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Datasheet for the decision of 18 December 2020

Case Number: T 2141/19 - 3.5.05

Application Number: 11184224.1

Publication Number: 2405345

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 Art. 12(4)
RPBA 2020 Art. 13(1)

Keyword:
Enabling disclosure - (yes)
Inventive step - (no)
Late-filed request - admitted (no)

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Beschwerdekammern

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Case Number: T 2141/19 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 18 December 2020

Appellant: (Applicant)	Apple Inc. One Apple Park Way Cupertino CA 95014 (US)
Representative:	Gillard, Matthew Paul Withers & Rogers LLP 4 More London Riverside London SE1 2AU (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 26 February 2019 refusing European patent application No. 11184224.1 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. EP11184224.1, dated 26 February 2019. The examining division decided again on the application after the case had been remitted to it for further prosecution by decision of the board dated 5 July 2017 in appeal case T 1739/15. The main request on which the decision under appeal was based is identical to the main request filed on 3 July 2017 and considered in the earlier decision of the board as fulfilling the requirements of Articles 76(1), 123(2) and 84 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 fulfil the requirements of Article 56 EPC.

IV. In its statement setting out the grounds of appeal, the appellant (applicant) requested that the decision under

appeal be set aside and that a patent be granted based on the claims according to a main request or one of the first and second auxiliary request submitted with the statement setting out the grounds of appeal.

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 did not effectively alter the claimed subject-matter. This

would be taken into account when discussing the admissibility and/or allowability of this request.

With respect to the **second auxiliary request**, the board considered that the amendments did not appear to overcome the objection pursuant to Article 56 EPC raised with respect to the main request. This would be taken into account when discussing the admissibility and/or allowability of this request.

VI. In a reply dated 18 November 2020, the appellant submitted a **third** and a **fourth auxiliary request** and provided further arguments regarding the pending requests.

VII. Oral proceedings were held on 18 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 of the main request or one of the first or second auxiliary request (both submitted with the statement setting out the grounds of appeal), or one of the third or fourth auxiliary request (both submitted with the letter dated 18 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 a touch-sensitive device, a web browser and a web page, the method comprising:
(i) receiving, using code embedded in the web page, a touch list including touch data identifying one or more changed touches on the web page,
(ii) wherein the touch data includes a touch identifier and at least one set of touch location

coordinates for a respective touch of the one or more changed touches.

Further 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 to claim 1 of the main request marked by the board by underlining):

A method performed by an electronic device with a touch-sensitive device, a web browser and a web page, the method comprising:
(i) providing an interface for one or more touch events, the interface configured to convey a touch list including touch data identifying one or more changed touches on the web page,
(ii) wherein the touch data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the one or more changed touches; and
(iii) conveying the touch list to the web page for processing.

X. **Claim 1** of the **second auxiliary request** comprises the following features (as labelled by the board; amendments to claim 1 of the first auxiliary request marked by the appellant by underlining/strike-through):

A method performed by an electronic device with a touch-sensitive device, a web browser and a web page, the method comprising:
(i') displaying a web page on a touch sensitive device;

(i'') detecting multiple touches on the web page;
(i) providing an interface for one or more touch events, the interface configured to convey a touch list including touch data identifying ~~one~~ two or more changed touches on the web page,
(ii) wherein the touch data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the ~~one~~ two or more changed touches; and
(iii) conveying the touch list to the web page for processing.

XI. **Claim 1** of the **third auxiliary request** comprises the following features (as labelled by the board; amendments to claim 1 of the second auxiliary request marked by the appellant by underlining):

A method performed by an electronic device with a touch-sensitive device, a web browser and a web page, the method comprising:
(i') displaying a web page on a touch sensitive device;
(i'') 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 including touch data identifying two or more changed touches of the multiple simultaneous touches on the web page,
(ii) wherein the touch data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the two or more changed touches; and
(iii) conveying the touch list to the web page for processing.

XII. **Claim 1** of the **fourth auxiliary request** comprises the following features (as labelled by the board; amendments to claim 1 of the second auxiliary request marked by the appellant by underlining/strike-through):

A method performed by an electronic device with a touch-sensitive device, a web browser and a web page, the method comprising:
(i') displaying a web page on a touch sensitive device;
(i'') 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 including touch data identifying ~~two or more~~ all changed touches of the multiple simultaneous touches on the web page,
(ii) wherein the touch data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the ~~two or more~~ changed touches; and
(iii) conveying the touch list to the web page for processing.

