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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SE YOON JEONG, SUNG-CHANG LIM, HAHYUN LEE, JINHO LEE, JONGHO KIM, HAE-CHUL CHOI, SUKHEE CHO, HUI YONG KIM, JIN SOO CHOI, and JIN WOO HONG

Appeal 2019-002250
Application 14/220,962
Technology Center 2400

Before JAMES B. ARPIN, GREGG I. ANDERSON, and MICHAEL M. BARRY, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1, 2, 27–35, and 37–44, which are all the pending claims. *See* Final Act. 1; Appeal. Br. 12–24. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] We use "Appellant" to refer to the "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as "Electronics and Telecommunications Research Institute, an organization of the Republic of Korea." Appeal Br. 3.

Introduction

Appellant describes the invention as particularly related "to an intra coding method and apparatus based on a super macro block that is not conventionally used for intra coding." Spec. ¶ 3. Appellant describes intra coding methods that provide for alternative handling of multiple blocks contained within a super macro block based on an "intra_smb_flag," which allows handling contained blocks individually for intra prediction or else together as a single unit during intra prediction the super macro block. *See, e.g.*, Spec. ¶¶ 10–18, 57–58, 93–100, Figs. 3, 8.

Claim 1, reproduced below, is illustrative:

> 1. A method of performing video decoding for a first block using intra prediction, the method comprising:
>
> receiving a bit stream comprising a first indicator indicating whether the first block is a unit for intra prediction or each of four second blocks in the first block is a unit for intra prediction;
>
> in response to the first indicator indicating that the first block is a unit for intra prediction, performing intra prediction for the first block; and
>
> in response to the first indicator indicating that each of the four second blocks is a unit for intra prediction, respectively performing intra predictions for the four second blocks, wherein
>
> a size of the first block is 16x16, 32x32, 64x64, or 128x128,
>
> a parameter extracted from the bit stream other than the first indicator is used for a decoding for the first block in response to the first indicator indicating the first block is a unit for intra prediction, and
>
> the parameter other than the first indicator is commonly used for decoding for the four second blocks in response to the first indicator indicating that each of the four second blocks is a unit for intra prediction.

Appeal Br. 20 (Claims App'x 1).

The Pending Rejections

The rejections rely on the following references:

Name	Reference	Date
Park	WO 2009/028922 A2	Mar. 5, 2009
Chen[2]	US 2010/0086029 A1	Apr. 8, 2010
Chen '631	US Prov. Appl. No. 61,166,631	Apr. 3, 2009
Chen '357	US Prov. Appl. No. 61/144,357	Jan. 13, 2009
Takahashi	US 2009/0110070 A1	Apr. 30, 2009

The Examiner rejected claims 1, 2, 27–35, 37, 38, and 41–44 under 35 U.S.C. § 103 as obvious over the combined teachings of Park, Chen, Chen '631, and Chen '357. Final Act. 8–23; Adv. Act. 5–19.[3]

The Examiner rejected claims 39 and 40 under § 103 as obvious over the combined teachings of Park, Chen, Chen '631, Chen '357, and Takahashi. Final Act. 23–25; Adv. Act. 20–21.

ANALYSIS

Appellant argues the error in the rejection of the independent claims as a group, based on claim 1, and does not substantively and separately argue the dependent claims. *See* Appeal Br. 13–19. Thus, all claims stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

We have reviewed the Examiner's rejection in light of Appellant's contentions of reversible error. We disagree with Appellant's conclusions.

[2] Chen incorporates by reference (and claims the benefit of having earlier filed) the Chen '631 and Chen '357 provisional applications. Chen ¶ 1.

[3] An Advisory Action mailed Aug. 25, 2018 (in response to a Post-Final Amendment filed July 25, 2018) confirmed and elaborated on the § 103 rejections from the Final Action.

Instead, as consistent with our discussion below, we adopt the Examiner's findings and reasons as set forth in the Final Office Action from which this appeal is taken and as set forth in the Answer. We highlight the following for emphasis.

