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Datasheet for the decision of 16 October 2015

Case Number: T 1237/10 - 3.5.07

Application Number: 04016253.9

Publication Number: 1496454

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Language of the proceedings: EN

Title of invention:
Information processing apparatus, method and program

Applicant:
Sony Corporation

Headword:
Information processing apparatus/SONY

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - all requests (no)

Decisions cited:
T 0154/04, T 1143/06, T 1741/08, T 1214/09, T 0862/10, T 1562/11

Catchword:

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Case Number: T 1237/10 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 16 October 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 5 February 2010 refusing European patent application No. 04016253.9 pursuant to Article 97(2) EPC.**

Composition of the Board:

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

Summary of Facts and Submissions

I. The applicant (appellant) appealed against the decision of the Examining Division refusing European patent application No. 04016253.9.

II. The decision cited *inter alia* the following documents:

D1: JP 11 215457 A, 6 August 1999; and

D4: Tonomura Y. et al.: "Content Oriented Visual Interface Using Video Icons for Visual Database Systems", Proceedings of the 1989 IEEE Workshop on Visual Languages, Rome, Italy, 4-6 October 1989, pages 68 to 73.

The Examining Division decided that the subject-matter of claim 1 of the then main request did not involve an inventive step in view of a combination of documents D1 and D4. The then first (and only) auxiliary request was not admitted into the proceedings.

III. With the statement of grounds of appeal, the appellant replaced its substantive request with a main request and auxiliary requests 1 and 2, all based on the main request considered in the decision under appeal with features taken from the description added to the independent claims.

IV. In a communication accompanying a summons to oral proceedings, the Board expressed as its preliminary opinion that the subject-matter of claim 1 of all requests lacked inventive step and raised the question whether the claim feature "the plurality of images are independent still images" complied with Articles 84 and 123(2) EPC.

Annexed to the communication was an English translation of document D1.

V. With a letter dated 9 September 2015, the appellant filed further auxiliary requests 3 and 4.

VI. In the course of oral proceedings held on 16 October 2015, the appellant filed an auxiliary request 5. At the end of the oral proceedings, the chairman pronounced the Board's decision.

VII. The appellant requested that the decision under appeal 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 to 5.

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

"An information processing apparatus comprising:

classifying means (801) for classifying a plurality of images into predetermined time slots based on time information attached to the images;

display control means (805) for displaying the images classified into the time slots by the classifying means (801) in display regions corresponding to the time slots; and

characterised in

that the apparatus further comprises selection means (806) configured to repeatedly decide for each time slot separately whether or not to replace an image classified into the time slot and displayed in the corresponding display region with another image classified into the same time slot, and

that the plurality of images are independent still images."

IX. Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the feature "that the selection means is configured to sequentially select all images" has been added at the end of the claim.

X. Claim 1 of auxiliary request 2 differs from claim 1 of the main request in that the phrase "and that the plurality of images are independent still images" has been replaced with the following text:

"that the display control means displays at least two images at the same time, and
that the selection means is configured to replace the at least two images not at the same time."

XI. Claim 1 of auxiliary request 3 differs from claim 1 of the main request in that "independent still images" has been replaced with "still images".

XII. Claim 1 of auxiliary request 4 differs from claim 1 of auxiliary request 1 in that "independent still images" has been replaced with "still images".

XIII. Claim 1 of auxiliary request 5 differs from claim 1 of the main request in that the text ", on the basis of a probability" has been inserted after the words "classified into the same time slot".

XIV. The appellant's arguments relevant to this decision are discussed in detail below.

Reasons for the Decision

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

2. *The invention*

The invention relates to the display of (thumbnails of) images which have been classified into time slots. The images in a time slot may, for example, be photographs taken with a digital still camera on a particular day. Figure 31 of the application discloses a monthly calendar view for the month July 2001, displaying in the display region for each day of the month an image classified into the time slot corresponding to that day, if such an image exists. If multiple images correspond to a particular day, the display region for that day cycles through these images as time progresses (see page 64, lines 9 to 13, of the description of the application as filed).

