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**Datasheet for the decision
of 27 September 2017**

Case Number: T 1260/12 - 3.5.04

Application Number: 07114401.8

Publication Number: 1850600

IPC: H04N7/32

Language of the proceedings: EN

Title of invention:

Moving picture encoding method and moving picture encoding apparatus

Applicant:

Panasonic Intellectual Property Corporation
of America

Headword:

Relevant legal provisions:

EPC 1973 Art. 84, 76(1)

Keyword:

Divisional application - added subject-matter - main request
and auxiliary requests I, II and III (yes)
Claims - clarity - auxiliary requests A and B (no)

Decisions cited:

Catchword:



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Case Number: T 1260/12 - 3.5.04

D E C I S I O N
of Technical Board of Appeal 3.5.04
of 27 September 2017

Appellant: Panasonic Intellectual Property Corporation
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 15 November
2011 refusing European patent application
No. 07114401.8 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman C. Kunzelmann
Members: B. Willems
B. Müller

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division dated 15 November 2011 refusing European patent application No. 07 114 401.8, which is a divisional application of earlier European patent application No. 02 772 969.8 and was published as EP 1 850 600 A2.
- II. In the decision under appeal the following documents were cited:
- D1: Gary Sullivan: "DRAFT FOR H.263++ ANNEXES U,V, AND W TO RECOMMENDATION H.263" ITU-T, QUESTION 15/16, November 2000 (2000-11), pages 1-46, XP000986538
- D3: Stephan Wenger: "On Picture, GOP, and Sequence Headers", ITU STUDY GROUP 16 - Video Coding Experts Group -ISO/IEC MPEG & ITU-T VCEG (ISO/IEC JTC1/SC29/WG11 AND ITU-T SG16 Q6), Austin, Texas, USA, no. VCEG-M74, 11 July 2001 (2001-07-11), XP030003245
- D4: Gisle Bjontegaard: "H.26L Test Model Long Term Number 6 (TML-6) draft0", ITU STUDY GROUP 16 - Video Coding Experts Group -ISO/IEC MPEG & ITU-T VCEG (ISO/IEC JTC1/SC29/WG11 AND ITU-T SG16 Q6), Eibsee, Germany, no. VCEG-L45d0, 10 March 2001 (2001-03-10), XP030003183.
- III. The application was refused on the grounds that the subject-matter of claim 1 according to the main request lacked inventive step over the combination of the disclosures of documents D3 and D4 (Article 56 EPC 1973), and the subject-matter of claim 1 of the auxiliary request extended beyond the content of the application as filed (Article 123(2) EPC). In an

"*obiter dictum*" the examining division gave reasons as to why the subject-matter of claim 1 of the auxiliary request lacked inventive step over the combination of the disclosures of documents D3 and D4 and the common general knowledge of the person skilled in the art as exemplified by document D1 (Article 56 EPC 1973).

- IV. In the statement of grounds of appeal, the appellant requested that the impugned decision be set aside and that a patent be granted on the basis of claim 1 according to the main request underlying the decision under appeal. The appellant provided arguments as to why it considered the subject-matter of claim 1 to be new and to involve an inventive step. It also filed an auxiliary request that the case be remitted to the examining division for further substantive examination.
- V. In a communication under Article 15(1) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536), annexed to the summons to oral proceedings, the board gave its provisional opinion that:
- (a) the subject-matter of claim 1 of the main request extended beyond the content of the earlier application as filed (Article 76(1) EPC 1973);
 - (b) claim 1 did not meet the requirements of Article 84 EPC 1973;
 - (c) the subject-matter of claim 1 did not lack inventive step over the combination of the disclosures of documents D3 and D4 (Article 56 EPC 1973);
 - (d) the subject-matter of claim 1 did however lack inventive step over the combination of the

disclosures of documents D4 and D1 and the common general knowledge of the person skilled in the art (Article 56 EPC 1973).

