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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

VEDERI, LLC,

Plaintiff,

v.

GOOGLE, INC.,

Defendant.

AND RELATED COUNTERCLAIMS

Case No. CV10-07747 AK (CWx)

GOOGLE'S ANSWERING CLAIM CONSTRUCTION BRIEF

DATE: November 22, 2011
TIME: 10:30 a.m.
CTRM: Ct. of Appeals; Pasadena, CA

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I. INTRODUCTION

Contrary to Vederi's assertions, Google's proposed constructions are based on the plain language of the claims, and do not read in unsupported limitations.

Google's proposed constructions give meaning to the "user" and "user terminal/computer device" that are recited by the claims, whereas Vederi's proposed constructions would read those terms out of the claims. For example, Vederi repeatedly concedes that its patents-in-suit disclose and claim methods for "visual navigation of a geographic area *from a user terminal*." (Vederi's Opening Claim Construction Brief ("Vederi Br.") pgs. 1-2 (emphasis added).) Yet, Vederi's proposed constructions -- including of the preamble language, the method steps, and the "first user input" term -- seek to eliminate necessary actions by the user and the "user terminal" from the claims. Thus it is Vederi, not Google, who is ignoring the plain language of the claims.

As set forth at length in Google's opening brief, Google's proposed constructions are supported by the intrinsic evidence. Holding Vederi to the disclaimers of claim scope in the intrinsic evidence cannot fairly be characterized as adding unsupported limitations into the claims. For example, Vederi admits that the claimed invention provides a "uniquely efficient" way to provide visual navigation of a geographic area. (Vederi Br. pg. 2.) At several places in its opening brief, Vederi discusses the "significant limits on computer storage and data transmission [speeds] back in 2000." (Vederi Br. pg. 2; *see also* Vederi Br. pg. 4.) Yet, Vederi ignores the solution described in the patents to address this problem, *i.e.*, Vederi's explicit disclaimer of "computationally intensive and hence cumbersome" spherical projections (2:1) in favor of "fast and efficient" (Vederi Br. pg. 5) vertical flat composite images. Google's proposed construction of "substantially elevations" incorporates Vederi's express disclaimer; Vederi's proposed construction would undo it.

Indeed, it is Vederi -- not Google -- that attempts to insert unsupported limitations into the claims. Some of Vederi's proposed constructions add unsupported limitations in an obvious (and improper) attempt to ensnare Google's accused Street View service. For example, Google proposes that the term "first user input …" be construed as "the first input by the user …", but Vederi proposes that it be construed as "a signal representing a user-selected starting location." Nowhere in the intrinsic evidence is "user input" described as "a signal." Vederi's unsupported addition of "signal" seeks to change the scope of the claims to include only actions by a server, as opposed to also requiring actions by a user.

Other of Vederi's proposed constructions add unsupported limitations for a different and equally results-oriented reason: to attempt to avoid prior art identified by Google. For example, Google proposes that "first display area … second display area" should be given its plain and ordinary meaning, but Vederi proposes construing this phrase as "two display areas viewable at the same time"--thereby attempting to insert a baseless temporal limitation into the claims to try to save them from invalidity.

Vederi's proposed constructions, while paying lip-service to the canons of claim construction, treat its asserted claims like a "nose of wax" and are in conflict with the intrinsic evidence. *See White v. Dunbar*, 119 U.S. 47, 51, 7 S. Ct. 72, 74, 30 L. Ed. 303 (1886). Google's proposed constructions set forth the proper metes and bounds of Vederi's claims and, therefore, should be adopted.

II. VEDERI'S OVERVIEW OF THE CLAIMED INVENTION SUPPORTS GOOGLE'S PROPOSED CLAIM CONSTRUCTIONS

Vederi explains that, unlike systems existing before 2000, its claimed invention provides a "uniquely efficient" way to provide visual navigation of a geographic area. (Vederi Br. pg. 2.) Vederi discusses the "significant limits on computer storage and data transmission [speeds] back in 2000." (Vederi Br. pg. 2; *see also* Vederi Brief pg. 4.) Vederi's claimed invention sought to solve, for a

visual navigation product, the problem of limited storage capacity and data transmission speeds available in that time period.

As described in the patents, Vederi purported to overcome these problems by creating composite images that are a combination of multiple images acquired while an image recording device moves along a path. (2:39-44; 10:14-11:53.) Such composite images, accordingly, may be organized and stored based upon "street segments" rather than individual addresses. (Vederi Br. pgs. 4-5.) Vederi also asserts that the "creation and storage of composite images allows the claimed invention to store a large amount of image data … while using less space" and using "less bandwidth to transmit the images and information … which was particularly important given the slow transmission speeds available in 2000." (Vederi Br. pg. 4.)

