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**Datasheet for the decision  
of 8 March 2023**

**Case Number:** T 2358/18 - 3.5.04

**Application Number:** 10701751.9

**Publication Number:** 2389764

**IPC:** H04N7/50, H04N7/26

**Language of the proceedings:** EN

**Title of invention:**  
FRAME PACKING FOR VIDEO CODING

**Applicant:**  
InterDigital VC Holdings, Inc.

**Headword:**

**Relevant legal provisions:**  
EPC Art. 123(2)  
RPBA 2020 Art. 13(2), 13(1)

**Keyword:**  
Main request - Added subject-matter (yes)  
First auxiliary request - Admittance (no)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

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**Case Number: T 2358/18 - 3.5.04**

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.04**  
**of 8 March 2023**

**Appellant:** InterDigital VC Holdings, Inc.  
(Applicant) 200 Bellevue Parkway  
Suite 300  
Wilmington, DE 19809 (US)

**Representative:** AWA Denmark A/S  
Strandgade 56  
1401 Copenhagen K (DK)

**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 12 April 2018  
refusing European patent application  
No. 10701751.9 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. This appeal is against the examining division's decision to refuse European patent application No. 10 701 751.9, published as international patent application WO 2010/085361 A2.
- II. The decision was based on the ground that the subject-matter of claim 1 of the sole request then on file did not involve an inventive step (Article 56 EPC).
- III. The appellant filed notice of appeal and a statement setting out the grounds of appeal. With the statement, the appellant filed a new set of amended claims labelled "Request #1". The appellant requested that the decision under appeal be set aside and that a European patent be granted on the basis of these claims ("main request"). It also requested oral proceedings via videoconference.
- IV. A summons to oral proceedings was issued. In its communication under Article 15(1) of the Rules of Procedure of the Boards of Appeal 2020 ("RPBA 2020"; see OJ EPO 2021, A35), the board provided its preliminary opinion raising, *inter alia*, the objection that claims 1, 2 and 3 of the main request contained subject-matter extending beyond the content of the application as filed (Article 123(2) EPC).
- V. By letter dated 7 February 2023, the appellant filed a set of amended claims in accordance with a first auxiliary request. It stated that it would not participate in the oral proceedings and that it

therefore withdrew its request for oral proceedings and asked for "a written decision".

- VI. The oral proceedings before the board were held on 8 March 2023, as scheduled.

The board noted that the appellant had requested in writing that the decision under appeal be set aside and that a European patent be granted on the basis of the claims of the main request filed with the statement of grounds of appeal or, alternatively, on the basis of the claims of the first auxiliary request filed by letter dated 7 February 2023.

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

- VII. Claim 1 of the **main request** reads as follows:

"A decoding method comprising:

accessing a video picture that includes two pictures combined into a single picture, the video picture being part of a received video stream (3660);

accessing information that is part of the received video stream, the accessed information indicating how the two pictures in the accessed video picture are combined,

wherein the accessed information includes spatial interleaving information and sampling information,

wherein the spatial interleaving information indicates spatial interleaving, using a single syntax element (`basic_spatial_interleaving_type_id`), of a type from a group including at least two of side-by-side interleaving, top-bottom interleaving, row-by-row interleaving, column-by-column interleaving, and

checkerboard interleaving, applied to the two pictures in forming the single picture, and

wherein the sampling information indicates one or more parameters related to an upsampling filter for restoring each of the two pictures to another resolution, the one or more parameters related to the upsampling filter including an indication of filtering direction (3630, 3640), and

wherein the spatial interleaving information further includes relationship information, the relationship information indicating, using another syntax element (`semantics_id`), that the two pictures are stereo views of an image, the two pictures are not related, the two pictures are a 2D image and its related depth map (2D+Z), the two pictures are multiple sets of a 2D+Z (MVD), the two pictures represent images in a layer depth video format (LDV), or the two pictures represent images in two sets of LDV (DES); and

decoding the video picture to provide a decoded representation of at least one of the two pictures (3660)."

