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**Datasheet for the decision
of 19 July 2012**

Case Number: T 2068/08 - 3.5.05
Application Number: 05250179.8
Publication Number: 1681618
IPC: G06F 3/023, G06F 3/033
Language of the proceedings: EN

Title of invention:

Handheld electronic device with roller ball input

Applicant:

Research In Motion Limited

Headword:

Handheld electronic device/RESEARCH IN MOTION

Relevant legal provisions:

EPC Art. 52(1), 123(2)

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Extension of subject-matter - second auxiliary request (yes)"
"Inventive step - main request, first and third to fifth
auxiliary requests (no)"

Decisions cited:

-

Catchword:

-



Case Number: T 2068/08 - 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 19 July 2012

Appellant: Research In Motion Limited
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 3 June 2008
refusing European patent application
No. 05250179.8 pursuant to Article 97(2) EPC.

Composition of the Board:

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

Summary of Facts and Submissions

- I. The present appeal is against the decision of the examining division to refuse the European patent application no. 05 250 179.8, publication no. EP 1 681 618, which was dispatched on 3 June 2008.
- II. The decision under appeal was based on a main request and two auxiliary requests, all of the aforementioned requests having been filed with the letter of 11 February 2008.
- III. The decision makes reference to the following prior art documents:
- D1: US 6 204 848 B;
 - D2: EP 1 098 498 A;
 - D3: EP 1 378 856 A;
 - D4: US 2002/00971 A.
- IV. According to said decision, claims 1 and 7 of the main request infringed Article 123(2) EPC and the independent claims of the first and second auxiliary request lacked an inventive step in the light of D3 in combination with D1 and D4. In an *obiter dictum* to the decision, an opinion was expressed to the effect that the independent claims of the main request also lacked an inventive step in the light of the aforementioned combination of prior art documents.
- V. Notice of appeal was received at the EPO on 5 August 2008 with the appropriate fee being paid on 12 August 2008. With the statement setting out the grounds of appeal, which was received at the EPO on 13 October 2008, the appellant filed a main request and five

auxiliary requests. The main request and first and second auxiliary requests were identical to the corresponding requests filed with the letter of 11 February 2008 and which formed the basis for the decision under appeal (cf. item II. above).

- VI. In a communication accompanying a summons to oral proceedings to be held on 19 July 2012, the board gave its preliminary opinion that the appellant's requests were not allowable.
- VII. In said communication objections were noted under Article 123(2) EPC with respect to the independent claims of the main and second auxiliary requests.
- VIII. The board further made observations to the effect that the independent claims of all of the appellant's requests appeared to lack an inventive step. In this regard, the board noted that it might be appropriate to give consideration to D1 as the closest prior art. Reference was also made to the following additional prior art document which appeared to be of relevance to the question of inventive step:
- D5: EP 1 073 004 A.
- D5 is a European patent application which was cited in the European search report of D3.
- IX. The board additionally noted that the independent claims of the appellant requests included a specification of "providing a tactile feedback to a user" and indicated that it had reservations as to whether the requirements of Articles 83 and 84 EPC 1973 were complied with in respect of this particular aspect of the claimed invention. It further expressed doubts

as to whether this specification could contribute to an inventive step in the light of the available prior art, in particular D5 and D3.

- X. With a letter of reply dated 19 June 2012, the appellant made submissions in response to the board's communication and filed a sixth auxiliary request comprising claims 1 to 10.
- XI. At the oral proceedings held on 19 July 2012, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims 1 to 10 of the main request or auxiliary requests 1 to 5 submitted with the statement setting out the grounds of appeal or on the basis of auxiliary request 6 filed with letter dated 19 June 2012.
- XII. Claim 1 of the main request reads as follows:
- "A handheld electronic device (4) comprising:
 - a processor apparatus (20) comprising a processor (52) and a memory (56);
 - an input apparatus (12) cooperable with the processor apparatus (20);
 - an output apparatus (16) cooperable with the processor apparatus (20), the output apparatus (16) including a display (50); and
 - a housing (8);
 - the processor apparatus (20) being adapted to receive input from the input apparatus (12) and to provide output to the display (50);
 - the input apparatus (12) including a plurality of first input members (28) and a second input member (32), each first input member (28) of at least a