The board further indicated that, as the claims then on file corresponded to the claims which formed the basis for the impugned decision, it did not intend to remit the case under Article 111(1) EPC 1973.

VI. With a letter of reply dated 25 August 2017, the appellant filed amended claims 1 according to a main request and an auxiliary request I, and amended claims 1 and 2 according to auxiliary requests II and III, all requests replacing all the previous requests on file. The appellant provided arguments as to why it considered the amended claims according to the new main and auxiliary requests to meet the requirements of Article 76(1) EPC 1973, Article 123(2) EPC, Article 84 EPC 1973 and Article 56 EPC 1973.

VII. The board held oral proceedings on 26 and 27 September 2017. The appellant was represented. During the oral proceedings, the appellant filed claims 1 and 2 according to further auxiliary requests A and B.

The appellant requested 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 letter dated 25 August 2017, or on the basis of the claims of auxiliary requests A or B filed during the oral proceedings of 27 September 2017, or on the basis of the claims of auxiliary requests I, II or III filed with the letter dated 25 August 2017, or that the case be remitted to the department of first instance for further prosecution.

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

VIII. Claim 1 of the main request and claim 1 of auxiliary request I read as follows (the amendments made to the former in the latter claim are in *italics*):

"A moving picture coding apparatus for coding a moving picture,

wherein in said moving picture coding apparatus, a picture is coded by one of an intra picture coding unit (404) and an inter picture coding unit (404), *wherein the coding is performed such that the coding order is the same as the display order,*

an intra coded picture coded by the intra picture coding unit (404) is decoded by decoding only a coded picture signal of the intra coded picture,

when a picture (P4) is coded by the inter picture coding unit (404), at least one of the following pictures is selected as a reference picture: an intra coded picture (P2) which is coded by the intra picture coding unit (404); a coded picture (P1) located before the intra coded picture (P2) in coding order; and a coded picture (P3) located after the intra coded picture (P2) in coding order, and

said moving picture coding apparatus comprises:

a storing unit (407) which stores a coded picture as a reference picture in a memory (408, 409, 410);

a specifying unit (402) operable to specify, from among reference pictures stored in the memory (408, 409,

410), the intra coded picture (P2) as a specified picture which is used for restricting selection of the reference picture;

a deleting unit operable to delete a picture;

and a coding unit (404):

operable, in the case where the intra coded picture (P2) is specified as the specified picture in said specifying unit (402), to code information which indicates that the intra coded picture (P2) is specified as the specified picture which is used for restricting selection of the reference picture, characterized in that

wherein, for a picture (P4) to be coded by the inter picture coding unit (404) located after the specified picture in coding order, at least one of the following pictures is selected as the reference picture: the specified picture (P2) and a coded picture (P3) which is located after the specified picture (P2) in coding order, while a coded picture (P1) which is located before the specified picture (P2) in coding order is prohibited from being selected as the reference picture, and the coded picture (P1) which is located before the specified picture (P2) in coding order is deleted from the memory by said deleting unit; and

operable, in the case where the intra coded picture (P2) is not specified as the specified picture in said specifying unit (402), to code information which indicates that the intra coded picture (P2) is not specified as the specified picture, wherein, for a picture (P4) to be coded by the inter picture coding unit (404) located after the intra coded

picture (P2) which is not specified as the specified picture in coding order, at least one of the following pictures is selected as the reference picture: the intra coded picture (P2) which is not specified as the specified picture, a coded picture located before the intra coded picture (P2) which is not specified as the specified picture in coding order, and a coded picture (P3) located after the intra coded picture (P2) which is not specified as the specified picture in coding order."

