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Datasheet for the decision
of 17 July 2019

Case Number:          T 1228/15 - 3.5.07
Application Number:   07805125.7
Publication Number:   2044538
IPC:                  G06F17/30

Language of the proceedings: EN

Title of invention:
Determining an ambient parameter set

Applicant:
Signify Holding B.V.

Headword:
Determining an ambient parameter set/SIGNIFY HOLDING

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - after amendment (yes)
Case Number: T 1228/15 - 3.5.07

DECISION
of Technical Board of Appeal 3.5.07
of 17 July 2019

Appellant: Signify Holding B.V.
(Applicant)
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted on 28 January 2015 refusing European patent application No. 07805125.7 pursuant to Article 97(2) EPC

Composition of the Board:
Chairman R. Moufang
Members: M. Jaedicke
P. San-Bento Furtado
Summary of Facts and Submissions

I. The applicant (appellant), which at the time was Koninklijke Philips N.V., appealed against the decision of the Examining Division refusing European patent application No. 07805125.7, filed as international application PCT/IB2007/052778 and published as WO 2008/010158 A1. The application claims a priority date of 17 July 2006.

II. In the course of the appeal proceedings, the application was first transferred to Philips Lighting Holding B.V., which obtained the status of appellant. The appellant later changed its name to Signify Holding B.V.

III. The documents cited in the contested decision were:

D1: US 2006/153469 A1, published on 13 July 2006
D3: EP 1 473 643 A2, published on 3 November 2004

IV. The Examining Division did not admit the then main request and the then second and third auxiliary requests into the proceedings. It decided that the subject-matter of independent claims 1 and 5 to 7 of the then first auxiliary request did not meet the requirements of Article 123(2) EPC.

V. In its statement of grounds of appeal, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of one of the requests considered in the contested decision and submitted during the oral proceedings before the Examining Division. It requested that the Board reassesses the requirements of Articles 56 and
123(2) EPC for its substantive requests.

VI. In a communication under Article 15(1) RPBA accompanying the summons to oral proceedings, the Board expressed, *inter alia*, its provisional opinion that the subject-matter of claim 1 of the then main request lacked novelty in view of document D1 and that the subject-matter of claim 1 of the then first and second auxiliary requests lacked inventive step in view of document D1.

VII. By letter of 15 July 2019, the appellant submitted a new main request and arguments.

VIII. In the course of oral proceedings held as scheduled, the appellant filed a new sole request replacing all requests on file. At the end of the oral proceedings, the chairman pronounced the Board's decision.

IX. The appellant's final request was that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 6 of the amended main request filed in the oral proceedings before the Board.

X. Claim 1 of the sole request reads as follows:

"A method of determining an ambient parameter set associated with a textual description, the ambient parameter set for controlling a lighting application device (3,4), the method comprising the steps of:

searching a database (19) by using the textual description, the database (19) comprising a plurality of files wherein the files comprise content in the form of a picture, characterized in that each file comprises information related to the file content, for obtaining a subset of files whose information matches the textual description;
analyzing the subset of files for obtaining the ambient parameter set related to the textual description,

wherein the ambient parameter set comprise [sic] one or more ambient parameters selected from the group of a color value, an intensity value, a hue value and a saturation value; and

wherein the analyzing comprises determining average parameter values for the one or more ambient parameters of the ambient parameter set across the subset of files, and controlling the lighting application device (4, 5) in accordance with the average parameter values of the obtained ambient parameter set."

Claims 2 and 3 are dependent on claim 1.

Claim 4 reads as follows:
"An apparatus comprising an ambient controller system (10) for an ambient device (15) which allows having an ambient characteristic, and an ambient device (15) connected to the ambient controller system in which the ambient controller system (10) is arranged to receive an ambient parameter input, to determine an ambient parameter set for the ambient characteristic on the basis of the received ambient parameter input, using the method according to any one of claims 1 to 3, and to control the ambient characteristic of the ambient device (15), using the ambient parameter set, wherein the ambient device is a lighting application device (4, 5) and wherein the ambient parameter set comprise [sic] one or more ambient parameters selected from the group of a color value, an intensity value, a hue value and a saturation value."
Claim 5 reads as follows:
"A computer program product comprising a computer-executable code which, when loaded in a computer system, enables the computer system to carry out a method according to any one of claims 1 to 3."

