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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/498,704	09/26/2014	Ravishankar R. Iyer	P68604 (884.R16US1)	1633
45457	7590	12/16/2019	EXAMINER	
SCHWEGMAN LUNDBERG & WOESSNER/Intel			YOON, ERIC	
P.O. Box 2938			ART UNIT	
MINNEAPOLIS, MN 55402			PAPER NUMBER	
			2143	
			NOTIFICATION DATE	
			DELIVERY MODE	
			12/16/2019	
			ELECTRONIC	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RAVISHANKAR R. IYER, OMESH TICKOO, and
GLEN J. ANDERSON

Appeal 2018-007813
Application 14/498, 704
Technology Center 2100

Before JOHNNY A. KUMAR, CATHERINE SHIANG, and
LINZY T. McCARTNEY, *Administrative Patent Judges*.

SHIANG, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1, 3–8, 10–15, 17–23, which are all the claims pending and rejected in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ We use “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Intel Corporation as the real party in interest. Appeal Br. 2.

STATEMENT OF THE CASE

Introduction

The present invention relates to “gesture recognition and more specifically to gesture recognition and interaction using a wearable device.”

Spec. ¶ 1.

Generally discussed herein are systems and apparatuses for gesture-based augmented reality. Also discussed herein are methods of using the systems and apparatuses. According to an example a method may include detecting, in image data, an object and a gesture, in response to detecting the object in the image data, providing data indicative of the detected object, in response to detecting the gesture in the image data, providing data indicative of the detected gesture, and modifying the image data using the data indicative of the detected object and the data indicative of the detected gesture.

Abstract. Claim 1 is exemplary:

1. A device comprising:

a camera to capture image data including video;

a display to provide a view of the video captured by the camera;

an object recognition module including circuitry to analyze the image data to recognize a first object and one or more fingers in the video, and in response to recognizing the first object, to provide data indicative of the recognized first object and in response to recognizing the one or more fingers, to extract data corresponding to the one or more fingers from the video;

a gesture recognition module including circuitry to analyze the video to recognize a first gesture performed by the recognized one or more fingers, and in response to recognizing the first gesture, to provide data indicative of the first recognized gesture;

wherein the object recognition module, in response to the data indicative of the first recognized gesture, is further to issue

a command to circuitry of an image rendering module that causes the image rendering module to render a still image including the first object;

wherein the camera is to continue to capture second video while the display is providing the view of the still image;

wherein the object recognition module is to, while the display is providing the view of the still image, extract data corresponding to the one or more fingers from the second video;

the image rendering module including circuitry to modify the still image to include the extracted one or more fingers from the second video overlaid on the still image, to alter pixel values of or around the first object in the still image, and to augment the first object based on data indicative of a second recognized gesture; and

wherein the image rendering module is further to cause the display to provide a view of the modified still image including the augmented first object with the extracted one or more fingers from the second video overlaid thereon.

References and Rejections²

Claims Rejected	35 U.S.C. §	References/Basis
5, 6, 14, 21	112(b)	Indefiniteness
1, 3, 4, 7, 8, 10, 12, 15, 17, 19	103	Maeda (W02014/147686 A1, pub. Sept. 25, 2014), Cardoso (US 8,405,680 B1, iss. Mar. 26, 2013)
5, 14, 20	103	Maeda, Cardoso, Balram (2015/0059002 A1, pub. Feb. 26, 2015), Teller (US 8,812,419 B1, iss. Aug. 19, 2014)

² Throughout this opinion, we refer to the (1) Final Office Action dated Sept. 7, 2017 (“Final Act.”); (2) Appeal Brief dated Apr. 2, 2018 (“Appeal Br.”); (3) Examiner’s Answer dated May 25, 2018 (“Ans.”); and (4) Reply Brief dated July 19, 2018 (“Reply Br.”).

6	103	Maeda, Cardoso, Balram, Teller, Rhodes (US 8,873,147 B1, iss. Oct. 28, 2014)
11, 18	103	Maeda, Cardoso, Rhodes
13	103	Maeda, Cardoso, LeBeau (US 2016/0034254 A1, pub. Feb. 4, 2016)
21	103	Maeda, Cardoso, Balram, Teller, Rhodes, Normandin (US 2007/0219792 A1, Sept. 20, 2007), Jawalebhoi (D. Jawalebhoi, "List of Common Password Reset/Challenge Questions," published July 14, 2008, downloaded from http://curiousdeveloper.blogspot.com/2008/07/list-of-common-password-resetchallenge.html)
22	103	Maeda, Cardoso, Gluncic (US 2014/0328517 A1, pub. Nov. 6, 2014)
23	103	Maeda, Cardoso, Bilbrey (US 8,400,548 B2, iss. Mar. 19, 2013)

ANALYSIS

Indefiniteness

Because Appellant does not argue against the Examiner's rejection, we summarily sustain the Examiner's rejection of claims 5, 6, 14, and 21 under 35 U.S.C. § 112(b).

