

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NIANTIC, INC.,
Petitioner,

v.

NANT HOLDINGS IP, LLC,
Patent Owner.

IPR2021-01133
Patent 10,403,051 B2

Before SALLY C. MEDLEY, THOMAS L. GIANNETTI, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

BELISLE, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Case Posture

Niantic, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1, 5–11, 15, 18, 22–29, 34–36, 38, and 43 (“Challenged Claims”) of U.S. Patent No. 10,403,051 B2 (Ex. 1001, “the ’051 patent”). Petitioner identifies itself as a real party in interest. Pet. 1. Nant Holdings IP, LLC (“Patent Owner”) identifies itself as a real party in interest (Paper 4, 1), and timely filed a Preliminary Response to the Petition (Paper 6, “Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314(b) (2018); 37 C.F.R. § 42.4(a) (2020). We may not institute an *inter partes* review “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

Applying those standards, and upon consideration of the information presented in the Petition and Preliminary Response, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to any of challenged claims 1, 5–11, 15, 18, 22–29, 34–36, 38, and 43 of the ’051 patent. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Accordingly, constrained by the record before us, we deny institution of an *inter partes* review of the ’051 patent.

B. Related Matters

The parties indicate that the ’051 patent is involved in one U.S. district court action, namely, *NantWorks, LLC, and Nant Holdings IP, LLC v. Niantic, Inc.*, No. 3:20-cv-06262-LB (N.D. Cal.). Pet. 1; Paper 4, 1.

Patent Owner also indicates that pending U.S. Patent Application No. 16/926,485, filed July 10, 2020, relates to the '051 patent, but “does not concede that the identified matter[] would affect, or be affected by, a decision in the present post grant review of [the '051 patent].” Paper 4, 1.

C. The '051 Patent

The '051 patent is titled “Interference Based Augmented Reality Hosting Platforms,” and issued on September 3, 2019, from U.S. Patent Application No. 16/186,405, filed November 9, 2018. Ex. 1001, codes (10), (21), (22), (45), (54). The '051 patent claims priority through several related applications to U.S. Provisional Patent Application No. 61/473,324, filed April 8, 2011. *Id.* at code (60).

The '051 patent generally relates to “augmented reality [AR] technologies,” where “[a]ugmented reality represents a presentation of virtual objects along side [sic] real-world elements.” Ex. 1001, 1:27–33. According to the '051 patent, interference-based augmented reality hosting platforms “include networking nodes capable of analyzing a digital representation of [a] scene to derive interference among elements of the scene.” *Id.*, Abstract. Such hosting platforms “utilize[] the interference to adjust the presence of augmented reality objects within an augmented reality experience.” *Id.* “Elements of a scene can constructively interfere, enhancing presence of augmented reality objects; or destructively interfere, suppressing presence of augmented reality objects.” *Id.*

Figure 4 of the '051 patent is reproduced below.