Claim 6 reads as follows:
"A computer readable medium having recorded thereon a computer-readable program product comprising code means adapted to perform all the steps of any of the method claims 1 to 3 when said code means are loaded and executed on a computer."

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 application relates to determining an ambient (environment) parameter set associated with a textual description of an ambiance, such as 'sunset' or 'autumn' or a sentence. The ambient parameter set may comprise one or more sensor parameters, such as background lighting colour, light intensity, but also background audio or even scent (description as published, page 1, lines 2 to 5 and 24 to 26).

A method according to the application comprises searching a database such as the internet. The database comprises a plurality of files which may comprise content in the form of a picture, video or even sound. Furthermore, each file comprises information (metadata) related to the file content. When a textual description
in the form of a word or sentence reflecting a desired ambiance is received as input, it is used for obtaining a subset of files whose information matches the textual description (page 1, line 27, to page 2, line 7; Figure 3).

The subset of files matching the textual description of the desired ambiance may be analysed for one or more of the ambiance parameters such as colour. This may comprise determining average parameter values for the ambient parameter set from the content stored in the subset of files.

By using the internet, or another large public database, a good translation of the textual description, e.g. 'sunset', into a subset of files comprising a picture, video, audio sample, light or ambient atmosphere is possible, all the features of which represent 'sunset' (page 2, lines 8 to 27).

The method further comprises setting an ambient device, using the ambient parameter set. The ambient device may include, but is not limited to, a lighting application device, or an ambilight home entertainment device, etc. (page 2, lines 28 to 34; Figures 1, 2 and 5).

3. **The appellant's request**

Claim 1 of the appellant's sole request relates to a method of determining an ambient parameter set associated with a textual description in which the ambient parameter controls a lighting application device, which comprises the following features, as itemised by the Board:
A searching a database by using the textual description, the database comprising a plurality of files wherein the files comprise content in the form of a picture, characterised in that each file comprises information related to the file content, for obtaining a subset of files whose information matches the textual description

B analysing the subset of files for obtaining the ambient parameter set related to the textual description

C wherein the ambient parameter set comprises one or more ambient parameters selected from the group of a colour value, an intensity value, a hue value and a saturation value

D wherein the analysing comprises determining average parameter values for the one or more ambient parameters of the ambient parameter set across the subset of files

E controlling the lighting application device in accordance with the average parameter values of the obtained ambient parameter set.

4. Admission

The request was filed after oral proceedings had been arranged. It clarifies, in response to objections raised by the Board, the set of claims filed as the first auxiliary request in the oral proceedings before the Examining Division and limits the subject-matter further to controlling a lighting application device as a particular example of an ambient device. As the Board has no difficulty to decide on the request in substance, and the appellant agreed to discuss inventive step also in view of document D2, the Board exercises its discretion under Article 13(1) and 13(3) RPBA and admits the request into the appeal
proceedings.

5. **Amendments**

The present set of claims has been amended during the proceedings. Claim 1 is based on originally filed claims 1, 2, 4 and 5, the originally filed description (see page 1, line 27, to page 2, line 1; page 2, lines 29 and 30; page 4, lines 21 and 22; page 5, line 28, to page 6, line 5) and originally filed Figure 3. Claim 2 is based on originally filed claim 3 and the description, page 7, lines 19 to 21. Claim 3 is based on originally filed claim 7. Present claim 4 is based on originally filed claims 8 and 9 and the originally filed description (see page 2, lines 29 and 30, and page 6, lines 3 to 5). Present claims 5 and 6 are based on originally filed claim 10 and the description as originally filed (see page 5, lines 4 to 6).

The Board is therefore satisfied that the claims comply with the requirements of Article 123(2) EPC.

