

No. 2022-2118

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

SONY INTERACTIVE ENTERTAINMENT LLC,

Appellant,

v.

INTELLECTUAL PIXELS LIMITED,

Appellee.

Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board in No. IPR2021-00237

**REPLY BRIEF FOR APPELLANT
SONY INTERACTIVE ENTERTAINMENT LLC**

MARK D. FLANAGAN
JOSEPH F. HAAG
ERIK HALVERSON
WILMER CUTLER PICKERING
HALE AND DORR LLP
2600 El Camino Real, Suite 400,
Palo Alto, CA 94306
(650) 858-6000

JAMES M. DOWD
HENRY NIKOGOSYAN
WILMER CUTLER PICKERING
HALE AND DORR LLP
350 South Grand Avenue, Suite 2400
Los Angeles, CA 90071
(213) 443-5300

*Attorneys for Appellant Sony
Interactive Entertainment LLC*

January 17, 2023

CERTIFICATE OF INTEREST

Counsel for Appellant Sony Interactive Entertainment LLC certifies the following:

1. Represented Entities. Fed. Cir. R. 47.4(a)(1). Provide the full names of all entities represented by undersigned counsel in this case.

Sony Interactive Entertainment LLC

2. Real Party in Interest. Fed. Cir. R. 47.4(a)(2). Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities.

Sony Group Corporation (formerly known as Sony Corporation), Sony Corporation of America, Sony Interactive Entertainment Inc.

3. Parent Corporations and Stockholders. Fed. Cir. R. 47.4(a)(3). Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities.

Sony Group Corporation (formerly known as Sony Corporation), Sony Corporation of America

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

WILMER CUTLER PICKERING HALE AND DORR LLP: Daniel V. Williams, S. Dennis Wang

5. Related Cases. Provide the case titles and numbers of any case known to be pending in this court or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. Do not include the originating case number(s) for this case. Fed. Cir. R. 47.4(a)(5). See also Fed. Cir. R. 47.5(b).

Intellectual Pixels Limited v. Sony Interactive Entertainment LLC, No. 8:20-cv-01422-JVS-KES (C.D. Cal.)

Intellectual Pixels Limited v. Sony Interactive Entertainment LLC, No. 8:19-cv-10432-JVS-KES (C.D. Cal.)

Sony Interactive Entertainment LLC v. Intellectual Pixels Limited, No. 2022-1546 (Fed. Cir.)

6. Organizational Victims and Bankruptcy Cases. Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

None.

Dated: January 17, 2023

/s/ James M. Dowd

JAMES M. DOWD

WILMER CUTLER PICKERING

HALE AND DORR LLP

350 South Grand Avenue, Suite 2400

Los Angeles, CA 90071

(213) 443-5300

TABLE OF CONTENTS

	Page
CERTIFICATE OF INTEREST	i
TABLE OF AUTHORITIES	v
INTRODUCTION	1
ARGUMENT	4
I. THE BOARD’S FINDING THAT “GENERATED” IN WILTSHIRE DOES NOT MEAN “GENERATING” IN THE ’109 PATENT LACKS SUBSTANTIAL EVIDENCE	4
A. The FWD Was Based On The “Generating At Least One Updated Image” Limitation, Not Other Limitations	4
B. The Board Did Not Adequately Address Wiltshire’s Explicit Disclosure That An “Image is Generated”	8
II. IPL FAILS TO REBUT THAT THE BOARD MISCONSTRUED THE TERM “GENERATING” FOR THE FIRST TIME IN THE FWD	10
A. SIE Did Not “Forfeit” This Argument	11
B. IPL Fails to Justify the Board’s Unsupported Claim Construction	16
III. IPL FAILS TO JUSTIFY THE BOARD’S FINDING THAT WILTSHIRE DID NOT DISCLOSE CREATION OF NEW IMAGES	20
A. The Board Ignored Explicit Disclosures Regarding “Doom” And Non-Casino Games.	20
B. Wiltshire’s Blackjack Example Contradicts the Board’s Findings	22
IV. IPL FAILS TO REBUT THAT THE FWD VIOLATES THE APA	24
A. The FWD Violates the APA Under <i>NuVasive</i>	24

B. The Board Violates The APA By Construing “Generating” For The First Time In The FWD	25
CONCLUSION	26
CERTIFICATE OF COMPLIANCE	

TABLE OF AUTHORITIES

CASES

	Page(s)
<i>Broadcom Corp. v. Qualcomm Inc.</i> , 543 F.3d 683 (Fed. Cir. 2008)	12
<i>Consolidated Edison Co. of New York v. National Labor Relations Board</i> , 305 U.S. 197 (1938).....	23
<i>Continental Circuits LLC v. Intel Corp.</i> , 915 F.3d 788 (Fed. Cir. 2019)	16
<i>Elbit Systems of America, LLC v. Thales Visionix, Inc.</i> , 881 F.3d 1354 (Fed. Cir. 2018)	12
<i>Hayward Industries, Inc. v. Pentair Water Pool & Spa, Inc.</i> , 814 F. App'x 592 (Fed. Cir. 2020) (nonprecedential).....	10, 22
<i>In re NuVasive, Inc.</i> , 842 F.3d 1376 (Fed. Cir. 2016)	24, 25
<i>In re Scroggie</i> , 170 F. App'x 132 (Fed. Cir. 2006) (nonprecedential).....	17
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005) (en banc)	16
<i>Power Integrations, Inc. v. Fairchild Semiconductor International, Inc.</i> , 843 F.3d 1315 (Fed. Cir. 2016)	7, 10
<i>Qualcomm Inc. v. Intel Corp.</i> , 6 F.4th 1256 (Fed. Cir. 2021)	25
<i>Suffolk Technologies, LLC v. AOL Inc.</i> , 752 F.3d 1358 (Fed. Cir. 2014)	17

