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**Datasheet for the decision
of 9 November 2017**

Case Number: T 2516/12 - 3.5.01

Application Number: 00959523.2

Publication Number: 1297461

IPC: G06F17/60

Language of the proceedings: EN

Title of invention:

DATA PROCESSING SYSTEM FOR MANAGING CHEMICAL PRODUCT USAGE

Applicant:

ECOLAB INC.

Headword:

Laundry monitoring / ECOLAB

Relevant legal provisions:

EPC Art. 56

Keyword:

Inventive step - information on the state of a laundry based on corporate data (no - no technical problem)



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 2516/12 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 9 November 2017

Appellant: ECOLAB INC.
(Applicant) Ecolab Center
370 North Wabasha Street
St. Paul, MN 55102-2233 (US)

Representative: Godemeyer Blum Lenze Patentanwälte
Partnerschaft mbB - werkpatent
An den Gärten 7
51491 Overath (DE)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 6 July 2012
refusing European patent application No.
00959523.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman W. Chandler
Members: P. Scriven
I. Beckedorf

Summary of Facts and Submissions

- I. This is an appeal against the decision to refuse European patent application 00959523.2 for lack of inventive step over document D1 (EP-A-0787849). The examining division considered the system for managing use of a chemical product according to the invention differed only in that it stored "corporate data" in addition to some other data, and saw no technical effect beyond an adaptation to store additional data.
- II. With the statement setting out the grounds of appeal, the appellant maintained the main and first auxiliary requests underlying the appealed decision, and requested oral proceedings if the main request were not allowed. The appellant argued that storage of the "corporate data" with the other data had technical effects and was inventive over D1, D2 (GB-A-2311767), D3 (US-A-5424940), and D4 (US-A-5897671).
- III. The Board sent a communication setting out its provisional view that the system defined by claim 1 of the main request lacked inventive step over D1, and that the auxiliary request was not admissible. The Board also pointed to similarities between D3 and the invention.
- IV. With its response, the appellant submitted second and third auxiliary requests and requested oral proceedings if none of its requests could be allowed on the basis of the written submissions.
- V. The Board arranged to hold oral proceedings, and set out its provisional view of the second and third auxiliary requests in a further communication sent with

the summons.

VI. With its response to the summons, the appellant submitted a fourth auxiliary request.

VII. During oral proceedings, the appellant formulated its final requests as:

that the decision under appeal be set aside
and that a patent be granted on the basis
of one of the sets of claims filed

as main request with letter of
20 March 2009,
as first auxiliary request during oral
proceedings on 24 April 2012,
as second and third auxiliary requests with
letter of 2 November 2015,
as fourth auxiliary request with letter of
9 October 2017, and
as fifth auxiliary request during the oral
proceedings before the Board.

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

*A data processing system for managing use of
chemical product in a chemical application
system corresponding to a first customer
account identified by an account identifier,
the system comprising:
a chemical product dispenser distributing
the chemical product to the chemical
application system;
a monitor module detecting dispenser data
based on distribution of the chemical
product by the chemical product dispenser;*

*a database coupled to the chemical product dispenser and storing the account identifier in association with the dispenser data of the chemical product dispenser;
the database further storing corporate data in association with the dispenser data and the account identifier; and
an analysis application analyzing the dispenser data in relation with the corporate data to characterize use of the chemical product in the chemical application system.*

- IX. The first auxiliary request adds the following text to the end of the second feature of claim 1.

... wherein the dispenser data includes detected dispenser data detected by the monitor module and dispenser system data in the dispenser, both types of data being communicated from the chemical product dispenser to the database.

- X. The second auxiliary request adds the following text to the end of claim 1 of the main request.

... wherein the corporate data describes occupancy of a facility at which the chemical application system is operating.

- XI. Claim 1 according to the third auxiliary request reads as follows.

A method of managing use of chemical product in a chemical application system corresponding to a first customer account

identified by an account identifier, the method comprising:
distributing the chemical product to the chemical application system via a first chemical product dispenser;
recording first dispenser data based on distribution of the chemical product by the chemical product dispenser;
recording the account identifier in association with the dispenser data of the first chemical product dispenser;
storing second dispenser data from a second chemical product dispenser corresponding to a second customer account; and
analyzing the first dispenser data of the first chemical product dispenser relative to the second dispenser data of the second chemical product dispenser to characterize the use of the chemical product in the chemical application system,
the method further comprising:
recording corporate data associated with the first customer account;
generating product usage data from a combination of the corporate data and the first dispenser data; and
analyzing the product usage data to characterize use of the chemical product in the chemical application system
wherein the corporate data describes occupancy of a facility at which the chemical application system is operating.