portion of the plurality of first input members (28) having a plurality of linguistic elements (30) assigned thereto, substantially each first input member (28) of the at least a portion of the plurality of first input members (28) being adapted to generate a first input upon being actuated;

characterized by the second input member (32) including a movable portion (36) that is substantially continuously rotatable with respect to the housing (8) about at least first axis [sic] (44) and a second axis (48) to provide input and, responsive to a rotation of the movable portion (36) about at least one of the first axis (44) and the second axis (48), the second input member (32) being adapted to generate a number of second inputs, the rotation including a number of incremental rotations of the movable member (36) a predetermined rotational distance, with substantially each incremental rotation both corresponding with a second input of the number of second inputs and providing a tactile feedback to a user, and wherein the movable portion (36) is translatable with respect to the housing (8) to provide a selection input; and

the memory (56) having stored therein a routine (60) that is executable on the processor (52), responsive to a detection of a number of first inputs, the routine (60) being adapted to output to the display (50) a number of proposed linguistic elements (96) and, responsive to a detection of successive second inputs, the routine (60) being adapted to highlight successive ones of the proposed linguistic elements on the display (50)."

Claim 7 of the main request seeks protection for a corresponding method.

XIII. Claim 1 of each the auxiliary requests differs from claim 1 of the main request in respect of the features of its characterising part. These differences may be summarised as follows:

- (i) Claim 1 of the first auxiliary request does not use the term "highlight". Instead it specifies the routine (60) that is executable on the processor as "being adapted to move an indicator (80), the indicator (80) arranged to navigate throughout the proposed linguistic elements on the display (50)".
- (ii) Claim 1 of the second auxiliary request adds to the characterising part of claim 1 of the first auxiliary request a specification that "the tactile feedback is provided with each movement of the indicator (80)".
- (iii) Claim 1 of the third auxiliary request differs from Claim 1 of the first auxiliary request in that its characterising part includes additional specifications to the effect that the proposed linguistic elements are "selectable" and that "the selection input is arranged to select from the selectable proposed linguistic elements".
- (iv) Claim 1 of the fourth auxiliary request differs from claim 1 of the first auxiliary request in that the expression "responsive to a rotation of the movable portion (36) about at least one of the first axis (44) and the second axis (48)" has been amended by

deletion of the phrase "at least one of" and in that it further specifies the routine (60) as being "adapted to move an indicator (80), the indicator (80) arranged to navigate throughout primary output items of the proposed linguistic elements on the display (50) in response to second inputs generated by rotation about the first axis, and the routine being adapted to output to the display secondary output items of the proposed linguistic elements in response to second inputs generated by rotation about the second axis, the second axis being substantially orthogonal to the first axis".

- (v) Claim 1 of the fifth auxiliary request differs from claim 1 of the fourth auxiliary request in that it includes an additional specification to the effect that the secondary output items are related to the primary output items.

- (vi) Claim 1 of the sixth auxiliary request differs from claim 1 of the main request in that it does not use the term "highlight". It specifies the routine (60) as "being adapted to move an indicator (80) over successive ones of the proposed linguistic elements (96) that are presented on the display (50) such that the indicator (80) is positioned above a corresponding linguistic element".

Claim 7 of each of the aforementioned auxiliary requests seeks protection for a method corresponding to claim 1 of the respective request.

XIV. The appellant's submissions in support of its requests are summarised as follows:

- (i) With respect to the main request it was submitted that although the specific term "highlight" was not used in the description, the skilled person would understand from p. 9 l. 13-29 and Fig. 1 of the originally filed application that it denoted the movement of an indicator showing the current system focus in response to input signals generated by the rotation of the second input member. It was clearly and unambiguously derivable from the original disclosure that items on the display were highlighted in a successive manner by the movement of an indicator and thus the use of the disputed term did not result in an impermissible extension of subject-matter.

- (ii) With respect to the sixth auxiliary request, it was submitted that the independent claims of said request effectively sought protection for the same subject-matter as the corresponding claims of the main request and differed only in that the term "highlight" had been replaced with alternative wording taken from the description.