6. **Clarity and support**

In its communication, the Board raised an objection of lack of support against the then main request arguing that claim 1 could not be sufficiently supported by the description for some ambient parameters such as smells or background noise. As the appellant has removed these ambient parameters from claim 1, this objection has been overcome. The Board is therefore satisfied that the claims meet the requirements of Article 84 EPC.
7. **Inventive step**

7.1 Interpretation of the claimed subject-matter

In the oral proceedings, the appellant submitted that a skilled person would have understood the term intensity as brightness (see feature C). It stated that the expression lighting application device had the same meaning as lighting device. Both expressions were used synonymously in the description. The database files each contained content in form of a picture (see step A), and the analysis according to features B to D involved analysing the picture content. The Board agrees with the appellant's reading of the claim.

7.2 Document D1 as the starting point

Document D1 was cited in the proceedings before the department of first instance as a suitable starting point for assessing inventive step.

7.2.1 Document D1 explains that it was known to search for images by matching a query to features extracted from the image or labels that are associated with the image (paragraph [0007]). An object of the proposed method is to facilitate the processing of digital images captured by a digital camera by using measured ambient air attributes (paragraph [0008]).

Document D1 discloses in Figure 5 an image management system that uses ambient air characteristic data (paragraph [0060]). The images are stored in image files comprising further data such as a timestamp, a GPS-position and/or ambient air attribute data (paragraphs [0028], [0030] and [0067]). A user submits a query, and a search engine uses ambient air
characteristic data that are associated with images in a digital-image database to determine the search results - a set of images from the digital-image database that best satisfy the query. For example, the user can specify the query as "Images at temperatures ≤ 0°C" when attempting to find an image of a ski trip (D1, paragraph [0060]).

The search engine compares the ambient air characteristics with the query conditions and determines the set of images that best satisfy the query. The features related to ambient air characteristics may be just some of several or many features used in the query by the user to search for images. The user may also specify specific colours or materials (i.e. snow, people, grass, etc.) that must appear in the search-result images found by the search engine (D1, paragraph [0060]).

7.2.2 The overall effect and purpose of the method disclosed in document D1 is to help users to find photos based among other things on the ambient air temperature when the photo was taken. This overall purpose is quite different from the overall purpose of the subject-matter of claim 1, which is controlling a lighting application device in accordance with the average parameter values of an obtained ambient parameter set (see feature E of claim 1). Moreover, document D1 does not disclose features B and D of claim 1 as no average values are determined in a set of retrieved images. Hence, document D1 is not a suitable starting point for assessing inventive step of the subject-matter of present claim 1.
7.3 Document D3 as the starting point

Document D3 is somewhat similar to document D1 as it discloses a method for annotating images and retrieving images using metadata (see abstract; paragraphs [0010] to [0032]; Figures 2 to 6, 15 to 17, 22, 26, 27(a) and 27(b)). It does not relate to controlling a lighting application device and thus is not a suitable starting point for assessing inventive step of present claim 1.

7.4 Document D2 as the starting point

Document D2 discloses a method of operating a set of devices, including a lighting device, based on a received real-world description in a markup language and operating said devices according to said description (abstract; paragraphs [0001] to [0004] and [0020]; Figures 1 and 2). Thus, the method disclosed in document D2 is similar to the method of claim 1 and constitutes a suitable starting point for assessing inventive step.

7.4.1 Figure 1 of D2 discloses a real-world representation system comprising a set of devices including a display device, audio speakers, a lighting device, a heating device and so on. These devices together contribute to make up the ambient environment, each device being arranged to provide one or more real-world parameters. For example, the lighting device provides colour tones and a luminance level. The devices are interconnected by a network (paragraph [0020]).

At least one of the devices making up the real-world representation system is arranged to receive a description as an instruction set in a markup language such as "<FOREST>, <SUMMER>, <EVENING>". The devices
are then operated according to this description. This description may be part of a broadcast signal or retrieved from a local or remote store. As the description is provided in a markup language format, descriptions and fragments of descriptions can easily be stored on servers for retrieval via a PC or suitably enabled digital TV. The descriptions can be updated and amended by the authors, thereby allowing a large and varied library of descriptions to be created (paragraphs [0023], [0024] and [0035]). A user can operate the system from a user interface such as a remote control, or a mobile terminal such as a PDA can be employed (paragraph [0033]).

