

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 6 September 2023**

Case Number: T 1089/19 - 3.5.04

Application Number: 12826169.0

Publication Number: 2749029

IPC: H04N19/176, H04N19/70,
H04N19/55, H04N19/51,
H04N19/119, H04N19/436

Language of the proceedings: EN

Title of invention:

METHODS AND APPARATUSES FOR ENCODING, EXTRACTING AND DECODING
VIDEO USING TILES CODING SCHEME

Applicant:

Sun Patent Trust

Headword:

Relevant legal provisions:

RPBA 2020 Art. 13(2)
EPC Art. 84

Keyword:

Sole request - Admittance under Article 13(2) RPBA 2020 (yes)
Sole request - Clarity (no)

Decisions cited:

Catchword:



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 1089/19 - 3.5.04

D E C I S I O N
of Technical Board of Appeal 3.5.04
of 6 September 2023

Appellant: Sun Patent Trust
(Applicant) 450 Lexington Avenue, 38th Floor
New York, NY 10017 (US)

Representative: Grünecker Patent- und Rechtsanwälte
PartG mbB
Leopoldstraße 4
80802 München (DE)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 4 December 2018
refusing European patent application
No. 12826169.0 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair B. Willems
Members: B. Le Guen
T. Karamanli

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse European patent application No. 12 826 169.0.
- II. The decision under appeal was based on the grounds that the subject-matter of all of the claims of the main request and of the auxiliary request then on file did not involve an inventive step (Article 56 EPC) and that claims 1 and 3 of the auxiliary request were not clear (Article 84 EPC).
- III. The applicant (appellant) filed notice of appeal and a statement setting out the grounds of appeal. In the statement of grounds of appeal, the appellant provided its arguments as to why the examining division's findings were incorrect.
- IV. The appellant was summoned to oral proceedings. In a communication under Article 15(1) of the Rules of Procedure of the Boards of Appeal 2020 ("RPBA 2020"; see OJ EPO 2019, A63), the board set out, *inter alia*, its preliminary opinion that all of the claims of the main request and claims 2 and 4 of the auxiliary request were not clear (Article 84 EPC) and that claim 1 of the auxiliary request contained subject-matter extending beyond the content of the application as filed (Article 123(2) EPC).
- V. By letter dated 25 July 2023, the appellant filed amended claims of a sole request which was to replace all of the requests filed with the statement of grounds of appeal. The appellant indicated a basis in the

application as filed for the amendments and explained, *inter alia*, why these amendments overcame the clarity issues raised by the board.

VI. Oral proceedings before the board were held on 6 September 2023.

The appellant's final request was that the decision under appeal be set aside and that a European patent be granted on the basis of the claims of the sole request filed by letter dated 25 July 2023.

At the end of the oral proceedings, the chair announced the board's decision.

VII. Claim 1 reads as follows:

"A method of encoding video using a tiles coding scheme, said method comprising the steps of:

splitting a current image into a plurality of rectangular tile regions;

writing a number parameter into a header of a video stream, said number parameter representing a number of said tile regions;

writing a flag for each tile region into the header of the video stream, said flag representing a decision whether the respective tile region is encoded with temporal dependencies to other tile regions;

judging for each tile region whether the respective flag has a predefined value;

wherein a tile region is motion predicted only from a region in a reference picture that is the same as the tile region in the current image if the respective flag has the predefined value."

VIII. The appellant's arguments can be summarised as follows:

Admittance of the appellant's request

(a) The amendments had been prepared to overcome clarity and added subject-matter objections raised for the first time in the board's communication under Article 15(1) RPBA 2020.

Clarity

(b) The entire application had to be understood from the point of view of the person skilled in the art taking into account their common general knowledge. At the effective date of the application, the concept of tiles was being discussed in MPEG meetings. These ongoing discussions were public, and therefore the person skilled in the art, being an expert in video coding, would have been aware of them. The concept of tiles was well known from a plurality of written contributions by MPEG members. The concept of tiles had also been discussed in different contexts such as the AVC standard. The person skilled in the art reading the term "tile" in claim 1 would have understood, in view of their common general knowledge, that (i) a plurality of consecutive frames were split into rectangular regions having the same location and size in each of the plurality of consecutive frames and (ii) the rectangular regions were independently decodable. It was inherent that the only relevant properties

of a tile were its location and size. Thus, on the basis of their common general knowledge, the person skilled in the art reading claim 1 would have understood that the term "the same" in the last feature of claim 1 meant "the same location and size".

- (c) The claims had to be construed with the description in mind. The description specified dividing a video into rectangular regions that were independently decodable. Independently decoding such regions only made sense if all of the frames of the video were split in the same manner. Moreover, all of the regions in the application at issue were defined in terms of their size and location within the current image. There was no support whatsoever in the application for deciding whether two regions were "the same" on the basis of the image content of a region.

Reasons for the Decision

1. The appeal is admissible.

A. Admittance of the appellant's request

2. The appellant's request was filed after notification of the summons to oral proceedings. Since this notification was issued after the date on which the RPBA 2020 entered into force (i.e. 1 January 2020; see Article 24(1) RPBA 2020), Article 13(2) RPBA 2020 applies to the question of whether this request should be admitted into the appeal proceedings (see Article 25(1) and (3) RPBA 2020).

3. As submitted by the appellant, its request was a reaction to new clarity and added subject-matter objections raised by the board in its communication under Article 15(1) RPBA 2020. Hence, there are exceptional circumstances within the meaning of Article 13(2) RPBA 2020 which have been justified by cogent reasons by the appellant.
4. For this reason, the board, having exercised its discretion under Article 13(2) RPBA 2020, has admitted the appellant's request into the appeal proceedings.

