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**Datasheet for the decision  
of 20 April 2023**

**Case Number:** T 1393/19 - 3.4.03

**Application Number:** 15704813.3

**Publication Number:** 3111390

**IPC:** G06Q10/08

**Language of the proceedings:** EN

**Title of invention:**  
SYSTEMS AND METHODS FOR TRACING ITEMS

**Applicant:**  
Sicpa Holding SA

**Headword:**

**Relevant legal provisions:**

EPC Art. 56  
RPBA 2020 Art. 13(2)  
RPBA Art. 12(4)

**Keyword:**

Inventive step - (no) - main request and first auxiliary request

Late-filed request - second auxiliary request submitted during oral proceedings - not taken into account - third auxiliary request filed with the statement of grounds - request could have been filed in first instance proceedings (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
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Case Number: T 1393/19 - 3.4.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.03**  
**of 20 April 2023**

**Appellant:** Sicpa Holding SA  
(Applicant) Av. de Florissant 41  
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**Representative:** Hoffmann Eitle  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 3 December 2018  
refusing European patent application No.  
15704813.3 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairwoman** D. Prietzel-Funk  
**Members:** J. Thomas  
A. Böhm-Pélissier

## **Summary of Facts and Submissions**

I. The appeal is against the examining division's decision refusing European patent application No. 15 704 813 on the grounds that the main request as well as the then sole auxiliary request did not fulfil the requirements of Articles 52(1), 54(1) and (2) and 56 EPC.

II. At the end of the oral proceedings held by video conference before the board, the appellant requested that a patent be granted according to the main request or the first auxiliary request, both filed with the statement setting out the grounds of appeal, or according to the second auxiliary request filed during oral proceedings before the board or according to the third auxiliary request filed as the second auxiliary request with the statement setting out the grounds of appeal.

III. The following documents are referred to below:

D1: US 2011/0238429 A1

D2: WO 2006/094030 A2

IV. Claim 1 of the main request reads as follows:

*"A system for tracing a plurality of items comprising: an interface (20) configured to receive through a communication network (40) an event data record (60) from an acquisition equipment (50) including operation information (613) indicating an operation on at least one item, time information (611) indicating a time when the operation occurred, and identification information (612) identifying said at least one item as detected by said acquisition equipment (50);*

*a data store (30) configured to store state information indicating one or more states for each one of the plurality of items; and*

*a processing unit (10) configured to receive via the interface (20) one event data record, and to, in response to receiving the event data record and for the at least one item identified by the identification information (612) included in the received event data record:*

*generate, based on the received event data record (60), state information indicating a state of the at least one item after the operation;*

*query, from the data store (30), preceding state information indicating a state of the at least one item directly before the operation, and succeeding state information indicating a state of the at least one item directly after the operation;*

*evaluate, if preceding state information was retrieved in response to querying the data store, a transition between the state indicated by the generated state information and the state indicated by the preceding state information for a first rule conformity, and to, evaluate, if succeeding state information was retrieved in response to querying the data store, a transition between the state indicated by the generated state information and the state indicated by the succeeding state information for a second rule conformity."*

V. Claim 1 of the first auxiliary request reads as follows:

*"A system for tracing a plurality of items comprising: an acquisition equipment (50) adapted to detect an operation on one or more items, an interface (20) configured to receive through a communication network (40) an event data record (60)*

from the acquisition equipment (50) including operation information (613) indicating an operation on at least one item, time information (611) indicating a time when the operation occurred, and identification information (612) identifying said at least one item as detected by said acquisition equipment (50);

a data store (30) configured to store state information indicating one or more states for each one of the plurality of items; and

a processing unit (10) configured to receive via the interface (20) one event data record, and to, in response to receiving the event data record and for the at least one item identified by the identification information (612) included in the received event data record:

generate, based on the received event data record (60), state information indicating a state of the at least one item after the operation;

query, from the data store (30), preceding state information indicating a state of the at least one item directly before the operation, and succeeding state information indicating a state of the at least one item directly after the operation;

evaluate, if preceding state information was retrieved in response to querying the data store, a transition between the state indicated by the generated state information and the state indicated by the preceding state information for a first rule conformity, and to, evaluate, if succeeding state information was retrieved in response to querying the data store, a transition between the state indicated by the generated state information and the state indicated by the succeeding state information for a second rule conformity, wherein the processing unit is configured to, in response to a specific result from evaluating rule

