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1. *2017 Pat. App. LEXIS 13275*

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2017 Pat. App. LEXIS 13275

Patent Trial and Appeal Board Representative Orders, Decisions and Notices

February 28, 2017, Decided

Case IPR2016-01880, Paper No. 16; Patent 8,035,649 B2

USPTO Bd of Patent Appeals & Interferences; Patent Trial & Appeal Bd Decs.

Reporter
2017 Pat. App. LEXIS 13275 *

ACTIVISION BLIZZARD, INC. and RIOT GAMES, INC.,; Petitioner,; v.; GAME AND TECHNOLOGY CO., LTD,; Patent Owner.

Notice:
[*1]

ROUTINE OPINION. Pursuant to the Patent Trial and Appeal Board Standard Operating Procedure 2, the opinion below has been designated a routine opinion.

Core Terms

patent, overlay, buffer, update, frame, display, texture, teach, independent claim, recite, load, inter partes, prelim, screen, space, reasonable likelihood, prevail, skill

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Panel: Before MICHAEL R. ZECHER, JENNIFER S. BISK, and JESSICA C. KAISER, Administrative Patent Judges.

Opinion By: JESSICA C. KAISER

Opinion

KAISER, *Administrative Patent Judge*.

DECISION

Denying Institution of *Inter Partes* Review *35 U.S.C. § 314(a) and 37 C.F.R. § 42.108*

Activision Blizzard, Inc. and Riot Games, Inc. (collectively "Petitioner") filed a Petition pursuant to *35 U.S.C. §§ 311-19* requesting an *inter partes* review of claims 1-16 of U.S. Patent No. ***8,035,649*** B2, issued on October 11, 2011 (Ex. 1001, "the '649 patent"). Paper 2 ("Pet."). Game and Technology Co., Ltd. ("Patent Owner") filed a Preliminary **[*2]** Response. Paper 15 ("Prelim. Resp."). Applying the standard set forth in *35 U.S.C. § 314(a)*, which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we deny Petitioner's request and do not institute an *inter partes* review of any challenged claim.

I. BACKGROUND

A. The '649 Patent (Ex. 1001)

The '649 patent relates to systems and methods for updating images on a screen. Ex. 1001, Abstract. In particular, the '649 patent explains that two different images, which can be generated in different amounts of time, may need to be displayed. *See id.* at 3:12-25. Figure 2 of the '649 patent is reproduced below.