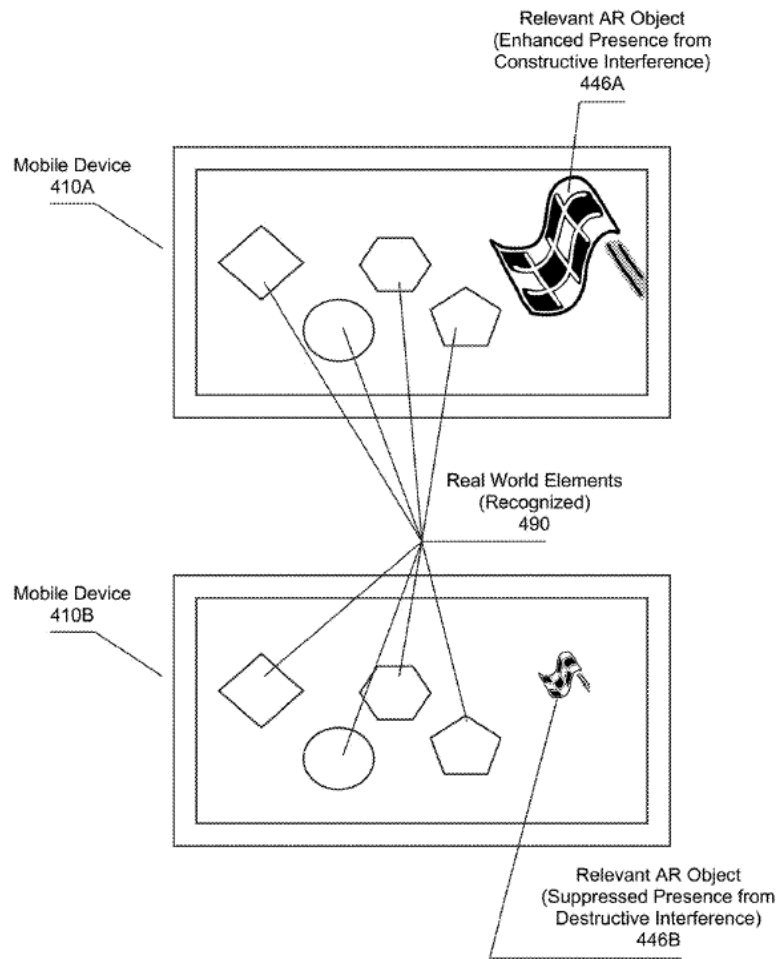


Figure 4

Ex. 1001, 4:40–41, Fig. 4. Figure 4 above depicts how a “satisfaction level,” which indicates to what degree each of relevant AR objects has a presence in an augmented reality, “can effect presentation or interaction on AR-capable devices represented by mobile devices 410A and 410B.” *Id.*, 16:49–51, 17:50–53. Mobile devices 410A and 410B both capture a digital representation of a scene having real world elements 490. *Id.*, 17:53–55.

In this example of Figure 4, an AR hosting platform recognizes real world elements 490 and identifies a set of relevant AR objects from available AR objects considered germane to a context associated with real world elements 490, with relevant AR objects 446A and 446B being considered member objects of the set of relevant AR objects. *Id.*, 17:55–60.

The '051 patent further explains Figure 4:

In the case of mobile device 410A, relevant AR object 446A has an enhanced presence due to constructive interference among elements 490. Thus, relevant AR object 446A is strongly influenced by the constructive interference among elements 490 and likely has a strong satisfaction level with respect to interference criteria. In the example of mobile device 410B, which captures a similar digital representation of the scene having elements 490, the context dictates that relevant AR object 446B has a suppressed presence due to destructive interference among elements 490. Thus, relevant AR object 446B is weakly, or negatively, influenced by elements 490 and likely has a weak or negative satisfaction level with respect to the interference criteria.

Id., 17:63–18:9.

According to the '051 patent, “[e]nhanced presence and suppressed presence can take many different forms depending on the nature of relevant AR objects 446A and 446B, the context, or other factors relating to the scene.” Ex. 1001, 18:18–24.

D. Illustrative Claim

The '051 patent includes forty-four claims, of which claims 1, 5–11, 15, 18, 22–29, 34–36, 38, and 43 are challenged. Claims 1 and 43 are the challenged independent claims. Claim 1 is illustrative and reproduced below.

1. An augmented reality (AR) platform system comprising:
an AR object repository storing available AR objects in a first non-transitory computer readable memory; and
an AR server coupled with the AR object repository and, upon execution of software instructions stored in a second non-transitory computer readable memory by a processor, is configured to:
obtain digital data representative of an environment of an AR capable mobile device, the digital data including a device location of the AR capable device and a virtual element attribute;
determine at least one context related to the AR capable device and pertinent to the environment based at least on the device location;
identify relevant AR objects from the AR repository representing available AR objects corresponding to the at least one context;
determine whether to alter presence of a relevant AR object based on at least the device location and the virtual element attribute; and
cause the AR capable device to render the relevant AR object according to its altered presence.