INTRODUCTION

SIE's appeal is based on a series of critical errors relating to the Board's finding in the '109 IPR Final Written Decision ("FWD") that "Petitioner has not established ... that an updated image is *generated* as part of [Wiltshire's] process." Appx31 (emphasis in original).

First, the Board's FWD finding that an image is not generated in Wiltshire cannot be squared with two incontrovertible facts: (1) Wiltshire explicitly states that an "image is generated" during the process described in Wiltshire and shown in Wiltshire's Figure 2, Appx1343(7:18-22), and (2) both IPL and its expert Dr. Hart conceded an "image is generated" in Wiltshire, *e.g.*, Appx4261; Appx3317-3318. By dismissing Wiltshire's explicit disclosure and contradicting IPL's own expert testimony, the Board's findings are not supported by substantial evidence. IPL has never explained, in the IPR or in its Appellee Brief ("IPL Brief" or "IPL Br."), how Wiltshire's disclosure that an updated "image is generated" in the flow chart of Wiltshire's Figure 2 does not disclose "generating an updated image" as claimed in the '109 patent.

Unable to overcome these facts, IPL incorrectly contends that the Board's FWD findings were based on a ***different*** limitation appearing in the same claim step, underlined in the following quotation: "generating at least one updated image

at the server in response to updating the state of the interactive software application.” IPL Br. 19-20 (underlining added).

IPL misstates the FWD. The Board explicitly focused its analysis on the clause “generating an updated image” and not the rest of the claim step. Appx16 (“Patent Owner argues that Wiltshire ... ‘never describe[s] “**generating at least one updated image**,” “compressing the at least one updated image,” and then “transmitting the compressed updated image[.]”’ ... *We focus our analysis below on the ‘generating’ limitation.*”).¹ In fact, the Board agreed with SIE that Wiltshire disclosed all the other parts of the claim step. Appx31 (“[O]ne of ordinary skill in the art would have recognized that client display in Wiltshire’s system *is updated in response to* user input signals”); Appx23 (“We agree with Petitioner that Wiltshire separately discloses that ‘Game program 112 ... responds to input command 112 *by updating the state of the game* and possibly *modifying the image* displayed on screen 140’”) (emphasis in original changed). No matter how much IPL tries to contort the FWD, the Board’s findings cannot meet the substantial evidence standard.

Second, the Board’s finding was based on legal error. The Board advanced a new and unsupported claim construction for the term “generating” for the first

¹ Emphasis has been added in quotations unless otherwise noted.

time in the FWD, even though neither party had proposed or advanced any construction for this term during the IPR proceeding, while at the same time implicitly construing the virtually identical term “generated” in Wiltshire to have a completely different meaning. IPL’s Brief has no answer for the Board’s incongruous finding.

Third, even under the Board’s unsupported construction of “generating” that requires creation of a new image and not use of pre-existing images, Wiltshire still discloses the limitation of “generating an updated image.” Wiltshire instructs a person of ordinary skill in the art that its invention works with a video game called “Doom,” which undisputedly generates new images and thus would satisfy the Board’s construction. Appx1340(1:26-43). But the Board excluded “Doom” from Wiltshire because “Doom” was supposedly only mentioned once in the “Related Art.” Appx27. The Board erred by ignoring that Wiltshire explicitly states that “*as used herein*,” the term “game” or “gaming” includes “video based games such as Doom.” Appx1340(1:26-43). The Board’s conclusion ignores this explicit disclosure in Wiltshire, and is thus not based on substantial evidence. IPL’s Brief fails to address this point at all.

Fourth, the Board’s FWD violated SIE’s procedural rights under the APA by not adequately providing its basis for its inexplicable finding that “generated” in Wiltshire does not mean “generating” in the ’109 patent, and for not providing SIE

an opportunity to address a construction of “generating,” which the Board advanced in the FWD even though neither party advanced a construction of this term during the IPR proceeding. IPL attempts to avoid these procedural violations by incorrectly arguing that the issue of “generating” was “hotly contested” during the IPR proceeding. IPL Br. 4. This is also false. As mentioned above, IPL and its expert *conceded* that Wiltshire generates an image. At the oral hearing, both parties’ demonstratives listed the disputes from the briefing—but neither party listed “generating” as an issue in dispute, either in terms of a construction for “generating” or whether Wiltshire discloses “generating.” Appx4480; Appx3503.

When the record is viewed without IPL’s mischaracterizations, it is evident that the Board made a series of critical errors and the FWD should be vacated and remanded.

