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Datasheet for the decision of 26 August 2010

Case Number: T 1575/06 - 3.5.05

Application Number: 01913046.7

Publication Number: 1261907

IPC: G06F 3/023

Language of the proceedings: EN

Title of invention:
Graphical layout for mapping keys of a keypad to display regions

Appellant:
ACK Ventures Holdings, LLC

Headword:
Mapping keys of a keypad to display regions/ACK VENTURES

Relevant legal provisions:
EPC Art. 123(2)

Relevant legal provisions (EPC 1973):
EPC Art. 56, 84, 106, 107, 108

Keyword:
"Clarity and support by the description (yes - after amendment)"
"Extension of subject-matter" (no - after amendment)"
"Inventive step (yes - after amendment)"
"Remittal for further prosecution (yes)"

Decisions cited:
J 0010/07

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1575/06 - 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 26 August 2010

Appellant: ACK Ventures Holdings, LLC
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 19 April 2006 refusing European application No. 01913046.7 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chair: A. Ritzka
Members: P. Corcoran
G. Weiss

Summary of Facts and Submissions

I. This is an appeal against the decision of the examining division to refuse the European patent application No. 01 913 046.7, originally filed as international application PCT/US01/06079 and published as WO 01/63392 A2. The decision was announced in oral proceedings held on 7 March 2006 and written reasons were dispatched on 19 April 2006.

II. The following documents were cited during the examination proceedings:

D1: US 6 016 142 A;
D2: US 5 633 912 A;
D3: US 5 543 818 A;
D4: EP 0 883 055 A;
D5: WO 91/10184 A.

III. The decision under appeal was based on a main request comprising a set of claims 1 to 31, a first auxiliary request comprising claims 1 to 31 and a second auxiliary request comprising claims 1 to 26, all of said requests being filed with the letter dated 7 February 2006. The examining division found that claim 1 of the main request lacked an inventive step in the light of D1 in combination with D2 and arrived at similar findings in the case of the auxiliary requests.

IV. Notice of appeal was received at the EPO on 19 June 2006 with the appropriate fee being paid on the same date. A statement setting out the grounds of appeal was received at the EPO on 28 August 2006. With the statement setting out the grounds of appeal the

appellant filed a new main request and three auxiliary requests.

V. In a communication accompanying a summons to oral proceedings to be held on 26 August 2010 the board gave its preliminary opinion that none of the applicant's requests were allowable. Objections were noted in respect of the main request under Articles 84 EPC 1973, and 123(2) and 52(1) EPC. In particular, it was noted that the disclosures of D1, D2 and D5 appeared to be prejudicial to the novelty or at least the inventive step of the subject-matter of claims 1 and 25 of said main request. Objections were also raised under Article 123(2) EPC against the first auxiliary request and under Articles 84 EPC 1973 and 52(1) EPC against the first, second and third auxiliary requests.

VI. With a letter of reply dated 26 July 2010, the appellant filed a new main request and a new auxiliary request. Amendments to the description and drawings were also submitted.

VII. At the oral proceedings held as scheduled on 26 August 2010, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 6 filed at the oral proceedings as a sole request.

The further documents on which the appeal is based, i.e. the text of the description and the drawings, are as follows:

Description, pages:

1-10 as filed with the letter dated 26 July 2010;

Drawings, sheets:

1/10-10/10 as filed with the letter dated 26 July 2010.

VIII. During oral proceedings the appellant submitted with respect to D4 that although said document disclosed that the "pointing means" could comprise a keyboard (cf. D4: col.4 l.15-17), this element of the disclosure of said document should be read as implying the provision of an alternative keyboard interface which would allow a user to emulate the functionality of a mouse using "cursor keys", i.e. by using predetermined keys on the keyboard to position the screen cursor.

On this basis, the appellant argued to the effect that D4 neither disclosed nor suggested a user interface as envisaged by the present invention, i.e. based on a mapping between the keys of a set of numbered keys having a geometric configuration and regions of a display having a similar geometric configuration such that each key could be used to select the corresponding region of the display.

