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Datasheet for the decision
of 3 December 2020

Case Number:	T 2656/18 - 3.5.05
Application Number:	11184226.6
Publication Number:	2405346
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. 76(1), 56

Keyword:
Divisional application - subject-matter extends beyond content of earlier application (yes)
Inventive step - auxiliary request (no)

Case Number: **T 2656/18 - 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.
(Applicant)   One Apple Park Way
                      Cupertino CA 95014 (US)

Representative: Gillard, Matthew Paul
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Decision under appeal: **Decision of the Examining Division of the**
                          European Patent Office posted on 5 June 2018
                          refusing European patent application No.
                          11184226.6 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 against the decision of the examining
        division to refuse European patent application
        No. 11184226.6.

II.   The examining division made, *inter alia*, reference to
        the following documents:

   D1   US 2008/028327 A1, 31 January 2008

   D5   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, according to the main request, did not
        fulfill the requirements of Articles 76(1) and 123(2)
        EPC. The main request considered in the impugned
        decision is identical to the main request considered in
        the present decision.

        Furthermore, the examining division decided that the
        patent application, according to an auxiliary request,
        was obvious in view of the teaching of document **D5** when
        combined with document **D1**. The auxiliary request
        considered in the impugned decision is identical to the
        first auxiliary request considered in the present
        decision.

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 the main
          request, or a first auxiliary request (previous
          auxiliary request), or a second auxiliary request.

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 76(1) EPC, in line with the
          decision of the examining division.

          With respect to the **first auxiliary request**, the board
          considered that the subject-matter of claim 1 did not
          involve an inventive step in view of the teaching of
          document **D5** when combined with document **D1**. Documents

D10 and **D11** were cited to confirm what was commonly known to the skilled person.

Regarding the **second auxiliary request**, the board noted that the additional feature introduced into claim 1 appeared to be known from document **D5**. Hence, the board considered that the amendments did not overcome the objection pursuant to Article 56 EPC raised with respect to the first auxiliary request.

VI.   In a reply dated 3 November 2020, the appellant submitted a **third 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 or second auxiliary request all submitted with the statement setting out the grounds of appeal, or of the third auxiliary request submitted with the letter dated 3 November 2020.

VIII. Claim 1 of the **main request** reads as follows (features labelled by the board):

A method performed at an electronic device with a touch-sensitive surface, the method comprising:
(i)   receiving a markup language document, the document including an embedded script; and
(ii)   rendering and displaying the document at the electronic device, including:
(iii) upon detecting one or more touches on the touch-sensitive surface:
     (iv)   providing a current touch event, including
     (v)   providing a touchevent interface object that

includes a plurality of touch lists,

(vi)   the plurality of touch lists including a first touch list, a second touch list, and a third touch list,

(vii)   wherein the first touch list includes touch data identifying all touches in a target of the current touch event,

(viii)   the second touch list includes touch data identifying all changed touches in the current touch event, and

(ix)   the third touch list includes touch data identifying all touches in the current touch event; and

(x)   executing the embedded script in accordance with values in the plurality of touch lists.

Independent **claims 4 and 6** are directed to a corresponding electronic device and corresponding computer readable storage medium, respectively.

IX.   Claim 1 of the **first auxiliary request** reads as follows (features labelled by the board):

A method performed at an electronic device with a touch-sensitive surface, the method comprising:

(i)   receiving a markup language document, the document including an embedded script; and

(ii)   rendering and displaying the document at the electronic device, including:

(iii)   upon detecting one or more touches on the touch-sensitive surface:

(iv)   providing a touch event, including

(v)   providing a touch list, wherein the touch list includes a touch identifier, at least one set of touch coordinates, and touch data to a touch event target associated with each touch;

and

(vi)   executing the embedded script to process values in the touch list.

X.   Claim 1 of the **second auxiliary request** further defines, vis-à-vis claim 1 of the first auxiliary request that the touch list further includes *a touch identifier, [and] at least one set of touch coordinates*. Claims 4 and 6 comprise corresponding amendments.