A problem for Vederi in this case, however, is that the computer world has accomplished significant advances in storage capacity and transmission speeds since 2000. Google chose to invest in the computing resources necessary to form high-quality spherical composite images taken from a single location on a path. (10-4-2011 Grindon Dec. ¶¶ 31-33, 41.)[1] The patents call this method "cumbersome and inefficient." (2:1-2.) Rather than combining images acquired while a recording device moves along a path to cover a "street segment", Google's composite images are formed using its proprietary algorithms by combining images acquired in multiple directions to provide a spherical composite image showing a view from a single position on a path. (10-4-2011 Grindon Dec. ¶¶ 31-33, 41.) In other words, Google does not consolidate acquired images to provide panoramic images by "street segment," but instead provides as many composite images as locations from which acquired images were taken.

[1] "10-4-2011 Grindon Dec." refers to the October 4, 2011 Declaration of Dr. John R. Grindon in Support of Google's Opening Claim Construction Brief. (D.I. 50-1.)

Vederi states that "[b]y providing composite images of the area, and by associating these images with street segments rather than specific, individual addresses, the resulting invention provides a fast and efficient way to enable visual navigation of a geographic area." (Vederi Br. pg. 5.) By using spherical projections to form higher-quality composite images that each cover a single location rather than a "street segment", Google increased, rather than decreased, the amount of storage and transmission bandwidth required relative to the claimed inventions. The advances since 2000 in computer storage and transmission speeds were part of what allowed Google to develop Street View in this way; those same advances rendered Vederi's claimed invention obsolete.

III. THE PROPER CONSTRUCTION OF THE DISPUTED TERMS

A. The Claim Preambles Limit Vederi's Claims

Vederi divides the preamble of claims 1 of the '760 and '316 patents into two pieces (Vederi Br. pgs. 8-9):

> "[**(A)**] In a system including an image source and a user terminal having a screen and an input device, [**(B)**] a method for enabling visual navigation of a geographic area from the user terminal …"

Vederi indicates that the other unique preamble, the preamble of claim 21 of the '025 patent and claim 15 of the '596 patent, would correspondingly be divided as follows:

> "[**(B)**] A method for enabling visual navigation of a geographic area
>
> [**(A)**] 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 …"

Portion (A) of the Preambles. Vederi claims that portion (A) merely recites the context of the recited method and that the "claims are specifically written to include only actions taken by a computer processor in combination with the image and other databases." (Vederi Br. pg. 9.) Vederi misapprehends the intrinsic evidence and misapplies the pertinent law.

First, Vederi erroneously relies on *Uniloc* when it argues that portion (A) only recites the context of the claimed method. (Vederi Br. pgs. 9-10; *see Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011).) The court in *Uniloc* addressed the following claim:

> 19. *A remote registration station* incorporating remote licensee unique ID generating means, *said station forming part of a registration system* for licensing execution of digital data in a use mode, said digital data executable on a platform, said system *including local licensee unique ID generating means*, said system further including mode switching means …; and wherein said remote licensee unique ID generating means comprises software executed on a platform which includes the algorithm utilized by said local licensee unique ID generating means to produce said licensee unique ID.

(*Id.* at 1297 (emphasis added).) In *Uniloc*, Microsoft argued that it could not directly infringe because it "did not supply or use the end-users' computers that implemented the local licensee unique ID generating means and mode switching means." *Uniloc*, 632 F.3d at 1308. Both the district court and the Federal Circuit reasoned that requiring end-user participation "would be akin to importing a method step into this software system -- something the language of Claim 19 does not support." *Id.* at 1309 (internal citation omitted). Furthermore, the *Uniloc* Court noted that the claimed system is a "remote registration system" which forms only a single part of a larger, but unclaimed, "registration system" that also

includes a "local licensee unique ID generating means" and a "mode switching means."[2]

Uniloc does not support Vederi's position. All of the claims asserted by Vederi are method claims (claims to an activity or process). In contrast, the holding in *Uniloc* addressed a *system* claim (a claim to a physical structure or apparatus). This key difference ultimately undercuts Vederi's reliance on *Uniloc*. This is because, where the direct infringement showing is divided among multiple actors, the Federal Circuit has applied very different standards for showing joint infringement of system claims as opposed to method claims.[3] As applied to Vederi's patents, direct infringement of the method claims requires Vederi to show that Google (via its servers) performs each and every step of the claimed method,[4] whereas direct infringement of a system claim would have required Vederi to show that Google makes, uses, sells, or offers for sale a system with all the required elements of the claim (e.g., a server, image source, and user terminal).[5]

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[2] Note that unasserted claim 1 of the asserted patent in *Uniloc* claimed the entire "registration system." (10-25-2011 Rao Dec. Ex. A. ("10-25-2011 Rao Dec." refers to the Declaration of Sasha G. Rao in Support of Google's Answering Claim Construction Brief, filed concurrently herewith.))

