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**Datasheet for the decision
of 29 November 2013**

Case Number: T 0983/10 - 3.5.06
Application Number: 96915599.3
Publication Number: 770240
IPC: G06F9/44
Language of the proceedings: EN

Title of invention:

GRAPHICAL USER INTERFACE WITH HIERARCHICAL STRUCTURE FOR
CUSTOMIZABLE MENUS AND CONTROL OBJECTS

Applicant:

APPLE INC.

Headword:

Customizable ornamental appearance/APPLE

Relevant legal provisions:

EPC 1973 Art. 84
EPC R. 111, 137(3)
RPBA Art. 11, 15(3)

Keyword:

Claims - clarity (no)
Remittal to the department of first instance - fundamental
deficiency in first instance proceedings - special reasons for
not remitting the case
Oral proceedings - held in absence of appellant

Decisions cited:

T 0049/99, T 0354/07, T 1171/06

Catchword:



**Beschwerdekammern
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Chambres de recours**

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Case Number: T 0983/10 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 29 November 2013

Appellant: APPLE INC.
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 23 December 2009 refusing European patent application No. 96915599.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: D. Rees
Members: M. Müller
M. Tardo-Dino

Summary of Facts and Submissions

- I. The appeals lies against the decision of the examining division, with written reasons dispatched on 23 December 2009, to refuse the European patent application no. 96915599.3 for lack of an inventive step, Article 56 EPC 1973. In the decision it is also reported that a second auxiliary request was not admitted during oral proceedings pursuant to Rule 137 (3) EPC for *prima facie* violation of Articles 123 (2) EPC and 56 EPC 1973.
- II. Notice of appeal was received on 17 February 2010, the appeal fee being paid on the same day. A statement of grounds of appeal was filed on 23 April 2010. The appellant requested that the decision under appeal be reversed since it violated both procedural and substantive provisions of the EPC and that a patent be granted based on one of three sets of claims as filed with the grounds of appeal. The board understands the application documents to be the following ones:
- claims, no.
1-10 according to the main or 1st auxiliary request
1-7 according to the 2nd auxiliary request,
all filed with the grounds of appeal
description, pages
1-12 as published
drawings, sheets
1/4, 4/4, 4/4 as published
3/4 as filed with letter of 28 July 2000
- III. With a summons to oral proceedings the board informed the appellant about its preliminary opinion raising *inter alia* objections under Article 123 (2) EPC and Article 84 EPC 1973. With regard to Article 56 EPC 1973, the board expressed its doubts whether the

claimed invention made a *technical* contribution to the art as it would appear at best only to contribute an advice to the programmer as to how to write a program for computers so as to facilitate the change of an aesthetic effect in the presentation of information. The board furthermore argued that the claimed invention, even on the assumption that it did make a technical contribution, appeared not to show an inventive step over the cited prior art.

IV. In response to the summons, the appellant informed the board that neither the applicant nor the respective representative would attend the oral proceedings. No amendments or arguments were filed.

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

"A computer system comprising

a display device (28),

an operating system including a graphical user interface to provide a user with a convenient mechanism to control the operation of the computer, said interface including graphical objects that are displayed on a monitor of the computer and that are accessed by users to control the operation of the computer, said interface comprising a plurality of definitions that are respectively associated with said graphical objects, each of said definition comprising a hierarchical set of software code modules, including:

a core class (52) at one level of the hierarchy which defines the structural appearance of elements that

constitute a displayed image of the graphical object;
and

a drawing module (54) at a lower level of the hierarchy which depends from said core class, said drawing module defining an ornamental appearance for the elements in the image of the graphical object to be displayed on the monitor."

Claim 1 of the first auxiliary request is identical to that of the main request up to the addition of the following phrase at the end:

"..., each drawing module being customizable independently of the core class."

Claim 1 of the second auxiliary request coincides with that of the main request up to and including the definition of the core class, the remainder being amended in a few places so as to read as follows:

"...
a plurality of drawing modules (54, 56) at a lower level of the hierarchy which depend from each core class, where each drawing module defines a different ornamental appearance for the elements in the image of the graphical object associated with the core class to be displayed on the monitor, each drawing modules being customizable independently of the core class

wherein said drawing modules are alternatively selectable by a user of the computer to present different themes for the graphical user interface."

All three requests also contain an independent method claim which substantially corresponds to the respective independent system claims.

- VI. Oral proceedings were held on 29 November 2013 as scheduled and, as announced, in the absence of the appellant. At the end of the oral proceedings, the chairman pronounced the decision of the board.

Reasons for the Decision

Appellant's absence from oral proceedings

1. The appellant was duly summoned but chose not to attend the oral proceedings. According to Article 15 (3) RPBA 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. The following reasons are based on the board's preliminary opinion as set out in the annex of the summons to oral proceedings.

