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**Datasheet for the decision  
of 13 January 2023**

**Case Number:** T 2853/19 - 3.5.07

**Application Number:** 13176257.7

**Publication Number:** 2824588

**IPC:** G06F17/30

**Language of the proceedings:** EN

**Title of invention:**

Merging sets of data objects for display

**Applicant:**

BlackBerry Limited

**Relevant legal provisions:**

EPC Art. 54, 56, 84

**Keyword:**

Novelty - main request, first and second auxiliary requests  
(no)

Inventive step - third and fourth auxiliary requests (no)

Claims - clarity - fifth auxiliary request (no)

**Decisions cited:**

G 0001/19, T 0154/04



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Case Number: T 2853/19 - 3.5.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.07**  
**of 13 January 2023**

**Appellant:** BlackBerry Limited  
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**Representative:** MERH-IP Matias Erny Reichl Hoffmann  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 9 April 2019  
refusing European patent application No.  
13176257.7 pursuant to Article 97(2) EPC**

**Composition of the Board:**

**Chair** J. Geschwind  
**Members:** M. Jaedicke  
P. San-Bento Furtado

## **Summary of Facts and Submissions**

- I. The appellant (applicant) filed an appeal against the examining division's decision refusing European patent application No. 13176257.7 (published as EP 2 824 588) with a filing date of 12 July 2013.
- II. The documents cited in the contested decision included:  
D4 Michael B. Shebanek, "Moving, Copying, and Duplicating" (in "THE COMPLETE GUIDE TO THE NEXTSTEP USER ENVIRONMENT"), 31 December 1993, pp. 44, 65-68.
- III. The examining division refused the application *inter alia* on the grounds that the subject-matter of the independent claims of the main request and of each of the first and second auxiliary requests lacked novelty over the prior art disclosed in document D4, and that the subject-matter of the independent claims of each of the third and fourth auxiliary requests lacked inventive step over the prior art disclosed in document D4.
- IV. In its statement of grounds of appeal, the appellant requested that the contested decision be set aside and that a patent be granted on the basis of the main request or one of the first to fourth auxiliary requests, all requests as considered in the contested decision and resubmitted with the grounds of appeal, or on the basis of the fifth auxiliary request submitted with the grounds of appeal.
- V. In a communication under Article 15(1) RPBA 2020 accompanying the summons to oral proceedings, the board expressed, among other things, its provisional opinion

that the subject-matter of claim 1 of the main request and of the first and second auxiliary requests lacked novelty in view of document D4, that the subject-matter of claim 1 of the third and fourth auxiliary requests lacked inventive step in view of document D4 and that claim 1 of the fifth auxiliary request was unclear.

- VI. In a subsequently-filed letter, the appellant submitted further arguments.
- VII. Oral proceedings were held as scheduled and the appellant was heard on the relevant issues. At the end of the oral proceedings, the Chair announced the board's decision.
- VIII. The appellant's final requests were that the decision under appeal be set aside and that a patent be granted on the basis of the main request or one of the first to fourth auxiliary requests, all requests as considered in the decision under appeal, or the fifth auxiliary request filed with the grounds of appeal
- IX. Claim 1 of the main request reads as follows (itemisation of the features has been added by the board):
- [A] "A method (300) of merging a first set of data objects and a second set of data objects, said first set of data objects and said second set of data objects for displaying on a display screen (104), the method comprising:
  - [B] retrieving (302) a first identifier associated with a first memory location, the first memory location for storing the first set of data objects, wherein the first memory location is organized as a hierarchical files system, and

wherein the first memory location is located on a first memory component;

- [C] retrieving (304) a second identifier associated with a second memory location, the second memory location for storing the second set of data objects, wherein the second memory location is organized as a hierarchical files system, wherein the second memory location is located on a second memory component, and wherein the second memory component is physically separate from the first memory component;
- [D] comparing (306) the first identifier and the second identifier; and
- [E] grouping (308) one or more first data objects from the first set of data objects and one or more second data objects from the second set of data objects based on the comparison."

- X. Claim 1 of the first auxiliary request differs from claim 1 of the main request in that, apart from the deletion of two occurrences of the conjunction "and", the following text was added at the end of the claim:

"displaying (310) on the display screen one or more visual identifiers (114) representative of the group of one or more first data objects and one or more second data objects, the visual identifiers (114) being for selection; and

in response to a selection of one of the one or more visual identifiers (114) by an input interface, opening or launching a data object underlying the selected visual identifier (114)."

