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**Datasheet for the decision
of 16 November 2022**

Case Number: T 3097/19 - 3.5.06

Application Number: 12871077.9

Publication Number: 2827284

IPC: G06K9/32, G06F17/30

Language of the proceedings: EN

Title of invention:

KEY WORD DETECTION DEVICE, CONTROL METHOD AND CONTROL PROGRAM
FOR SAME, AND DISPLAY APPARATUS

Applicant:

Omron Corporation

Headword:

Key word detection/OMRON

Relevant legal provisions:

EPC Art. 56, 64, 69, 83, 84
EPC R. 42(1), 103(1)(a), 111(2), 137(3)
RPBA Art. 12(2), 12(4)
Guidelines for examination F-IV, 4.1

Keyword:

Decision not to admit new main request insufficiently reasoned
Non-admittance decision, therefore, not confirmed
Inventive step - main request, first and second auxiliary
requests (no) - third and fourth auxiliary requests (yes,
claims on their own)
Consistency between claims and description of third and fourth
auxiliary requests - no
Scope of protection sought defined precisely - no

Decisions cited:

G 0001/04, G 0002/88, T 0454/89, T 0860/93, T 0556/02,
T 1151/02, T 1871/09, T 1817/14, T 2766/17, T 1024/18,
T 1989/18, T 2194/19

Catchword:

1. If a request is not admitted because earlier objections are not overcome, Rule 111(2) EPC requires that these earlier objections be made explicit in the decision (see reasons 3).
2. Non-convergence of requests is, on its own, not a sufficient reason for non-admittance. It must be reasoned that and why non-convergent requests affect procedural economy in view of the particular circumstances of the case (see reasons 4).
3. The purpose of the claims to define the matter for which protection is sought (Article 84 EPC) imparts requirements on the application as a whole, in addition to the express requirements that the claims be clear, concise and supported by the description. The Board deems it to be an elementary requirement of a patent as a legal title that its extent of protection can be determined precisely. Whether this is the case for a specific patent application (or an amended patent) can only be decided with due consideration of the description. Claims and description do not precisely define the matter for which protection is sought if they contradict each other (see reasons 27 to 34).



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 3097/19 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 16 November 2022

Appellant:
(Applicant)

Omron Corporation
801, Minamifudodo-cho
Horikawahigashiiru
Shiokoji-dori
Shimogyo-ku
Kyoto-shi, Kyoto 600-8530 (JP)

Representative:

Kilian Kilian & Partner
Aidenbachstraße 54
81379 München (DE)

Decision under appeal:

**Decision of the Examining Division of the
European Patent Office posted on 11 July 2019
refusing European patent application No.
12871077.9 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman M. Müller
Members: T. Alecu
A. Jimenez

Summary of Facts and Submissions

- I. The appeal is against the decision of the Examining Division to refuse the application for lack of compliance with Articles 83, 84 and 56 EPC.
- II. With the grounds of appeal the appellant requested that the decision of the Examining Division be set aside and that a patent be granted on the basis of a main request or of one of four auxiliary requests, all as filed with the grounds of appeal. The main request and first auxiliary request are identical to those on which the decision is based.
- III. In its communication accompanying a summons to oral proceedings, the Board informed the appellant of its provisional opinion that the main and the first two auxiliary requests were not allowable, inter alia for a lack of inventive step. The subject-matter of claim 1 according to the third and fourth auxiliary requests was found to be inventive. The Board however noted in point 26 of that communication "that a correspondingly amended description, which provides a description of the invention consistent with the matter for which protection is sought, as defined by the claims, has not yet been filed".
- IV. The appellant informed the Board first (on 27 September 2022) that it would not be attending the oral proceedings, and then requested (on 4 October 2022) "that the Board of Appeal decides on the state of the file without remitting the case to the first instance".
- V. Claim 1 of the main request defines:

