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Datasheet for the decision of 14 January 2015

Case Number: T 1298/10 - 3.5.06

Application Number: 00110620.2

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Language of the proceedings: EN

Title of invention:
Information processing method and apparatus

Applicant:
Sony Corporation

Headword:
Time view/SONY

Relevant legal provisions:
EPC Art. 56, 84

Keyword:
Inventive step -
main request, first and third auxiliary request (no)
Claims - clarity - second auxiliary request (no)

Decisions cited:

Catchword:

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Case Number: T 1298/10 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 14 January 2015

Appellant: (Applicant)	Sony Corporation 7-35, Kitashinagawa 6-chome, Shinagawa-ku Tokyo (JP)
Representative:	Körber, Martin Hans Mitscherlich PartmbB Patent- und Rechtsanwälte Postfach 33 06 09 80066 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 21 January 2010 refusing European patent application No. 00110620.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairwoman	M.-B. Tardo-Dino
Members:	S. Krischer
	Martin Müller

Summary of Facts and Submissions

I. The appeal is directed against the decision of the examining division, posted on 21 January 2010, to refuse the application 00110620 for lack of novelty of the main request and for lack of inventive step of the first and the second auxiliary requests over the document:

D1 US 5 831 617 A, 3 November 1998.

II. A notice of appeal was received on 5 March 2010. The fee was received the same day. A statement of the grounds of appeal was received on 18 May 2010. Claim sets of a main and six auxiliary requests were filed.

III. In its summons to oral proceedings, the board gave reasons for its preliminary opinion that none of the requests satisfies the requirements of Article 84 EPC and that claim 1 of all of the requests lacked an inventive step over D3, a document which the board introduced from its own knowledge:

D3 Rekimoto J.: "TimeScape: A Time Machine for the Desktop Environment"; pages 180-181; ACM CHI'99 conference, Pittsburgh, Pennsylvania, USA; 15-20 May 1999; available at http://dl.acm.org/citation.cfm?id=632830.

IV. In a letter dated 4 December 2014, the appellant filed claim sets of a new main and two new auxiliary requests. The third auxiliary request filed with the grounds of appeal was maintained. The other auxiliary requests (4-6) were withdrawn.

V. Oral proceedings were held on 14 January 2015. At their end, the board announced its decision.

VI. The appellant requests that the decision be set aside and a patent be granted on the basis of claims 1-47 of one of a main, a first or a second auxiliary request, all filed with the letter of 4 December 2014, or on the basis of claims 1-49 of a third auxiliary request filed with the grounds of appeal. The further text on file is: description pages 1-112 as originally filed; drawing sheets 1-73 filed on 19 June 2000.

VII. Claim 1 of the main request reads as follows:

"1. An information processing apparatus having means adapted to perform the following method steps:

storing and displaying several labels, each corresponding to a tag sheet on a desktop, each label having the information as from its formulation until its disposal, wherein data is affixed in each label as an object, wherein the object is at least one of the group of a sound object, a text object, a picture object and a link object;

storing the entire information relevant to each label at a time point;

computing a difference between information concerning each label at a first time point and at a second time point;

storing the difference information;

receiving user input for a desired date and time in the past, present or future; and

regenerating the state of each label associated with the desired date and time based on said time and difference information."

VIII. Claim 1 of the first auxiliary request differs from claim 1 of the main request in that it reads after the step of storing the entire information:

" acquiring operations on each label between a first time point and a second time point;

storing the operations as difference information between information concerning each label at the first time point and the second time point;

receiving user input for a desired date and time in the past, present or future; and

regenerating the state of each label associated with the desired date and time based on said time and difference information."

IX. Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that it reads after the step of acquiring (additions are marked in *italics*):

" storing the operations as difference information between information concerning each label at the first time point and the second time point, *if the second time point is in the past or the present,*

not storing the operations as the difference information, if the second time point is in the future;

receiving user input for a desired date and time in the past, present or future; and

regenerating the state of each label associated with the desired date and time based on said time and difference information."