Ex. 1001, 21:47–22:2.

E. Applied References

Petitioner relies upon the following references:

Yu et al., U.S. Patent Application Publication No. 2010/0066750 A1 (Ex. 1003, “Yu”), filed September 16, 2008, published March 18, 2010.

Sanz-Pastor et al., U.S. Patent Application Publication No. 2007/0242131 A1 (Ex. 1004, “Sanz-Pastor”), filed December 29, 2006, published October 18, 2007.

Mullen, U.S. Patent Application Publication
No. 2006/0105838 A1 (Ex. 1005, “Mullen”), filed November
16, 2005, published May 18, 2006.

Pet. 4.

F. Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1, 5–11, 15, 18, 22–
29, 34–36, 38, and 43 of the ’051 patent based on the following grounds.

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1, 5–9, 18, 22, 23, 27–29, 34, 36, 38, 43	103(a) ¹	Yu
1, 5–11, 15, 18, 22, 23, 27–29, 34, 36, 38, 43	103(a)	Yu, Sanz-Pastor
1, 5–11, 15, 18, 22–29, 34–36, 38, 43	103(a)	Yu, Sanz-Pastor, Mullen

Pet. 4. Petitioner relies upon the Declaration of Dr. Michael Zyda
(Ex. 1002).

II. ANALYSIS

A. Applicable Law

Petitioner challenges the patentability of claims 1, 5–11, 15, 18, 22–
29, 34–36, 38, and 43 of the ’051 patent on grounds that the claims would
have been obvious under 35 U.S.C. § 103 in light of various references
including: Yu, Sanz-Pastor, and Mullen. “In an [*inter partes* review], the
petitioner has the burden from the onset to show *with particularity* why the

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29,
125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Because the
’051 patent was filed before March 16, 2013, the effective date of the
relevant amendment, the pre-AIA version of § 103 applies.

patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)) (emphasis added). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in *inter partes* review).

A claim is unpatentable under 35 U.S.C. § 103 if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when of record, objective evidence of obviousness or non-obviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Secondary considerations may include the following: “commercial success, long felt but unsolved needs, failure of others, etc.”² *Id.* The totality of the evidence submitted may show that the challenged claims would not have been obvious to one of ordinary

² At this stage of the proceeding, Patent Owner has not presented objective evidence of non-obviousness.

skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984).

When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

We analyze the challenges presented in the Petition in accordance with the above-stated principles.

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art, at the time of the effective filing date of the '051 patent:

would have possessed at least a Master of Science in the areas of electrical engineering or computer science (or equivalent degree), with some working knowledge of augmented reality, mobile gaming, and the associated technologies; or, alternatively, a Bachelor of Science in computer science (or equivalent degree) with at least two years of experience in the aforementioned areas.

Pet. 6 (citing Ex. 1002 ¶¶ 12–16). Patent Owner does not present an alternative definition at this stage of the proceeding. Prelim. Resp. 8 (“For the purposes of this preliminary response to this Petition only, Patent Owner accepts this proposed level of skill in the art.”).

We regard Petitioner’s proposed definition as reasonable, and consistent with the prior art before us. *See In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (determining that the Board of Patent Appeals and Interferences did not err in concluding that the level of ordinary skill in the art was best determined by the references of record). Accordingly, we apply the level of skill set forth above, which also is consistent with the testimony of Dr. Zyda (Ex. 1002 ¶¶ 12–16).