Reasons for the Decision

1. The application at issue 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 for sorting the multiple finger inputs on the screen and interpreting the gestures made out of them (see preface of document **D4**). The code excerpts and the accompanying explanations are considered to be sufficiently complete to allow the skilled person to transform these into working code as part of their routine activities. Consequently, the board asserts that document **D4** constitutes an enabling disclosure. Furthermore, the application at issue discloses the invention at a level of detail similar to that of document **D4**.

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

A method performed by an electronic device with a touch-sensitive device *("touch screen", see page 2, section 1.1)*, ~~a web browser and a web page~~, the method comprising:

(i) receiving *("Gesture pointer sent to the listener", see page 11, line 10)*, using code embedded in the ~~web page~~ application, a touch list including touch data identifying one or more changed touches on the ~~web page~~ application *("Point [gesture] holds a TouchData, which is simply all the data from TouchLib", see page 11, lines 12-13; see remark below)*,

(ii) wherein the touch data includes a touch identifier and at least one set of touch location coordinates for a respective touch of the one or more changed touches *("TouchData [...] consisting of*

PositionX, PositionY [...] and a unique ID", see page 6, lines 9-10).

Regarding **feature (ii)**, the board considers that since document **D4** relates to using touch gestures, where fingers are moved on the screen, it discloses touches that are changed over time. After the initial touch on the screen, there is a series of subsequent touch samples that are necessarily *"changed"* compared to the initial touch. It is thus implicitly disclosed that the *"touch data"* also comprises *"changed touches"*.

Hence, the difference between the subject-matter of **claim 1** and 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** would have led the skilled person to using gesture recognition also in the context of a browser and the web pages displayed in it. 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 the section *"Web-based applications and desktops"* in document **D10** and the section *"Interface"* in document **D11**. Since the latter even mentions *"drawing on the screen"* as an example of a web application, the skilled person would have regarded 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 have been looking for a document disclosing enhanced user interfaces for web pages. They would have considered document **D1**, which deals with implementing user interfaces by executing a description language on a browser *(see [0004])*.

When combining the teachings of documents **D4** and **D1**, the skilled person would have recognised that the event listeners known from document **D1** *(see [0085], [0086] and figures 15A-C)* are similar to the touch listeners of document **D4**. Hence, they would have considered providing the data on the user's touch events, i.e. the

touch list, to the web page's script in the same way as for mouse events.

Thus, the skilled person would have arrived at the distinguishing features without employing inventive skills.

2.3 The appellant contests that document **D4** discloses a *"touch list ... identifying ... changed touches"* since the change of a touch had to be interpreted with respect to the preceding sampling interval.

The board considers that this specific interpretation is not reflected in the wording of this feature since the wording of the claim is unspecific as to the *"changed touches"*. This feature thus allows for broader interpretation, as argued in the remark regarding feature (ii) (see section 2.1). Furthermore, document **D4** discloses that a *"delta"* is provided together with the touch data (page 6, lines 9-10). This at least implies identifying a changed touch. Hence, the appellant's argument fails to convince the board.

2.4 The appellant then argues that document **D4** merely disclosed receiving a pointer to the touches, whereas the claimed invention required *"receiving ... a touch list"*, i.e. that the touch list is provided.

The board considers that since the method is contained within a single electronic device - thus all data is confined within this single electronic device - receiving the data is the same as receiving a pointer to the data. Therefore, this argument is not convincing.

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

To the benefit of the appellant, even if the board based its argumentation on the appellant's problem, the solution would still have been obvious. The skilled person would have been 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. Thus, the skilled person would have been confronted with the same considerations identified above, eventually arriving at the claimed invention without employing any inventive skills either.

2.6 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 have lacked any motivation to consult document **D1**, which does not deal with touch control. Even if the skilled person had looked at document **D1**, they 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, document **D4** would have motivated the skilled person to consider documents

concerned with mouse input to study how mouse input may be replaced by touch-screen gestures. Hence, document **D4** would indeed have prompted the skilled person to consult documents dealing with mouse input, like document **D1**.

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

3. First auxiliary request

The claims of the current first auxiliary request are identical to the claims of the second auxiliary request underlying the impugned decision.

3.1 Inventive step (Article 56 EPC)

The board considers that the amendments in claim 1 of the first auxiliary request do not seem to add further limitations to claim 1 of the main request. On the one hand, an interface is already implied by the step of *"receiving"* according to the previous wording of feature (i). On the other hand, newly added feature (iii) amounts to a mere rewording of the "*receiving*" step.

