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**Datasheet for the decision
of 3 December 2020**

Case Number: T 2040/19 - 3.5.05

Application Number: 11184222.5

Publication Number: 2405343

IPC: G06F3/048, G06F17/30

Language of the proceedings: EN

Title of invention:

Touch event model programming interface

Applicant:

Apple Inc.

Headword:

Touch-screen device providing touch control of web pages

Relevant legal provisions:

EPC Art. 56

RPBA 2020 Art. 13(1)

Keyword:

Enabling disclosure - (yes)

Inventive step - (no)

Late-filed request - admitted (no)



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Case Number: T 2040/19 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 3 December 2020

Appellant: Apple Inc.
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Representative: Gillard, Matthew Paul
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 12 February
2019 refusing European patent application No.
11184222.5 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. This is a second appeal. It is directed against the second decision of the examining division to refuse European patent application No. 11184222.5, dated 12 February 2019. It decided again on the application after the case had been remitted to it for further prosecution by the decision of the board dated 20 June 2017 in appeal case T1737/15. The main request at hand is identical to the main request submitted on 20 June 2017 during the oral proceedings of the first appeal and considered in the first decision of the board as fulfilling the requirements of Article 76(1) EPC.
- II. The examining division made, *inter alia*, reference to the following documents:
- D1** US 2008/028327 A1, 31 January 2008
- D4** Michael Thörnlund: "Gesture Analyzing for Multi-Touch Screen Interfaces", Bachelor's Thesis, Luleå University of Technology, 17 September 2007, XP055318914, Retrieved from the Internet: <http://epubl.ltu.se/1404-5494/2007/30/LTU-HIP-EX-0730-SE.pdf> [retrieved on 2016-11-11]
- III. The examining division decided that the patent application did not fulfill the requirements of Article 56 EPC.
- IV. In its statement setting out the grounds of appeal, the appellant (applicant) requested that a patent be

granted based on the claims according to a main request or an auxiliary request submitted with the statement setting out the grounds of appeal. The present main request is identical to the sole request considered in the impugned decision.

- V. The board issued a summons to oral proceedings. In an annex to the summons, the board set out its provisional view of the case (Article 15(1) RPBA 2020).

In the summons, the board made reference to the following documents which it introduced into the procedure:

D10 Wikipedia: "Web 2.0", 3 March 2008, XP055721276, Retrieved from the Internet: URL: https://en.wikipedia.org/w/index.php?title=Web_2.0&oldid=195641121 [retrieved on 2020-08-10]

D11 Wikipedia: "Web application", 29 February 2008, XP055721274, Retrieved from the Internet: URL: https://en.wikipedia.org/w/index.php?title=Web_application&oldid=194888078 [retrieved on 2020-08-10]

The board considered that the **main request** did not meet the requirements of Article 56 EPC over what is known from document **D4** in combination with the teaching of document **D1**, in line with the decision of the examining division.

With respect to the **first auxiliary request**, the board considered that the amended features are known from the prior art. This would be taken into account when

discussing admissibility and/or allowability of this request.

- VI. In a reply dated 3 November 2020, the appellant submitted a **second auxiliary request** and provided further arguments regarding the pending requests.
- VII. Oral proceedings were held on 3 December 2020. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims according to the main request or of the first auxiliary request both submitted with the statement setting out the grounds of appeal, or of the second auxiliary request submitted with the letter dated 3 November 2020.
- VIII. **Claim 1** of the **main request** comprises the following features (as labelled by the board):

A method performed by an electronic device with one or more processors and memory storing one or more programs for execution by the one or more processors, the method comprising:

- (i) providing an interface for one or more touch events, the interface configured to convey a touch list,
- (ii) wherein the touch list includes touch event data to identify one or more touches on a web page,
- (iii) said one or more touches being associated with a target of a touch event, and
- (iv) the touch event data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the one or more touches; and
- (v) conveying the touch list to the web page for processing.

Independent **claims 5 and 9** are directed to a corresponding electronic device and a corresponding computer readable storage medium, respectively.

IX. **Claim 1** of the **first auxiliary request** comprises the following features (as labelled by the board; amendments versus the main request as underlined by the appellant):

A method performed by an electronic device with one or more processors and memory storing one or more programs for execution by the one or more processors, the method comprising:

displaying a web page on a touch sensitive device;
detecting multiple simultaneous touches on the web page;

- (i) providing an interface for one or more touch events, the interface configured to convey a touch list,
- (ii) wherein the touch list includes touch event data to identify two or more simultaneous touches on the web page,
- (iii) said two or more simultaneous touches being associated with a target of a touch event, and
- (iv) the touch event data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the two or more simultaneous touches; and
- (v) conveying the touch list to the web page for processing.

Independent **claims 5 and 9** have been amended accordingly.