*conformity, issue a notification, and the system further comprises a control unit configured to, upon reception of the notification, automatically activate an operation on the item at manufacturing, processing or distribution stage."*

- VI. Claim 1 of the second and third auxiliary requests is based on claim 1 of the main request and the first auxiliary request, respectively, with the following features added from claims 8 to 10 of the main request at the end of the respective underlying claim 1:

*"wherein the notification comprises information on a relationship between items that are identified by said identification information, wherein the notification is an alert indicating a non-conformity to a rule, and wherein the processing unit is further configured to cancel and/or correct an alert notification based on an evaluated state transition".*

- VII. The appellant's arguments, as far as they are relevant to the present decision, are summarised as follows:

Main request

The entire subject-matter defined in claim 1 was technical because item tracing was technical *per se*. The processing steps "generate", "query" and twice "evaluate" were also technical since they were executed on a computer. The processing procedure was carried out "on the fly" because it was executed "in response to receiving the event data record" contrary to the disclosure of document D1. This processing made it possible to take delayed event data records into

account in order to respond to them. This particular processing improved the quality of the item tracing and provided a more accurate picture of reality.

#### First auxiliary request

The subject-matter defined in this request solved the same technical problem as the main request but provided further technical features in order to find incorrect or unusual pathways of the traced item whereby the delayed data are correctly considered.

#### Second auxiliary request

This request should be admitted into the proceedings because it was filed in response to the discussion during the oral proceedings before the board. Only during the oral proceedings did some points become clear, which were now formulated more precisely in the claim wording by the inclusion of additional features in claim 1. Therefore, the filing of this request was the earliest possible response thereto.

#### Third auxiliary request

This request should be admitted into the proceedings because, while admittedly belated, it was a response to the examining division's decision, which only the written decision made clear. Therefore, it was submitted at the earliest possible moment.

## **Reasons for the Decision**

1. Main request - inventive step
  - 1.1 Document D1 represents the closest prior art with regard to the subject-matter defined in the present claim 1.
  - 1.2 Document D1 discloses a system for tracing a plurality of items (title and abstract) comprising an interface configured to receive through a communication network an event data record from acquisition equipment (paragraph [0055]) including operation information indicating an operation on at least one item (Figure 1, paragraph [0053]), time information indicating a time when the operation occurred (Figure 1, paragraph [0053]), and identification information identifying the item as detected by said acquisition equipment (Figure 1, paragraphs [0053], [0055] and [0060]). Document D1 further discloses storing capacities in the sense of a data store configured to store the event data record including all further information related thereto in a uniform data format. Document D1 further discloses processing means (paragraphs [0053], [0054], [0055], [0075] and [0076]) for processing the event data record in order to derive tracing information from the event data record (Figures 1 and 8).
  - 1.3 Therefore, the subject-matter defined in claim 1 differs from what is known from document D1 by applying the specific processing scheme configured in the processing unit as it is defined by the generating, the querying and the two evaluating steps in response to the receiving of the event data record.

This processing scheme is based on the following underlying administrative scheme which is as such of non-technical content, as the examining division also concluded:

A scheme for tracing a plurality of items comprising the following steps:

- receive one event data record, and, in response to receiving the event data record and for the at least one item identified by the identification information included in the received event data record:
  - generate, based on the received event data record, state information indicating a state of the at least one item after the operation;
  - query preceding state information indicating a state of the at least one item directly before the operation, and succeeding state information indicating a state of the at least one item directly after the operation;
  - evaluate, if preceding state information was retrieved in response to the query, a transition between the state indicated by the generated state information and the state indicated by the preceding state information for a first rule conformity, and,
  - evaluate, if succeeding state information was retrieved in response to querying, a transition between the state indicated by the generated state information and the state indicated by the succeeding state information for a second rule conformity.

1.4 This processing scheme "*focuses on the idea of checking consistency between subsequent state information by their transitions with the help of time information*" as

also pointed out by the examining division (cf. Reasons for the decision, point 3.1, last paragraph). These processing steps as well as the overall aim of these processing steps are non-technical since they refer to a mere administrative verification of the content of the event data record as explained in more detail in the following.

