

**Internal distribution code:**

- (A) [ - ] Publication in OJ  
(B) [ - ] To Chairmen and Members  
(C) [ X ] To Chairmen  
(D) [ - ] No distribution

**Datasheet for the decision  
of 12 January 2012**

**Case Number:** T 1575/07 - 3.5.01

**Application Number:** 02779301.7

**Publication Number:** 1425692

**IPC:** G06F17/60

**Language of the proceedings:** EN

**Title of invention:**

IDENTIFICATION, CATEGORIZATION, AND INTEGRATION OF UNPLANNED  
MAINTENANCE, REPAIR AND OVERHAUL WORK ON MECHANICAL EQUIPMENT

**Applicant:**

Accenture Global Services Limited

**Headword:**

Managing maintenance/ACCENTURE

**Relevant legal provisions:**

EPC 1973 Art. 56

**Keyword:**

Inventive step - filtering and displaying maintenance tasks  
related to a given location (no - administrative scheme)

**Decisions cited:**

T 49/04, T 1143/06, T 154/04

**Catchword:**

According to the problem and solution approach, the objective technical problem is based on the distinguishing features. It is therefore true that when there are many distinguishing features, as when there is no close prior art, the problem tends to be broad. However, only the features having technical character should be considered. If these are few in number a narrower, more specific, formulation of the problem is appropriate.



Case Number: T1575/07 - 3.5.01

**D E C I S I O N**  
**of the Technical Board of Appeal 3.5.01**  
**of 12 January 2012**

**Appellant:** Accenture Global Services Limited  
(Applicant) 3 Grand Canal Plaza  
Grand Canal Street Upper  
Dublin 4 (IE)

**Representative:** McLeish, Nicholas Alistair Maxwell  
Boult Wade Tennant  
Verulam Gardens  
70 Gray's Inn Road  
London WC1X 8BT (GB)

**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted 27 April 2007  
refusing European patent application No.  
02779301.7 pursuant to Article 97(1) EPC 1973.**

**Composition of the Board:**

**Chairman:** S. Wibergh  
**Members:** W. Chandler  
D. Prietzel-Funk

## **Summary of Facts and Submissions**

- I. This appeal is against the decision of the examining division to refuse the European patent application No. 02779301.7. It concerns identifying planned and/or unplanned maintenance tasks on equipment, such as aircraft.
  
- II. The examining division decided that independent claims 1, 5 and 6 of the sole request lacked an inventive step (Article 56 EPC 1973). They defined a standard computer system running an administrative scheme to retrieve unplanned maintenance tasks associated with planned maintenance tasks to be carried out at a particular location. The scheme did not concern any aspect of actually performing the maintenance and had no technical effect and thus could not contribute to inventive step. Its implementation on the computer system involved merely conventional hardware and programming methods.
  
- III. In the statement setting out the grounds of appeal dated 6 September 2007, the appellant maintained the refused claims, dated 7 April 2006, as the main request and filed a first and second auxiliary request. The first essentially clarified and repeated the subject-matter of the main request. The second shifted to a different aspect of showing all the maintenance tasks (planned and unplanned) at a particular location. The appellant also made an auxiliary request for oral proceedings.
  
- IV. In the communication accompanying the summons to oral proceedings, the Board summarised the issues to be discussed and tended to consider, along similar lines

- to the examining division, that the subject-matter of all requests did not involve an inventive step.
- V. In a reply, it was stated that the representatives would not be attending the oral proceedings.
- VI. At the oral proceedings, which took place in the appellant's absence, the Board considered the above-mentioned appellant's requests. At the end of the proceedings, the Chairman announced the Board's decision.
- VII. Claim 1 of the main request reads as follows:
- "A method for managing maintenance of equipment comprising:
- storing, in a database (116), first data defining a plurality of planned maintenance tasks for equipment (302,304,306);
  - storing, in the database (116), second data defining a plurality of unplanned maintenance tasks for the equipment (310,312,314);
  - storing, in the database (116), location data associating the planned maintenance tasks (302,304,306) with the unplanned maintenance tasks (310,312,314) where the location data identifies the physical location on the equipment associated with completion of the planned maintenance tasks and associated with the unplanned maintenance tasks;
  - identifying using a user interface a planned maintenance task for the equipment (308); and
  - based on the location associated with completion of the planned maintenance task, retrieving from the database (116) all unplanned maintenance tasks (310, 312, 314) that are associated with the identified planned maintenance task (308)."

