UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 13/036,347 | 02/28/2011 | Michial Gunter | 10006.000912 (A01440C2) | 4747 |

15610 7590 10/31/2016

Okamoto & Benedicto LLP
PO Box 641330
San Jose, CA 95164-1330

| EXAMINER | |
|---|---|
| RAO, ANAND SHASHIKANT | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2486 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 10/31/2016 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* MICHIAL GUNTER, DAVID B. KITA, OLIVER W. SHIH, and CARROLL PHILIP GOSSETT

---

Appeal 2015-008204
Application 13/036,347
Technology Center 2400

---

Before MARC S. HOFF, JENNIFER L. McKEOWN, and SCOTT B. HOWARD, *Administrative Patent Judges*.

HOWARD, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] appeal under 35 U.S.C. § 134(a) from the Final Rejection of claims 24, 25, 27–36, 38–41, and 43, which constitute all of the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

---

[1] Appellants identify Altera Corporation as the real party in interest. App. Br. 2.

## THE INVENTION

The disclosed and claimed invention is directed to "estimating the motion of an image region (the 'center' region) from a source video frame to a target video frame." Abstract. More particularly, "the locally constrained motion estimation may be implemented by biasing an error map of the center region using error maps of the neighboring regions." *Id.*

Claim 24, reproduced below, is illustrative of the claimed subject matter:

> 24. A video processing method in which motion of a first image segment from a first video frame to a second video frame is estimated, the video processing method comprising:
>
> computing an error map for the first image segment by a processor;
>
> computing, by the processor, error maps for a plurality of neighboring image segments, wherein the plurality of neighboring image segments are neighboring segments of the first image segment; and
>
> computing, by the processor, the estimated motion for the first image segment using the error map for the first image segment and the error maps for the plurality of neighboring image segments by
>
> weighting the error maps for the plurality of neighboring image segments,
>
> generating a biased error map by biasing the error map for the first image segment using the weighted error maps for the plurality of neighboring image segments, and
>
> finding a local minimum in the biased error map for the first image segment.

## REFERENCE

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

| | | |
|---|---|---|
| Wang et al. | US 5,557,684 | Sept. 17, 1996 |

## REJECTION

Claims 24, 25, 27–36, 38–41, and 43 stand rejected under pre-AIA 35 U.S.C. § 102(b) as being anticipated by Wang. Final Act. 4–8.

## ANALYSIS

We have reviewed the Examiner's rejection in light of Appellants' arguments that the Examiner erred. In reaching this decision, we have considered all evidence presented and all arguments made by Appellants. We are persuaded by Appellants' arguments regarding the pending claims.

Appellants argue the Examiner erred in finding Wang discloses "'computing an error map for the first image segment' *combined with* 'biasing the error map for the first image segment using the weighted error maps for the plurality of neighboring image segments,'" as recited in claim 24. App. Br. 8–9; Reply Br. 2–6. More specifically, Appellants argue that the Examiner erred in pointing to a single error map for both the error map and the result of biasing the error map as recited in claim 1. App. Br. 8–9. Appellants further argue the Examiner erred in construing bias using "the non-technical definition of 'an inclination or preference, especially one that interferes with impartial judgment.'" Reply Br. 2–3 (citing Ans. 7–8). According to Appellants, that definition does not take into account the way the term bias is used in the Specification and the claims. Reply Br. 2–3.

The Examiner concludes bias is defined as "an inclination or preference, especially one that interferes with impartial judgment." Ans. 7–8 (citing Webster's II New College Dictionary, p. 106). The Examiner concludes this was the "most apt" definition "as there is not a mathematical application listed with under this term." Ans. 8. Additionally, the Examiner

finds Wang discloses both the error map and biasing the error map as recited in claim 24. Final Act. 4 (citing Wang 12:50–57); Ans. 8–10.

We agree with Appellants that the Examiner erred in construing the claim. During examination of a patent application, a claim is given its broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (internal citations and quotations omitted). The non-technical definition relied on by the Examiner is not consistent with the use of the term in the Specification or the claims, and is therefore not how one of ordinary skill in the art would interpret the claims. Instead, we conclude the following technical definitions are more appropriate: "(1): deviation of the expected value of a statistical estimate from the quantity it estimates (2): systematic error introduced into sampling or testing by selecting or encouraging one outcome or answer over others." *Bias*, Merriam-Webster's Online Dictionary, 11th ed., http://www.merriam-webster.com/dictionary/bias (last accessed Oct. 17, 2016).

We also agree with Appellants that the Examiner erred in finding Wang discloses biasing an error map as recited in claim 24. The relevant section of Wang states:

> If particular motions cannot accurately be described by the selected motion equations, here affine transformations, error correction information must be included in a layer to control the intensities of the affected pixels. For example, an error map is included in a layer describing an object which, as it rotates, reveals significantly different views of the object.

Wang 12:50–57. Although Wang discloses using an error map, there is nothing in that paragraph regarding biasing an error map in the manner

recited in claim 24. Accordingly, we determine that the Examiner's finding is not supported by the cited record.

Accordingly, we are constrained on this record to reverse the Examiner's rejection of claim 24, along with the rejections of claims 36 and 41, which recite limitations commensurate in scope to the disputed limitations discussed above, and dependent claims 25, 27–35, 38–40, and 43.

## DECISION

For the above reasons, we reverse the Examiner's decisions rejecting claims 24, 25, 27–36, 38–41, and 43.

## REVERSED