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**Datasheet for the decision
of 7 June 2013**

Case Number: T 0720/10 - 3.5.05

Application Number: 07124126.9

Publication Number: 2077486

IPC: G06F 3/023, G06F 3/048

Language of the proceedings: EN

Title of invention:

Keypad navigation selection and method on mobile device

Applicant:

Research In Motion Limited

Headword:

Keypad navigation selection on mobile device/ Research In Motion

Relevant legal provisions (EPC 1973):

EPC Art. 56, 84

Relevant legal provisions:

EPC Art. 106, 107, 108, 123(2)
RPBA Art. 15(3)

Keyword:

"Added subject-matter - main and auxiliary request (yes)"

"Support in the description - main and auxiliary request (no)"

"Inventive step - main and auxiliary request (no)"

Decisions cited:

-

Catchword:

-



Case Number: T 0720/10 - 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 7 June 2013

Appellant: Research In Motion Limited
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Representative: Roberts, Gwilym Vaughan
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 3 November 2009
refusing European patent application
No. 07124126.9 pursuant to Article 97(2) EPC.

Composition of the Board:

Chair: A. Ritzka
Members: M. Höhn
G. Weiss

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division, posted on 3 November 2009, refusing European patent application No. 07124126.9 on the ground of lack of inventive step in the light of the prior-art documents:

D1: US 2007/152978 A1,

D2: US 2004/021696 A1,

D3: US 6292179 B1 and

D4: US 2007/046633.

II. The notice of appeal was received on 23 December 2009. The appeal fee was paid on 31 December 2009. The statement setting out the grounds of appeal was received on 4 March 2010. The appellant requested that the appealed decision be set aside and that a patent be granted on the basis of the set of claims filed as the main request with the statement setting out the grounds of appeal. Oral proceedings were requested on an auxiliary basis.

III. A summons to oral proceedings to be held on 11 June 2013 was issued on 18 February 2013. In an annex accompanying the summons the board expressed the preliminary opinion that the subject-matter of independent claim 1 did not appear to fulfil the requirements of Articles 84 EPC 1973 and 123(2) EPC and did not appear to involve an inventive step (Article 56 EPC 1973). The board gave its reasons for the objections and explained that the appellant's arguments were not convincing.

- IV. Following an inquiry by the appellant's representative by letter of 18 April 2013 the date for oral proceedings was rescheduled to 7 June 2013.
- V. With letter of 10 May 2013 the appellant submitted a set of claims 1 to 20 according to an auxiliary request together with arguments in favour of inventive step.
- VI. By letter dated 3 June 2013 the board was informed that the appellant would not be attending the oral proceedings.
- VII. Independent claim 1 according to the main request reads as follows:

"1. A handheld electronic communication device (300), comprising:
a body (371) having a display area (222), a cursor navigation area (72) and a keyfield area (650), said keyfield area (650) comprising a plurality of physically depressible input keys (630), at least a portion of said physically depressible input keys (630) each having a plurality of alphabetic characters associated therewith wherein the cursor navigation area (72) is coincidentally located relative said physically depressible input keys (630) for said physically depressible input keys to operate individually as text-entry tools and to operate collectively as a cursor navigational tool;
a microprocessor (338) communicatively connected between said physically depressible input keys (630) and a display screen (322) of the display area (222) and communicatively connected between the cursor

navigation area (72) and the display screen (322), said microprocessor (338) configured to:

receive input data indicative of detected user contact with a particular physically depressible input key that uninterruptedly continues as sweeping motion across the cursor navigation area (72), and

output corresponding instructional data to the display screen (322) to navigate the cursor on the screen;

the handheld electronic communication device having stored thereon a computer program configured to run on said microprocessor (338) and programmed to identify a user contacted physically depressible input key having a plurality of alphabetic characters associated therewith and to display the plurality of associated alphabetic characters on the display screen (322), said handheld electronic communication device being further programmed to:

select one of said plurality of alphabetic characters in dependence upon where the uninterruptedly sweeping motion across the cursor navigation

area (72) stops; or

select one of a plurality of words displayed on the display screen (322) by a disambiguation software routine in dependence upon where the uninterruptedly sweeping motion across the cursor navigation area (72) stops."