In claim 1 of the first auxiliary request the last two features of claim 1 of the main request are replaced by:

" identifying using a user interface a specific planned maintenance task from the plurality of planned maintenance tasks for the equipment (308);

based on the location data linked with the specific planned maintenance task, retrieving from the database (116) task information for the unplanned maintenance tasks (310,312,314) that are location associated with the specific planned maintenance task (308); and

displaying, using the user interface, the task information for the unplanned maintenance tasks retrieved from the database, while suppressing display of other unplanned maintenance tasks not linked through the location data to the specific planned maintenance task."

In claim 1 of the second auxiliary request the last two features of claim 1 of the main request are replaced by:

" selecting, using a user interface, a particular geographical location on the equipment;

determining, based on the particular geographical location and using a location pointer into the database, the planned and unplanned maintenance tasks at the particular geographical location;

retrieving from the database (116) task information corresponding to the planned and unplanned maintenance tasks (310,312,314) which are determined to be at the particular geographical location; and

displaying, using the user interface, the task information only for the planned and unplanned maintenance tasks associated with the selected geographical location, while suppressing display of the remaining planned and unplanned maintenance tasks.

VIII. The appellant has argued essentially as follows:

The claimed invention solved the technical problem of filtering data retrieved from the database so that only the most useful or relevant data was presented to a user. This was a technical problem in light of, for example, T 49/04 Text Processor/WALKER (not published in OJ EPO). The present invention, by limiting the amount of data retrieved to only those tasks associated with a selected task, ensured that the user could work more efficiently since only relevant information would be displayed, improving readability and avoiding overwhelming the user with details of tasks unrelated to the selected maintenance task. Maintenance tasks for an airplane, for example, may number in the hundreds or thousands.

The above technical problem was solved by associating planned task data with unplanned task data in a database on the basis of location data. This ensured that, when a user identified a planned maintenance task for some equipment, only the unplanned maintenance tasks that were associated with the identified planned maintenance task were retrieved. The planned maintenance task was identified using a user interface and the relevant data was retrieved from a database such that the presently claimed invention provided a technical solution to this technical problem.

No relevant prior art had been cited to indicate that the present invention lacked novelty or an inventive step and the claims of the main request were therefore allowable.

The examining division had criticised the broad formulation of the technical problem "filtering data". In the absence of any relevant prior art, it was not understood how a technical problem could be formulated more narrowly than this. Filtering data to present only useful information to a user was a technical problem and, as discussed above, the presently claimed invention solved this problem.

The examining division had argued that certain steps in the claimed method were non-technical and therefore could not contribute to an inventive step. Even if, for the sake of argument, it was accepted that the features identified by the examining division were non-technical, this did not automatically mean that they could not contribute to an inventive step. As stated in paragraphs 13 and 15 of the reasons in T 154/04 *Estimating sales activity/Duns Licensing Associates* (OJ EPO 2008, 46), non-technical features might interact with technical elements to produce a technical effect and only non-technical elements which did not so interact were unable to establish novelty or inventive step. As discussed above, the way in which the database was structured was relevant to the solution provided to the technical problem of limiting data retrieved to useful data and was thus interacting with the technical parts of the invention and was thus relevant to the question of inventive step.



## Reasons for the Decision

1. The appeal complies with the requirements referred to in Rule 65(1) EPC 1973 and is therefore admissible.

### *The application*

2. When performing routine maintenance work an unfortunate problem tends to occur, namely that unplanned work is discovered, also termed "above and beyond" or "emergent" work (see page 2, line 10ff. of the published application). The invention is concerned with the identification and categorisation of the extent of such work, which is crucial to dealing with it successfully and managing the maintenance schedule.
3. The solution offered is essentially to store all the planned routine maintenance tasks in a database along with unplanned work that is likely to be found at the same physical location as the routine work. When an intended planned maintenance task (e.g. "inspect left wing hydraulic lines") is entered into the system, the location associated with that task (e.g. "left wing") is used to retrieve associated possible unplanned tasks that should be checked at the same time (e.g. "left wing airframe damage") (see Figure 3 and page 15, lines 16 to 21 & page 16, lines 1 to 11).
4. In another aspect of the invention, the location can be entered and the system shows all the tasks (both planned and unplanned) associated with that location (see page 15, lines 21 to 25).