According to a first embodiment (D2, paragraph [0024]; Figure 3), each markup language enabled device operates in essentially the same manner. For example, the lighting device (Figure 2) has receiving means for receiving the real-world description in the form of an instruction set of a markup language, the receiving means including part of a distributed browser that interprets the instructions of the instruction set. The portion of the browser in the receiving means communicates with adjusting means arranged to adjust one or more parameters of the lighting device such as colour tones and luminance level.

According to a second embodiment (D2, Figure 4 and paragraph [0026]), the description is read at a local server. In this embodiment, a browser or operating system present on the local server interprets the instructions of the real-world description and generates specific parameter adjustments for communicating to the relevant device. In this way, usual devices can be used without modification in the system disclosed in document D2.
Document D2 also discloses to include descriptions of desired real-world environments in TV broadcast signals (paragraph [0028]). An authoring program receiving text or video input can be used to generate descriptions/sets of instructions in a markup language (paragraph [0052]).

7.4.2 The claimed invention therefore differs from the method disclosed in document D2 in that it includes features A, B and D. Moreover, document D2 discloses to control a lighting device with colour values as control parameters, but it does not disclose to do so with obtained average parameter values (see feature E of claim 1).

7.4.3 At the oral proceedings, the appellant argued that the claimed method achieved the same overall effect as the method disclosed in document D2. Hence, it solved the problem of providing an alternative implementation of the known method of controlling a lighting device.

7.4.4 The Board essentially agrees with the appellant in that the overall effect, i.e. controlling parameters of a lighting device on the basis of a textual description, of the method disclosed in document D2 and the method of present claim 1 is the same. However, document D2 does not explain in detail how the real-world description is interpreted into specific parameter adjustments for the lighting device. Hence, the skilled person trying to implement the method disclosed in document D2 would have to fill a gap in the disclosure. Consequently, the Board considers that the objective technical problem can be formulated as how to implement the interpretation of the textual description into
control parameters for the lighting device.

7.4.5 The skilled person faced with the above problem would have considered providing a fixed mapping from the description into device parameters. This mapping could then be used by the interpreter. Given that users may have subjective preferences for ambient parameters, it would have been a routine improvement to store descriptions together with user-specific ambient parameters in the library disclosed in document D2 (paragraph [0035]). The skilled person would thus have arrived at a searchable database with textual descriptions and associated control parameters for ambient devices. However, document D2 does not hint at including pictures in this database.

There is no other passage in D2 that would have led the skilled person to the claimed method. For example, the authoring program disclosed in paragraph [0052] of D2 generates descriptions for video content, but how this is done is not disclosed. In any case, the (automatic) generation of textual descriptions for video content does not point to (automatically) interpreting textual descriptions using an image database. The Board is also not aware of any common general knowledge which could have led the skilled person to the claimed method. Hence, the subject-matter of claim 1 is not obvious in view of document D2 alone.

7.4.6 Documents D1 and D3 concern methods for annotating and retrieving images such as photos. There is nothing in document D2 which would have prompted the skilled person to consult these documents.

Even if the skilled person had considered documents D1 and D3 when searching for a solution starting from D2,
they would not have found the claimed solution. None of these documents suggests extracting average parameter values from a retrieved subset of images, let alone the use of such average parameter values for controlling an ambient device such as a lighting device.

Thus, the subject-matter of claim 1 is not rendered obvious by a combination of document D2 with either D1 or D3.

In sum, the method of claim 1 involves an inventive step in view of the prior-art documents on file. The same holds for the further independent claims which correspond to claim 1 in terms of apparatus, computer program product and computer-readable medium.

The Board is therefore satisfied that the claims of the sole request meet the requirements of Articles 52(1) and 56 EPC.

8. Conclusion

In view of the above, the claims of the sole request satisfy the requirements of the EPC. However, the description and drawings may still require adaptation.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to grant a patent on the basis of claims 1 to 6 of the amended main request filed in the oral proceedings before the Board, with drawings and the description to be adapted.

The Registrar: The Chairman:

D. Magliano R. Moufang

Decision electronically authenticated