IX. Claim 1 of the appellant's request reads as follows:

"A method of locating a site using a mobile telephone, the mobile telephone having a display and a keypad of numbered keys in a geometric configuration, the method comprising the steps of:

displaying on the display a first map of a geographic area that contains the site, wherein the map is partitioned into visually delimited regions in a geometric configuration corresponding to the geometric configuration of the keys of the keypad and

wherein each region corresponds to a respective one of the numbered keys; and

upon a user selecting a selected one of the numbered keys, displaying on the display a second map which depicts in more detail the region of the first map that corresponds to the selected one of the numbered keys."

Claim 6 of the request reads as follows:

"A mobile telephone having a display and numbered keys arranged in a geometric configuration, characterized in that the mobile telephone is adapted to perform a method of locating a site, comprising the steps of:

displaying on the display a first map of a geographic area that contains the site, wherein the map is partitioned into visually delimited regions in a geometric configuration corresponding to the geometric configuration of the numbered keys and wherein each region corresponds to a respective one of the numbered keys; and

upon a user selecting a selected one of the numbered keys, displaying on the display a second map which depicts in more detail the region of the first map that corresponds to the selected one of the numbered keys."

X. At the end of the oral proceedings the chair announced the board's decision.

Reasons for the Decision

1. *Admissibility*

1.1 The appeal complies with the provisions of Articles 106 to 108 EPC 1973 which are applicable according to J 0010/07, point 1 (cf. Facts and Submissions, item IV. above). Therefore it is admissible.

2. *Articles 84 EPC 1973 and 123(2) EPC*

2.1 The board notes that it is satisfied that the amendments to the claims of the appellant's request comply with the requirements of Article 84 EPC 1973 and 123(2) EPC. The subject-matter of claims 1 and 6 finds support, for example, on p.6 l.12-23 and p.7 - p.9 l.3 of the application as filed.

3. *Closest prior art*

3.1 Claim 1 of the appellant's request is directed towards a method of locating a site using a mobile telephone. Claim 6 of the request is directed towards a mobile telephone which is adapted to perform a method of locating a site.

3.2 The only prior art document which relates to a mobile telephone is D2. In view of the manner in which the claimed subject-matter has been limited by amendment, the board judges that D2 represents the closest prior art to the subject-matter of claims 1 and 6.

4. *Novelty*

4.1 D2 discloses a mobile telephone ("mobile telephone handset") having a display and numbered keys arranged in a geometric configuration.

The display of the mobile telephone of D2 preferably comprises a static visual display 70 and dynamic visual display means 74 (cf. D2: Fig.5; col.5 l.56 - col.6 l.12) and additionally comprises a second dynamic visual display means 76 for displaying a set of context-sensitive function labels associated with telephone functions (cf. D2: Fig.5; col.5 l.56 - col.6 l.4).

The numbered keys arranged in a geometric configuration are the fixed-label signalling keys 94 (cf. D2: col.6 l.18-22). A second class of entry keys is also provided in the form of a set of soft-label keys 82-92 (cf. D2: col.6 l.12-17 and 23-27).

4.2 In the board's judgement, the mobile telephone of claim 6 is distinguished over that of D2 in that it is adapted to perform a method of locating a site as recited in the characterising part of said claim. On this basis, the subject-matter of claim 6 is clearly novel over D2.

5. *Inventive step*

5.1 The difference noted under 4.2 above provides the technical effect of permitting the user to use the mobile telephone to perform navigation operations on graphical content comprising a set of digital maps.

5.2 The objective technical problem vis-à-vis D2 may thus be formulated as how to extend the functionality of the mobile phone to permit a user to perform navigation operations on graphical content comprising a set of digital maps.

5.3 D2 discloses a mobile telephone whose functionality is, in the board's judgement, essentially restricted to permitting the user to access conventional voice-based telephony functions ("telephone functions", cf. D2: col.3 l.23-30). Such conventional functions include, for example, initiating and receiving calls, and entering, storing and recalling telephone numbers.