X. Claim 1 of the third auxiliary request reads as follows (additions to claim 1 of the main request are marked in *italics;* deletions are ~~struck through~~):

"1. An information processing apparatus having means adapted to perform the following method steps:

storing and displaying *a* label~~s, each~~ corresponding to a tag sheet on a desktop, ~~each~~ *the* label having the information as from its formulation until its disposal, wherein data is affixed in ~~each~~ *the* label as an object, wherein the object is at least one of the group of a sound object, a text object, a picture object and a link object;

storing the entire information relevant to ~~each~~ *the* label at a time point, *the information including a position change of the label by a user*;

computing a difference between information concerning ~~each~~ *the* label at a first time point and at a second time point;

storing the difference information;

receiving user input for a desired date and time in the past ~~or~~ *and* present; and

regenerating the state of ~~each~~ *the* label associated with the desired date and time based on said time and difference information."

Reasons for the Decision

1. *Overview of the invention*

The application relates to a computer-implemented method which provides access to past, present and future states of so-called "labels" (also referred to as "tag sheets"; see A2 publication, paragraph [2], fourth sentence). A label is a memo or a reminder on the desktop screen of a personal computer (PC) ([91], first sentence). Labels can contain data such as text,

pictures, sound ([92], first sentence) or links ([96]; figure 34). An example window screen of such a label is shown in figure 32 and described in [102]. Figures 29, 30 and 31 illustrate a desktop screen in its present, past and future states respectively ([100]). Using a "time view console" ("TVC" in the lower side of the desktop screens in figures 29-31; separately in figure 36) the user can enter a desired time and data for which he would like to access the state of the labels on the desktop screen ([110]; [115], first sentence). The transition between past, present and future states of the labels is made possible by storing ([264], first sentence) data concerning all operations which the user performs on the label through his PC from the creation of the label until its disposal ([95], sentences 1-3). The operations might be for example size or colour change of the label, text correction, picture change or sound change ([95], third sentence). The storing is done by saving the entire label information of a given starting state, and then by saving the operations on the label information or the differences which the operations produced ([264], second sentence; [269], third sentence; S142 in figure 70). The desired state of the desktop is regenerated ([271], column 50, lines 56-58; S166 in figure 72) based on the operations or the differences ([264], first sentence).

2. *Overview of the decision*

2.1 The board came to the conclusion that claim 1 of the main request, the first auxiliary request and the third auxiliary request is not inventive (Article 56 EPC).

2.2 As to claim 1 of the second auxiliary request, it was found unclear (Article 84 EPC).

3. *Inventiveness of the main request*

3.1 Claim 1 of the main request differs from claim 1 of the refused main request in that the expression "in the past, present and future" of the step of receiving user input has been clarified by replacing "and" by "or".

3.2 The board first notes that "labels" in the sense of the application fall within the meaning of the well-known concept of "desktop notes", see for example http://en.wikipedia.org/wiki/Desktop_notes. Desktop notes are Post-it-like windows for (text) notes and date back to 1985 (with the "Note pad" program for the Commodore 64 computer).

3.3 In the appealed decision, D1 was used as novelty-destroying for claim 1 of the main request. It relates to organising different versions of a *file* at different stages of processing using so-called "container icons", containing a group of temporally ordered icons (column 1, lines 51-55; column 6, lines 28-31) called frame icons (column 2, lines 10-14; column 6, lines 31-32), which can be played, paused, rewound or forwarded in a certain tempo like frames of a movie (column 2, lines 23-31; figure 1B), preferably using a control panel (30 in figure 1B; column 6, lines 35-37) and a position indicator (32 in figure 1B; column 6, lines 37-39).

3.4 In the decision, the examining division interpreted the term "label" of claim 1 to cover icons as well and, in accordance with this interpretation, considered the subject-matter of claim 1 not to be novel. However in light of the description and the drawings, "labels" of the present application are desktop notes containing

text, pictures, sound or links, and thus are meant to be distinct from file icons.

