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**Datasheet for the decision
of 24 June 2021**

Case Number: T 1599/18 - 3.5.06

Application Number: 10181332.7

Publication Number: 2397969

IPC: G06K9/00

Language of the proceedings: EN

Title of invention:

Multispectral imaging biometrics

Patent Proprietor:

HID Global Corporation

Opponent:

Idemia Identity & Security France

Headword:

Multispectral skin biometrics / HID 4

Relevant legal provisions:

EPC Art. 100(a), 52, 54(1), 54(2), 54(3), 113(1)

EPC R. 116(2)

RPBA Art. 12(4)

RPBA 2020 Art. 13(1)

Keyword:

Novelty - (no) - implicit disclosure (yes/no)
Right to be heard - opportunity to comment (yes) - substantial procedural violation (no)
Late-filed request - request identical to request not admitted in first instance proceedings - request could have been filed in first instance proceedings (yes)
Amendment to appeal case - suitability of amendment to resolve issues raised (no)

Decisions cited:

G 0007/93, R 0001/13

Catchword:

Lack of novelty (see point 14): there is no need that a prior art document explicitly mentions the claimed features. It is necessary and sufficient that an embodiment falling under the claim scope be directly and unambiguously derivable from the prior art document. That an alternative exists does not change this: it is possible that multiple alternatives can be considered directly and unambiguously derivable, even when none is explicitly mentioned.

Right to be heard (see points 18 and 29): the right to be heard does not entail a right to an amendment, but a right to present comments on why a specific request should be admitted to the proceedings.



Beschwerdekammern

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Case Number: T 1599/18 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 24 June 2021

Appellant:
(Patent Proprietor)

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Representative:

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Respondent:
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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 24 April 2018
revoking European patent No. 2397969 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman B. Müller
Members: T. Alecu
A. Teale

Summary of Facts and Submissions

- I. The appeal is against the decision of the Opposition Division to revoke European patent number EP 2397969 B1 (the patent in suit). The corresponding patent application was filed as a divisional of application EP 05857436.9 (the refusal was appealed under number T 1598/18).
- II. The notice of opposition raised all grounds of opposition (Article 100(a), (b) and (c) EPC). In respect of the ground under Article 100(a) EPC, the opponent cited *inter alia* the document:
E2: WO 2004/090786 A2
as prior art under Article 54(2) and (3) EPC,,
submitting that the relevant priorities claimed by the patent in suit were invalid.
- III. In the grounds of appeal, the appellant (patent proprietor) requested to set aside the impugned decision and to maintain the patent as granted (main request), or on the basis of one of five auxiliary requests, numbered 1, 2, 2a, 3 and 3a. Auxiliary requests 1 (filed during the oral proceedings before the Opposition Division) and 2 were the same as those in the decision, auxiliary request 3 was the same as auxiliary request 4 (filed during the above oral proceedings) in the decision. New auxiliary requests 2a and 3a were filed with the grounds of appeal.
- IV. The Opposition Division had decided that
(a) The main request complied with Article 76(1), 123(2) and 83 EPC, thereby rejecting the request for revocation under the grounds of Article 100 (b) and (c) EPC;

- (b) The main request however did not comply with Article 54 EPC, claim 1 lacking novelty over E2, which is prior art under the provisions of Article 54(3) EPC;
- (c) Auxiliary request 1 (filed during the oral proceedings) was not to be admitted into the proceedings (Rule 116(2) EPC);
- (d) Auxiliary request 2 did not comply with Article 54 EPC, claim 1 lacking novelty over E2;
- (e) Auxiliary request 3 (identified as the fourth auxiliary request filed during the oral proceedings) was not to be admitted into the proceedings (Rule 116(2) EPC).

- V. The respondent requested to "reject the appeal" and "revoke the patent".
- VI. The Board summoned the parties to oral proceedings. In the communication accompanying the summons, it informed the parties of its provisional opinion, *inter alia*, that the patent as granted and auxiliary request 2 lacked novelty over E2, and that the Board intended to exercise its discretion under Article 12(4) RPBA 2007 in not admitting the other requests.
- VII. Subsequently (on 21 April 2021), the appellant filed two new auxiliary requests (numbered IV and V) and argued in favour of their admittance and of the allowability of all requests.
- VIII. The respondent indicated that they would not take part in the oral proceedings and requested to not admit any of the new auxiliary requests as late filed (Article 13 RPBA 2020). Furthermore, all of the new requests were not allowable because they, *inter alia*, lacked novelty

in view of E2. Remittal was requested should the Board find any of the requests admissible and new over E2.