[3] To show joint infringement of a system claim, the plaintiff must prove a user has the ability to put a system as a whole into service and obtains beneficial use of the system, without necessarily having physical or direct control over all elements. *Centillion Data Sys., LLC v. Qwest Commc'ns Int'l, Inc.*, 631 F.3d 1279, 1284 (Fed. Cir. 2011). Proving joint infringement of a method claim requires proof that there "is an agency relationship between the parties who perform the method steps or when one party is contractually obligated to the other to perform the steps." *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1320 (Fed. Cir. 2010), *vacated, reh'g en banc granted, 419 F. App'x 989* (Fed. Cir. 2011). (*See also* Google Opening Claim Construction Brief ("Google Br.") fn 1.)

[4] It is "axiomatic that a method claim is directly infringed ***only if each step of the claimed method is performed.***" *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1328 (Fed. Cir. 2008) (emphasis added); *Joy Techs., Inc. v. Flakt, Inc.*, 6 F.3d 770, 773 (Fed. Cir. 1993).

[5] Judge Pfaelzer asked Vederi to select thirty (30) claims to assert in this action, and to articulate any indirect infringement theories against Google. (D.I. 28; D.I. 37; May 24, 2011 Hearing Transcript ("Tr.") pgs. 4-7). Vederi has not

Regardless, Vederi does not claim a sub-part of an overall system. For example, the preamble statement "[i]n a system including an image source and a user terminal having a screen and an input device" lists necessary elements the system must have in order to practice the claimed method. Visual navigation, which is itself the claimed invention, simply cannot be performed without an image source and a user terminal. Accordingly, as discussed in more detail in Google's Opening Brief, the preambles are limitations on the asserted claims.

Similarly, Vederi's reliance upon *Advanced Software Design Corp. v. Fiserv, Inc.*, 641 F.3d 1368 (Fed. Cir. 2011), when it argues that portion (A) merely discloses the environment of the claim is unavailing. (Vederi Br. pg. 10.) The preamble in *Advanced Software* was directed to a process of "validating" a financial instrument. In addition to discussing the claimed "validating," the preamble also discussed steps unrelated to validating, *i.e.*, "encryption" and "printing" as shown below:

> *A process of validating a negotiable financial instrument* made by a payor, in which selected information found on the financial instrument which varies for each instantiation of the financial instrument made by the same payor *is encrypted* in combination with key information not found on the financial instrument to generate a control code which *is printed* on the financial instrument along with the selected information ….

Id. at 1373 (emphasis added). The Court found that the preamble was not a limitation on the claimed method, but only a limitation on the claim environment, because the patentees were claiming a "process of *validating* a negotiable

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pleaded indirect infringement in this case (D.I. 28). Vederi stated at the May 24, 2011 hearing that it was only asserting direct infringement against Google (and did not have any indirect infringement theories against Google). (Tr. pg. 7). Vederi chose to assert only method claims against Google.

financial instrument." The method steps in the body of the claims (reading information, decrypting the information, and re-encrypting the information) were all steps involved in the actual validation of the financial instrument. In contrast, the Court held that the preamble's recitation of steps *unrelated to validation* (i.e., encrypting and printing) that happened before or after the validation steps merely define the claim environment, rather than limit the claim scope. *Id*. at 1375 ("[I]t remains the case that the asserted claims of the *'110 patent* recite a process or system for validating checks, not for encrypting and printing them.").

In this case, however, the "image source" and "user terminal having a screen and an input device" or "computer device[] having a display screen" are structures essential to performing the claimed method steps.

Portion (B) of the Preambles. Vederi argues that portion (B) of the asserted claims' preambles merely states the "purpose or intended use" of the claimed invention. (Vederi Br. pg. 9.) To the contrary, "visual navigation of a geographic area from the user terminal" is *itself* the claimed invention and the method steps describe what is required to achieve the claimed invention. This claimed invention -- visual navigation -- can only be performed "from the user terminal," i.e., by a user using a user terminal.

