

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JILL MACDONALD BOYCE and ALAN JAY STEIN

Appeal 2007-0903
Application 10/410,479
Technology Center 2600

Decided: June 8, 2007

Before KENNETH W. HAIRSTON, JOHN C. MARTIN, and
LANCE LEONARD BARRY, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1 to 12, 17, and 18. We have jurisdiction under 35 U.S.C. § 6(b).

Appellants have invented a method and apparatus for encoding video signal data for an image block relative to at least one particular reference block. A reference picture weighting factor is applied to the particular reference picture, and motion vectors are provided corresponding to the weighted version of the at least one particular reference picture. The weighted reference picture compensated by motion vectors is applied to incoming video signal data (Figure 3; Specification 7 to 9).

Claim 1 is representative of the claims on appeal, and it reads as follows:

1. A video encoder for encoding video signal data for an image block relative to at least one particular reference picture, the encoder comprising:

a reference picture weighting factor selector having an output indicative of a weighting factor corresponding to the at least one particular reference picture;

a weighting factor applicator in signal communication with the reference picture weighting factor selector for providing a weighted version of the at least one particular reference picture; and

a motion estimator in signal communication with the weighting factor applicator for providing motion vectors corresponding to the weighted version of the at least one particular reference picture.

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The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Li	US 6,704,358 B1	Mar. 9, 2004 (filed Jan. 20, 1999)
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The Examiner rejected claims 1 to 12, 17, and 18 under 35 U.S.C. § 102(e) based upon the teachings of Li.

Appellants contend that the decoder described by Li does not disclose any of the apparatus found in claim 1 or the steps set forth in claim 10 (Br. 8 to 11).

We will sustain the rejection.

ISSUE

Does Li describe weighting a reference picture, and providing motion vectors corresponding to the weighted version of the reference picture?

FINDINGS OF FACT

As indicated *supra*, Appellants describe an encoder in which a reference picture weighting factor is applied to a particular reference picture to provide a weighted version of the reference picture at store 376 (Figure 3). A motion estimator 380 is in signal communication with the output of store 376 to provide motion vectors corresponding to the weighted version of the reference picture. The claims on appeal include such a weighted reference picture and vectors corresponding to the weighted version of the reference picture.

Li describes a decoder in which the decoded output to output buffer 118 is sampled at S5. The pixel processor 120 compresses each sampled pixel block output by a scaling factor (col. 5, ll. 48 to 56). The compressed video stream S5' from the pixel processor is stored in anchor frame memory 117. The size of the anchor frame memory is less than normal because it stores compressed pixel blocks (col. 5, ll. 56 to 58; col. 6, ll. 26 to 30). The output S7' from the memory is motion compensated by motion compensator 116, which operates under the influence of motion vectors from motion vector processor 130, before providing an output S6 to a summing junction 115 at the input to output buffer 118 (col. 6, l. 31 to col. 7, l. 2).

PRINCIPLES OF LAW

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claimed invention. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1946 (Fed. Cir. 1999).

The language in a claim preamble acts as a claim limitation only when such language serves to “give meaning to the claim and properly define the invention,” and not when the preamble merely states a purpose or intended use of the invention. *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

ANALYSIS

We agree with the Examiner's contention that the scaling routine used in Li to compress pixel blocks is the same as a weighted reference picture in the claims on appeal (Answer 8). The Examiner's contention is in accord with the statement "reference picture scaled by a weighting factor" in the disclosure of Appellants' invention (Specification 3). We additionally agree with the Examiner's position that the claim term "encoder" in the preamble is not "accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone" (Answer 7 to 8).

As indicated *supra*, Li has a motion estimator that provides motion vectors corresponding to the scaled/weighted version of the reference picture.

CONCLUSION

Anticipation has been established by the Examiner because Li describes a scaled/weighted reference picture, and a motion estimator that provides motion vectors corresponding to the scaled/weighted version of the reference picture

DECISION

The anticipation rejection of claims 1 to 12, 17, and 18 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tdl/gw

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