Independent claim 1 according to the auxiliary request reads as follows:

"1. A handheld electronic communication device (300), comprising:

a body (371) having a display area (222), a cursor navigation area (72) and a keyfield area (650), said

keyfield area (650) comprising a plurality of physically depressible input keys (630), at least a portion of said physically depressible input keys (630) each having a plurality of alphabetic characters associated therewith wherein the cursor navigation area (72) is coincidentally located relative said physically depressible input keys (630) such that said key field area is used as a text-entry tool via individual keys and as a cursor navigational tool over multiple keys via the cursor navigation area;

a microprocessor (338) communicatively connected between said physically depressible input keys (630) and a display screen (322) of the display area (222) and communicatively connected between the cursor navigation area (72) and the display screen (322), said microprocessor (338) configured to:

receive input data indicative of detected user contact with a particular physically depressible input key that uninterruptedly continues as sweeping motion across the cursor navigation area (72), and

output corresponding instructional data to the display screen (322) to navigate the cursor on the screen;

the handheld electronic communication device having stored thereon a computer program configured to run on said microprocessor (338) and programmed to identify a user contacted physically depressible input key having a plurality of alphabetic characters associated therewith and to display the plurality of associated alphabetic characters on the display screen (322), said handheld electronic communication device being further programmed to:

select one of said plurality of alphabetic characters in dependence upon where the uninterruptedly sweeping motion across the cursor navigation area (72) stops; or

select one of a plurality of words displayed on the display screen (322) by a disambiguation software routine in dependence upon where the uninterruptedly sweeping motion across the cursor navigation area (72) stops."

- VIII. The appellant requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of the main request comprising claims 1 to 20 submitted with the statement setting out the grounds of appeal or alternatively on the basis of the auxiliary request comprising claims 1 to 20 filed with letter dated 10 May 2013.
- IX. Oral proceedings were held on 7 June 2013 in the absence of the appellant. After due deliberation on the basis of the written submissions, the board announced its decision.

Reasons for the Decision

1. Admissibility

The appeal complies with Articles 106 to 108 EPC (see Facts and Submissions, point II above). The appeal is therefore admissible.

2. Non-attendance at oral proceedings

By letter dated 3 June 2013 the board was informed that the appellant would not be attending the oral proceedings. The board considered it expedient to maintain the date set for oral proceedings. Nobody attended on behalf of the appellant.

Article 15(3) RPBA stipulates that the board is not obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as relying only on its written case.

Hence, the board was in a position to announce a decision at the end of the oral proceedings.

Main request

3. Article 123(2) EPC - Amendments

- 3.1 Claim 1 has been amended by directing the claimed device to the use of physically depressible input keys and *inter alia* comprises the wording "said physically depressible input keys to operate individually as text-

entry tools and to operate collectively as a cursor navigation tool".

- 3.2 Apart from specifying a plurality of physically depressible input keys, claim 1 specifies a cursor navigation area 72 which is coincidentally located relative said physically depressible input keys. There is no definition given as to how the cursor navigation area works.

According to the description there is provided a dual means of actuation such as a capacitance sensitive sheet (see e.g. [0028] and [0029]). Claim 1 fails to specify such a dual actuation means. The claimed subject-matter of claim 1 therefore comprises that the physically depressible input keys, i.e. the first actuation means, are used for the purpose of the cursor navigation area. However, there is no disclosure in the application documents as filed supporting such an arrangement. In [0029] (see pages 6 and 7 of the application as filed) an alternative is disclosed with "just a single input modality". The only embodiments given for this alternative are either the use of capacitance or surface wave detectors, or of virtual keys on a touch sensitive display. There is no direct and unambiguous disclosure of a single input modality with physically depressible input keys used for navigation of a cursor.

- 3.3 The appellant referred to page 5, lines 24 to 28 and original claims 3 and 7 for support for the wording of claim 1 objected to. However, in the board's judgement, the cited passage on page 5 has to be read in

conjunction with the sentence preceding it, which together read as follows:

"The cursor navigation area 72 can be defined by a capacitance sensitive sheet capable of sensing sweeping motion executed proximate thereto. The cursor navigation area 72 can underlay or overlie a number of, and preferably all the alphabetic input keys 630 of the keyfield area 650 on the device 300. Thus, the user navigates by dragging his fingertip over the keys of the keyfield area 650 that are otherwise - generally, as referenced below - used for text entry."

This passage clearly refers to a capacitance sensitive sheet used in addition to the depressible keys. This is also underlined by the terms "underlay" and "overlie".

Original claim 7, which defines the input keys as physically depressible keys, is dependent on claim 4 which explicitly specifies that the navigation area is defined by a capacitance sensitive sheet.

Hence, the appellant's references to the description and the original claims also underline the use of a second means of actuation which is provided for moving the cursor in addition to the physically depressible keys.

The board is therefore not convinced that the requirements of Article 123(2) EPC are fulfilled.

4. Article 84 EPC 1973 - Lack of support by the description

For the same reasons the claimed subject-matter lacks support by the description, as is required by Article 84 EPC 1973.

5. Article 56 EPC 1973 - Inventive step

The aforementioned objections notwithstanding, the subject-matter of claim 1 does not fulfil the requirements of the EPC because of lack of inventive step.

- 5.1 The board considers D4 to be the closest prior art on file, because it discloses that physically depressible keys operate individually as text-entry tool and operate collectively as a navigation tool. Hence, D4 has most features in common with the claimed subject-matter and addresses the same subject.