The above-indicated scheme as such is excluded from patentability under Article 52(2) EPC. However, since it is defined in a technical context (implemented on the technical system known from document D1), the subject-matter defined in claim 1 is not excluded from patentability under Article 52(1) and (2) EPC. However, the technical contribution of this non-technical content has to be evaluated in the overall context of the claimed subject-matter when deciding on inventive step (*Case Law of the Boards of Appeal of the EPO*, 10th Edition, 2022, I.D.9.2.2 and I.D.9.2.3). In the case at hand, the technical contribution of this non-technical scheme does not, however, go beyond a straightforward implementation of this scheme in the processing unit. In particular, it does not provide a further special technical effect.

- 1.5 The problem to be solved can be formulated as automating the above mentioned non-technical scheme in a known tracing system, such as the system known from document D1, in order to facilitate data processing and evaluate rule conformities.
- 1.6 The solution is a straightforward computer implementation of this non-technical scheme, which is no obstacle to the skilled person, namely a computer programmer. This is especially true as the wording of claim 1 remains completely non-specific with regard to

its concrete technical implementation. The overall aim of the claimed subject-matter consists only in an evaluation of rule conformities. Whether a rule conformity is or is not fulfilled does not in itself solve a technical problem, but is rather purely administrative information. Also, rule conformity itself is not specified at all in claim 1. The examples given for rule conformities in the description refer principally to financial or administrative situations (page 2, second paragraph; page 10, second paragraph to page 11, second paragraph). Therefore, this straightforward implementation does not provide a further technical effect.

- 1.7 In response to the appellant's arguments, the board does not deny that item tracing as such is based on technical means and has a technical background. However, all technical means necessary for the item tracing defined in the subject-matter of claim 1 are known from document D1.
- 1.8 Even if document D1 does not explicitly disclose the feature "*in response to receiving the event data record*", its computer implementation is straightforward for the skilled person. According to document D1, the event data records are made available as soon as they are recorded (D1: [0057]), such that the board considers it obvious and immediately possible to act in response to the reception of the event data record. It is common sense and/or based on normal skill that event data records received in relation to the item tracing are processed as soon as they are received or at least in response to their reception. This common sense procedure does not need to be specifically hinted at in a prior art citation since the common general knowledge

of the skilled person is sufficient for it to be taken into account accordingly.

In addition, the wording of claim 1 does not state that this analysis is carried out explicitly "*on the fly*" as is argued by the appellant. Claim 1 only defines that each event data record is processed "*in response to receiving the event data record*". In document D1, the event data records are also processed in response to their being recorded, otherwise status information like "*normal end*" could not be evaluated.

Therefore, in document D1, the event data records are also processed in response to their reception but not explicitly "*on the fly*". However, what is even more important when starting from document D1 is the fact that the recorded data are provided immediately after their being recorded (D1: [0057]), such that the data can be processed immediately after reception. The records are not obtained at the end of a processed batch. Therefore, there is nothing to hinder the skilled person from using each received event data record once it is recorded, which would appear to be an obvious choice.

Finally, the board remarks that if a batch is reduced to a single event data record, its processing would be dealt with in response to its reception including a single event data record as defined in claim 1.

- 1.9 The technical effect claimed by the appellant of more reliable mapping of the traced item(s) including the consideration of possible delays, so improving the quality of the tracing system, being provided cannot be considered a special technical effect, either. A possible improvement of item tracing is inherent in the

nature or content of the delayed data. The specific processing scheme does not solve the problem of the delay since the delayed event data record remains delayed. The delayed event data record is only fitted correctly into the overall data picture of already recorded event data records.

Also, the representation of data as such is not technical. It is debatable whether classifying a delayed event data record in its correct position is technical. However, regardless of its technicality, it is obvious to consider each event data record correctly in the overall data picture, i.e. to consider it correctly in relation to preceding and succeeding event data records or state information. Based on this common sense, it is straightforward to classify any delayed event data record such that it correctly fits in the overall picture and therefore the question as to whether ranking or classifying is technical or not can remain unanswered. Therefore, ranking or classifying with regard to the preceding and succeeding event data record is based on common general knowledge. This correct consideration of a delayed event data record includes not only the event data record's correct time alignment but also the evaluation of its rule conformities because the evaluation of rule conformities provides an additional check of the correct ranking of the event data record with regard to preceding and succeeding event data records (see also point 1.10 below).