VIII. Claim 1 of the **first auxiliary request** reads as follows (features added to claim 1 of the **main request** are underlined; features deleted are struck through):

"A decoding method comprising:

accessing a video picture that includes two pictures combined into a single picture, the video picture being part of a received video stream (3660);

accessing information that is part of the received video stream, the accessed information indicating how the two pictures in the accessed video picture are combined,

wherein the accessed information includes spatial interleaving information and sampling information,

wherein the spatial interleaving information indicates spatial interleaving, using a single syntax element (`basic_spatial_interleaving_type_id`), of a type from a group including at least two of side-by-side interleaving, top-bottom interleaving, row-by-row interleaving, column-by-column interleaving, and checkerboard interleaving, applied to the two pictures in forming the single picture, and

wherein the sampling information indicates one or more parameters related to an upsampling filter for restoring each of the two pictures to another resolution, the one or more parameters related to the upsampling filter including an indication of filtering direction (3630, 3640), and

wherein the spatial interleaving information further includes relationship information, the relationship information indicating, using another syntax element (`semantics_id`), that the two pictures are stereo views of an image, the relationship between the two pictures are not specified~~related, or the two pictures are a 2D image and its related depth map (2D+Z), the two pictures are multiple sets of a 2D+Z (MVD), the two pictures represent images in a layer depth video format (LDV), or the two pictures represent images in two sets of LDV (DES);~~ and

decoding the video picture to provide a decoded representation of at least one of the two pictures (3660)."

IX. The appellant's arguments may be summarised as follows.

*Main request - added subject-matter*

In comparison with claim 1 which had formed the basis for the decision under appeal, claim 1 of the main request has been amended to replace "multiple pictures"

with "two pictures", namely to limit the multi-view content to stereo content, wherein the spatial interleaving type could be applied to combine the two views of the stereo content into a single picture, as described, for example, in page 47, line 27 to page 48, line 14 (see statement of grounds of appeal, page 2, point 1.1).

*First auxiliary request - admittance*

The first auxiliary request was to be admitted into the appeal proceedings because it had been submitted in response to new objections raised in the board's preliminary opinion. The amendments introduced were derivable from the paragraph bridging pages 52 and 53 and claim 6 of the application as filed. They did not substantially change the scope of the claims. Therefore, the assessment of inventive step was unaffected (see letter dated 7 February 2023, page 1).

**Reasons for the Decision**

1. The appeal is admissible.

*Withdrawal of the request for oral proceedings - non-attendance of the appellant at the oral proceedings before the board*

2. Article 116(1) EPC provides that oral proceedings are to take place either at the instance of the European Patent Office if it considers this to be expedient or at the request of any party to the proceedings. In the case in hand, the board considered it expedient to hold the oral proceedings on the scheduled date (8 March 2023) and to close the debate on that date.



3. The duly summoned appellant did not attend the oral proceedings, as announced in its letter dated 7 February 2023; however, under Rule 115(2) EPC, the proceedings could continue without that party. In accordance with Article 15(3) RPBA 2020 (applicable in accordance with Article 25(1) RPBA 2020), for its decision the board relied on the appellant's written submissions. It is the board's view that an appellant which submits a request comprising new amended claims after notification of a summons to oral proceedings and a communication by the board pursuant to Article 15(1) RPBA 2020 and subsequently does not attend these proceedings must expect that a decision not to admit that request into the appeal proceedings pursuant to Article 13(2) RPBA 2020 will be taken in its absence (see, in that context, decision T 1587/07, point 2.2 of the Reasons). Therefore, the board was in a position to announce a decision at the conclusion of the oral proceedings since the case was ready for decision (Article 15(5) and (6) RPBA 2020, which applies in accordance with Article 25(1) RPBA 2020) and the voluntary absence of the appellant was not a reason for delaying the decision (Article 15(3) RPBA 2020).