ARGUMENT

I. THE BOARD’S FINDING THAT “GENERATED” IN WILTSHIRE DOES NOT MEAN “GENERATING” IN THE ’109 PATENT LACKS SUBSTANTIAL EVIDENCE

A. The FWD Was Based On The “Generating At Least One Updated Image” Limitation, Not Other Limitations

As stated in SIE’s Opening Brief (“SIE Br.”), Wiltshire discloses the claimed step of “generating at least one updated image at the server in response to updating the state of the interactive software application” as part of the process described in Wiltshire’s Figure 2 and corresponding description. SIE Br. 32-35.

SIE's Opening Brief established that the Board's finding was not based on substantial evidence because the Board concluded that Wiltshire did not disclose "*generating* at least one updated image," contrary to Wiltshire's express disclosure that an updated image is "generated" at the server during the operation described in Wiltshire's Figure 2 and corresponding description. SIE Br. 32-38.

Unable to justify the Board's lack of substantial evidence for finding that an updated image is not generated in Wiltshire, IPL instead tries to shift focus from the actual limitation at issue ("generating at least one updated image") by suggesting that the Board was basing its opinion on the second half of the claimed step: "in response to updating the state of the interactive software application." IPL Br. 18-22. This is incorrect.

In the FWD, the Board found that Wiltshire did not teach this step for a specific reason—that "Petitioner has not established by a preponderance of the evidence that an updated image is *generated* as part of [Wiltshire's] process." Appx31 (emphasis in original). The Board specifically emphasized the word "generated" because the Board did ***not*** find Wiltshire lacking with respect to any other part of the claimed step. Rather, the Board ***agreed*** with SIE that Wiltshire disclosed the other parts of the claimed step: that the game program at the server "responds to" an input command from the client by "updating the state of the game," and as a result, the server "modifie[s]" or "update[s]" the client display in

response. *See* Appx23 (“We agree with Petitioner that Wiltshire separately discloses that ‘Game program 112 ... responds to input command 112 by updating the state of the game and *possibly modifying the image displayed* on screen 140,’ and that disclosure teaches that the displayed image is possibly modified”) (emphasis in original); Appx31 (“[O]ne of ordinary skill in the art would have recognized that client display in Wiltshire’s system is ***updated in response to*** user input signals”).

The FWD focused its analysis on the supposed lack of any teaching in Wiltshire that an “image is generated.” Appx16 (“Patent Owner argues that Wiltshire ... ‘never describe[s] “***generating at least one updated image***,” “compressing the at least one updated image,” and then “transmitting the compressed updated image.” ... ***We focus our analysis below on the ‘generating’ limitation***”); Appx31 (“And even though one of ordinary skill in the art would have recognized that client display in Wiltshire’s system is updated in response to user input signals, we find that Petitioner has not established by a preponderance of the evidence that an updated image is ***generated*** as part of that process.”) (emphasis in original).

As explained in SIE’s Opening Brief, the Board’s finding that the “image is [not] generated” is directly contradicted by Wiltshire’s teaching that “[t]he image is generated.” Appx1343(7:18-19); SIE Br. 36. Moreover, Wiltshire describes the

game programs running on the server as “display generation programs,” further making clear that the game programs on the server “generate” updated images in response to user input commands as the system iterates through the flow of Wiltshire’s Figure 2 in a loop. Appx1340(2:45-47); SIE Br. 14-16, 33-35.

IPL and its expert *admitted* that Wiltshire discloses that an “image is generated.” In its Patent Owner Response (“POR”), IPL admitted that “Wiltshire *disclosed that an image generated* by a gaming program, located on the server, was transmitted to the client over a network.” Appx4261. IPL’s expert, Dr. Hart, also testified multiple times that Wiltshire discloses that an image is “generated” by the game program [running on the server]. Appx3117-3118(¶ 61) (“the image generated by the gaming program”); Appx3119(¶ 63) (“image elements generated by the game program” and “generated image”); Appx3119(¶ 64) (“the image generated by the game program”); *see also* SIE Br. 37-38.

A finding adverse to the Petitioner that contradicts the Patent Owner’s expert’s testimony is not supported by substantial evidence. *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 843 F.3d 1315, 1337-1338 (Fed. Cir. 2016) (finding lack of substantial evidence where plaintiff’s expert admitted that the prior art disclosed a disputed limitation).

IPL also contends that SIE did not address the “in response to updating the state” portion of the claimed step in its Opening Brief and thus waived any

challenge to the Board’s findings on that limitation. IPL Br. 18-19. That is also wrong. SIE addressed the entire limitation when summarizing the overwhelming evidence of how Figure 2 of Wiltshire and its corresponding descriptions meet this claim step. SIE Br. 34-35. For its part, IPL never explains why SIE’s reading of Wiltshire’s Figure 2 and accompanying disclosure is incorrect as to the “in response to” limitation, likely because the Board agreed with SIE on these limitations and there is no basis for arguing that SIE’s position is wrong. IPL Br. 20-22, 24.

