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Datasheet for the decision of 30 June 2020

Case Number: T 1678/17 - 3.5.05

Application Number: 11800338.3

Publication Number: 2590061

IPC: G06F3/041, G09G3/00

Language of the proceedings: EN

Title of invention:
TACTILE PRESENTATION DEVICE AND METHOD OF CONTROLLING TACTILE PRESENTATION DEVICE

Applicant:
Kyocera Corporation

Headword:
TACTILE PRESENTATION DEVICE / Kyocera

Relevant legal provisions:
EPC Art. 54, 56
EPC R. 134(2), 134(4), 103(4)(c)
Notice from the EPO dated 1 May 2020 concerning the disruptions due to the COVID-19 outbreak (OJ EPO, 2020, A60)

Keyword:

Time limits - interruption in the delivery of mail
Novelty - (no)
Inventive step - auxiliary request (no) - common general knowledge - obvious solution

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 1678/17 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 30 June 2020

Appellant: (Applicant)	Kyocera Corporation 6, Takedatobadono-cho Fushimi-ku Kyoto-shi Kyoto 612-8501 (JP)
Representative:	SSM Sandmair Patentanwälte Rechtsanwalt Partnerschaft mbB Joseph-Wild-Straße 20 81829 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 18 April 2017 refusing European patent application No. 11800338.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair	A. Ritzka
Members:	N. H. Uhlmann
	E. Mille

Summary of Facts and Submissions

I. The appeal lies from the decision of the examining division to refuse European patent application No. 11800338.3.

II. The examining division made reference to the following documents:

D1 JP 2006 107140
D2 US 2007/097073
D3 US 5 167 024

III. The examining division decided that the claims of the main request did not satisfy the requirements of Article 52(1) EPC and that auxiliary requests 1 and 2 did not meet the requirements of Article 123(2) EPC.

IV. In its statement setting out the grounds of appeal, the appellant re-submitted the main request and submitted an amended auxiliary request.

V. The board arranged for oral proceedings to be held.

VI. In a communication in preparation for the oral proceedings pursuant to Article 15(1) RPBA 2020, the board set out its provisional view of the case. It considered that the requests on file did not meet the requirements of Article 54 EPC.

VII. By letter dated 23 April 2020, the appellant submitted arguments and filed an auxiliary request 2.

VIII. In a communication dated 7 May 2020, the board expressed its provisional view that the subject-matter of claim 1 of auxiliary request 2 did not appear to involve an inventive step.

IX. By letter dated 13 May 2020, the appellant withdrew its request for oral proceedings, requested a partial refund of the appeal fee and submitted further arguments.

X. The oral proceedings were cancelled on 18 May 2020.

XI. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request or auxiliary request 1 (filed with the statement of grounds of appeal) or auxiliary request 2 (filed with the appellant's submission of 23 April 2020) and that the appeal fee be partially refunded.

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

"A tactile sensation providing apparatus comprising:

a touch sensor (11);

a tactile sensation providing unit (13) configured to vibrate a touch face of the touch sensor;

a tactile sensation provision control unit (14) configured to control drive of the tactile sensation providing unit (13);

a main control unit (17) configured to control an operation of the tactile sensation provision control unit (14) based on an output of the touch sensor (11); and

a load detection unit configured to detect a pressing load on the touch sensor (11), characterized in that

the main control unit (17) is configured to determine whether an object is touching a predetermined area of the touch face based on the output of the touch sensor (11), and is further configured to activate the tactile sensation provision control unit (14) from a non-active

state by an operation start instruction when determining that the object is touching the predetermined area,
or inactivate the tactile sensation provision control unit (14) from an active state by an operation stop instruction when determining that the object is not touching the predetermined area,

and the tactile sensation provision control unit (14) is configured to control, when activated to the active-state from the non-active state, the drive of the tactile sensation providing unit (13) based on output from the load detection unit."

XIII. Claim 1 of auxiliary request 1 is based on claim 1 of the main request. The wording "although the object is touching the touch face" has been added to the end of the"inactivate" clause.

XIV. Claim 1 of auxiliary request 2 is based on claim 1 of the main request. The wording "and wherein the tactile sensation provision control unit (14) is configured to stop detection of the pressing load when the tactile sensation provision control unit (14) has been inactivated from the active state to the non-active state" has been added at the end.

Reasons for the Decision

1. The present application relates to a device and a method for providing tactile sensation when an object is touching a predetermined area of a touch sensor. The tactile sensation is based additionally on a pressing load on the touch sensor.

2. Document D1 discloses techniques for vibrating a touch screen in accordance with icons displayed on the screen.

Main request

3. Patentability

The board agrees with the examining division that the requirements of Article 52(1) are not fulfilled.

3.1 Throughout the proceedings, the examining division used a translation (by Thomson Scientific) of document D1, which had been sent to the applicant on 4 June 2014.

3.2 The appellant argued that document D1 did not disclose that the main control unit was configured to

(a) activate the tactile sensation provision control unit from a non-active state by an operation start instruction when determining that the object is touching the predetermined area,

or

(b) inactivate the tactile sensation provision control unit from an active state by an operation stop instruction when determining that the object is not touching the predetermined area.

3.3 The appellant did not dispute that document D1 discloses all the other features of claim 1.

3.4 With regard to feature (a), the appellant submitted that the main control unit **actively** activated the tactile sensation provision control unit from a non-active state by an operation start instruction.

