

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

PRINCETON DIGITAL IMAGE CORP.,)	
)	
Plaintiff,)	
)	
v.)	Civil Action No. 13-335-LPS-CJB
)	
UBISOFT ENTERTAINMENT SA and)	
UBISOFT, INC.,)	
)	
Defendants.)	

REPORT AND RECOMMENDATION

Presently before the Court in this patent infringement action relating to United States Patent No. 5,513,129 (the “129 patent”) is Defendant Ubisoft, Inc.’s (“Ubisoft” or “Defendant”) “Motion for Summary Judgment of Noninfringement[,]” filed pursuant to Federal Rule of Civil Procedure 56 (“the Motion”). (D.I. 234) Plaintiff Princeton Digital Image Corporation (“PDIC” or “Plaintiff”) opposes the Motion. For the reasons that follow, the Court recommends that Ubisoft’s Motion be GRANTED.

I. BACKGROUND

A. The Parties and the Allegations

Plaintiff PDIC is a Texas corporation. (D.I. 72 at ¶ 1) PDIC is the owner, by assignment, of the '129 patent. (*Id.* at ¶ 9)

Defendant Ubisoft is a California corporation with its principal place of business in San Francisco, California. (*Id.* at ¶ 3; D.I. 202 at ¶ 3)¹ PDIC’s remaining claims in this case are

¹ PDIC originally filed suit against Ubisoft Entertainment SA, a French corporation, (D.I. 1 at ¶ 2), but PDIC’s remaining claims are against Ubisoft only, (*see, e.g.*, D.I. 223 at 1-4).

those alleging that Ubisoft has directly infringed claims 14, 19 and 20 of the '129 patent by developing, testing and/or otherwise internally using certain accused video games (the *Just Dance* Accused Games and the *Rocksmith* Accused Game, collectively, the “Accused Games”) in the United States via a Nintendo Wii or PlayStation 3 gaming console. (D.I. 72 at ¶ 32; *see also* D.I. 236 at 1, 4-5 & n.2)

B. The Asserted Patent

The '129 patent is entitled “Method and System for Controlling Computer-Generated Virtual Environment in Response to Audio Signals.” ('129 patent)² The patent issued on April 30, 1996 from U.S. Appl. No. 91,650, which was filed on July 14, 1993. (*Id.*) It expired on July 14, 2013. (*Id.*; *see also* D.I. 121 at 3)

The '129 patent relates generally to virtual reality (“VR”) computer systems controlled by music or control tracks created from music. ('129 patent, col. 1:8-18; *see also* D.I. 294, ex. 3 at ¶ 35) The patent specification explains that at the time of the invention, VR systems were not new, and there had long been an interest in the VR field to combine music and virtual environments. ('129 patent, cols. 1:54-57, 2:23-26) To date, explained the patent, “[c]onventional efforts to integrate music with virtual environments [were] all . . . directed toward creation of music from a virtual environment”—“the paradigm . . . has been to create systems that have (virtual) object-driven sounds.” (*Id.*, cols. 2:29-31, 3:43-44) The present

² The '129 patent appears on the dockets in this action more than once, including as an exhibit to the Joint Claim Construction Chart. (D.I. 89, ex. 1) Citation to the patent will simply be to the “'129 patent.”

invention, however, was designed to “reverse[] the paradigm to create a system which has musically-driven objects[,]” thereby “transcend[ing] traditional use of VR as a musical instrument, and enabl[ing] a VR system to be employed as a virtual stage driven by music.” (*Id.*, cols. 3:44-46, 4:44-46) To accomplish this, the patent recites a VR system that can “rapidly and inexpensively create, animate, or otherwise control a wide variety of entertaining virtual environments and virtual objects in response to music or in response to prerecorded ‘control tracks’ which correspond to audio signals (such as music).” (*Id.*, col. 1:45-53)

The asserted claims of the '129 patent (dependent claims 14, 19 and 20) are reproduced below, along with independent claims 12 and 16, from which the asserted claims depend:

12. A virtual reality computer system, including:
means for supplying a first signal selected from a group consisting of a control signal having music and/or control information generated in response to a music signal, a prerecorded control track having music and/or control information corresponding to the music signal, and a control signal having music and/or control information generated in response to the prerecorded control track; and
means for receiving the first signal and influencing action within a virtual environment in response to said first signal.

