

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 28 September 2018**

Case Number: T 2074/12 - 3.5.06

Application Number: 03793432.0

Publication Number: 1558985

IPC: G06F1/16

Language of the proceedings: EN

Title of invention:

USER-INTERFACE FEATURES FOR COMPUTERS WITH CONTACT SENSITIVE
DISPLAYS

Applicant:

QUALCOMM Incorporated

Headword:

USER-INTERFACE FEATURES FOR COMPUTERS WITH CONTACT SENSITIVE
DISPLAYS/QUALCOMM

Relevant legal provisions:

EPC 1973 Art. 56

Keyword:

Inventive step - (no)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 2074/12 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 28 September 2018

Appellant: QUALCOMM Incorporated
(Applicant) 5775 Morehouse Drive
San Diego, CA 92121-1714 (US)

Representative: WP Thompson
138 Fetter Lane
London EC4A 1BT (GB)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 15 May 2012
refusing European patent application No.
03793432.0 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman W. Sekretaruk
Members: A. Teale
S. Krischer

Summary of Facts and Submissions

I. This is an appeal against the decision, dispatched with reasons on 15 May 2012, to refuse European patent application No. 03 793 432.0 on the basis that the claimed subject-matter lacked inventive step, Article 56 EPC, in view of the following document:

D5: US 5 502 461 A

and notorious prior art user interfaces for configuring toolbars or the quick launch bar of MS Windows, known from the document:

D3: "Chapter 1, Windows 98 Basics", Stevens A., Underdahl B.: "Teach Yourself Microsoft Windows 98", 1998, IDG Books Worldwide, Inc., Foster City, CA, USA, ISBN: 1-55828-594-6, pages 4 to 25.

II. *Inter alia* the following prior art documents were also mentioned in examination proceedings:

D6: US 5 731 801 A and

D7: US 6 188 789 B1.

III. A notice of appeal against the decision in its entirety and the appeal fee were received on 18 June 2012.

IV. With a statement of grounds of appeal, received on 13 September 2012, the appellant filed claims according to a main and first and second auxiliary requests, the claims of the main request being those currently on file and those of the auxiliary requests having being amended. The appellant argued that the claimed subject-matter was both novel and inventive over D5, D6 and D7

both individually and in combination. The appellant requested that all three requests be admitted and that formal amendments to the description and the claims be deferred until agreement on the claims has been reached. The appellant also made an auxiliary request for oral proceedings.

- V. In an annex to a summons to oral proceedings dated 12 June 2018 the board set out its provisional opinion, stating *inter alia* that the subject-matter of claim 1 according to the main and first auxiliary requests lacked novelty, Article 54(1,2) EPC 1973, in view of D5 and the subject-matter of claim 1 according to the second auxiliary request did not involve an inventive step, Article 56 EPC 1973, in view of the combination of D5 and D7.
- VI. In a letter received on 22 August 2018 the appellant stated that it would not attend the oral proceedings. The appellant has not submitted either amendments or arguments in response to the summons to oral proceedings.
- VII. The oral proceedings were subsequently cancelled.
- VIII. The application is being considered in the following form:

Description (all requests):
pages 1 and 3 to 18, as originally filed,
pages 1a and 2, received on 27 April 2007, and
pages 19 to 25, received on 30 May 2005.

Claims:

Main request: 1 to 27.

First auxiliary request: 1 to 27.

Second auxiliary request: 1 to 25.

Drawings (all requests):

Pages 1/8 to 8/8, as originally filed.

IX. Claim 1 according to the main request reads as follows:

"A method for altering the configuration of a user-interface of a mobile computer having a display, the method comprising: designating a region (110) on a display (124) of the mobile computer (100) for displaying a set of active icons (115) and for a handwriting recognition region (112) when the mobile computer is operated to execute any one of a plurality of applications; displaying the set of active icons (115) within the designated region (110), wherein each active icon' in the set is selectable in order to cause the mobile computer to perform a function that is assigned to that active icon and interpreting strokes made on the handwriting recognition region to recognise respective types of characters corresponding to user strokes; responsive to a user initiated event, altering a configuration of at least one of: (i) one or more active icons (115) in the set or (ii) the handwriting recognition region (112) or (iii) the designated region (110) in dependence on the extent to which character recognition is required."

X. Claim 1 of the first auxiliary request differs from that according to the main request in that in the response to a user initiated event "altering" has been amended to "independently altering".

XI. Claim 1 of the second auxiliary request differs from that of the main request in that the handwriting recognition region is further defined as "comprising a

plurality of handwriting recognition cells". In the step of interpreting strokes these are now defined as "on each cell" of the handwriting recognition region and "wherein at least one of the plurality of handwriting recognition cells is configured to recognise user strokes corresponding to characters and at least one of the plurality of handwriting recognition cells is configured to recognise user strokes corresponding to functions".

Reasons for the Decision

1. The admissibility of the appeal

In view of the facts set out at points I, III and IV above, the appeal complies with the admissibility criteria under the EPC and is consequently admissible.