The decision not to admit a request under Rule 137 (3) EPC

2. During oral proceedings, the examining division had invoked Rule 137 (3) EPC so as not to admit a second auxiliary request into the procedure because it appeared to introduce problems under 123 (2) EPC and did not overcome the examining division's objections under Article 56 EPC 1973.
 - 2.1 The fact that an auxiliary request was not admitted after a *prima facie* assessment of Articles 123 (2) EPC and 56 EPC 1973 is reported in the decision under

- appeal in the section "Facts and Submissions" (point 1.10), whereas the reasons of the decision under appeal do not mention this auxiliary request at all, let alone that it was not admitted or why.
- 2.2 According to the minutes of the oral proceedings however the reasons for the non-admission were discussed with the appellant. The minutes contain the non-admitted claims as an attachment and explain that the amendment "referring to drawing modules being customizable" was considered to constitute added subject matter and that "customization of object oriented modules" was considered not to add anything inventive over the prior art (see point 5.4).
- 2.3 The final decision of the examining division to refuse the application affects all requests pending at the time of the refusal, here in particular the non-admitted second auxiliary request. Therefore, the decision of the examining division not to admit a request under Rule 137 (3) EPC constitutes part of its final decision under Article 97 (2) EPC. A decision given orally shall subsequently be put in writing and any decision open to appeal shall be reasoned, Rule 111 (1,2) EPC.
- 2.4 Since the written reasons lack any reference to the second auxiliary request or its non-admission, they are incomplete with respect to the decision that was delivered orally and insufficient to justify the decision to refuse the application. The written decision is thus insufficiency reasoned, Rule 111 (2) EPC. The board considers that this is a fundamental deficiency in the sense of Article 11 RPBA which could have justified an immediate remittal to the first instance. In the present case, however, this deficiency has had no pre-

judicial consequence for the appellant since the reasons for the non-admission were discussed with the appellant, are reflected in the minutes and referred to in the decision. The appellant itself, albeit noting that the non-admission was not reflected in the decision, did not claim any. Under these circumstances there is no reason for remitting the case to the department of first instance.

Alleged procedural violations

3. The appellant claims *inter alia* that the decision under appeal violates procedural provisions of the EPC (see grounds of appeal, p. 1, 1st par.). However, apart from noting the deficiency of the written decision as just discussed the appellant did not substantiate its allegation. Also the board has no further reason to object against the examining division's procedural conduct.

The invention

4. The application in general relates to the customization of graphical user interfaces (GUIs).
 - 4.1 A distinction is made between the "functionality" and the "appearance" of individual GUI objects (p. 6, lines 20-31). Appearance is further divided into the aspects of "structural" and "ornamental appearance" (p. 6, line 32 - p. 7, line 13): The former is disclosed to define the "overall structure of each object", in particular "the relative positions of different elements which make up the object" (p. 4, lines 1-2 and fig. 2), the latter to define things like colour, pattern, shape, font, or line width (p. 7, lines 6-13 and 26-29) and to represent the GUI appearance according to different

"themes" (p. 2, lines 11-26; p. 8, lines 23-26; fig. 4).

- 4.2 It is disclosed that GUI objects such as push button, menus or scroll bars should generally behave the same across applications, *i.e.* their *functionality* should not change (see p. 6, lines 29-31). It is also disclosed that "structural aspects" of the GUI should not change so as to maintain "consistency" of the GUI (see p. 3, lines 1-25). Program code at this level should preferably be provided by the operating system developer (p. 9, lines 10-12). On the other hand, it is disclosed to be desirable that code for the "ornamental appearance" can be written by different developers and be varied by the user (p. 9, lines 12-14 and 29-30).
- 4.3 To enable this flexibility, the invention as claimed specifies that the definitions for each individual graphical object be provided as a "hierarchical set of software code modules". Each such hierarchy provides a so-called "core class" to define the "structural appearance" and "drawing modules" to define the "ornamental appearance". The latter are specified to be "at a lower level of the hierarchy" than the core class and to "[depend] from said core class".
- 4.4 Claim 1 of the first auxiliary request further defines that "each drawing module [be] customizable independently of the core class" and claim 1 of the second auxiliary request that the drawing modules be "alternatively selectable by a user ... to present different themes" for the GUI.

Claim construction and clarity, Article 84 EPC 1973

5. In the decision under appeal it was argued that the terms "ornamental appearance" and "structural appearance" were vague and, when interpreted broadly, overlapped in meaning (point 2.3.2). The appellant has challenged this, arguing that these terms must be interpreted in view of the description - the patent being its own dictionary (grounds of appeal, p. 4, 1st par.) - and can, on this basis, be sharply distinguished (p. 4, 3rd par.).

5.1 The description does not contain a definition for either "structural appearance" or "ornamental appearance". The description appears to use as a synonym of "structural appearance" the term "overall structure" and explains it to relate to "the relative positions of different elements which make up the object" (see p. 4, lines 1-2; and p. 6, lines 33-34). "Ornamental appearance" is introduced in contrast to "structural appearance" but otherwise illustrated by example (see p. 7, lines 6 ff.). A single example is further elaborated on, namely that of a scroll bar (see fig. 2): It is explained that "every scroll bar ... should have the same general structure" within which each of the elements can have its own "ornamental appearance".