(*Id.*, cols. 29:65-30:9)

14. The apparatus of claim **12**, wherein said music signal is delayed in time to compensate for delays in other parts of the virtual reality computer system.

(*Id.*, col. 30:16-18)

16. A virtual reality computer system for producing a virtual environment, including:
means for prerecording a control track having music and/or control information corresponding to a music signal; and

means for producing the virtual environment in response to said prerecorded control track.

(*Id.*, col. 30:22-28)

19. Apparatus as in claim **16**, wherein said control track contains additional information to that which can be extracted from the music signal.

(*Id.*, col. 30:42-44)

20. The system of claim **16**, wherein said control track is time shifted relative to the music signal to compensate for delays in said virtual reality computer system.

(*Id.*, col. 30:45-47)

C. Procedural History

PDIC filed the instant case on February 27, 2013. (D.I. 1) On July 17, 2013, Chief Judge Leonard P. Stark referred this case to the Court to hear and resolve all pre-trial matters, up to and including the resolution of case-dispositive motions. (D.I. 10)

On January 15, 2014, the case was stayed pending competition of *inter partes review* (“IPR”) proceedings at the United States Patent and Trademark Office (“PTO”). (D.I. 52) Those proceedings concluded by January 2016, and they resulted in the invalidation by the PTO’s Patent Trial and Appeal Board (“PTAB”) of all 20 of the claims of the '129 patent that were at issue. (*See* D.I. 89, ex. 3 at 386-415; *id.*, ex. 4 at 384-428; *see also* D.I. 67) That meant that only three dependent claims of the patent (claims 14, 19 and 20) were still valid; those are the three claims that PDIC now asserts against Ubisoft in this action.

Briefing on the instant Motion was completed on October 26, 2018, (D.I. 320), and the Court held oral argument on the Motion (as well as another motion) on December 7, 2018, (D.I. 361 (hereinafter, “Tr.”)).

II. STANDARD OF REVIEW

A. Summary Judgment

A grant of summary judgment is appropriate where “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *See Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 585-86 n.10 (1986). If the moving party meets this burden, the nonmovant must then “come forward with specific facts showing that there is a *genuine issue for trial*.” *Id.* at 587 (emphasis in original) (internal quotation marks and citation omitted). If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986). During this process, the Court will “draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

However, in order to defeat a motion for summary judgment, the nonmoving party must “do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita*, 475 U.S. at 586. The “mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the

requirement is that there be no *genuine issue of material fact*.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986) (emphasis in original). Facts that could alter the outcome are “material,” and a factual dispute is “genuine” only where “the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Id.* at 248. “If the evidence is merely colorable . . . or is not significantly probative . . . summary judgment may be granted.” *Id.* at 249-50 (internal citations omitted).

A party asserting that a fact cannot be—or, alternatively, is—genuinely disputed must support the assertion either by citing to “particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for purposes of the motion only), admissions, interrogatory answers, or other materials”; or by “showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.” Fed. R. Civ. P. 56(c)(1)(A) & (B).

B. Patent Infringement

The patent infringement analysis consists of two steps. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). First, the court must determine the meaning and scope of the patent claims asserted to be infringed. *Id.* Claim construction is generally a question of law, although subsidiary fact finding is sometimes necessary. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837-38 (2015). Second, the trier of fact must compare the properly construed claims to the allegedly infringing device. *Markman*, 52 F.3d at 976. This

second step is a question of fact. *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1319 (Fed. Cir. 2012).

