

No. 2022-2118

IN THE
United States Court of Appeals
FOR THE FEDERAL CIRCUIT

SONY INTERACTIVE ENTERTAINMENT, LLC,

Appellant,

v.

INTELLECTUAL PIXELS LIMITED,

Appellee.

APPEAL FROM THE U.S. PATENT OFFICE, PATENT TRIAL AND APPEAL BOARD
No. IPR2021-00237

BRIEF FOR APPELLEE INTELLECTUAL PIXELS LIMITED

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December 27, 2022

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PATENT CLAIMS AT ISSUE

Claims 1-12 of U.S. Patent No. 10,681,109:

1. A method of hosting an interactive software application comprising:
 - running at a server the interactive software application;
 - receiving at the server user input signals from a client device, wherein the user input signals are used to control updating of the state of the interactive software application;
 - generating at least one updated image at the server in response to updating the state of the interactive software application; and
 - compressing the at least one updated image and transmitting the compressed updated image to the client device, wherein the server transmits the updated image as a compressed frame that can be decompressed and displayed as an updated image at the client device.
2. The method as recited in claim 1 wherein a first bandwidth for transmitting the user input data between the client device and the server and a second bandwidth for transmitting the compressed updated image from the server to the client device are asymmetric.
3. The method as recited in claim 1 wherein the server is configured for bidirectional communications with a plurality of client devices, the bidirectional communication including receiving at the server user input signals and transmitting the compressed updated image.
4. The method as recited in claim 1 wherein the server is configured to receive user input data and transmit compressed updated images with a plurality of client devices.
5. The method as recited in claim 1 wherein at least two of the plurality of client devices include different device platforms.
6. The method as recited in claim 1 wherein the client device is a mobile device.

7. The method as recited in claim 1 wherein the interactive software application is an interactive game that is configured to run at the server, which is in bidirectional communication with a plurality of client devices, and wherein said updating the state of the software application includes updating the game state of the interactive game.

8. An image display system, comprising:

a server having a processor and memory configured to execute an interactive software application and further configured for:

receiving at the server user input signals from a client device, wherein the user input signals are used to control updating the state of the interactive software application;

generating at least one updated image at the server in response to updating the state of the interactive software application running on the server by the user input signals; and

compressing the at least one updated image and transmitting the compressed updated image to the client device, wherein the server transmits the updated image as a frame and wherein the client device is configured for decompressing of the compressed updated image and displaying the updated image on a display coupled to the client device.

9. The image display system of claim 8, wherein the user input signals are generated at the client device to update the state of the interactive software application from the state that initiated the current image displayed on the display coupled to the client device.

10. The image display system of claim 8 wherein the server is configured to exchange user input data and compressed updated images with a plurality of client devices.

11. The image display system of claim 8 wherein the interactive software application is a game and wherein the client device is a mobile device.

12. The image display system of claim 10 wherein the interactive software application is a game and wherein at least one of the plurality of client devices is a mobile device.

Appx49 (9:55-10:59).

CERTIFICATE OF INTEREST

Counsel for Appellee Intellectual Pixels Limited hereby certifies the following:

1. The full name of every entity represented in the case by the counsel filing the certificate:

Intellectual Pixels Limited

2. For each entity, the name of every real party in interest, if that entity is not the real party in interest:

Not Applicable

3. For each entity, that entity's parent corporation(s) and every publicly held corporation that owns ten percent (10%) or more of its stock:

Not Applicable

4. The names of all law firms and the partners or associates that have not entered an appearance in the appeal, and (a) appeared in the lower court tribunal; or (b) are expected to appear for the entity in this court:

Forrest M. McClellan

5. Other than the originating case number(s), the title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal:

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

6. All information required by Federal Rule of Appellate Procedure 26.1(b) and (c) that identifies organizational victims in criminal cases and debtors and trustees in bankruptcy cases:

Not Applicable

ARMOND WILSON LLP

Dated: December 27, 2022

By: /s/ Douglas R. Wilson
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STATEMENT OF RELATED CASES

Pursuant to Federal Circuit Rule 47.5, Intellectual Pixels states as follows:

1. No other appeals from the same proceedings before the Patent Trial and Appeal Board were previously before this or any other appellate court; and
2. *Intellectual Pixels Ltd. v. Sony Interactive Entertainment LLC*, No. 8:20-cv-01422 (C.D. Cal. filed July 31, 2020), may be directly affected by the outcome in the pending appeals.

STATEMENT OF THE ISSUES

1. Whether Appellant demonstrates no substantial evidence supports the Board’s factual determination that Wiltshire did not disclose, expressly or inherently, “generating at least one updated image at the server in response to updating the state of the interactive software application” required by all challenged claims.

2. Whether Appellant establishes the Board construed the “generating” limitation, and if so, whether Appellant forfeited its new construction on appeal by never presenting it below.

3. Whether Appellant carries its burden to show an APA violation by establishing (1) that the Board’s 35-page decision did not adequately articulate the Board’s findings and supporting evidence; and (2) Appellant’s procedural rights were violated despite Appellant having notice, an opportunity to respond, and in fact responding, to the parties’ dispute about whether Wiltshire met the “generating” limitation.

I. INTRODUCTION

The '109 Patent claims a pioneering invention that solved a problem of real-time video games: dynamically and efficiently generating a realistic, 2D image corresponding to the player's current viewpoint of a 3D model of an imaginary gaming world. The patent teaches the compressed 2D updated images are sent frequently to a client computer, providing game players an immersive simulation of a 3D live video feed.

Appellant's IPR Petition challenged the '109 Patent based on two patents: Wiltshire's casino gambling system and Saha. The Board found that Appellant did not meet its burden to show "that the combination of Wiltshire and Saha teaches 'generating at least one updated image at the server in response to updating the state of the interactive software application,' as recited in claim 1." Appx19. The Board reached this decision in a 35-page analysis where it carefully examined the parties' arguments, the '109 Patent, Wiltshire, and expert testimony. Substantial evidence plainly supports the Board's decision.

Appellant's quarrel with the Board's decision falls well short of meeting its high burden to show that the Board's decision lacks substantial evidence. This record is replete with supporting evidence. Instead, Appellant resorts to misdirection and tangents. None of Appellant's assertions have any merit.

First, the Board committed no claim construction error. As Appellant concedes, the Board did not expressly construe “generating” at all, and Appellant’s new construction that “generating” must include “selecting pre-existing images” was never proffered below. Even if this Court finds Appellant’s construction is not forfeited, and decides to delve into claim construction for the first time on appeal, Appellant’s new construction is contradicted by the plain meaning of “generating” and intrinsic evidence from the ’109 Patent itself.

Second, the Board did not misunderstand Wiltshire, or incorrectly find that Wiltshire did not meet the claim limitations. The Board’s finding that Wiltshire provides no teaching or disclosure of creating images in response to updating game state is amply supported by substantial evidence. Complaining that the Board did not credit Appellant’s preferred evidence in no way changes the ample record evidence supporting the Board’s findings.

Third, Appellant’s allegations of APA violations are unfounded. The Board’s detailed decision contains its analysis and supporting citations for its finding. Appellant plainly had notice and numerous opportunities to respond because the issue of whether Wiltshire met the “generating” limitation was hotly contested by the parties both during the briefing and at the final oral hearing.

The Board’s decision should be affirmed.

II. STATEMENT OF THE CASE

A. The Origin of the '109 Patent Invention

The '109 Patent originated with a company called 3DLabs, a 1994 spin-off from Dupont Pixel that went public on NASDAQ two years later. The three inventors (Osman Kent, David Baldwin, and Nicholas Murphy) were pioneers in computer graphics technology and the CEO and Chief Architects, respectively, at 3DLabs. When they conceived of the '109 Patent inventions in 1999, computer graphics were relatively primitive, and computing power was limited. 3DLabs was the industry leader in bringing 3D computer graphics to PCs, a foundational development for the dynamic and immersive 3D graphics that dominate the video and computer game industries today. 3DLabs coined the term graphics processing unit (GPU), ironically in a presentation to Sony in October 1995. Appx4253.¹

In 1994, 3DLabs launched the Glint 300SX, the first single-chip, 3D graphics device capable of supporting high-end CAD applications. In contrast to conventional VGA chips of the era with 50,000 transistors, the Glint 300SX packaged one million transistors performing 2.5 Giga operations per second. 3DLabs' products won numerous awards, including "Editor's Choice-Best Products of 1997" by 3D Design Magazine and several "Best of Show" awards at

¹ All emphasis in this brief is added unless otherwise noted.

the Comdex trade show. 3DLabs' innovative graphics processors were integrated into PCs sold by leading manufacturers of the time, including Acer, Asus, Compaq, Dell, Fujitsu, Gateway 2000, Micron, Micro-Labs, and NEC. The 3DLabs founders (including Osman Kent) own the '109 Patent through their current company, Appellee IPL. Appx4253-4254. IPL acquired the '109 Patent through an assignment from Creative Technology Ltd., which previously had acquired 3DLabs in 2002.