B. The Board Did Not Adequately Address Wiltshire’s Explicit Disclosure That An “Image is Generated”

IPL also fails to justify the Board’s dismissal of Wiltshire’s express teaching that an “image is generated.” IPL argues that the Board addressed this language by crediting Dr. Hart’s testimony from his declaration at paragraphs 62-63. IPL Br. 22-23. But as explained in SIE’s Opening Brief, that testimony was about a different claim step—the “compressing” step—that comes *after* the “generating” step. SIE Br. 36-38. In fact, IPL does not dispute that the cited testimony was about a different limitation. IPL Br. 24-25. IPL merely points out that the “compressing” and “generating” terms are “interrelated” (*id.*), but does not explain why that matters for the issues on appeal. All limitations of a claim are interrelated, and that alone does not refute the fact that the Board lacked substantial

evidence for dismissing Wiltshire’s teaching that an “image is generated.”

Appx1343(7:18-20).

IPL also does not dispute that in the Board’s cited testimony, its expert Dr. Hart conceded that an “image is generated” in Wiltshire, directly contradicting the Board’s finding. IPL Br. 25. IPL merely argues that such admissions are not relevant to the “in response to” part of the claim step. *Id.* But, as explained above, the “in response to” limitation was not the basis of the Board’s decision, as the Board found that Wiltshire disclosed the “in response to” limitation. Appx23; Appx31. The focus was whether Wiltshire discloses that an image is “generated” at all—which Dr. Hart clearly admitted in the cited testimony. Appx3117-3118(¶ 61); Appx3119(¶ 63); Appx3119(¶ 64).

IPL attempts in vain to diminish the import of Wiltshire’s “image is generated” teaching by observing that SIE “never mentioned it again throughout the rest of the briefing and oral argument before the Board.” IPL Br. 24. But there is good reason for this: as explained in SIE’s Opening Brief, the Board’s Institution Decision found that Wiltshire discloses an “image is generated” and IPL and its expert admitted in the POR that Wiltshire discloses “an image is generated.” Appx4261; Appx3117-3119; Appx4136; *see also* SIE Br. 37-38, 59-61. There was no dispute over this term during the IPR proceeding.

IPL is incorrect that SIE’s appeal is based on mere disagreement with the Board’s factual findings. IPL Br. 16. As demonstrated above, the Board’s findings contradict not only explicit disclosures in Wiltshire, but also contradict IPL and its own expert’s testimony, and are thus not supported by substantial evidence. *Power Integrations*, 843 F.3d at 1337-1338; *Hayward Indus., Inc. v. Pentair Water Pool & Spa, Inc.*, 814 F. App’x 592, 597 (Fed. Cir. 2020) (nonprecedential) (finding lack of substantial evidence where the Board ignored “explicit disclosures” in the prior art).

II. IPL FAILS TO REBUT THAT THE BOARD MISCONSTRUED THE TERM “GENERATING” FOR THE FIRST TIME IN THE FWD

As explained in SIE’s Opening Brief, the Board also committed legal error by construing “generating” to exclude “selecting a pre-existing image” without identifying any disavowal or other support from the intrinsic record. SIE Br. 38-45. The Board then compounded this error by concluding that the same person of ordinary skill would interpret a virtually identical term “generated” in Wiltshire to be limited to “selection of pre-existing images.” SIE Br. 38-39. To interpret almost identical terms in very similar patents in two *mutually exclusive* ways warrants at least some justification rooted in the intrinsic record, but the Board did not provide any. IPL’s brief fails to justify the Board’s legal error.

A. SIE Did Not “Forfeit” This Argument

IPL attempts to avoid this inconsistency of the Board’s findings altogether by incorrectly arguing that SIE forfeited any argument challenging the Board’s construction of “generating.” IPL Br. 27. IPL’s argument is based on two contentions: (1) that SIE is proposing a new construction; and (2) the meaning of “generating” was disputed during the IPR and thus SIE had an opportunity to make these arguments earlier. Both contentions are incorrect.

First, IPL contends that SIE proposed a new construction for the first time on appeal. *Id.* IPL has it backwards. It is not SIE that is proposing a construction—indeed, as IPL recognized, SIE stated that no construction is necessary given that Wiltshire uses the term “generated” expressly in its disclosure. SIE Br. 40.² Rather, it is the FWD that set forth a new construction for the term “generating” in the ’109 patent to exclude generating images by selecting from pre-existing images, even though neither party proposed a construction of the term “generating” in the IPR proceeding. The *Broadcom v. Qualcomm* and *Elbit v. Thales* cases cited by IPL (IPL Br. 27) are both inapposite because neither case addresses the situation here, where the Board issued a new construction for the first

² IPL suggests some inconsistency in appealing the Board’s new construction and SIE’s position that no construction is necessary. IPL Br. 26. These two positions are fully consistent; as explained, since Wiltshire uses virtually identical terms (“generated” vs. “generating”), the plain meaning is sufficient to find that Wiltshire discloses “generating” without any construction.

time in its FWD about a term that was never in dispute in the IPR proceeding, and relied upon that construction as a basis for its findings in the FWD. *See Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 694 (Fed. Cir. 2008) (declining to address new claim construction where the district court did **not** construe a term below); *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1357 n.3 (Fed. Cir. 2018) (finding claim construction argument waived where the PTAB did **not** construe a term during the IPR and where the parties acknowledged the lack of construction at the oral hearing).