- (iii) With respect to the second auxiliary request, the appellant submitted that the specification in the independent claims that tactile feedback was provided with each movement of the indicator did not constitute an extension of subject-matter. The skilled person would have understood on the basis of the originally filed disclosure, in particular p. 3 l. 11-14 and p. 7 l. 18-20 thereof, that it was intended to provide tactile feedback with each movement of the indicator.

- (iv) The appellant noted that the application was concerned with the problem of providing improved navigation of linguistic items generated by a disambiguation routine on a handheld electronic device having a reduced keyboard as described in [0007] and [0024] of the published application. In particular, the invention was intended to reduce the amount of user attention required to navigate the linguistic items (cf. published application: [0034]). The aforementioned problem was solved by using a "second input member" in the form of a roller ball input device as specified in the characterising part of the independent device claims of all requests.

- (v) The inventive step objections raised by the board were based on an inappropriate combination of prior art documents and relied on hindsight. In particular, these objections did not take account of the synergistic effect arising from the use of a roller ball input device whose movable portion was continuously rotatable with respect to the housing about at least two axes to provide scrolling inputs and translatable with respect to the housing to provide a selection input and which additionally provided a tactile feedback to a user.

- (vi) D1 disclosed the generation and display of proposed linguistic items by a disambiguation routine on a handheld electronic device having a reduced keyboard but it failed to give any consideration to the problem of improving the navigation of the displayed items.

- (vii) D5 disclosed the use of a roller ball ("trackball") input device but did not disclose the generation of proposed linguistic items by a disambiguation routine or the use of a trackball input device to perform navigation of such items.

- (viii) With respect to the combination of D1 and D5, it was submitted that the skilled person would not have considered combining these documents and it was further argued that even if such a combination were to be attempted it would not lead to the claimed invention.

- (ix) Referring in particular to the independent claims of the fourth and fifth auxiliary requests, the appellant submitted that D5 did not disclose that a rotation of a trackball along a particular axis could be interpreted as a selection operation which caused the display of further data, i.e. secondary linguistic items associated with a primary linguistic item.

- (x) The appellant further submitted in this respect that the teaching of D1 was such that a selection operation required the depression of a selection key such as the OK function key. The skilled person attempting to combine D5 with D1 would thus be led away from using the rotation of a trackball along a particular axis to cause the display of secondary output items and would use a translational movement of the trackball as disclosed in [0013] of D5 for this purpose.

(xi) With respect to the feature of "tactile feedback", the appellant submitted that the term was sufficiently clear to the skilled person (Article 84 EPC 1973) and that it had been sufficiently disclosed (Article 83 EPC 1973). D1 failed to disclose the provision of tactile feedback and the need for such feedback did not arise in the key-based input arrangement of said document. Likewise, D5 neither taught nor suggested that the disclosed roller ball input device should provide tactile feedback. The only available prior art document which explicitly used the term "tactile feedback" was D3 but this document only disclosed the provision of tactile feedback in the context of selecting a menu item or in the context of moving a cursor over a forbidden area when playing a game. D3 did not disclose the use of tactile feedback in the context of navigating a plurality of proposed linguistic items generated by a disambiguation routine. Moreover, the skilled person would not have combined D3 with D1 and D5.

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

Reasons for the Decision

1. The appeal is admissible (cf. Facts and Submissions, item V. above). However, it is not allowable since the appellant's requests do not comply with the requirements of the EPC for the reasons which follow.

Second auxiliary request

2. *Article 123(2) EPC*

2.1 Claim 1 of the second auxiliary request includes a limitation to the effect that tactile feedback is provided with each movement of the indicator.

2.2 The provision of tactile feedback is mentioned on p. 3 l. 11-14 of the originally filed description where it is stated that the roller ball input "can provide a tactile feedback to a user" and on p. 7 l. 18-20 where it is stated that the roller ball input "additionally provides some tactile feedback to the user such as clicks, pulses, or other indications that can be detected by the user".