B. Dynamic 3D Graphics in the '109 Patent

The '109 Patent discloses an innovative, networked system where multiple client computers communicate with a remote visual server that dynamically delivers complex graphics to the clients more efficiently. Appx37 (Abstract); Appx46 (3:41-57); Appx3103-3104 (Hart Decl. ¶ 35). This invention was a marked improvement over existing techniques and was widely applicable to immersive, first-person video game graphics and digital television. Appx45-46 (1:58-3:37); Appx49 (9:4-23); Appx3103-3104 (Hart Decl. ¶¶ 35-36).

The '109 Patent's remote video server receives image-modifying data from a client computer, generates a modified image based on the image-modifying data, and transmits the modified image as compressed data to the client. Appx37 ('109 Patent Abstract); Appx3103-3104 (Hart Decl. ¶ 35). The system is configured to allow a client to use *the server's* resources to both execute an application, such as

a video game, and generate complex graphical images for it. Appx46-47 (3:41-48, 4:66-5:2); Appx3103-3104 (Hart Decl. ¶ 35). This saves the client executing, or even possessing a copy of, the application locally and performing the intensive processing required to generate the complex images. Appx47 (6:23-29); Appx49 (9:4-17).

The client computer collects inputs to control a user's (game player's) interaction with the image currently displayed at the client. Appx46 (3:58-61, 4:17-21). As shown in Figure 2 (Appx42-43, annotated and reproduced below),

the client collects and transmits the user input to the server over a network

(step 52). Appx46-48

(3:51-57, 4:17-32, 7:57-60); *see also* Appx3106-

3108 (Hart Decl. ¶ 41).

The server provides the

user input to the

application to modify the

existing state of the game

(step 58), generates a

modified or updated image

based on those user inputs

(step 62), and compresses

and transmits the generated image as compressed data back to the client (steps 66,

68). Appx46-47 (3:51-57, 4:17-32, 6:38-43). The client decompresses the image

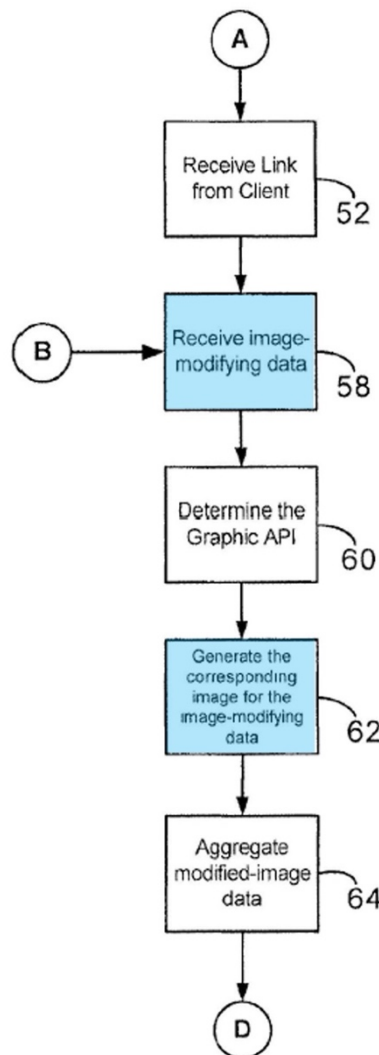


Fig. 2B

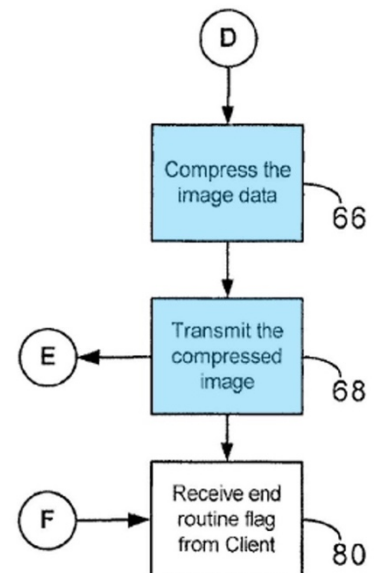


Fig. 2D

data and displays the image frame. Appx46 (3:67-4:3). This process is repeated many times per second to allow the user to play a 3D video game, in real-time, according to the target frame rate of the client. Appx47-48 (6:23-28, 6:63-7:7); Appx3104 (Hart Decl. ¶ 36).

Independent claims 1 and 8 of the '109 Patent accordingly recite this series of interconnected steps:

- “receiving at the server user input signals from a client device, wherein the user input signals are used to control updating of the state of the interactive software application,” Appx49 (9:58-61, 10:31-34), and
- “generating at least one updated image at the server in response to updating the state of the interactive software application,” Appx49 (9:62-64, 10:35-38), and
- “compressing the at least one updated image,” Appx49 (9:65, 10:39), then
- “transmitting the compressed updated image,” Appx49 (9:65-66, 10:39-40).

See Appx3203-3209 (38:19-40:21, 43:17-44:22); Appx3106-3109 (Hart Decl. ¶¶ 40-43); Appx4276.

C. U.S. Patent No. 6,409,602 (“Wiltshire”)

Appellant’s primary reference, Wiltshire, described a networked gaming system with “gaming stations” and the ability to accept wagers as shown below:

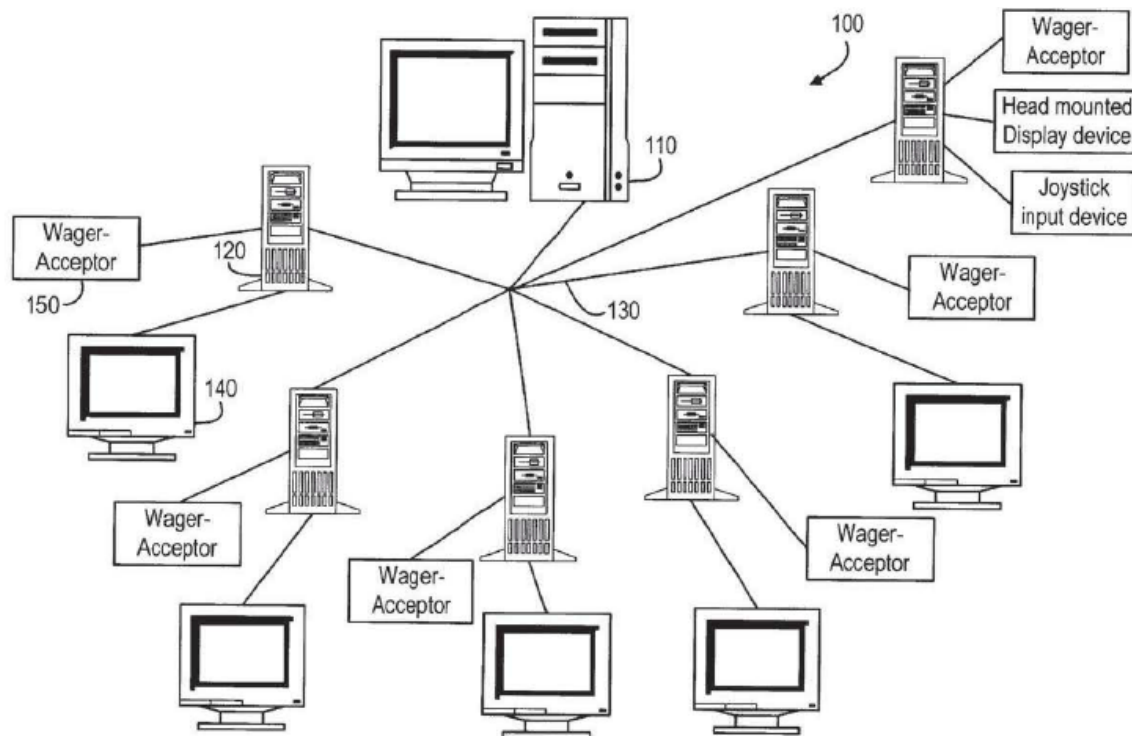
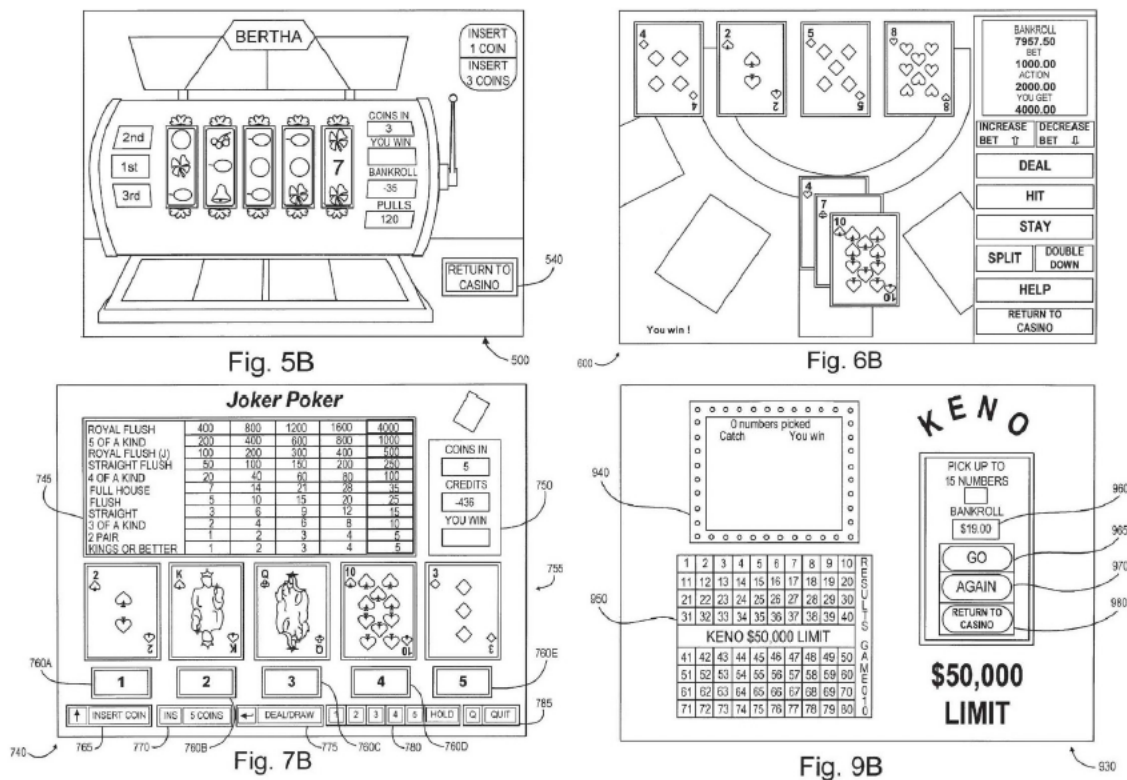


Fig. 1D

Appx1320 (Abstract); Appx1323 (Fig. 1D).

Wiltshire's system touted the advantages of this system, including "drastically reduc[ing] the cost and substantially increase[ing] the tamper resistance of individual gaming stations" and "the house (or casino) levying a periodic fee for the privilege of using the gaming station." Appx1340 (2:22-25, 1:56-57); *see also* Appx1345 (12:10-13) ("any casino game or other non-casino games where players play against each other for money with the house taking a percentage of the stake for providing the game"), Appx1344-1345 (9:12-10:53). As the Board correctly found, Appx27, Wiltshire describes the operation of "slot

machine” games, video “blackjack games,” and “video poker” in Figures 5-7 and 9:



Appx1329 (Fig. 5b), Appx1331 (Fig. 6b), Appx1333 (Fig. 7b), Appx1337 (Fig. 9b); *see also* Appx1344-1345 (9:7-11, 9:63-10:5, 10:15-53, 11:39-43).

Wiltshire contains no disclosure of how to create the rudimentary casino game images shown on the individual gaming stations. Appx1343 (7:7-56); Appx3117-3119 (Hart Decl. ¶¶ 61-63), Appx22-23. Wiltshire's Figure 2 flow chart includes a decision block 220 stating "Display/update image?" highlighted at right. Appx1324 (Fig. 2).

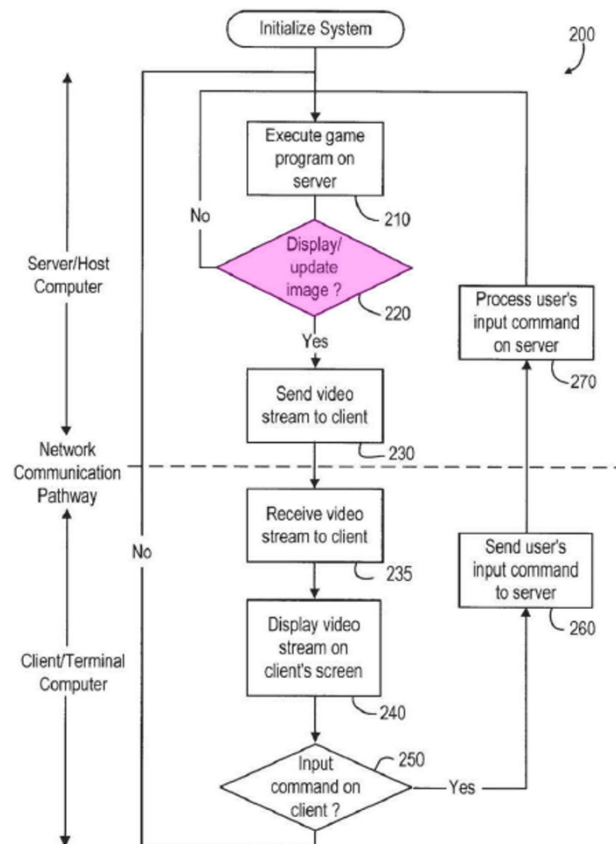


Fig. 2

Wiltshire never describes decision block 220 or how the images in the next block 230 "Send video stream to client" are created. Appx1343 (7:7-56); Appx22-23; Appx3117-3119 (Hart Decl. ¶¶ 61-63). Wiltshire, however, expressly teaches using pre-existing images, such as "preloaded" images on the gaming station "terminal computers 120" to reduce bandwidth. Appx1343 (8:8-11).

D. The IPR Proceedings Below

The Petition cited two teachings from Wiltshire to assert the alleged prior art satisfied the claim requirement of "generating at least one updated image at

the server in response to updating the state of the interactive software application”:

- Wiltshire’s cryptic “Display/update image?” step 220 in Figure 2, Appx4035 (reproducing Appx1324 (Fig. 2)); and
- A single sentence in Wiltshire: “The image is generated by game computer program 112 and passed to server/host interface program 114.” Appx4036 (quoting Appx1343 (7:18-20)).

After institution, the parties hotly contested the “generating” and the other related limitations of the ’109 Patent.

Appellee’s Patent Owner Response disputed that Wiltshire met several limitations of the ’109 Patent, including the claimed “generating” updated images. Appx4276-4284; *see also generally* Appx4246-4318; Appx3086-3165 (Hart Decl.). It disputed the Petition’s reliance on step 220, Appx4281-4282, and cited supporting expert testimony from Dr. Hart, Appx4281 (citing Appx3117-3119 (Hart Decl. ¶¶ 61-63)). Appellant disputed the term on reply, pointing to Wiltshire’s mention of the “Doom” video game for the first time. Appx4348. Appellee responded in its Sur-Reply, again disputing the “generating” limitation was met, including by Doom, among other limitations. Appx4397-4398; *see also generally* Appx4381-4413.