Second, IPL mischaracterizes the record by suggesting that the meaning of “generating” was “hotly” disputed during the IPR and thus SIE had an opportunity to raise these arguments earlier. IPL Br. 12-14, 27. The record refutes this contention. IPL contends that it disputed “generating” in its POR. IPL Br. 13. This is a false statement. IPL never advanced a construction for “generating” in the ’109 patent in the IPR proceeding. Appx4262-4273 (proposing instead constructions for the terms “frame” and “mobile device”). Moreover, IPL **conceded** in its POR that Wiltshire discloses that an “image is generated.” Appx4261 (“Wiltshire disclosed that an ***image generated by a gaming program, located on the server***, was transmitted to the client over a network.”). Given this admission, it is not surprising that in the rest of the POR, IPL disputed only other limitations from the ’109 patent claims—but never disputed the “generating”

limitation. The pages from the POR cited by IPL (Appx4276-4284) fall under a section entitled “Wiltshire Did Not Disclose ‘*Compressing* The At Least One Updated Image’ As Required For Claims 1 And 3-12 In Ground I.” Appx4276. And within this section about “compressing,” IPL’s subsection headings are “Independent Claims 1 and 8 Require ‘*Compressing* The At Least One Updated Image’” and “Petitioner Relies On Wiltshire Which Did Not Disclose ‘*Compressing* The At Least One Updated Image’”. Appx4276; Appx4279. IPL cites to Appx4281-4282 from the POR, but those paragraphs are about different issues. Here, IPL argues “[i]mages preloaded onto the *client* are not being ‘generated’ in response to ‘updating the state of the interactive software application’ as required by claims 1 and 8,” but that argument does not relate to whether Wiltshire’s *server* generates images, which is what the “generating” limitation addresses and what IPL admitted in its POR. Appx4281. IPL also argues in this section of its POR that Wiltshire’s disclosure of the word “update” in Wiltshire’s Figure 2 alone does not mean that an updated image is generated in response to an updated software state, compressed, and then transmitted. Appx4281-4282. IPL’s argument was about “update” (which the Board found was disclosed), not about “generating.”

Nor did SIE argue about whether Wiltshire discloses the “generating” term in its Reply. IPL Br. 13. IPL cites to Appx4348 from SIE’s Reply, but that section

addressed and rebutted IPL’s argument that Wiltshire “does not disclose an ‘updated’ image” Appx4347-4348. IPL then argues that it disputed “generating” in its Sur-Reply (IPL Br. 13), but the only mention of “generating” appears briefly in two unsupported sentences under the section entitled “WILTSHIRE DID NOT DISCLOSE ‘**COMPRESSING**’ THE AT LEAST ONE UPDATED IMAGE.’” Appx4397.

Finally, IPL incorrectly argues that the “generating” term was “debated” at the IPR oral hearing and that SIE purportedly “acknowledged this issue was disputed” at the hearing. IPL Br. 14. IPL cites to Appx4555(9:14-17) from the hearing transcript, but this disproves IPL’s assertion. In that section, SIE was addressing IPL’s argument about whether the prior art combination taught “compressing” an updated image, and part of the discussion related to whether preloaded images on a *client* can satisfy the term “updated image” at the *server*. Appx4555(9:10-17) (“If we turn to Slide 18, patent owner makes a few arguments -- and Your Honor asked about these arguments as well -- in contending that Saha and Wiltshire did not disclose *compressing an updated image*. First, as Your Honor noted, the patent owner argues that Wiltshire does not disclose an *updated* image, patent owner instead says it selects preloaded images on the client. Patent owner is incorrect on that.”); Appx4556(10:5-7) (“So [Figure 2] is not using preloaded images on the client, the images are instead sent from the server to the

client as part of this video stream.”). There was no discussion at the oral hearing about the meaning of the term “generating” in the ’109 patent or whether Wiltshire generates images at all. IPL’s general citation to Appx4553-4557(7:3-11:4) from the hearing also does not help IPL, as the cited portions are in response to the Board’s question “Does Wiltshire mention what that update is?” and accordingly addresses the dispute about “update.” Appx4553(7:4). As explained above, the Board ultimately agreed with SIE that Wiltshire disclosed updating an image. Appx31 (“[O]ne of ordinary skill in the art would have recognized that client display in Wiltshire’s system is *updated in response to* user input signals”).

IPL also incorrectly contends that it “answered questions about [generating]” at 42:21-52:5 of the IPR oral hearing transcript. IPL Br. 14, 43; Appx4588-4598. But, as set forth above, the meaning of the term “generating” was never disputed in briefing and the Board did not ask any questions about the meaning of the term “generating” at the IPR oral hearing. Nor did the Board or IPL suggest at the hearing that Wiltshire’s express disclosure that an “image is generated” somehow does not mean “generating” an image for purposes of the claim. Appx4589(43:20-24); Appx4590(44:7-13); Appx4593(47:17); Appx4596(50:8-11).

The parties’ demonstratives also refute IPL’s contention that “generating” was “hotly” disputed. SIE’s demonstrative at Appx4480 is entitled “Summary of Disputed Issues” and lists five issues, none of which mentions “generating.”