C. Claim Construction

The parties disagree on the approach to claim construction in this proceeding. On the one hand, Petitioner acknowledges “[t]he parties dispute the construction of several claim terms,” and submits that it identifies such disputes in the Petition “so that the Board can be aware of them.” Pet. 10–11. Petitioner also “respectfully submits that [such disputes] need not be expressly resolved by the Board for purposes of evaluating Petitioner’s proposed Grounds” because “the prior art would satisfy the constructions proposed by either party.” Pet. 11. But, notwithstanding 37 C.F.R. § 42.104(b)(3), Petitioner does not provide and support an express construction *in the Petition* for any limitation at issue in this proceeding. On the other hand, Patent Owner submits the limitation “alter[ed] presence” should be construed to mean “the degree of at least a relevant AR object’s visual presentation based on a spectrum.” Prelim. Resp. 9. Patent Owner otherwise submits, “[f]or all other terms, the plain and ordinary meaning of those terms is sufficient for the Board to analyze Petitioner’s grounds at this preliminary stage.” *Id.* at 10. Patent Owner also argues the Petition fails to provide required claim constructions or support therefor in violation of 37 C.F.R. § 42.104(b)(3). *Id.* at 13–16 (arguing Petitioner “leaves the Board and Patent Owner to guess at how the Petition has construed the claims in and what support allegedly exists for such constructions”).

Regardless, as discussed below, we do not find that the express construction of any term is necessary for this decision. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”); *Nidec Motor Corp. v. Zhongshan*

Broad Ocean Motor Co., 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of an *inter partes* review).

D. Obviousness of Claims 1, 5–9, 18, 22, 23, 27–29, 34, 36, 38, and 43 over Yu (Ground 1)

Petitioner contends claims 1, 5–9, 18, 22, 23, 27–29, 34, 36, 38, and 43 are unpatentable under 35 U.S.C. § 103 as obvious over Yu (Ex. 1003). Pet. 18–57. Patent Owner opposes Petitioner’s contentions. Prelim. Resp. 18–44. Based on our review of the Petition and Preliminary Response, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing that any of claims 1, 5–9, 18, 22, 23, 27–29, 34, 36, 38, and 43 is unpatentable as obvious over Yu, as discussed below. We begin with an overview of Yu.

1. Overview of Yu

Yu relates generally “to messaging within a mobile virtual and augmented reality system.” Ex. 1003 ¶ 2. Yu discloses:

During operation a user can create “virtual graffiti” that will be left for a particular device to view as part of an augmented-reality scene. The virtual graffiti will be assigned to either a particular physical location or a part of an object that can be mobile. The virtual graffiti is then uploaded to a network server, along with the location and individuals who are able to view the graffiti as part of an augmented-reality scene.

When a device that is allowed to view the graffiti is near the location, the graffiti will be downloaded to the device and displayed as part of an augmented-reality scene. To further enhance the user experience, the virtual graffiti can be dynamic, changing based on an ambient light source. For example, in an outdoor environment, the context available to the mobile device (time, location, and orientation) can be acquired in order to

determine the source and intensity of natural light and apply it to appropriate surfaces of the virtual objects.

Id. ¶¶ 14–15.

Figure 3 of Yu is reproduced below.