*Main request - added subject-matter (Article 123(2) EPC)*

4. The European patent application may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed (Article 123(2) EPC). This means that any amendment can only be made within the limits of what the person skilled in the art would derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing, from the whole disclosure of the description, claims and drawings of the application as filed (see Case Law of

the Boards of Appeal of the European Patent Office, 10th edition, 2022 ("Case Law"), II.E.1.1).

5. Claims 1, 2 and 3 of the main request specify *"relationship information indicating, using another syntax element (semantics\_id), that the **two** pictures are stereo views of an image, the **two** pictures are not related, the **two** pictures are a 2D image and its related depth map (2D+Z), the **two** pictures are multiple sets of a 2D+Z (MVD), the **two** pictures represent images in a layer depth video format (LDV), or the **two** pictures represent images in two sets of LDV (DES)"* (emphasis added by the board).
6. The board cannot find a basis in the application as filed for a syntax element indicating these options.
7. The passage from page 47, line 27 to page 48, line 14 of the application as filed referred to by the appellant (see section IX. above) does not specify a syntax element indicating relationship information in addition to a syntax element indicating a spatial interleaving type, as required by claim 1. Therefore, this passage cannot provide a basis for the feature identified under point 5. above.
8. Page 50 of the description as filed defines the syntax element `stereo_pair_flag`. This syntax element cannot represent a basis for the syntax element identified under point 5. above because it takes its value in a set of only two values. The syntax element identified under point 5. above takes its value in a set of six values.
9. The syntax element `semantics_id` specified in the paragraph bridging pages 52 and 53 of the description

as filed can take any number of values (see "*Values greater than 2 can be used for indicating additional relationships*"); however, no values for this syntax element are specified that indicate the following options: (i) two interleaved pictures are not related, (ii) two interleaved pictures are multiple sets of a 2D+Z (MVD), (iii) two interleaved pictures represent images in a layer depth video format (LDV), (iv) two interleaved pictures represent images in two sets of LDV (DES). With respect to option (i), the board notes that a value indicating that the relationship between two interleaved pictures is not specified (value "2" of semantics\_id in the embodiment in question) is not the same as a value indicating that two pictures are not related.

10. The syntax element semantics\_id specified on page 54 of the description as filed can indicate one of the following options:

- two interleaved pictures are stereo views of a scene,
- two interleaved pictures are a set of 2D+Z pictures,
- the relationship between the two interleaved pictures is not specified,
- four component pictures are interleaved and correspond to the four components of the LDV representation,
- multiple views are multiple sets of 2D+Z pictures, or
- multiple views represent images in two sets of LDV pictures.

No values for this syntax element are specified that indicate the following options: (i) two interleaved

pictures are not related, (ii) two interleaved pictures are multiple sets of a 2D+Z (MVD), (iii) two interleaved pictures represent images in a layer depth video format (LDV), (iv) two interleaved pictures represent images in two sets of LDV (DES).

11. Claim 6 as filed discloses relationship information indicating a relationship between multiple pictures, not between **two** pictures.
12. In view of the above, the board finds that claims 1, 2 and 3 of the main request contain subject-matter which extends beyond the content of the application as filed. Therefore, the main request does not meet the requirements of Article 123(2) EPC.

*First auxiliary request - admittance (Article 13(2) RPBA 2020)*

13. The first auxiliary 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 whether or not to admit this request into the appeal proceedings (see Article 25(1) and (3) RPBA 2020).
14. According to Article 13(2) RPBA 2020, any amendment to a party's appeal case made after notification of a summons to oral proceedings is, in principle, not to be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

Article 13(2) RPBA 2020 imposes the most stringent limitations on appeal submissions which are made at an

advanced stage of the proceedings (see document CA/3/19, section VI, Explanatory remarks on Article 13(2), first paragraph, second sentence).