A key word detection device (110) configured to detect a search key word from a target image in order to perform a search with a search engine on the internet, the key word detection device (110) comprising:

a character string detector (113) configured to detect a specific character string (SC) by detecting, from the target image, a feature point of each character of said specific character string (SC) included in said target image, the specific character string (SC) prompting a user to perform the search;

a search window detector (115) configured to detect a search window (SB) from surroundings of said specific character string (SC) detected by the character string detector in the target image;

a key word recognition unit (116) configured to recognize a search character string existing in the search window (SB) detected by the search window detector (115) as the search key word in the target image; and

wherein the search window detector (115) is configured to

detect presence of the search window (SB) by searching, in the surroundings of said specific character string (SC) in the target image, including upper, lower, left and right directions with respect to the specific character string (SC), according to a detection priority order which sets the order of the upper, lower, left and right directions in which the search window (SB) is to be searched, and

end the detection of the search window (SB) when the search window is detected in one direction of said upper, lower, left and right directions according to said detection priority order.

VI. Claim 1 of the first auxiliary request is amended in respect of that of the main request to specify

a key word recognition unit (116) configured to recognize a search character string in the search window (SB) successfully detected by the search window detector (115) as the search key word in the target image

and that the search window detector is configured to

end the detection of the search window (SB) when the search window is detected in one direction of said upper, lower, left and right directions which is set before another direction of said upper, lower, left and right directions according to said detection priority order.

VII. Claim 1 of the second auxiliary request is amended in respect of that of the first auxiliary request to define a feature point (claim 1, lines 5-6)

a feature point, being a portion in which brightness changes rapidly in the image,

VIII. The third auxiliary request comprises two independent device claims, defining

1. A key word detection device (110) configured to detect a search key word from a target image in order to perform a search with a search engine on the internet, the key word detection device (110) comprising:

a character string detector (113) configured to detect a specific character string (SC) by detecting, from the target image, each character of said specific

character string (SC) included in said target image and transmitting positional information on which the detected specific character string is located in said target image to a search window detector (115) together with the target image, the specific character string (SC) prompting a user to perform the search;

said search window detector (115) configured to detect, using the target image and the positional information on the specific character string from the character string detector (113), a search window (SB) from surroundings of said specific character string (SC) detected by the character string detector in the target image;

a key word recognition unit (116) configured to recognize a search character string existing in the search window (SB) detected by the search window detector (115) as the search key word in the target image; and

wherein the search window detector (115) is configured to

detect presence of the search window (SB) by searching, in the surroundings of said specific character string (SC) in the target image, including upper, lower, left and right directions with respect to the specific character string (SC), according to a detection priority order which sets the order of the upper, lower, left and right directions in which the search window (SB) is to be searched, and

end the detection of the search window (SB) when the search window is detected in one direction of said upper, lower, left and right directions which is set before another direction of said upper, lower, left and right directions according to said detection priority order, wherein, when the search window is assumed to be in the left direction of the specific character string,

the search window detector (115) is configured to, in the target image,

obtain a circumscribed rectangle of the specific character string,

set an upper portion detecting rectangle (A) in which an upper left vertex of the obtained circumscribed rectangle is used as a lower right vertex of the upper portion detecting rectangle (A),

detect a line segment corresponding to an upper side of the search window (SB) in the set upper portion detecting rectangle (A),

if the line segment corresponding to the upper side of the search window (SB) is found, set a lower portion detecting rectangle (B) in which a lower left vertex of the circumscribed rectangle is used as an upper right vertex of the lower portion detecting rectangle (B),
detect a line segment corresponding to a lower side of the search window (SB) in the set lower portion detecting rectangle (B),

if the line segment corresponding to the lower side of the search window (SB) is found, set a side portion detecting rectangle (C) in which a rectangle constructed with the detected upper and lower sides of the search window is widened in directions of both sides, and

detect line segments or arcs on right and left sides of the search window (SB) in the set side portion detecting rectangle (C), and

if the line segments or arcs on right and left sides of the search window are found, determine the search window to be detected,

wherein, when the search window is assumed to be in the right direction of the specific character string, the search window detector (115) is configured to, in the target image,