IX. The requests of the parties are therefore as follows:

The appellant (patent proprietor) requested to set aside the impugned decision and to maintain the patent as granted (main request), or on the basis of the claims according to auxiliary requests 1, 2, 2a, 3 or 3a, all filed with the statement of grounds of appeal dated 13 August 2018, or the claims according to auxiliary request IV or V, both filed with a letter dated 21 April 2021. If documents other than E2 turned out to be relevant, it was requested to remit the case to the department of first instance for further prosecution.

The respondent (opponent) requested (in its letter of 14 June 2021, point 5) that the appeal be dismissed. Should the Board consider that the subject-matter of one of the requests was admissible and new over E2, it was requested that the case be remitted to an Opposition Division, as the priority issues and the other documents had not yet been discussed in opposition proceedings.

X. Claim 1 of the main request/patent in suit reads as follows:

"A method of performing a biometric measurement on an individual, the method comprising:

illuminating a purported skin site of the individual under a plurality of distinct optical conditions during a single illumination session;

receiving light scattered from beneath a surface of the purported skin site separately for each of the plurality of distinct optical conditions;

deriving a multispectral image of the purported skin site from the received light; and

determining the identity of the individual from the multispectral image."

XI. Claim 1 of auxiliary request 1 reads as follows (emphasis by the Board):

A method of performing a biometric measurement on an individual, the method comprising:

illuminating a purported skin site of the individual under a plurality of distinct optical conditions during a single illumination session, which plurality of distinct optical conditions comprises a plurality of distinct wavelengths combined with a plurality of distinct polarization conditions;

receiving light scattered from beneath a surface of the purported skin site separately for each of the plurality of distinct optical conditions;

deriving a multispectral image of the purported skin site from the received light; and

determining the identity of the individual from the multispectral image.

XII. Claim 1 of auxiliary request 2 reads:

A method of performing a biometric measurement on an individual, the method comprising:

illuminating a purported skin site of the individual at a plurality of distinct wavelengths during a single illumination session;

receiving light scattered from beneath a surface of the purported skin site separately for each of the plurality of distinct wavelengths;
deriving a multispectral image of the purported skin site from the received light; and
performing a biometric function with the derived multispectral image,

a) wherein performing the biometric function comprises: comparing the multispectral image with a plurality of multispectral images stored in a database relating the plurality of multispectral images to identities of people; and identifying the individual by finding a match between the multispectral image and one of the plurality of multispectral images stored in the database,

or

b) wherein performing the biometric function comprises: comparing the multispectral image with a plurality of non-multispectral images stored in a database relating the plurality of non-multispectral images to identities of people; identifying the individual by finding a correspondence between the multispectral image and one of the plurality of non-multispectral images stored in the database.

XIII. Claim 1 of auxiliary request 3 reads:

A method of performing a biometric measurement on an individual, the method comprising:

illuminating a purported skin site of the individual under a plurality of distinct optical conditions during a single illumination session, which plurality of distinct optical conditions comprises a plurality of distinct wavelengths combined with a plurality of distinct polarization conditions;

receiving light scattered from beneath a surface of the purported skin site separately for each of the plurality of distinct optical conditions;
deriving a multispectral image of the purported skin site from the received light; and
performing a biometric function with the derived multispectral image, wherein performing the biometric function comprises:

a) comparing the multispectral image with a plurality of multispectral images stored in a database relating the plurality of multispectral images to identities of people; and identifying the individual by finding a match between the multispectral image and one of the plurality of multispectral images stored in the database,

or b) wherein performing the biometric function comprises:

comparing the multispectral image with a plurality of non-multispectral images stored in a database relating the plurality of non-multispectral images to identities of people; identifying the individual by finding a correspondence between the multispectral image and one of the plurality of non-multispectral images stored in the database.

