Datasheet for the decision
of 4 July 2019

Case Number: T 2308/16 - 3.5.05
Application Number: 04779422.7
Publication Number: 1690245
IPC: G06F3/033, G09G1/00
Language of the proceedings: EN

Title of invention:
SYSTEMS AND METHODS FOR ADAPTIVE INTERPRETATION OF INPUT FROM A TOUCH-SENSITIVE INPUT DEVICE

Applicant:
Immersion Corporation

Headword:
Touch input interpretation/IMMERSION

Relevant legal provisions:
EPC Art. 123(2), 84

Keyword:
Amendments - added subject-matter (no)
Claims - clarity (yes)

Decisions cited:
Case Number: T 2308/16 - 3.5.05

DECISION
of Technical Board of Appeal 3.5.05
of 4 July 2019

Appellant: Immersion Corporation
(Applicant)
50 Rio Robles
San Jose, CA 95134 (US)

Representative: Hofstetter, Schurack & Partner
Patent- und Rechtsanwaltskanzlei
PartG mbB
Balanstrasse 57
81541 München (DE)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 20 May 2016
refusing European patent application No.
04779422.7 pursuant to Article 97(2) EPC.

Composition of the Board:
Chair: A. Ritzka
Members: P. Cretaine
D. Frietzell-Funk
Summary of Facts and Submissions

I. This appeal is against the decision of the examining division, posted on 20 May 2016, refusing European patent application No. 04779422.7. The sole request was refused because of the presence of added subject-matter in the claims (Article 123(2) EPC) and because of lack of clarity (Article 84 EPC).

As further remarks appended to the decision, the examining division expressed the view that it could not identify any inventive step in the claims of the sole request (Article 56 EPC).

II. Notice of appeal was received on 19 July 2016 and the appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 19 September 2016. The appellant requested that the decision be set aside and that a patent be granted based on a sole request submitted with the statement setting out the grounds of appeal. Oral proceedings were requested in the event that the request was not allowed.

III. A summons to oral proceedings was issued on 21 December 2018. In a communication pursuant to Article 15(1) RPBA sent on 14 January 2019, the board gave its preliminary opinion that the claims on file still did not meet the requirements of Articles 123(2) and 84 EPC. The board also suggested how the claims could be amended to overcome the objections. The board further explained why it did not consider it appropriate to deal with the issue of inventive step and that, provided the appellant submitted an amended request that overcame the objections under Articles 123(2) and 84 EPC, it intended to cancel the oral
proceedings and remit the case to the examining division for further prosecution.

IV. With a letter of response dated 14 February 2019, the appellant filed a new request, amended in the manner suggested by the board. The appellant acknowledged that the issue of inventive step should be remitted for consideration by the examining division. Furthermore, the appellant requested a partial reimbursement of the appeal fee within the meaning of Rule 103(2) EPC.

V. With a communication dated 21 February 2019, the board indicated that the amended claims satisfied the requirements of Articles 84 and 123(2) EPC. However, the board also explained why a partial reimbursement of the appeal fee under Rule 103(2) EPC would not be granted.

VI. With a letter of response dated 7 March 2019, the appellant withdrew the request for a partial reimbursement of the appeal fee and requested that the case be remitted to the examining division.

VII. The board announced by communication dated 7 March 2019 that the oral proceedings were cancelled.

VIII. Claim 1 according to the sole request reads as follows:

"A method performed by a processor (106) comprising the steps of:
receiving a pressure signal indicating a pseudo-pressure (Z) from a touch-sensitive input device (102) having a plurality of keys displayed on the input device (102);
determining a change in pseudo pressure based on the pressure signal; and
determining whether a conductor is on the input device (102) by evaluating the pseudo-pressure (Z) and if the pseudo-pressure (Z) is greater than zero, determining that the conductor is touching the input device (204); the method being **characterised by:**

if the conductor is on the input device (102) determining whether the conductor was previously on the input device, and if the conductor was not previously on the input device (102), starting a first tick count (208) to determine the length of time the conductor remains on the input device;

if the conductor was previously on the input device (102) or after the first tick count is started:

determining where the conductor is positioned (210) based on the X and Y coordinates provided by the touch-sensitive input device (102) and utilizing the coordinates to determine whether the conductor is on a key (212) on the touch-sensitive input device (102) by comparing the X and Y position data to the characteristics of the key, including its size and position;

if the conductor is on a key: determining whether a release tick count has elapsed (214), the release tick count measuring a time interval following the detection of a press during which the conductor is deemed to be pressing and during the time interval, further press detection is not performed, and if the release tick count has not elapsed, repeating the process from the determining that the conductor is touching the input device (204);