15. When exercising its discretion under Article 13(2) RPBA 2020, the board may also rely on criteria set out in Article 13(1) RPBA 2020 (document CA/3/19, section VI, Explanatory remarks on Article 13(2), fourth paragraph).

In the case of an amendment to a patent application, one of the criteria set out in Article 13(1) RPBA 2020 is *"whether the party has demonstrated that any such amendment, prima facie, overcomes the issues raised ... by the Board and does not give rise to new objections"*.

16. In the case in hand, the appellant submitted that the first auxiliary request was filed in response to new objections raised in the board's preliminary opinion (see point IX. above).
17. The board accepts that it raised new issues in its communication pursuant to Article 15(1) RPBA 2020. For the following reasons, however, the appellant has not demonstrated that the amended claim 1 of the first auxiliary request *prima facie* overcame the objection under Article 123(2) EPC raised by the board in its communication with respect to claims 1, 2 and 3 of the main request (see point IV. above).
18. The amendments made to claim 1 in accordance with the first auxiliary request are highlighted in point VIII. above. The appellant indicated that the paragraph bridging pages 52 and 53 and claim 6 of the application as filed provided a basis for these amendments (see point IX. above).

19. Under point 11. above, the board found that claim 6 as originally filed did not indicate a relationship between two pictures. Hence, at first glance, claim 6 does not disclose the combination of features defined by claim 1 of the first auxiliary request.
20. The relationship information specified in claim 1 of the first auxiliary request seems to correspond to the definition of a syntax element called `semantics_id` given in the paragraph bridging pages 52 and 53 of the application as filed, as also cited by the appellant. Therefore, at first glance, this paragraph discloses the amended feature of claim 1 of the first auxiliary request **considered in isolation**.
21. However, to demonstrate that the subject-matter of an amended claim *prima facie* does not extend beyond the application as filed, it is in principle not sufficient to show that the amended features **considered in isolation** are disclosed in the application as filed. What must be shown is that the **combination** of the features of the amended claim is disclosed in the application as filed. This is because the content of the application as filed is not a reservoir from which features pertaining to separate embodiments of the application can be combined in order to artificially create a particular embodiment (see Case Law, II.E.1.6.1).
22. In the case in hand, the board notes that the paragraph bridging pages 52 and 53 of the application as filed pertains to the embodiment in Table 8 shown on page 52. In that embodiment, `semantics_id` is combined with other syntax elements such as `basic_spatial_interleaving_type_id`,

upsample\_conversion\_horizontal\_flag,  
upsample\_conversion\_vertical\_flag and flip\_flag which,  
according to the first paragraph on page 52, have been  
defined previously in the description.

At first glance, none of the definitions of the syntax  
elements basic\_spatial\_interleaving\_type\_id,  
upsample\_conversion\_horizontal\_flag,  
upsample\_conversion\_vertical\_flag and flip\_flag given  
previously in the description corresponds to the  
semantics of the spatial interleaving information and  
the sampling information specified in claim 1 of the  
first auxiliary request. Therefore, claim 1 of the  
first auxiliary request *prima facie* combines a syntax  
element having the meaning of the syntax element called  
semantics\_id of the embodiment in Table 8 with syntax  
elements having a meaning different to the meaning of  
the other syntax elements in Table 8. The appellant has  
not demonstrated that this combination of syntax  
elements was directly and unambiguously derivable from  
the application as filed. Therefore, it has not  
demonstrated that the amendments *prima facie* overcame  
the objection under Article 123(2) EPC raised by the  
board in its communication pursuant to Article 15(1)  
RPBA 2020 with respect to claims 1, 2 and 3 of the main  
(then sole) request.

23. For that reason, the board, exercising its discretion  
under Article 13(2) RPBA 2020, decided not to admit the  
first auxiliary request into the appeal proceedings.

#### *Conclusion*

24. Since none of the appellant's requests is allowable,  
the appeal must be dismissed.

## Order

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chair:



K. Boelicke

B. Willems

Decision electronically authenticated