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**Datasheet for the decision
of 26 January 2021**

Case Number: T 1992/17 - 3.5.05

Application Number: 07845978.1

Publication Number: 2105823

IPC: G06F3/00

Language of the proceedings: EN

Title of invention:

HUMAN COMPUTER INTERACTION DEVICE, ELECTRONIC DEVICE AND HUMAN
COMPUTER INTERACTION METHOD

Applicant:

Qiu, Bo

Headword:

HUMAN COMPUTER INTERACTION DEVICE WITH OVERLAPPING KEYBOARD
AND TOUCH PAD / Qiu, Bo

Relevant legal provisions:

EPC Art. 123(2), 84

RPBA Art. 12(4)

Keyword:

Late-filed request - request could have been filed in first instance proceedings (yes)

Amendments - extension beyond the content of the application as filed (yes) - intermediate generalisation

Claims - clarity - auxiliary request (no)

Decisions cited:

G 0010/93



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1992/17 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 26 January 2021

Appellant:
(Applicant)

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Representative:

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Decision under appeal:

**Decision of the Examining Division of the
European Patent Office posted on 10 April 2017
refusing European patent application No.
07845978.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: N. H. Uhlmann
N. Obrovski

Summary of Facts and Submissions

- I. The appeal is against the examining division's decision refusing European patent application No. 07845978.1, which was filed on 19 December 2007.
- II. The examining division made reference to the following documents:

D1 US 2004/196270
D5 US 2003/174125
- III. The examining division decided that the main request and the first to sixth auxiliary requests were not to be admitted, pursuant to Rule 137(3) EPC.
- IV. In its statement setting out the grounds of appeal the appellant submitted arguments along with an amended main request and amended first to third auxiliary requests.
- V. The board summoned the appellant to oral proceedings.
- VI. In a communication pursuant to Article 15(1) RPBA 2020, the board set out its provisional view on the case.
- VII. With a letter dated 15 January 2021 the appellant submitted amended second and third auxiliary requests.
- VIII. In the course of the oral proceedings the appellant submitted a new third auxiliary request and renamed the previous third auxiliary request as the fourth auxiliary request.
- IX. The appellant's final requests are that the decision under appeal be set aside and that a patent be granted on the basis of the main request or the first auxiliary request, both filed with the statement of grounds of appeal, or on the basis of the second auxiliary

request, filed with the submission dated 15 January 2021, or on the basis of the third auxiliary request, filed during the oral proceedings before the Board, or on the basis of the fourth auxiliary request, filed with the submission dated 15 January 2021 (at the time as third auxiliary request).

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

"An HCI, Human Computer Interaction, device, comprising a second input device or a part thereof and a first input device or a part thereof, said part of or the whole said second input device and said part of or the whole said first input device use a same region or space within any region of any size at any position within a region or space including said part of or the whole said second input device and said part of or the whole said first input device, that is, wholly or partly region overlapping or region reuse; said region overlapping or region reuse is the region overlapping or region reuse at the same time."

XI. Claim 1 of the first auxiliary request corresponds to claim 1 of the main request, with the following wording added at the end:

"wherein said first input device is a press-key input device, that is, the device realizes input through key operations, said second input device is a mouse simulating device applied for realizing mouse function; wherein said mouse simulating device comprises one main simulating device; said press-key input device and said main simulating device are both hardware devices; a part of the main simulating device in a press-key region of said press-key input device consists of one or more small block main simulating devices in accord with the size and form of the key of said press-key input device and divided according to normal boundary

of key location; and the small block main simulating device has an elastic mechanism which can stretch out and draw back or move vertically".