“Literal infringement of a claim exists when every limitation recited in the claim is found in the accused device.” *Kahn v. Gen. Motors Corp.*, 135 F.3d 1472, 1477 (Fed. Cir. 1998). If any claim limitation is absent from the accused product, there is no literal infringement as a matter of law. *Amgen Inc. v. F. Hoffman-La Roche Ltd*, 580 F.3d 1340, 1374 (Fed. Cir. 2009). A product that does not literally infringe a patent claim may still infringe under the doctrine of equivalents if any differences between the claimed invention and the accused product are insubstantial. *See Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 24, 40 (1997); *Virnetx, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1322 (Fed. Cir. 2014).

The patent owner has the burden of proving infringement, and must do so by a preponderance of the evidence. *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988). When an accused infringer moves for summary judgment of noninfringement, such relief is only appropriate if, viewing the facts in the light most favorable to the patentee, no reasonable jury could find that every limitation recited in the properly construed claim is found in the accused device, either literally or under the doctrine of equivalents. *See Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1376 (Fed. Cir. 2005); *see also Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001) (“[S]ummary judgment is proper only if no reasonable jury could return a verdict for the nonmoving party.”) (internal quotation marks and citation omitted).

III. DISCUSSION

As described above, the '129 patent discloses systems and methods for creating and controlling a virtual environment utilizing, *inter alia*, a prerecorded control track having control information corresponding to a music signal. ('129 patent, col. 5:1-17; D.I. 294, ex. 1 at ¶ 18; D.I. 294, ex. 3 at ¶ 35)³ PDIC asserts that the Accused Games read on these limitations. (*See, e.g.*, D.I. 294, ex. 3 at Appendix C at 69-88, 119-26, 149-59, 173-76)

Ubisoft, however, moves for summary judgment of noninfringement on all asserted claims. (D.I. 236) It argues, *inter alia*, that PDIC disclaimed its infringement theory (particularly as it relates to the requirement for a “prerecorded control track” having control information corresponding to music), and that it therefore fails as a matter of law. (*Id.* at 5-9; D.I. 320 at 1-2)

Ubisoft’s argument implicates the doctrine of prosecution history disclaimer, which “preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359 (Fed. Cir. 2017) (internal quotation marks and citation omitted). A claim scope disclaimer “will ensure that claims are not argued one way in order to maintain their patentability and in a different way against accused infringers.” *Id.* at 1360. The effect of prosecution history disclaimer is to “narrow[] the ordinary meaning of the claim congruent with the scope of the surrender.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003); *see also, e.g., Huawei Techs. Co. v. T-Mobile US, Inc.*, Case No. 2:16-CV-00052-JRG-RSP, 2017 WL 4385567, at *3 (E.D. Tex. Sept. 9, 2017).

³ The patent also discloses controlling a virtual environment utilizing control signals that have been derived directly from music, but PDIC concedes that this implementation is not utilized by the Accused Games. (*See, e.g.*, D.I. 211 at 6; D.I. 236 at 2; D.I. 292 at 6)

During claim construction, the parties disputed whether, during the IPR proceedings for the '129 patent, PDIC had in fact narrowed the scope of the asserted claims in the course of distinguishing prior art. (*See* D.I. 129 at 31) That dispute lays the foundation for Ubisoft's noninfringement argument here; thus, the Court will first provide brief background regarding the dispute. Then it will go on to assess the merits of Ubisoft's noninfringement argument.

A. The Court's Finding of Disclaimer

In its Petition for IPR review, Ubisoft Entertainment SA had asserted that a prior art reference known as Williams (United States Patent No. 5,430,835) anticipated and/or rendered certain claims of the '129 patent obvious. (*See id.* (citing D.I. 89, ex. 4 at 47-69)) Williams recited methods of synchronizing actions and sounds for display on a computer system by:

determining locations in a sound recording where predetermined actions are to be displayed, measuring the time that elapses when the sound recording is played from reference point to the locations in the sound recording where the predetermined actions are to be displayed, associating the predetermined actions with the locations in the sound recording where the predetermined actions are to be displayed, and saving the locations and their associated actions.

