

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

VEDERI, LLC,
Appellant

v.

GOOGLE LLC,
Cross-Appellant

2016-1919, 2016-1979, 2017-1479, 2019-1211, 2019-1573

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. 95/000,681, 95/000,682, 95/000,683, 95/000,684.

Decided: May 14, 2020

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Before NEWMAN, LOURIE, and STOLL, *Circuit Judges*.

STOLL, *Circuit Judge*.

This is a consolidated appeal from the final decisions of the Patent Trial and Appeal Board in four inter partes reexaminations of related U.S. Patent Nos. 7,805,025, 7,239,760, 7,577,316, and 7,813,596, owned by Vederi, LLC. Vederi asks this court to consider two claim construction disputes and various factual issues regarding the scope and content of the prior art. Google LLC cross-appeals, asking this court to consider an additional issue of claim construction. We adopt the Board's construction of the disputed claim term "composite image." We do not adopt the Board's construction of "moving" in the limitation "image frames acquired by an image recording device moving along a trajectory," or its construction of "web page for the retail establishment." Because the "moving" limitation is found in each claim at issue on appeal, we vacate the Board's decisions and remand for the Board to analyze the validity of all challenged claims under the proper constructions.

BACKGROUND

I

The '025, '760, '316, and '596 patents share the same patent specification and address the need to efficiently create a visual database of a geographic area. More particularly, these patents disclose using a moving image recording device and a GPS and/or inertial navigation system to provide a computer with image data with an associated location, wherein the computer synthesizes that associated image data to create a composite image. The patent specification states that the composite image of a geographic location may be "created by synthesizing individual image frames acquired by a video camera moving

through the location.” ’025 patent col. 3 ll. 46–48.¹ The video camera “record[s] a series of video images of the location while moving along a path,” wherein the camera may be mounted to “a base, platform, or motor vehicle moving at an average speed of preferably about 20 miles/hour to ensure a sufficient resolution in the resulting images.” *Id.* at col. 4 ll. 52–58.

In certain embodiments, the composite images are created uniformly along a street segment, along with an associated index that identifies the street segments and other characteristics of the captured image. Objects within those composite images may be further identified, and if those objects are business establishments, information about the establishment—such as its name, address, phone number, or a web page—may be displayed to a user.

Independent claim 21 and dependent claims 28, 34, and 35 of the ’025 patent are illustrative claims that include the three disputed claim terms at issue in this appeal:

21. A method for enabling visual navigation of a geographic area via a computer system coupled to an image source, the computer system including one or more computer devices, at least one of the computer devices having a display screen, the method comprising:

providing by the image source a plurality of images depicting views of objects in the geographic area, the views being substantially elevations of the objects in the geographic area, *wherein the images are*

¹ Because the ’025, ’760, ’316, and ’596 patents share the same specification, all citations to the specification are to the ’025 patent.

associated with image frames acquired by an image recording device moving along a trajectory;

receiving by the computer system a first user input specifying a first location in the geographic area;

retrieving by the computer system a first image associated with the first location, the first image being one of the plurality of images provided by the image source;

providing by the computer system the retrieved first image for displaying on a first display area of the display screen;

invoking by the computer system a display of a direction identifier for indicating the viewing direction depicted in the first image;

receiving by the computer system a second user input specifying a navigation direction relative to the first location in the geographic area;

determining by the computer system a second location based on the user specified navigation direction;

retrieving by the computer system a second image associated with the second location, the second image being one of the plurality of images provided by the image source; and

providing by the computer system the retrieved second image for updating the first image with the second image.

...

28. The method of claim 27, wherein the particular one of the objects is a retail establishment, the method further comprising:

accessing a *web page for the retail establishment*;
and

invoking by the computer system a display of the
web page on the display screen.

...

34. The method of claim 21, wherein the first and second images are each a *composite image*, wherein each *composite image* is created based on a first one of the image frames acquired at a first point in the trajectory and a second one of the image frames acquired at a second point in the trajectory.

35. The method of claim 21, wherein the first and second images are each a *composite image*, wherein each *composite image* is created by processing pixel data of a plurality of the image frames.

Id. at col. 17 l. 43 – col. 18 l. 9, col. 18 ll. 43–48, col. 19 ll. 6–14 (emphases added).