2. The appellant's announcement that it would not attend the oral proceedings

Although the appellant, at the end of the statement of grounds, had made an auxiliary request for oral proceedings, the appellant later stated that it would not attend the oral proceedings scheduled for 7 November 2018. Under Article 15(3) RPBA the appellant is consequently treated as relying on its written case.

3. Summary of the invention

- 3.1 The invention relates to the contact-sensitive, configurable user-interface of a portable or handheld computer (termed a "mobile computer" in the claims), such as a personal digital assistant (PDA) (see figure

1), "tablet PC", "smart cell phone" or laptop; see page 1, lines 26 to 28, and page 3, lines 27 to 29 and 31 to 32. The contact-sensitive "active" input area of the interface provides a handwriting recognition region (112) (see page 4, lines 19 to 33) and a region (110) for displaying active icons, used to select particular functions of the computer. The active icons and the handwriting recognition region can be configured in response to user input, and the position of the active input area can be changed depending on the orientation of the computer or the "handedness" (left/right) of the user; see figures 6A to 6C and 7A to 7C and page 15, lines 26 to 34.

3.2 For instance, as shown in the flow chart of figure 3, a user "tap event" causes different icons to be displayed; see steps 320, 340. Figures 4A to 4D show four active icons, for instance one associated with a "display menu" 115A which can, after a tap event, be replaced by another associated with a "dialer" 115B; see page 10, line 32, to page 11, line 1.

3.3 The handwriting recognition region can be configured to provide a plurality of individual handwriting recognition cells. For instance, strokes entered into a first cell (112A) are recognized by the computer as alphabetical characters, while strokes entered into a second cell (112B) are recognized as numbers; see page 5, lines 18 to 20. A triple-cell configuration is also disclosed; see page 6, lines 17 to 26. The handwriting recognition area may also display "glyphs" to provide a visual cue for the user; see page 14, lines 24 to 33, and figures 5A and 5B.

4. The prior art on file

4.1 Document D5

4.1.1 D5 relates to a tablet computer (see figure 1; 1B) having a display panel with which a user can enter data using a "pen" (1C). As illustrated in figure 2, the panel (1A) displays a document area (20) and an input operation area (21); see column 6, lines 32 to 62. The input operation area comprises a character writing area (24) containing a plurality of rectangular "character writing frames" (241-244), a character type selecting area (26) (e.g. "Alphabet", "Numeral" or "Kanji") and a menu area (28) (e.g. "Entry" or "Function"). D5 discloses three embodiments. According to column 19, lines 20 to 24, in all three embodiments the character type selecting area (26) and the menu area (28) may not be shown, meaning that the character writing area fills the input operation area (21).

4.1.2 In the first embodiment each character writing frame accepts a single character, the character being recognized according to the selected character type. The user can use the pen to increase the horizontal dimension (Bw) of the whole input portion area (21) (see figures 6 to 8) with the result that the character writing area (24) grows and, with it, the number of character writing frames (241-246) it contains; see column 8, lines 28 to 33. The character type selecting area (26) and the menu area (28) however remain the same size. Figure 11 and column 9, lines 55 to 63, concern a corresponding reduction in the horizontal dimension. Similarly, as shown in figures 9 and 10, the user can increase both the vertical dimension (Bh) and horizontal dimension (Bw) of the input portion area (21); see column 9, lines 25 to 45. Consequently the

character writing area (24) grows and, with it, the number of character writing frames (241-246) in it; see column 8, lines 28 to 33. From figure 10 the board understands that the character type selecting area (26) and the menu area (28) remain the same size. As an alternative to increasing the number of character writing frames, as the character writing area grows the number of character writing frames may remain the same and the area occupied by each character writing frame may increase, as shown, for instance, in figure 15. Also in this case, the board understands that the character type selecting area (26) and the menu area (28) remain the same size.

4.1.3 In the second embodiment, illustrated in figure 25, the character writing area (40) has one or more (see figure 26) "character writing frames" (401) for accepting a plurality of handwriting characters. If the size of the character writing area increases, then the number of character writing frames can increase (see column 16, lines 6 to 25) the character writing frame (401) can grow; see figure 27 and column 16, lines 30 to 39.

4.1.4 In the third embodiment, illustrated in figure 33, the character writing frames are stacked like lines (termed "stages") on a page, an increase in the size of the character writing area leading to an increase in the number of lines; see figure 33. Also in these cases, the board understands that the character type selecting area (26) and the menu area (28) remain the same size.

4.2 Document D7

4.2.1 D7 relates to a handwriting recognition system for palmtop computers having different character input areas, each dedicated to a specific character set, for

instance Roman characters, numerals and Cyrillic characters. D7 was cited in the decision (reasons 3.1) regarding changing the character set in handwriting recognition. There is no mention of changing the size of an input area.

4.2.2 There is however disclosure of recognising strokes as functions; see column 4, lines 12 to 21. Two characters are entered, the first ("/") signifying "command" and indicating that the next character (the "command letter") should be interpreted as a command. Hence "/N" is recognised as the command "New Memo" and "/D" as the command "Delete Memo".