The “generating” term and Wiltshire’s teachings about game images were debated at the final oral hearing before the Board. There Appellant acknowledged this issue was disputed at the oral hearing, Appx4555 (9:14-17), and addressed the dispute, Appx4553-4557 (7:3-11:4). Appellee also answered questions about it. *See, e.g.*, Appx4588-4598 (Hearing Tr. 42:21-52:5).

The Board’s Final Written Decision took a deep dive on the question of whether Appellant met its burden to show Wiltshire disclosed “generating at least one updated image at the server in response to updating the state of the interactive software application.” *See* Appx16-35. In a 35-page decision, the Board carefully considered the parties’ arguments, the ’109 Patent, Wiltshire, and the expert testimony to conclude that Wiltshire’s casino game system did not teach dynamically “generating” game images as required by the ’109 Patent claims. Appx1-35.

The Board analyzed the ’109 Patent specification and claims to conclude “the generating step involves generating the ‘corresponding image for the image-modifying data’ received from the client, *i.e.*, creating a new image based on data received from the client.” Appx21-22 (citing Appx42 (Figs. 2A-2B), Appx47-49 (5:21-23, 5:24-27, 8:4-6, 9:58-64), Appx3106 (¶ 40)). Thus, the Board found that “modifying what is displayed on the client device merely by selecting a pre-existing image does not meet the ‘generating’ limitation.” Appx22.

The Board considered Wiltshire and found it did not disclose “*generating* an updated image in response to the updated game state.” Appx22-23 (citing Appx1324 (Fig. 2); Appx1343 (7:6-44)) (emphasis original). It found Wiltshire “does not explain what ‘display/update image?’ means” in decision step 220. Appx22 (citing Appx1343 (7:6-44)). The Board also found that Wiltshire expressly disclosed using “preloaded” images on the gaming station “terminal computers 120” to reduce bandwidth. Appx26 (citing Appx1343 (8:8-11); *see also* Appx1343 (7:65-8:2); Appx4592-4593 (Hearing Tr. 46:17-47:5)).

The Board further considered the single sentence in Wiltshire: “The image is generated by game computer program 112 and passed to server/host interface program 114.” *See* Appx25-26; Appx1343 (7:18-20). On this point the Board examined the expert testimony “find[ing] persuasive Dr. Hart’s testimony” that this sentence “could include the contents of a pre-existing compressed image file,” Appx25 (citing Appx3118-3119 (Hart Decl. ¶¶ 62-63), and rejecting Dr. Fuch’s contrary opinion, Appx24-25 (citing Appx1039-1043 (Fuchs Decl. ¶¶ 71-79)).

The Board also rejected Appellant’s “Doom” video game argument, explaining that Wiltshire’s passing mention of Doom “in a lengthy list of games” does not teach “using the operation disclosed in Figure 2 with Doom.” Appx26-27 (citing Appx1340-1341 (1:26-44, 1:15-25, 2:20-3:3); Appx4397-4398; Appx1830 (Hart Depo. 45:10-19); Appx1833-1834 (Hart Depo. 48:11-49:2)).

As a result, the Board confirmed the '109 Patent claims on this basis. Appx32. This appeal followed.

III. SUMMARY OF ARGUMENT

This appeal is principally about substantial evidence. The Board issued a 35-page opinion that thoroughly examined the question of whether Wiltshire's casino game system satisfied the 109 Patent's requirement of "generating at least one updated image at the server in response to updating the state of the interactive software application." After reviewing in detail the parties' arguments, the '109 Patent, Wiltshire, and expert testimony, the Board concluded Wiltshire did not disclose this limitation and confirmed the patent claims. Appellant's mere disagreement with the Board's decision does not satisfy its high burden to show it is unsupported by substantial evidence. The Board's decision is amply supported.

Appellant first resorts to misdirection. It mischaracterizes the Board's findings as saying Wiltshire's use of the word "'generated' fails to disclose the '109 patent claims' 'generating' requirement." Blue Br. at 4. Next, Appellant asks this Court to construe "generating" for the first time on appeal despite acknowledging that the Board never construed the "generating" limitation and that it never sought a construction of the term before the Board. The rest of the brief is devoted to attacking factual findings Appellant disagrees with, despite the

substantial evidence supporting them, or complaining about perceived violations of Appellant's procedural rights.

None of these arguments have any merit, and the Board's decision should be summarily affirmed.

IV. ARGUMENT

A. Standards of Review

Obviousness is a question of law based on underlying facts. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). This Court reviews the Board's legal conclusion of obviousness *de novo* and the underlying factual findings for substantial evidence. *In re Cuozzo Speed Techs.*, 793 F.3d 1268, 1280 (Fed. Cir. 2015).

Substantial evidence "means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938); *In re Morsa*, 713 F.3d 104, 109 (Fed. Cir. 2013). Substantial evidence does not ask whether a party's "preferred [evidence] could support a conclusion." *In re Inland Steel Co.*, 265 F.3d 1354, 1366 (Fed. Cir. 2001). Indeed, substantial evidence can support a conclusion "even if other evidence may reasonably allow one to infer" a different conclusion. *Real Foods Pty Ltd. v. Frito-Lay N. Am., Inc.*, 906 F.3d 965, 976 (Fed. Cir. 2018).

In making its factual findings, “the PTAB is permitted to weigh expert testimony and other record evidence and, in so doing, rely on certain portions of” the record evidence while disregarding others. *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1041 (Fed. Cir. 2017).

B. The Board’s Finding That Appellant Failed to Meet Its Burden to Show Unpatentability Is Supported by Substantial Evidence

1. Appellant Ignores the Board’s Actual Finding, which Is Amply Supported by Substantial Evidence

Appellant argues that the Board’s finding “that Wiltshire does not disclose ‘generating’ an updated image” lacks substantial evidence support because “Wiltshire explicitly teaches that ‘the image is *generated*.’” Blue Br. at 32 (citing Appx32-33). This is the Board’s actual finding:

Petitioner has not met its burden to show by a preponderance of the evidence that a person of ordinary skill in the art would have understood the combination of Wiltshire and Saha as teaching “*generating at least one updated image at the server in response to updating the state of the interactive software application*,” as claimed

Appx32; *see also* Appx19.

In stripping away context and focusing on a single word—“generating”—Appellant never squarely addresses the Board’s actual findings and supporting evidence that Wiltshire does not meet the claims requirement of generating in response to updating the state of the interactive software application. *See* Blue

Br. at 32-45. Appellant cannot challenge these findings and supporting substantial evidence on reply. *Advanced Magnetic Closures, Inc. v. Rome Fastener Corp.*, 607 F.3d 817, 833 (Fed. Cir. 2010) (“This court has consistently held that a party waives an argument not raised in its opening brief.”). The Board’s decision may be affirmed in its entirety on this basis.

Even if entertained, Appellant’s argument falls short. There is more to establishing unpatentability than merely saying the patent claim and alleged prior art use similar words. *In re Sang-Su Lee*, 277 F.3d 1338, 1345 (Fed. Cir. 2002) (patentability must be assessed “from the viewpoint of the person having ordinary skill in the art”) (internal quotation marks omitted). That is particularly true here because the ’109 Patent claims include more than the word “generating.” Independent claims 1 and 8 both recite:

- “updating of the state of the interactive software application” with “user input signals from a client device”; and
- “generating at least one updated image at the server *in response to* updating the state of the interactive software application.”

Appx49 (9:58-64, 10:31-38).

The ’109 Patent claims, thus, require “generating” “in response to updating the state of the interactive software application.” Generating images in the abstract at some unidentified prior time before game play begins is not

“generating ... *in response to* updating the state of the interactive software application” and is irrelevant to whether Wiltshire discloses this limitation required by all ’109 Patent claims.

As the Board correctly found, Appellant relied on Figure 2 and the accompanying description to assert the “generating” limitation was met. Appx19 (citing Petition at Appx4034-4037; Appx4347-4353). Appellant focused on step 220 in Figure 2, labeled “Display/update image?”, to assert that Wiltshire taught the “generating” limitation, shown at right. Appx4035-4036 (blue annotations in original).