B. Clarity

5. Article 84 EPC stipulates that the claims must be clear.
6. A claim lacks clarity if the exact distinctions which delimit the scope of protection cannot be derived therefrom. When read by the person skilled in the art, the claims must be clear per se, without any reference to the content of the description. The meaning of the essential features should be clear for the person skilled in the art from the wording of the claim alone (see Case Law of the Boards of Appeal of the European Patent Office, 10th edition, 2022 ("Case Law"), II.A.3.1).
7. Claim 1 specifies judging, for each rectangular tile region into which a current image is split, whether a respective flag written into the header of a video stream has a predefined value and, if it has, motion-predicting the tile region of a current picture (hereinafter "current tile region") only from a region in a reference picture (hereinafter "reference (tile)

region") that is "the same" as the tile region in the current image.

8. As argued by the appellant (see point VIII.(b), first sentence, above), a patent application has to be understood from the point of view of the person skilled in the art, taking into account their common general knowledge. According to established case law, common general knowledge is to be found in basic handbooks, monographs, encyclopaedias, textbooks and reference books (see Case Law, I.C.2.8). It is knowledge that an experienced person in the field in question is expected to have, or at least to be aware of, to the extent that they know they could look it up in a book if they needed to (*ibid.*). Information that can only be obtained from a comprehensive search is not regarded as common general knowledge. This normally applies to the content of patent specifications, scientific articles and specialist journals (see Case Law, I.C.2.8.2 and I.C.2.8.3).

The fact that a particular disclosure is in the public domain does not mean that it is part of the common general knowledge of the person skilled in the art (see the appellant's submission as set out in point VIII.(b), third and fourth sentences, above). Otherwise, the entirety of the state of the art under Article 54(2) EPC would be considered common general knowledge.

9. In the case at hand, the person skilled in the art is an experienced person in the field of video coding, not an MPEG member. They are presumed to have had access to everything in the state of the art (see Case Law, I.D.8.1.1) and might be aware of certain aspects of the standardisation process. However, the content of

discussions between and contributions by members of standardisation groups, like the content of patent specifications, scientific articles and specialist journals, cannot normally be acquired by the person skilled in the art without a comprehensive search. Thus, the content of discussions between and contributions by MPEG members cannot be considered part of the common general knowledge of the person skilled in the art and therefore the person skilled in the art would not have read claim 1 in the light of these discussions and contributions.

10. The appellant also submitted that the AVC standard specified the term "tile" (see point VIII.(b), sixth sentence, above). The content of video coding standards is normally considered part of the common general knowledge of the person skilled in the art. However, different standards may give different meanings to the same term. Thus, the fact that a specific (version of a) standard gives a term a specific meaning does not necessarily mean that this term, when present in a claim, has to be read in the light of that specific (version of that) standard. This is especially relevant in the case at hand if, as submitted by the appellant, discussions about tiles were ongoing in standardisation meetings at the effective date of the present application (see point VIII.(b), second sentence, above). In view of the above and given that no mention of the AVC standard is made in claim 1, the question of whether that standard actually does give a specific meaning to the term "tile" does not have to be addressed.
11. In view of the two previous points, the board cannot see any reason to read claim 1 as implying steps of splitting a plurality of consecutive frames into

rectangular regions having the same location and size in each of the plurality of consecutive frames and creating independently decodable tile regions (see the appellant's arguments as set out in point VIII.(b), seventh sentence, above).

12. The appellant's argument that the only relevant properties of a tile are its location and size (see point VIII.(b), eighth sentence, above) is not persuasive either. According to claim 1, tile regions represent the result of splitting images, not the pattern used to split those images. Thus, tile regions are also characterised by their content. The board cannot see any reason to exclude the content of a tile region as a potentially relevant property for a comparison with other tiles.

13. Claim 1 does not specify (explicitly or implicitly) which properties of the current tile region and of the reference (tile) region should be identical for these regions to be considered "the same". Such a lack of specification results in a lack of clarity because the invention defined by the claim radically changes depending on the properties used to determine whether or not a reference (tile) region is "the same" as the current tile region. For example, if the term "the same" were understood to mean "the same location and size", then the extraction, by a decoder, of only the sub-part of the bitstream that corresponds to the tile regions having the same location and size would be facilitated by the features of the claim, under the assumption that independently decodable tile regions are created (see point 11. above). If, however, the term "the same" were understood to mean "the same content and size", claim 1 could not provide a solution to that problem even under the assumption that

independently decodable tile regions are created. The reason is that a reference (tile) region of the same content and size as the current tile region can potentially be anywhere in the reference picture, thus the entire reference picture and some information identifying the reference (tile) region may have to be decoded before decoding the current image.

14. The appellant's arguments relying on the description (see point VIII.(c), first sentence, above) are not convincing because, as stated in point 6. above, when read by the person skilled in the art claims must be clear per se, without any reference to the content of the description and drawings. Claim 1 does not specify (i) splitting all frames of a video in the same manner, (ii) creating independently decodable rectangular regions or, as stated in point 13. above, (iii) which properties of the current tile region and of the reference region should be identical for these regions to be considered "the same" (see the appellant's submissions as set out in point VIII.(c), second to fourth sentences, above).
15. In view of the above, the board holds that claim 1 does not meet the requirements of Article 84 EPC because it is not clear.

C. Conclusion

16. Since the appellant's sole request is not allowable, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

B. Willems

Decision electronically authenticated