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# Datasheet for the decision of 26 February 2016

**Case Number:** T 1145/10 - 3.5.07

**Application Number:** 04102462.1

**Publication Number:** 1513075

**IPC:** G06F17/24, G06F1/00, G06F17/60

**Language of the proceedings:** EN

**Title of invention:**
Method and apparatus for protecting regions of an electronic document

**Applicant:**
Microsoft Technology Licensing, LLC

**Headword:**
Document region protection/MICROSOFT TECHNOLOGY LICENSING

**Relevant legal provisions:**
EPC Art. 56

**Keyword:**
Inventive step - (no) - mixture of technical and non-technical features

**Decisions cited:**
T 0643/00, T 0154/04, T 0690/06

**Catchword:**

Europäisches Patentamt
European Patent Office
Office européen des brevets

**Beschwerdekammern**
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**Case Number: T 1145/10 - 3.5.07**

# D E C I S I O N
# of Technical Board of Appeal 3.5.07
# of 26 February 2016

| | |
|---|---|
| **Appellant:** (Applicant) | Microsoft Technology Licensing, LLC<br>One Microsoft Way<br>Redmond, WA 98052 (US) |
| **Representative:** | Grünecker Patent- und Rechtsanwälte<br>PartG mbB<br>Leopoldstraße 4<br>80802 München (DE) |
| **Decision under appeal:** | **Decision of the Examining Division of the European Patent Office posted on 23 December 2009 refusing European patent application No. 04102462.1 pursuant to Article 97(2) EPC.** |

**Composition of the Board:**

| | |
|---|---|
| **Chairman** | R. Moufang |
| **Members:** | P. San-Bento Furtado |
| | R. de Man |

## Summary of Facts and Submissions

I. The former applicant, Microsoft Corporation, appealed against the decision of the Examining Division to refuse European patent application No. 04102462.1. With effect from 2 February 2015 the application was transferred to Microsoft Technology Licensing, LLC, which thereby obtained the status of appellant.

II. The application was refused for lack of inventive step, Articles 52(1) and 56 EPC, of the subject-matter of independent claims 1 of a main request and three auxiliary requests. The closest prior art was considered to be "a standard computerized system, as it was generally known before the priority year of 2003" for the first three requests. With respect to the third auxiliary request the Examining Division stated that the "notorious closest prior art" was "a computer with a word processing application".

III. During the examination proceedings the Examining Division cited *inter alia* the following documents:

D2: Pedicini J et al.: "Step by Step. Microsoft Word Version 2002", "Chapter 8 Collaborating with Others", pages 129 to 149, including also parts of chapters 11 and 12, pages 208 to 221, 2001;

D5: Decouchant D. et al.: "A Cooperative, Deductive and Self-Adaptive Web Authoring Environment", Lecture Notes in Artificial Intelligence, "MICAI 2000: Advances in Artificial Intelligence", Mexican International Conference on Artificial Intelligence, Acapulco, Mexico, April 2000, pages 443 to 457.

IV. In the statement of grounds of appeal, the appellant requested that the decision be set aside and that a

patent be granted on the basis of a main request or of either of auxiliary requests 1 and 2. The main request corresponded to the third auxiliary request considered in the appealed decision.

V. The appellant was invited to oral proceedings. In a subsequent communication, the Board expressed the preliminary opinion that the subject-matter of claims 1 of the main and two auxiliary requests was not inventive over the prior art disclosed in document D2 in combination with the common general knowledge in the area of graphical user interfaces. The Board also mentioned the possibility of starting the inventive-step assessment from a generally known web-based collaborative authoring system or from the disclosure of document D5. The Board raised doubts concerning added subject-matter with respect to the auxiliary requests.

VI. With a letter of reply the appellant filed two new auxiliary requests 1a and 2a.

VII. Oral proceedings were held on 26 February 2016. At the end of the oral proceedings, the chairman pronounced the Board's decision.