In sum, the cases relied upon by Vederi are not applicable to the facts at issue in this litigation. As explained in more detail in Google's Opening Brief, the two unique preambles of the asserted claims are necessary to give life and meaning to the claims because they (1) state the fundamental purpose of the invention and (2) provide the antecedent basis necessary to understand the method steps in the claims. (Google Br. pgs. 8-12.) Therefore, the preambles must be construed to limit the scope of the asserted claims.

B. Certain Steps In The Asserted Method Claims Must Be Performed By A User Or A User Terminal

Vederi argues that all the steps of the asserted claims can be performed by a host computer (a server) that is in communication with a user terminal. (Vederi Br. pg. 12.) In so arguing, Vederi glosses over the actual language of the claims, which explicitly calls for the user or user terminal to perform certain steps. Asserted claim 1 of the '316 patent is exemplary:

CLAIM 1 OF U.S. PATENT NO. 7,577,316
In a system including an image source and a user terminal having a screen and an input device, a method for enabling visual navigation of a geographic area from the user terminal, the method comprising:
receiving a first user input specifying a first location in the geographic area;
retrieving from the image source a first image associated with the first location, the image source providing 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 associated with image frames acquired by an image recording device moving along a trajectory;
displaying an icon associated with an object in the geographic area;
receiving a user selection of the icon; and
identifying a second location based on the user selection.

The claimed step "displaying an icon …" implicates the actual display of the icon.[6] Only the user terminal can perform the step of displaying an icon because only the user terminal has a display screen. A host computer can receive and transmit information to a user terminal, but a host computer has no power or control over the user terminal that would allow it to display (or invoke the display)

[6] See discussion of the "Group 1" steps relating to the display of information in Google's Opening Brief at pages 15-16.

of an icon on the user terminal.[7] For example, when a Street View user is viewing an image of a Los Angeles street, the user's personal computer is in control of *displaying* an image the host computer retrieves from the image source. At most, a host computer can transmit the image to the user's personal computer for the user's computer to then display.

Vederi cites to the description of the preferred embodiment that states, in part, "[t]he retrieved data is then transmitted to the requesting remote user terminal for display thereon." (Vederi Br. pg. 13.) If Vederi wished to claim an action by the host computer, it could have used these words available in its specification to do so. Instead of "displaying an icon …", Vederi could have claimed "transmitting to the requesting remote user terminal an icon for display." But having chosen to claim steps performed on the user terminal, Vederi cannot claim those steps are performed on the remote host computer (server) for purposes of this litigation against Google.

Similarly, for the method steps relating to receiving user input,[8] the user terminal is the portion of the disclosed system that performs the step of "receiving a first user input …." If Vederi wished to claim an action by the host computer, instead of "receiving a first user input …", Vederi could have claimed "receiving from the user terminal a first user input." Again, Vederi chose to claim action by the user terminal itself and Vederi cannot be allowed to now rewrite its claims.

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[7] "[S]ervers do not control the operating systems of end users' computers or workstations so as to display web pages on their computers. Rather, an end user executes his or her browser on the end user's computer, the end user navigates to a website to request that web page, a server responds to the end user's request for a web page, the server sends the requested data to the end user's computer, and finally the computer's operating system and browser display the web page on the end user's display screen." (October 25, 2011 Supplemental Declaration of Dr. John R. Grindon In Support Of Google's Answering Claim Construction Brief ("10-25-2011 Supp. Grindon Dec."), filed concurrently herewith, at ¶ 13.)

[8] See discussion of the "Group 2" steps relating to the receipt of information in Google's Opening Brief at pages 16-17.

Vederi argues that Google seeks to exclude a preferred embodiment (Vederi Br. pg. 14) in which the host computer interacts with a user terminal, thereby limiting the claims to an embodiment where the processor and databases all reside locally at the user terminal. That is plainly not Google's position. As stated above and in Google's Opening Brief, Google contends that the user terminal performs these method steps in both embodiments, including where a user terminal interacts with a host computer (server) to provide the claimed service. Hence, Vederi's preferred embodiment would not be excluded under Google's construction of the claims.