3. *Main request - inventive step*

3.1 Claim 1 of the main request relates to an "information processing apparatus" comprising classifying means, display control means and selection means for dealing with "independent still images".

The classifying means classifies images into predetermined time slots on the basis of time information attached to the images. The display control means displays images in display regions corresponding to the time slots into which the images have been classified.

The selection means is not a means by which the user may input a selection, but a means that controls which images are displayed in which display regions and when. According to claim 1, it repeatedly decides for each time slot separately whether or not to replace an image classified into the time slot and displayed in the corresponding display region with another image classified into the same time slot. Figure 46 of the application illustrates the functioning of the selection means. It displays a flow chart comprising an inner loop and an outer loop. The inner loop decides, for each date of the month, whether or not to display the next image file in the corresponding display region. After each completed execution of the inner loop, the outer loop waits for *m* seconds and starts a new execution of the inner loop.

As explained on page 10, lines 4 to 22, of the application as filed, the information processing apparatus may be a personal computer such as the one shown in Figure 1. The claimed classifying means, display control means and selection means may hence be implemented as suitable software routines.

The expression "independent still images" was introduced into the claim to distinguish the images from consecutive video frames and is based on passages of the description explaining that the images may have been taken using a digital still camera.

3.2 The displayed arrangement of images as defined by claim 1, including its temporal changes, constitutes a presentation of information, which is excluded "as such" from patentability under Article 52(2)(d) EPC. Such a presentation of information contributes to inventive step only to the extent to which it interacts

with the technical subject-matter of the claim for solving a technical problem (see decisions T 154/04, OJ EPO 2008, 46, reasons 5, under (F), and 13, and T 1214/09 of 18 July 2014, reasons 4.8.1).

3.3 In the present case, the claimed presentation of images is aimed at showing the images to the user essentially for informational purposes and not, for example, at enabling a new mechanism for inputting an image selection. The appellant did not dispute this, but argued that the presentation contributed to a solution of the technical problem of giving the user an overview of a plurality of images within a constrained display area. Technical understanding and deliberation were necessary to recognise that on a display of a given size and resolution it was only possible to simultaneously display a certain number of images with a specific size and resolution in a recognisable manner.

3.4 The Board notes that it is uncontested that the choice for a calendar-type layout as shown in Figure 31 of the application (and claimed in more general terms) relates to the presentation of information as such (and is in any event disclosed by the prior art to be discussed below). The presentation features of claim 1 that are alleged to contribute to the technical character of claim 1 are those that cause the images in display regions to be replaced with other images. The argument is essentially that these features are based on technical considerations in that they allow the user to be given a good overview of a plurality of images within a limited display area.

3.5 In the Board's view, the general idea of giving an overview of a plurality of images in a limited display

area by displaying a single image and sequentially replacing it with other images is not based on technical considerations. Dealing with limited available space is part and parcel of the design of presentations of information for human viewing and is therefore *per se* not an indication of technicality (cf. decision T 1562/11 of 3 June 2015, reasons 2.5). In addition, although the issues of image size and resolution might play a role in the idea's implementation, the idea itself is independent of such issues; the application as filed in fact makes no mention of them.

3.6 In its decision, the Examining Division assessed inventive step starting from document D1. This document is cited in the background section of the application as filed and discloses a digital camera 100 comprising a display unit 40 and a recording unit 50 (see Figure 1 and paragraph [0017]). The recording unit 50 records photographed images on a memory card 51 together with their photographing date and time (paragraphs [0026] and [0027]).