IX. Claim 1 of auxiliary request A reads as follows:

"A moving picture coding apparatus (1) for coding a moving picture and for recording the coded moving picture on a recording medium for later reproduction,

wherein in said moving picture coding apparatus (1), a picture is coded by one of an intra picture coding unit (404) and an inter picture coding unit (404),

an intra coded picture coded by the intra picture coding unit (404) is decoded by decoding only a coded picture signal of the intra coded picture,

when a picture (J4) is coded by the inter picture coding unit (404), one of the following pictures is selected as a reference picture: an intra coded picture (J2) which is coded by the intra picture coding unit (404); a coded picture (J1) located before the intra coded picture (J2) in coding order; and a coded picture (J3) located after the intra coded picture (J2) in coding order, and

said moving picture coding apparatus comprises:

a storing unit (407) which stores a coded picture as a reference picture in a memory (408, 409, 410) characterized in that

the moving picture coding apparatus (1) is operable to use the intra coded picture (J2) as of a first type or a second type,

wherein the intra coded picture (J2) of the first type is used for restricting selection of the reference picture and the intra coded picture (J2) of the second type is used for not restricting selection of the reference picture;

wherein the moving picture coding apparatus (1) comprises

a deleting unit operable to delete a picture; and

a coding unit (404) operable to code information for distinguishing the two types of the intra coded picture (J2),

wherein for a picture (J4) to be coded by the inter picture coding unit (404) located after the intra coded picture (J2) of the first type in coding order, one of the following pictures is selected as the reference picture: the intra coded picture (J2) of the first type and a coded picture (J3) which is located after the intra coded picture (J2) of the first type in coding order, while a coded picture (J1) which is located before the intra coded picture (J2) of the first type in coding order is prohibited from being selected as the reference picture,

wherein, in case the intra coded picture (J2) of the first type is specified by an intra picture coding instruction signal (Reset), which indicates that pictures stored in the memory (408, 409, 410) prior to the intra coded picture (J2) of the first type are not referred to, the coded picture (J1) which is located before the intra coded picture (J2) of the first type in coding order is deleted from the memory (408, 409, 410) by said deleting unit and the intra picture coding instruction signal (Reset) or another control command indicating that pictures stored in the memory (408, 409, 410) prior to the intra coded picture (J2) of the first type are not referred to is coded by the coding unit (404); and

for a picture (J4) to be coded by the inter picture coding unit (404) located after the intra coded picture (J2) of the second type in coding order, one of the following pictures is selected as the reference picture: the intra coded picture (J2) of the second type, a coded picture (J1) located before the intra coded picture (J2) of the second type in coding order, and a coded picture (J3) located after the intra coded picture (J2) of the second type in coding order."

X. Claim 1 of auxiliary request B reads as follows:

"A moving picture coding apparatus (1) for coding a moving picture and for recording the coded moving picture on a recording medium for later reproduction,

wherein in said moving picture coding apparatus (1), a picture is coded by one of an intra picture coding unit (404) and an inter picture coding unit (404),

an intra coded picture coded by the intra picture coding unit (404) is decoded by decoding only a coded picture signal of the intra coded picture,

when a picture (J4) is coded by the inter picture coding unit (404), one of the following pictures is selected as a reference picture: an intra coded picture (J2) which is coded by the intra picture coding unit (404); a coded picture (J1) located before the intra coded picture (J2) in coding order; and a coded picture (J3) located after the intra coded picture (J2) in coding order, and

said moving picture coding apparatus comprises:

a storing unit (407) which stores a coded picture as a reference picture in a memory (408, 409, 410) characterized in that

the moving picture coding apparatus (1) is operable to use the intra coded picture (J2) as of a first type or a second type,

wherein the intra coded picture (J2) of the first type is used for restricting selection of the reference picture and the intra coded picture (J2) of the second type is used for not restricting selection of the reference picture;

wherein the moving picture coding apparatus (1) comprises

a deleting unit operable to delete a picture; and

a coding unit (404) operable to code information for distinguishing the two types of the intra coded picture (J2),

wherein for a picture (J4) to be coded by the inter picture coding unit (404) located after the intra coded picture (J2) of the first type in coding order, one of the following pictures is selected as the reference picture: the intra coded picture (J2) of the first type and a coded picture (J3) which is located after the intra coded picture (J2) of the first type in coding order, while a coded picture (J1) which is located before the intra coded picture (J2) of the first type in coding order is prohibited from being selected as the reference picture,