obtain a circumscribed rectangle of the specific character string,

set an upper portion detecting rectangle (A) in which an upper right vertex of the obtained circumscribed rectangle is used as a lower left vertex of the upper portion detecting rectangle (A),

detect a line segment corresponding to an upper side of the search window (SB) in the set upper portion detecting rectangle (A),

if the line segment corresponding to the upper side of the search window (SB) is found, set a lower portion detecting rectangle (B) in which a lower right vertex of the circumscribed rectangle is used as an upper left vertex of the lower portion detecting rectangle (B),
detect a line segment corresponding to a lower side of the search window (SB) in the set lower portion detecting rectangle (B),

if the line segment corresponding to the lower side of the search window (SB) is found, set a side portion detecting rectangle (C) in which a rectangle constructed with the detected upper and lower sides of the search window is widened in directions of both sides, and

detect line segments or arcs on right and left sides of the search window (SB) in the set side portion detecting rectangle (C), and

if the line segments or arcs on right and left sides of the search window are found, determine the search window to be detected,

wherein, when the search window is assumed to be in the upper direction of the specific character string, the search window detector (115) is configured to, in the target image,

acquire a circumscribed rectangle of the specific character string,

using the upper left vertex of the acquired circumscribed rectangle as the lower right vertex to set a horizontally-long rectangle (A') having predetermined dimensions, and

using the upper right vertex of the circumscribed rectangle as the lower left vertex to set a horizontally-long rectangle (B') having predetermined dimensions,

detecting, in the rectangle (A'), a reversely-U-shaped line in which the upper and lower sides reach the right end of the rectangle (A') as a first line, and

detecting, in the rectangle (B'), a U-shaped line in which the upper and lower sides reach the left end of the rectangle (B') as the second line.

detecting a third line coupling the upper sides of the first and second lines to each other, and

detecting a fourth line coupling the lower sides of the first and second lines to each other, thereby detecting the search window (SB) surrounded by the first to fourth lines, wherein, when the search window is assumed to be in the lower direction of the specific character string, the search window detector (115) is configured to, in the target image,

acquire a circumscribed rectangle of the specific character string,

using the lower left vertex of the acquired circumscribed rectangle as the upper right vertex to set a horizontally-long rectangle (A') having predetermined dimensions, and

using the lower right vertex of the circumscribed rectangle as the upper left vertex to set a horizontally-long rectangle (B') having predetermined dimensions,

detecting, in the rectangle (A'), a reversely-U-shaped line in which the upper and lower sides reach

*the right end of the rectangle (A') as a first line,
and*

*detecting, in the rectangle (B'), a U-shaped line in
which the upper and lower sides reach the left end of
the rectangle (B') as the second line,*

*detecting a third line coupling the upper sides of
the first and second lines to each other, and
detecting a fourth line coupling the lower sides of the
first and second lines to each other, thereby detecting
the search window (SB) surrounded by the first to
fourth lines.*

*2. A key word detection device (110) configured to
detect a search key word from a target image in order
to perform a search with a search engine on the
internet, the key word detection device (110)
comprising:*

*a character string detector (113) configured to
detect a specific character string (SC) by detecting,
from the target image, each character of said specific
character string (SC) included in said target image and
transmitting positional information on which the
detected specific character string is located in said
target image to a search window detector (115) together
with the target image, the specific character string
(SC) prompting a user to perform the search;*

*said search window detector (115) configured to
detect, using the target image and the positional
information on the specific character string from the
character string detector (113), a search window (SB)
from surroundings of said specific character string
(SC) detected by the character string detector in the
target image;*