3.7 Camera 100 further comprises calendar display means 113 for displaying recorded images in a calendar layout (see paragraph [0037]). Figures 7, 8 and 9 of document D1 disclose calendar views similar to that of Figure 31 of the present application. In Figure 7 of document D1, the display 70 comprises three display regions, each region corresponding to a time slot of one month (see paragraph [0049]). In the example of Figure 7(a), no images were classified into the slots for April and June and a plurality of images were classified into the slot for May. In Figure 8, the display 80 comprises seven display regions, each region corresponding to a time slot of one day (see paragraph [0053]). In

Figure 9, the display 90 comprises only a single display region corresponding to a time slot of one day (see paragraph [0055]).

3.8 According to paragraph [0042] of document D1, if a plurality of images are classified into a single time slot, the corresponding display region may show multiple images up to the number that fits in that display region. This corresponds to what is shown in Figures 7(a), 8(a) and 9(a).

3.9 Figure 9(b) shows that, alternatively, a single representative image can be displayed in a display region (see paragraphs [0037], [0046] and [0067]). This option is also disclosed for the views shown in Figures 7 and 8 (see paragraphs [0063] and [0065]).

3.10 Document D1 hence discloses an information processing apparatus in the form of a digital camera which comprises implicit classifying means and display control means as defined by claim 1. The images recorded using this camera are "digital still images" within the meaning of the claim. Document D1 is therefore a suitable starting point for the assessment of inventive step.

Although claim 1 does not specify that each display region displays at most one image, this limitation is implicit in the embodiments of the claimed invention described on page 77, line 1, to page 83, line 18, of the description with reference to Figures 31 and 44 to 50. The Board therefore selects as the closest prior art the alternative embodiments of the calendar views shown in Figures 7 and 8 of document D1 with multiple display regions and (at most) a single representative image per display region (see point 3.9 above).

3.11 The information processing apparatus of claim 1 differs from this closest prior art in that it comprises the "selection means" as claimed. This selection means causes the apparatus to decide repeatedly, for example at regular time intervals, for each display region separately whether or not to replace the image displayed in the display region with another image also classified in the time slot corresponding to that display region.

3.12 As explained above in points 3.2 to 3.5, the Board considers that, in the context of the present invention, the idea of sequentially replacing the images shown in a display region by other images classified into the same time slot is not technical. The objective technical problem solved by the claimed selection means is therefore that of implementing this idea. The skilled person would have trivially implemented it by providing suitable software "selection means" for sequentially replacing the images shown in each display region. The Board notes that since some display regions may correspond to a single image only, or to no image at all, it was obvious to take the decision whether to replace the image in a display region separately for each display region. The skilled person would hence have arrived at the subject-matter of claim 1 without the exercise of inventive activity.

3.13 Thus the subject-matter of claim 1 lacks inventive step (Articles 52(1) and 56 EPC).

4. *Auxiliary request 1 - inventive step*

Claim 1 of auxiliary request 1 adds to claim 1 of the main request that the selection means is configured to sequentially select all images, i.e. the images displayed in a particular display region cycle through all of the images classified into the time slot corresponding to that display region.

The choice to cycle through all images and not, for example, only the first five images classified into a particular time slot relates to the non-technical choice of what information to display to the user. The added feature therefore does not affect the inventive step reasoning given for claim 1 of the main request.

Thus the subject-matter of claim 1 of auxiliary request 1 lacks inventive step (Articles 52(1) and 56 EPC).

5. *Auxiliary request 2 - inventive step*

5.1 Claim 1 of auxiliary request 2 adds to claim 1 of the main request that the display control means displays at least two images at the same time and that the selection means replaces the at least two images not at the same time.

5.2 The appellant indicated *inter alia* Figures 48, 49 and 50 as a basis for these amendments. These figures show, at three consecutive points in time, a calendar view displaying images in six display regions, each region corresponding to a particular day of a month. A comparison of Figures 48 and 49 shows a replacement of only the image displayed for the sixth day of the

month. In Figure 50 only the image displayed for the second day of the month is replaced.

5.3 These added features define further aspects of the claimed presentation of information. At the oral proceedings, the appellant argued that they contributed to a technical effect in that not replacing all the images simultaneously allowed the user to process the information presented to him without cognitive overload. Taking into account the cognitive abilities of the user required technical deliberations.