*Main request*

5. The appellant's essential argument is that displaying only unplanned maintenance tasks based on the location of the given planned maintenance task solves the technical problem of filtering data retrieved from the database so that only the most useful or relevant data is presented to a user. This is said to be a technical problem in the light of T 49/04 Text Processor/WALKER (*supra*). This is because this decision concludes that "the presentation of natural language text on a display in a manner which improves readability, enabling the user to perform their task more efficiently, relates to how, i.e. by what physical arrangement of the text, cognitive content is conveyed to the reader and can thus be considered as contributing to a technical solution to a technical problem". This decision is based on the judgement in that case that the physical arrangement of text (the "how") was a technical solution to the technical problem of improving readability of the text. However, the present Board does not consider that it is a general statement to the effect that any feature that relates to "how" information is conveyed to the user involves technical considerations. In particular, if the "how" simply concerns putting data in a table for easier comprehension, this is clearly still only a presentation of information, excluded from patentability. As stated in decision T 1143/06 Data selection system/BRITISH TELECOMMUNICATIONS (not published in OJ EPO), which discusses T 49/04 at more length, at point 5.4, the manner of presentation has to have a credible technical effect.
  
6. In the Board's view that is not the case here. The Board agrees with the examining division at point 3.4

of the decision that showing data that is useful or relevant to an administrative maintenance scheme is essentially a part of that administrative scheme and not part of a technical process. Basing the choice on the "location" of the maintenance task does not change that. The only link to anything technical is that the maintenance is on "equipment". However, this is a remote connection and is not directly related to the displaying, which has to do with the administrative process, and thus cannot contribute to the technical nature of the problem. Similarly, in the Board's judgement, there is no interaction, in the sense of T 154/04 Estimating sales activity/DUNS LICENSING (*supra*), of these non-technical features with the technical features of the database and the user interface, which operate in a conventional manner. In particular, there is no functional modification of the database, just a storage of different data. Thus in the Board's view, the problem reduces to that of implementing such a filtering. The claim gives no details of the actual implementation, and the Board agrees with the examining division that it would be obvious to consider using standard data processing hardware containing a database and a user interface for this purpose.

7. The above also explains the apparent paradox in the examining division's reasoning alluded to by the appellant that a broad problem cannot be formulated despite the lack of relevant prior art. According to the problem and solution approach, the objective technical problem is based on the distinguishing features. It is therefore true that when there are many distinguishing features, as when there is no close prior art, the problem tends to be broad. However, only the features having technical character should be

considered. If these are few in number a narrower, more specific, formulation of the problem is appropriate. Since this is the situation in the present case, the Board judges that the examining division was correct in identifying only the implementation of the filtering as the technical problem.

8. Claim 1 of the first auxiliary request contains minor clarifications and adds, in the last lines, the feature of suppressing unplanned maintenance tasks not at the relevant location. However in the Board's view, this does not add anything of substance, being in essence an alternative, and thus redundant, statement of displaying unplanned tasks that are at this location.
  
9. The appellant states that the claims of the second auxiliary request are based on the main request. However, in the Board's judgement, they relate to a somewhat different aspect. The main request concerns identifying *planned maintenance tasks* and displaying geographically related unplanned tasks. The second auxiliary request concerns selecting a *location* and displaying both planned and unplanned tasks. This is a different use of the database and appears to be the other side of the "two-way operation" of the database mentioned at page 15, lines 14ff. of the description. In the second case, there is arguably still a "filtering" effect; the data that is filtered out is the tasks (both planned and unplanned) that are not linked to the selected location. In any event, the Board judges that the arguments relating to the general non-technicality of filtering unwanted data in an administrative process apply equally to this aspect of the invention, so that this request is not allowable either.

10. Accordingly, claim 1 of all requests lacks an inventive step (Article 56 EPC 1973), so that the appeal must be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



T. Buschek

S. Wibergh

Decision electronically authenticated