5. Inventive step, Article 56 EPC 1973

5.1 The appealed decision

According to the reasons for the decision, D5 disclosed a tablet PC with a character input portion whose size could be adapted by the user. The subject-matter of *inter alia* claim 1, which is the same as claim 1 of the present main request, differed from the disclosure of D5 in that the icons of the toolbar could be configured. User interfaces with configurable toolbars, for instance MS Word and Wordperfect, were notorious at the priority date and, in the case of the "quick launch bar" of MS Windows, known from D3. The skilled person would have implemented the difference feature whenever users desired to adapt the arrangement of functions to their needs.

5.2 The appellant's arguments

5.2.1 The appellant has argued that, according to claim 1 and page 6, lines 28 to 30, of the description, in response

to a user-initiated event the configuration of the handwriting recognition region could be altered without altering the configuration of the designated region or the configuration of the active icons. For example, the active icons could be removed from the active area, meaning that the handwriting recognition area occupied the whole active input area. This differed from the situation in D5 in which the size of the handwriting region and the data input frame were directly dependent on one another; see column 2, lines 30 to 35. The invention provided a more efficient interface in which the handwriting recognition region was only as large as it needed to be. The objective technical problem was thus "how to make the interface of a mobile computer more efficient and effective when handwriting recognition cells are being used". While D5 disclosed a trade-off between the sizes of the handwriting recognition regions and the data input frame, the invention allowed the configuration of the handwriting recognition region to be altered without altering the configuration of the designated region or the configuration of the active icons. Hence the claimed subject-matter was novel and inventive over D5, D6 and D7, taken both individually and in combination.

- 5.2.2 The same reasoning applied to the first auxiliary request except that the effect of the term "independently" added to *inter alia* claim 1 was that the objective technical problem could now be formulated as "how to make the interface of a mobile computer more efficient and effective when handwriting recognition cells are being used". Following decision T 643/00, producing a more efficient user interface which allowed a faster interaction with part of an apparatus was a technical problem.

5.2.3 Regarding the second auxiliary request, there was no disclosure in D5 of strokes entered by the user not only being recognized as characters but also as functions. The objective technical problem was therefore "how to enhance the range of input that can be entered using a handwriting recognition region on a mobile computing device". The claimed solution differed from the obvious one starting from D5, namely to use a larger associated dictionary of characters to be recognized. This was also not known from D7, which disclosed multiple character input areas for different character sets.

5.3 The board's finding on the inventive step of claim 1

5.3.1 The board understands the character writing area (24), known, for instance, from figure 2 of D5, as the handwriting recognition region set out in claim 1. The menu area (28) with the "Entry" and "Function" buttons (281,282) in D5 is understood as the region for displaying a set of active icons in the claims. The use of the "pen" to widen the input portion area (21) and thus the character writing area (24) (see figure 7 and column 8, lines 34 to 40) is regarded as a "user initiated event" in the terms of the claims. Claim 1 sets out the case of such an event altering the configuration of at least the handwriting recognition region.

5.3.2 For these reasons, and in the light of the analysis of D5 above, the subject-matter of claim 1 lacks novelty, Article 54(1,2) EPC 1973, in view of D5.

5.3.3 Although the term "independently", added to claim 1 in the first auxiliary request, is understood to allow independent alteration of at least one of the three

options, it still covers the case of altering the configuration of only the handwriting recognition region. However, D5 explicitly states that the character type selecting area (26) and the menu area (28) may not be shown, meaning that the character writing area fills the input operation area (21); see column 19, lines 20 to 24.

- 5.3.4 Hence the reasoning for the main request also applies to the first auxiliary request, and the subject-matter of claim 1 lacks novelty, Article 54(1,2) EPC 1973, in view of D5.
- 5.3.5 Claim 1 according to the second auxiliary request differs from claim 1 of the main request in that the handwriting recognition region is further defined as "comprising a plurality of handwriting recognition cells". In the step of interpreting strokes these are now defined as "on each cell" of the handwriting recognition region and "wherein at least one of the plurality of handwriting recognition cells is configured to recognise user strokes corresponding to characters and at least one of the plurality of handwriting recognition cells is configured to recognise user strokes corresponding to functions".
- 5.3.6 The concept of interpreting a user stroke as a function, rather than as a character, is not known from D5. The board takes the view that recognising a stroke as a function starts with recognising a stroke as a character. The difference between recognising a stroke as a character or as a function lies in executing the specified function in the latter case. In the context of the application, the board finds that the function does not always have a technical effect. For instance, in a calculator application, the recognition of a "+"

stroke as an addition function lacks any further technical effect beyond a mathematical method.

- 5.3.7 Even if, for the sake of argument, one were to assume that the recognition of a user stroke as a function always had a technical effect, this feature is known from D7; see column 4, lines 9 to 24. The skilled person starting from D5 and seeking to simplify the user interface would have considered adding the possibility of expressing functions via the existing alphabets as a matter of usual design. By applying the teaching of D7 to solve this problem, the skilled person would have arrived at the subject-matter of claims 1 and 22 in an obvious manner.
- 5.3.8 Hence the subject-matter of claim 1 does not involve an inventive step, Article 56 EPC 1973, in view of D5 alone or the combination of D5 and D7.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



S. Sanchez Chiquero

W. Sekretaruk

Decision electronically authenticated