VIII. The appellant's final request was that the contested decision be set aside and that a patent be granted on the basis of the claims of the main request or, in the alternative, on the basis of the claims of one of auxiliary requests 1, 1a, 2 and 2a.

IX. Claim 1 of the main request reads as follows:
"A method for protecting regions within an electronic document, the method comprising:
executing a word processing application program (30) on a computer, the word processing application program

operative to provide an administrative mode (1506; 1602; 1720) and an enforcement mode (1510; 1608; 1702), wherein

in the administrative mode the word processing application program is operative

to receive the selection of a region (62; 90; 92) within the electronic document and the identities of one or more users (68A; 68B) authorized to freely edit the selected region,

and to receive the selection of a protection scheme to be applied to the entire electronic document, wherein said protection scheme comprises one of rendering the entire electronic document read-only; allowing only comments to be inserted into the electronic document; allowing users to only freely edit form fields contained in the electronic document; and allowing tracked edits to be freely made to the entire document;

and wherein, in the enforcement mode, the word processing application program is operative

to apply the selected protection scheme to the document,

to receive requests to edit regions of the electronic document and to deny (1708) requests to edit regions of the electronic document made by users not authorized to freely edit the regions,

and to dynamically displaying a message (104) to the user depending on the location of the insertion point (110), wherein, if the insertion point is located within a region that may be freely edited by the user, the message indicates that the user may freely edit within the region, whereas, if the insertion point is within a region of the electronic document that the user is not authorized to freely edit, the message indicates

that the user is not permitted to edit in the region."

X. Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that it additionally includes the following text inserted at the end of the features "to receive the selection of a region ... freely edit the selected region,":

"wherein the identified users are displayed in an individuals list (74)",

and the following text inserted before the text "and wherein, in the enforcement mode, ...":

"and wherein a menu (80) may be accessed for each entry (78) in the individuals list (74), the menu including a menu item (82) for finding the next region that a user identified in the entry may edit, wherein when the menu item is selected, the next region may be highlighted or otherwise indicated to the current user;".

XI. Claim 1 of auxiliary request 1a differs from claim 1 of auxiliary request 1 in that the text "wherein the identified users are displayed in an individuals list (74);" has been replaced by the following description of an additional step:

"to display a dialog box by selecting a corresponding button, wherein user names and addresses for additional users authorized to edit the selected region can be supplied by a user, and upon closing the dialog box by selecting a corresponding button the identified users are displayed in an individuals list (74) wherein the individual names of the users are then available for the selection to authorize the users to override a protection

scheme applied to the entire document and to freely edit the selected region;".

XII. Claims 1 of auxiliary requests 2 and 2a respectively differ from claims 1 of auxiliary requests 1 and 1a in that the text "the menu including a menu item ... indicated to the current user" has been replaced by the following:

"the menu including
a menu item (82) for finding the next region that a user identified in the entry may edit, wherein when the menu item (82) is selected, the next region may be highlighted or otherwise indicated to the current user;
and a menu item (84) for showing all regions that the user identified by the entry is permitted to edit;
and a menu item (86) for removing all of the editing privileges for the user identified in the entry (78);".

## Reasons for the Decision

1. The appeal complies with the provisions referred to in Rule 101 EPC and is therefore admissible.

*The invention*

2. The invention is directed to a method for protecting regions within an electronic document in a word-processing application.

The word-processing application provides an administrative mode and an enforcement mode (see the

description of the application as filed, page 3, lines 28 to 32).

In the administrative mode, a protection scheme may be defined for the entire document, for instance making the entire document read-only. Additionally, the user may select a region within the electronic document and identify users authorised to freely edit the region (page 2, line 17 to page 3, line 2, page 3, line 32 to page 4, line 2, page 9, line 26 to page 10, line 30).

In the enforcement mode, when a request to edit a region of the electronic document is received, the word-processing program of the invention determines whether the user making the request is authorised to edit the region. If the user is not authorised, the request is denied (page 3, lines 3 to 18, page 4, lines 3 to 7, page 10, line 31 to page 11, line 8).

