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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SACHIN G. DESHPANDE
and LOUIS JOSEPH KEROFSKY

Appeal 2015-005122
Application 13/084,424[1]
Technology Center 2400

Before MAHSHID D. SAADAT, NORMAN H. BEAMER, and MICHAEL J. ENGLE, *Administrative Patent Judges*.

ENGLE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–7, 9–11, 13, 14, 16, and 17.[2] A hearing was held on March 16, 2017. We have jurisdiction over the rejected claims under 35 U.S.C. § 6(b).

We REVERSE and enter a NEW GROUND OF REJECTION UNDER 37 C.F.R. § 41.50(b).

Technology

The application relates to "a video decoder" lowering power usage by "selectively dropping frames to be decoded." Spec. Abstract.

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[1] According to Appellants, the real party in interest is Sharp Laboratories of America, Inc. App. Br. 2.

[2] Claim 8 was cancelled. App. Br. 3. Claims 12 and 15 stand objected to but allowable if rewritten in independent form. Ans. 15; Final Act. 17.

Illustrative Claim

Claim 1 is illustrative and reproduced below with the limitations at issue emphasized:

> 1. A battery powered device including power management comprising:
>
> (a) a display;
>
> (b) a processor;
>
> (c) a video decoder that decodes a bitstream;
>
> (d) a networking circuit;
>
> (e) a power allocation system in said decoder that, independent of prior changes in said bitstream through said decoder, selectively lowers power usage by *dropping frames using one of a plurality of predetermined patterns automatically selected by said decoder and stored in memory accessible to said decoder*.

Examiner's Rejections & References

Claims	**Statute**	**Prior Art References**
1–3, 7	§ 102(b)	Normile et al. (US 2008/0062018 A1; Mar. 13, 2008)
4	§ 103(a)	Normile Zou et al. (US 2003/0033417 A1; Feb. 13, 2003)
5	§ 103(a)	Normile Akahane (US 2006/0222328 A1; Oct. 5, 2006)
6	§ 103(a)	Normile Abe (US 2002/0054316 A1; May 9, 2002)
9	§ 103(a)	Normile Henriksson et al. (US 2008/0225900 A1; Sept. 18, 2008)
10, 11	§ 103(a)	Normile Holcomb et al. (US 2006/0072672 A1; Apr. 6, 2006)
13, 16	§ 103(a)	Normile Pohjola et al. (US 2005/0195901 A1; Sept. 8, 2005)
14	§ 103(a)	Normile Holcomb Powell (US 6,618,042 B1; Sept. 9, 2003)
17	§ 103(a)	Normile Pohjola Bourge et al. (US 2007/0230919 A1; Oct. 4, 2007)

ISSUES

1. Did the Examiner err in finding Normile discloses "dropping frames using one of a plurality of predetermined patterns automatically selected by said decoder," as recited in claim 1?

2. Did the Examiner err in finding Normile discloses the plurality of predetermined patterns are "stored in memory accessible to said decoder," as recited in claim 1?

ANALYSIS

Anticipation: Claims 1–3 and 7

Claim 1 recites "dropping frames using one of a plurality of predetermined patterns automatically selected by said decoder and stored in memory accessible to said decoder."

The Examiner relies on Normile for disclosing this limitation. Ans. 17–18; Final Act. 3, 5–7. Normile discloses that "[i]n some embodiments, the *encoder* side includes a process or algorithm for selecting the pattern of reference and non-reference frames for a sequence of video content." Normile ¶ 49 (emphasis added). Thus, the *encoder* decides which frames are marked as reference or non-reference frames.

In deciding which frames to drop, however, "process 900 is employed at a target *decoder*." Normile ¶ 50 (emphasis added). Step 904 of process 900 determines which frames to "gracefully degrade":

> In some embodiments, 904 includes not decoding the frame at all (i.e. dropping the frame), for example, because the frame has a high decoding complexity. In some such cases, reference frames are given higher decoding priority, and a frame may only be completely dropped if it is a non-reference frame . . . . In some embodiments, 904 includes performing the most significant

> decoding operations and dropping one or more other decoding operations.

Normile ¶ 50. Thus, given a video of reference and non-reference frames, the *decoder* decides which frames, if any, to drop, and that decision can be based on factors such as the frame's complexity, priority, significance, or status as being reference or non-reference.