- XI. Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that its steps B and C have been amended as follows:

"retrieving (302) a first identifier associated with

a first memory location, the first memory location for storing the first set of data objects, wherein the first memory location is organized as a hierarchical files system, wherein the first memory location is located on an internal first memory component, and wherein retrieving the first identifier comprises removing a root portion of a path name associated with the first memory location;

retrieving (304) a second identifier associated with a second memory location, the second memory location for storing the second set of data objects, wherein the second memory location is organized as a hierarchical files system, wherein the second memory location is located on an external second memory component, wherein the second memory component is physically separate from the first memory component, and wherein retrieving the second identifier comprises removing a root portion of a path name associated with the second memory location;"

- XII. Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that it omits "and" before "wherein retrieving the first identifier comprises removing a root portion of a path name associated with the first memory location" and adds ", and wherein the first identifier comprises a first basename" thereafter. It also omits "and" before "wherein retrieving the second identifier comprises removing a root portion of a path name associated with the second memory location" and adds ", and wherein the second identifier comprises a second basename" thereafter. Moreover, in the third auxiliary request, the text of D and E of claim 1 was amended as follows:
- "comparing (306) the first identifier and the second identifier, wherein comparing the first identifier and the second identifier comprises determining whether

more than a predefined percentage of characters in each of the first identifier and the second identifier match;

grouping (308) one or more first data objects from the first set of data objects and one or more second data objects from the second set of data objects based on the comparison, wherein grouping one or more first data objects and one or more second data objects based on the comparison includes associating the one or more first data objects with one or more second data objects in a memory associated with the electronic device, and wherein the association of the first data objects and second data objects in a group includes listing each of the first data objects with the second data objects in a single list in a file with a notification that they are to be grouped;".

XIII. Claim 1 of the fourth auxiliary request differs from claim 1 of the third auxiliary request in that it adds after "with a notification that they are to be grouped" the text ", wherein the one or more first data objects and the one or more second data objects comprise image files" and, after "displaying (310) on the display screen one or more visual identifiers (114) representative of the group of one or more first data objects and one or more second data objects", the text "in chronological order".

XIV. Claim 1 of the fifth auxiliary request differs from claim 1 of the fourth auxiliary request in that after "in chronological order" the text "irrespective of the underlying data objects being located in separate memories" has been added.

XV. The appellant's arguments, where relevant to the present decision, are discussed in detail below.

## **Reasons for the Decision**

1. The application relates to merging a first set of data objects and a second set of data objects for displaying on a display screen (description of the application as filed, paragraph [0001] and Figure 3).

### **Main request**

2. *Novelty - Article 54 EPC*
  - 2.1 Document D4 discloses a file system that can be accessed by means of a graphical user interface of a so-called file viewer (see page 44, Figure 3-10; page 44, first and second paragraphs) which allows icons for the files and folders to be displayed and files to be opened in applications. The file system is hierarchical (D4, page 44, last paragraph: "root folder"), as it is organised by means of a hierarchy of folders. Files may contain sounds, text and images (page 44, second paragraph). The file viewer supports displaying available remote file servers (page 44, first paragraph).

The file viewer includes a function to merge two folders that share the same folder name (see D4, page 68, Figure 3-23; page 67, section 3.7.2). Merging allows two such folders containing different versions of the same files to be combined by drag and drop. Merging folders keeps only the most recent version of a file, so the target folder contains the most recent version of all the files of the two merged folders. One application of the "merge folders" feature is the transfer of files between computers using floppy disks.



2.2 In view of the above, the board considers that D4 discloses feature A as two merged folders each containing a set of files (objects) for displaying.

Considering the use of the "merge folders" feature for transferring files between floppy disks and a computer hard disk or the like, D4 discloses that the two merged folders are on physically separate memory components and that both are hierarchically organised (as the file system is hierarchical and as explicitly disclosed in Figure 3-23 - see the hierarchical file path "/Transfer documents/documents" for the folder "documents" on the floppy disk). Moreover, the folder names (identifiers) need to be retrieved and compared to start a "merge folder" command in the graphical user interface as disclosed in Figure 3-23 and section 3.7.3, as the merging is only possible for folders sharing the same name. Consequently, document D4 also discloses features B to D.