3.5 In contrast to D1, document D3 discloses "labels" in the sense of the application and thus constitutes a more appropriate starting point for assessing inventive step of the present application. Therefore, the board introduced D3 in the summons to oral proceeding.

3.6 During oral proceedings, the appellant accepted that D3 was the closest prior art.

3.7 Document D3 *relates to* a desktop environment where items like file icons, desktop notes and images can be placed on the desktop (page 180, right column, paragraph 2, third sentence) and which provides for temporal navigation between desktop states (paragraph 3). An example desktop can be seen in figure 1. The environment supports drag-and-drop of objects (page 181, right column, paragraph 2). By using a "time-travel dial" (figure 1, top right) and navigation buttons (top left) the user can navigate to past and future states of the desktop (page 180, right column, paragraphs 3-4). For example, desktop notes placed in the future will appear as a reminder on the desktop when the future point in time is reached (page 180, right column, last paragraph). It is also stated that "all the information is permanently maintained" (page 180, right column, paragraph 4, second sentence).

3.8 Document D3 *discloses* with respect to claim 1:

An information processing apparatus having means adapted to perform the following method steps:

storing and displaying several labels, each corresponding to a tag sheet on a desktop (page 180, right column, paragraph 2, Post-it notes; figure 1), each label having the information as from its formulation until its disposal (page 180, right column, paragraph 4, second sentence), wherein data is affixed in each label as an object (the text of a Post-it note is affixed to the label as a desktop item), wherein the object is at least one of the group of a sound object, a text object, a picture object or a link object;

storing the entire information relevant to each label at a time point (page 180, right column, paragraph 4, second sentence);

receiving user input for a desired date and time in the past, present or future (paragraph 3, first and second sentences; figure 1, top: "time travel dial"); and

regenerating the state of each label associated with the desired date and time (paragraph 3, third sentence).

3.9 The board identifies the computing and the storing of the differences between different states of each label and the use of these differences to restore the state of each label at a given time as the *distinguishing* feature of claim 1 with respect to D3.

3.10 The technical *effect* (and the *objective technical problem*) is to reduce the memory space needed for storing the states. The appellant expressly agreed with this analysis (see e.g. its letter of 4 December 2014, page 2, last paragraph to page 3, first paragraph).

3.11 The board is of the opinion that storing *only the differences of similar objects* is a matter of common

sense in order to reduce the overall memory requirement of the objects. The board notes that this idea is well-known also outside the computing domain: For instance, when an applicant files amended application documents for a patent application, it usually only sends the pages which have changed.

3.12 Furthermore, there have been many implementations of this general idea in computer science. Differential storage strategies are commonly used in software engineering for saving memory space. One example which was generally known at the time of the filing date is the Unix program "diff" to generate difference files for both text files and arbitrary binary files (see for example http://en.wikipedia.org/wiki/Diff). The original files are regenerated from a completely stored starting file and the differences with the help of the also generally known Unix program "patch" (see for example http://en.wikipedia.org/wiki/Patch_%28Unix%29).

3.13 During oral proceedings, the appellant argued that the programs "diff" and "patch" were not applicable to picture and sound labels, since there were conceived only for text files. Moreover, they were made for updating only *one* file and not for several versions of a file at several time points as in the invention. And they were not adapted to make reminders in the future.

3.14 The board cited "diff" and "patch" only as an example of the differential storage strategy. In passing it is noted that "diff" and "patch" are indeed applicable to picture and sound files, since they also work for binary files and not only for text files (see above). Furthermore, the time navigation aspects of the claim and the need to store the states of the labels, some of

which act as reminders in the future, are known from D3. Finally, the differential storage strategy can seamlessly be applied to the time navigation scheme of D3.

3.15 Therefore, claim 1 of the main request is not inventive in the sense of Article 56 EPC over D3 in view of common knowledge in the art.

4. *Inventiveness of the first auxiliary request*

4.1 Claim 1 of the first auxiliary request differs from claim 1 of the main request in that it specifies that the *operations* are stored which the user applied on the label states from one time point to another. The only disclosure in the whole description of storing the operations leading to a state change of the labels is the following ([264], first part of the fourth sentence):

> "For saving the differences in the label information, the operations on the label, that is the operating hysteresis, are saved, or ..."