2.3 The aforementioned passages of the description merely refer in a cursory manner to the provision of tactile feedback. Contrary to the appellant's assertions in this regard (cf. Facts and Submissions, item XIV(iii) above), the board judges that this is not sufficient to constitute a clear and unambiguously indication to the effect that tactile feedback is to be provided with each movement of the indicator.

2.4 In view of the foregoing, the board concludes that the originally filed application documents fail to provide a basis for the disputed claim specification. Consequently, the inclusion of this specification in claim 1 of the second auxiliary request infringes Article 123(2) EPC. A similar finding applies to claim 7 of the request.

Main request, first auxiliary request and third to sixth auxiliary requests

3. *Preliminary observations*

3.1 The present application relates to a handheld electronic device which comprises *inter alia* a processor and a first input member in the form of a reduced keyboard and a disambiguation routine executable on the processor for generating proposed output items in response to inputs from the reduced keyboard (cf. published application: [0007] and [0024]).

3.2 The invention aims to reduce the amount of user attention required to navigate the proposed linguistic items thereby facilitating the selection of the desired output item (cf. published application: [0034]).

3.3 The aforementioned problem is solved by employing a "second input member" as specified in the characterising part of the independent device claims of all requests. In technical terms, the "second input member" is a roller ball input device whose movable portion is continuously rotatable with respect to the housing about at least two axes to provide scrolling inputs and translatable with respect to the housing to provide a selection input and which additionally provides a tactile feedback to a user (cf. published application: [0007] and [0024]).

3.4 The various versions of the independent device claim (i.e. claim 1) according to the appellant's requests essentially differ with respect to the specification of the routine that is executable on the processor and the

particular details of how the input signals provided by the second input member are used to navigate the proposed linguistic elements.

3.5 Claim 1 of the fifth auxiliary request which is based on claim 1 of the fourth auxiliary request (cf. Facts and Submissions, items XIII(iv) and XIII(v) above) comprises specifications to the effect that the rotation of the movable portion of the second input member occurs about both the first and second axis with the second axis being substantially orthogonal to the first axis and to the effect that the proposed linguistic items comprise primary and secondary output items which are related to the primary output items. The claim further specifies that the routine (60) is adapted to move an indicator which is arranged to navigate throughout primary output items in response to inputs generated by rotation about the first axis and to output to the display secondary output items in response to inputs generated by rotation about the second axis.

3.6 Claim 1 of the fifth auxiliary request is thus the most limited of the independent device claims of the appellant's requests. For the purpose of deciding the question of inventive step, the board considers it appropriate to begin by considering this claim.

Fifth Auxiliary Request

4. *Closest prior art*

4.1 D1 is judged by the board to represent the closest prior art to the subject-matter of claim 1 of the fifth auxiliary request.

4.2 D1 relates to a handheld electronic device which is preferably a mobile telephone (cf. Fig. 1). The device of D1 comprises, at least implicitly, all of the features of the pre-characterising part of the aforementioned claim 1. This has not been disputed by the appellant.

4.3 In particular, the handheld electronic device of D1 comprises a first input member in the form of a reduced keyboard ("a limited number of character keys", cf. D1: col. 2 l. 9-12) and is further provided with a disambiguation routine ("disambiguation engine") which generates a plurality of proposed linguistic elements.

4.4 D1 further discloses that the plurality of proposed linguistic elements comprises a plurality of primary output items ("alternative n-grams", cf. D1: col. 4 l. 15-25) generated in response to user input from the first input member (cf. D1: col. 2 l. 20-30; col. 3 l. 53 - col. 4 l. 31) and a plurality of secondary output items related to the primary items ("completed n-gram choices", cf. D1: col. 10 l. 57 et seq.).

4.5 According to D1, a user may scroll through the proposed linguistic items causing them to be successively highlighted (cf. col. 4 l. 15-20; Fig.3 entries for "*")

and "#"). The disambiguation routine of D1 is thus adapted to move an indicator (i.e. a "highlight" in the terminology of D1) which is arranged to navigate throughout primary output items of the proposed linguistic elements on the display substantially as recited in the aforementioned claim 1.