(United States Patent No. 5,430,835 (hereinafter, "Williams") at Abstract)⁴ Williams noted that the "sound recording can be music" (or speech, animal noises, or any other type of sound recording). (*Id.* at 3:5-7)

In its Preliminary Response to the Petition, PDIC argued that Williams could not be used to invalidate the claims at issue, because Williams did not disclose a prerecorded control track having audio and/or control information corresponding to an audio signal. (D.I. 129 at 31 (citing

⁴ Williams itself is not a part of the paper record in this case. But during oral argument on Ubisoft's Motion, PDIC's counsel had the reference and cited to it during argument. (Tr. at 109-10)

D.I. 89, ex. 4 at 124-25)) According to PDIC, Williams instead explained that different actions such as “face changes, arm movements, a bird flying, or a candlestick appearing out of nowhere can be associated with the *time, positions or locations in the sound recording* either manually or automatically.” (D.I. 89, ex. 4 at 124-25 (quoting Williams, col. 4:33-39) (emphasis added)) Therefore, PDIC argued, Williams could not invalidate the claims of the '129 patent because “the control information in Williams corresponds to time, position or location, *not to an audio signal as required by the claims.*” (*Id.* at 125 (emphasis added)) That is, PDIC contended that in Williams “once the timer starts, the graphics are displayed irrespective of the audio content.” (*Id.*)

The PTAB agreed with PDIC. As a result, the PTAB declined to institute review of, *inter alia*, independent claim 16 and dependent claim 19, explaining that:

[w]e are persuaded by Patent Owner’s argument that Williams discloses control information that corresponds to time, position, or location, rather than to an audio or music signal because Williams determines the locations in a sound recording where predetermined actions are to be displayed and then associates actions with the time positions or locations, rather than based on the content of the sound recording itself.

(*Id.* at 170-71; *see also id.* at 174-75)

During the claim construction phase of this case, Ubisoft argued that, in light of PDIC’s statements distinguishing Williams during the IPR proceeding, the corresponding structure for the “prerecording a control track having . . . control information corresponding to a music signal” limitation in claim 16 of the '129 patent should be limited to microprocessors that generate the control track based on the content of a sound recording itself, and not based merely on time, positions or locations within a sound recording. (*See* D.I. 129 at 31) PDIC fought back,

asserting that the corresponding structure could indeed be one that generates a control track based merely on time, positions or locations within a sound recording. (See D.I. 129 at 33; *see also* D.I. 92 at 17; D.I. 110 at 9) Ultimately, the District Court (on the Court’s recommendation) agreed with Ubisoft’s position. The District Court found that disclaimer applies such that “the claimed invention does not cover situations in which ‘the control information . . . corresponds to time, position or location, not to an audio signal as required by the claims’—i.e., where ‘once the timer starts, the graphics are displayed irrespective of the audio content.’” (D.I. 139 at 12 (quoting D.I. 89, ex. 4 at 124-25); *see also* D.I. 129 at 34) Though the limitation at issue was discussed during claim construction as relating to claim 16 (from which asserted claims 19 and 20 depend), PDIC acknowledges that the disclaimer applies to each of the three asserted claims. (Tr. at 99-100; *see also* D.I. 236 at 6-7)

B. Whether Disclaimer Precludes PDIC’s Infringement Theory

By its Motion, Ubisoft argues that it is entitled to summary judgment of noninfringement for all asserted claims of the '129 patent because PDIC’s “infringement theory [with respect to the Accused Games] is predicated entirely on ‘synchronization’ of a control track with a music file—i.e., the precise claim scope that [PDIC] disclaimed.” (D.I. 236 at 2) PDIC, for its part, asserts that there are disputed issues of fact as to whether the accused song track files (i.e., the prerecorded control tracks) have control information that is “based on the content of a sound recording itself”—and that these disputes in turn preclude a grant of summary judgment of noninfringement. (D.I. 292 at 2-3)

The Court will set out the relevant facts regarding the operation of the Accused Games, and will then assess the parties’ arguments.