As a result of the merging operation, all files are "grouped" together in the target folder (where they can be accessed by the file viewer for browsing, listing and opening: D4, page 44, first paragraph). It follows that document D4 also discloses feature E.

2.3 The appellant contested that document D4 disclosed all the features of claim 1. It argued that "merging" had a different meaning in document D4 than in claim 1. According to D4, merging was a "physical merging" operation, whereas claim 1 concerned merely a "virtual grouping", i.e. a grouping without "any moving, copying or duplicating of any set of data objects (or of any files)". The first and second groups of data objects according to features B and C of claim 1 were distinguished only by their separate memory locations.

Consequently, the storage locations of the objects were not changed at all after the grouping. Document D4 neither disclosed nor suggested a virtual grouping.

Furthermore, D4 did not disclose how the files were organised on the floppy disk, and consequently did not disclose that it was organised as a hierarchical file system.

- 2.3.1 The board considers that the scope of claim 1 encompasses both "physical" and "virtual" merging. In the oral proceedings, the board informed the appellant that claim 1 explicitly specified "a method of merging" and that the description, paragraph 76, also explicitly supported a grouping including copying data objects into a specific location in memory. The board also considers that feature E states that "one or more" objects are grouped, i.e. includes the case that not all files in the two folders are grouped. Consequently, the "merge folder" operation disclosed in document D4 falls under claim 1. Furthermore, the appellant's argument that the first and second data objects were always stored in separate locations is not convincing. As explained in the oral proceedings, claim 1 is directed to a method claim. The wording of claim 1 does not exclude further method steps wherein data objects are copied or moved, for example. It follows that the first and second data objects do not necessarily remain only in their separate memory locations according to features B and C.

In view of the above, the board did not accept the appellant's argument that the embodiment of paragraph [0076] was not claimed.

As to the allegedly lacking hierarchical organisation of the files on the floppy disk, the board considers that such a file organisation is self-evident when the floppy disk is used to transfer files between computers each having a hierarchical file system. Moreover, this feature is disclosed in Figure 3-23, which shows a folder on the floppy disk, proving that the file system is hierarchical (see paragraph [0049] of the description of the present application for features of hierarchical file systems).

- 2.4 In view of the above, the subject-matter of claim 1 of the main request lacks novelty over the prior art disclosed in document D4 (Article 54 EPC).

**First to fifth auxiliary requests**

3. In substance, claim 1 of each of the first to fifth auxiliary requests differs from claim 1 of the main request in that it additionally recites the following features (the itemisation "FNx" indicates that this feature is present in the Nth and lower-ranking auxiliary requests, if any; see above, points X. to XIV.):

- F11 displaying (310) on the display screen one or more visual identifiers (114) representative of the group of one or more first data objects and one or more second data objects, the visual identifiers (114) being for selection;
- F12 in response to a selection of one of the one or more visual identifiers (114) by an input interface, opening or launching a data object underlying the selected visual identifier (114);
- F21 the first memory location is located on an internal first memory component;

- F22 retrieving the first identifier comprises removing a root portion of a path name associated with the first memory location;
- F23 the second memory location is located on an external second memory component;
- F24 retrieving the second identifier comprises removing a root portion of a path name associated with the second memory location;
- F31 the first identifier comprises a first basename;
- F32 the second identifier comprises a second basename;
- F33 comparing the first identifier and the second identifier comprises determining whether more than a predefined percentage of characters in each of the first identifier and the second identifier match;
- F34 grouping one or more first data objects and one or more second data objects based on the comparison includes associating the one or more first data objects with one or more second data objects in a memory associated with the electronic device, and wherein the association of the first data objects and second data objects in a group includes listing each of the first data objects with the second data objects in a single list in a file with a notification that they are to be grouped;
- F41 the one or more first data objects and the one or more second data objects comprise image files;
- F42 displaying (according to feature F11) in chronological order;
- F51 displaying (according to feature F42) irrespective of the underlying data objects being located in separate memories.