if the release tick count has elapsed: determining whether or not the first tick count has elapsed (216);

if the first tick count has elapsed, setting a threshold value for the key to a move threshold for the key (220) and comparing the threshold value for the key to the change in pseudo pressure; or
if the first tick count has not elapsed, setting the threshold value for the key to an adaptive threshold for the key (218) and comparing the threshold value for the key to the change in pseudo pressure (222); if the change in pseudo pressure (~Z) exceeds the threshold value for the key: comparing the pseudo pressure to an absolute threshold (224); and if the pseudo pressure (Z) exceeds the absolute threshold (224): determining that the conductor is pressing the key, sending a signal indicating that a press has been made (226), and starting the release tick count."

The request comprises a further independent claim (claim 6) directed to a corresponding computer-program product.

Reasons for the Decision

1. The appeal is admissible (see point II).

2. Article 123(2) EPC

The objections raised in point 2.2 of the Reasons of the decision under appeal are moot since the appellant has taken up the suggested amendments.

With respect to the objection raised in point 2.3.1 of the Reasons of the decision under appeal, the board is satisfied that the appellant followed the suggestions made by the board:

- The step of starting the release tick count (step 228 in Figure 2) is now positioned after the last step of claim 1, which corresponds to step 226 in Figure 2, and thus correctly reflects the flow chart of Figure 2.
- The definition of the release tick count, namely that it is to measure a time interval following the detection of a press during which the conductor is deemed to be pressing, wherein during this interval, further press detection is not performed, is now present in the step of determining whether the release tick count has elapsed (step 214 in Figure 2).

In respect of the objection raised in point 2.3.2 of the decision, the board agrees with the appellant that the description on pages 6 to 8, in particular lines 28 to 31 of page 6, supports the feature that the threshold established in step 218 of Figure 2 may be adaptive, in the sense that it may depend on the position of the conductor on the touchpad or on the specific user who is touching the touchpad.

Regarding the objection raised in point 2.4 of the Reasons, the board agrees with the appellant that the swapping of the reference signs 218 and 220 on page 8, removing an inconsistency between the description and Figure 2, represents the correction of an obvious error. It is indeed unambiguously disclosed both on page 8, lines 7 to 9, and in the text of the flow-chart in Figure 2 that if the first tick count has elapsed, the threshold, i.e. a threshold value for the key, is set to the move threshold for the key, and that if the first tick count has not elapsed, the threshold is set to the first threshold for the key.

For these reasons, the board holds that the request meets the requirements of Article 123(2) EPC.
3. Article 84 EPC

The board is satisfied that the clarity objections raised in points 3.2(ii), 3.4 and 3.5 of the Reasons of the decision under appeal have been overcome by the amendments to the claims. In particular, claim 1 now clearly states that the change in pseudo pressure is determined based on the pressure signal, objected former dependent claim 5 has been deleted, and independent computer program product claim 6 specifies that the programmed device is adapted to receive a pressure signal from a touch-sensitive input device.

With respect to the objection raised in point 3.1 of the Reasons of the decision under appeal, the board holds that claim 1, as amended (see point 2 above) by having the step of starting the release tick count (step 228 in Figure 2) positioned after the last step of claim 1, which corresponds to step 226 in Figure 2, now clearly reflects the flow-chart of Figure 2 and defines all the circumstances where a pressing is detected.

Further, the objection raised in point 3.2(i) of the Reasons of the decision under appeal has been fully overcome by specifying in claim 1 that the thresholds in steps 218 and 220 are both a threshold value for the key and that in step 222 the change in pseudo-pressure is compared to this threshold value for the key.

For these reasons, the board holds that the claims meet the requirements of Article 84 EPC.
4. Remittal

The decision under appeal was based solely on the grounds of Articles 123(2) and 84 EPC (see Reasons 4). Rather, the examining division made some remarks about the relevance of a prior-art document (D1), see Reasons 5.2 and 5.3, and expressed in substance the general view that claim 1 represented an arbitrary selection of a specific sequence and combination of method steps known from the available prior art. In the annex to the summons to oral proceedings, the examining division made some remarks about the relevance of some prior-art documents (D1, D3, D4). A detailed reasoning with respect to inventive step based on the disclosure of these prior-art documents has however not yet been provided by the examining division.

Thus, the board does not consider it appropriate to deal with the issue of inventive step. The board therefore decides, in agreement with the appellant (see points IV and VI), to remit the case to the examining division for further prosecution.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance for further prosecution.

The Registrar: The Chair:

K. Götz-Wein A. Ritzka

Decision electronically authenticated