*Main request - inventive step*

3. The main request corresponds to the third auxiliary request considered in the contested decision. The Board agrees with the Examining Division that the claims define a mix of technical and non-technical features. In particular, the invention of claim 1 implements an administrative method comprising

(a) defining the protection scheme for an entire document, where the protection is one of: read-only, only insertion of comments, editing only of form fields, or allowing tracked changes,

(b) defining regions within a document and identifying for each region one or more users authorised to freely edit the region,

(c) enforcing the protection scheme and authorisation settings of (a) and (b).

4. The Examining Division recognised that applying the protection scheme and denying editing of a (region of a) document were technical features (see section 1.8.2 of the decision). In the opinion of the Board, in the context of a computer implementation of the administrative method, those features, which essentially correspond to (c) above, indeed result in stored data being retrieved or changed, or in a user being denied write access to stored data. The Board considers those effects technical, in line with decision T 690/06 of 24 April 2007 (see reasons 7 and 8). Consequently, the Board finds that features (c) "interact with technical features to produce a technical effect", and contribute to the technical character of the invention (see T 154/04, OJ EPO 2008, 46, see reasons 5(F) and 13).

The Examining Division considered "a standard computerized system as it was generally known before the priority year of 2003", which did not require further evidence, to be the closest prior art with regard to the then main request and first and second auxiliary requests (see section 1.4 of the decision). The difference between the subject-matter of claim 1 of the then main request and the generally-known computer system was that the known technical means were used to carry out the administrative aspects. The objective problem solved by the claimed invention was therefore "how to implement the requirements specification on a generally known computer system". The implementation of such a method in a software application, even if considered technical, was a matter of common general knowledge of a skilled person, who in that case was a programmer with normal skills and the general knowledge at the priority date.

In the first-instance proceedings, claim 1 of the then third auxiliary request (see also section IX above) added to claim 1 of the preceding requests the features describing the administrative and enforcement modes of operation, the step of executing a word-processing application providing the two modes of operation and performing the steps of the method, including the step of receiving a selection of a protection scheme, and the step of

(d) dynamically displaying a message to the user depending on the location of the insertion point, wherein, if the insertion point is located within a region that may be freely edited by the user, the message indicates that the user may freely edit within the region, whereas, if the insertion point is within a region of the electronic document that the user is not authorised to freely edit, the message indicates that the user is not permitted to edit in the region.

In the inventive-step analysis for claim 1 of the then third auxiliary request, the Examining Division started from "a generally known computer system with a word processing application", which it considered to be notorious (sections 4.2 and 4.5). According to the decision, the applicant had agreed that an inventive step could only be based on feature (d) above. The Examining Division considered feature (d) to simply relate to an additional user requirement which was "the wish of the user to be notified by a message of whether or not a document region situated at or around the insertion point can be edited" (section 4.2). The objective problem underlying the distinguishing features could therefore only be seen as how to implement the requirements specification on "a generally known computer system within a word-processing application".

The mere implementation of such a method, even if considered technical, was "a matter of common general knowledge of a skilled person" (section 4.3).

5. Depending on the case at hand, it may be acceptable to start the inventive-step assessment of a particular invention including a mix of technical and non-technical features from a "general-purpose computer system" or a "standard computerised system" as known at the effective filing date, without citing documentary evidence. However, the inventive-step reasoning should normally mention which features, especially which technical features of the invention, are anticipated by that well-known prior art. Moreover, where specific technical features or functionality of the standard computerised system are required to implement the non-technical features, those specific well-known technical features and functionality should be clearly identified.

In the present case, the Board finds that the implementation of the non-technical administrative process (a) to (c) requires technical functionality relating to control of access to parts of a document, user access rights, or support for multiple users. It is not clear whether the Examining Division considered such features to be part of the generally-known standard functionality of word-processing applications at the date of priority of the present application. The decision to add such essential technical functionality to a known standard system not supporting it, even if originally motivated by a non-technical requirement, involves technical considerations and might involve an inventive step.