- XII. Claim 1 according to the fourth auxiliary request reads identically to the third auxiliary request except that a chemical application system has been replaced by

laundry system, and that the final clause (wherein ... is operating) has been replaced by:

...

wherein the corporate data is the number of occupied rooms, the first and second dispenser data is the number of loads, and the product usage data is the number of pounds of laundry washed per occupied room.

XIII. The fifth auxiliary request qualifies the chemical application system of claim 1 of the main request with "for laundries" and adds the following text after "a database coupled ... chemical product dispenser;",

... wherein the dispenser data are the number of loads of laundry in the washing machines.

the following text after "the database further ... the account identifier;",

... wherein the corporate data is the number of occupied rooms in a facility.

and the following text to the end of the claim.

... and to indicate inflated detergent.

XIV. The appellant's arguments can be summarised as follows.

The appellant supplied not only chemical products for laundries, but whole laundry facilities and services including monitoring and identification of problems. It was in this field that the skilled person worked, and

which would inform his understanding of the terms used in the claims, in particular the term *corporate data*. He would understand *corporate data* to mean data that could have a bearing on the correct functioning of the facility. That would include occupancy of a hotel, hospital, or other facility, but not, for example, whether Mr X had worked on Tuesday. In particular, the wording *analyzing the dispenser data in relation to the corporate data to characterize use of the chemical product ...* expressed the technical outcome (the amount of various products used) and entailed a limitation on the meaning of *corporate data*.

XV. With reference to the main request, the invention differed from D1 by storing corporate data and dispenser data together. The examining division were wrong to dismiss this as non-technical, because it was particularly suitable for computer implementation and allowed more accurate detection of, and reaction to, errors or inefficiencies. It allowed water, energy, and chemical product to be saved. As these were technical effects, the Comvik approach did not apply. The effects did not rely on any modification to the washing machines. It was sufficient that the user get better information and could react to errors and inefficiencies. The invention was also technical by virtue of displaying the status of a technical system.

XVI. Any lack of clarity in the term *corporate data* was removed in the second and third auxiliary requests by the specification that it described "occupancy of a facility at which the chemical application is operating". The restriction of corporate data to occupancy established, if it was not already implicit in the main request, the technical relationship between

such data and the aim of identifying abnormal situations. This was because the use of resources (water, energy, and chemicals) depended on occupancy.

Reasons for the Decision

Background

1. The application is careful to specify that the invention applies to the automatic dispensing of chemicals in general (published application, page 1, line 17 to page 2, line 12). However, the real focus of the invention is industrial laundries with automatic dispensing of cleaning products.
2. The idea is to keep a record of the dispensing of the cleaning products in relation to data that reflect the circumstances of use. A laundry operating in a hotel or hospital, for example, might keep track of how the amount of detergent used relates to the number of rooms or beds occupied. This information can be analyzed and used to improve procedures. As an example, hotel laundries can be compared in terms of how much detergent they use per occupied room, and poorly performing laundries can be identified.
3. According to the published application, existing approaches to automatic recording of detergent usage failed to provide the capability or capacity of

automatically detecting large amounts of dispenser data, communicating and recording dispenser data and corporate data to a central database, and analyzing the data to provide feedback ... (published application, page 3, lines 19 - 22).

4. However, it is now common ground that D1 and D3 disclose the logging of data collected from various dispensers. It is also agreed that D1 does not disclose the storage of corporate data, at least in so far as that term has a clear meaning. An inventive step, if there is one, must come from this corporate data.
5. The examining division considered that corporate data were not technical and so could not contribute to inventive step. The appellant does not dispute that the corporate data would not be technical in isolation, but argues that their use in a technical context allowed technical effects to be achieved.

The first, third, and fourth auxiliary requests

6. The appellant submitted its first auxiliary request with the statement setting out the grounds of appeal. The arguments in its support are contained in a single sentence, to the effect that it is allowable for the same reasons as the main request.
7. The first auxiliary request only falls to be considered if the reasons submitted in support of the main request do not succeed. The appellant submitted no reasons why the first auxiliary request should succeed if the main request fails. A request for which no supporting argument is given is not admissible.