Appx4480. IPL also presented a demonstrative that listed the disputed issues, and there is no mention of “generating” anywhere. Appx3503.

In sum, as SIE explained in its Opening Brief, the meaning of “generating” was never disputed in briefing or at the hearing during the IPR, and SIE had no opportunity to address any construction for this term or respond to the construction the Board issued in its FWD and used as its basis for its decision. SIE Br. 59-61. There was, in fact, no dispute in the IPR proceeding that Wiltshire discloses “generating.”

B. IPL Fails to Justify the Board’s Unsupported Claim Construction

IPL also fails to show that the Board’s construction is supported by the intrinsic record. Critically, IPL’s Brief fails to identify any “expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope” that could support the Board’s narrowing construction of the term “generating” to exclude “selecting from pre-existing images.” IPL Br. 28-30; *Continental Circuits LLC v. Intel Corp.*, 915 F.3d 788, 797 (Fed. Cir. 2019).

Rather, IPL assumes the truth of its conclusion: that “generating” by default excludes selecting pre-existing images. IPL Br. 31. But claim construction begins with the claim language, which does not contain any negative limitations excluding selection of pre-existing images. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (“It is a ‘bedrock principle’ of patent law that ‘the

claims of a patent define the invention to which the patentee is entitled the right to exclude.’ ... ‘[W]e look to the words of the claims themselves ... to define the scope of the patented invention[.]’”) (internal citations omitted); *see also* SIE Br. 41-45.

IPL’s reliance on *Suffolk* and *In Re Scroggie* is misplaced. IPL contends that the “plain meaning” of “generating” excludes selecting from pre-existing images based on two cases involving two patents unrelated to image generation, graphics, games, or any related subject matter. IPL Br. 30; *Suffolk Techs., LLC v. AOL Inc.*, 752 F.3d 1358, 1360 (Fed. Cir. 2014) (patent relates to a “file server”); *In re Scroggie*, 170 F. App’x 132, 132 (Fed. Cir. 2006) (nonprecedential) (patent relates to “generating a web page”). Wiltshire, on the other hand, is directly within the field of the ’109 patent, and explicitly states an “image is generated.” Thus, if the Board were to rely on other patents for the plain meaning of “generating,” it ought to look at Wiltshire itself and construe “generating” in the ’109 patent in view of how a person of ordinary skill in the art would understand Wiltshire’s image generation. The Board’s lack of parity in construing image generation one way for the ’109 patent and another way for Wiltshire is legal error.

SIE’s Opening Brief also explained how the ’109 patent specification contemplates pre-existing images because it discloses that the server receives data that “*corresponds to an image* in a graphics API recognizable to visual server 12.”

SIE Br. 43 (citing Appx48(7:61-65)). IPL fails to explain away this disclosure in the '109 patent. IPL merely points out that the graphics API is “recognizable to the visual server 12.” IPL Br. 32. That misses the point. The '109 patent expressly states that the “server” receives data that “corresponds to an image.” The “image” must exist for data to correspond to it. Further, IPL incorrectly argues that the '109 patent’s server database is limited to storing graphics APIs. IPL Br. 32. The specification states that the database stores “image related information *such as* specific graphical application programming interface” Appx47(6:2-4). The database is not limited to storing API information. “Image related information” is a broad phrase and contemplates pre-existing images that can be used for image generation.

Moreover, as explained in SIE’s Opening Brief, the '109 patent’s disclosure that the “image data can be ... streaming formats such as ... Apple .MOV standard” (Appx47(6:48-62)) parallels Wiltshire’s disclosure that “[t]he image may include any type of graphical information including ... an encoded audio/video stream such as a compressed video MPEG stream.” Appx1343(7:15-17). Because the Board found Wiltshire’s disclosure to mean pre-existing files to a person of ordinary skill in the art (Appx25), the Board should have also found the '109 patent’s disclosure to include pre-existing files. SIE Br. 44. IPL also is unable to rebut this disclosure. IPL incorrectly argues that “.MOV” and other file formats

described in the '109 patent are just “compression standard[s],” suggesting these are not files. IPL Br. 33. IPL is wrong. The '109 patent lists examples of compression standards “such as MPEG, JPEG, H.261, or other industry standard codecs” Appx47(6:57-58). The '109 patent separately lists examples of “streaming formats” such as “.ASF,” “.RM,” and “.MOV.” Appx47(6:58-60). IPL does not argue that a “streaming format” is not also a file, because IPL knows that would be incorrect. These are file name extensions (just like “.DOC” or “.PDF” refer to types of files).

Finally, IPL fails to rebut that the '109 patent's disclosure of running “standard software, such as games” contemplates pre-existing images. Appx49(9:18-20). IPL suggests that games *never* generate images by selecting from pre-existing images. IPL Br. 33. But this is contradicted by the Board's finding that the casino games in Wiltshire generate images by selecting from pre-existing images. Appx30. Assuming that the Board is correct that Wiltshire's casino games generate images by selecting from pre-existing images, then the '109 patent's disclosure of broadly running any type of game on its servers must also encompass the use of pre-existing images.