The Examining Division did not explain in detail in the decision which functionality it considered standard or

well-known functionality of the "notorious closest prior art which is a computer with a word processing application". The Board is aware that in previous communications the Examining Division had cited document D2, which discloses prior art originating from the former applicant. It relates to the version of 2002 of Microsoft Word, a well-known and widely used word-processor at the date of priority of the present application. However, this document was not cited in the decision to illustrate the generally-known functionality of a standard word-processor. Furthermore, even if in principle the functionality of such a well-known word-processor can be considered common knowledge for the skilled person, it is doubtful whether the advanced functionality derived from document D2 was notoriously known. The functionality described in it, e.g. control of access to parts of a document, was anyway neither discussed nor mentioned in the decision as being well-known from standard word-processing applications.

Consequently, the Board is not entirely persuaded by the reasoning of the contested decision with regard to inventive step, including that relating to the subject-matter of claim 1 of the then third auxiliary request, corresponding to the present main request.

6. Document D2 discloses a GUI-based word-processing application extended with some collaboration functionality for the editing or reviewing of a document by multiple users. It supports the insertion of comments to a document, and tracking of changes by multiple identified users (see title, pages 129 to 131, 135). Document D2 is hence an adequate starting point for discussing inventive step.

7. The system of document D2 supports both read-only and password-based protection of documents (page 129, second paragraph). It also allows the creation of forms and "protecting the form so that users can interact only with the fields, not change the form itself", optionally in combination with password protection (page 216, third paragraph).

From the above, it follows that the system of document D2 supports protection schemes similar to those mentioned in the claim, namely rendering the document read-only, allowing comments to be inserted, allowing only editing of form fields, or allowing tracked edits. Only one of the protection schemes mentioned in the claim (see (a) above), i.e. allowing only comments to be inserted, is not disclosed in document D2.

In the opinion of the Board, the support for access control to parts of the document (e.g. a form field) means that the system of D2 also authorises or denies user operations on a document or on a region of a document in accordance with the protection scheme and authorisation settings for the document, similarly to feature (c) (see point 3 above). It also means that the method of document D2 includes a step of receiving the selection of a region with access permission within the electronic document.

Two modes of operation, corresponding to the administrative and enforcement modes specified in the claim, are also implicit in the system of document D2, which allows the definition and enforcement of access permissions.

8. The subject-matter of claim 1 of the main request therefore differs from the method for protecting regions within a document by the system of document D2 in that

(a') the selected and applied protection scheme may also be that of allowing only comments to be inserted according to (a) above,

(b') for a selected region the identities of the users authorised to freely edit the region (see step (b) above) are received and, in the enforcement mode, requests to edit regions made by non-authorised users are denied,

and in that a dynamically displayed message indicates whether the user may freely edit the current region, as recited in (d) above.

9. Steps (a) and (b) relate to non-technical administrative constraints reflecting the types of policies required by an authority, or an owner or administrator of a document, with respect to certain operations to be allowed or denied for particular users of the document, for instance co-authors, collaborators or clients. Establishing such policy types does not involve any technical considerations.

The problem underlying the subject-matter of the distinguishing features (a') and (b') is therefore the implementation of the non-technical administrative steps (a) and (b) on a method performed by the system of document D2.

Steps (a') and (b') follow directly from the administrative scheme. As explained above, feature (a') is actually a minor modification of features of document D2. Taking into account that the system of D2 knows the user name, and supports user-based functions (see e.g. first paragraph of page 135) and control of

access to parts of the document (page 216), it would be obvious for the skilled person to add the distinguishing features (a') and (b') to a method performed by the word-processing system of D2, in order to arrive at a method carrying out administrative steps (a) and (b).

In its reply to the Board's communication, the appellant argued that, even if defining regions within a document and identifying authorised users for a region were merely an administrative activity, enforcing the protection schemes of the invention in the system of document D2 would be done by protecting regions by passwords. The Board, however, finds that whether the control of access is by password or on the basis of the identity of the user is a consequence of a non-technical requirement with regard to the type of document protection desired by the document owner. Since the system of document D2 supports both user-based functions and password-based access control, it would be obvious to support control of access based on the user names to meet user requirements. Furthermore, the claim does not specify further technical implementation details of the control of access based on the user's identity.