XI.   Vis-à-vis claim 1 of the first auxiliary request, claim 1 of the **third auxiliary request** requires *two or more simultaneous touches*. Claims 4 and 6 comprise corresponding amendments.

Reasons for the Decision

1.   The present application concerns a touch-screen device providing touch control of web pages. The web pages are written in a markup language and include an embedded script for processing of touch events.

2.   Main request
2.1   Added subject-matter (Article 76(1) EPC)

        The board considers that the claims of the present main request do not meet the requirements of Article 76(1) EPC, in view of the parent application EP 09700007.9, for the following reasons:

        Independent claims 1, 4, and 6 of the main request are based on the embodiment relating to the use of a so-called *"touch list"*, see paragraph [0024]. Paragraph [0024] reads as follows (emphases added by the board):

*"In some implementations, **a** touch list can be received that includes touch event data to identify **one or more** touches on the web page 100. The touch event data **can** include a touch identifier and at least one set of touch location coordinates. **The** touch list **can** also include touch event data to a touch event target associated with each touch. In some implementations, the one set of touch location coordinates can include client coordinates, page coordinates, and screen coordinates. In some implementations, the touch event data **can** identify **one or more** changed touches."*

The board understands this passage to specify that only one touch list can be received by the web page at a certain point in time and that this touch list is supposed to include touch event data which may
(1) identify one or more touches on the web page, or
(2) a touch event target associated with each touch or
(3) one or more changed touches.

Consequently, the original parent application fails to directly and unambiguously disclose that a plurality of touch lists such as first, second and third touch lists are indeed conveyed from the interface to the web page. Moreover, the mere fact that a pseudo code (written in a so-called *"interface description language"*) apparently relating to the programming object *"interface"*, as illustratively depicted at page 8 of the original parent application, mentions (read-only) data attributes like *"TouchList touches"*, *"TouchList targetTouches"* or *"TouchList changedTouches"* (which can be inserted, e.g., by a web designer or application developer in an HTML document to define event actions; see paragraph [0027] of the parent application as filed) cannot cogently demonstrate that different lists

are indeed conveyed from the claimed interface to a web page at a certain time instant of device operation.

In addition, paragraph [0024] of the original parent application merely teaches that a possible touch list may identify *"one or more touches"* on the web page, rather than *"all touches"* as claimed.

2.2   The appellant argues that the subject-matter of claim 1 is supported by paragraphs [0024] and [0027] of the parent application as filed. These paragraphs had to be read together, and used to interpret each other. Notably, the pseudocode contained in paragraph [0027] would disclose the three lists, as confirmed by the statement of Prof. Klemmer. The appellant emphasizes that pseudocode would constitute a valid basis for amendments, in particular since the board would have relied on pseudocode in its analysis of document **D5.**

The board notes that Article 76(1) EPC mandates that the skilled person is able to unambiguously derive the claimed subject-matter from the parent application as originally filed. It is not questioned that the relevant skilled person is able to understand pseudo-code, based on the code itself as well as the inline comments. However, the appellant could not convincingly demonstrate that the pseudocode discloses that the three lists are provided together, rather than only a single list as disclosed in paragraph [0024].

2.3   In view of the above, the board decides that the **main request** is not allowable.

3.   First auxiliary request
3.1   Novelty (Article 54(1) EPC)

The board notes that, although targeted at an academic
audience, document **D5** 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 **D5**). 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,
it is considered that document **D5** constitutes an
enabling disclosure. Furthermore, it is noted that the
present application discloses the invention at a level
of detail which is on a par with that of document **D5**.

