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**Datasheet for the decision
of 6 October 2021**

Case Number: T 1546/19 - 3.5.05

Application Number: 10804122.9

Publication Number: 2461235

IPC: G06F3/01, G06F3/041, H03K17/96

Language of the proceedings: EN

Title of invention:
INPUT APPARATUS AND CONTROL METHOD OF INPUT APPARATUS

Applicant:
Kyocera Corporation

Headword:
Touch sensor providing tactile feedback

Relevant legal provisions:
EPC Art. 111(2), 113(1), 56

Keyword:
Novelty - (yes) - res iudicata
Inventive step - (no)

Decisions cited:
T 0883/15



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Case Number: T 1546/19 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 6 October 2021

Appellant: Kyocera Corporation
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 7 March 2019
refusing European patent application No.
10804122.9 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: P. Tabery
D. Prietzel-Funk

Summary of Facts and Submissions

- I. The appeal is directed against the examining division's decision to refuse the European patent application. It is the second appeal concerning this application.
- II. The examining division decided that the application did not fulfil the requirements of Article 56 EPC.
- III. The documents referred to by the examining division included:

D1 US 2007/146334 A1

D3 WO 2006/042309 A1

- IV. In its statement setting out the grounds of appeal, the appellant (applicant) requested that the decision of the examining division be set aside and that a patent be granted on the basis of the claims of a main request or a first or second auxiliary request, copies of all requests submitted with the statement setting out the grounds of appeal. In case the impugned decision was not set aside, oral proceedings were requested. Furthermore, the appellant indicated that its right to be heard had been violated in the first appeal proceedings since a decision was issued without holding oral proceedings as requested by the appellant.
- V. The board issued a summons to oral proceedings and in an annex set out its preliminary opinion on the case (Article 15(1) RPBA 2020).

The board concurred with the findings of the examining division that the first decision of the board (T 0883/15, dated 28 May 2018) had a binding effect. The board indicated that it appeared that the **main**

request and the **first auxiliary request** did not meet the requirements of Article 56 EPC.

The board noted that the **second auxiliary request** was an amended request and that it thus had to be discussed whether it was to be admitted into the proceedings pursuant to Article 12(4) RPBA 2007. The board indicated that it had doubts as to inventive step.

VI. In a reply, the appellant provided further arguments regarding the pending requests.

VII. Oral proceedings were held on 6 October 2021. The appellant requested that the decision under appeal be set aside and that a patent be granted based on the claims of the main request or the first or second auxiliary request, all submitted with the statement setting out the grounds of appeal.

VIII. **Claim 4** of the **main request** includes the following features (as labelled by the board):

A control method of

A) an input apparatus comprising a touch sensor (11) for receiving an input, a load detection unit (12) for detecting a pressure load on a touch face of the touch sensor, a tactile sensation providing unit (13) for vibrating the touch face, and a control unit (15) for performing the control method, the control method comprising:

B) controlling [a] drive of the tactile sensation providing unit (13) such that a first tactile sensation is provided to a pressing object which is pressing the touch face, when the pressure load detected by the load detection unit (12) satisfies a first standard load for providing a tactile sensation,
characterized by

C) then controlling drive of the tactile sensation providing unit (13) such that a second tactile sensation is provided to the pressing object, when the pressure load detected by the load detection unit (12) in releasing falls to a second standard load lower than the first standard load after the first tactile sensation is provided in pressing.

Independent **claim 1** is directed to a corresponding input apparatus.

Claim 4 of the **first auxiliary request** differs from claim 4 of the main request in that feature C) reads as follows:

"then controlling drive of the tactile sensation providing unit (13) such that a second tactile sensation is provided to the pressing object, when the pressure load detected by the load detection unit (12) in releasing falls to a second standard load lower than the first standard load after the first tactile sensation is provided in pressing."

Claim 4 of the **second auxiliary request** differs from claim 4 of the main request in that feature C) further specifies:

"wherein the second standard load is in the range of 50 percent to 80 percent of the first standard load."

Reasons for the Decision

1. The application at issue concerns touch sensors providing tactile feedback when a particular area is pushed. If the pressure load on the touch sensor is pressed, the touch face of the touch sensor is vibrated to provide the click sensation to an operator. Upon

release, when the pressure load is at a lower level, the touch face of the touch sensor is vibrated to provide the release sensation. This provides a realistic click sensation similar to that obtained when a push-button switch is operated.

2. Main request

The main request is almost identical to the sole request underlying the impugned decision, the only difference being the correction of a typographic error in feature C), which now reads: "in releasing" instead of "is releasing". The request underlying the impugned decision is identical to the request considered in the first decision of the board (T 0883/15, dated 28 May 2018).