Therefore, the subject-matter of **claim 1 of the first auxiliary request** differs from what is known from document **D4** in the same features as **claim 1 of the main request**.

Consequently, the board considers that the subject-matter of **claim 1 of the first auxiliary request** is not inventive for the reasons provided with respect to **claim 1 of the main request**.

Similar considerations apply to the further independent claims.

3.2 The appellant argues that the claimed interface differed from providing a pointer as disclosed in document **D4**. This difference emphasised the inventive concept.

The board considers that the term "*interface*" allows for broad interpretation. Providing a pointer to data having a defined structure falls within the scope of this term. Therefore, this argument fails to convince the board.

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

4. Second auxiliary request

The second auxiliary request is an amended request which has not been presented in the procedure before.

4.1 Admissibility (Article 12(4) RPBA 2007)

The new RPBA entered into force on 1 January 2020 (Article 24(1) RPBA 2020). Article 12 (4) to (6) RPBA 2020 do not apply in this case since the statement setting out the grounds of appeal was filed on 8 July 2019, before 1 January 2020. Instead, Art. 12 (4) RPBA 2007 applies (Art. 25 (2) RPBA 2020).

The appellant argues that the second auxiliary request should be admitted into the proceedings as it addresses the combination of documents **D4** and **D1**.

The board decides that the second auxiliary request is admitted into the proceedings 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.

4.2 Inventive step (Article 56 EPC)

The board asserts, on the one hand, that the additional feature (i') has already been considered in the formulation of the technical effect and the resulting objective technical problem provided with respect to claim 1 of the main request.

On the other hand, the additional aspect in feature (i'') of *"detecting multiple touches"* is known from document **D4**. 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, this additional aspect in feature (i'') does not constitute an additional difference as argued by the appellant.

Therefore, the subject-matter of **claim 1 of the second auxiliary request** differs from what is known from document **D4** in the same features as **claim 1 of the main request**.

Hence, the board asserts the subject-matter of **claim 1 of the second auxiliary request** is not inventive having

regard to documents **D4** and **D1** for the same reasons as provided with respect to **claim 1 of the main request**.

4.3 With respect to the combination of documents **D4** and **D1**, the appellant argues that the skilled person would not have consulted document **D1**. Since the processing of multiple touches is a problem unique to touch-based systems, the skilled person would have lacked any motivation to consult document **D1**, where the only interaction is the click of a mouse button.

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 have been motivated to consider documents concerned with mouse input to study how mouse input may be replaced by touch-screen gestures. Hence, document **D4** would have indeed prompted the skilled person to consult documents dealing with mouse input, like document **D1**.

4.4 In view of the above, the **second auxiliary request** is not allowable.

5. Third auxiliary request

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

5.1 Admissibility (Article 13(1) RPBA 2020)

The appellant argues that the third 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. It addressed the issue of inventive step, without giving

rise to new objections. The amendments were supported, in particular, by paragraphs [0024], [0025] and [0030] of the application as originally filed.

The board decides to admit the the third auxiliary request into the proceedings since it constitutes a fair reaction to the new passages of document **D4** cited in the board's summons.

5.2 Inventive step (Article 56 EPC)

The appellant argues that *"multiple simultaneous touches"* better distinguishes the claimed invention from the board's interpretation of what is contained in the *"point"* gesture disclosed in document **D4**.

The board asserts that document **D4** discloses *"multiple simultaneous touches"* (see the explanation provided for *"multiple touches"* in section 4.2). As the distinguishing features is effectively identical, the board considers that the subject-matter of **claim 1 of the third auxiliary request** is not inventive for the reasons provided with respect to **claim 1 of the main request**.

5.3 In view of the above, the **third auxiliary request** is not allowable.

6. Fourth 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 fourth 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 to paragraph [0027] of the application as originally filed, which discloses:

> "readonly attribute TouchList changedTouches;
> // all touches changed in the current event"

The board considers that the amendments of the fourth auxiliary request give rise to new objections pursuant to Article 123(2) since claim 1 mentions *"all changed touches ... on the web page"*, but paragraph [0027] discloses *"all touches changed in the current event"* (see the passage quoted verbatim above). Since claim 1 is not limited to "all touches changed in the current event", the subject-matter of claim 1 goes beyond what is originally disclosed.

Since the amendments give rise to a new objection, the board decides not to admit the **fourth auxiliary request** into the procedure (Article 13(1) RPBA 2020).

7. In view of the above, 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