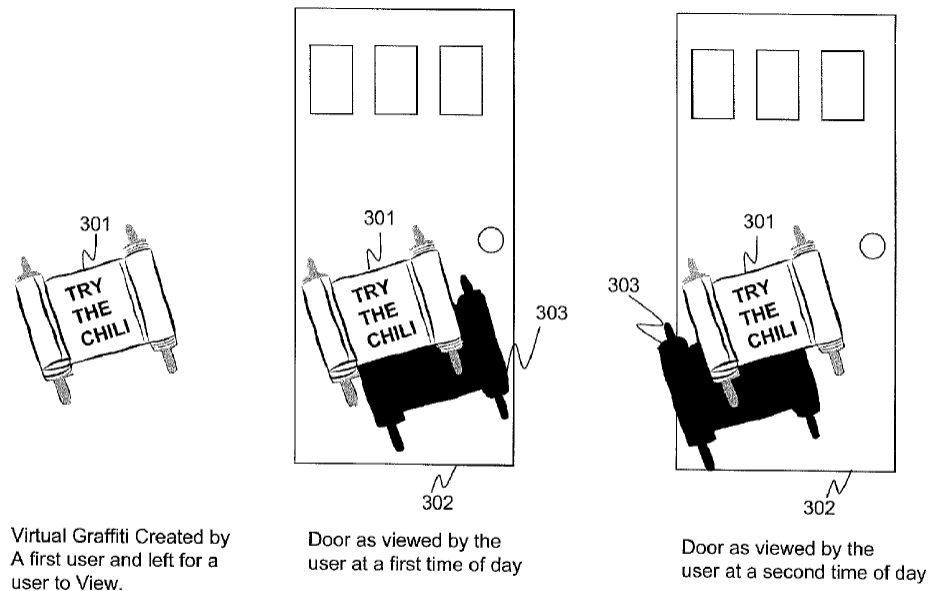


FIG. 3

Figure 3 illustrates an augmented-reality scene.

Ex. 1003 ¶ 7, Fig. 3. As shown in Figure 3 above, a first user creates virtual graffiti 301, which comprises at least two parts: a first virtual object (scroll) along with virtual text (“try the chili”). *Id.* ¶ 27. Virtual graffiti 301 is attached to door 302 and left for a second user to view. *Id.* Virtual graffiti 301 is displayed with shadow 303 that changes with the time of day. *Id.* For example, door 302 viewed at a first time of day will have shadow 303 displayed to the lower right of graffiti 301, and viewed at a second time of day will have shadow 303 displayed to the lower left of graffiti 301. *Id.* According to Yu, “virtual graffiti 301 may change any

combination of shadow, brightness, contrast, color, specular highlights, or texture maps in response to the ambient light.” *Id.* ¶ 28.

2. Independent Claims 1 and 43: “virtual element attribute”

Independent claims 1 and 43 each require, in relevant part, obtaining digital data representative of an environment of an AR capable mobile device, where the digital data includes a “virtual element attribute,” and determining whether to make present or alter presence of a relevant AR object based on the “virtual element attribute.” Ex. 1001, 21:47–22:2, 24:5–22. The parties dispute, *inter alia*, whether Petitioner’s cited evidence adequately supports Petitioner’s contention that Yu teaches this “virtual element attribute.” *See, e.g.*, Prelim. Resp. 20–25; Pet. 29–30.

Petitioner contends Yu teaches that the requisite digital data includes a “virtual element attribute.” Pet. 29. Petitioner argues:

While the ’051 Patent does not expressly define [“virtual element attribute”], it describes “[e]lement attributes, AR object attributes, or other attributes” as “includ[ing] myriad types of attributes” such as “**location** information (e.g., relative location to elements 390 of a scene, triangulation, GPS coordinates, etc.)[.]” (’051, 16:4-19.) As explained above, Yu discloses that the AR platform system obtains digital data including ambient-light information in a three-step process at steps 901-903. (Yu, ¶¶0060-0062.) A POSA would have understood that this ambient light information is a “virtual element attribute” as described in the ’051 Patent, because the indoor/outdoor data, position data for the sun, and local weather data all relate to the **location** of the mobile device on which the virtual element will be placed. (Zyda, ¶¶140-141.)

Pet. 29–30. Petitioner’s declarant makes these same statements. *See* Ex. 1002 ¶¶ 140–141.

Patent Owner argues Petitioner does not explain sufficiently, let alone with particularity, how or why a *real-world* attribute, namely, Yu's ambient light information, allegedly teaches a *virtual* element attribute as recited in claim 1. Prelim. Resp. 21 (“[T]he Petition points only to digital data concerning real-world ‘ambient-light information’ as corresponding to the claimed ‘virtual element attribute.’”; “Yu gives no hint that virtual element attributes would play any role in an image’s rendering.”; “[Petitioner] assumes that real-world ambient light corresponds to the virtual element attribute used to ‘determine whether to alter presence of a relevant AR object.’”). Patent Owner argues “at no point does the Petition construe the term ‘virtual element attribute’ or explain how the real-world attributes of ambient light could be a ‘virtual element attribute,’” despite “the ’051 Patent specification repeatedly distinguish[ing] real-world elements and virtual elements as separate factors.” *Id.* at 21–22; *see id.* at 22 (“[The skilled artisan] would conclude that virtual elements are different from real-world elements and that virtual element attributes are the information about the virtual elements, not real-world elements.”).