> Appellant's arguments are based on claim 1's last two limitations:
>
> > a parameter extracted from the bit stream other than the first indicator is used for a decoding for the first block in response to the first indicator indicating the first block is a unit for intra prediction, and
> >
> > the parameter other than the first indicator is commonly used for decodings for the four second blocks in response to the first indicator indicating that each of the four second blocks is a unit for intra prediction.

The Examiner finds Chen '631, in combination with Park, teaches these limitations. Final Act. 9 (citing Park Figs. 1–2; Chen '631 ¶¶ 75, 85–88, 92–94, Figs. 2–3); Adv. Act. 5–7 (same citations; emphasis modified). In particular, the Examiner finds Chen '631's quantization parameter for previous pixel macroblocks ($QP_{Y,PREV}$) teaches the recited "parameter extracted from the bit stream other than the first indicator," and that this parameter is "commonly used for decoding for [] four second blocks," as recited. *Id.* Appellant's contentions of Examiner error are based on these findings. Appeal Br. 13–18.

parameter extracted from the bit stream

Appellant argues "QP_Y and $QP_{Y,PREV}$ are merely values computed or derived using a specific equation as presented in paragraph [0086] of Chen '631 by an encoder and/or a decoder, and are not values extracted from a bit stream." Appeal Br. 15 (emphasis omitted). The Examiner responds by explaining paragraph 88 of Chen '631 specifically teaches including QP_Y in

the bitstream used by its embodiments. Ans. 8. Appellant replies that, although Chen '631 teaches including the QP_Y parameter in the bitstream, it "does not teach that 'the parameter is extracted from the bit stream.'" Reply Br. 8. This reply is unpersuasive, because teaching an encoder that includes QP_Y in the bitstream teaches a decoder that extracts QP_Y from the bitstream. *See* Ans. 7–9; *see also, e.g.*, Chen '631 ¶¶ 41–43.

commonly used for decoding for the four second blocks

Appellant also argues the Examiner errs because $QP_{Y,PREV}$ is not "commonly used for decoding for the four second blocks," as recited. *See* Appeal Br. 17–18. The Examiner responds that Appellant construes this disputed limitation too narrowly, and, as recited, "the use of a previous QP value[] is common to all macroblocks processed in which the sequence of deltas applie[s] to a base QP value (as would be understood to one of ordinary skill in the art)." Ans. 10.

During examination, we interpret claim terms using "the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification." *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). "Absent claim language carrying a narrow meaning," however, we "should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition." *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Thus, "while it is true that claims are to be interpreted *in light of* the specification and with a view to ascertaining the invention, it does not follow that limitations from the specification may be read into the claims." *Sjolund*

v. Musland, 847 F.2d 1573, 1581 (Fed. Cir. 1988). As the court explained in *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989), the rationale for this approach to claim interpretation is that "during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed."

The Specification does not define (or use the word) "commonly." An artisan of ordinary skill would have understood ordinary meanings of "belonging to or shared by two or more individuals or things or by all members of a group" and "belonging equally to two or more mathematical entities"[4] are both consistent with the use of "commonly," as recited. Under either of these definitions, we agree with the Examiner that artisans of ordinary skill would have understood Chen '631's disclosure (of using a $QP_{Y,PREV}$ value as a baseline value to encode four 32x32 partitions of a 64x64 macroblock (*see* ¶ 86)) teaches the $QP_{Y,PREV}$ value is "commonly used." Although encoding each partition applies a delta value to the baseline $QP_{Y,PREV}$ that results in "an individualized quantization parameter for each partition" (*id.*), because the same $QP_{Y,PREV}$ value is used in the same way for decoding each partition (along with individual delta values *also* being used for each partition), the $QP_{Y,PREV}$ value is commonly used for the decoding of each partition.

CONCLUSION

We affirm the Examiner's 35 U.S.C. § 103 rejection of claims 1, 2, 27–35, and 37–44.

[4] *See* Merriam-Webster (www.merriam-webster.com/dictionary/commonly (last accessed Aug. 17, 2020)

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 27–35, 37, 38, 41–44	103	Park, Chen, Chen '631, Chen '357	1, 2, 27–35, 37, 38, 41–44	
39, 40	103	Park, Chen, Takahashi	39, 40	
Overall Outcome			1, 2, 27–35, 37–44	

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