- 1.10 The board also notes that the improvement of item tracing with regard to the operation or a transition of the item which has occurred results directly from the nature of the data themselves and not from the specific processing scheme. If an event data record is received,

whether delayed or not, it is common sense not only to rank this event data record correctly according to its time stamp at the correct place along the timeline (this refers to its position before or after the operation with respect to preceding and succeeding state information; see point 1.9 above), but also to check if the additional information provided in the event data record, such as the state information in relation to an operation, does or does not conform to the operation or a transition which might have occurred and related predetermined rules. That this must be considered common sense is obvious if one considers the following situation: the tracing image obtained from previously received event data records indicated somewhere a non-conformity with the predetermined rules. If, now, an additional event data record is received which is somehow related to this state information or operation previously assessed as non-conforming, the skilled person would automatically not only classify the event data record correctly time-wise, but would also check the rule conformities with the now newly received event data record. As a result, a former non-conformity could well be found to be a now well-established conformity.

Therefore, the technical effect claimed by the appellant of being able to respond to the delayed data by improving mapping in order to reflect what really happened in the real world with the traced item is an inherent consequence of the data content of the delayed event data record once its entire data content is correctly ranked and considered. Therefore, independently of the question as to whether the above indicated processing scheme is purely administrative or not, the improvement of the traced image results from the content of (possibly delayed) event data records

once they are received and correctly mapped. The improved tracing image does not result from a technical contribution or a technical improvement of the tracing system known from document D1 or a special technical implementation of the above mentioned non-technical scheme.

- 1.11 The arguments provided in the previous paragraphs become even more obvious when considering the appellant's argument in its statement setting out the grounds of appeal regarding a camera. A camera is not technically improved by simply representing an image with an increased number of pixels without any technical improvement of the camera itself. An improvement to the image can be exclusively due to the increased number of image points/pixels.

The same applies to the present situation. The improvement of item tracing is not related to any technical improvement of the tracing system itself. It is exclusively related to the inclusion of all available information included in the event data records in their correct context. Moreover, correct ranking of the data is not technical and does not include any further technical consideration, as in a camera when the reception of some pixels is delayed. The delayed pixels' being included at their correct position in the image and the increased resolution of the image is only due to this increased number of pixels and not to a technical improvement either to the camera or, in the case at hand, to the tracing system.

- 1.12 Hence, the problem as formulated by the appellant as being an attempt to solve the problem of unreliable mapping of the traced items due to a delay in data reception, so improving the quality of the tracing

system, is not solved by the provided processing scheme and even less by technical means. Any improvement of item tracing is exclusively due to the correct consideration of the event data record and all further information included in it. Correctly considering all these items of information is common general knowledge (independently of the question of its technicality).

1.13 Therefore, the board concludes that the subject-matter defined in claim 1 of the main request does not involve an inventive step in the meaning of Articles 52(2) and 56 EPC, since it concerns a straightforward implementation of non-technical (and/or obvious) content in the system known from document D1.

2. First auxiliary request

2.1 The wording of claim 1 differs from the wording of claim 1 of the main request by the addition of the following features:

(a) *"an acquisition equipment (50) adapted to detect an operation on one or more items,"* introduced after the first line of claim 1, and  
(b) *"wherein the processing unit is configured to, in response to a specific result from evaluating rule conformity, issue a notification, and the system further comprises a control unit configured to, upon reception of the notification, automatically activate an operation on the item at manufacturing, processing or distribution stage",* introduced at the end of claim 1.

2.2 The first amended feature (a) is known from document D1 and the second feature (b) relates to a standard

response to the verification of rule conformities as also indicated in document D1.

In document D1, it is a standard option that a notification is issued when the operation has failed (not "NORMAL END"), i.e. if a process was not "properly finished" ([0076]). Therefore, the newly added features are considered to be known from document D1 and are also common general knowledge. Hence, they cannot provide the necessary basis for an inventive step.