Vederi's contention that certain dependent claims conflict with Google's proposed construction is unsupported -- and contradicted -- by the evidence. (Vederi Br. pg. 14.) Vederi's claim differentiation argument is misplaced, because none of Google's proposed constructions render the dependent claims superfluous.[9]

Vederi cites first to Claim 2 of the '316 Patent that requires, in addition to the steps of claim 1 from which it depends, the receipt of a generic "request via a communications network":

> The method of claim 1, wherein the image source resides at a remote site and *receives a request via a communications network* for an image corresponding to the first or second location, and *transmits the*

[9] A dependent claim "refer[s] back and further limit[s] another claim" because it "includes all the limitation of the claim incorporated by reference" and adds additional limitations. MPEP § 608.01(n). (10-25-2011 Rao Dec. Ex. B.) Accordingly, there is a rebuttable presumption that a dependent claim is narrower than the independent claim from which it depends and that the scope of the two claims should not be made the same through claim construction. *See, e.g., Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1330 (Fed. Cir. 2009).

corresponding image to the user terminal via the communications network.[10]

The difference between this dependent claim and all eleven of the method steps at issue in Group 2 (*see* Google Br. pgs. 16-17) which are performed by a user terminal is obvious -- all eleven steps specifically recite that a "*user* input", "*user* selection", or "*user* command" is being received. The natural conclusion is that the request in claim 2 is a request from a user terminal or host computer issued in response to the user terminal having received a user request. That dependent claim 2 contains such an *additional* requirement does not negate the independent claim's limitations requiring user input into a user terminal. The presence of this additional limitation in claim 2 means that it is not rendered redundant under Google's construction.

Furthermore, as discussed above, claim 2 of the '316 patent uses language that focuses the action on the image source/host computer, i.e., "*transmits the corresponding images to the user terminal* via the communications network." That Vederi chose to use such language here, but not elsewhere, illustrates its intention to claim steps performed by the user terminal in the asserted claims.

Finally, Vederi points to dependent claim 5 of the '316 patent that specifically requires that the image source resides at the user terminal (Vederi Br. pgs. 14-15), but Vederi's argument that Google's construction renders this claim redundant is wrong. As discussed above, Google's construction mandates action by the user terminal regardless of whether the image source is stored locally or on a server. Claim 5 is not rendered redundant by such a construction; to the contrary, it adds the additional limitation, not found in claim 1, that the image source be locally stored on the user terminal. Requiring user terminal

[10] On page 14 of its opening brief, Vederi misquoted claim 2 of the '316 patent as stating "… transmits the retrieved image …."; Claim 2 actually reads "… transmits the corresponding image …."

involvement in the method of claim 1 therefore does not make claim 5 redundant, and claim differentiation simply does not impact the construction of claim 1.[11]

Indeed, the language of Claim 5 of the '316 patent supports Google's proposed construction, because both independent claim 1 and dependent claim 5 (where the image source is locally stored at the user terminal) *use the same or similar language to indicate action by a user terminal*. For example, independent claim 1 recites "displaying an icon …" and dependent claim 5 recites "displaying the first image …." As Vederi points out, the "displaying the first image …" step in dependent claim 5 must be performed by the user terminal because the image source is stored locally at the user terminal. (Vederi Br. pgs. 14-15.) This consistency in claim drafting between claims 1 and 5, where Vederi admits that action by the user terminal is required in claim 5, further supports Google's proposed construction.

In short, Vederi's challenges to Google's construction each fall apart after a careful reading of the claims. The starting point for any claim construction analysis is the language of the claims themselves, for this language "'define[s] the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (internal citation omitted).

C. "depicting views … the views being substantially elevations" excludes curved or spherical depictions

Google's Proposed Construction	Vederi's Proposed Construction
"vertical flat (as opposed to curved or spherical) depictions of front, back, or side views"	front, back, or side views

Vederi argues that the claimed invention could use images acquired from a variety of camera configurations and that "[i]t would be obvious to one skilled in

[11] *See supra* fn 9.

the art that these images captured by this multitude of cameras can be converted into curved or spherical composite images." (Vederi Br. pg. 20.) Google does not dispute that curved or spherical composite images were known to one of ordinary skill in the art. It is Vederi that ignores the explicit disclosure in the patents-in-suit that curved or spherical composite images were available in the prior art, but expressly disclaimed. In particular, the patent excludes spherical and curved depictions of views generated by sampling on the "surface of an imaginary sphere surrounding the object/scene." (1:66-67.) As explained in Google's Opening Brief (pgs. 4-5), the patent criticizes and ultimately disclaims the use of such views because methods to provide them are "computationally intensive and hence cumbersome and inefficient in terms of time and cost" (2:1-2) compared to the flat views of the claimed invention.