XIV. Claim 1 of auxiliary requests 2a and 3a is the same as that of 2 and 3 respectively, with alternative a) deleted.

XV. Claim 1 of auxiliary request IV reads as follows:

A method of performing a biometric measurement on an individual, the method comprising:

illuminating a purported skin site of the individual under a plurality of distinct optical conditions during a single illumination session;

receiving light scattered from beneath a surface of the purported skin site separately for each of the plurality of distinct optical conditions;

deriving a multispectral image of the purported skin site from the received light; and

determining the identity of the individual from the multispectral image,

wherein performing the biometric function comprises: comparing the multispectral image with a plurality of non-multispectral images stored in a database relating the plurality of non-multispectral images to identities of people; identifying the individual by finding a correspondence between the multispectral image and one of the plurality of non-multispectral images stored in the database,

wherein:

the database comprises values derived from the non-multispectral images; and

comparing the multispectral image with the plurality of non-multispectral images comprises extracting features from the multispectral image and comparing the extracted features with the values.

XVI. Claim 1 of auxiliary request V is the same as that of auxiliary request IV, adding, as in auxiliary requests 1 and 3, the feature of:

which plurality of distinct optical conditions comprises a plurality of distinct wavelengths combined with a plurality of distinct polarization conditions.

Reasons for the Decision

The patent in suit

1. The patent in suit relates to multispectral imaging biometrics. A purported skin site (e.g. a fingertip) is

irradiated with light under different optical conditions and a multispectral image is derived therefrom (paragraph 9).

- 1.1 The different conditions may concern differences in polarization conditions, illumination angles or wavelengths (paragraphs 40, 57).
- 1.2 The multispectral image can be used (pars. 82-92) to perform biometric functions, such as biometric authentication/identification, or spoof detection. The imaging device can also be used for other purposes, for instance as an input device for a computer (e.g. button, touch-pad - see pars. 97-109).

Main request

Novelty

2. The Opposition Division considered that claim 1 of the patent in suit lacked novelty over E2. The Board notes that it was not decided whether E2 was prior art under Article 54(2) or (3) EPC. This, however, need not be decided here either, as long as the objection is one of lack of novelty (Articles 52 and 54(1) EPC).
3. The appellant had contested the original assessment by the Opposition Division, since it combined different embodiments of E2: claims 30, 33, 36 and 37 being one of them, claim 32 with claim 30 being another, and paragraph 55 belonging to yet another one. Consequently, the features of *identifying the individual from a multispectral image and separately receiving light scattered to form a multispectral image* were not part of the same embodiment of E2, and the claim was novel.

4. Claim 32 was cited regarding the feature of *identifying the individual from a multispectral image*.
The Board considers this feature to be implicit in claim 30 itself, which is a method of identifying an individual, the last feature being a comparison of the multispectral image with a database, as the respondent also submitted (see the respondent's reply to the grounds of appeal at 3.2.1 b)).
5. Paragraph 55 and claims 33, 36 and 37 were cited regarding the feature of *separately* receiving light scattered for each of the optical conditions. The Board considers this feature to be implicit in claim 30 of E2 as well, because the terminology "multispectral image" used therein, which is understood by the skilled person as a set of images taken using light of different wavelengths, implies the separate reception of light for the considered wavelengths. Hence this feature is also anticipated by claim 30, for the case in which the optical conditions are defined by distinct wavelengths.
6. Thus claim 1 of the patent in suit lacks novelty, being anticipated by claim 30 of E2.
7. This assessment was communicated by the Board to the appellant in the summons to oral proceedings. The appellant did not contest it afterwards.

Auxiliary request 1

8. The Opposition Division decided not to admit this request, exercising its discretion under Rule 116(2) EPC.
9. The appellant contested the non-admittance decision, essentially on the basis that there was no reason to

file the request earlier than in the oral proceedings, as the Opposition Division had indicated in its preliminary opinion that claim 1 was new and changed its opinion during the oral proceedings.

9.1 The Board notes that this opinion was based on the fact that E2 was deemed not to be prior art under Article 54(2) EPC. But it was clear, even when filing the notice of opposition, that E2 was anyway prior art under Article 54(3) EPC. Hence this request could have been filed earlier.

9.2 It also appears that the timing of the filing was very late (during the oral proceedings) and that the new claims were based not only on the granted claims, but contained new matter from the description.