There is no disclosure or suggestion in D2 to the effect that either of the dynamic visual display means 74 and 76 disclosed therein is or could be used for the display of graphical content comprising a set of digital maps. Likewise, D4 contains no disclosure or suggestion to the effect that either of the two classes of entry keys disclosed therein, i.e. the fixed-label signalling keys 94 or the set of soft-label keys 82-92, could be used for performing navigation operations on such graphical content. According to D2, the fixed-label signalling keys 94 are used for entering telephone numbers and other dual-tone multi-frequency (DTMF) signals (cf. D2: col.6 l.18-22) and the soft-label keys 82-92 are used to access the context-sensitive function labels on the second dynamic visual display means (cf. D2: col.6 l.12-17 and 23-27).

5.4 The only available prior art document relating to the presentation and navigation of graphical content

comprising a set of digital maps is D4 (cf. D4: col.1 l.11-17).

According to the background art acknowledged in D4, a digital map can be zoomed by using a pointing means to position a cursor and click on a region of the map (col.1 l.23-43; Fig. 1). The invention of D4 relates to an alternative zooming method according to which a user can enlarge or reduce the currently displayed digital map by using a pointing means to position a cursor and designate a rectangular or square region of the display (cf. col.6 l.11-41).

5.5 D4 is primarily concerned with the zooming of digital map displays in the context of portable computing devices, such as notebook type computers (D4: col.1 l.14), which have cursor-based graphical user interfaces and are provided with pointing means, e.g. a mouse (cf. D4: col.1 l.33-38). The board notes that, following the appellant's submissions during oral proceedings (cf. Facts and Submissions, item VIII.), it interprets the statement in col.4 l.15-17 of D4 to the effect that the "pointing means" may comprise a keyboard as implying that mouse functionality may be emulated using the keyboard, i.e. the screen cursor can be positioned using predetermined keys on the keyboard.

On this basis the board concurs with the appellant's submissions to the effect that that D4 neither discloses nor suggests a user interface based on a mapping between the keys of a set of numbered keys having a geometric configuration and regions of a display having a similar geometric configuration such

that a key of the set of numbered keys can be used to select the corresponding region of the display.

5.6 With reference to D2, it is noted that said document neither discloses or suggests that the mobile telephone is provided with a cursor-based graphical user interface or with pointing means for positioning a screen cursor or with a keyboard interface to emulate the functionality of such pointing means.

With reference to D4, it is noted that said document contains no identifiable reference to mobile telephone devices nor does it contain any disclosure or suggestion to the effect that such devices would constitute a suitable platform for implementing the cursor-based digital map zooming methods disclosed therein.

In view of the foregoing, the board judges that on the basis of the aforementioned prior art, the skilled person would not consider extending the functionality of the mobile phone of D2 by attempting to implement thereon the digital map zooming methods disclosed in D4.

5.7 Even if, for argument's sake, it were to be supposed that the skilled person would attempt such a modification, a direct application of the digital map zooming methods of D4 to the mobile telephone of D2 would require the provision on the mobile telephone of a cursor-based graphical user interface with pointing means such as a mouse for allowing the user to position the cursor or, alternatively, some kind of keyboard interface for emulating the functionality of such pointing means.

The claimed invention, however, does not employ a cursor-based graphical user interface with means for positioning a cursor but is based on an arrangement according to which the keys of the numbered keypad of the mobile telephone are associated with specific regions of the display thereby enabling said keys to be used as selection means for selecting a specific region of the currently displayed digital map for enlargement.

It is further noted in this regard that D2 suggests to the skilled person that the implementation of additional functionality on the mobile telephone requires the provision of a dedicated dynamic visual display 76 and a second class of entry keys associated with that display, i.e. the soft keys 82-92. In particular, there is no indication in D2 that the numbered keys, i.e. the fixed-label signalling keys 94, can be used for purposes other than entering telephone numbers and other dual-tone multi-frequency signals.