X. **Claim 1** of the **second auxiliary request** comprises the following features (as labelled by the board; amendments versus the main request as underlined by the appellant):

A method performed by an electronic device with one or more processors and memory storing one or more programs for execution by the one or more processors, the method comprising:

- (i) providing an interface for one or more touch events, the interface configured to convey a touch list,
- (ii) wherein the touch list includes touch event data to identify all touches on a web page
- (iii) that are associated with a target of a touch event, and
- (iv) the touch event data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the touches; and
- (v) conveying the touch list to the web page for processing.

Independent **claims 5 and 9** have been amended accordingly.

Reasons for the Decision

- 1. The present application concerns a touch-screen device providing touch control of web pages.
- 2. Main request
 - 2.1 Novelty (Article 54(1) EPC)

Although targeted at an academic audience, document **D4** describes the development of proof-of-concept software

for a touch screen interface. It describes a software library to sort the multiple finger inputs on the screen and interpret the gestures made out of them (see preface of document **D4**). The code excerpts and the accompanying explanations are considered to be sufficiently complete in order to allow a skilled person to transform these into working code as part of his routine activities. Consequently, the board asserts that document **D4** constitutes an enabling disclosure. Furthermore, it is noted that the present application discloses the invention at a level of detail which is similar to that of document **D4**.

Document **D4** discloses the following features of **claim 1** (strike-through is used to mark undisclosed features; the references in parentheses referring to said document):

A method performed by an electronic device with one or more processors and memory storing one or more programs for execution by the one or more processors (*implied by "computer", see the abstract*), the method comprising:

- (i) providing an interface for one or more touch events, the interface configured to convey a touch list (*"Gesture pointer sent to the listener", see page 11, line 10*),
- (ii) wherein the touch list includes touch event data to identify one or more touches on a ~~web page~~ application (*"Point [gesture] holds a TouchData, which is simply all the data from TouchLib", see page 11, lines 12-13*),
- (iii) said one or more touches being associated with a target of a touch event (*implied*), and
- (iv) the touch event data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the one or more

touches ("*TouchData [...] consisting of PositionX, PositionY [...] and a unique ID*", see page 6, lines 9-10); and

(v) conveying the touch list to the ~~web page~~ application for processing ("*Gesture pointer sent to the listener*", see page 11, line 10).

Hence, the difference between the subject-matter of **claim 1** and that of document **D4** resides in that *the application is a web page*.

The subject-matter of **claim 1** is therefore novel.

The board notes that web pages allowing for an advanced level of interaction are commonly known as "*web applications*".

2.2 Inventive step (Article 56 EPC)

The distinguishing feature achieves the technical effect that the user is allowed to use touch input to also control web pages displayed in a browser. It is noted that a browser is a notoriously known application and commonly known to have been available on any typical computer well before the claimed priority date.

The objective technical problem may thus be formulated as how to modify what is known from document **D4** to allow for controlling web pages displayed in a browser.

Document **D4** teaches the implementation of gesture recognition separately from applications and mentions some types of applications to be controlled by gesture recognition, e.g., a drawing application (see **D4**, figure 7). Since a browser is among the notoriously known applications of a typical computer, document **D4**

leads the skilled person to using gesture recognition also in the context of a browser and the web pages displayed therein. At the claimed priority date (4 March 2008), using web applications as part of web pages displayed in a browser was a general trend. The concept of "web 2.0" was commonly known as proven, e.g., by documents **D10** and **D11**. Reference is made in particular to section "Web-based applications and desktops" in document **D10** and section "Interface" in document **D11**. Since the latter even mentions "drawing on the screen" as an example of a web application, it is considered that the skilled person would regard it as a normal design option to also support the drawing application mentioned in document **D4** being implemented as a web application.

Thus, when solving the objective technical problem, the skilled person would be looking for a document disclosing enhanced user interfaces for web pages. He would consider document **D1**, which deals with implementing user interfaces by executing a description language on a browser (see [0004] therein).

When combining the teachings of documents **D4** and **D1**, the skilled person would recognize that the event listeners known from document **D1** (see [0085], [0086], and figures 15A-C therein) are similar to the touch listeners of document **D4**. Hence, he would consider providing the data relating to the user's touch events, i.e., the touch list, to the web page's script in the same way as the mouse events.

This way, the skilled person would arrive at the distinguishing features without employing inventive skills.

Consequently, the subject-matter of **claim 1 of the main request** is not inventive over what is known from document **D4** in combination with the teaching of document **D1**.

Similar considerations apply to the further independent claims.

- 2.3 The appellant argues that document **D4** would disclose to only send gesture data to applications, thereby teaching away from also sending touch event data to applications. The statement provided by Prof. Klemmer would state likewise.

The board considers that document **D4** discloses sending touch data to applications, see the analysis provided in point 2.1 above. Therefore, the appellant's argument is not convincing.

- 2.4 The appellant further argues that, although a browser is among the notoriously known applications, the objective technical problem formulated by the board would be focused on the claimed solution. A more objective technical problem formulation would thus be *"how to broaden the applicability of gesture control to further use cases"*.