5.2 The board considers that even in view of the explanations given in the description the two terms are vague and cannot be sharply distinguished. The description itself discloses that one element of a scrollbar, the "thumb", allows different shapes as "ornamental appearance" (p. 7, lines 6-13) whereas others, the "arrows", are structural parts of the scrollbar (p. 6, line 36 and fig. 2) and thus can only be replaced by other shapes which are recognizable as arrows. Also it is

clear that, while colour is disclosed as an "ornamental" aspect (p. 7, line 8), it may not be possible to change colours without affecting the "consistency" of a GUI, for example in an alert window showing a risky option in red and a safe alternative in green. Even entire images (like a trash can symbol) must not be changed arbitrarily without affecting the intelligibility of desktop metaphors and thus the consistency of the interface.

- 5.3 As a consequence the board considers that it is justified to interpret both terms broadly - as did the examining division in the decision under appeal.
- 5.4 The board is however also of the opinion that it is not central for the invention whether an individual GUI feature is considered to be part of the structural or ornamental appearance of the GUI: In general, it may depend on the circumstances whether a particular feature of a given GUI is (or is deemed) important for the "consistency" of the GUI and therefore should not be changed, or whether it is a mere "ornamental" feature which may be changed without affecting GUI consistency. From this perspective, the board considers that these terms, while justifying a broad interpretation, do not render the claims unclear.
6. In the board's understanding the application as a whole teaches that the aspects of a GUI may be divided into two groups according to their impact on the GUI consistency and that the one of them with the lesser impact should be made available for customization by the user. In this context, the invention is meant to provide some kind of software architecture to enable this.

- 6.1 All independent claims refer to a "hierarchical set of software code modules", amongst which there is "a core class" and one or more "drawing modules".
- 6.2 The core class and drawing module(s) are specified in terms of what they define (the structural or ornamental appearance, respectively, of "elements that constitute a displayed image of the [defined] graphical object", and by reference to different "levels of [a] hierarchy" to which they belong. In this hierarchy, apparently meant to refer to the "hierarchical set of software modules" defined previously, the drawing modules are further defined as "depend[ing] from [the] core class".
- 6.3 This language however leaves open what exactly constitutes a "software code module", "a core class" or a "drawing module". In the board's judgment, any piece of code qualifies as a "software code module" as claimed. The claim language also leaves open to which extent and in what manner the reference to a "hierarchy" has implications on the implementation of the claimed "software code modules".
- 6.4 In the board's judgment the claims do not exclude the interpretation that the claimed "hierarchy" with "levels" depending on each other are mostly conceptual: That is, the claims do not exclude the possibility that the *model* of a GUI object involves a hierarchy of levels relating to "functionality", "structural appearance" and "ornamental appearance" whereas the *implementation* does not mirror this hierarchy entirely or even at all. It is also noted that a GUI may be modelled in terms of objects and classes without having to be implemented in an object-oriented language.

- 6.5 Of course, there will be intrinsic dependencies between the levels: *E.g.* the functionality of an object might require the existence of a scroll bar and the drawing of a scroll bar presupposes that line width and line colour be predefined, if implicitly. This does not however seem to limit significantly the ways in which such dependencies may be expressed in an implementation.
- 6.6 The claim language therefore leaves unclear to what extent the features relating to a "hierarchy", its "levels" and the "dependencies" between the levels, are aspects of modelling or to what extent they represent aspects of an implementation and, in the latter case, which ones.
- 6.7 This distinction is important *inter alia* because at least the purely conceptual aspects of software design and development will normally not contribute to an inventive step according to the jurisprudence of the boards of appeal (see *e.g.* T 49/99, T 354/07, and T 1171/06, not published).
- 6.8 The claim language also leaves unclear by which means the invention intends to achieve the effect of making ornamental GUI aspects customizable by users.
- 6.9 The board therefore comes to the conclusion that independent claims 1 and 9 of the main request lack clarity, Article 84 EPC 1973.
7. The board considers that this objection also applies to the independent claims of the auxiliary requests.
- 7.1 Specifically, the additional feature in the independent claims of the first auxiliary request, namely that of

"each drawing module being customizable independently of the core class", is insufficient to clarify the meaning of the terms drawing module and core class themselves. In fact, this new feature causes the additional problem that it is not clear what precisely it should mean for a drawing module to be "customizable".

7.2 Also the further additional feature in the independent claims of the second auxiliary request according to which "drawing modules are alternatively selectable by a user ... to present different themes" does not make clear what a drawing module is and what it should mean for a drawing module to be "selectable" by a user "to present ... different themes".

7.3 The board therefore concludes that the independent claims of the auxiliary requests lack clarity, too, in violation of Article 84 EPC 1973.

7.4 Under these circumstances the board's further objections under Articles 123 (2) EPC and 56 EPC 1973 as raised in the annex to the summons to oral proceedings need not be addressed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



B. Atienza Vivancos

D. Rees

Decision electronically authenticated