D4 discloses a body with a display area and a keyfield area (see e.g. figure 1) with physically depressible keys (see [0042] "push button keys" or [0058] "mechanical keys"). In addition, D4 discloses the use of a touch sensitive surface coincidentally located relative said physically depressible keys (see [0042] "The touch sensitive surface includes both the surface of the non-movable case as well as the surface of the keys inside the touch sensitive area 50. The touch sensitive surface is implemented as a flexible sheet, contains a touch sensor grid (capacitive, resistive or any other sensing technology), spread under the touch sensitive area 50. A processor reads the sensor's state

and determines if a finger, stylus or any other organ or object operated by the user is touching the touch sensitive area 50. If a touch is detected the location of the touch on the surface is read as well. While the use of mechanical keys and touch sensitive surfaces is well known prior art, the current invention involved in combining those two input methods to act together...").

In addition, D4 discloses a handling according to claim 1 (see [0044]: "Operation that starts with "press" activation on a mechanical key and finishes with "touch" activation on a touch sensitive surface"; reference is also made to [0047] for more details, in particular, "When the user lifts its finger from the touch surface, the device processor considers both the mechanical key and the touch sensitive surface inputs to interpret the user command, ..."). Thereby, alphabetic characters are selected in dependence upon where the uninterruptedly sweeping motion across the navigation area stops.

- 5.2 Hence, D4 discloses all the features of claim 1 except for
- the navigation area being a cursor navigation area and the touch area working as a cursor navigation tool for navigating the cursor on the screen and
 - a plurality of associated characters are displayed on the screen (and not only the selected character).

In accordance with the underlying technical effect, the objective technical problem is therefore considered to be that more than just a few letters can be associated with a key, in particular that letter sequences or correlated words can be selected.

The appellant suggested formulating the technical problem so as to provide improved character selection on a handheld device. The board considers this problem to be too broad in view of D4.

5.3 When trying to solve the objective technical problem the skilled person would also consult D2, which discloses that selectable characters are displayed on a screen and a cursor controller is used to select the intended character on the screen by moving the cursor (see e.g. [0043]). In particular, D2 discloses:

"The cursor controller may be ... a part of a keyboard, a touch sensitive plate, etc. ... When the cursor controller is a touch sensitive plate, a tactile pointing means, such as simply a finger, touching and/or lightly pressing against the touch sensitive plate is used to move the cursor on the display screen by moving the pointing means in the direction of desired cursor movement... the selection of a character may be performed by simply interrupting the connection between the tactile pointing means and the touch sensitive plate, i.e. by simply lifting the tactile pointing means".

In contrast to the appellant's argument, D2 hence discloses using a part of the keyboard, i.e. multiple keys, in order to control a cursor. This cursor is used for the selection of a character. Contact of a physically depressible key followed by a sweeping motion was already known from the closest prior art D4. D2 discloses navigating a cursor amongst selectable characters.

Claim 1 does not specify the way in which the characters are displayed. Hence, according to D2 even if displayed on separate screens (see e.g. figure 1 with characters 70 and figure 2), a plurality of associated alphabetic characters is displayed according to claim 1. Selection of the character intended to be typed is achieved by navigating the cursor on the screen to a character and selecting it. The skilled person would understand without the need for inventive skills that the handling method of D4 can be used for this purpose, thereby arriving at a selection of one of a plurality of (single) alphabetic characters according to the last feature of claim 1.

Hence, the subject-matter of claim 1 is rendered obvious by the disclosure of D4 when combined with the teaching of D2 (Article 56 EPC 1973).

Auxiliary request

6. Article 123(2) EPC - Amendments

The alternative wording in claim 1 of this request still specifies the use of multiple keys as a cursor navigational tool and, in the board's judgement, does not introduce an additional feature. The arguments in section 3 there still apply accordingly.

Even if the board interpreted the amended wording of claim 1 of this request as referring to an additional means of actuation, there would still be no definition given as to how the cursor navigation area works. This would result *inter alia* in an intermediate

generalisation of the specific embodiment of a cursor navigation tool with a capacitance sensitive sheet as a second actuation means, as referred to by the appellant (see reference to page 5, lines 24 to 28 and original claims 3 and 7) and as disclosed in the description and the drawings.

The board is therefore still not convinced that the requirements of Article 123(2) EPC are fulfilled.

7. Article 84 EPC 1973 - Lack of support by the description

For the same reasons the claimed subject-matter still lacks support by the description, as is required by Article 84 EPC 1973.

8. Article 56 EPC 1973 - Inventive step

The aforementioned objections notwithstanding, the subject-matter of claim 1 does not fulfil the requirements of the EPC because of lack of inventive step for the same reasons as set out in detail for the main request in section 5 above.

9. Thus, neither of the requests fulfils the requirements of Articles 56, 84 EPC 1973 and 123(2) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:

P. Cremona

A. Ritzka