Internal distribution code:

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

Datasheet for the decision of 1 October 2013

Case Number: T 1448/10 - 3.5.01

Application Number: 04816355.4

Publication Number: 1769431

IPC: G06Q10/00

Language of the proceedings: EN

Title of invention:
METHODS AND SYSTEMS FOR MANAGING STOCK TRANSPORTATION

Applicant:
SAP AG

Headword:
Tracking during transit/SAP

Relevant legal provisions:
EPC 1973 Art. 56

Keyword:
Inventive step - (no)

Decisions cited:
T 0641/00

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 1448/10 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 1 October 2013

Appellant: (Applicant)	SAP AG Dietmar-Hopp-Allee 16 69190 Walldorf (DE)
Representative:	Schneider, Günther Martin Bettinger Schneider Schramm Patent- und Rechtsanwälte Postfach 86 02 67 81629 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 12 February 2010 refusing European patent application No. 04816355.4 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: K. Bumes
Members: P. Scriven
P. Schmitz

Summary of Facts and Submissions

I. This appeal is against the Examining Division's decision to refuse European patent application 04816355.4. The application is directed to a method and a system for tracking stock in transport, and the Examining Division refused it for lack of inventive step (Article 56 EPC 1973), on the basis of the disclosure of D1 (WO 01/67127).

II. With the statement setting out its grounds of appeal, the appellant filed an amended main, and two amended auxiliary requests.

III. The Board arranged oral proceedings, and, with the summons, sent a communication setting out its provisional view. In particular, the Board set out its doubts regarding compliance with Article 123(2) EPC, and regarding the presence of an inventive step on the basis of the prior art set out in paragraphs [002] - [008] of the published application (A1: WO-A1-2006/000255).

IV. With a reply dated 30 August 2013, the appellant filed an amended main and two amended auxiliary requests, and set out its arguments regarding Article 56 EPC 1973 and Article 123(2) EPC.

V. Oral proceedings were held as scheduled. The appellant stated its requests as: that the decision under appeal be set aside, and that a patent be granted on the basis of the main request, or else of auxiliary requests 1 or 2, all filed with the letter dated 30 August 2013.

VI. Claim 1 according to the main request reads as follows.

A method for managing stock in transport using a database, the method comprising:

providing a stock identifier to identify the stock;

providing a transport unit identifier to identify at least one transport unit of a vehicle;

registering the location of the stock with the database wherein registering comprises reading at least one of a bar code or a radio frequency identification (RFID) associated with the vehicle when loading the stock into the vehicle and reading at least one of a bar code or a radio frequency identification (RFID) associated with the stock when unloading the stock from the vehicle to a warehouse;

issuing a transfer order to move stock identified with the stock identifier from the warehouse;

prior to execution of the transfer order, associating the stock identifier with a first location identifier in the database to identify the stock as being stored in a first location; and

updating the database, during execution of the transfer order, to associate the stock identifier with a transport unit identifier for a transport unit of a vehicle, the vehicle transporting the stock to a second location in accordance with the transfer order;

whereby the stock identifier, the transport unit identifier and the association of the stock identifier with the transport unit

identifier are stored in the database.

VII. Claim 1 according to auxiliary request I adds the following after the step of *updating the database*.

...
updating the stock identifier to associate it with another transport unit identifier when the stock has been transferred to a transport unit of another vehicle
...

VIII. Claim 1 according to auxiliary request II adds the following after the second step of updating in claim 1 according to auxiliary request I.

...
updating a time stamp field in the database to indicate the time that the transport unit was loaded onto the vehicle; and
updating a time stamp field in the database to indicate the time that the assignment of the transport unit to the vehicle has ended; and
...

IX. The appellant's arguments can be summarized as follows.

It was known to track stock within a warehouse by means of an identifier (e.g. a bar code or radio frequency identification tag) for each stock item and for each bin in the warehouse. It was, however, not known to provide such identifiers for transport units of vehicles. It followed that the uses of the identifiers defined in the various versions of claim 1 were not known either.

The technical problem solved by the invention was to render the known system more flexible, to enlarge its functionality. One could not include the tracking of stock during transit in the problem statement because that would be a pointer to the solution. It was also not possible to separate the issue of tracking stock in transit from the technical implementation, and claim that the former was not technical.

The skilled person, faced with the problem of increasing flexibility had a very large number of options. He might, for example, simply register the departure of a stock item from the old warehouse and its arrival at the new; or he might attach a GPS tracking device to each item. There was nothing to point the skilled person in the direction of providing an identifier for a transport unit.

The fact that computers had existed for a long time, but that no one had used them in the manner of the invention was a further indication of inventive step. The invention fulfilled a long-felt need.

The method defined by claim 1 according to auxiliary request I allowed the tracking to function when more than one vehicle was involved. The time stamps defined in claim 1 according to auxiliary request II provided further information. For instance, it would be possible to know how long an item of stock had been in a particular vehicle.

Reasons for the Decision

Background

1. The invention concerns the tracking of stock. According to prior art set out in the application (A1, paragraphs [002] - [008]), stock is kept at specific locations ("bins") in a warehouse, and it is useful to know which stock items are in which bins. To this end, each bin is provided with an identifier, and each stock item likewise. Identifiers may be bar-codes or radio frequency identification ("RFID") tags. When an item is placed in a bin, the identifiers of the bin and of the item are scanned. The scanning causes a database to record an association between bin and item. Similarly, when an item is removed from a bin, the identifiers are scanned and the database records the fact that the item is no longer in that bin.