*a key word recognition unit (116) configured to
recognize a search character string existing in the
search window (SB) detected by the search window*

detector (115) as the search key word in the target image; and

wherein the search window detector (115) is configured to

detect presence of the search window (SB) by searching, in the surroundings of said specific character string (SC) in the target image, including upper, lower, left and right directions with respect to the specific character string (SC), according to a detection priority order which sets the order of the upper, lower, left and right directions in which the search window (SB) is to be searched, and

end the detection of the search window (SB) when the search window is detected in one direction of said upper, lower, left and right directions which is set before another direction of said upper, lower, left and right directions according to said detection priority order, wherein, when the search window is assumed to be in the left direction of the specific character string, the search window detector (115) is configured to, in the target image,

obtain a circumscribed rectangle of the specific character string,

set an upper portion detecting rectangle (A) in which an upper left vertex of the obtained circumscribed rectangle is used as a lower right vertex of the upper portion detecting rectangle (A),

detect a line segment corresponding to an upper side of the search window (SB) in the set upper portion detecting rectangle (A),

if the line segment corresponding to the upper side of the search window (SB) is found, set a lower portion detecting rectangle (B) in which a lower left vertex of the circumscribed rectangle is used as an upper right vertex of the lower portion detecting rectangle (B),

detect a line segment corresponding to a lower side of the search window (SB) in the set lower portion detecting rectangle (B),

if the line segment corresponding to the lower side of the search window (SB) is found, set a side portion detecting rectangle (C) in which a rectangle constructed with the detected upper and lower sides of the search window is widened in directions of both sides, and

detect line segments or arcs on right and left sides of the search window (SB) in the set side portion detecting rectangle (C), and

if the line segments or arcs on right and left sides of the search window are found, determine the search window to be detected,

wherein, when the search window is assumed to be in the right direction of the specific character string, the search window detector (115) is configured to, in the target image,

obtain a circumscribed rectangle of the specific character string,

set an upper portion detecting rectangle (A) in which an upper right vertex of the obtained circumscribed rectangle is used as a lower left vertex of the upper portion detecting rectangle (A),

detect a line segment corresponding to an upper side of the search window (SB) in the set upper portion detecting rectangle (A),

if the line segment corresponding to the upper side of the search window (SB) is found, set a lower portion detecting rectangle (B) in which a lower right vertex of the circumscribed rectangle is used as an upper left vertex of the lower portion detecting rectangle (B),

detect a line segment corresponding to a lower side of the search window (SB) in the set lower portion detecting rectangle (B),

if the line segment corresponding to the lower side of the search window (SB) is found, set a side portion detecting rectangle (C) in which a rectangle constructed with the detected upper and lower sides of the search window is widened in directions of both sides, and

detect line segments or arcs on right and left sides of the search window (SB) in the set side portion detecting rectangle (C), and

if the line segments or arcs on right and left sides of the search window are found, determine the search window to be detected,

wherein, when the search window is assumed to be in the upper direction of the specific character string, the search window detector (115) is configured to, in the target image,

obtain a circumscribed rectangle of the specific character string,

setting, on an upper side of the circumscribed rectangle, an upper portion detecting rectangle (A) for detecting upper sides of first and second lines, a reversely-U-shaped line being said first line and a U-shaped line being said second line,

setting, on an upper side of the circumscribed rectangle and on a lower side of said upper portion detecting rectangle (A), a lower portion detecting rectangle (B) for detecting the lower sides of first and second lines,

setting a side portion detecting rectangle (C) in which a rectangle constructed with the detected upper and lower sides of the search window is widened in directions of both sides, and

detect line segments or arcs on right and left sides of the search window (SB) in the set side portion detecting rectangle (C), and

if the line segments or arcs on right and left sides of the search window are found, determine the search window to be detected,

wherein, when the search window is assumed to be in the lower direction of the specific character string, the search window detector (116) is configured to, in the target image,

obtain a circumscribed rectangle of the specific character string,

setting, on a lower side of the circumscribed rectangle, an upper portion detecting rectangle (A) for detecting upper sides of first and second lines, a reversely-U-shaped being said first line and a U-shaped line being said second line,

setting, on a lower side of the circumscribed rectangle and on a lower side of said upper portion detecting rectangle (A), a lower portion detecting rectangle (B) for detecting the lower sides of first and second lines,

setting a side portion detecting rectangle (C) in which a rectangle constructed with the detected upper and lower sides of the search window is widened in directions of both sides, and

detect line segments or arcs on right and left sides of the search window (SB) in the set side portion detecting rectangle (C), and

if the line segments or arcs on right and left sides of the search window are found, determine the search window to be detected.