Patent Owner also argues Petitioner bases its premise that real-world “location” of a mobile device may be a “virtual element attribute” on a “misleading[] combin[ation]” of two partial statements in the ’051 patent. Prelim. Resp. 22–23 (referring to Petitioner’s citation to Ex. 1001, 16:4–19). Patent Owner argues, “[i]n context, these two sentences do not define ‘virtual element attribute’ to mean location information as the Petition argues,” and “would [not] lead [the skilled artisan] to conclude that real-world ambient light is a virtual element attribute merely because it ‘relate[s] to the location of the mobile device.’” *Id.* at 23. As noted by Patent Owner

(Prelim Resp. 23), contrary to Petitioner’s above argument, the ’051 patent explicitly discloses that “the location information can pertain to or reflect the physical location of *real-world* elements.” Ex. 1001, 16:15–16. Patent Owner concludes, and we agree for the reasons discussed above, Petitioner “simply has not shown that it is proper to rely on the real-world quality of ambient light to fulfill the requirement for a ‘virtual element attribute’ in claims 1 and 43 of the ’051 Patent.” Prelim. Resp. 23. Indeed, neither Petitioner nor its declarant expressly construes, with citation to supporting evidence, the limitation “virtual element attribute” to include real-world attributes, or provides evidentiary support and explanation of sufficient particularity for how or why obtaining a *real-world* attribute like ambient light information teaches obtaining a *virtual* element attribute. *See* 35 U.S.C. § 312(a)(3); 37 C.F.R. § 42.104(b)(4).

For the foregoing reasons, and constrained by the Petition, we are not persuaded that the cited evidence adequately supports Petitioner’s contention that Yu discloses the “virtual element attribute” limitation, as recited in independent claims 1 and 43.

3. *Summary*

For the foregoing reasons, we determine that Petitioner has not demonstrated a reasonable likelihood of success in establishing the unpatentability of any of independent claims 1 and 43, and claims 5–9, 18, 22, 23, 27–29, 34, 36, and 38, which depend therefrom, as obvious over Yu.

E. Obviousness of Claims 1, 5–11, 15, 18, 22, 23, 27–29, 34, 36, 38, and 43 over the Combination of Yu and Sanz-Pastor (Ground 2)

Petitioner contends claims 1, 5–11, 15, 18, 22, 23, 27–29, 34, 36, 38, and 43 are unpatentable under 35 U.S.C. § 103 as obvious over the

combination of Yu (Ex. 1003) and Sanz-Pastor (Ex. 1004). Pet. 57–67. Patent Owner opposes Petitioner’s contentions. Prelim. Resp. 18–44. Based on our review of the Petition and Preliminary Response, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing that any of claims 1, 5–11, 15, 18, 22, 23, 27–29, 34, 36, 38, and 43 is unpatentable as obvious over the combination of Yu and Sanz-Pastor, as discussed below. We begin with an overview of Sanz-Pastor.

1. Overview of Sanz-Pastor

Sanz-Pastor generally relates to a location-based wireless collaborative environment with a visual user interface. Ex. 1004, code (54). Sanz-Pastor discloses:

A wireless networked device incorporating a display, a video camera and a geo-location system receives geo-located data messages from a server system. Messages can be viewed by panning the device, revealing the message’s real world location as icons and text overlaid on top of the camera input on the display. The user can reply to the message from her location, add data to an existing message at its original location, send new messages to other users of the system or place a message at a location for other users. World Wide Web geo-located data can be explored using the system’s user interface as a browser. The server system uses the physical location of the receiving device to limit messages and data sent to each device according to range and filtering criteria, and can determine line of sight between the device and each actual message to simulate occlusion effects.

Id., Abstract.

Figure 4 of Sanz-Pastor is reproduced below.