1. Operation of the Accused Games

a. Just Dance Accused Games

To play the *Just Dance* Accused Games, a player holds a Nintendo Wii or PlayStation 3 remote in one hand while dancing along with an on-screen dancer (the “coach”). (D.I. 245, ex. 5 at ¶ 10) The point of the game “is to dance, in rhythm, as closely as possible to the dancer on-screen.” (*Id.* (internal quotation marks and citation omitted)) The game will display a score (along with words such as “OK” or “Perfect”) for the player based on the user’s performance. (*Id.*; D.I. 294, ex. 3 at ¶ 332 & Appendix C at 65) For each level corresponding to a song that can be played in the game, the *Just Dance* game discs and downloadable content contain the following elements, [REDACTED] (D.I. 245, ex. 7 at 115-16):

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED] In that process, a human sound designer listens to a music “wav file” and manually creates “markers” in

245, ex. 8 at 102, 290) During game play, the beat map is used to trigger actions in the game. (*Id.* at 290) An audio file (stored as a “Vorbis” file) is played, which essentially starts a timer for the beat map. (*Id.* at 291-92) Graphic elements are then displayed based on the beat map. These elements are displayed irrespective of the audio content of the Vorbis file; that file “could be a white noise file going . . . for three minutes if that’s what you wanted” and the graphic elements would still be displayed— “[t]he software doesn’t care about what the content of that Vorbis file is, only that it exists.” (*Id.* at 292)

2. The Parties’ Arguments

Ubisoft asserts that the undisputed operation of the Accused Games falls “squarely within the disclaimed claim scope.” (D.I. 320 at 2; *see also* D.I. 236 at 7-8) According to Ubisoft, the games do not have a “prerecorded control track” that is “based on the content of a sound recording itself, and not based merely on time, positions or locations within a sound recording.” (D.I. 236 at 7-8) As Ubisoft explains it:

- (1) A human listens to a song and taps a key on a keyboard as he hears beats in the music to create “markers” (for *Just Dance*) or a “beat map” (for *Rocksmith*). (D.I. 320 at 1; Tr. at 77-78)
- (2) The markers and the beat map are used to “specify the time at which certain elements (such as the graphic elements and moves) occur, measured from the start of the song.” (D.I. 320 at 1; *see also* Tr. at 78)
- (3) The evidence demonstrates that for the *Just Dance* Accused Games, when a song is played, it is like starting a “timer for the markers.” (D.I. 236 at 7 (quoting D.I. 245, ex. 4 at 199)) Likewise, with respect to *Rocksmith*, the Vorbis song file must be started in order to start the time codes, but “[t]he software doesn’t care about what the content of that Vorbis file is, only that it exists[;]” thus playing the Vorbis file is what starts the timer for the beat map, and the

corresponding notes are played irrespective of the audio content of that Vorbis file. (*Id.* at 8 (quoting D.I. 245, ex. 8 at 291-92))

- (4) This implementation by the Accused Games has been disclaimed by PDIC because the Accused Games “use markers/beat map (i.e., the alleged control information) that correspond to the time (i.e., beat) in a sound recording, but not to the sound recording itself.” (D.I. 320 at 1; *see also* Tr. at 78-82) Meanwhile, the music information in the Accused Games is “not part of the alleged control information”—instead it is merely played back. (D.I. 320 at 1-2)

In sum, Ubisoft contends that the undisputed operation of the Accused Games amounts to “time-based synchronization” (i.e., having a control track with control information that is based merely on time, positions or locations within a sound recording, such that where once the timer starts, the graphic elements are displayed irrespective of the audio content), which falls squarely within the scope of PDIC’s disclaimer. (D.I. 236 at 8; D.I. 320 at 1-2)