IX. The fourth auxiliary differs from the third auxiliary request in that independent claim 2 is deleted.

Reasons for the Decision

1. The application relates to a method of detecting search keywords in video streams. It is said that it is customary to display text prompting the user to search for a certain keyword on the Internet (paragraph 2, all references to the application herein being to the version as amended on entry into the regional phase). Typically the keyword is displayed in a search window in the form of a box ("rectangular form") next to a character string containing a prompting word (paragraphs 16 and 24) such as "search" (referred to as the "specific character string" in the claims). In order to speed up the keyword recognition, it is proposed to search first for the specific character string (paragraphs 26, 27). If this is found, then an attempt is made to find the box containing the keyword, by detecting the lines composing it (paragraphs 55-73 and further). The detection of the search window is performed around the position of the prompting character string in different directions of the prompting string in a predetermined priority order (e.g. left, upper, right, lower; see paragraphs 74, 75).

Main request: admittance

2. The Examining Division (2.1.1) declined to consider this request because "the outstanding objections under Articles 84 and 56 EPC of the previous main request [...] had not been resolved", and, moreover, it was not convergent in view of "the last substantially examined request, i.e. Auxiliary Request I".
3. The decision does not reproduce these outstanding objections or indicate where they are to be found.

- 3.1 As it appears from the file, the Examining Division had raised objections under Articles 84 and 56 EPC to a sole set of claims filed on 15 January 2018. In response, the appellant filed amended claims with letter of 22 April 2019, and the Examining Division explained, in a telephone conversion on 26 April 2019, that these objections were not overcome. In reaction to this, the appellant filed, with telefax of 16 May 2019, the amended claims - especially the main request - on which the decision is based.
- 3.2 From the file, it must therefore be concluded that the Examining Division considered that their objections raised in its summons to oral proceedings and confirmed in the telephone conversation were not overcome by the main request filed on 16 May 2019.
- 3.3 These substantive deficiencies are an essential part of the reasons for the decision and must, therefore, be identified in the written decision (Rule 111(2) EPC).
4. The Examining Division also did not explain why the amendments and the appellant's pertinent counter-arguments were, at least prima facie, insufficient to overcome the objections.
 - 4.1 And it did not explain why the main request and the auxiliary request did not converge and why that alleged lack of convergence was detrimental to procedural economy.
 - 4.2 In the Board's view, the convergence criterion is not a sufficient reason for non-admittance, but only an indicator that procedural economy may be affected. Whether this is actually the case depends on the

circumstances of the case, which, therefore, must be considered and balanced.

5. The Board's view is therefore that the grounds invoked by the Examining Division are not reasoned as required by Rule 111(2) EPC, so that the non-admittance decision under Rule 137(3) EPC cannot stand. The Board cannot therefore hold inadmissible the main request which was filed with the statement of grounds of appeal, so that it is part of the appellant's case and to be taken into account (Article 12 (2) and (4) RPBA 2007).

5.1 The lack of sufficient reasoning also amounts to a substantial procedural violation, which is however not causal for the appeal in view of the fact that the grounds invoked by the Examining Division to refuse the first auxiliary request obviously also apply to the main request. That aside, the appeal fee cannot be reimbursed under Rule 103(1)(a) EPC because the appeal as a whole is not allowable.

Main, first and second auxiliary requests: inventive step

6. The respective claims 1 of these requests define essentially the same subject matter. The discussion below applies to all of them.

7. The Examining Division denied inventive step (2.2.2.1) of claim 1 starting from document D1: JP 2010-039647, which is also cited in the current application in paragraph 13, and described as providing a method whereby all text from a frame is extracted, and then keywords are sought in the vicinity of the prompting string. The appellant provided a translation of D1 as

Annex 2b (filed on 28 April 2020), which confirms its summary in the application.