The board holds that document D1 discloses this feature. Paragraphs 175 to 179 and Figure 21 show a user sliding a finger (30) in the direction of the

right arrow from a starting point (i) over the icon (31) towards the icon (33). To start with, between the points in time t_0 and t_1, the vibration control voltage V_a is set to zero (Figure 21B) and the touch panel does not vibrate. When the user's finger reaches icon (31), at the point in time t_1, processor (54) sends a vibration control waveform pattern (P11) to the D/A converter (52) and the amplifier (56), and the touch panel begins to vibrate. This process anticipates feature (a).

3.5 At the point in time t_2, the user's finger leaves the area of icon (31), but stays in contact with the touch panel. The processor sets the vibration control voltage V_a to zero again; in other words, the D/A converter is inactivated. D1 does not explicitly disclose an "operation stop instruction", but reducing the control voltage to zero in fact results in the vibration being stopped. Hence, document D1 also discloses feature (b).

3.6 The appellant argued that "to inactivate the tactile sensation provision control unit" meant that "the control unit controls to stop the power supply to the tactile sensation provision control unit".

The board is not convinced. The application under appeal does not refer to stopping, or disconnecting, the power supply. Instead, the description states that the operation of the tactile sensation provision control unit is stopped (paragraphs 13, 18 and 51, among others). Furthermore, claim 1 and paragraph 21 explicitly teach that the main control unit inactivates the tactile sensation provision control unit "by an operation stop instruction".

3.7 The board notes that the independent claims specify that the main control unit is configured to activate **or**

inactivate the tactile sensation provision control unit.

3.8 For these reasons, the subject-matter of claim 1 is not novel.

3.9 As an aside, the board notes that during the periods of time t_0 to t_1 and t_2 to t_3, although the finger is touching the touch panel it does not vibrate (see D1, Figures 21A and 21B). Consequently, the power consumption is reduced.

Auxiliary request 1

4. Patentability

4.1 Claim 1 additionally specifies that the tactile sensation provision control unit is inactivated, "although the object is touching the touch face".

4.2 Document D1 discloses this additional feature. For instance, the vibration is stopped during the period of time t_2 to t_3, while the user's finger is sliding from icon (31) to icon (33) (Figures 21A and 21B).

4.3 Hence, the subject-matter of claim 1 is not novel.

Auxiliary request 2

5. Patentability

5.1 The board agrees with the appellant that document D1 does not disclose the features added to claim 1 of auxiliary request 2:

"the tactile sensation provision control unit (14) is configured to stop detection of the pressing load when the tactile sensation provision control unit (14) has been inactivated from the active state to the non-active state".

5.2 The board also agrees that these distinguishing features result in the technical effect of reducing the power consumption of the apparatus.

5.3 The objective technical problem to be solved is accordingly how to modify D1's apparatus to reduce the power consumption.

5.4 The board notes that D1 relates to a portable device (paragraph 1, Figures 14, 16 and 20). In such a device, reducing the power consumption is clearly an important and recurring task. Hence, the skilled person would be motivated to look for a solution to this problem.

5.5 One generally known possibility for reducing the total power consumption is to avoid any unnecessary power consumption.

5.6 As disclosed in document D1, the pressing load detected by the load detection unit is used by the tactile sensation provision control unit to control the drive of the tactile sensation providing unit (paragraph 56, to which the examining division referred in the decision under appeal, section 1.2 on page 5). Clearly, the drive of the tactile sensation providing unit is controlled only when the tactile sensation providing control unit is in an active state, i.e. when a vibration is generated (D1, Figure 21, periods of time t_1 to t_2 and t_3 to t_4). From this it plainly follows that when the tactile sensation providing control unit is in a non-active state (period of time t_2 to t_3) there is no need to detect and evaluate the pressing load value. To avoid any unnecessary processing and thus any unnecessary power consumption, the skilled person would clearly adapt the apparatus of document D1 to avoid the pressing load being detected and processed

when no vibration is generated. Hence, they will arrive in an obvious way at the subject-matter of claim 1.

5.7 The board holds that the above reasoning does not amount to an impermissible hindsight, because it follows the problem-solution approach and is based on the teaching of document D1 and the common general knowledge of the skilled person.

5.8 For these reasons, the subject-matter of claim 1 does not involve an inventive step.

Partial reimbursement of the appeal fee

6. By letter dated 13 May 2020, the appellant withdrew its request for oral proceedings and requested a partial refund of the appeal fee.

6.1 No oral proceedings took place.

6.2 The request for oral proceedings was not in fact withdrawn within one month of notification of the communication issued by the Board of Appeal in preparation for the oral proceedings. However, in view of the Notice from the European Patent Office dated 1 May 2020 concerning the disruptions due to the COVID-19 outbreak (Official Journal EPO, 2020, A60) and Rule 134(2) and (4) EPC, the board holds that the conditions for reimbursement of 25% of the appeal fee, stipulated in Rule 103(4)(c) EPC, are fulfilled.

Order

For these reasons it is decided that:

The appeal is dismissed.

The appeal fee is reimbursed at 25% pursuant to Rule 103(4)(c) EPC.

The Registrar: The Chair:

A. Chavinier-Tomsic A. Ritzka

Decision electronically authenticated