II

The Board proceedings on appeal involved two panels, one for Reexamination Nos. 95/000,681 and 95/000,682, and another for Reexamination Nos. 95/000,683 and 95/000,684. In holding the claims of the '025, '760, '316, and '596 patents invalid, the panels consistently construed the claim terms “composite image” and “moving” in the claim limitation “image frames acquired by an image recording device moving along a trajectory.” Only one panel construed a “web page for the retail establishment.” All challenged claims include the claim term “moving,” while select claims include the “composite image” and “web page for a retail establishment” claim terms.

Following claim construction, the Board found that prior art anticipated claim 8 of the '760 patent, as well as claims 4, 63–66, 68, 70–72, and 74 of the '596 patent. It also held that claims 2–6, 8–10, 14–18, 20, 33–36, 56–60,

64–68, and 70–72 of the '025 patent, claims 2, 3, 8, 12–18, 21–26, 29, 32–37, 39–44, and 46–51 of the '760 patent, claims 13, 18–24, 36, 37, and 39–43 of the '316 patent, and claims 4, 21, 63–66, 68, 70–72, and 74–76 of the '596 patent would have been obvious in view of the prior art. The Board declined to hold invalid claims 24, 26, 28, 29, 37, 38, 41, 42, 44–48, 51–54, 63, 75–84, and 86–88 of the '025 patent.

DISCUSSION

I

On appeal, Vederi and Google challenge the Board's construction of the three disputed claim terms: (1) "composite image"; (2) "moving" in the claim limitation "image frames acquired by an image recording device moving along a trajectory"; and (3) "web page for the retail establishment." Claim construction based on the intrinsic evidence is ultimately a question of law that this court reviews de novo. *Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1362 (Fed. Cir. 2016) ("The construction of claim terms based on the claim language, the specification, and the prosecution history are legal determinations."). Applying the broadest reasonable interpretation standard, a claim construction "must be reasonable in light of the specification, prosecution history, and the understanding of one skilled in the art." *Personalized Media Commc'ns, LLC v. Apple Inc.*, 952 F.3d 1336, 1340 (Fed. Cir. 2020).

A

We agree with the Board's construction of "composite image." The Board construed this term as "a single image created by combining different image data or by uniting image data." *Google Inc. v. Vederi, LLC*, No. 95/000,682, 2016 WL 5405204, at *8 (P.T.A.B. Sept. 26, 2016).

The claim language describes creating a composite image "based on a first one of the image frames acquired at a first point in the trajectory and a second one of the image

frames acquired at a second point in the trajectory” (see claim 34 of the ’025 patent) or “by processing pixel data of a plurality of the image frames” (see claim 35 of the ’025 patent). ’025 patent col. 19 ll. 6–14. The Board’s construction is consistent with both requirements in the recited claim language. It first requires combining different image data, as in image data from different image frames. It also specifies that, alternatively, the image may be achieved by combining or uniting image data, meaning at the level of pixel data.

The specification supports the Board’s construction, disclosing that “[i]mage data from each selected image frame 42 is then extracted and combined to form the composite image.” *Id.* at col. 5 l. 66 – col. 6 l. 1. Citing the specification, Vederi seeks a narrowing construction that would limit “composite image” to “a new image, created by processing pixel data of a plurality of image frames, that depicts a single new view (from a single location) of the objects in the geographical area that is different from any of the views depicted in any one of the image frames from which the composite image is created.” Appellant’s Br. 44. According to Vederi, the specification requires this construction because it states that the composite image “preferably ‘provides a field of view of the location that is wider than the field of view provided by any single image acquired by the image recording device.’” *Id.* at 38 (quoting ’025 patent col. 2 ll. 36–39). We are not persuaded by Vederi’s argument. While the embodiments cited by Vederi may inform the meaning of a disputed claim term, “a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.” *Personalized Media*, 952 F.3d at 1343 (citing *Resonate Inc. v. Alteon Websystems, Inc.*, 338 F.3d 1360, 1364–65 (Fed. Cir. 2003)). Moreover, because the specification discusses a “composite image” in a broader sense than the preferred embodiment

selectively identified by Vederi, the Board's broader interpretation is reasonable in light of the specification.

B

We do not fully adopt the Board's construction of "moving" in the claim limitation "image frames acquired by an image recording device moving along a trajectory." The Board construed this limitation to require that the image recording device "move along a trajectory and image frames are acquired along the trajectory but that the image frames do not have to be acquired *while* the image recording device is moving along the trajectory." *Google Inc. v. Vederi, LLC*, No. 95/000,684, 2016 WL 4376717, at *9 (P.T.A.B. Aug. 15, 2016) (emphasis in original). We understand the Board to read the claims to cover (1) image recording devices that acquire images while moving; (2) image recording devices that acquire images both while moving and while stationary; and (3) image recording devices that acquire images only while stationary (although the image recording device moves along a trajectory at other times). We do not agree that the claims cover the third option. In our view, reading the claims to cover the third option is unreasonably broad in light of the shared patent specification. Instead, in light of the specification, we construe the claims to require an image recording device that acquires images while moving or acquires images both while moving and while stationary.