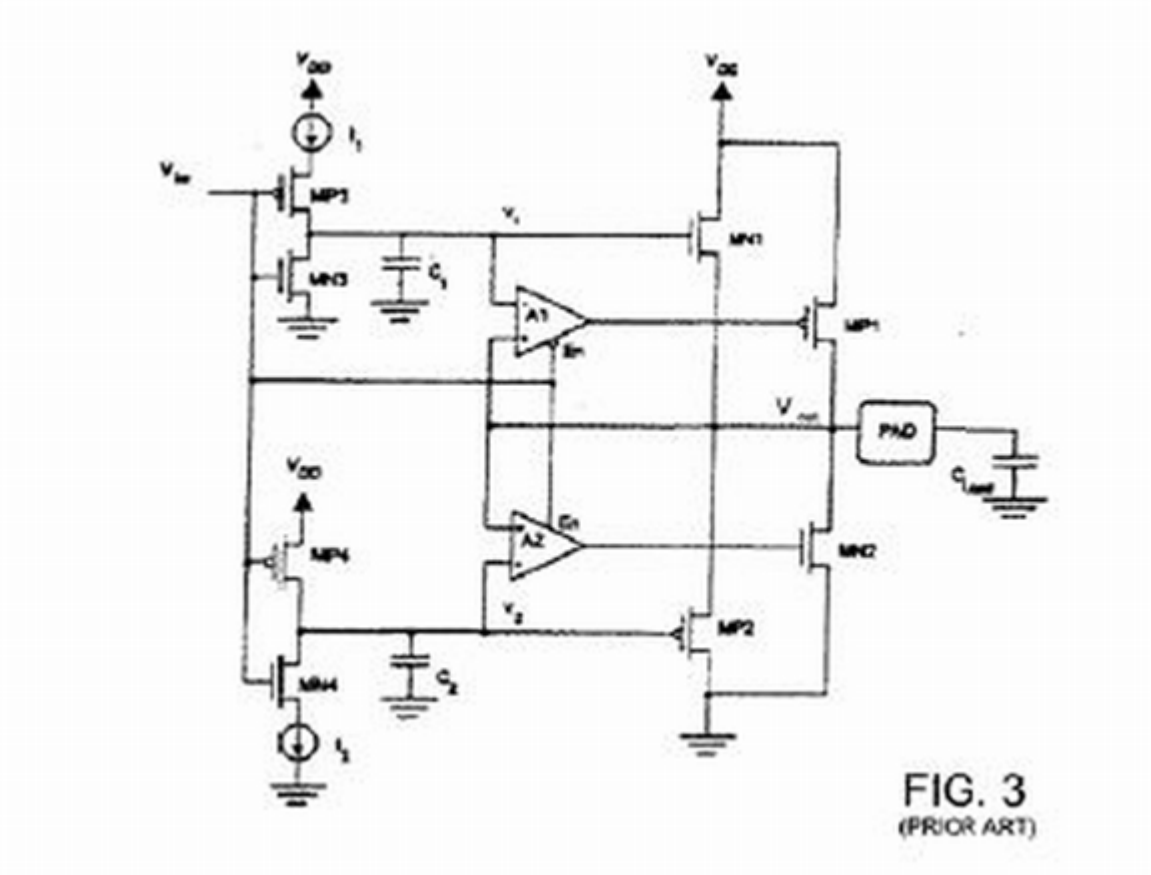

FIG. 3
(PRIOR ART)

Figure 2 is a flow chart illustrating one embodiment of the screen update method of the '649 patent. *Id.* at 5:1-3. In one example, the first image is a three dimensional image in a game, such as a player character or a dynamic scene. *Id.* at 5:12-14. **[*3]** An image update event for the first image can be generated when, for example, a player character changes position. *Id.* at 5:20-36. The '649 patent discloses that image resource data is identified for that image update event and loaded into buffer space with a plurality of buffers. *Id.* at 5:29-62. The first image is then generated by rendering the data loaded in the buffer space. *Id.* at 6:1-4.

The screen update method also updates a second image, which can be as one example, chat text in a chat window. *Id.* at 6:37-52. The second image is generated without its update data being loaded into the buffer space and, thus, the second image can be generated at a higher speed than the first image. *Id.* at 7:4-7. The '649 patent discloses: "[s]ince the second image does not need to be rendered, or if, rendering is required, the amount of computation is not large, the second image may be real-time updated at relatively higher frame rate than the first image." *Id.* at 7:7-11. The screen update method then generates a full image by combining the first image and the second image and displays the combined image on the **[*4]** screen. *Id.* at 7:17-25, 7:54-56.

B. Illustrative Claim

Of the challenged claims, claims 1, 13, and 15 are independent. Claim 1 is illustrative of the challenged claims, and is reproduced below:

> 1. A method of updating images displayed on a display device, the method comprising:
>
> identifying image resource data associated with an update event for a first image from a basic recording space when the update event for the first image occurs;
>
> loading the identified image resource data in a buffer space including a plurality of buffers, in which the image resource data are loaded in rotation on the buffer by frame, respectively;
>
> generating the first image at a first frame rate by sequentially rendering the loaded image resource data;

> generating a second image associated with an update event for the second image at a second frame rate when the update event for the second image occurs, the generation of the second image being substantially independent from the generation of the first image such that image resource data of the second image is not loaded in the buffer space;
>
> compositing the first image with the second image; and
>
> updating at least a portion of the display device to display **[*5]** the composite image,
>
> wherein the second image is generated without being rendered.

Id. at 11:57-12:12.

C. Related Proceedings

Petitioner identifies related district court cases involving the '649 patent and other patents, which were originally filed in the Eastern District of Texas and subsequently transferred to the Central District of California. Pet. 1-2. Petitioner also identifies at least one other related district court case involving the '649 patent and other patents against other defendants. *Id.* Petitioner notes that it has filed petitions for *inter partes* review challenging claims of the other patents involved in the related district court cases and that Patent Owner has an application pending that is a continuation of the application that issued as the '649 patent. *Id.* at 2. Patent Owner also identifies these related matters. Paper 4, 2-3.

D. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are construed according to their broadest reasonable interpretation in light of the specification of the patent in which they appear. **[*6]** *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 2131, 2144-46 (2016).* Under that standard, claim terms are generally given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art, in the context of the entire disclosure. *In re Translogic Tech., Inc., 504 F.3d 1249, 1257 (Fed. Cir. 2007).*

Petitioner offers constructions of a number of claim terms in its Petition. Pet. 16-19. Patent Owner responds by disputing several of Petitioner's proposed constructions. Prelim. Resp. 5-20. For purposes of this decision, we need only address the construction of "render." *See* *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999)* (holding that "only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy").

Petitioner contends that the term "rendering/rendered" as recited in independent claims 1, 13, and 15 "has a meaning that at least encompasses '[generating an image/generated] by using three-dimensional texturing. '" **[*7]** Pet. 16 (citing Ex. 1001, 9:58-62; Ex. 1002 P 77). Although Petitioner cabins its proposed construction with the phrase "at least encompasses," in its substantive analysis, Petitioner equates "rendering" with three-dimensional texturing. *See* Pet. 29 (arguing that Bowen's overlay image (which Petitioner contends teaches the recited second image) is not rendered because it "is not realized having three-dimensional texturing"); *see also* Ex. 1002 P 77 ("I adopt the '649 Patent's definition of the term 'rendering' or 'rendered,' specifically, '[generating an image/generated] by using three-dimensional texturing' in my declaration and my analysis below."). Patent Owner also understands Petitioner to contend "rendering" is limited to "three-dimensional texturing, " and Patent Owner disputes that construction. Prelim. Resp. 6-7. Thus, we consider whether Petitioner's construction of "rendering/rendered" as "[generating an image/generated] by using three-dimensional texturing" is the broadest reasonable interpretation. Based on the current record, we conclude that it is not.

As Patent Owner points out **[*8]** (*id.* at 7), the '649 patent describes "three-dimensional texturing" as only one example of "rendering": "[t]he rendering is one of methods of generating an image. *For example*, the rendering may be used for generating an actual graphic image by *realizing a three-dimensional texture* such as the variance in colors and density." Ex. 1001, 9:58-62 (emphasis added). The '649 patent further discloses other forms of rendering (*see id.* at 10:6-20), and states "methods capable of being used in rendering are not limited as described above. Namely, the screen update system according to the present invention may render by using all methods of

rendering" (*id.* at 10:22-26). Thus, consistent with the '649 patent specification, we determine that the broadest reasonable interpretation of "rendering" and "rendered" as recited in the challenged claims is not limited to "[generating an image/generated] by using three-dimensional texturing. " As discussed in further detail below, we determine we need not further construe these claim terms to resolve the controversy before us.

E. References

Petitioner **[*9]** relies on the following references:

1. "Pose" (U.S. Patent No. 5,841,439; issued Nov. 24, 1998) (Ex. 1023);
2. "Bowen" (U.S. Patent No. 6,147,695; issued Nov. 14, 2000) (Ex. 1024); and
3. "Rogers" (U.S. Patent App. Pub. No. 2005/0137015 A1; published June 23, 2005) (Ex. 1025).

F. Grounds Asserted

Petitioner challenges the patentability of claims 1-16 of the '649 patent on the following grounds:

Reference(s)	Basis	Claims
Pose and Bowen	*35 U.S.C. § 103*(a)	1-3, 7-9, and 11-16
Pose, Bowen, and Rogers	*35 U.S.C. § 103*(a)	4-6 and 10

Petitioner relies also on expert testimony from Mr. David Crane (Ex. 1002, "Crane Decl.").

II. ANALYSIS

A. Level of Skill in the Art

Petitioner contends that a person of ordinary skill in the art at the time of the alleged invention of the '649 patent would have possessed the following: "(1) at least a four-year Bachelor of Science degree OR at least 5 years of professional experience as a video game designer/developer; and (2) a working understanding **[*10]** of computer programming, either through education or experience of the equivalent thereof." Pet. 19; *see* Ex. 1002 P 18 (stating the same). Patent Owner contends a person of ordinary skill "would have had at least a Bachelor of Science degree in computer science or a commensurate degree and a working understanding of video graphics rendering attained through either education or experience." Prelim. Resp. 6.

For purposes of this decision, we adopt the Petition's definition of the level of skill in the art. We note, however, that our decision would not change under either proposed definition.