4. *Admissibility*

The first to fourth auxiliary requests were considered in the contested decision and thus are in the appeal proceedings (Article 12(1) and (2) RPBA 2020). The board admits the fifth auxiliary request into the appeal proceedings as this request is a minor clarification and the board can deal with it without problems.

5. *First and second auxiliary requests - novelty*

5.1 In its decision, the examining division argued that features F11 and F12 were known from document D4, page 44, second paragraph, and page 68, Figure 3-23. Indeed, the cited passage on page 44 discloses the selection of displayed icons of files for opening the selected files and Figure 3-23 shows icons for folders and files.

The appellant argued that feature F11 specified joint displaying of data objects stored in different locations, but the board is not convinced by this argument as, in view of the board's interpretation of claim 1 as provided above for the main request, the locations are not necessarily different. Consequently, the board agrees with the examining division that features F11 and F12 are disclosed in document D4.

5.2 Features F21 and F23 specify the use of an internal first memory component and an external second memory component. The board agrees with the examining division that these features encompass using a floppy disk (external) and hard disk (internal) as disclosed in D4, section 3.7.2.

The board also agrees with the examining division's analysis in point 14.4.4 of its decision that according to document D4 the root portions of the path names of the two folders to be merged are to be "removed" before comparing the names of the folders to be merged, as the criterion for merging two folders is that they share the same name (which corresponds to sharing the same "basename" in the terminology of the application).

In the oral proceedings, the appellant argued that feature F24 was not disclosed in document D4 since the user simply dragged the folder to be merged onto a folder icon. Consequently, the dragged folder had no "complicated name structure" and no root portion needed to be removed. However, the board is not convinced by this argument since in D4 too the folder on a floppy disk has a hierarchical identifier consisting of a "root" portion and a folder name. The board also observes that the appellant itself referred to a "floppy disk root portion" on page 10, third paragraph of its reply to the board's summons. Hence, in the appeal proceedings, the appellant's submissions regarding feature F24 were not consistent with its prior written submissions.

Consequently, features F22 and F24 are also disclosed in document D4.

5.3 It follows that the subject-matter of claim 1 of each of the first and second auxiliary requests lacks novelty in view of document D4 (Article 54 EPC).

6. *Third and fourth auxiliary requests - inventive step*

6.1 Regarding the third auxiliary request, the board agrees with the examining division that document D4 discloses

features F31 to F33. Section 3.7.2 and Figure 3-23 of D4 disclose that the identifiers (names) of the two folders to be merged have to be compared. This implies removing root portions of the respective pathnames to enable a correct comparison (since the pathnames will necessarily be different due to the use of physically separate memory components as storage locations). Only the last part of the pathname, i.e. the name of the folder, is useful for the comparison.

6.1.1 The examining division considered that feature F33 was disclosed in document D4 since it established whether the names of the two merged folders were identical. The appellant argued that this passage of document D4 did not disclose feature F33, which included an explicit step of determining whether more than a predefined percentage of characters in each of the first identifier and the second identifier matched. The wording "more than" in feature F33 implied that the percentage could not be 100%. Feature F33 was useful to establish, based on user input of two folder names, that data objects in folders with similar but different names such as "vacation" and "vacation22" should be grouped.

6.1.2 In the oral proceedings, the board informed the appellant that the broad wording of feature F33 also encompassed a determination of a 100% match of the identifiers. In particular, feature F33 stated that comparing the identifiers "comprises" the specified "determining" and that, given the limited length of identifiers in file systems, a percentage of more than 99%, for example, would in practice mean determining whether 100% of the characters match. Moreover, the description of the application, paragraph [0072], disclosed that matching the characters means that the

characters must be "the same and in the same position" exactly as when comparing two identifiers for a 100% match. Consequently, document D4 also discloses feature F33.

- 6.1.3 Regarding feature F34, the board agrees that document D4 discloses listing the files in a folder (and thus also the files in a merged folder) as icons or listing in a single list (see D4, Figure 3-23 and page 44, first paragraph, for example).

Consequently, the distinguishing feature over D4 is that the association between the first and second data objects is listed in a file with a notification that these objects are grouped.