5.4 As the appellant admitted at the oral proceedings, the application as filed contains no trace of such deliberations, nor does it mention avoiding cognitive overload as an aim of the invention; the application instead refers to an improvement in "entertainingness" of the calendar display (see page 83, lines 11 and 12). It further appears questionable that the invention achieves the alleged effect over the whole scope claimed, as the claim is silent on the number of display regions and on the rate at which images are replaced.

However, even assuming that the alleged effect could be made plausible, in principle the Board considers a reduction of the cognitive load on the user in itself not to be a technical effect (see e.g. decisions T 1143/06 of 1 April 2009, reasons 3.8; T 1741/08 of 2 August 2012, reasons 2.1.6; T 862/10 of 15 May 2013, reasons 3.3.1; T 1214/09, *supra*, reasons 4.8.3 to 4.8.8).

5.5 Since the added features do not contribute to the technical character of the claim other than through their technical implementation, of which no further

details are claimed or given in the description, the Board concludes that the subject-matter of claim 1 of auxiliary request 2 lacks inventive step (Articles 52(1) and 56 EPC).

6. *Auxiliary requests 3 and 4 - admission*

Auxiliary requests 3 and 4 were filed with the appellant's letter of 9 September 2015. Auxiliary request 3 was obtained from the main request by replacing "independent still images" with "still images". The same amendment was applied to auxiliary request 1 to obtain auxiliary request 4.

As explained in the appellant's letter, these amendments were performed in response to concerns with respect to added subject-matter and clarity raised in the Board's communication. Since the amendments represent a reasonable response to these concerns and do not raise new issues, the Board decided to exercise its discretion and admit auxiliary requests 3 and 4 into the proceedings (Article 13(1) RPBA).

7. *Auxiliary requests 3 and 4 - inventive step*

The replacement of the expression "independent still images" with the, if anything, broader expression "still images" does not affect the reasoning given in respect of the main request and of auxiliary request 1. The subject-matter of claim 1 of auxiliary request 3 and of auxiliary request 4 therefore likewise does not involve an inventive step (Articles 52(1) and 56 EPC).

8. *Auxiliary request 5 - admission*

Auxiliary request 5 was filed at the oral proceedings before the Board. Since it does not raise issues which the Board cannot deal with, the Board decided to exercise its discretion under Rule 13(1) RPBA and admit the request into the proceedings.

9. *Auxiliary request 5 - inventive step*

9.1 Claim 1 of auxiliary request 5 adds to claim 1 of the main request that the decision whether or not to replace the image in a particular display region is made "on the basis of a probability".

9.2 This feature is based on the paragraph bridging pages 78 and 79 and on the first full paragraph on page 83 of the application as filed. The first passage discloses, in the context of the calendar view of Figure 31 and with reference to Figure 46, that the image displayed in the display region of a particular date is replaced with a probability of 1/16, and (consequently) not replaced with a probability of 15/16. In this embodiment, if 16 of the 31 dates displayed in the calendar view of Figure 31 corresponds to two or more images, the selection means randomly replaces on average one image in each iteration of the inner loop of Figure 46, i.e. one random image per *m* seconds.

9.3 The added feature again defines a further aspect of the claimed presentation of information. At the oral proceedings, the appellant argued, essentially as for auxiliary request 2, that the added feature avoided cognitive overload of the user by making it easier for him to process the information presented. For the

reasons given in point 5.4 above, the Board does not accept this argument.

9.4 It follows that an inventive contribution of the feature may be present at most in its technical implementation. However, the description is silent on this point and the Board considers that implementing the generation of the required probability value using a conventional (pseudo)random number generator would not present the skilled person with any difficulty.

9.5 The subject-matter of claim 1 of auxiliary request 5 hence lacks inventive step (Articles 52(1) and 56 EPC).

10. *Conclusion*

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

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Magliano R. Moufang

Decision electronically authenticated