B. Asserted Obviousness Over Pose and Bowen

Petitioner contends that claims 1-3, 7-9, and 11-16 would have been obvious over Pose and Bowen. Pet. 20-50. For the reasons that follow, we are persuaded, based on this record, that Petitioner has not demonstrated a reasonable likelihood of prevailing on this challenge.

1. Overview of Pose and Bowen

Pose is titled "Updating Graphical Objects Based on Object Validity Periods" and issued on November 24, 1998. Ex. 1023, at [45], [54]. Pose relates to "[a] graphic display system [that] includes a set of rendering engines **[*11]** and a plurality of data storage units." *Id.* at Abstract. Pose describes images displayed in a virtual reality system where "[o]bjects which are to be represented close to the user can be displayed as part of an 'inner' sphere and more distantly represented objects displayed on an 'outer' sphere." *Id.* at 4:32-48.

Bowen is titled "System and Method for Combining Multiple Video Streams" and issued on November 14, 2000. Ex. 1024, at [45], [54]. Bowen relates to "[a]n operation for combining multiple video streams [that] permits combining any number of overlay images and base images regardless of processes performed upon one or more of the images." *Id.* at Abstract.

2. Analysis of Petitioner's Challenge

Independent claims 1, 13, and 15 all recite "the second image is generated without being rendered." Ex. 1001, 12:11-12 (claim 1), 13:20-21 (claim 13), 14:21-22 (claim 15). Petitioner relies on Bowen as teaching this limitation. Pet. 34-35, 46, 49. [1] Specifically, Petitioner contends Bowen's overlay image teaches the recited "second image" and that "the overlay image of Bowen is not realized having three dimensional texturing. " *Id.* at 34-35. Petitioner also relies on **[*12]** Mr. Crane's testimony, as well as the portion of the Petition discussing claim 1's limitation for "generating a second image." *Id.* at 34 (citing Section VII.A.(5.) of the Petition; Ex. 1002 P 226).

Regarding rendering of Bowen's overlay image (i.e., second image), the Petition states Bowen teaches the overlay image "is not rendered because the image is 'lacking some high fidelity rendering features...and provide[s] less resolution' when **[*13]** compared to the first image, or base image." Pet. 29 (quoting Ex. 1024, 7:10-27) (citing Ex. 1024, 1:51-59, 7:30-35; Ex. 1002 PP 205, 206). Petitioner further contends "Bowen elaborates that the overlay image is 'less-detailed' and lacks the same complexity in comparison to the base image--further illustrating that the overlay image, or second image, lacks the rendering claimed by the '649 Patent." *Id.* (citing Ex. 1024, 7:10-27; Ex. 1002 PP 108-110, 206-207). Petitioner concludes, "[i]n other words, the overlay image of Bowen is not realized having three-dimensional texturing. " *Id.* at 29-30 (citing Ex. 1024, Fig. 3; Ex. 1002 P 206); *see also id.* at 21 (arguing "Bowen also teaches that the overlay image, or second image, is not rendered") (citing Ex. 1024, 1:51-59, 7:10-27, 7:30-35, Fig. 3; Ex. 1002 P 149).

Patent Owner contends Bowen does not teach "the second image is generated without being rendered" as recited in the independent claims 1, 13, and 15. Prelim. Resp. 24. In particular, Patent Owner contends that Petitioner takes Bowen's disclosure out of context and Bowen does not disclose **[*14]** a lack of rendering. *Id.* at 21-24. We are persuaded by Patent Owner's argument. As Patent Owner persuasively points out, the portion of Bowen on which Petitioner relies to show the overlay image lacks "high fidelity rendering features (like depth buffer attributes) and provide less resolution, in terms of bits per pixel, than base image[s]," in actuality refers to the overlay image frame buffer, rather than the overlay image itself. *Id.* at 22-23 (citing Ex. 1024, 7:20-27). In addition, Patent Owner persuasively contends that Bowen discloses its overlay image is rendered:

> Although *rendering the overlay image into the overlay image frame buffer* and the base image into the base image frame buffer is essentially the same process, (save for the added complexity of the base image f[r]ame buffer) the process of displaying output image 306 involves a per-pixel decision-making process.
>
> This process is displayed in FIG. 4. In the double buffering system used, image frame pixels are rendered into the first base image frame buffer, while display processing occurs at the second base image frame buffer. *Similarly, overlay frame pixels are rendered into the first overlay image frame* **[*15]** *buffer* , while display processing occurs at the second overlay image frame buffer.

