole. The appellant requested that the decision be set aside and that the patent be revoked in its entirety. The respondent requested that the appeal be dismissed. At the end of the oral proceedings the chairman announced the board's decision.

### **Reasons for the Decision**

1. The appeal is admissible (see points I and III above).
  
2. In the grounds of appeal the appellant argued in particular that steps d and e of claim 1 as maintained during opposition lacked an inventive step over D1. More specifically, it was argued that the use of a "limit on the number of executions" according to step d would be obvious over the function of the "time handler" as disclosed in D1 (cf. grounds of appeal, p. 2, 2nd par. - p. 3, 3rd par.).
  - 2.1 In order to assess the merits of this objection the board has to construe the claims under dispute and, if need be, interpret them with due regard to the description. In doing so the board could not but notice a divergence between the terms used in the claims and those used in the description which also called into question whether the amendments to the claims allowed during opposition conformed with Article 123 (2) EPC.
  
  - 2.2 Therefore, and because the board is entitled to examine whether amendments made in the course of opposition

proceedings conform with the requirements of the EPC (cf. G 9/91; OJ 1993, 408; reasons 19), it raised this question of its own motion.

3. The board has no doubt that the replacement of "one or more analysis tools" by "a plurality of analysis tools" in the preamble and in steps d and f of claim 1 has the same effect as omitting the alternative "one" in the phrase "one or more" and therefore conforms with Article 123 (2) EPC. The same applies to the corresponding amendments in claims 5 and 6.
  
4. The situation is different for amendments made to step e of claim 1 - and, again, the corresponding amendments to claims 5 and 6.
  - 4.1 Claim 1 as originally filed specifies in step e that the "selected unanalyzed performance data" is "provid[ed] ... to one or more of the analysis tools if the execution limit for that tool has not been reached".

Literally, the terms "one or more of the analysis tools" and "execution limit of that tool" agree with each other in number only for the singular alternative of "one ... of the analysis tools". While for the plural alternative they do not the board agrees with the respondent that the only reasonable interpretation of the term "the execution limit of that tool" in step e of original claim 1 for the skilled person would be "the respective execution limit of said one or more analysis tools".

- 4.2 Amended claim 1 specifies in step e that the "selected unanalyzed performance data" is "provid[ed] ... to *the*



plurality of analysis tools if the execution limit for *the tools* has not been reached".

The amended wording of step e would be read as subsuming an embodiment according to which

- i) the data is provided to *the* - i.e. all - analysis tools under the given condition;
- ii) there is a single limit valid for each of the tools, namely "*the execution limit for the tools*"; and
- iii) the data is provided to the tools only when the limit of *all* tools has not been reached.

Thus the amendments to step e go beyond the omission of a claimed alternative and the consequential linguistic adaptations - even if this may not have been intended, as the respondent submitted.

This implies that original claim 1 alone is insufficient to establish that amended claim 1 conforms with Article 123 (2) EPC but that reference must also be made to the entire application as filed, in particular including the description.

- 5. The central notion of step e is that of an "execution limit".
  - 5.1 There is only one place in the original description that mentions an "execution limit" literally, namely p. 9, line 2 (this and all other pertinent passages of the description of the patent in suit are cited with reference to the international publication WO 01/31450 A1). There, "execution limits and execution parameters"

are disclosed as examples ("such as") for "operational parameters", one amongst which may be "a limit on the number of simultaneous instantiations" for a tool (p. 9, line 3). In the board's opinion this allows the reading that there may be other execution limits, too, such as a "retry limit", an "execution time limit" (cf. p. 8, line 27) or others.

Elsewhere, the description refers to a "*simultaneous* execution limit" (p. 11, lines 30-32; p. 12, line 10) and, apparently equivalently, to a mere "simultaneous limit" (p. 11, lines 25-26). To the board it is not unambiguously clear whether these two notions are equivalent with the unqualified "execution limit" or whether the term "execution limit" is not rather a generic term which may (or may not) subsume the "simultaneous (execution) limit".

5.2 Step d of claim 1 also refers to a "limit", albeit in different words than step e, namely as "a limit on the number of executions available during a predetermined time interval *for each* of the ... analysis tools". Notwithstanding the difference in language, the board considers that the skilled person would have interpreted original claim 1 so that the "execution limit" of step e referred to the "limits on the number of execution" of step d.

5.3 Even this however is not sufficient to establish the precise meaning of the "execution limit" as claimed.

5.3.1 The board notes that the description does not disclose a "limit on the number of executions available to be performed during a predetermined time interval" nor, in

- fact, any "time interval" in the context of a limit on executions.
- 5.3.2 The description rather discloses "limits on the number of instances of each tool that can be executed simultaneously" (p. 4, lines 14-15; or p. 8, lines 20-22), "simultaneous instantiation[s] for the tool" (p. 8, lines 25-26; p. 9, line 3), and a "simultaneous (execution) limit" (p. 11, lines 25-26; p. 12, lines 9-11).
- 5.3.3 In the board's view, limits on the number of *simultaneous* executions would, according to conventional language in the art, limit the number of executions "at any point in time" rather than "during a predetermined time interval". Hence the skilled person would not identify the claimed "executions ... performed during a predetermined time interval" with the simultaneous executions described.
- 5.4 In consequence, there is no disclosure of the originally claimed feature in the original application apart from the claim itself. There is equally no disclosure of the amended claims in the description as originally filed. Since moreover the amended claims go beyond the claims as originally filed as shown in point 4.2 above, the amended claims violate Article 123 (2) EPC.
6. Since there is no further request, the patent is to be revoked.

**Order**

**For these reasons it is decided that:**

1. The decision is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

K. Götz

D. H. Rees