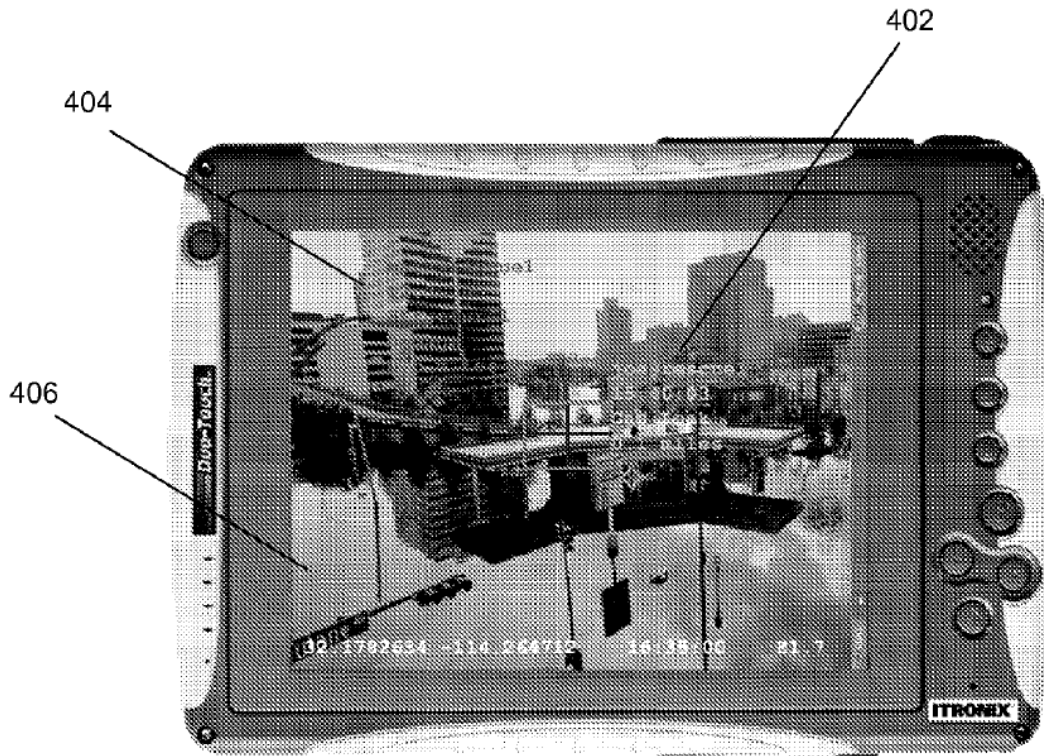


Fig. 4

Figure 4 illustrates an emergency response application.

Ex. 1004 ¶ 20, Fig. 4. As shown in Figure 4 above, real-time video display 406 of a wireless networked device shows a flooded area, with two messages 402, 404 overlaid on the image 406. *Id.* ¶ 44. One message 402 indicates that it is from joe@rescue1, sent at 15:40:03, and having text “Gas Leak” at a distance of 0.1 miles; the other message 404 indicates that it is from mark@rescue1, sent at 12:30:00, reads “Structural Damage” and is located at a distance of 0.5 miles. *Id.*

Sanz-Pastor discloses that, for each message in a range-sorted list (like messages 402, 404), a server determines a line-of-sight query from the

device's position to the message coordinates, using geometric database 206 of terrain elevation and three-dimensional models of structures and vegetation specific to that location, and then updates an occlusion attribute for the message that is specific to each device's settings. Ex. 1004 ¶ 37. This can be used to occlude or modify the appearance of the message when displayed. *Id.* ¶ 51. The wireless networked device can also "determine occlusion information for each message, and not present occluded messages or present them in an attenuated fashion by making them transparent when drawn or using a different color coding." *Id.* ¶ 29.