Id. at 23 (citing Ex. 1024, 7:30-43).

We have reviewed Petitioner's arguments and evidence, and find they do not sufficiently show that Bowen teaches "the second image is generated without being rendered" as recited in independent claims 1, 13, and 15. To the extent that Petitioner contends lack of three-dimensional texturing alone shows Bowen's overlay image is not rendered, we disagree for the reasons set forth above in Section I.D. of this decision.

In addition, the portions of Bowen cited by Petitioner fail to teach Bowen's overlay image is not rendered. For example, Bowen discloses that "[o]verlay images are images that are overlaid on top of the base images, and are

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[1] Petitioner states that, "[f]or ease of reference, attached as Exhibit 1026 is a list of the citations discussed above organized by claim element, Ground and Exhibit number, and identifying the corresponding Parts of the Petition where each is addressed." Pet. 61. We have not considered Exhibit 1026, which Petitioner improperly seeks to incorporate by reference into the Petition. *See* 37 C.F.R. § 42.6(a)(3) (stating that "[a]rguments must not be incorporated by reference from one document into another document").

typically updated less frequently than base images" (Ex. 1024, 1:51-59), and those images can be less detailed than the base image (*id.* at 7:10-15). Bowen also discloses:

> Since overlay image 304 need not be updated as frequently as base image 302, the overlay image frame buffers are typically not as functionally complex as base image frame buffers. For example, overlay image frame buffers can lack *some* high fidelity **[*16]** rendering features (like depth buffer attributes) and provide less resolution, in terms of bits per pixel, than base image frame buffers.

Id. at 7:20-27 (emphasis added). As discussed above, Petitioner does not sufficiently show this disclosure relates to generation of the overlay image rather than features of the overlay image buffer. In addition, to the extent that the above-quoted passage suggests that Bowen's overlay image is "'lacking some high fidelity rendering features...and provide[s] less resolution' when compared to the first image, or base image," as argued by Petitioner (Pet. 29), Petitioner does not explain how lacking *some* rendering features shows the image is generated *without* rendering.

In addition, we are not persuaded that Bowen's overlay image being less detailed than the base image shows the overlay image is not rendered. The '649 specification recognizes that the second image could still be rendered even though less computation is required than for the first image: "[s]ince the second image does not need to be rendered, or if, rendering is required, the amount of computation is not large, the second image may be real-time **[*17]** updated at relatively higher frame rate than the first image." Ex. 1001, 7:7-11.

We have also reviewed the relevant portions of Mr. Crane's declaration, and find that they do not provide further support for Petitioner's contentions. In particular, Mr. Crane relies on the same construction, which we do not adopt, and the same portions of Bowen as Petitioner. *See* Ex. 1002 PP 77, 149, 206-07.

In sum, Petitioner has not persuasively explained, or provided sufficient evidence to show, that Bowen teaches "the second image is generated without being rendered" as recited in independent claims 1, 13, and 15. By virtue of their dependency, claims 2, 3, 7-9, 11, 12, 14, and 16 include the same limitations as independent claim 1, 13, or 15. For at least the reasons discussed above, Petitioner has not demonstrated a reasonable likelihood of prevailing in showing that claims 1-3, 7-9, and 11-16 would have been obvious over Pose and Bowen.

C. Asserted Obviousness Over Pose, Bowen, and Rogers

Petitioner contends that dependent claims 4-6 and 10 would have been obvious over Pose, Bowen, and Rogers. Pet. 50-61. Claims 4-6 and 10 depend directly or indirectly from independent claim 1. Petitioner **[*18]** contends Rogers [2] teaches additional limitations of these dependent claims, but does not rely on Rogers as curing any of the deficiencies discussed *supra. See id.* Thus, for at least the reasons discussed in Section II.B. above, we conclude that Petitioner has not demonstrated a reasonable likelihood of prevailing on this challenge.

III. SUMMARY

We determine that Petitioner has not demonstrated a reasonable likelihood of prevailing on its challenges to claims 1-16 of the '649 patent.

IV. ORDER

It is, therefore,

ORDERED that the Petition is DENIED and no trial is instituted.

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[2] Because we do not institute this *inter partes* review for the reasons discussed above, we do not reach Patent Owner's other arguments for both grounds, including its argument that Rogers is not prior art. *See* Prelim. Resp. 42.

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