Consistent with the exclusion of "computationally intensive" and "cumbersome and inefficient" spherical or curved depictions, all disclosed embodiments of the claimed invention are flat two-dimensional depictions of an object along its vertical plane. (*See* Google Br. pgs. 18-19, citing 6:2-19; 9:19-30; 10-4-2011 Rao Dec.[12] Ex. H at FIG. 5 and related text; 10-4-2011 Grindon Dec. ¶¶ 57-59.) Indeed, the patents' teaching of joining vertical columns from individual flat image frames together to form a panorama would not work for the criticized spherical and curved projections that are formed by stitching together images by pasting them onto a virtual object. (10-4-2011 Grindon Dec. ¶ 60.) Criticism of a feature of the prior art, especially where that feature is excluded from the description of the claimed invention, constitutes a disavowal or disclaimer of such feature. *See, e.g., Edwards Lifesciences*, 582 F.3d at 1333 ("'Where the general summary or description of the invention describes a feature

[12] "10-4-2011 Rao Dec." refers to the October 4, 2011 Declaration of Sasha G. Rao in support of Google's Opening Claim Construction Brief. (D.I. 50-8.)

of the invention … and criticizes other products … that lack the same feature, this operates as a clear disavowal of these products ….'") (citation omitted). In *Edwards Lifesciense*s, the Federal Circuit found that the claimed wires must be malleable because the "inventors disclaimed the use of resilient, or self-expanding, wires" when they "disparaged prior art resilient wires in their 'background art' section of the specification." *Id.* at 1332-33.

Vederi argues the claims should not be limited to vertical flat depictions, pointing to the portion of the specification that states a fish-eye lens could be used to acquire images. (5:1-3; Vederi Br. pgs. 19-20.) The parties agree that the "substantially elevations" views are "front, back, or side views" of objects. Accordingly, this limitation excludes views from wide-angle or fish-eye cameras, which provide extended angular views in all directions and would not be considered "front, back, or side views" to one of ordinary skill in the art. (10-25-2011 Supp. Grindon Dec. ¶ 3.)

The specification states that the image acquisition vehicle's "*front* and *back* cameras may be equipped with fish-eye lens for providing a wide-angle view of the path. (5:1-3.) Contrary to Vederi's contention, the specification does not disclose the use of fish-eye lenses for generating composite images and in fact teaches away from the use of fish-eye lenses (or short focal length lenses in general) for generating composite images because they introduce very large distortions. (1:56-58; 10-25-2011 Supp. Grindon Dec. ¶ 4.) A person of ordinary skill in the art in 2000 would know that images taken using a camera with a fish-eye lens, or with other short focal length lenses that have substantial distortions, would not work as intended in conjunction with the way the specification teaches that the composite images are generated. (10-25-2011 Supp. Grindon Dec. ¶¶ 5-6.)

Furthermore, the specification teaches that composite images are generated from *side*-looking cameras which are not short focal length, wide angle, or fish-eye lens cameras. (2:22-24; 4:52-57; 10-25-2011 Supp. Grindon Dec. ¶ 7.) Images from front and back cameras are extracted and stored in the image database in addition to images from the side-facing cameras to provide additional views, but only the images from the side-facing cameras provide views of "substantially elevations" used to form the composite images. (10-25-2011 Supp. Grindon Dec. ¶ 8.)

Likewise, the optional use of a "duodecahedron of cameras" is an alternative to the use of a fish-eye camera placed at the front and back of the vehicle. (Vederi Br. pg. 20.) The claimed system may use a duodecahedron, which has cameras facing in twelve directions, to provide additional views of the path. Like images taken from the front or rear fish-eye lenses, such additional views from a "duodecahedron of cameras" would be extracted and stored in the image database, but not used in the formation of composite images. (10-25-2011 Supp. Grindon Dec. ¶¶ 9-10.) Indeed, as discussed more fully in Google's Opening Brief, the patents-in-suit teach away from and disclaim spherical and curved projections as "cumbersome and inefficient." (10-4-2011 Grindon Dec. at ¶¶ 25-29, 52-60; 10-25-2011 Supp. Grindon Dec. ¶ 11.)

Limiting the claims to vertical, flat depictions does not "improperly import[] a limitation from the specification," because "the specification unequivocally compels" that the invention is limited to this form of composite images at the exclusion of spherical or curved projections. *Eon-Net LP v. Flagstar Bancorp*, 653 F.3d 1314, 1323 (Fed. Cir. 2011) (finding invention limited to "information that originates from a hard copy document").[13] Google's

[13] *See also Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1301 (Fed. Cir. 1999) (limiting claims to "permanently attached" preferred embodiment where "specification describe[d] the advantages of the unitary structure as important to the invention"); *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1581 (Fed. Cir. 1997)

proposed construction should be adopted because the specification does not teach spherical or curved projections and, in fact, teaches away from even attempting to use them. (10-4-2011 Grindon Dec. ¶¶ 24-29, 55-60.)