PDIC responds that summary judgment is precluded because PDIC’s expert: (1) cites evidence contrary to Ubisoft’s position that “all of the graphic elements of the games are ‘triggered at pre-determined time positions’ and are ‘entirely time-based[;]’” and (2) disagrees as to the features of the accused games and how the claim language applies to such features. (D.I. 292 at 3) PDIC’s theory is that because the markers correspond to a beat in the music, such markers are “based on the content of a sound recording itself, and not based merely on time, positions or locations within a sound recording.” (*Id.* at 2-3; *see also* Tr. at 103-04 (PDIC’s counsel asserting that because the graphic effects are “cued [to be displayed] exactly by the actual beat [of the song] that . . . confirms that they’re not based on random time, position or locations. They are based on the content of the music itself”); PDIC’s Markman Presentation,

Slide 5; D.I. 295 at ¶ 9 (PDIC’s expert opining that “[t]he song track files in the accused games include . . . control information corresponding to ‘markers in the music’ and ‘song tempo,’ such as beats, measures/bars, and beats per minute/BPM, which is ‘based on the content of the music’”) (citations omitted))

As explained above, there is no dispute between the parties as to how the Accused Games work. In the Accused Games, a human listens to a song and presses a button on a keyboard in time with the beat of a music—all in order to create markers or beat maps that are used to specify when certain elements will be displayed in the games. (Tr. at 77-78, 101, 104) The crux of the dispute is whether this amounts to the utilization of: (1) a prerecorded control track in which the control information corresponds to time, position or location in a song; or (2) a prerecorded control track in which the control information corresponds to an audio signal. (Tr. at 104-05) Ubisoft says it is the former, and that PDIC’s disclaimer therefore precludes PDIC’s infringement theory with respect to the Accused Games. (*Id.* at 83 (“[O]nce the graphics are triggered literally based on certain time markers, that is outside the scope of the now narrowed claims.”); D.I. 320 at 1) PDIC argues that it is the latter—i.e., that the control tracks at issue *do* correspond to an audio signal (or, at least, that there is a genuine issue of material fact about whether they do)—and that this precludes summary judgment. (Tr. at 107 (PDIC’s counsel explaining that pursuant to the disclaimer, for there to be infringement, “the control track has to be based on the content of the music itself [and] we have testimony that says that those markers are extracted by [a] person, but nonetheless extracted from the music. . . . You have the link to the music via the beats”); *see also id.* at 108 (“[PDIC’s expert] obviously disagrees with [Ubisoft’s expert] on whether the song tracks are based on the content of the music itself. And in

particular [PDIC's expert] says, they include both . . . the actual music and the markers in the music that define the beats in that same music and that's the connection.”))

The Court agrees with Ubisoft. PDIC's infringement theory falls squarely within the disclaimed claim scope.

To reiterate, the disclaimer covers a control track with control information that corresponds to time, position, or locations in a sound recording—such that “once the timer starts, the graphics are displayed irrespective of the audio content.” (D.I. 139 at 12) Put another way, as the PTAB described it, the disclaimer covers circumstances where a system “determines the locations in a sound recording where predetermined actions are to be displayed and then associates actions with the time positions or locations, rather than based on the content of the sound recording itself.” (D.I. 89, ex. 4 at 170-71; *see also id.* at 174-75)⁵ And yet the undisputed implementation here is one where elements are positioned to be displayed in the games in relation to *markers* or *beat maps* manually created by a human—not in relation to music itself. In accordance with this implementation, starting a song while playing the Accused Games is similar to starting a “timer for the markers.” (D.I. 236 at 7 (quoting D.I. 245, ex. 4 at 199)) During play, the graphics are displayed in response to these markers; there are no graphics generated “in response to the music at the time it's played[.]” (D.I. 245, ex. 6 at 156 (*Just Dance*); *see also id.*, ex. 8 at 291-92 (*Rocksmith*))