10. In the grounds of appeal the former appellant argued that features (d) rendered the subject-matter of claim 1 inventive over the cited prior art. By displaying the message indicating whether the user was permitted to freely edit the region in which the insertion point was currently located in the enforcement mode, the system let the user instantly recognise his status with regard to the protection applied to the respective region. As a consequence, the user did not waste time and effort by trying in vain to edit a region, possibly assuming that the computer was malfunctioning when his changes were not reflected by the electronic document as seen on

screen. None of the cited prior-art documents suggested a related feature. As in T 643/00 of 16 October 2003, these features had the technical effect of improving efficiency of the user's task when working with possibly complex and extensive data.

The subject-matter discussed in T 643/00, which related to a user interface for searching and retrieving images, is very different from that of the present application, as pointed out by the Examining Division. The two cases can be considered to have in common the improvement of user interaction. Feature (d) can be seen as solving the problem of improving user interaction during editing of a document with protected regions.

11. Improving user interaction by means of status information was standard practice before the date of priority of the present application. As the Board explained at the oral proceedings, it was common in well-known word-processors to show editing, styling or formatting modes for the current region of the document. The Board cited the example of the Microsoft word-processor of document D2, which displayed such status information in the horizontal ruler on top of the edited document and in the toolbars shown in the figures of pages 131, 137 and 139. The horizontal ruler showed the indentation of the current paragraph or line, whereas the toolbars displayed the text alignment of the current paragraph (e.g. left, right, centred or justified), or settings relating to font, character formatting (e.g. bold, italic), text style, or other options.

In its letter of reply to the Board's communication, the appellant argued that it was difficult to imagine how, with the password-based protection scheme of document D2, it would be straightforward to dynamically display a

message indicating whether or not the user could freely edit the region, since the document did not know whether or not the user knew the password and was allowed to edit the region or not. The Board does not find this argument persuasive, because the system of document D2 is at any time aware of whether the user has already entered the password or not, and whether the current region (for example, an input field in a form) is read-only or editable.

Taking the above into account, the Board is of the opinion that it would be an obvious option for the skilled person to improve the user interface of a system with protected regions by adding further status information similar to that known from the prior art. In the context of editing documents with protected regions, it would be an immediate option to add, to a word-processing system with the functionality of document D2, status information regarding whether the user is allowed to edit the current region. Whether the status information in the form of a message, as specified in the claim, is to be distinguished from the type of visual indication mentioned above is not relevant; such a difference constitutes a minor detail and relates in any case to the non-technical question of how to present the information.

In the Board's opinion, the problem solved by feature (d), related to editing the document in the enforcement mode, is independent of that solved by features (a') and (b') above, directed to the protection and authorisation scheme. No synergistic effect is recognised from combining feature (d) with features (a') and (b').

12. The subject-matter of claim 1 of the main request is therefore not inventive (Articles 52(1) and 56 EPC).

*Auxiliary requests 1 and 2 - inventive step*

13. Claims 1 of auxiliary requests 1 and 2 (see sections X and XII above) essentially add to the subject-matter of claim 1 of the main request the features specifying that

(i) the identified users are displayed in a list, and that

(ii) a menu may be accessed for each entry in the individuals list, the menu including menu items for

- finding the next region that a user identified in the entry may edit, e.g. by highlighting that region,

and, only in auxiliary request 2, for

- showing all the regions that the user is permitted to edit, and
- removing all the editing privileges for the user.

14. The Board agrees with the appellant's argument that the additional features of the auxiliary requests facilitate the management of granted rights in a document. The features of the auxiliary requests are directed to the problem of improving those management tasks for the desired document protection scheme, or the performance of the administrative steps (a) and (b).