2.1 Admissibility (Article 12(4) RPBA 2007)

The board asserts that this is an amended request which has not been presented in the proceedings before. However, as the amendment relates to a straightforward correction of a typographical error, which remained unnoticed in the proceedings so far, the board decides to admit the new main request into the proceedings.

2.2 Novelty (Article 54(1) EPC)

In the first decision of the board concerning the current application, it was decided that document **D1** fails to disclose by explicit statement or unambiguous implication that the standard load (i.e. threshold) associated with the user's releasing operation is "*lower than*" the first standard load associated with the user's pressing operation.

In line with this decision and taking into account the recent minor amendment, the board holds that the

subject-matter of **claim 4** is novel over what is known from document **D1**.

2.3 Binding effect (Article 111(2) EPC)

The appellant argues that the examining division was only bound by the "*ratio decidendi*" of the first decision of the board to the extent that the claims were novel over document **D1** but not regarding whether document **D1** also discloses a load detection unit. Notably, in the context of inventive step, a different juridical appreciation of the facts was required.

The board considers that the facts underlying the board's first decision are the features defining the claimed subject-matter and the disclosure of prior-art document **D1**. Since novelty can only be acknowledged if a distinguishing feature is identified, the *ratio decidendi* comprises which of these features are disclosed in document **D1**.

In view of the above, the board holds that the examining division was indeed bound by the first decision of the board not only to the extent that the claimed subject-matter was novel but also as to the distinguishing feature identified by the board. Hence, the examining division was correct in limiting the discussion during the second oral proceedings to the question of whether the distinguishing feature identified in the board's first decision was obvious.

Since the issue of novelty over document **D1** is *res iudicata*, even the board is bound by its previous decision. I.e. it cannot be re-discussed in these proceedings which of the claimed features are known from document **D1** as far as these features were considered in the first decision of the board.

2.4 Right to be heard (Article 113(1) EPC)

In the statement setting out the grounds of the second appeal, the appellant further argued that the board violated its right to be heard by remitting, during the first appeal, the case to the examining division without holding oral proceedings. As a consequence, the appellant had no opportunity to discuss the disclosure of document **D1** in oral proceedings before the board of appeal.

The board notes that the appellant, in its letter dated 16 May 2018 sent in reply to the board's communication pursuant to Rule 100(2) EPC, requested *"to set aside the appealed decision and to remit the case back to the Examining Division for further prosecution on the basis of the claims filed on March 13, 2015. As an auxiliary request, oral proceedings are requested"*.

The board thus acted in accordance with the appellant's requests when remitting the case to the examining division without holding oral proceedings since these were not requested in this case. Furthermore, it was to be expected by the appellant that the board would take a decision on the issue of novelty since lack of novelty was the sole objection raised in the first appeal proceedings. Without deciding on novelty, the board would not have been in a position to decide on the appellant's request to set aside the appealed decision and remit the case. Furthermore, in a communication pursuant to Rule 100(2) EPC, the board provided its preliminary opinion to the appellant, which it maintained in its decision.

Hence, the first decision of the board was taken in accordance with the appellant's requests and based on grounds on which the appellant had had an opportunity

to present its comments. Consequently, it meets the requirements of Article 113(1) EPC.

2.5 Inventive step (Article 56 EPC)

In the impugned decision, the examining division held that:

"The differing feature effects that both conditions for triggering the press and release feedback are not fulfilled simultaneously. The technical problem may therefore be regarded as providing a user sensible separated haptic feedback for pressing and for releasing."

This is not contested by the appellant.

The examining division then identified passages in document **D3** disclosing the distinguishing feature and provided arguments why the skilled person would have combined the teachings of documents **D1** and **D3**, thus arriving at the claimed subject-matter in an obvious manner.

The appellant contested both that document **D3** disclosed the distinguishing feature and that the skilled person would have combined the teaching of documents **D1** and **D3**. Notably, document **D3** did not teach that it solved the objective technical problem identified by the examining division.

In the impugned decision, the applicant's arguments were labelled (A) to (E) by the examining division.

Argument (A)

The appellant argued that Figure 10 of document **D3** described the properties of a mechanical push button, rather than those of a touch sensor.

The examining division considered that the skilled person would have applied the hysteresis to a touch sensitive input since document **D3** mentions that the

behaviour shown in Figure 10 is to be emulated by a touch sensitive input device.