Obviousness

We have reviewed the Examiner's rejection in light of Appellant's contentions and the evidence of record. We concur with Appellant's contentions that the Examiner erred in finding the cited portions of Maede teach

wherein the object recognition module, in response to the data indicative of the first recognized gesture, is further to issue a command to circuitry of an image rendering module that

causes the image rendering module to render *a still image* including the first object;
wherein the camera is to continue to capture second video while the display is providing the view of *the still image*;

as recited in independent claim 1 (emphases added). *See* Appeal Br. 12–16; Reply Br. 2–4.

The Examiner finds:

For example, the image of the real object Rol with an indicator IN22 on it is still and not moving. This image and similarly situated regions or images can each be considered to be the claimed "still image" The camera for the HMD is continuing to capture video and track the user's gestures or interactions e.g., see Maeda Fig. 5, camera 101, [0024]. This can also be seen in the transition between Figs. 20-21, which shows how some objects/images remain still while the display/HMO continues to record the movements/video indicating user gestures e.g., the motion of the user's hand, as seen in Figs. 20-21 and represented by operation body H1; see also Maeda [0077-0078].

Ans. 34; *see also* Final Act. 6.

We disagree with the Examiner. It is well established that during examination, claims are given their broadest reasonable interpretation consistent with the specification and should be read in light of the specification as it would be interpreted by one of ordinary skill in the art, but without importing limitations from the specification. *See In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (citations omitted); *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). In this case, the Specification does not specifically define the term "still

image.” Therefore, we interpret the term according to the knowledge of one skilled in the art and consistent with the Specification.

We agree with Appellant that one skilled in the art would understand “still image” is a term of art and is different from a video, and a video showing a non-moving object is still a video—not “a still image,” as required by claim 1. *See* Appeal Br. 12–16; Reply Br. 2–4. As a result, the Examiner has not persuasively explained why Maede teaches

wherein the object recognition module, in response to the data indicative of the first recognized gesture, is further to issue a command to circuitry of an image rendering module that causes the image rendering module to render *a still image* including the first object;

wherein the camera is to continue to capture second video while the display is providing the view of *the still image*;

as required by claim 1 (emphases added).

Because the Examiner fails to provide sufficient evidence or explanation to support the rejection, we are constrained by the record to reverse the Examiner’s rejection of claim 1.

For similar reasons, we reverse the Examiner’s rejection of claims 3–8, 10–15, and 17–23, as each of those claims also recites a “still image,” and the Examiner applies the same findings (discussed above) to those claims. *See* claims 3–8, 10–15, 17–23; Final Act. 9–34.

CONCLUSION

We sustain the Examiner’s rejection of claims 5, 6, 14, and 21 under 35 U.S.C. § 112(b).

We reverse the Examiner’s decision rejecting claims 1, 3–8, 10–15, 17–23 under 35 U.S.C. § 103.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
5, 6, 14, 21	112(b)	Indefiniteness	5, 6, 14, 21	
1, 3, 4, 7, 8, 10, 12, 15, 17, 19	103	Maeda, Cardoso,		1, 3, 4, 7, 8, 10, 12, 15, 17, 19
5, 14, 20	103	Maeda, Cardoso, Balram, Teller		5, 14, 20
6	103	Maeda, Cardoso, Balram, Teller, Rhodes		6
11, 18	103	Maeda, Cardoso, Rhodes		11, 18
13	103	Maeda, Cardoso, LeBeau		13
21	103	Maeda, Cardoso, Balram, Teller, Rhodes, LeBeau, Normandin, Jawalebhoi		21
22	103	Maeda, Cardoso, Gluncic		22
23	103	Maeda, Cardoso, Bilbrey		23
Overall Outcome			5, 6, 14, 21	1, 3–4, 7–8, 10–13, 15, 17–20, 22–23

Because we affirm at least one ground of rejection with respect to claims 5, 6, 14, and 21 on appeal, we affirm the Examiner’s decision rejecting claims 5, 6, 14, and 21. *See* 37 C.F.R. § 41.50(a)(1).

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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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED-IN-PART