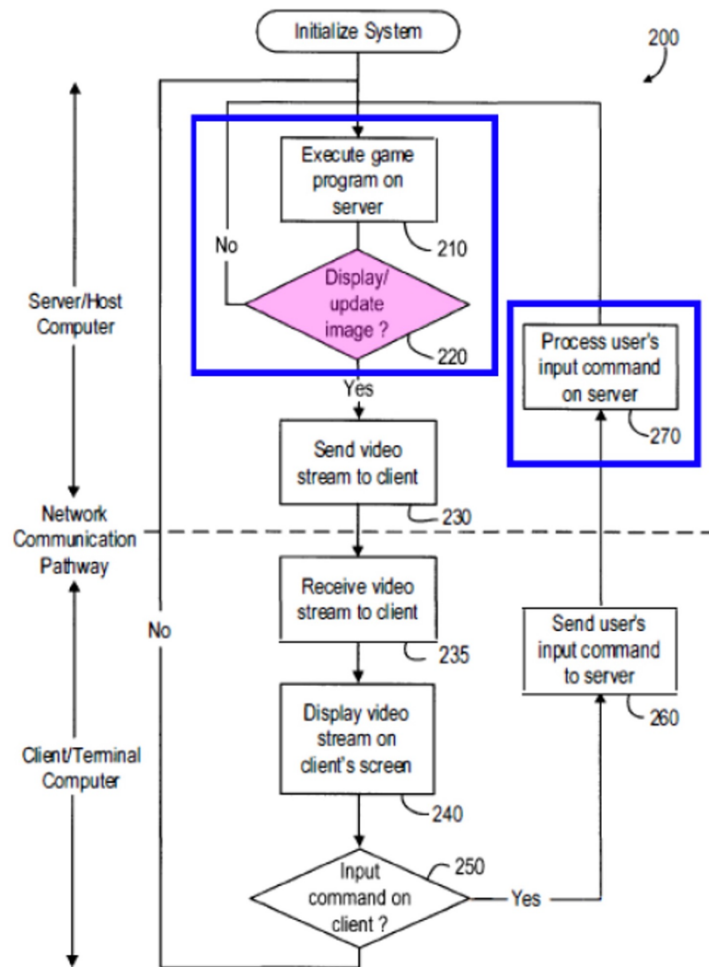


Fig. 2

The Board carefully considered the parties’ arguments, Wiltshire’s disclosure, and expert testimony to make detailed findings in the Final Written

Decision supporting its conclusion confirming patentability. Appx16-32.

Specifically:

- Wiltshire’s Figure 2 “merely states ‘display/update image?’”, Appx22 (citing Appx1324 (Fig. 2)), and the accompanying description “does not explain what ‘display/update image?’ means.” Appx22 (citing Appx1343 (7:6-44)).
- Wiltshire’s “update image?” disclosure is only found in Figure 2 “within a decision symbol—a symbol used to indicate a question in the flow diagram, not the steps that occur after the decision.” Appx22.
- Wiltshire discloses that step 220 “determines whether an image is to be displayed on the screen of client/terminal computer 120, in which case operation 200 proceeds to stage 230.” Appx23 (citing Appx1343 (7:9-12); Appx4281) (emphasis in original).
- The next step 230 in Wiltshire’s Figure 2, simply jumps to “*sending* the image to the client computer” and “does not disclose how that image is obtained at the server.” Appx23 (citing Appx1343 (7:12-16)) (emphasis in original).
- Wiltshire “does not disclose *how* the displayed image is modified.” Appx23 (citing Appx1343 (8:61-63)) (emphasis in original).

- Wiltshire only discloses using pre-existing images that can be “preloaded” onto the client device. Appx26 (citing Appx1343 (8:8-11)).

All of these findings are supported by substantial evidence. Appx1324 (Fig. 2); Appx1343 (7:6-44, 8:2-11, 8:61-63); Appx3118-3119 (Hart Decl. ¶¶ 62-63). In fact, they are compelled by Wiltshire’s express disclosure.

Based on its detailed factual findings supported by record evidence, the Board correctly concluded that “step 220 of Wiltshire’s Figure 2 does not disclose *generating* an updated image in response to the updated game state.” Appx22. Plainly, the Board’s findings are supported by substantial evidence, and it did not misapprehend Wiltshire.

2. The Board Didn’t Miss “The Image Is Generated” Sentence in Wiltshire

Appellant repeatedly quotes from a single sentence to argue Wiltshire specifically discloses the “generating at least one updated image at the server *in response to* updating the state of the interactive software application” limitation. Blue Br. at 29 (quoting Appx1343 (7:18-20)); *see also e.g.*, Blue Br. at 32, 33, 34, 35, 36, 37 (citing same). This sentence says: “The image is generated by game computer program 112 and passed to server/host interface program 114.” Appx1343 (7:18-20).

The Board addressed this passage in its Final Written Decision, finding

persuasive Dr. Hart’s testimony that a person of ordinary skill in the art would have understood Wiltshire’s disclosure that ‘the image [] generated by the computer program’ could include contents of a compressed image file,’ rather than requiring the image be updated.

Appx25 (citing Appx3118-3119 (¶¶ 62-63)). Appellant’s claim that the Board “never squarely deals with Wiltshire’s explicit teaching that ‘[t]he image is *generated* by game computer program 112,’” Blue Br. at 36, is unsupported.

The Board examined closely whether Appellant met its burden on this point and concluded that Wiltshire did not expressly or inherently teach the requirements of the “generating” claim limitation. *See, e.g.*, Appx30 (“Wiltshire’s example 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*.”); Appx31 (“[E]ven 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)).

Indeed, the sentence upon which Appellant places so much weight says nothing about the issue before the Board of whether “[t]he image is generated” “in response to updating the state of the interactive software application” as

required by the claims. Appx49 (10:31-38). Appellant apparently appreciated the irrelevance of the sentence in the IPR because, after quoting it once in the Petition (Appx4036), it never mentioned it again throughout the rest of the briefing and oral argument before the Board. *See generally* Appx4333-4368; Appx4547-4641.

Appellant also pieces together a collage of disparate quotes about keystrokes and mouse-clicks to assert Wiltshire teaches generating updated images. Blue Br. at 34-35 (citing Appx1341 (4:18-21), Appx1342 (5:59-6:65), Appx1343 (7:31-34, 7:39-43), Appx1324 (Fig. 2)). But the Board considered these sections of Wiltshire, Appx12-13, Appx22-25, and Appellant cites nothing showing these teachings are related or that Wiltshire generates an updated image in response to the user input.

Appellant also disputes that Dr. Hart's expert testimony supports the Board's purported finding that "Wiltshire's disclosure that the 'image is generated' does not mean the image is generated." Blue Br. at 36-37. This is misdirection. The Board did not find that generated does not mean generated, but that Wiltshire and Saha did not teach the claim requirement of "generating at least one updated image at the server in response to updating the state of the interactive software application." Appx19; *see supra* § IV.B.1.

As the Board correctly recognized, Dr. Hart's testimony supports its findings that Wiltshire does not generate new images in response to updating

game state as claimed, Appx25 (citing Appx3118-3119 (Hart Decl. ¶¶ 62-63)), and Appellant does not substantively dispute that, *see* Blue Br. at 36. Instead, Appellant complains that Dr. Hart’s testimony addressed the “compressing” limitation. Blue Br. at 36. As Appellee pointed out during the IPR, those claim limitations are interrelated. Appx4276-4279; Appx4397-4400. The organization of Dr. Hart’s declaration does not make his testimony any less accurate, particularly when Appellee cited those same paragraphs to show Wiltshire does not generate new images. *See* Appx4279-4280 (citing Appx3118-3119 (Hart Decl. ¶¶ 62-63)).

Similarly, Appellant’s repeated assertions that “Dr. Hart admitted that Wiltshire discloses ‘generating’ images as claimed,” Blue Br. at 37-38, is unsupported because he never opined or conceded that Wiltshire “generated” images “in response to updating the state of the interactive software application,” which was the disputed issue before the Board. *See* Appx3118-3119 (¶¶ 62-63).

Nor does Appellant contest that “the PTAB is permitted to weigh expert testimony and other record evidence” in making its factual determinations. *Icon Health*, 849 F.3d at 1041. That is exactly what the Board did here in crediting Dr. Hart’s testimony. Appx25. Even if Appellant disagrees with the Board’s factual findings, Dr. Hart’s expert testimony indisputably is substantial evidence supporting those findings. *Consol. Edison*, 305 U.S. at 229.