wherein, in case the intra coded picture (J2) of the first type is specified by an intra picture coding instruction signal (Reset), which indicates that pictures stored in the memory (408, 409, 410) prior to the intra coded picture (J2) of the first type are not referred to, the coded picture (J1) which is located before the intra coded picture (J2) of the first type in coding order is deleted from the memory (408, 409, 410) by said deleting unit and the intra picture coding instruction signal (Reset) or another control command for deleting pictures stored in the memory (408, 409, 410) prior to the intra coded picture (J2) of the first type is coded by the coding unit (404) in addition to the information for distinguishing the two types of the intra coded picture (J2); and

for a picture (J4) to be coded by the inter picture coding unit (404) located after the intra coded picture (J2) of the second type in coding order, one of the following pictures is selected as the reference

picture: the intra coded picture (J2) of the second type, a coded picture (J1) located before the intra coded picture (J2) of the second type in coding order, and a coded picture (J3) located after the intra coded picture (J2) of the second type in coding order."

XI. Claim 1 of auxiliary request II and claim 1 of auxiliary request III read as follows (the amendments made to the former in the latter claim are in *italics*):

"A moving picture coding apparatus for coding a moving picture, wherein in said moving picture coding apparatus, a picture is coded by one of an intra picture coding unit (404) and an inter picture coding unit (404), *wherein the coding is performed such that the coding order is the same as the display order,*

an intra coded picture coded by the intra picture coding unit (404) is decoded by decoding only a coded picture signal of the intra coded picture,

when a picture (P4) is coded by the inter picture coding unit (404), at least one of the following pictures is selected as a reference picture: an intra coded picture (P2) which is coded by the intra picture coding unit (404); a coded picture (P1) located before the intra coded picture (P2) in coding order; and a coded picture (P3) located after the intra coded picture (P2) in coding order, and

said moving picture coding apparatus comprises:

a storing unit (407) which stores a coded picture as a reference picture in a memory (408, 409, 410);

a specifying unit (402) operable to specify, from among reference pictures stored in the memory (408, 409, 410), the intra coded picture (P2) as a specified picture which is used for restricting selection of the reference picture;

a deleting unit operable to delete a picture; and

a coding unit (404):

operable, in the case where the intra coded picture (P2) is specified as the specified picture in said specifying unit (402), to code information which indicates that the intra coded picture (P2) is specified as the specified picture which is used for restricting selection of the reference picture, characterized in that

wherein, for a picture (P4) to be coded by the inter picture coding unit (404) located after the specified picture in coding order, at least one of the following pictures is selected as the reference picture: the specified picture (P2) and a coded picture (P3) which is located after the specified picture (P2) in coding order, while a coded picture (P1) which is located before the specified picture (P2) in coding order is prohibited from being selected as the reference picture, and the coded picture (P1) which is located before the specified picture (P2) in coding order is deleted from the memory by said deleting unit; and

operable, in the case where the intra coded picture (P2) is not specified as the specified picture in said specifying unit (402), to code information which indicates that the intra coded picture (P2) is not specified as the specified picture,

wherein, for a picture (P4) to be coded by the inter picture coding unit (404) located after the intra coded picture (P2) which is not specified as the specified picture in coding order, at least one of the following pictures is selected as the reference picture: the intra coded picture (P2) which is not specified as the specified picture, a coded picture located before the intra coded picture (P2) which is not specified as the specified picture in coding order, and a coded picture (P3) located after the intra coded picture (P2) which is not specified as the specified picture in coding order,

wherein,

in the case where the intra coded picture (P2) is specified as the specified picture in said specifying unit (402), in said selecting at least one picture as the reference picture, the number of coded pictures following the intra coded picture (P2) in coding order is counted, and the reference picture is selected based on the counted number."