- 4.6 D1 thus discloses that a user can navigate through primary output items ("alternative n-grams") and further discloses that the user can navigate through secondary output items ("completed n-gram choices") which are related to the primary output items.
- 4.7 Navigation of the primary output items is accomplished using a pair of specifically assigned keys (e.g. the # and * function keys) for providing input indicative of scrolling operations along a first axis. Navigation of the secondary output items is accomplished using a further pair of specifically assigned keys (arrow keys 56, 58) for providing input indicative of scrolling operations along a second axis substantially orthogonal to the first axis. The OK function or other key is used to provide a selection input indicative of the selection of a desired item (cf. D1: col. 4 l. 20-25).
- 4.8 In the board's judgement, the ensemble of keys used for providing the aforementioned scrolling and selection inputs (i.e. the # and * function keys, the arrow keys 56, 58, and the OK function key or other key to perform selection) collectively constitute a "second input member" in the terminology of claim 1.

5. *Inventive step*

5.1 The handheld electronic device of claim 1 of the fifth auxiliary request thus differs from the handheld electronic device of D1 in that it comprises a "second input member" according to the characterising part of the claim, i.e. a roller ball input device which is rotatable with respect to the housing to provide scrolling functionality in at least two dimensions and translatable with respect to the housing to provide a selection input and additionally provides tactile feedback to a user (cf. published application: [0007]).

5.2 The corresponding "second input member" of D1, i.e. the aforementioned ensemble of keys, is fragmented and cumbersome as it relies on multiple actuations of a plurality of keys for performing scrolling and selection operations.

5.3 The technical effect of using a "second input member" according to the characterising part of claim 1 is to make it easier for the user to operate the handheld electronic device (cf. application: [0006]).

5.4 The objective technical problem with respect to D1 may thus be formulated as providing an improved "second input member" to facilitate navigation and selection operations on a plurality of linguistic elements proposed by a disambiguation routine.

5.5 The board is of the opinion that the recognition of this technical problem does not require the exercise of inventive skill because the inherent shortcomings arising from the fragmented and cumbersome nature of

- the key-based "second input member" of D1 are readily identifiable in practice. The skilled person could thus be expected to consider alternatives to the arrangement of D1 with the aim of making it easier for the user to operate the handheld electronic device.
- 5.6 D5 discloses an alternative to a key-based input arrangement in the form of a roller ball input device ("trackball"). The input device of D5 is rotatable with respect to the housing to provide scrolling functionality in two dimensions and translatable with respect to the housing to provide a selection input substantially as specified in the characterising part of claim 1 of the fifth auxiliary request (cf. D5: [0003] to [0005]; [0013]; [0018] to [0019]).
- 5.7 D5 clearly indicates that the disclosed trackball input device is inherently suitable for use in a mobile handset having applications requiring four-way scrolling (cf. D5: [0019]) and that, compared to an input arrangement based on multiple actuations of a plurality of keys, employing such an input device makes it easier for a user to operate the handheld electronic device (cf. D5: [0002] and [0020]).
- 5.8 The board judges that the skilled person faced with the stated technical problem would not require the exercise of inventive skill to combine the disclosures of D1 and D5 with a view to incorporating the trackball input device of D5 into the handheld electronic device of D1.
- 5.9 The definition of the "second input member" according to claim 1 of the present request includes the specification of "providing a tactile feedback to a

user". Although D5 does not explicitly use the term "tactile feedback", it nevertheless discloses a trackball which is configured to provide biased stepwise movements of the roller as the trackball and roller are rotated relative to each other (cf. D5: [0003], [0004], [0014]; [0016] to [0019]; Fig. 4). The board takes the view that an input device designed to provide stepwise progression such that the trackball can be rolled in small steps with in-between rest points (cf. D5: [0018] to [0019]) would inherently generate a corresponding physical sensation detectable by the user's finger and would thus effectively provide a form of tactile feedback to the user. On this basis, the trackball input device of D5 is found to implicitly provide a tactile feedback to a user even though D5 does not employ this term.

5.10 In view of the foregoing the board concludes that by modifying the handheld electronic device of D1 to incorporate a trackball input device as disclosed in D5, the skilled person would arrive at a handheld electronic device comprising all of the features of claim 1 of the fifth auxiliary request.