C. The Board Did Not Misconstrue “Generating” in the ’109 Patent or Misinterpret Wilshire

Appellant’s next argument is that the Board issued a phantom claim construction of “generating” in the ’109 Patent and then relied on it to misconstrue “generated” in Wilshire. Blue Br. at 38. Neither argument has merit.

1. The Board Did Not Misunderstand “Generating” in the ’109 Patent

Appellant admits the Final Witten Decision “conducts no formal claim construction analysis.” Blue Br. at 39. Now Appellant claims the Board implicitly construed “generating” to exclude “selecting from pre-existing images.” Blue Br. at 39-40. Appellant argues this was “legal error,” yet in the next sentence asserts the claim term needs “[n]o explicit construction ... to resolve this appeal.” Blue Br. at 40.

Even if Appellant’s argument were not internally inconsistent, the Board committed no legal error here. Appellant is right that the Board never construed the “generating at least one updated image at the server in response to updating the state of the interactive software application.” Appx10-11. Despite the dispute over whether Wilshire disclosed this limitation during the trial, Appellant never proposed any construction of this term to the Board, Appx11, and cannot raise it now. Even if this Court were inclined to entertain claim construction for the first time on appeal, the Board’s understanding that the “generating” limitation is not

met by selecting pre-existing images is supported by both the intrinsic record and the plain meaning of “generating.”

a. Appellant’s Claim Construction Argument Is Forfeited

Appellant admits that it did not seek a construction of the “generating” limitation during the IPR. Blue Br. at 39. It did not ask for a construction in the Petition. Blue Br. at 59; Appx4005-4087. Appellee argued that Wiltshire failed to disclose the “generating” limitation because selecting pre-existing images is not “generating” as claimed; Appellant’s reply brief responded; and Appellee reiterated the argument in its sur-reply. Appx4279-4282; Appx4347-4348; Appx4397-4398. Appellant acknowledged this issue was disputed at the oral hearing, Appx4555 (Hearing Tr. 9:14-17), but Appellant never proposed the term for construction, *see, e.g.*, Appx4555-4557 (Hearing Tr. 9:18-11:4).

Now for the first time on appeal, Appellant asserts that “generating at least one updated image” should be construed to include “selecting from pre-existing images.” Blue Br. at 39-40. This claim construction was not presented to the Board and is forfeited. *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 694 (Fed. Cir. 2008) (“[A] party may not introduce new claim construction arguments on appeal...”); *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1357 n.3 (Fed. Cir. 2018) (finding claim construction argument waived when “neither party proffered a construction of this limitation to the PTAB”).

b. The Board Correctly Recognized that “Generating” Does Not Include Selecting from Pre-Existing Images

Even if the Court considers claim construction for the first time in this appeal despite Appellant’s forfeiture, the Court should conclude that “selecting a pre-existing image does not meet the ‘generating’ limitation” just as the Board did. Appx22. It is supported by the language of the claims themselves, the specification, and the plain meaning of “generating.” The Board provided a detailed analysis of how the ’109 Patent supports its understanding, while Appellant cites nothing supporting its belated construction.

The Board began its analysis with a detailed discussion of the '109 Patent flowcharts showing the claimed process performed on the client (Fig. 2A) and server (Fig. 2B), reproduced at right. Appx21 (citing Appx42 (Figs. 2A-2B); Appx47 (5:21-27)) (blue highlighting added).

The Board correctly found that step 62 (annotated

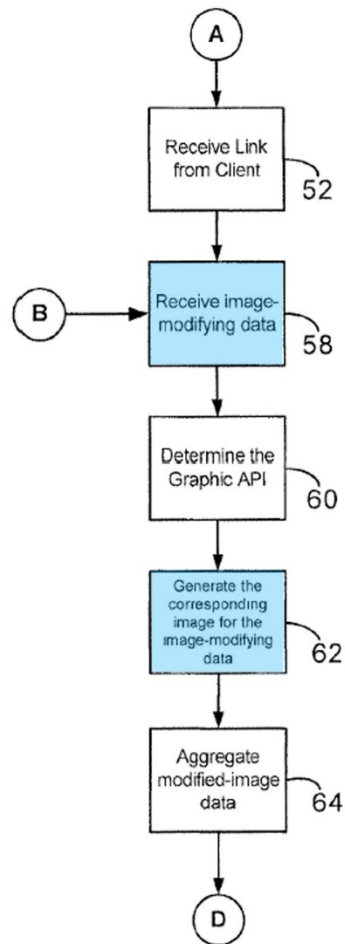


Fig. 2B

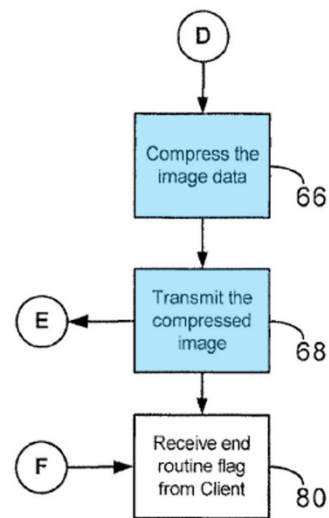


Fig. 2D

in blue) “involves generating the ‘corresponding image for the image-modifying data’ received from the client, *i.e.*, creating a new image based on data received from the client.” Appx21-22 (citing Appx48 (8:1-6)). Indeed, the '109 Patent discusses the server drawing 3D images with “application programming interfaces such as Direct 3D or OpenGL” and sending the “resulting image” to the client “[w]hen the drawing is complete.” Appx49 (9:20-31); *see also* Appx46 (3:45-57) (similar). The Board correctly found that the claimed steps track this disclosure

and consequently determined that “generating” an updated image as required by the claims is not met by merely “selecting a pre-existing image.” Appx22.

The Board’s understanding also comports with the plain and ordinary meaning of the word “generating.” This Court has previously construed “generating” a file to be “distinct from selecting an existing file.” *Suffolk Techs., LLC v. AOL Inc.*, 752 F.3d 1358, 1362 (Fed. Cir. 2014) (affirming construction of “generating said supplied file” as “creating or tailoring a file,” not “selecting an existing file”); *see also, e.g., In re Scroggie* 170 F. App’x 132, 135 (Fed. Cir. 2006) (nonprecedential) (“Generating does not imply a mere selection of pre-existing page data, but rather the creation or origination of such data.”). Thus, if this Court construes “generating” in the first instance, it should affirm the Board’s finding that the “generating” limitation is not met by selecting pre-existing images.

c. If Considered, Appellant’s New Proposed Claim Construction Has No Merit

To support its new claim construction position, Appellant proffers a series of claim construction arguments never presented to the Board below. Blue Br. at 39-45. None of them have merit. But to the extent the Court considers them now, Appellee addresses them.

Appellant begins with the inaccurate premise that “generating” includes “selecting,” without any supporting evidence or explanation. *See* Blue Br. at 39-41. Appellant asserts that the Board erred by interpreting “generating” to exclude “selecting from among pre-existing images[] without any support from the intrinsic record” or “identifying any clear disclaimer of claim scope or lexicography.” *Id.* at 40-41. However, Appellant does not explain, much less demonstrate, why one of ordinary skill would understand selecting a pre-existing image to be a type of “generating” in the first place. *See id.* It is not. Appx42-43 (Figs. 2A-D); Appx47-49 (5:21-27, 8:4-6, 9:58-64); Appx3106-3109 (Hart Decl. ¶¶ 40-43); Appx4276-4277. Appellant further ignores the contrary evidence from the intrinsic record relied upon by the Board and discussed above. *See supra* § IV.C.1.b.

Appellant also asserts that neither the claims nor the specification “restrict[s]” or “narrow[s] the plain meaning of ‘generating’ to exclude use of pre-existing images.” Blue Br. at 41-43. But Appellant fails again to establish its premise that the plain meaning of “generating” an “updated image,” when read in the context of the claim language, specification, and prosecution history, includes merely selecting pre-existing images. *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (“The words of a claim are generally given

their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history.”).