The broadest reasonable interpretation requires that the claim construction be reasonable in light of the specification. *Personalized Media*, 952 F.3d at 1340. Here, the specification repeatedly contemplates acquisition of image frames by an image recording device that is in motion. For instance, it describes an image recording device that "moves along a path recording images of objects along the path." '025 patent col. 2 ll. 27–29; *see also, e.g., id.* at col. 5 ll. 18–19, 52–54, col. 6 ll. 58–61. It also describes that image recording device as a "video camera" that "mov[es]

through the location and film[s] the objects in its view,” wherein the acts of moving and filming seem to be concurrent. *Id.* at col. 3 ll. 47–49; *see also, e.g., id.* at col. 3 ll. 54–57, col. 4 ll. 50–53. Moreover, the specification explains that “[m]ovement to the camera 10 is provided by a base, platform, or motor vehicle moving at an average speed of preferably about 20 miles/hour to ensure a sufficient resolution in the resulting images.” *Id.* at col. 4 ll. 55–58. Disclosing a particular speed to achieve a sufficient image resolution makes clear that the specification contemplates the image recording device moving while capturing images. At the same time, the specification contemplates that some photos may be taken while the vehicle is stopped, for example, at an intersection. *See id.* Fig. 9.

On the other hand, the specification does not disclose a single embodiment in which the image recording device only captures images when it is not moving. Given that the specification does not contemplate an embodiment in which all image frames are acquired when the recording device is stationary during its movement along a trajectory, we conclude that the Board’s inclusion of such an embodiment in its claim construction is not reasonable in light of the specification. Accordingly, we construe the claims to require an image recording device that acquires images while moving or acquires images both while moving and while stationary.

C

Finally, representative claim 28 recites “accessing a web page for the retail establishment; and invoking by the computer system a display of the web page on the display screen.” ’025 patent col. 18 ll. 46–48. The Board limited a “web page for the retail establishment” to web pages belonging to, owned by, or operated by the retail establishment. *Google Inc. v. Vederi, LLC*, No. 95/000,681, 2016 WL 792285, at *2–3 (P.T.A.B. Feb. 26, 2016). After considering the intrinsic evidence considered by the Board, we conclude

that the Board's construction of a "web page for the retail establishment" is unduly narrow.

Representative claim 28 recites "accessing a web page for the retail establishment." '025 patent col. 18 l. 46. Describing the web page as being *for* a retail establishment does not limit it to one that is owned or operated by the retail establishment. Indeed, as Google points out, an online Yellow Pages directory may be a web page for a retail establishment in that it shows particular information about the retail establishment for the convenience of a consumer. Cross-Appellant's Br. 80. Yet, the Yellow Pages directory does not require the retail establishment to own or control the web page associated with the establishment.

The specification does nothing to limit this broad claim language. Rather, the specification describes the term "web page" only once, wherein it places a condition on displaying a hyperlink "if the establishment is associated with a particular Web page." '025 patent col. 12 ll. 53–56. The term *associated* does not connote ownership or direct control. We conclude that, in the context of the claims and specification at issue on appeal, a web page, such as an online Yellow Pages directory, may be associated with a particular retail establishment, but not owned or controlled by that establishment.

II

Vederi asks this court to determine whether certain prior art anticipates or renders obvious certain claims based on the proper construction of "moving," and Google asks this court to determine whether the prior art renders obvious certain claims based on the proper construction of "web page for the retail establishment." We decline the parties' invitations, and remand to the Board to decide these validity issues in the first instance.

In addition to the claim construction issues above, we have also considered Vederi's arguments that certain prior

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art does not disclose “street segments” as required by some of the claims. Appellant’s Br. 58–62. This argument is at issue regardless of the construction of this term. We are not persuaded by Vederi’s arguments and conclude that substantial evidence supports the Board’s finding that the prior art discloses the disputed claim limitations.

CONCLUSION

We have considered the parties’ remaining arguments, but we do not find them persuasive. For the foregoing reasons, we vacate the Board’s findings of invalidity of the challenged claims and remand to the Board for consideration under the proper constructions.

VACATED AND REMANDED

COSTS

No costs.