To the benefit of the appellant, even if the board based the argumentation on the appellant's problem, the solution would still be obvious. The skilled person would be faced with the task of identifying applications on a computer where gesture input may be applied. Since a browser was notoriously known, the skilled person would certainly have considered applying gesture input to a browser. This way, the skilled person would have been confronted with the same

considerations identified above, eventually arriving at the claimed invention without employing any inventive skills.

- 2.5 Furthermore, with respect to the combination of documents **D4** and **D1**, the appellant argues that the skilled person would not have consulted document **D1**. Starting from document **D4**, which concerns touch control for applications, the skilled person would lack any motivation to consult document **D1**, which does not deal with touch control. And even if the skilled person had looked at document **D1**, he would not have arrived at the claimed combination of features in an obvious manner, since this would require a too long chain of modifications from document **D4**.

The board notes that document **D4** explicitly discloses (see the abstract) that touch screen gestures are about to replace mouse input. Thus, the skilled person would be motivated to consider documents concerned with mouse input in order to study how mouse input may be replaced by touch screen gestures. Hence, document **D4** indeed hints towards consulting documents dealing with mouse input, like document **D1**.

- 2.6 In view of the above, the **main request** is not allowable.

3. First auxiliary request

The board asserts that this is an amended request, filed upon appeal, which has not been presented in the procedure before.

3.1 Admissibility

The appellant argues that the first auxiliary request should be admitted into the proceedings, as it addresses the combination of documents **D4** and **D1**. As basis for the amendments the appellant refers to paragraphs [0024] and [0027] of the application as originally filed.

The board decides that the first auxiliary request is admitted into the procedure, since it constitutes an attempt to render the subject-matter of the claims inventive over what is known from documents **D4** and **D1**. Furthermore, basis in the application as originally filed (and the parent application) is beyond doubt.

3.2 Inventive step (Article 56 EPC)

The appellant points out that the *"point"* gesture cited in the board's analysis of document **D4** relates to touches by a single finger only. *"Every finger pressed onto the screen will initially compose a gesture of this type"* (see page 11, lines 15-16) would imply that a separate *"point"* gesture would be composed for every finger. Since only a single *"point"* gesture pointer is provided (see page 11, lines 10-12), document **D4** would only disclose providing the touch data for a single finger, even in the case of simultaneous touches. Consequently, the amended feature would be an additional distinguishing feature. The associated objective technical problem could be formulated as *"how to handle a broader spectrum of touch gestures"*. Since the skilled person would not consider mouse-based document **D1** for solving this problem, the claimed solution would not be obvious.

Contrary to the appellant's view, the board asserts that document **D4** also discloses that the *"point"*

gesture provides data on multiple simultaneous touches to the application. Document **D4** discloses that the "point" gesture *"is all the data from TouchLib forwarded in one big package"*, see page 11, line 13. Figure 8 shows that "TouchLib" references the "GestureAnalyzer", which comprises the method *"#Analyze(data1: TouchData, data2: TouchData)"*, see line 14 of "GestureAnalyzer". It is disclosed on page 10, line 7, that *"Analyze (TouchData, TouchData) [is] for the analysis of multiple fingers"*. Hence, the amended feature does not constitute an additional difference as argued by the appellant. The subject-matter of **claim 1 of the first auxiliary request** is thus not inventive having regard to documents **D4** and **D1** for the same reasons as provided with respect to claim 1 of the main request.

3.3 In view of the above, the **first auxiliary request** is not allowable.

4. Second auxiliary request

The board notes that this request was submitted by the appellant in reply to the board's summons.

The appellant argues that the second auxiliary request should be admitted into the proceedings, as it was filed in reaction to the board's new interpretation of the content of document **D4** provided in the summons. As basis for the amendments the appellant refers in particular to paragraph [0024] of the application as originally filed, which discloses *"touch lists"*. The appellant emphasizes that the term *"all touches"* could only be interpreted as referring to *"all simultaneously occurring touches at the current time"*. The second auxiliary request was clearly allowable, since document

D4 would not provide an unambiguous disclosure that the "point" gesture would contain all touches occurring on the device.

The board ascertains that, in the first refusal leading to the first appeal, the examining division decided that the term "all touches" was lacking clarity. After the board in the first appeal proceedings had affirmed the lack of clarity in the annex to the summons of the first appeal proceedings, the appellant removed the term "all touches" from the claims. The board thus asserts that the second auxiliary request raises a new issue at the final stage of the proceedings. The board also notes that, according to its interpretation of document **D4**, multiple simultaneous touches are indeed provided to the application, as explained in section 3.2 above. Hence, the amendments according to the second auxiliary request do also not overcome the previous objections of the board.

Hence, the board decides not to admit the **second auxiliary request** into the procedure (Article 13(1) RPBA 2020).

5. Thus, the appeal is not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



A. Chavinier-Tomsic

A. Ritzka

Decision electronically authenticated