Appellant argues that “step 58” in the ’109 Patent’s disclosure teaches selecting pre-existing images. Blue Br. at 43 (citing Appx48 (7:61-65)). Selectively quoting the patent, Appellant contends for the server to recognize a correspondence between “data” and an “image in a graphics API,” the image must already exist. *Id.* at 43-44. But the cited passage explains that a “graphics API”—which is software, not an image—is “recognizable to the visual server 12,” precluding Appellant’s argument that the image necessarily pre-exists. Appx48 (7:61-65); *see also* Appx48 (7:65-8:1). The ’109 Patent continues to expressly contradict Appellant’s interpretation that the image necessarily pre-exists, explaining that “[t]he visual server 12 ... then **generates** the corresponding **modified image** based upon the image-modifying data received from the client.” Appx48 (8:1-6). Appellant’s invocation of “database 40” in the ’109 Patent fares no better, Blue Br. at 43-44, because it stores graphics APIs, not images, Appx47 (6:2-4) (“[D]atabase 40 for storing the image related information such as the specific graphical application programming interface [API] that the client 16, 18, 20 requires.”).

Appellant next points to video formats in the ’109 Patent to assert they must use “pre-existing image files.” Blue Br. at 44 (citing Appx47 (6:48-62)). This

disclosure actually explains that the “compression standard” used can include “streaming *formats* such as Windows Media .ASF standard, Real .RM standard, Apple .MOV standard,” not that any images are stored as a pre-existing file. Appx47 (6:48-62).

Appellant lastly argues that because the ’109 Patent mentions running “standard software, such as games,” somehow the Board’s “construction would improperly exclude” software “that use[s] pre-existing images.” Blue Br. at 44-45 (citing Appx49 (9:18-20), Appx48 (7:19-24), Appx46 (3:43-45)). Appellant never explains how running “standard software” would require the ’109 Patent’s system to select pre-existing images, as opposed to “generating” updated images in response to updating the game state. *Id.* To the contrary, the ’109 Patent explains that the visual server would be used for “image modification” in this scenario. Appx48 (7:19-24); *see also* Appx49 (9:18-22) (discussing “drawing” images), Appx46 (3:43-48) (similar).

Because Appellant shows no error in the Board’s finding that “selecting a pre-existing image does not meet the ‘generating’ limitation,” Appx22, Appellant’s eleventh-hour claim construction should be rejected.

2. The Board Did Not Misinterpret Wiltshire in Finding It Did Not Disclose the “Generating” Limitation

Appellant next argues in the alternative that, even if the Board’s understanding of the “generating” limitation were correct, Wiltshire’s various disclosures of “casino and non-casino games” would nonetheless meet it. Blue Br. at 45-46.

As a threshold matter, the Board’s factual finding that Wiltshire did not disclose generating new images is supported by substantial evidence. *See supra* § IV.B. Appellant’s mere pointing to other disclosures in Wiltshire does not show the absence of substantial evidence supporting that finding. *See, e.g., Inland Steel*, 265 F.3d at 1366; *Real Foods*, 906 F.3d at 976. If this Court wishes to entertain these irrelevant arguments, Appellee addresses them below.

a. Substantial Evidence Supports the Board’s “Doom” Findings

Appellant devotes nearly five pages of briefing to re-arguing on appeal that Wiltshire’s passing mention of “Doom” and “non-casino games” shows Wiltshire “generate[d] ‘new’ images.” Blue Br. at 46; *see also id.* at 46-50.

The Board rejected this argument below, finding that Wiltshire’s single mention of “Doom” in the background section did now show that Wiltshire taught “generating” updated images in real-time, as claimed. Appx26-27 (citing Appx1340-1341 (1:15-44, 2:20-3:3); Appx1830 (Hart Depo. 45:10-19);

Appx1833-1834 (Hart Depo. 48:11-49:2); Appx4397-4398); *see also* Appx18. The Board correctly determined that “Wiltshire does not teach using the operation disclosed in Figure 2 with Doom, and we find nothing in Wiltshire to suggest that a person of ordinary skill in the art would have understood that Wiltshire’s system could possibly have supported that game in the manner proposed by Petitioner.” Appx26-27.

The Board’s determination of how one of skill in the art would interpret Wiltshire’s disclosure is a factual finding. *See, e.g., Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1343 (Fed. Cir. 2016); *Meiresonne v. Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017). That finding is supported by substantial evidence. Appx26-27 (citing Appx1340 (1:15-25, 1:26-44); Appx1340-1341 (2:20–3:3); Appx1343-1345 (8:37-11:53); Appx1830-1834 (Hart Depo. 45:10-19, 48:11-49:2)); *see also* Appx1324 (Fig. 2); Appx1343 (7:7-45, 8:2-14); Appx3117-3122 (¶¶ 60-68); Appx4397-4400.

On appeal, Appellant does not dispute that Wiltshire “only provides details as to how its system is used” for casino games, or that Doom is only mentioned “in a lengthy list of games” in Wiltshire’s background. Appx27; Blue Br. at 46-50. Instead, Appellant simply asserts, without support, that Wiltshire’s Figure 2 embodiment can be used with Doom without citing anything in Wiltshire showing how Doom would work in the system of Figure 2. Blue Br. at 46-47, 49.

Appellant’s “Doom” argument fails to dislodge the substantial evidence supporting the Board’s factual findings on this point and should be rejected. *See Inland Steel*, 265 F.3d at 1365; *Real Foods*, 906 F.3d at 976. Appellant did not argue that Wiltshire rendered the “generating” limitation obvious. Appx25 (“Petitioner does not argue that Wiltshire renders the ‘generating’ limitation obvious or that a person of ordinary skill in the art would have found it obvious to modify Wiltshire’s system to implement the generating step.”).

b. Substantial Evidence Supports the Board’s “Casino Game” Findings

Appellant next spends four pages of briefing to re-argue that Wiltshire’s casino-game embodiments showed Wiltshire generated new images. Blue Br. at 50-54. The Board already determined that Wiltshire’s discussion of casino games did not inherently disclose “generating” an “updated image” in response to user input, and could have simply used pre-existing images. Appx27-31 (citing Appx1326-1339 (Figs. 4A-9D); Appx1341 (3:22-24); Appx1343-1345 (8:37-11:53); Appx3117-3122 (Hart Decl. ¶¶ 60-68); Appx4591-4594 (Tr. 45:7-46:14, 47:17-48:25); Appx4279-4280).

Again, the Board’s determination of how one of skill would have understood the casino games in Wiltshire is a factual finding. *Blue Calypso*, 815 F.3d at 1343; *Meiresonne*, 849 F.3d at 1382. This finding is also supported by

substantial evidence. Appx1326-1339 (Figs. 4A-9D); Appx1341 (3:22-24); Appx1343-1345 (8:37-11:53); Appx3117-3122 (Hart Decl. ¶¶ 60-68); Appx4591-4594 (Tr. 45:7-46:14, 47:17-48:25); Appx4279-4280; Appx1343 (8:8-11) (Wiltshire: “[I]n some embodiments, images for use by computer gaming system 100 are preloaded into a memory of client/terminal computers 120 to further reduce the amount of communication network bandwidth required.”)).

Appellant argues for the first time on appeal that Wiltshire’s blackjack game would require billions or trillions of pre-existing images if Figure 6B represented a pre-existing image. Blue Br. at 52. That argument is waived. *Nuvasive*, 842 F.3d at 1380. Even if not waived, there is no record evidence supporting it. Even if the lack of record evidence is ignored, Appellant fails to demonstrate that one of ordinary skill would understand that Wiltshire’s blackjack would need to store images “for every possible permutation.” Blue Br. at 52. Wiltshire itself contradicts this notion. *See, e.g.*, Appx1343 (8:2-7) (changing the image displayed on the client does not require a “full screen refresh[.]”); *see also, e.g.*, Appx4593 (47:22-24) (“[T]hese games don’t require updating the screen, they require changing a card face. ... A card face is likely a pre-existing image.”). This argument also lacks merit.