9.3 The Opposition Division exercised its discretion on the basis of these facts, which hold true and are pertinent to the exercise of discretion. The Board finds that the Opposition Division exercised its discretion in accordance with the right principles and in a reasonable way. The Board therefore has no reason to overturn this decision (see G 7/93 2.6 and the Case Law of the Boards of Appeal, 9th edition, V.A.3.5.1.b)).

10. This request is therefore not admitted (Article 12(4) RPBA 2007).

Auxiliary request 2

11. In view of the analysis above as to the novelty of the main request, the Board agrees with the decision of the Opposition Division that claim 1, in the alternative under a), is anticipated by a combination of claims 30 and 32 of E2. The appellant did not contest this assessment.

12. The Board also agrees with the Opposition Division that alternative b) is disclosed by paragraph 72 in E2 which teaches to extract a conventional fingerprint image for biometric assessment.
- 12.1 Paragraph 72 of E2 teaches that "*a conventional fingerprint image is extracted from the sensor for further processing and biometric assessment*".
- 12.2 In E2 it is made clear to the skilled person that one biometric assessment to be performed is identification; in fact this can be considered to be the main purpose of the invention (see paragraphs 4, 13, 42); this is otherwise the normal use of a "conventional fingerprint image". Thus E2 directly and unambiguously teaches the extraction of conventional fingerprint images for identification.
- 12.3 Identification with conventional fingerprint images implies a comparison of the extracted conventional fingerprint image with some conventional fingerprint images of individuals. These conventional fingerprint images of individuals constitute, in the words of the claim, "*a plurality of non-multispectral images stored in a database relating the plurality of non-multispectral images to identities of people*". It is noted that the word "*database*", in the broadest sense, means nothing more than an organized collection of data.
13. The appellant contested that one can unambiguously derive from E2 the usage of a database with a plurality of non-multispectral images. There was no reference to such a database. One should use the same yardstick for added matter and novelty. The addition of this wording would never be allowed in E2.
14. The Board agrees that the same yardstick should be used. However, this yardstick does not require an

explicit mention of the relevant features, but only that the features be directly and unambiguously derivable.

14.1 It is also not necessary that the exact claim wording, considering its breadth and all its possible interpretations, be derivable from a prior art document for the claim to lack novelty. It is necessary and sufficient that an embodiment falling under the claim scope be derivable from the prior art document. The Board considers this to be the case here, because the skilled person is told to use conventional fingerprint *images* for identification, which directly leads to the necessity of storing these images in an organized way, i.e. to a database of images, although this is not explicitly mentioned.

14.2 One may of course also (or instead) store feature values extracted from the images in a database. But the fact that an alternative embodiment exists cannot change the fact that the first one is directly and unambiguously derivable. In fact, it is possible that multiple alternatives can be considered directly and unambiguously derivable, even when none is explicitly mentioned.

15. Hence claim 1 of this request lacks novelty over E2.

Auxiliary request 3

16. As with auxiliary request 1, the Board does not see that the Opposition Division exercised its discretion on the basis of incorrect principles or in an unreasonable way. They exercised the discretion provided under Rule 116(2) EPC, on the basis that, although the amendments filed during the oral proceedings were a response to objections under Article 123(2) EPC for a previous request filed in preparation

for the oral proceedings, this new request could and should have been filed earlier. This is because the proprietor should have expected the Article 123(2) EPC objections, given that no literal basis was provided for the amendments in the previously filed request.

17. The appellant argues that the objections under Article 123(2) EPC were only raised during oral proceedings before the Opposition Division, and that the proprietor should have had the opportunity to react by amendment. Auxiliary request 3 was to be admitted to the appeal proceedings "because the non-admittance in the first instance was a substantial violation against the right to be heard" (letter of 21 April 2021, page 8).
18. The Board disagrees. The objections could not have been raised earlier, given the timing of the filing of the previous request.
- 18.1 Then, a party has a right to be heard. Pursuant to Article 113(1) EPC:
"The decisions of the European Patent Office may only be based on grounds or evidence on which the parties concerned have had an opportunity to present their comments."
- 18.2 The Board however cannot find any suggestion in the statement of grounds of appeal of a denial of the appellant's opportunity to present their comments on the admittance of auxiliary request 3. (Cf. R 1/13, points 9-10).
- 18.3 Furthermore, although the minutes are silent on that point, the appellant stated during the Oral Proceedings before the Board that they had had the opportunity to explain the amendments when introducing the requests during the oral proceedings before the Opposition Division. This means that the opportunity to present arguments for admittance was given.