- 2.3 In addition, document D2 discloses acquisition equipment for tracking an item (D2: [0049]) and responding if a path of an item does not correspond to its "normal" path. This is considered to be a deviation from rule conformity (D2: [0050]). Further, document D2 teaches that this deviation can activate an alarm (which corresponds to a notification in its broadest sense) and implement an adjustment which corresponds to automatic activation of an operation of the item (D2: [0049] and [0050]).
- 2.4 The appellant's arguments with regard to inventive step for the first auxiliary request are not convincing, as they are essentially based on similar arguments as for the main request. In particular, it is not sufficient for inventiveness that documents D1 or D2 did not explicitly disclose the processing of the event data record "*in response to receiving the event data record*" (see point 1.7 above).
- 2.5 Therefore, the subject-matter defined in claim 1 of the first auxiliary request is rendered obvious to the skilled person based on the teaching of document D1 in combination with either common general knowledge alone or common general knowledge and the teaching of

document D2. Therefore, claim 1 of the first auxiliary request does not involve an inventive step (Articles 52(2) and 56 EPC).

3. Second auxiliary request - admittance

3.1 The second auxiliary request was filed for the first time during the oral proceedings before the board of appeal. It was based on the main request, with amended claim 1 of this new request consisting of a combination of claims 1 and 8 to 10 of the main request.

3.2 Due to its late filing, admission of this request is governed by Article 13(2) RPBA 2020, which reads that "*[a]ny amendment to a party's appeal case made after ... notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned*".

3.3 The board cannot see any cogent reasons which could justify exceptional circumstances.

In particular, the board cannot agree with the appellant that the discussion at the oral proceedings differed in content from what had been discussed in writing prior to the oral proceedings. In the board's understanding, the discussion during the oral proceedings may well have clarified some points in the discussion but did not change the overall understanding of the claimed subject-matter and certainly did not bring about an unexpected turn in relation to that understanding. The board therefore does not consider that this new request was caused by a changed situation that arose for the first time during the oral proceedings. On the contrary, since the examining

division's negative opinion on the higher ranking requests was known prior to the oral proceedings before the examining division, and the board mainly followed this opinion, the board is of the opinion that this request could and should have been submitted earlier, in particular during the first-instance proceedings, or at the latest during the oral proceedings before the examining division.

This is also supported by the fact that the newly included features were already defined in the dependent claims and were also included in the now third auxiliary request. The present request could well have been presented as an auxiliary request in the first-instance proceedings.

Hence, the board cannot see any cogent reasons justifying exceptional circumstances for the filing of the second auxiliary request at such an advanced moment in the proceedings.

3.4 Therefore, the board concludes that this request is not to be taken into account due to lack of exceptional circumstances. The second auxiliary request is therefore not admitted into the proceedings (Article 13(2) RPBA 2020).

4. Third auxiliary request - admittance

4.1 The third auxiliary request was filed for the first time as second auxiliary request with the statement setting out the grounds of appeal. Claim 1 was based on claim 1 of the first auxiliary request and further included the features defined in claims 8 to 10 of the main request.

- 4.2 According to Article 12(4) RPBA 2007 (which here applies according to Article 25(2) RPBA 2020), the board has the discretion not to admit this request into the proceedings if the request could and should have been filed earlier.

The board considers that this request could and should have been filed during the first-instance proceedings for the following reasons. During the first-instance proceedings only one auxiliary request was filed, on which this request was then based. Therefore, an additional request would not have been considered an unnecessary extension of the whole case. Furthermore, the impugned decision does not appear to include anything surprising compared to the discussion during the oral proceedings before the examining division.

Therefore, it cannot be considered to be a response to the examining division's decision since nothing surprising in the examining division's decision led to the filing of this request for the first time with the statement setting out the grounds of appeal.

- 4.3 Hence, the board concludes that the third auxiliary request could and should have been filed at the latest during the oral proceedings before the examining division and exercises its discretion not to admit this request into the appeal proceedings under Article 12(4) RPBA 2007.

## 5. Conclusion

The board concludes

- that the main request and the first auxiliary request are not allowable, since the subject-matter defined in their respective claim 1 does not

involve an inventive step within the meaning of Articles 52(1) and 56 EPC and

- that the second and third auxiliary requests are not admitted into the proceedings under Article 13(2) RPBA 2020 and Article 12(4) RPBA 2007, respectively.

Consequently, the appeal must fail.

### **Order**

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

The appeal is dismissed.

The Registrar:

The Chairwoman:



S. Sánchez Chiquero

D. Prietzel-Funk

Decision electronically authenticated