XII. The examining division's reasons for the decision under appeal, and the arguments set out in its "*obiter dictum*", which are relevant to the present decision may be summarised as follows:

According to claim 1 of the auxiliary request, the reference picture was selected based on the calculated number of reference pictures, which were stored pictures, whereas according to the application as filed the number of potential reference pictures "*is set to the counted number of all pictures after a specified intra picture [... i.e.] all coded pictures are counted, which includes stored (I and P-frames) and*

non-stored (B-frames) pictures" (see point 11.1 of the decision under appeal). Further, the application as filed did not directly and unambiguously disclose that *"reference picture selection after a non specified Intra picture is based on the calculated number of reference pictures coded after the intra coded picture which is not specified"* (see point 11.2 of the decision under appeal).

XIII. The appellant's arguments which are relevant to the present decision may be summarised as follows:

(a) Added subject-matter

- (i) According to the embodiment described with respect to Figure 6 of the earlier application as filed, a picture preceding a specified intra coded picture could not be selected as a reference picture. However, the passage from page 29, line 23 to page 30, line 7 of the earlier application as filed made it clear that while in the embodiment the selection of reference pictures was limited, it was also possible not to limit the selection of reference pictures, i.e. it was possible to provide another type of intra coded picture so that pictures coded prior to such intra coded picture could be referred to. Hence, the cited passage suggested providing either a first type or a second type of intra coded picture according to need.
- (ii) The description of the first embodiment in the earlier application as filed already taught the possibility of switching between

two types of intra coded pictures. The passages on page 13, lines 24 to 26 and page 19, line 31 to page 20, line 7 and page 26, lines 8 to 18 of the earlier application as filed showed the coding of a Reset signal, which would not make sense if it were foreseen to always use intra coded pictures as an anchor for restricting the selection of reference images. The Reset signal was not merely used as a confirmation that the picture was an intra coded picture.

- (iii) In the earlier application as filed, it was apparent from a comparison between the description of the Reset signal on page 20, lines 8 to 18 and the prior-art Reset signal described with respect to Figures 1 and 2 that the Reset described on page 20 triggered the generation of an intra coded picture and restricted access to reference pictures coded before the intra coded picture, whereas the prior-art Reset signal merely triggered the generation of an intra coded picture without any bearing on buffer management. The person skilled in the art would have readily understood that when modifying the picture coding illustrated by Figure 6 as suggested on pages 29 and 30, the Reset signal input to the coder would have had to be the prior-art Reset signal. Thus, the Reset signal would have triggered the generation of an I picture which would have been stored and specified in the memory as restricting access to reference pictures.

- (iv) The interpretation set out in point (iii) above was further supported by the wording of original claim 2 of the earlier application as filed: "*a specifying step for specifying an intra coded picture of a plurality of pictures stored in a memory as a picture which is an anchor for restricting a candidate for a reference picture*". Specifying an intra coded picture as an anchor and coding the Reset signal as shown in Figure 7 (see letter dated 25 August 2017, paragraph bridging pages 4 and 5) would only have made sense if it were also possible not to specify the intra coded picture as an anchor. Specifying always implied the option of not specifying the picture.

(b) *Clarity (Article 84 EPC 1973)*

- (i) The wording of claim 1 of auxiliary request A "*to code information for distinguishing the two types of the intra coded picture (J2) [...] the intra coded picture (J2) of the first type is specified by an intra picture coding instruction signal (Reset)*" clearly specified that either the Reset signal was one of the possible signals which could be used for identifying an intra code picture of the first type, i.e. for distinguishing between the two types of intra coded picture, or the Reset signal was coded in addition to the information for distinguishing the two types of intra coded picture.