- 18.4 The right to be heard does not entail the right to an amendment. Amendments are regulated by Article 123(1) EPC, the Implementing Regulations (e.g. Rule 80, Rule 116 EPC, Rule 137(3) EPC), and the RPBA during appeal. In this particular case, the Opposition Division had the discretion to admit, or not, the amendment, under Rule 116(2) EPC. That a new objection is raised, and that the amendment potentially responds to that objection, are factors to be considered in the exercise of this discretion, which the Opposition Division did; it does not give rise to a *right* to an amendment in response to that new objection emanating from the right to be heard.
19. The Board has therefore no reason to overturn the decision of the Opposition Division. This request is consequently not admitted (Article 12(4) RPBA 2007).

Auxiliary requests 2a and 3a

20. These requests were only filed with the grounds of appeal. The appellant explained that they were filed in view of the "weak" point in the decision concerning the novelty of alternative *b*), wherein it was acknowledged that E2 was not very detailed in this respect.
21. The Board is of the opinion that, as a discussion regarding both alternatives took place during the oral proceedings before the Opposition Division, which fact the appellant did not contest, that was the point at which these requests should have been filed, because the allegedly weak point should have been apparent then.
22. The Board consequently decides not to admit these requests under Article 12(4) RPBA 2007.

23. The board also notes that the deletion of the a) alternative cannot change the novelty assessment (see discussion on Auxiliary Request 2).

Auxiliary requests IV and V

24. These requests were filed after the summons to oral proceedings by the Board. Their admittance is regulated by Article 13 RPBA 2020. According to the appellant, the submissions were in reaction to the provisional opinion of the Board, finding with respect to auxiliary request 2 that alternative b) might be seen as anticipated by E2. Although this was already part of the impugned decision, the Board's communication *"informed for the first time how the respective disclosure [of E2] is read on feature [b]"* (see page 2 of the letter of 21 April 2021).
25. Even if this were true, the fact remains that the objection was already present in the impugned decision. The appellant should have filed such amendments at the latest upon filing the appeal.
26. Notwithstanding, the Board also does not see that the amendments clearly overcome the novelty objection.
- 26.1 Concerning the amendments in auxiliary request IV, that extracted values are stored in a database, this may also be seen as a clearly derivable embodiment of E2 (see discussion on auxiliary request 2).
- 26.2 Furthermore, even if that were not the case, although it is clear that a conventional fingerprint image (black and white or grayscale) is not multispectral, it is not clear when, in general, an image is non-multispectral in the sense of the patent in suit. As discussed in the related case T 1598/18, a

multispectral image, in the sense of the patent in suit, may simply be a set of images taken under different optical conditions. Paragraph 97 of the patent in suit seems to define non-multispectral images as "images taken with other imaging technology", which is quite vague, and not really distinguishable from a set of image layers. This definition of non-multispectral images may be taken to encompass, for instance, images taken with the technology of E2, if that is considered to be "other imaging technology", in which case paragraph 73 of E2 would anticipate the claim.

26.3 Concerning the further amendment in auxiliary request V, the appellant admits that E2 "may disclose" those features in its Figure 1, elements 103a, 103b and 107a, 107b (letter of 21 April 2021, page 9, section 5, 3rd sentence). The Board is of the opinion that *prima facie* E2 does indeed disclose those features; this amendment does not appear to confer novelty over E2 either.

27. Hence the Board decides not to admit these requests (Article 13(1) RPBA 2020).

Substantial procedural violation

28. The appellant alleged that there "*was a substantial violation against the right to be heard*" (see page 8 of the letter of 21 April 2021) because of the non-admittance of auxiliary requests 1 and 3.

29. As noted above, in points 16 *et seq.*, the right to be heard does not entail a right to an amendment, but a right to present comments on why a specific request should be admitted to the proceedings. So the non-admittance of the requests as such cannot be a violation of the right to be heard.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



L. Stridde

B. Müller

Decision electronically authenticated