On this basis the board concludes that neither D2 nor D4 contains any disclosure or suggestion which would prompt the skilled person to modify the cursor-based graphical user interface disclosed in D4 in a manner that would lead to the claimed invention.

5.8 For the sake of completeness, it is noted that if D4 were taken to be the closest prior art instead of D2, in particular the acknowledged background art according to which a digital map can be zoomed by using a pointing means to position a cursor and click on a region of the map (cf. D4: col.1 l.23-43; Fig. 1) this

would not, in the board's judgement, render the claimed invention obvious.

In this case, the objective technical problem would be to implement the aforementioned method on an alternative hardware platform to the portable notebook type computer of D4. Referring to the observations under 5.6 above, the board judges that under the given circumstances the skilled person would not consider a mobile telephone device as a suitable platform for implementing said method. Even if such an implementation were to be attempted this would not, in the board's judgement, lead to the claimed invention in view of the considerations set forth under 5.7 above.

5.9 In view of the foregoing, the board concludes that it would not have been obvious for the skilled person starting from D2 to modify the mobile telephone disclosed therein to provide functionality according to the characterising part of claim 6. Neither would it have been obvious for the skilled person starting from the digital map zooming methods of D4 to consider a mobile telephone such as that disclosed in D2 as a suitable platform for implementing said methods. Moreover, even if such an implementation had been attempted it would not, in the board's judgement, have led to the invention as defined in claim 6.

5.10 The board thus finds that the subject-matter of claim 6 involves an inventive step over the aforementioned prior art. A similar finding applies to independent method claim 1.

6. *Further observations*

6.1 The remaining prior art documents are, in the board's judgement, too remote from the subject-matter of the amended independent claims to be prejudicial to either the novelty or the inventive step of said claims.

6.2 D5 discloses an electronic apparatus having a display ("un dispositif de présentation", cf. D5: p.4 l.31 - p.5 l.1) and an associated means for producing selection signals identifying each of the boxes on a selection grid displayed on the screen (cf. D5: p.5 l.10-17) which may be a touchscreen ("écran tactile"). The electronic apparatus of D5 is not further specified but it appears that it is some kind of stationary terminal for assisting clients of an organisation such as a banking agency to select services appropriate to their needs (cf. D5: p.1 l.25 - p.2 l.34). There is no indication in D5 that the apparatus disclosed therein is or could be a mobile telephone nor is there any disclosure or suggestion to use said apparatus for the purpose of navigating graphical content comprising a set of digital maps.

6.3 With respect to the documents D1 and D3 it is noted that these documents disclose the association of keys of a keypad with specific regions of a display and the use of said keys for performing selection operations on the associated display regions. However, these documents are essentially concerned with arrangements for expanding the range of characters that can be entered using a keypad of limited size. Neither of these documents relates to mobile telephone devices or

to the navigation of graphical content comprising a set of digital maps.

7. *Concluding observations*

7.1 The board thus finds that the claims of the appellant's request satisfy the requirements of the EPC.

7.2 Although amendments to the description were submitted by the appellant with the letter dated 26 July 2010, a number of passages of the description have not been restricted to ensure consistency with the independent claims as amended.

7.2.1 Referring in particular to p.1 l.9, p.2 l.7 and p.1 l.29 of the amended description, it is noted that the aforementioned passages define the invention in terms which are broader than the present claims (i.e. in terms of "an electronic device" or "an electronic device, such as a mobile phone").

7.2.2 The partitioning of the map into nine regions as specified on p.2 l.7-8 of the amended description appears to relate to a preferred embodiment rather than to "the present invention" in its most general form as implied by the current wording of the opening sentence of the paragraph (cf. p.2 l.6-7 of the amended description).

7.3 In view of the foregoing, the board judges that the case should be remitted to the examining division for the purpose of bringing the description into conformity with the amended claims.

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 with the order to grant a patent on the basis of claims 1 to 6 submitted on 26 August 2010 at the oral proceedings and a description to be adapted thereto.

The Registrar: The Chair:

K. Götz A. Ritzka