XII. Claim 1 of the second auxiliary request corresponds to claim 1 of the main request, with the following wording added at the end:

"or in different time,

wherein said first input device is a press-key input device, that is, the device realizes input through key operations, said second input device is a mouse simulating device applied for realizing mouse function;

wherein said mouse simulating device comprises one main simulating device; said press-key input device is a hardware keyboard (1) and said main simulating device is a hardware touch pad (20); said hardware touch pad (20) at least includes a part of the whole surface of one or more operating keys of the hardware keyboard (1), a part of the main simulating device in a press-key region of said press-key input device consists of one or more small block main simulating devices in accord with the size and form of the key of said press-key input device and divided according to the boundary of a normal key mapping; and each small block main simulating device is a small hardware touch pad and has an elastic mechanism which can stretch out and draw back or move vertically".

XIII. Claim 1 of the third auxiliary request corresponds to claim 1 of the second auxiliary request, with the following wording added at the end:

"wherein the HCI device comprises control switch in the keyboard, adapted to turn on or turn off the mouse function of the second input device".

XIV. Claim 1 of the fourth auxiliary request corresponds to claim 1 of the second auxiliary request, with the following wording added at the end:

"wherein said hardware touch pad (20) is configured to realize mouse functions according to the following method:

when said hardware touch pad (20) is switched on, if there is no slide or click before, then the first click is regarded as a click of the left key of a mouse and the first slide is to control the movement of the cursor;

when the former last operation is a click or a slide, a click that is on the point of the last click or on the left side of the final point of the last slide is regarded as a left key click of the mouse and the function of the click is continued, and a click that is on the point of the last click or on the right side of the final point of the last slide is regarded as a right key click of the mouse;

when a slide begins within a circle that has a radius of M and has the point of the last click or the final point of the last slide as the center, then the slide is regarded as a dragging, till there is another click;

when the former last operation is a slide, a slide in an area that is less than N away from the last sliding line and beyond a circle that has a radius of M and has the final point of the last slide as the center is regarded as an operation to the mouse middle key; said M and N are set distances".

Reasons for the Decision

1. The application in this case pertains to a human-computer interaction device comprising two input

devices, with these two devices or parts thereof overlapping.

Document D5 discloses keyboard and mouse input modes in an overlapping physical space.

Main request

2. Admissibility, Article 12(4) RPBA 2007

2.1 In section 1.1 of the statement setting out the grounds of appeal the appellant stated that "claim 1 now includes only one alternative of original claim 1, and the other amendments in claim 1 are merely improvements of the English translation" (underlined by the appellant).

In the board's view, in submitting at appeal an amended claim which closely corresponds to one alternative of an original independent claim, the appellant is essentially requesting that the substantive examination be restarted. Moreover, the applicant submitted a total of 16 amended requests in the course of the first-instance proceedings.

2.2 However, proceedings before the boards of appeal in ex parte cases are primarily concerned with examining the contested decision (G 10/93, OJ EPO 1995, 172, point 4 of the reasons).

2.3 In this case, the examining division raised numerous objections under Article 123(2) EPC. The board thus holds that the appellant should have addressed those objections by presenting to the department of first instance at least one request containing an independent claim similar to claim 1 of the main request under discussion. In view of the numerous amended requests on file, the appellant had had ample opportunity to do so.

2.4 The appellant argued at the oral proceedings before the board that the examining division's decision was based not just on the latest sets of claims but on all sets of claims that had been filed during the examination proceedings. In particular, the claims filed on 24 June 2013 related to the same alternative as the claims of the current main request.

The board disagrees. The appellant subsequently replaced the claims submitted on 24 June 2013 with other claims, namely the claims filed on 5 July 2016, 13 February 2017 and 10 March 2017. Pursuant to Article 113(2) EPC, at the oral proceedings on 13 March 2017 the examining division ruled on the application solely on the basis of the latest sets of claims submitted by the appellant on 10 March 2017 (the then main request and first to sixth auxiliary requests). These sets of claims replaced all previously filed sets of claims.

2.5 For these reasons, the board uses its discretion under Article 12(4) RPBA 2007 not to admit the main request.

First auxiliary request

3. Amendments

The board finds that the claim 1 as amended does not satisfy the criteria of Article 123(2) EPC.