8. The Board pointed this out in its first communication, and again at oral proceedings. The appellant did not submit any arguments. Consequently, the Board declines to admit the first auxiliary request.
9. The third auxiliary request was submitted at the same time as the second. The supporting arguments were restricted to an explanation of the basis for the amendments. There was no argument, independent of those given in support of the second auxiliary request, as to why the third should be allowed if the second were found to be devoid of inventive step. The Board pointed out this issue at oral proceedings and the appellant submitted no arguments. Consequently, the Board declines to admit the third auxiliary request.
10. The fourth auxiliary request was filed without supporting arguments beyond supplying a basis for the amendment, and the appellant submitted none during oral proceedings. The Board, therefore, also declines to admit the fourth auxiliary request.

The main request

11. It is common ground that D1 and D3 disclose data processing systems for managing the use of chemical products in laundries, and that they do so by gathering, storing, and analysing data from the dispensers of chemical products (the application calls this "dispenser data").
12. The appellant argued that neither disclosed the storage of, or analysis using corporate data.

13. D3 does disclose the use of data that might be classified as "corporate", in the form of "change in specials, pricing or facility operations that vary with time of day or day of week" (D3, column 4, lines 30 - 33), but that is not the sort of data the appellant has in mind. What is intended, as the appellant argues the skilled person would understand, is the sort of data that can give an indication of how much detergent, say, an laundry would expect to use. More guests, more laundry, more detergent. D3 does not disclose that sort of "corporate data".
14. In the appellant's view, there is a further difference. The systems of D1 and D3 use many different forms of sensor to gather their dispenser data. D3 measures, for example, room temperature, hot water temperature, hot and cold water pressure, motion within the facility, and indications of whether doors are open or closed (D3, column 3, lines 40 - 47). The invention, however, only stores the amount of a chemical product that was dispensed.
15. The Board cannot acknowledge this difference. Claim 1 says only that dispenser data "based on distribution of the chemical product" is detected. D1 and D3 do that. They do more too, but the claim does not exclude that. The only difference lies in the use of corporate data.
16. The examining division thought corporate data was not technical and so could not contribute to inventive step. The appellant thinks that was wrong: while corporate data by itself was not technical, including it allowed problems with the laundry to be detected; it gave an indication of the internal state of a technical system.

17. The Board is not persuaded that the system of claim 1 does provide an indication of the technical state of a technical system. The invention analyses dispenser data and corporate data. Examples would be, respectively, the amount of detergent and number of guests in a hotel. This data might be collected for many hotels, and the average detergent use per guest might be calculated. If a laundry uses significantly more than the average (the application calls this "inflated detergent"), that would indicate a problem. In the Board's judgment, it might indicate a problem, but the problem might or might not be a technical one. It might be an inadequately trained operative choosing the wrong settings of a machine or even not properly washing by hand (published application, page 3, lines 1 - 7). The operative would then be provided with "corrective instructions" from one or more "field service managers".
18. The system, therefore, provides information on the state of a laundry, but it is not technical information. It may be (and in the examples given in the application it is) administrative information.
19. Corporate data is, in itself, not technical. It is used in the invention to obtain a non-technical effect. In the absence of a technical solution to a technical problem, the Board cannot acknowledge an inventive step (Article 56 EPC).
20. The main request, therefore, cannot be allowed.

The second auxiliary request

21. According to this request, the corporate data is restricted such that it "describes occupancy". It may be the number of beds occupied in a hospital or hotel at the relevant time.
22. This more restricted meaning of corporate data is no more technical than the broad version.
23. The problems in the laundry system that might be indicated are the same as in the main request. It may be that an operative has been inadequately trained or pushed to do more than can be done properly in the time given.
24. The Board, therefore, can see no more inventive step than in the main request. The second auxiliary request, therefore, cannot be allowed.

The fifth auxiliary request

25. This request was submitted during oral proceedings before the Board.
26. It restricts the invention to laundries rather than to a general "chemical application system". This does not affect the reasoning given for the main and second auxiliary requests.
27. It further restricts "dispenser data" and "corporate data" involved.

The dispenser data are now "the number of loads of laundry in the washing machines". *Prima facie* this is

not actually dispenser data, but the description does give it as one example among many (published application, paragraph bridging pages 4 and 5).

The corporate data are now "the number of occupied rooms in a facility".

The problems flagged by virtue of these sorts of dispenser and corporate data are not necessarily technical. They are the same as with the main and second auxiliary requests.

28. Finally, it restricts the analysis such that it indicates "inflated detergent". This does not mean soap bubbles, but rather that more detergent than expected has been used. Again, the reason for this might be technical or not.
29. The amendments, therefore, do not improve the appellant's situation on inventive step. Accordingly, the Board, even if it were to be admitted into the proceedings, could not allow the request for the reasons already given.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



T. Buschek

W. Chandler

Decision electronically authenticated