8. The appellant accepted (sections A.IV.5, B.III and C.II of the grounds of appeal) that the only difference between the claimed invention and D1 relates to the fact that the search for a search box is performed around the prompting character string following a priority order.
9. The Board remarks that, although D1 does not mention an order, some order is an inherent part of any computer program implementing such a search. The only difference may then reside in the order being a "priority" order. Since the claim does not specify to what the priority corresponds, the Board concludes, as the Examining Division also did, that no technical effect can be assigned thereto, which means that an inventive step cannot be recognized on this basis.
10. The above opinion was communicated to the appellant in the communication of the Board accompanying the summons to oral proceedings at points 21 to 23. The appellant has chosen not to respond to it in substance.
11. The Board concludes that the subject matter of the respective claims 1 of these requests lacks an inventive step (Article 56 EPC).

Third and fourth auxiliary requests: clarity and disclosure

12. The third auxiliary request contains two independent device claims configured to carry out two alternative methods of detecting the search window.

13. The Examining Division objected to clarity (2.3.2.1) and disclosure (2.3.3) of the matter defined in claim 1, because the claim, and the application, did not define the sizes and positions of the various rectangles involved in the detection process.
14. The Board is of the opinion that the skilled person would set the appropriate sizes and positions given the expected size of keywords; these are standard design considerations which do not put an undue burden on the skilled person. That sizes and positions are not explicitly specified in the claims does not cause a lack of clarity or disclosure.
15. The Examining Division also objected to claim 1 (2.3.2.1 on page 13) because it defines in respect of the upper and lower direction "*detecting ... a reversely-U-shaped line in which the upper and lower sides reach the right end of the rectangle*" and "*detecting ... a U-shaped line in which the upper and lower sides reach the left end of the rectangle*".
16. In the Board's view, the Examining Division was correct to conclude that these formulations, when taken literally, appear to make no technical sense. However, for the technically skilled person there is no doubt as to their intended meaning, given the context and the corresponding figures (see figure 4b) and paragraphs 77-78) - the U-shapes have to be understood to be in a rotated position. This objection is therefore not justified.
17. The Examining Division further objected (2.3.2.2) to the wording in independent claim 2 defining the alternative detection method for the upper and lower position. The Board disagrees with this as well, for

essentially the same reasons - that it is clear what is meant given the context - this alternative method replicates by analogy the one for the left and right sides (see paragraph 79), which are also defined in the claim.

Third and fourth auxiliary requests: inventive step

18. The Board has no objections as to the obviousness of the claimed matter, because, on balance, although the skilled person could certainly have implemented the rectangle detection in the specifically claimed manner, the Board has no evidence to justify the finding that the skilled person would actually have done it starting from D1.

Third and fourth auxiliary requests: adaptation of the description

19. The respective independent claims 1 of these (and all other) requests define a *key word detection device comprising inter alia* (numbering by the Board)
- (i) *a character string detector configured to detect a specific character string; and*
 - (ii) *a search window detector configured to detect a search window from surroundings of said specific character string*
 - (iii) *by searching, [...] according to a detection priority order which sets the order of the upper, lower, left and right directions in which the search window (SB) is to be searched.*
20. The description of the invention has not been amended since the entry in the European phase. It is thus the

same for all requests, and it states in particular the following:

[0107] The invention is not limited to the above embodiments, but various changes can be made without departing from the scope of the invention. The embodiment obtained by a proper combination of technical means disclosed in the different embodiments is also included in the technical scope of the invention.

[0108] For example, in the embodiments, the search window SB is detected [...]. Alternatively, the search key word candidate may directly be selected from the surroundings [...]. In this case, there is a risk [...]. However, the processing of detecting the search window SB can be eliminated.

21. Also, the first embodiment of the invention is one where the search window is only searched on the left side of the character string SC (paragraph 55). This is perhaps clearest from the following passage of paragraph 74 introducing a modification of the first embodiment, this modification being now claimed (feature (iii)):

[0074] [Modification]

In the first embodiment, assuming that the search window SB is located near the left side of the [...] character string SC, the search window SB is detected near the left side of the [specific] character string SC. Alternatively, the search window SB may be located near any one of the upper, lower, right, and left sides of the [specific] character string SC (character string prompting the user to perform the search).