D. "image source" means "source of recorded images"

Google's Proposed Construction	Vederi's Proposed Construction
"source of recorded images"	"a computer accessible storage of images linked to geographic locations"

Vederi's sole challenge to Google's proposed construction is that it allegedly excludes composite images formed from individual acquired image frames. (Vederi Br. pgs. 18-19.) Vederi is incorrect. As explained in Google's Opening Brief (pgs. 21-22), the patents-in-suit discuss an alternative embodiment where "the *images are transferred directly to the data acquisition computer 34 as the images are being recorded*." (4:44-46.) In this embodiment, the computer 34 would have a video acquisition card, sufficient storage space, and "program instructions to create the composite images from the acquired images." (4:47-51.) These images, taken from the image recording device, could be either (1) originally recorded into memory as individual images or (2) processed upon receipt and originally recorded as composite images. (5:16-19; *see also* 10-4-2011 Grindon Dec. ¶ 66.) Accordingly, Google's proposed construction does not exclude composite images.

Vederi does not explain how its construction of "image source" differs from the "image database" disclaimed during prosecution. This is a critical omission. (10-4-2011 Grindon Dec. ¶ 62 ("One of ordinary skill in the art would understand that Vederi's proposed construction … is the same as the meaning of 'image

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(limiting claims to preferred "non-smooth or conical" embodiment where specification "expressly distinguishe[d] over prior art passages by stating that those passages are generally smooth-walled"). (*See also* 10-4-2011 Grindon Dec. ¶¶ 55-60.)

database.'").) As discussed in Google's Opening Brief, during prosecution of the patents-in-suit, Vederi amended the claims to replace, among other things, the term "image database" with "image source" to overcome an anticipation rejection over the prior art Levine patent. (10-4-2011 Rao Dec. Ex. J at 3.) Levine's storage includes "video map images" that are necessarily processed to become linked to geographic locations because they would be shown to travelers while driving. (10-4-2011 Rao Dec. Ex. L at Abstract.) (*See also* 10-4-2011 Grindon Dec. ¶ 64.) Google's proposed construction would properly exclude "image source[s]" that only contain processed images (such as those in the prior art Levine reference), as opposed to images as originally "recorded." (*Id*. at ¶¶ 63-67.) By equating "image source" and "image database", Vederi's proposed construction attempts to undo the amendment Vederi made to overcome Levine.[14]

Accordingly, only Google's proposed construction is in accord with how a person of ordinary skill would construe "image source" in light of the specification and prosecution history: as a source of recorded images, rather than a database containing only processed images. (10-4-2011 Grindon Dec. ¶ 63.)

E. "associated with" means "corresponding to"

Google's Proposed Construction	Vederi's Proposed Construction
"corresponding to"	"related to"

As explained in Google's Opening Brief, the patents-in-suit use the phrase "associated with" to describe the relationship between an image and information about the origin of that image. Nothing cited by Vederi conflicts with Google's proposed construction because everything Vederi cites (e.g., "first image

[14] Claim amendments to overcome patentability rejections are presumed to be narrowing and give rise to a presumption of surrender. *Festo v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 740, 122 S. Ct. 1831, 1842, 152 L. Ed. 2d 944 (2002); *Honeywell Int'l, Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1141 (Fed. Cir. 2004) (en banc). *See also* Google Opening Brief at 20-21.

associated with the first location" and "images are associated with image frames acquired by an image recording device") (Vederi Br. pgs. 20-22) demonstrates the tie an image (whether a composite image or an individual frame) must have to origin information of that image.

Vederi cites to a dictionary that defines "corresponding" as "to match" and interprets this to require that the two "associated" items be an exact copy. (Vederi Br. pgs. 20-21.) This is a red herring, resting on an obvious misinterpretation of Google's proposed construction in the context of the claims. It could be said that images "match" their origin information, e.g., where a composite image matches a combination of the individual image frames used to create it. But other definitions of "correspond" better reflect the meaning and intent of Google's proposed construction. For example, another definition of correspond is "to be *similar* or equivalent *in* character, quantity, *origin*, structure, or function." (10-25-2011 Rao Dec. Ex. C (emphasis added).) Such a definition more closely aligns with the natural reading of Google's proposed construction in the context of the asserted claims.

Having presented on an unsupportably narrow reading of Google's construction, Vederi advocates the propriety of its "more flexible definition." (Vederi Br. pg. 21.) As Google explained in its opening brief, however, Vederi's proposed construction ("related to") is not merely flexible. In fact, it provides no limitation at all and is broader than a person of ordinary skill would understand "associated with" to be based upon the disclosure in the specification. To be "related to" a location or image frame is a very broad concept that does not capture that the requested images originate in some way (i.e., derive) from the original geographic location.