In sum, IPL fails to rebut that the Board's new construction of “generating” was legal error.

III. IPL FAILS TO JUSTIFY THE BOARD’S FINDING THAT WILTSHIRE DID NOT DISCLOSE CREATION OF NEW IMAGES

Even under the Board’s unsupported construction of “generating” in the ’109 patent as requiring the creation of new images, the Board erred by (1) ignoring explicit disclosure that Wiltshire’s Figure 2 and accompanying disclosure can run video games like Doom; and (2) incorrectly assuming that Wiltshire’s blackjack example generates images using pre-existing images. IPL fails to show otherwise.

A. The Board Ignored Explicit Disclosures Regarding “Doom” And Non-Casino Games.

The Board erred by finding that a person of ordinary skill in the art would not understand Wiltshire’s Figure 2 and accompanying disclosure to run non-casino games like “Doom,” which undisputedly creates new images and thus generates images even under the Board’s unsupported construction. Appx1034(¶ 57); Appx1042-1043(¶¶ 75-78); Appx2315-2318(¶ 42-43); Appx2322-2324(¶ 49-50); Appx1823-1825(38:7-40:14); Appx2322-2324(¶ 49-50); Appx1836-1839(51:10-54:9); SIE Br. 47. However, the record is replete with evidence from Wiltshire and SIE’s expert, Dr. Fuchs, that a person of ordinary skill in the art would understand Wiltshire’s Figure 2 and accompanying disclosure to run video games like “Doom” and other non-casino games. SIE Br. 46-48. In finding that Wiltshire’s Figure 2 and accompanying disclosure cannot operate games like

“Doom” and non-casino games, however, the Board ignored explicit disclosures in Wiltshire.

The Board’s finding that “Wiltshire does not teach using the operation disclosed in Figure 2 with Doom” (Appx26-27) is not supported by substantial evidence because it ignores explicit disclosures in Wiltshire. As explained in SIE’s Opening Brief, Wiltshire states that “FIG. 2 is a flow diagram of operation 200 of computer *gaming* system 100 of FIG. 1A” and “[t]he image is generated by *game* computer program 112[.]” Appx1343(7:7-18); SIE Br. 46-49. Wiltshire explicitly teaches a person of ordinary skill in the art that “[t]he terms ‘*game*’ and ‘*gaming*,’ *as used herein*, include ... video based games such as *Doom*, Pong, Packman, Myst; video games based on sports such as golf, baseball, football, basketball, soccer, rugby; arcade type games[.]” Appx1340(1:26-43). Thus, when Wiltshire teaches a person of ordinary skill in the art that “[t]he image is generated by game computer program,” it also means “[t]he image is generated by [Doom] computer program” since a “game” is defined as a genus that expressly includes “Doom.”

The Board apparently missed the phrase “as used herein” because it interpreted the disclosure about “Doom” to be “Related Art” that did not apply to the rest of the disclosure in Wiltshire. Appx27. The Board thus ignored explicit disclosures teaching a person of ordinary skill in the art that Wiltshire’s disclosure defines “game” “as used herein.” The Board also apparently missed the repeated

statements throughout Wiltshire (and not in the Related Art section) that its system is *not* limited to casino games and can work with “any” game. Appx1342(5:45-47); Appx1345(12:8-13). The Board’s finding that Wiltshire’s Figure 2 excludes Doom or other video games lacks substantial evidence. *Hayward Indus.*, 814 F. App’x at 597 (finding lack of substantial evidence where the Board ignored “explicit disclosures” in the prior art).

Tellingly, IPL does not address the Board’s failure to consider Wiltshire’s phrase “as used herein” and the repeated statements that Wiltshire’s system is “not limited to any particular game,” because there is no justification. IPL Br. 35-36. Further, IPL’s contention that SIE did not show “how Doom would work in the system of Figure 2” is false. IPL Br. 35. SIE explained with expert testimony how a Doom or any video game would work in connection with Wiltshire’s Figure 2. SIE Br. 13-16; Appx2315-2317; Appx2322-2324.

The FWD should be vacated and remanded so that the Board can consider these statements that teach a person of ordinary skill in the art that Wiltshire’s Figure 2 works with games like Doom.

B. Wiltshire’s Blackjack Example Contradicts the Board’s Findings

The Board’s FWD should also be vacated because there is no substantial evidence to support its finding that *each* of Wiltshire’s exemplary screens in

Figures 4A-9D “suggest that these could have simply been pre-existing images and would not necessarily need to be generated in real time.” Appx30.

This finding is not based on substantial evidence because, as SIE demonstrated in its Opening Brief, the Board ignored Wiltshire’s Figures 6A-6B in arriving at that conclusion. SIE Br. 51-53. As stated in SIE’s Opening Brief, it is untenable to conclude that the screens shown in Wiltshire’s Figures 6A and 6B “could have simply been pre-existing images” because that would require billions or trillions of pre-existing images. *Id.* Thus, no reasonable mind would accept as adequate such evidence to mean the use of pre-existing images. *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938) (substantial evidence is “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion”).