6. *Observations re appellants' submissions*

6.1 The appellant made submissions contesting the relevance of D1 and D5 to the invention according to claim 1 of the fifth auxiliary request (cf. Facts and Submissions, item XIV(vi) to XIV(xi) above). In particular, the appellant argued to the effect that the skilled person would not have considered combining D1 and D5 and that even if such a combination of said documents were to be attempted it would not lead to the claimed invention.

The board does not concur with the appellant's submissions in this regard for the reasons which follow.

- 6.2 Although the assertions to the effect that D1 gives no consideration to the problem of improving the navigation of the proposed linguistic elements may be correct insofar as D1 itself does not propose any alternative to the key-based navigation arrangement disclosed therein, the board nevertheless takes the view that the shortcomings of such a key-based navigation arrangement would be readily identifiable to the skilled person in practice. More particularly, having the disclosure of D5 explicitly refers to the disadvantages of such arrangements compared to a trackball (cf. D5: [0002]) and thus effectively provides the skilled person with a direct hint to replace the key-based navigation arrangement of D1 with a trackball.
- 6.3 With respect to D5, the appellant submitted that said document did not disclose the generation of proposed linguistic items by a disambiguation routine or the use of a trackball input device to navigate such items and argued on this basis that the skilled person would have no reason to consider combining D5 with D1.
- 6.4 The board notes in this regard that, according to D5, the disclosed trackball input device is inherently suitable for use in a handheld electronic device ("mobile handset") having applications requiring four-way scrolling (cf. D5: [0019]). The disambiguation routine of D1 is clearly an application which requires four-way scrolling (cf. observations under 4.7 above). On this basis, the board judges that it would be

obvious for the skilled person to consider employing the trackball input device of D5 in conjunction with the disambiguation routine executing on the handheld electronic device of D1. The board can see nothing in either D1 or D5 which would deter or otherwise dissuade the skilled person from combining the teachings of said documents in this manner.

6.5 The appellant further submitted that D5 did not disclose that a rotation of a trackball along a particular axis could be interpreted as a selection operation which caused the display of further data, i.e. secondary output items related to a primary output item.

6.6 The board notes in this regard that D1 discloses the display of secondary output items (i.e. "completed n-gram choices") related to primary output items (i.e. "alternative n-grams") in response to inputs indicative of a scrolling operation along a second axis substantially orthogonal to a first axis (cf. observations under 4.7 above). Implementing such an operation using the trackball of D5 would, in the board's judgement, lead to an arrangement substantially identical to that recited in the concluding part of claim 1 of the fifth auxiliary request.

6.7 The board does not concur with the appellant's submissions to the effect that D1 would lead the skilled person away from using the rotation of a trackball along a particular axis to cause the display of secondary output items (cf. Facts and Submissions, item XIV(x) above). Contrary to the appellant's assertions, D1 does not teach that a selection input associated with a key such as the OK function key is

used to initiate the display of secondary output items related to primary output items. The disclosure of D1 with regard to the aforementioned selection input is that it is used to confirm the user's choice of a proposed linguistic item for transfer to the current message body (cf. D1: col. 4 l. 20-25).

- 6.8 With respect to initiating the display of secondary output items, D1 teaches that this occurs in response to an input indicative of a scrolling operation along a second axis substantially orthogonal to the first axis used for navigating the primary output items, i.e. in response to the actuation of an arrow key (cf. D1: col. 11 l. 2-10). In the board's judgement, when using a trackball input device to replace the key-based input arrangement of D1 the corresponding input action to initiate the display of secondary output items would be the rotation of the trackball about a second axis substantially orthogonal to the first axis rather than a translational movement of the trackball generating a selection input as argued by the appellant.
- 6.9 With respect to the appellant's submissions concerning the claim feature of providing tactile feedback to a user (cf. Facts and Submissions, item XIV(xi) above), the board refers to its observations under 5.9 above, according to which the trackball of D5 is judged to provide a tactile feedback to the user.
- 6.10 The board further notes in this regard, that even if for the sake of argument the appellant's submissions to the effect that D5 does not disclose the provision of tactile feedback were to be followed, the absence of any identifiable technical teaching in the description

as to how the claimed tactile feedback is to be provided and the apparent lack of any technical interrelationship between the provision of tactile feedback and the remaining claim features would mean that this feature could not be relied on to establish an inventive step.