The board is not convinced by the appellant's argument since document **D3** teaches that the behaviour shown in Figure 10 is to be emulated by a touch sensitive input device. According to paragraph [0059], "*[a]ssigning a haptic effect to both the push down and release touchscreen events allows for better recreation of the feel of a mechanical button...*". In particular, paragraph [0061] mentions that "*the button down and button up effects [in the graphical user interface] ... can be used to capture some of the hysteresis effects in real mechanical buttons*".

Argument (B)

The appellant further argued that document **D3** did not show different thresholds for triggering haptic feedback created by a tactile sensation providing unit. The examining division stated that neither claim 1 nor claim 4 defined "*different haptic feedback*".

The board considers that the "*hysteresis*" curve depicted in Figure 10 of document **D3** shows different thresholds for the haptic feedback. It is implicit in the passage cited above with respect to argument (A) that these thresholds are to be implemented in a touch sensitive input device. Therefore, the appellant's argument is not persuasive.

Argument (C) was not discussed in the appeal proceedings.

Argument (D)

The appellant argued that document **D3** did not disclose user sensitive separated feedback as the technical effect of its disclosure. I.e. document **D3** did not teach that it solved the objective technical problem.

The examining division countered that the force hysteresis shown in document **D3** solved the technical problem.

The board notes that document **D3** presents (see paragraph [0061]) the hysteresis shown in Figure 10 as an element for providing "*better recreation of the feel of a mechanical button*" for the operator of a touch screen (see paragraph [0059]). Although differently worded, this problem appears to be equivalent to the problem formulated by the examining division, such that the skilled person would realise that the disclosed solution also solves the problem formulated by the examining division. But even if this were not the case, the problem of providing a better recreation of the feel of a mechanical button mentioned in document **D3** could be used in the formulation of the problem/solution approach as well. The board thus holds that document **D3** discloses a problem and its solution applicable in the context of document **D1**. Hence, the skilled person would have combined the teachings of documents **D1** and **D3** to arrive at the claimed invention without employing any inventive skills.

Argument (E)

The appellant argued that document **D3** did not disclose that the second standard load triggering a release sensation was lower than a first standard load triggering a push sensation. Notably, document **D3** disclosed, in paragraph [0057], merely that "*haptic feedback is to provide a realistic emulation of a button press (and release) to the operator*". It was not mentioned that this had to be achieved using the hysteresis curve shown in Figure 10.

The examining division argued that it was not excluded that document **D3** also disclosed different standard loads.

The board holds that the hysteresis shown in Figure 10 of document **D3** discloses a click sensation at different button forces. This is evident from the "z"-shaped bend of the "button release" curve being at a lower y-axis location than that of the "button down" curve. In addition, document **D3** discloses the lower threshold (denoted "second standard load" in the claims) in paragraph [0060]: "*the user is still momentarily touching the touch screen when the button up or release effect is played*". The upper threshold (denoted "first standard load" in the claims) is implied by the quoted passage since the "*momentarily touching*" does not constitute the pressure needed to generate the haptic response mentioned in paragraph [0057]. Thus, the board holds that the contested feature is not only disclosed as such but indeed in the context of a touch screen.

In view of the above, the board comes to the conclusion that the subject-matter of **claim 4** of the **main request** is not inventive over what is known from document **D1** in combination with the teaching of document **D3**.

The same considerations apply *mutatis mutandis* to independent **claim 1**.

2.6 In view of the above, the board holds that the **main request** is not allowable.

3. First auxiliary request

The first auxiliary request is identical to the main request considered in the impugned decision. It differs from the above main request only in that the typographic error has not been corrected.

Notwithstanding the question of whether the typographic error causes a lack of clarity, the board concludes

that the **first auxiliary request** is not allowable for the same reasons as the main request.

4. Second auxiliary request

The appellant argued that this request had been filed for the first time as auxiliary request 3 on 12 November 2014. Subsequently, it had even been discussed in the first proceedings before the board. As the board's first decision was about novelty only, there had been no need to discuss this request earlier.

The board notes that the request on file is almost identical to auxiliary request 3 filed on 12 November 2014, save for some rather editorial amendments. However, the request filed on 12 November 2014 was replaced via the letter dated 16 May 2018 by a different auxiliary request and not further pursued. As a consequence, the examining division did not decide on the issue of inventive step of this request. However, it is established case law that the boards do not admit requests that were previously withdrawn (see e.g. T 0902/10, sections 1.3 to 1.5 with further references).

In view of the above, the board comes to the conclusion not to admit the **second auxiliary request** into the proceedings (Article 12 (4) RPBA 2007).

5. Consequently, the appeal is not allowable as none of the requests is allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



S. Lichtenvort

A. Ritzka

Decision electronically authenticated