- (ii) It was immediately apparent from page 20, lines 8 to 18 that pictures preceding a Reset were not referred to and therefore might be deleted. Thus, either the Reset signal or the control command might be used to delete pictures.
- (iii) The vague wording of the claim might have resulted in a broad definition of the subject-matter for which protection was sought. However, the vague wording did not create a lack of clarity.
- (iv) The person skilled in the art would have realised that the coded Reset or control command were instructions transmitted to the decoder. The claim clearly distinguished between the external Reset received by the coder and the coded Reset transmitted to the decoder.
- (v) There was only one proper interpretation of the claim: the external Reset signal triggered the coding of an intra coded picture, the claimed buffer management and the transmission of a coded Reset signal or control command to the decoder.

Reasons for the Decision

1. The appeal is admissible.
2. *Main request and auxiliary requests I, II, III - added subject-matter (Article 76(1) EPC 1973)*
 - 2.1 Claim 3 of the divisional application as filed and claim 1 of the main request and auxiliary requests I, II, III state that a specifying unit (402) of the claimed moving picture coding apparatus is operable to specify, from among reference pictures stored in the memory (408, 409, 410), the intra coded picture (P2) as a specified picture which is used for restricting selection of the reference picture.
 - 2.2 Thus, in the terminology of the description, for the intra coded picture stored in the memory a flag is set to indicate whether or not this picture will be used as an "anchor".
 - 2.3 The board is not convinced by the appellant's arguments that the feature identified in point 2.1 above is directly and unambiguously derivable from the earlier application as filed.
 - 2.4 It is undisputed that the passage from page 29, line 23 to page 30, line 7 of the earlier application as filed suggests providing a first type of intra coded picture which allows the selection of a reference picture located before the intra coded picture, and a second type of intra coded picture which does not. Either the first type or the second type of intra coded picture is provided upon need, i.e. the type of intra coded

picture is specified **upon coding**, not after frames have been stored in memory.

2.5 Even if the appellant's argument in points XIII (a) (ii) and (iii) above were correct, and therefore the selection between two types of intra coded pictures implied that the generation of an intra coded picture could only be triggered by a Reset signal not deleting stored reference pictures, such generation would result in generating an intra coded picture **upon receiving a Reset signal and storing in the memory the intra coded picture together with a flag** indicating whether or not the picture had been specified. The kind of Reset signal input to the coder, with or without buffer management, does not affect whether the intra coded picture is specified upon coding or later by accessing the memory and specifying the picture already stored.

2.6 The board has not been persuaded by the appellant's argument (see point XIII(a) (iv) above) that in claim 2 of the earlier application as filed the word "*specifying*" implies that the intra coded picture could both be specified and not specified as an anchor. The word "*specifying*" merely means that a characteristic of the intra coded picture (as an anchor) is explicitly stated; it does not disclose a choice as to whether or not to attribute this characteristic. Thus, according to claim 2, intra coded pictures stored in the memory are always used as an anchor. This corresponds to the disclosure of the embodiment described with respect to Figure 6. Therefore, claim 2 of the earlier application as filed does not provide a clear and unambiguous basis for setting, for a stored intra coded picture, a flag indicating whether or not this picture is to be used as an anchor.

2.7 It follows from the above that the subject-matter of claim 1 of the main request and auxiliary requests I, II, and III extends beyond the disclosure of the earlier application as filed (Article 76(1) EPC 1973). Hence, the main request and auxiliary requests I, II and III are not allowable.

3. *Auxiliary request A - clarity (Article 84 EPC 1973)*

3.1 According to Article 84 EPC 1973, the claims shall define the matter for which protection is sought. They shall be clear and concise and be supported by the description.

3.2 Claim 1 of auxiliary request A specifies *inter alia*:

"a coding unit operable to code information for distinguishing the two types of the intra coded picture [...] the intra coded picture of the first type is specified by an intra picture coding instruction signal (Reset), which indicates that pictures stored in the memory prior to the intra coded picture of the first type are not referred to [...] the intra picture coding instruction signal (Reset) or another control command indicating that pictures stored in the memory prior to the intra coded picture of the first type are not referred to is coded by the coding unit".