In particular, the board takes the view that due to the apparent lack of any implementational details concerning the claimed tactile feedback in the description, the question of sufficiency of disclosure with respect to this feature could only be resolved in the appellant's favour by relying on the assumption that it related to a matter of general knowledge for the skilled person.

6.11 For the sake of completeness, it is noted that, in the given context, the provision of a tactile feedback to a user is judged by the board to address the partial technical problem of making it easier for a user to use a trackball to position a cursor on a display. This partial technical problem and its solution are known from D3 (cf. D3: [0038] to [0041]). Given that D3 clearly indicates that its disclosure is applicable to trackballs used in handheld electronic devices such as mobile telephones (cf. D3: [0038] and [0050]) the board cannot concur with the appellant's submissions to the effect that said document could not be combined with D1 and D5 should this be required (cf. Facts and Submissions, item XIV(xi) above).

7. In view of the foregoing, the subject-matter of claim 1 of the fifth auxiliary request is judged to lack an inventive step in the light of the prior art of D1 and

D5. A similar finding applies with respect to claim 7 of the request.

Fourth auxiliary request

8. *Inventive step*

8.1 The independent claims of the fourth auxiliary request are substantially similar to those of the fifth auxiliary request and differ only in that they do not include a limitation to the effect that the secondary output items are related to the primary output items.

8.2 Accordingly, the findings noted under 7. above also apply to the independent claims of the fourth auxiliary request.

Main request and first and sixth auxiliary requests

9. *Inventive step*

9.1 The independent claims of the main request are significantly broader than those of the fifth auxiliary request and effectively specify that the second input member is used to navigate through a plurality of proposed linguistic elements such that successive ones of said elements are highlighted responsive to a detection of successive inputs from said member.

9.2 It is noted in this regard that the disambiguation routine of D1 is adapted to allow a user to navigate through a plurality of proposed linguistic elements on the display with successive ones of said elements being

highlighted responsive to a detection of successive key-based inputs (cf. observations under 4.5 above).

9.3 Having regard to the observations and findings set forth under 4. to 7. above, the subject-matter of the independent claims of the main request is also judged to lack an inventive step in the light of the prior art of D1 and D5.

9.4 The independent claims of the first and sixth auxiliary requests omit the use of the term "highlight" but nevertheless seek protection for substantially the same subject-matter as the corresponding claims of the main request using somewhat different wording (cf. Facts and Submissions, items XIII(i) and XIII (vi) above). Accordingly, the findings under 9.3 above also apply to the independent claims of said first and sixth auxiliary requests.

Third auxiliary request

10. *Inventive step*

10.1 Claim 1 of the third auxiliary request is based on claim 1 of the first auxiliary request and differs in that it additionally specifies that the proposed linguistic elements are "selectable" and that the selection input provided by the "second input member" is arranged to select from said selectable proposed linguistic elements.

10.2 It is noted in this regard that the proposed linguistic elements of D1 are selectable by means of a selection input provided by a key such as the OK function key (cf.

D1: col. 4 l. 20-25). Given that, in the wording of the aforementioned claim, the trackball of D5 is translatable with respect to the housing to provide a selection input (cf. D5: [0005], [0013] and [0019]), the board takes the view that it would be obvious in the given context to use the selection input provided by the trackball to replace the key-based selection input of D1.

- 10.3 In view of the foregoing, the additional features of claim 1 of the third auxiliary request referred to under 10.1 above are judged to be derivable in an obvious manner from a combination of D1 and D5 and consequently cannot contribute to an inventive step.

Conclusions

11. Having regard to the findings set forth above (cf. in particular 2.4, 7., 8.2, 9.3, 9.4 and 10.3), none of the appellant's requests are allowable. In the absence of an allowable request the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:

K. Götz

A. Ritzka