IPL does not dispute that the math would make the Board’s finding untenable, but instead argues that the screens shown in Figures 6A and 6B could be composed of smaller pre-existing card face images. IPL Br. 37. In other words, IPL views the Board’s construction to not only exclude pre-existing images, but also to exclude any image *made up* of smaller pre-existing images. But IPL cites to no evidence in Wiltshire that its card faces at the server are pre-existing images, or that Figures 6A and 6B are made up of smaller pre-existing images.

Further, contrary to IPL’s assertion, SIE did not “waive” any argument under *NuVasive*. IPL Br. 37. Unlike *NuVasive*, SIE had no opportunity to present this argument below because, as explained, there was never any dispute over the meaning of “generating” in the ’109 patent or over whether a selection of pre-existing images in Wiltshire met the “generating” term. *See supra* Section II.A. Further, as explained in SIE’s Opening Brief, SIE and its expert relied specifically on Figures 6A and 6B during the IPR as examples of images generated by Wiltshire’s system. SIE Br. 52 (citing Appx4056-4059; Appx1071-1073).

Thus, the FWD should be vacated because its finding that the Blackjack example screens are pre-existing images is unsupported by substantial evidence.

IV. IPL FAILS TO REBUT THAT THE FWD VIOLATES THE APA

A. The FWD Violates the APA Under *NuVasive*

SIE’s Opening Brief established that the Board did not articulate a satisfactory explanation for its decision to dismiss Wiltshire’s explicit disclosure that an “image is generated” in the context of Wiltshire’s Figure 2, and thus violates the APA. SIE Br. 57-59, *In re NuVasive, Inc.*, 842 F.3d 1376, 1382 (Fed. Cir. 2016).

IPL does not (and cannot) justify the Board’s dismissal of Wiltshire’s “image is generated” disclosure; rather, IPL incorrectly argues again that the Board’s FWD was based on other issues, not the “generating” term. IPL Br. 41.

But as explained above, this is incorrect—the Board explicitly relied on a finding that Wiltshire did not satisfy the “generating” term, not any other part of the claim step. *See supra* Section I.A.

As explained above, the Board mainly ignores Wiltshire’s “image is generated” disclosure altogether, and only indirectly acknowledges it where it relies on two paragraphs of Dr. Hart’s testimony regarding a different limitation. Appx25 (citing Appx3119(¶¶ 63-64)). Even assuming that this is an “explanation,” it does not meet the *NuVasive* standard. As established above and in SIE’s Opening Brief, Dr. Hart’s testimony was about a different limitation—the “compressing” limitation—and Dr. Hart actually confirmed that an “image is generated” in Wiltshire. *See supra* Section I.B; *see also* SIE Br. 36-38. Relying on testimony that *contradicts* the proposition being made is not “a rational connection between the facts found and the choice made.” *NuVasive*, 842 F.3d at 1382.

B. The Board Violates The APA By Construing “Generating” For The First Time In The FWD

SIE’s Opening Brief established that the Board violates Petitioner’s procedural rights under the APA by construing an undisputed term “generating” for the first time in the FWD, even though this term was not disputed in the parties’ briefing in the IPR proceeding. SIE Br. 59-60; *Qualcomm Inc. v. Intel Corp.*, 6 F.4th 1256, 1263 (Fed. Cir. 2021).

IPL does not dispute that neither party proposed a construction for “generating” and that the Board did not construe “generating” in its Institution Decision. Rather, IPL again mischaracterizes the IPR proceedings below as if this term was hotly disputed. But as established above, the record contradicts IPL’s argument that SIE “was fully aware that the parties contested the disclosure of the ‘generating’ limitation.” IPL Br. 43. As explained above, the Board’s Institution Decision found that Wiltshire generated an image and IPL and IPL’s expert conceded that Wiltshire generated an image in the POR. Appx4261; Appx3117-3119; Appx4136. The parties’ briefing thus never focused on the “generating” aspect of the claim step, which is reflected by the parties’ summary of the disputes at the oral hearing, neither of which indicated “generating” to be an issue in dispute. *See supra* Section II.A; Appx4480; Appx3503; *see also* SIE Br. 37-38, 59-61. Because the FWD deprived SIE of its opportunity to respond to the new claim construction of the “generating” limitation upon which the FWD’s decision was based, the FWD violated SIE’s procedural rights and should be vacated.

CONCLUSION

For the foregoing reasons and those in SIE’s Opening Brief, the Board’s Final Written Decision should be vacated and remanded.

Respectfully submitted,

MARK D. FLANAGAN
JOSEPH F. HAAG
ERIK HALVERSON
WILMER CUTLER PICKERING
HALE AND DORR LLP
2600 El Camino Real, Suite 400,
Palo Alto, CA 94306
(650) 858-6000

/s/ James M. Dowd

JAMES M. DOWD
HENRY NIKOGOSYAN
WILMER CUTLER PICKERING
HALE AND DORR LLP
350 South Grand Avenue, Suite 2400
Los Angeles, CA 90071
(213) 443-5300

*Attorneys for Appellant Sony
Interactive Entertainment LLC*

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/s/ James M. Dowd
JAMES M. DOWD
WILMER CUTLER PICKERING
HALE AND DORR LLP
350 South Grand Avenue, Suite 2400
Los Angeles, CA 90071
(213) 443-5300

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