Appellant also asserts that its expert testified that “reels that ‘spin’” in a simulated slot machine indicate that Figure 8B is “one of a series of new images

generated on the fly and displayed during operation 200,” Blue Br. at 53-54, but Appellant points to nothing in Wiltshire that shows that these images are “generated on the fly” as it and its expert asserted, *see id.*

Indeed, Appellant concedes that the Board relied on Dr. Hart’s testimony and Figures 4A, 4B, 8A, and 9A of Wiltshire. Blue Br. at 50-51. Wiltshire contains no embodiments that generated updated images in real time. *See generally* Appx1320-1346. Appellant’s complaints that the Board did not credit its preferred evidence do not displace the substantial evidence supporting the Board’s factual findings that Wiltshire did not teach generating updated images as claimed. *See Inland Steel*, 265 F.3d at 1366; *Real Foods*, 906 F.3d at 976.

c. Substantial Evidence Supports the Board’s “Pre-Loaded Images” Findings

Next, Appellant complains about the Board’s reliance on Wiltshire’s express disclosures of using “preloaded” images in its embodiments to support its factual findings. Blue Br. at 54-55. As the Board correctly observed, this argument “misses the point.” Appx26. The Board did not find that Wiltshire is limited to pre-existing images, but that Appellant failed to carry its burden to establish Wiltshire necessarily operated otherwise. Appx31-32. In disposing of this argument, the Board explained:

Wiltshire’s discussion here is directed to reducing the amount of network bandwidth required rather than how the images themselves

are obtained. Wiltshire’s reference to “some embodiments” therefore distinguishes the location where those pre-existing images are stored, not the very use of preexisting [*sic*] images.

Appx26 (citing Appx1343 (8:8-11, 7:65-8:2); Appx4592-4593 (46:17-47:5)).

Moreover, Appellant again relies on an incorrect factual premise—“Nowhere does Wiltshire describe its *server* as storing any preloaded images.” Blue Br. at 55 (emphasis in original). But the Board found to the contrary: “The fact that Wiltshire specifically refers to the use of a *file* supports Dr. Hart’s testimony that the updated image that Wiltshire refers to could simply be a pre-existing image file.” Appx25 (citing Appx1343 (7:15-16); Appx3119 (¶ 63); Appx4280 (“That scenario need not involve the creation of a new image or compression because the video clip may come from a file held on the server just for that purpose.”)). That finding is supported by the cited evidence.

Because Appellant failed to meet its burden to show that Wiltshire necessarily generated updated images in response to updated game state, the Board correctly found that Appellant arguing that Wiltshire did not disclose the opposite did not carry its burden. Appx31-32 (citing 35 U.S.C. § 316(e); *Dynamic Drinkware v. Nat’l Graphics*, 800 F.3d 1375, 1378 (Fed. Cir. 2015); *Magnum Oil Tools*, 829 F.3d at 1376–79)).

d. **Substantial Evidence Supports the Board’s “MPEG Stream” Findings**

Next Appellant argues that the Board did not credit Wiltshire’s disclosure of a “video MPEG stream.” Blue Br. at 55-56 (citing Appx1343 (7:18-19)). The Board already addressed it, finding that “Wiltshire’s disclosure is completely silent as to the content or origin of that ‘compressed video MPEG stream’” and that Appellant was attempting to “impart[] to Wiltshire something that Wiltshire never discloses.” Appx30. Substantial evidence supports this finding too. Appx4279-4280; Appx3117-3122 (¶¶ 60–68); Appx1324 (Fig. 2); Appx1326-1339 (Figs. 4A-9D); Appx1341 (3:22-24); Appx1343-1345 (7:18-19, 8:37-11:53); Appx4591-4594 (Tr. 45:7-46:14, 47:17-48:25). *See Inland Steel*, 265 F.3d at 1366; *Real Foods*, 906 F.3d at 976.

Adding Doom to the MPEG stream, as Appellant attempts to do on appeal, Blue Br. at 56, does not address the Board’s finding that Appellant failed to demonstrate that Wiltshire disclosed how the system of Figure 2 could support Doom. Appx26-27; *see supra* § IV.C.2.a.

Appellant’s cited evidence does not undercut the substantial evidence supporting the Board’s factual findings.

D. Appellant Shows No Violation of Its Procedural Rights

Appellant's brief concludes by asserting two APA violations: (1) the Board did not provide a satisfactory explanation for its decision; and (2) the Board violated Appellant's procedural rights by construing "generated" in the Final Written Decision. Blue Br. at 57-60. Neither has any merit.

Citing *Nuvasive*, Appellant first complains that the Board failed to "explain its rationale for finding that, where Wiltshire expressly states that '[t]he image is generated,' this does not actually mean that the image is generated." Blue Br. at 57-59. But that was not the Board's finding. *See* Appx32; *supra* § IV.B. Instead, the Board closely examined the parties' arguments and explained, with citations, why Appellant had not met its burden to show that Wiltshire and Saha teach generating an updated image, as claimed. Appx16-32. The decision here stands in contrast to *In re Nuvasive* where the "PTAB failed to articulate" any reasoning of a motivation to combine. 842 F.3d 1376, 1384 (Fed. Cir. 2016).

Second, Appellant alleges that the Board construed "generating" in the Final Written Decision, and this also violates its APA rights. Blue Br. at 59. But Appellant concedes that the Board engaged in no claim construction here. *Id.* at 39 ("although the FWD conducts no formal claim construction analysis"); Appx10-11. Instead, the Board found as a question of fact that Wiltshire did not

disclose the “generating” limitation as recited in the claims. Appx20-22; *see supra* § IV.C.1.

Even if this Court finds the Board implicitly adopted Appellee’s construction, Appellant did not dispute that “construction” and cannot do so now. Appx20 (“Patent Owner distinguishes the claimed ‘generating’ step from mere selection of pre-existing images, which Patent Owner contends Wiltshire discloses. We agree with Patent Owner that generating an updated image, as claimed, requires creation of a new image in response to updating the state of the interactive software application.”); *see also* Appx4555-4557 (9:14-11:4) (Appellant identifying Appellee’s argument and arguing that that Wiltshire is not limited to selecting pre-existing images); Blue Br. at 59 (“undisputed term ‘generating’”). Appellee very plainly stated its position in its Patent Owner Response and elsewhere: “Images 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. Rather, the images are preexisting and cannot meet the requirements of claims 1 and 8 even if they are compressed.” Appx4281; *see also* Appx4281-4282; Appx4398 (“[S]electing a preexisting image to transmit for display does not show the steps starting with ‘**generating** at least one updated image’ as required by claims 1 and 8.” (emphasis in original)).

As Appellant’s argument at the oral hearing shows, Appellant was fully aware that the parties contested the disclosure of the “generating” limitation. *See supra* § IV.C.1.b; Appx4279-4283 (Appellee’s Patent Owner Response); Appx4398 (Appellee’s Sur-Reply); Appx4588-4596 (Hearing Tr. 42:21-50:6) (Appellee answering questions about dispute at oral hearing). Unlike Appellant’s cited *Qualcomm* case, here Appellant had notice of the dispute and a full opportunity to respond, yet limited its response to arguing that Wiltshire disclosed the “generating” limitation as Appellee understood it. *See* Blue Br. at 60 (quoting *Qualcomm Inc. v. Intel Corp.*, 6 F.4th 1256, 1263 (Fed. Cir. 2021)); Appx4347-4348 (Reply: citing “Doom” to argue that Wiltshire “generate[s] updated images in response to user inputs in real time,” instead of merely selecting pre-existing images); Appx4555-4557 (Hearing Tr. 9:14-11:4) (Appellant acknowledging and responding to the dispute at oral hearing); Appx4553-4557 (Hearing Tr. 7:3-11:4) (Appellant addressing the dispute).

The Board’s resolution of this issue should not be surprising to Appellant. Appellant cannot now complain about the Board failing to consider an argument it never made, or that the Board adopted Appellee’s undisputed position.

V. CONCLUSION

For these reasons, the Court should affirm the Board’s decision confirming all challenged claims of the ’109 Patent.

Respectfully submitted,

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Dated: December 27, 2022

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CERTIFICATE OF COMPLIANCE

1. This brief complies with the type-volume limitation of Federal Circuit Rule 32(b). This brief contains 7,625 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(f) and Federal Circuit Rule 32(b)(2).
2. This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6). This Brief has been prepared in a proportionally spaced typeface using Microsoft Word in 14-point Times New Roman font.

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