2. Independent Claims 1 and 43: "virtual element attribute"

Petitioner contends Sanz-Pastor discloses obtaining digital data including a "virtual element attribute" to facilitate rendering occlusions. Pet. 60. Petitioner argues "Sanz-Pastor teaches that the server determines a 'line of sight' between the device and a virtual object in order 'to simulate occlusion effects.'" Pet. 60. Petitioner argues that "[t]his determination includes obtaining data relating to 'terrain elevation' and 'three-dimensional models of structures and vegetation specific to that location.'" *Id.* Petitioner concludes the skilled artisan "would have understood that the data obtained in order to determine the line of sight is a 'virtual element attribute.'" *Id.* (citing Ex. 1002 ¶ 304).

Patent Owner responds: "But lines of sight, terrain elevation, and models of structures and vegetation specific to the area all relate to the real-world, making them all real-world element attributes and not virtual element attributes." Prelim. Resp. 24. We agree. Patent Owner also argues Petitioner "still never explains why real-world qualities (like terrain

elevation and line of sight range) are virtual element attributes other than its flawed logic that they relate to location.” *Id.* at 24–25. We again agree.

As stated above, neither Petitioner nor its declarant expressly construes, with citation to supporting evidence, the limitation “virtual element attribute” to include real-world attributes such as terrain elevation. Also, neither Petitioner nor its declarant provides evidentiary support and explanation of sufficient particularity for how or why obtaining a *real-world* attribute like terrain elevation teaches obtaining a *virtual* element attribute. *See* 35 U.S.C. § 312(a)(3); 37 C.F.R. § 42.104(b)(4).

For the foregoing reasons, and constrained by the Petition, we are not persuaded that the cited evidence adequately supports Petitioner’s contention that the combination of Yu and Sanz-Pastor discloses the “virtual element attribute” limitation, as recited in independent claims 1 and 43.

3. *Summary*

For the foregoing reasons, we determine that Petitioner has not demonstrated a reasonable likelihood of success in establishing the unpatentability of any of independent claims 1 and 43, and claims 5–11, 15, 18, 22, 23, 27–29, 34, 36, and 38, which depend therefrom, as obvious over the combination of Yu and Sanz-Pastor.

F. Obviousness of Claims 1, 5–11, 15, 18, 22–29, 34–36, 38, and 43 over the Combination of Yu, Sanz-Pastor, and Mullen (Ground 3)

Petitioner contends claims 1, 5–11, 15, 18, 22–29, 34–36, 38, and 43 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Yu (Ex. 1003), Sanz-Pastor (Ex. 1004), and Mullen (Ex. 1005). Pet. 67–76. Patent Owner opposes Petitioner’s contentions. Prelim. Resp. 18–44.

Petitioner does not argue Mullen teaches obtaining a “virtual element attribute” or otherwise cures any deficiencies in Yu (Ground 1) or the combination of Yu and Sanz-Pastor (Ground 2) as applied to independent claims 1 and 43. Petitioner submits “Ground 3 adds Mullen (Ex. 1005) with respect to dependent claims 8, 24-26, and 35.” Pet. 67. Therefore, for the same reasons discussed above in Sections II.D and II.E, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing that any of claims 1, 5–11, 15, 18, 22–29, 34–36, 38, and 43 is unpatentable as obvious over the combination of Yu, Sanz-Pastor, and Mullen.

III. CONCLUSION

Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to any of claims 1, 5–11, 15, 18, 22–29, 34–36, 38, and 43 of the '051 patent under any of proffered Grounds 1 through 3.

IV. ORDER

For the reasons given, it is:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is not instituted for claims 1, 5–11, 15, 18, 22–29, 34–36, 38, and 43 of U.S. Patent No. 10,403,051 B2.

IPR2021-01133
Patent 10,403,051 B2

For PETITIONER:

Heidi L. Keefe
Lauren J. Krickl
COOLEY LLP
hkeefe@cooley.com
lkrickl@cooley.com

For PATENT OWNER:

Matthew K. Blackburn
Evan Boetticher
DIAMOND MCCARTHY LLP
mblackburn@diamondmccarthy.com
Evan.boetticher@diamondmccarthy.com