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F. "first user input specifying a first location in the geographic area" requires the user to input an initial location

Google's Proposed Construction	Vederi's Proposed Construction
"the first input by the user that specifies an initial location in the area to be visually navigated by the user"	"a signal representing a user-selected starting location within the geographic area from which navigation will begin, the geographic area being the area for which the method enables visual navigation"

Vederi's argument that Google's proposed construction is too narrow because it "could be understood to mean the very first action by the user" makes no sense. (Vederi Br. pg. 15.) In the context of the claim, "the first input" is a selection of a first, or initial, location. Vederi ignores that Google's proposed construction states that the first input by the user "specifies an initial location." If a user inputs that location with a single "click of a mouse or press of a key," (*Id.*) that click or press could certainly constitute a first input. If a location requires the entry of an entire address, then the entire address is a first input. In any event, the language of Google's construction that Vederi argues is too narrow ("first input by the user") merely mirrors the claim language itself ("first user input").

In contrast, Vederi's verbose and cumbersome definition seeks to minimize the role of the *user* in "*user input*" and in the claimed method of "visual navigation" by the user. "User input" is never described as "a signal" in the intrinsic evidence. To the contrary, "user input" is an easily understandable concept that does not require the strained construction Vederi proposes.

Google offers its proposed construction in response to Vederi's selection of this term to be construed, and because of the defects in Vederi's proposal. Google would alternatively be agreeable to leaving this term to its plain and ordinary meaning.

G. "arbitrary address" means "address chosen by the user"

Google's Proposed Construction	Vederi's Proposed Construction
"address chosen by the user"	"any potential address in the geographic area, not pre-selected or constrained by the system"

Vederi advances two arguments in favor of its construction of "arbitrary address," neither of which survives scrutiny. First, Vederi argues that its construction is more appropriate because it excludes embodiments where a user, for example, must select from a list of addresses provided by the system. (Vederi Br. pgs. 16-18.) But a system could easily be implemented whereby a list of each potential address in a town could be made available to a user via a drop-down list, as opposed to manually keying in an address via a keyboard. And, importantly, nothing in the intrinsic evidence of the patents-in-suit would preclude such an embodiment from being claimed.

Vederi also argues that the term "arbitrary address" is tied to the claimed invention's alleged ability to accept user input of addresses that are not currently assigned to a physical location (home, business, etc.), and return an image that approximates the physical location of that address. (*See* Vederi Br. pgs. 16-17; 10-4-2011 Goncalves Dec. (D.I. 51-2) ¶ 3.) Google's proposed construction, however, does not exclude this hypothetical embodiment. A user can choose an address that is not assigned to a physical location and be shown in response an image that approximates the physical location of that address.

H. "first display area … second display area" is readily understood

Google's Proposed Construction	Vederi's Proposed Construction
Plain and ordinary meaning In the alternative: "two screen display areas"	"two display areas viewable at the same time"

Vederi, in limiting the two display areas to those viewable at the same time (Vederi Br. pgs. 22-23), is trying to insert a baseless temporal limitation in order to avoid prior art. *See, e.g., Luma Corp. v. Stryker Corp.*, 273 F. App'x 948, 953-54 (Fed. Cir. 2008) (finding imposition of a temporal limitation to distinguish prior art is improper where not supported by the claims or the specification). Indeed, "the use of the terms 'first' and 'second' is a common patent-law convention to distinguish between repeated instances of an element or limitation … and *should not in and of itself impose a serial or temporal limitation* …." *3M Innovative Properties Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (emphasis added) (citations omitted). Nothing in the claim language or specification requires the exclusion of embodiments where a user must toggle between two screens to view the two display areas, such that the two areas are not viewable at the same time.

In support of its proposed departure from the ordinary meaning of this claim term, Vederi points to Figure 16 of the patent. That figure, however, shows an "*exemplary* graphical user interface (GUI)" that includes a "map area 226 and an image area 224" that are viewable at the same time. (12:29-44.) Absent more, a patent claim generally should not be limited based on the disclosure of a preferred embodiment. *Phillips*, 415 F.3d at 1323. Here, if the term is not left to its plain and ordinary meaning, Google's proposed construction should be adopted because nothing in the intrinsic evidence supports Vederi's overly narrow construction that limits the display areas to those viewable at the same time.

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IV. CONCLUSION

For the reasons set forth in this memorandum, its opening brief, and the accompanying declarations, Google respectfully requests that the Court adopt Google's proposed claim constructions.

Respectfully submitted,

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