[0075] Even if the search window SB is located near any one of the upper, lower, right, and left sides of the "specific" character string SC, the search window SB can be detected as follows. Firstly, a detection priority order (for example, in the order of the left, upper, right, and lower sides) is previously set with respect to the upper, lower, right, and left directions of the "specific" character string SC."

22. Moreover, the summary of the invention (paragraphs 7 to 11) reproduces the original claims and makes, for instance, no reference to the detection of a search window.
23. Thus, in the current application, the description:
 - (a) summarizes the invention by a set of features which does not include all the claimed features (omitting at least features ii) and iii) (paragraphs 7 to 11);
 - (b) defines as embodiments of the invention devices which do not contain all the claimed features (see e.g. the first embodiment and paragraph 108)
 - (c) states that modifications of embodiments or new embodiments obtained by unspecified combinations of technical means remain within the scope of the invention (paragraph 107).
24. The way in which the description defines the invention is thus inconsistent with the words used by the claims. This Board is of the opinion that due to this inconsistency the scope of protection cannot be determined precisely, and that, therefore, auxiliary requests 3 and 4 do not comply with Article 84 EPC.

25. Effectively, the Board finds the third and fourth auxiliary requests not to be allowable because their description was not "adapted" to the amended claims, although it did not have any objections under Article 84 EPC to the claim language on its own (see points 16 and 17 above). With this decision, the Board also takes position vis-à-vis the recent discussion, triggered by T 1989/18, as to whether the description needs to be "adapted" to amended claims and why.
26. The Board notes that the EPC does not expressly provide an obligation for the description to be "adapted", even though this language is commonly used. In principle, amendments under Article 123 EPC concern the entire application or patent, including claims, description and drawings. The issue of "adaptation" is an artefact of the well-established examination practice at the EPO, adopted for efficiency reasons, to accept and discuss claim amendments without giving consideration to the description until allowable claims are arrived at. Strictly speaking though, the application or patent should always be amended as a whole, so that, as is explained below, the description of the invention remains consistent with the claims.

Article 84 EPC and the scope of protection

27. Article 84 EPC states that the claims shall *define the matter for which protection is sought* and that they shall be clear and concise and be supported by the description.
28. Often, Article 84 EPC is construed as defining three requirements on the claims, while the introductory clause is taken to merely state the role of the claims. However, the purpose of the claims to define the matter

for which protection is sought imparts additional requirements on the application as whole.

- 28.1 The matter for which protection is sought is central for determining, after grant, the extent of protection conferred by the patent (Article 69 EPC). The Board deems it to be an elementary requirement of a patent as a legal title that its extent of protection can be determined precisely. In the Board's view, the clarity and conciseness requirements in Article 84 ultimately serve that purpose, but they are not sufficient to ensure it. To mark this distinction, the Board prefers to talk about the scope and extent of protection being "precisely determined" rather than being "clear".
- 28.2 As G 2/88 states in reasons 2.5: "Article 84 EPC provides that the claims of a European patent application 'shall define the matter for which protection is sought [...]'. The primary aim of the wording used in a claim must therefore be to satisfy such requirement[...] having regard also to the purpose of such claims. The purpose of claims under the EPC is to enable the protection conferred by the patent (or patent application) to be determined (Article 69 EPC), and thus the rights of the patent owner within the designated Contracting States (Article 64 EPC), [...]".
29. The claims do not stand on their own. They are part of an application for the grant of a patent (see Article 78(1) EPC), or of a patent, which forms, as has been said (see T 2766/17, reasons 6), a "unitary document" which must be read as a whole (see also T 860/93, reasons 5).
- 29.1 The Board notes that claims are addressed to, and must be construed by, a person with appropriate and suffi-

cient skill in the relevant field, which is determined by the description. It will - and must - be determined from the perspective of the skilled addressee how specific terms and formulations are to be interpreted, or whether they have an established meaning in the "art" at all. It is also widely accepted that the description may, at times, define a particular term or formulation used in the claims (see pertinent references in T 2766/16, reasons 6), and that, therefore, an application may act as its own dictionary ("within reason", as T 1151/02 helpfully qualifies in reasons 3).