We agree with Appellants that selecting any pattern at the *encoder* of Normile fails to meet the limitation that the pattern be "selected by said decoder." App. Br. 5. However, we are not persuaded by Appellants' argument with respect to the *decoder* that "[n]one of the steps recited by the Examiner can fairly be considered a 'pattern' which is defined as an 'archetype' *i.e.,* something intended to be imitated or used as a template." Reply Br. 5. Appellants rely on the Specification describing "the claimed patterns as 'vectors' where a sequence of zeros and ones indicates whether a frame is dropped in that pattern." Reply Br. 5. But such vectors "are all couched in terms of specific embodiments, not general requirements of the invention." *Veritas Techs. LLC v. Veeam Software Corp.*, 835 F.3d 1406, 1412 (Fed. Cir. 2016). "[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc). For example, even under Appellants' proposed definition, Appellants have not persuasively explained how the decoder choosing to drop all non-reference frames and decoding only reference frames does not follow a pattern, archetype, or template. *See* Ans. 17–18 (citing Normile ¶ 50) (discussing multiple algorithms for the decoder to determine which frames will be dropped).

Nevertheless, we agree with Appellants that the Examiner has not shown how "the frame buffer of Normile's decoder . . . 'store[s]' the rules that the Examiner now tries to rely on as the claimed 'plurality of patterns.'" Reply Br. 6. Specifically, the Examiner finds "*incoming frames* should be stored in memory temporarily before decoding" yet says nothing about whether the predetermined *patterns* are stored in memory. Ans. 18.

Accordingly, given the record before us, we are constrained to reverse the Examiner's anticipation rejection of claim 1, and claims 2, 3, and 7, which depend from claim 1.

Obviousness: Claims 4–6, 9–11, 13, 14, 16, and 17

Claims 4–6, 9–11, 13, 14, 16, and 17 depend from claim 1, and Appellants rely on the same argument as claim 1. App. Br. 6–7. The Examiner has not set forth how any of the other references cures the deficiency discussed above.

Accordingly, we do not sustain the Examiner's rejection of claims 4–6, 9–11, 13, 14, 16, and 17.

REJECTION UNDER 37 C.F.R. § 41.50(b)

We make the following new ground of rejection using our authority under 37 C.F.R. § 41.50(b).

Claim 1 is rejected under 35 U.S.C. § 103(a) as obvious over Normile.

As discussed above, the Examiner correctly found the decoder has "a plurality of predetermined patterns" but has not sufficiently addressed whether those patterns are "stored in memory accessible to said decoder." We find it would have been obvious to a person of ordinary skill in the art at the time of the invention that the decoder's patterns would be stored in memory accessible to the decoder.

A factfinder "need not seek out precise teachings directed to the specific subject matter of the challenged claim" and "can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Here, the decoder's patterns must reside in a location that is accessible to the decoder and the obvious choice would be memory, particularly given that the claim does not limit the type or location of the memory. One of ordinary skill in the art would recognize that the purpose of a memory is storing data and Appellants do not allege that the present application invented memory accessible to decoders. As such, "when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious." *KSR*, 550 U.S. at 417 (quotation omitted).

We adopt the Examiner's findings for the remaining limitations of claim 1.

Accordingly, we reject claim 1 as obvious in a new ground of rejection.

Although we have rejected claim 1 under 37 C.F.R. § 41.50(b), we have not reviewed the remaining claims to the extent necessary to determine whether these claims are unpatentable under 35 U.S.C. § 103(a). We leave it to the Examiner to determine the appropriateness of any further rejections based thereon.

DECISION

For the reasons above, we reverse the Examiner's decision rejecting claims 1–7, 9–11, 13, 14, 16, and 17.

In a new ground of rejection, we reject claim 1 as obvious.

TIME TO RESPOND

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides that "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." Section 41.50(b) also provides:

> When the Board enters such a non-final decision, the appellant, within two months from the date of the decision, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:
>
> (1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. The new ground of rejection is binding upon the examiner unless an amendment or new Evidence not previously of Record is made which, in the opinion of the examiner, overcomes the new ground of rejection designated in the decision. Should the examiner reject the claims, appellant may again appeal to the Board pursuant to this subpart.
>
> (2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record. The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

REVERSED
37 C.F.R. § 41.50(b)