3.1 The appellant submitted that claim 1 was based on claim 5 of the main request. Claim 5 of the main request corresponds to original claim 12, which depends on claim 3, which in turn depends on claim 2.

However, a number of non-optional features of original claim 2 regarding types of devices have not been added to claim 1 under discussion. Furthermore, no features from original claim 3 have been added to claim 1.

- 3.2 According to the appellant, newly added claim 2 is based on the first paragraph of the description of "Example 1", page 17.

While this paragraph does refer to a "hard touch pad" and to "small hard touch pads", it states clearly that "the hard touch pad at least includes a part or the whole surface of an operating key" (line 10 on page 17 of the description). The board holds that the hard touch pad and the small hard touch pads are only disclosed in close functional relationship with this surface-related aspect.

- 3.3 The appellant argued at the oral proceedings that according to claim 1 the press-key input device and the main simulating device were both hardware devices. It was thus clear for the skilled person that a normal keyboard and a normal touch pad were what was meant. As such, it was not necessary to include the features from claims 2 and 3 of the main request, so as to keep claim 1 of the first auxiliary request concise.

The board is not convinced. The original claims clearly disclose the features of claims 1, 2, 3 and 12 in combination and there is no apparent basis for selectively including only some of those features in claim 1 of the first auxiliary request.

Second auxiliary request

4. Amendments

The board holds that claim 1 as amended does not satisfy the criteria of Article 123(2) EPC.

- 4.1 The appellant submitted that claim 1 was based on "Example 1" of the description (lines 8 to 16 on page 17).

4.2 The board agrees that "Example 1" discloses a hardware keyboard (e.g. lines 8, 13 and 14 on page 17). However, the section of the description which corresponds to "Example 1", i.e. page 17, line 8 to page 19, line 3, discloses the hardware keyboard in close functional relationship with other features. According to lines 30 to 33 on page 17:

"As there is overlapping part between the keyboard and hard touch pad, **it is necessary** to switch the working mode of this part, that is, during the process of keyboard input, open the hard touch pad provided within the operating key area of the keyboard to carry out operations of hard touch pad" (emphasis added by the board).

Furthermore, lines 2 and 3 on page 18 state the following:

"In order to facilitate the operation, **it is required** to set up the control switch in the keyboard to turn on or turn off the mouse functions, i.e. the functions of the hard touch pad" (emphasis added by the board).

From these passages it is apparent that a hardware keyboard and a hardware touch pad which includes a surface of one or more keys of the hardware keyboard are disclosed only in combination with a control function for switching the working mode of those keys. "Example 1" thus does not provide a basis for claiming a hardware keyboard without any such control function.

4.3 At the oral proceedings the appellant further argued that the wording "electrical input devices" (claim 2 of the main request and page 16, line 32) provided a basis for a hardware keyboard. The board disagrees because a

hardware keyboard is more specific than an electrical input device.

Additionally, the appellant submitted that according to original claim 12, "said key input device and the said main analog device are both the hard device", that according to original claim 2 "said first input device is the press-key input device, that is, the device to realize the input through the key operations", that the key could be a button, and that the skilled person would derive a hardware keyboard from these passages. The board is not persuaded and does not agree that the specific notion of a hardware keyboard can be derived unambiguously because these passages have a much broader teaching, i.e. a hard (or hardware) device with keys, or buttons, for making inputs.

Third and fourth auxiliary requests

5. Clarity

Claim 1 of these two requests does not meet the requirements of Article 84 EPC.

Claim 1 recites that "a part of the main simulating device in a press-key region of said press-key input device consists of **one** or more small block main simulating devices" and further that the part of the main simulating device is "**divided** according to the boundary of a normal key mapping" (emphasis added by the board). A part of the main simulating device cannot be divided as claimed since it consists of one small block simulating device and doing so would require the presence of at least two small block simulating devices. Claim 1 is therefore not clear.

Conclusion

None of the requests is allowable. The appeal must therefore be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



A. Chavinier-Tomsic

A. Ritzka

Decision electronically authenticated