3.3 Thus, the claim specifies *inter alia* the following pieces of information: information for distinguishing between the two types of intra coded picture, an intra coded picture coding instruction signal (Reset) and a control command. The relationship between these different pieces information is not clear. First of all, it is not clear whether the Reset signal or the control command are the "*information for*

distinguishing", or the Reset signal and control command are provided in addition to the "*information for distinguishing*". If the Reset signal and the control command are provided in addition, it is not clear which of the pieces of information actually restricts the selection of reference frames. For example, if each of these pieces of information were represented by a flag, it is not clear which of the flags should be set to "1" to restrict the selection of reference frames, or what would happen if the flags were set to contradictory values.

3.4 The board has not been persuaded by the appellant's argument that the vague wording of the claim encompasses two well-defined alternatives and, therefore, does not affect the clarity of the claim. As demonstrated in point 3.3 above, the wording is ambiguous both as to whether the Reset signal and control command are present instead of or in addition to the information for distinguishing and as to the actual purpose of the Reset signal and control command. These ambiguities in the claim result in a lack of clarity.

3.5 It follows from the above that claim 1 of auxiliary request A does not meet the requirements of Article 84 EPC 1973. Hence, auxiliary request A is not allowable.

4. *Auxiliary request B - clarity (Article 84 EPC 1973)*

4.1 Claim 1 of auxiliary request B specifies *inter alia*:

"in case the intra coded picture (J2) of the first type is specified by an intra picture coding instruction signal (Reset) [...] the coded picture (J1) which is located before the intra coded picture (J2) of the

first type in coding order is deleted from the memory (408, 409, 410) by said deleting unit and the intra picture coding instruction signal (Reset) or another control command for deleting pictures stored in the memory (408, 409, 410) prior to the intra coded picture (J2) of the first type is coded by the coding unit (404) in addition to the information for distinguishing the two types of the intra coded picture".

4.2 In comparison with claim 1 of auxiliary request A, claim 1 of auxiliary request B has been amended to specify that the Reset signal and control command are coded in addition to the "*information for distinguishing*". Thus, lines 1 to 5 of the claim wording as cited above are understood as stating that if the first type of intra coded picture is "*specified*" by the "*information for distinguishing*" and the Reset signal, reference pictures stored prior to the intra coded signal are deleted. Hence, pictures are deleted if a "first type" flag and a reset flag are set. However, according to the remainder of the cited wording, the Reset signal or a control command are coded to delete stored pictures if these two flags are set. This would imply that the pictures are deleted after coding Reset (in response to a picture being specified by Reset) or a control command. Therefore, it is not clear under which circumstances reference pictures are deleted from the memory.

4.3 The board has not been convinced by the appellant's argument that the only possible interpretation of the claim is that when a Reset signal is received, an intra coded frame is coded, stored reference pictures are deleted and the received Reset signal is coded to be transmitted to the decoder.

- 4.4 The wording "*in case the intra coded picture (J2) of the first type is specified by an intra picture coding instruction signal (Reset) [...] the intra picture coding instruction signal (Reset) [...] is coded by the coding unit (404) in addition to the information for distinguishing the two types of the intra coded picture (J2)*" is ambiguous. Apart from the interpretation given by the appellant (see point 4.3 above), it could also be construed to mean that if the Reset signal is used to specify the first type of intra coded picture, the Reset signal is present in addition to the information for distinguishing.
- 4.5 The appellant's reading of the claim is called into question by the fact that the claim consistently refers to deleting pictures from the memory (408, 409, 410) at the coder and, therefore, does not involve transmitting the coded Reset signal for memory management at the decoder. If the Reset signal is present in addition to the information for distinguishing, it is not clear which of the pieces of information actually restricts the selection of reference frames or commands the deletion of reference frames (see also point 3.3 above).
- 4.6 Thus, the ambiguities in the claim result in a lack of clarity. Hence, auxiliary request B is not allowable because its claim 1 does not meet the requirements of Article 84 EPC 1973.
5. Since none of the appellant's requests is allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



K. Boelicke

C. Kunzelmann

Decision electronically authenticated