⁵ When asked at oral argument what kind of implementation would still be covered by the claims notwithstanding the disclaimer, Ubisoft's counsel explained that there would have to be an analysis of the music signal that generates a metric that itself causes elements to be displayed in the virtual world. (Tr. at 75-76, 80, 133)

PDIC's argument to the contrary (that because each marker or beat map corresponds to a beat in the music, that is sufficient to amount to a control track having control information that is based on the audio signal itself) is unavailing. The intervening creation of the markers or beat map, which are then utilized to trigger elements at the appropriate times during the song's playback, "is exactly what PDI[C] disclaimed[.]" (Ubisoft's Summary Judgment Presentation, Slide 11; *see also, e.g.*, Tr. at 80-81 (Ubisoft's counsel explaining that pursuant to the disclaimer, "[t]he control information must correspond not to time, position or locations in [a] sound recording, and you have the [Accused] games where the markers[beat map] do correspond to time positions in the sound recording"); *id.* at 82-83) While PDIC focuses on the undisputed fact that the markers/beat map are manually selected to correspond to a beat in the music, it tellingly fails to confront what happens next; these markers are then set to correspond to *times* in a song, and graphics are synchronized to appear at *these times*.

The Court's conclusion is underscored by PDIC's arguments during claim construction. There, PDIC asserted that Ubisoft's disclaimer position should be rejected because, *inter alia*, it is "inconsistent with the disclosure in the specification that a user can manually prerecord a control track including particular animations and effects encoded to occur at particular times." (D.I. 92 at 17) In support, PDIC cited to, *inter alia*, the portion of the specification explaining that "[t]he control tracks . . . can be generated in response to manually asserted commands from a person (while the person listens to such music signal) and then recorded." (*Id.* at 17 n.34 (quoting '129 patent, col. 5:22-27)) Back then, PDIC seemed to understand that the undisputed implementation of the Accused Games would fall within the scope of the disclaimer (i.e., a human listening to a music signal and manually asserting commands in order to enable graphics

to display at particular times). (Tr. at 76) Now, PDIC has switched course, arguing that the undisputed implementation of the Accused Games *does not* fall within the disclaimer. PDIC was right the first time. (See, e.g., D.I. 245, ex. 6 at 156, 158-59 (PDIC’s expert agreeing that in the *Just Dance* Accused Games, nothing is generated in response to the music at the time that it is played, and there is no evidence that there is any information that is being directly extracted from any music file); *id.* at 161 (PDIC’s expert agreeing that in the *Just Dance* Accused Games, arrows will come up “when the game designer decided that that arrow would come up relative to the beats of the music” which are at “[a]t a certain time” in the music))

The Court’s conclusion is further underscored by the Williams reference itself, which triggered the disclaimer at issue. As previously described, Williams discloses “play[ing] a sound recording” which “can be music” and “determin[ing] the locations in the sound recording where predetermined actions are to be displayed.” (Williams, cols. 2:39-50, 3:5) The invention then “measures the time that elapses when the sound recording is played from a reference point to the locations in the sound recording where the predetermined actions are to be displayed.” (*Id.*, col. 2:50-53; see also *id.*, col. 7:39-41, 1:26-28 (explaining that the invention “is applicable in any situation where actions must b[e] synchronized with sound recordings” whereby synchronization is “the coordination of actions and sounds so that they are displayed and produced at the appropriate times”)) Williams explains that “the points in the sound recording where action is to be displayed can be determined audibly”—a sound recording is selected, and then the invention determines locations in the sound recording where action is to be displayed. (*Id.*, col. 3:55-62 & FIG. 2) And Williams explains that “the actions can be associated with the time, positions or locations in the sound recording either manually or automatically. If they are associated

manually, the computer programmer determines which actions are associated with the different time positions.” (*Id.*, col. 4:37-41) This is exactly what PDIC disclaimed and it is exactly what happens in the Accused Games.