Document **D5** 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 at an electronic device with a
touch-sensitive surface *("touch screen", see page 2,
section 1.1)*, the method comprising:
(i)   ~~receiving a markup language document, the
document including an embedded script~~; and
(ii)   rendering and displaying the document at the
electronic device *("a number of objects are projected
onto the screen, see page 5, line 11)*, including:
    (iii)   upon detecting one or more touches on the
    touch-sensitive surface *("Gesture pointer sent to
    the listener...", see page 11, line 10)*:
        (iv)   providing a touch event *("...will have
        the type of the corresponding sub class", see
        page 11, lines 10-11)*
        (v)   including providing a touch list *("Point
        [gesture] holds a TouchData, which is simply all*

*the data from TouchLib", see page 11, lines
12-13),* wherein the touch list includes touch
data to a touch event target associated with each
touch *("TouchData [...] consisting of PositionX,
PositionY [...] and a unique ID", see page 6,
lines 9-10);* and

(vi)   ~~executing the embedded script to process
values in the touch list~~.

Hence, the differences between the subject-matter of
claim 1 and that of document **D5** reside in the steps of:

(A)   receiving a markup language document, the
document including an embedded script;

(B)   executing the embedded script to process
values in the touch list.

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

3.2   Inventive step (Article 56 EPC)

The board asserts that distinguishing features (A) and
(B) achieve 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 **D5** to
allow for controlling web pages displayed in a browser.

Document **D5** 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 **D5**, figure 7). Since a browser is among the notoriously known applications of a typical computer, document **D5** 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 **D5** 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])*.

Document **D1** discloses the distinguishing features as follows:

    (A)   receiving a markup language document *("XHTML", see [0084])*, the document including an embedded script *(see [0075] and figures 15A-C)*;

    (B)   executing the embedded script to process values in the ~~touch list~~ <u><ev:listener></u> element *("three events in (2), (3), and (4) and*

*corresponding actions are described", see [0077]
and figure 15A).*

When combining the teachings of documents **D5** and **D1**,
the skilled person would recognize that the event
listeners known from document **D1** are similar to the
touch listeners of document **D5**. Hence, he would
consider providing the data relating to the user's
touch events, i.e., the touch list, to the XHTML 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
first auxiliary request** is not inventive.

3.3   The appellant 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.

3.4   Furthermore, with respect to the combination of
        documents **D5** and **D1**, the appellant argues that the
        skilled person would not have consulted document **D1**.
        Starting from document **D5**, 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 **D5**.

        The board notes that document **D5** 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 **D5** indeed
        hints towards consulting documents dealing with mouse
        input, like document **D1**.

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

4.   Second auxiliary request
4.1   The board notes that document **D5** discloses the
        additional feature of claim 1 vis-à-vis claim 1 of the
        first auxiliary request as follows: *"'TouchData' [is]
        an object consisting of PositionX, PositionY, DeltaX,
        DeltaY, Area, DeltaArea and a unique ID"*, see sect.
        1.1.5 in document **D5**. Consequently, the board asserts
        that the differences between the subject-matter of
        claim 1 and that of document **D5** reside in the same
        features as identified with respect to claim 1 of the
        first auxiliary request.

Therefore, the subject-matter of **claim 1 of the second auxiliary request** is not inventive for the same reasons as claim 1 of the first auxiliary request.

4.2   In his arguments in favor of an inventive step, the appellant refers to the arguments provided with respect to claim 1 of the first auxiliary request.

The board notes that these arguments are not convincing for the reasons provided above, as these reasons are not affected by the amended feature introduced into claim 1 of the present request.

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

5.   Third auxiliary request
5.1   Admissibility

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 **D5** provided in the summons. As basis for the amendments the appellant refers to paragraphs [0024] and [0027] of the application as originally filed.

The board decides that the third auxiliary request is admitted into the procedure, since it constitutes a fair reaction to the new analysis of document **D5** provided in the board's summons. Furthermore, basis in the application as originally filed (and the parent application) is beyond doubt.

5.2   Inventive step (Article 56 EPC)

The appellant points out that the *"point"* gesture cited in the board's analysis of document **D5** 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 **D5** 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 **D5** also discloses that the *"point"* gesture provides data on multiple simultaneous touches to the application. Document **D5** 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 third auxiliary request is thus not inventive having regard to documents **D5** and **D1**

for the same reasons as provided with respect to claim
1 of the first auxiliary request.

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

6.   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