The passage continues with an alternative way of storing the differences, namely the difference of the label information:

> "[or] the difference of the label information before and after operations on the label, that is the variance in the label information, may be saved."

4.2 As mentioned above, the operations might be for example size or colour change of the label, text correction,

picture change or sound change ([95], third sentence). In all these examples, the board cannot see any substantial difference between storing the operations *or* the difference of the label information which the operations produce. In each case, the new data has to be stored, for instance the new size or colour of the label, or the text, picture or sound affixed to the label. Whether this is in the form of an operation statement (maybe something like "change size of label x to n*m") or in the form of a label description (maybe something like "size of label x is n*m") is of minor importance. Therefore, storing the operations or the differences of the label information are obvious alternatives depending on the programming style.

4.3 According to the appellant during oral proceedings, storing the operations further reduces the memory consumption in comparison with storing the differences of the label information. For example, the storage space of the operation "add new label x with the picture of c:\path\to\the\picture.jpg" would be smaller than "label x with picture '01011101011101110111101-01010011010010011110101001010001000010111....'".

4.4 However, this effect is not due to storing operations as opposed to differences of label information, but to storing *references* (e.g. paths) instead of the whole information. For example, the labels could also be stored in a referential way (e.g. "label x with picture of c:\path\to\the\picture.jpg"), and the operations could be stored in an extensional way (e.g. "add new label x with the picture '01011101011101110111101010101-01101001001111010100101000100...'").
Thus the board is not convinced by this argument.

4.5 The board stresses that the description discloses virtually no detail about the storage of differences in terms of operations, for instance neither which operations in particular are stored or how and whether all operations are stored in the same way or not. Therefore, the pertinent feature in the claims can only be interpreted broadly.

4.6 Therefore, claim 1 of the first auxiliary request is not inventive in the sense of Article 56 EPC.

5. *Inventiveness of the third auxiliary request*

5.1 Claim 1 of the third auxiliary request mainly differs from claim 1 of the main request in that the entire label information includes a *position change* of the label by a user.

5.2 However, D3 (page 180, right column, paragraph 2, fifth sentence) discloses spatial arrangement and grouping of items. The board considers it implicit that this grouping (and thus the position of the items) is stored in the time machine of D3.

5.3 During oral proceedings, the appellant argued that the "diff"/"patch" programs did not anticipate a difference in the *position* of a label.

5.4 However, as argued above, the characteristics of a time-navigable GUI can be found in D3. Since D3 discloses that the position of a label has to be stored, it is obvious for any differential storage strategy applied to D3 to store the position change if the position has changed. For this argument it is

irrelevant whether storing of position changes is already known from "diff"/"patch".

5.5 Therefore, claim 1 of the third auxiliary request is not inventive in the sense of Article 56 EPC.

6. *Clarity of the second auxiliary request*

6.1 Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that the operations are only stored as a difference information *if the second time point is in the past or the present.* In case the second time point is in the *future*, the operations are *not stored* as the difference information.

6.2 During oral proceedings, the board asked the appellant why this restriction was imposed and how labels in the future would be regenerated if no information about the creation of a label in the future (i.e. a reminder in the future according to [265]) was stored in the difference information.

6.3 The appellant answered that a history of future operations need not be stored. In the case of labels in the future, the entire label information had to be stored.

6.4 However, the claim does not specify that the entire label information is stored at the second time point if a label is created as a reminder in the future. It is noted in passing that also the description does not disclose this. Thus it is not clear from the claim how the apparatus is meant to handle labels in the future (i.e. reminders) based on the stored information as

defined in the claim, although the claim allows the user to enter time points in the future to regenerate the labels at these time points.

6.5 Therefore, claim 1 of the second auxiliary request is unclear in contravention of Article 84 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairwoman:

B. Atienza Vivancos M.-B. Tardo-Dino

Decision electronically authenticated