- 6.1.4 The board agrees with the examining division that no technical effect of this distinguishing feature can be derived from the wording of claim 1 (and apparently not even from the description: see paragraph [0075], on which the feature is based; no other passage seems to mention a notification). Since document D4 discloses a file system, it was known to store data in a file. Consequently, storing data in a file cannot be an effect achieved over document D4. With respect to the notification, claim 1 does not specify what purpose it serves or how it is used or processed. Nor does the claim specify how the file which stores the list of data objects is used.

- 6.1.5 The appellant argued that feature F34 clarified that the grouping was a virtual grouping, i.e. a grouping not including copying as disclosed in paragraph [0076] of the description, and specified how the grouping worked: the data objects were grouped using a metadata file which included a list of data objects stored in



different memory locations. It allowed data objects to be jointly displayed without copying the data objects, which was not suggested by document D4 and was thus inventive.

The board does not agree that feature F34 limits the scope of claim 1 to virtual grouping, as it does not exclude any physical merging. The metadata file contains just a list of the data objects, but does not even exclude these data objects being stored in the same folder, for example, or having been obtained by physically merging two folders. The claimed "metadata file" could simply identify a subset of all the files in the folder containing the physically merged files, for example.

- 6.1.6 Since the distinguishing part of feature F34 does not contribute to a technical effect over the whole scope of the claim, the board concludes that this part of the feature is non-technical and has to be ignored when assessing obviousness (see decisions T 154/04, Reasons 5(F); G 1/19, Reasons 30, 79).
- 6.1.7 Consequently, the subject-matter of claim 1 according to the third auxiliary request lacks inventive step (Article 56 EPC) in view of document D4.
- 6.2 Claim 1 of the fourth auxiliary request adds features F41 and F42. Regarding feature F41, the examining division correctly found that it is disclosed in document D4, page 44, second paragraph.
- 6.2.1 Regarding feature F42, the examining division considered that it did not achieve a technical effect related to the order in which the user wished to see the information, and thus was non-technical. The board

agrees, since mere presentations of information are non-technical (Article 52(2)(d) EPC) and the claim is silent on how the chronological order is achieved, i.e. how feature F42 is implemented in the computer system.

6.2.2 The appellant's argument that the subject-matter of claim 1 may allow a user easily to search for duplicate images in a set of files distributed over two storage media is irrelevant, as this effect is not achieved over substantially the whole scope claimed. The claim is not limited to searching for duplicate images and does not specify that the images contain such duplicates. Nor has the appellant explained where such an embodiment is disclosed in the application as filed.

6.2.3 The appellant also argued that the distinguishing feature F42 enabled a single joint sort order to be applied for files stored in separate memory locations. A chronological order was just an example of such an order. This feature was useful for many applications and had technical character.

The board does not dispute that the possibility of achieving a display in a joint chronological order may be useful. However, as stated above, the board considers that a chronological order as claimed is non-technical even for files stored in separate memory locations, as no technical effect is derivable over the whole scope of the claim.

6.2.4 In view of the above, the subject-matter of claim 1 of the fourth auxiliary request lacks inventive step (Article 56 EPC) in view of document D4.

7. *Fifth auxiliary request - clarity*

7.1 Feature F51 of the fifth auxiliary request is unclear as the skilled person cannot understand why the storage location of the data objects should have any interrelationship ("irrespective of") with the display of visual identifiers (such as icons or names) of these data objects. Consequently, it is not clear what limitations, if any, feature F51 imposes on the scope of claim 1.

7.2 In particular, the board is not convinced that this feature implies that the groups of first and second data objects are not physically merged, but only virtually grouped as argued by the appellant. Feature F51 has been added to the step of displaying visual identifiers. These visual identifiers could be file names, which are not necessarily stored in the same location as the first or second data objects. Consequently, it is not understandable why feature F51 should limit the storage location of the data objects themselves, since that location seems not to be relevant to the displaying step. The further features of claim 1, for example opening or launching a selected data object, do not specify that claim 1 is directed not to a physical merging but to a "virtual grouping", as alleged by the appellant. For example, all launched data objects may be stored in the same memory location (see point 2 of the appellant's reply to the board's summons and points 2.3 and 2.3.1 above).

7.3 Consequently, claim 1 is unclear (Article 84 EPC).

### **Conclusion**

8. Since none of the requests is allowable, the appeal is to be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chair:



S. Lichtenvort

J. Geschwind

Decision electronically authenticated