2. There are problems with that. When a stock item is not in a bin, the system does not record where it is. That makes it difficult, for example, to change destination en route. One can readily imagine an item being moved from bin A to bin B, and the arrival of a new item for which bin B is more suited. The system has no way of re-routing the first item to bin C. The problems are exacerbated when transit times are longer, such as when items are moved from one warehouse to another.

3. The invention addresses the problem of tracking items during transit (see paragraphs [011] - [013] and [036] of A1), that is when they are transported in "transport units", which represent some storage capacity of individual vehicles (see paragraphs [036] and [057] of the published application). The scanning works as for

bins, but the database can record an association between a stock item and a transport unit. Thus, there is a record of the item's "location" during transit. Of course, the location is known only up to the transport unit; if the location of the transport unit is unknown, it may not be of much help to know that the stock item is in it.

The main request, claim 1, inventive step

4. It is common ground that the state of the art as set out in the application (A1, paragraphs [002] - [008]) does not provide identifiers for transport units or provide any other means for the database to record location during transit. Those features enhance the tracking system by providing tracking during transit.

5. The identifiers and records of location address a problem in logistics: a warehouse manager needs to track and manage stock and, therefore, needs "shipping and receiving visibility" (A1, paragraphs [008] - [010]). The Board considers that a non-technical problem.

6. The appellant has argued that tracking stock in transit cannot be the objective technical problem on the basis of which obviousness should be assessed, because such a formulation of the problem would contain a pointer to the solution. The Board agrees that tracking during transit cannot be the objective technical problem, since, as mentioned above, it is a problem of logistics. According to the established jurisprudence, an aim to be achieved in a non-technical field may legitimately appear in the formulation of the technical problem (T 0641/00, *Two identities/COMVIK*, OJ 2003,

352, see headnote 2). It is also established jurisprudence that only those features which contribute to the technical character of an invention can contribute to inventive step (T 0641/00, headnote 1), and the Board, therefore, also rejects the appellant's further argument that it is not legitimate to split the claim into technical and non-technical features.

7. The technically skilled person, has the task of modifying the existing tracking system (A1, paragraphs [002] - [008]) so as to keep track of stock during transit.

8. Claim 1 defines a number of technical features for the solution of that problem. The identifiers are either bar codes or RFID tags, and it seems implicit that they are read by technical means. The Board also considers that the database is intended to be computer-implemented, and bases its analysis on such a database. The question of inventive step is whether or not the provision of an identifier for a transport unit, and the recording, in a database, of an association between a stock identifier and a transport unit identifier, would have been obvious to the skilled person faced with the technical problem formulated above.

9. The Board finds that the use of bar-codes or RFID tags, and the recording of an association, in a database, between stock items and vehicle codes would have been obvious, because it merely extrapolates from the system already in place, in which bins and items already have identifiers in the form of bar-codes or RFID tags. The provision of the same sort of identifiers for transport units is a direct extension of that.

10. The appellant has argued that the skilled person, seeking to extend the prior art method would have had many options, and might have chosen, for example, to use GPS tracking devices. There are two reasons the Board finds that unconvincing. Firstly, the fact that the skilled person could have done something else, or even many other things, does not necessarily mean that the chosen solution would not have been obvious. It would have been obvious in this case, because the existing tracking method was easily adapted to the case of tracking in transit. Secondly, the question of what precisely to track is not a technical issue. If a stock manager wants to know what stock is in what transport unit, then that is the task given to the technically skilled person. If he wanted to know the geographic coordinates of a stock item at all times, that would present the technically skilled person with a different task. In the present case, the task was to keep track of which transport units various items had been assigned to.

11. The appellant has also argued that the invention satisfies a long-felt need, so that the fact that the invention had not been made before was an indication that it was not obvious. The Board does not accept that for the following reasons. Firstly, there is no evidence that there was a long-felt need for tracking stock in transit. The fact that D1, which uses GPS tracking, addresses that issue shows that it was considered before March 2000, but more is needed before a claim that there was a long-felt need can be made credible. Secondly, the claim that there was a long-felt need is undermined by the appellant's other argument, that tracking in transit was not something the skilled person would have considered.

12. The Board, therefore, finds that the main request cannot be allowed, because the method defined in claim 1 does not involve an inventive step (Article 56 EPC 1973).

Auxiliary request I, claim 1, inventive step

13. Claim 1 comprises a single additional step: when an item is transferred to a transport unit of a different vehicle, the database is updated to reflect that.

14. The Board sees that as flowing from a further non-technical constraint. If it is the case that stock is moved in a way that involves more than one vehicle, then tracking such changes is part of the logistical problem.

15. The technical solution of registering the new association in the database amounts to the application of the process already in place, and the Board is satisfied that a re-application when the need arose would have been obvious.

16. The appellant's sole argument, that the method allows for tracking when multiple vehicles are involved, does not affect this argument.

17. The Board concludes that auxiliary request I can not be allowed, because the subject matter of claim 1 does not involve an inventive step (Article 56 EPC 1973).

Auxiliary request II, claim 1, inventive step

18. There are two additional steps to the method (as compared with claim 1 according to auxiliary request I). A time stamp is updated when an item is loaded into a vehicle, and again when the assignment to the transport unit ends.

19. The appellant explained that these time stamps provided further information, and allowed, for example, a derivation of how long an item had spent in a particular vehicle.

20. Again, the Board sees these additional steps as flowing from non-technical constraints. If a stock manager wants to know when an item is loaded and when it is unloaded, the skilled person is obliged to provide some indication of when those events happened. Whatever he chose to provide would qualify as a time stamp. Thus, the technical implementation would have been obvious.

21. The Board, therefore, concludes that auxiliary request II can not be allowed, because the method defined by claim 1 does not involve an inventive step (Article 56 EPC 1973).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek K. Bumes

Decision electronically authenticated