PDIC’s assertion that there are factual disputes between the experts that preclude a grant of summary judgment is off base. (D.I. 292 at 3; Tr. at 100) As described above, there are no material disputes regarding the implementation of the Accused Products or about how the markers/beat map are created and then utilized to generate graphics. It is well-settled that “where the parties do not dispute any relevant facts regarding the accused product . . . but disagree over possible claim interpretations, the question of literal infringement collapses into claim construction and is amenable to summary judgment.” *Duncan Parking Techs., Inc. v. IPS Grp., Inc.*, 914 F.3d 1347, 1363 (Fed. Cir. 2019) (internal quotation marks, brackets and citation omitted); *see also Rambus Inc. v. Hynix Semiconductor Inc.*, 642 F. Supp. 2d 970, 977 (N.D. Cal. 2008) (“[W]here two experts disagree about infringement, but do not dispute the facts regarding the accused device . . . , the question of infringement is more appropriately viewed as a legal question of claim construction.”) (citing cases). The Court therefore agrees with Ubisoft that the inquiry here involves “an application of applying the facts that are undisputed to the language of the disclaimer[.]” (Tr. at 134), as the Court has done above.

In sum, PDIC disclaimed a control track having control information that corresponds to time, position or location in a sound recording, not to an audio signal itself—i.e., where once the timer starts, the graphics are displayed irrespective of the audio content. As a result, the asserted claims no longer cover such a control track. And there is no genuine dispute of material fact that Ubisoft’s Accused Games utilize a control track having control information that corresponds to

time, position or location in a sound recording, and not to the audio signal itself. The Court therefore recommends that summary judgment of noninfringement be granted for Ubisoft on all of the asserted claims as a matter of law.⁶ *See, e.g., Huawei Techs.*, 2017 WL 4385567, at *4-5 (granting summary judgment of noninfringement in light of the plaintiff's prosecution history disclaimer).

IV. CONCLUSION

For the foregoing reasons, the Court recommends that Ubisoft's Motion be GRANTED.⁷

This Report and Recommendation is filed pursuant to 28 U.S.C. § 636(b)(1)(B), Fed. R. Civ. P. 72(b)(1), and D. Del. LR 72.1. The parties may serve and file specific written objections within fourteen (14) days after being served with a copy of this Report and Recommendation. Fed. R. Civ. P. 72(b)(2). The failure of a party to object to legal conclusions may result in the loss of the right to de novo review in the district court. *See Henderson v. Carlson*, 812 F.2d 874, 878-79 (3d Cir. 1987); *Sincavage v. Barnhart*, 171 F. App'x 924, 925 n.1 (3d Cir. 2006).

The parties are directed to the Court's Standing Order for Objections Filed Under Fed. R. Civ. P. 72, dated October 9, 2013, a copy of which is available on the District Court's website, located at <http://www.ded.uscourts.gov>.

Because this Report and Recommendation may contain confidential information, it has been released under seal, pending review by the parties to allow them to submit a single, jointly proposed, redacted version (if necessary) of the Report and Recommendation. Any such

⁶ In light of the Court's conclusion, it is unnecessary for the Court to address the other bases for summary judgment of noninfringement raised by Ubisoft in its Motion.

⁷ In light of this recommendation, the Court also recommends that the remaining pending motions, (D.I. 248; D.I. 347), be DENIED AS MOOT.

redacted version shall be submitted no later than **April 11, 2019** for review by the Court, along with a motion for redaction that includes a clear, factually detailed explanation as to why disclosure of any proposed redacted material would “work a clearly defined and serious injury to the party seeking closure.” *Pansy v. Borough of Stroudsburg*, 23 F.3d 772, 786 (3d Cir. 1994) (internal quotation marks and citation omitted). The Court will subsequently issue a publicly-available version of its Report and Recommendation.

Dated: April 8, 2019



Christopher J. Burke
UNITED STATES MAGISTRATE JUDGE