In its communication, the Board pointed out that, at the priority date of the present application, menu-based graphical user interfaces like that of the system of document D2 were widely used to improve the efficiency of user interaction with computer applications such as word processors or collaborative authoring systems.

Those graphical user interface systems provided standard elements such as lists or menus to display information or let the user choose an option, an item or a function.

The appellant argued that the specific function defined by the features of the auxiliary requests was not known from the "prior art of a general list or menu" and was not obvious. The features were not a straightforward implementation but rather one particular embodiment of how the information could be processed in order to "alleviate otherwise cumbersome tasks".

The Board is not convinced by this line of argumentation and finds that, at the priority date of the present application, it was part of the routine tasks of the skilled person to improve user interfaces by means of standard GUI features and functions. In his usual work, the skilled person chooses known interaction techniques on the basis of the required functionality. Since the desired protection scheme is based on regions within a document which only authorised users may freely edit, it would be obvious to add functions for displaying the users, showing editable regions or removing editing privileges to the system of document D2. The skilled person would immediately consider doing so by means of standard GUI features and elements such as highlighting, menus and lists, especially since the system of document D2 already uses such features; see, for example, the drop-down menus shown in the figure on page 218.

15. The subject-matter of claim 1 of auxiliary requests 1 and 2 therefore does not involve an inventive step either (Articles 52(1) and 56 EPC)

*Auxiliary requests 1a and 2a - inventive step*

16. Each claim 1 of auxiliary requests 1a and 2a differs from the respective claim of auxiliary requests 1 and 2 essentially in that it further describes how the individuals list can be built by means of a dialogue box in which a user can enter user names and addresses. The individual names of the users are then available for selection for user authorisation (see sections XI and XII above).

In its letter and at the oral proceedings the appellant explained that these amendments were made to address the comment of the Board concerning added subject-matter with respect to auxiliary requests 1 and 2. At the oral proceedings the appellant agreed to leave the questions regarding added subject-matter and clarity open, subject to the discussion on inventive step. It was nevertheless discussed how to read the feature "user names and addresses for additional users authorized to edit the selected region can be supplied by a user" of auxiliary requests 1a and 2a. It was not clear whether the feature meant that the users added to the list should have been authorised before, which appeared to be illogical. The appellant agreed to ignore the ambiguous phrase and to interpret the feature as "user names and addresses for additional users can be supplied by a user".

17. With regard to inventive step, the arguments of the appellant for auxiliary requests 1a and 2a were essentially the same as those discussed for auxiliary requests 1 and 2.

In the Board's view, the decision to let the user enter data into the list of individuals reflects the idea that the owner or original author of the document should

specify the other co-authors, revisers or collaborators for the document. It is hence a non-technical decision based on considerations regarding the protection and authorisation scheme or the administrative method. The fact that addresses as well as user names are stored in the list has no technical relevance in the claimed method, because the addresses are not further used and have no effect in the claimed method.

The additional features of auxiliary requests 1a and 2a therefore solve the problem of allowing the user to enter individuals' identification data into the list of individuals.

Dialogue boxes constituted a very common solution to support data input in GUI-based systems at the date of priority of the present application. In those systems it was also common practice to use buttons to open and close a dialogue box, or to start an action. The Board further notes that, as a consequence of the additional features of auxiliary requests 1a and 2a, the menu including the list of individuals is not fixed by the system but instead includes the individuals entered by the user. However, dynamic menus including entries specified by the user were widely used in the prior art. Document D2 describes on page 218 such an example of a user-configurable menu in the form of a drop-down list of items entered by the user. It would therefore be obvious for the skilled person to implement the desired functionality by means of a dialogue box and buttons.

18. The subject-matter of claim 1 of auxiliary requests 1a and 2a therefore does not involve an inventive step either (Articles 52(1) and 56 EPC).

*Concluding remark*

19. As none of the appellant's requests is allowable, the appeal has to be dismissed.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar: The Chairman:

I. Aperribay R. Moufang

Decision electronically authenticated