- 29.2 Article 69 EPC expresses the same principle, that a patent application (or a patent) must be interpreted as a whole (see, e.g., T 556/02 reasons 5.3, T 1871/09, reasons 3.1, T 1817/14 reasons 7.3).
30. Therefore, under a systematic interpretation of the EPC, the function of the claims, as defined in Article 84 EPC, is only achieved when the potentially conferred scope of protection can be determined precisely. Whether this is the case for a specific patent application (or an amended patent) can only be made with due consideration of the description.
31. In the Board's view, this implies in particular an appreciation that under the EPC, a patent, and hence protection, is granted for an invention (Article 1 EPC). What is the claimed scope of protection has thus to be determined on the basis of the claims in conjunction with the description of the invention (Article 78(1)(b) EPC), in consideration of the fact that protection is sought for the invention described.
32. So, if a claim is directed to something which is different than that described to be the invention, then

the application for grant is self-contradictory, and it can be questioned for which matter the protection is actually sought. For the scope of protection to be determined precisely, the definition provided by the claims of the matter for which protection is sought must therefore be consistent with the definition of the invention provided by its description.

33. The Board also considers that this consistency between the claims and the description is necessary for legal certainty. The skilled person to whom the claims - and the entire application - are addressed (see point 29.1) must not be confronted with contradictory statements when reading the patent application as a whole. Otherwise, they may be left with doubts as to what is the invention sought to be protected.
34. As mentioned, a series of recent decisions have discussed the necessity, or not, of the "adaptation of the description". On the basis of the above, the Board the Board disagrees with the conclusions in T 1989/18, but rather concurs with the conclusions expressed in, especially, T 1024/18 and T 2766/17. It also disagrees with the conclusions of T 2194/19 (catchword), inasmuch as it considers necessary that embodiments said to be "of the invention" must fall within the scope of the claims.

Some comments on claim interpretation and clarity

35. The Board is aware that its interpretation of Article 84 EPC may appear to be in tension with case law of the Boards of Appeal regarding clarity and claim interpretation. In particular, the often expressed requirement that the claims be clear "from the wording of the claims alone" appears to be hardly compatible

with the idea that the patent (application) must be read "as a whole".

36. The Board does not agree with a verbatim reading of the former requirement, nor, without further qualification, with the statement of T 454/89 (reasons 4.1 (vii) as cited in T 1989/18 (reasons 4) that "Claims must be clear in themselves when being read with the normal skills including the knowledge about the prior art, but not including any knowledge derived from the description of the patent application or the amended patent".
- 36.1 The Board considers that these statements cannot literally be correct, for the reasons given above, and rather concurs with the qualification in the Guidelines for Examination, F-IV, 4.1, according to which "the meaning of the terms of a claim must, as far as possible, be clear for the person skilled in the art from the wording of the claim alone".
- 36.2 That, however, the claims should be, as far as possible, clear from their wording alone, is an expression of the desire, in the interest of legal certainty (see G 1/04, reasons 5), that the divergence of post-grant jurisprudence be limited (see also T 1817/14, reasons 7.4 and 7.5).
37. The Board underlines again its opinion that the requirement in Article 84 EPC that the claims be clear is different from the purpose of Article 84 EPC according to which it must be possible to determine the scope of protection precisely, although the former serves the latter.

Conclusions for the case at hand

38. As stated above, in the case at hand the way the invention is described in the description is inconsistent with the wording of the claims. As a consequence, the Board is convinced that the scope of protection cannot be determined precisely, due in particular to conflicting statements as to which features constitute the invention (see point 23a) and b)) and to the sweeping statement that new embodiments of the invention can be obtained by combining technical means (see 23 c)). Therefore, in the absence of an adapted description, the requirements of Article 84 EPC are not met.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



L. Stridde

Martin Müller

Decision electronically authenticated