

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner,

v.

D3D TECHNOLOGIES, INC.,
Patent Owner.

IPR2021-00877
Patent 9,980,691 B2

Before JAMESON LEE, BARBARA A. PARVIS, and SCOTT RAEVSKY,
Administrative Patent Judges.

PARVIS, *Administrative Patent Judge.*

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

I. INTRODUCTION

On May 21, 2021, Microsoft Corporation (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of claims 1–4, 6–9, and 11–21 (“challenged claims”) of U.S. Patent No. 9,980,691 B2 (Ex. 1001, “the ’691 patent”). D3D Technologies, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). With our authorization, Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 11, “Reply”) and Patent Owner filed a Sur-Reply (Paper 12, “Sur-reply”).

Petitioner concurrently filed another petition for *inter partes* review of claims 1–9 and 11–21 of the ’691 patent. *Microsoft Corporation v. D3D Technologies, Inc.*, IPR2021-00878, Paper 2 (PTAB May 21, 2021) (“the ’878 Petition”). In the instant proceeding, Petitioner filed a Notice Ranking and Explaining Material Differences Between Petitions (Paper 3, “Ranking Notice”), which ranks the Petition in the instant proceeding second. Ranking Notice, 1–2. Patent Owner filed a Response to Petitioner’s Ranking Notice (Paper 9, “Response to Ranking Notice”). As set forth in the decision on institution in IPR2021-00878, an *inter partes* review of claims 1–9 and 11–21 of the ’691 patent is instituted with respect to all grounds set forth in the ’878 Petition. *See* IPR2021-00878, Paper 14.

Institution of an *inter partes* review is authorized by statute when “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Section 314(a) does not require the Director to institute an *inter partes* review. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an

IPR proceeding.”). Rather, a decision whether to institute is within the Director’s discretion, and that discretion has been delegated to the Board. *See* 37 C.F.R. § 42.4(a); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”). The Board has discretion to deny a petition even when a petitioner meets the threshold under § 314(a). *See General Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i); *see also* Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019) (“CTPG”) 55–63, available at <https://www.uspto.gov/TrialPracticeGuideConsolidated> (identifying considerations that may warrant exercise of this discretion).

For the reasons given below, after consideration of the parties’ submissions and the evidence of record, we exercise our discretion under 35 U.S.C. § 314 and deny institution of *inter partes* review in IPR2021-00877.

II. BACKGROUND

A. *Real Parties-in-Interest*

Petitioner identifies itself as the real party-in-interest. Pet. 87. Patent Owner names itself as the real party-in-interest. Paper 4, 2.

B. *Related Matters*

Each party identifies a judicial matter that would affect, or be affected by, a decision in this proceeding. In particular, the parties inform us that the ’691 patent is asserted in the following district court case: *D3D Technologies, Inc. v. Microsoft Corporation.*, No. 6:20-cv-01699 (M.D. Fla.) (“parallel district court proceeding”). Pet. 87; Paper 4, 2–3. As

indicated above, Petitioner filed another petition for *inter partes* review of the '691 patent, i.e., IPR2021-00878. *See supra* § I.

C. The '691 Patent

The '691 patent relates to the field of medical imaging. Ex. 1001, 1:16–17. The '691 patent describes providing three-dimensional viewing of images by a user. *Id.* at 2:57–58. The user selects a volume of interest from a collection of image slices. *Id.* at 2:58–60.

Figure 1 is a block diagram of a computer system that produces a three-dimensional image to the user and is reproduced below. *Id.* at 4:35–36.

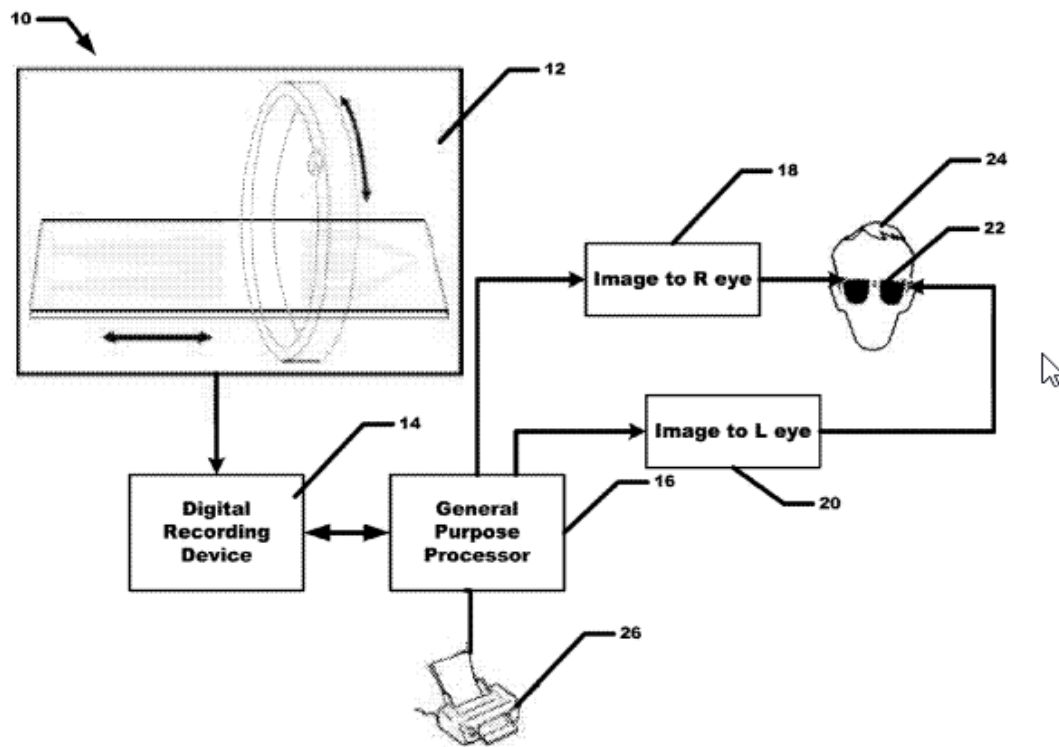


FIGURE 1

Figure 1, above, is a diagram of system 10, which includes imaging device 12, digital recording device 14, general purpose processor (“processor”) 16, and head display unit (HDU) 22, among other components. *Id.* at 5:21–53.

Imaging device 12 communicates with digital recording device 14 to record slices of imagery with metadata. *Id.* at 5:24–29. Processor 16 receives input from user 24 and interacts with digital recording device 14 to generate image for right eye 18 and image for left eye 20. *Id.* at 5:30–37. The images are sent to HDU 22 worn by user 24. *Id.* at 5:44–45.

The '691 patent describes a three-dimensional (3D) cursor which is moved within the three-dimensional medical image space. *Id.* at 17:14–16. Exemplary shapes of the cursor include a sphere and a cube. *Id.* at 17:16–17. Control of the cursor is effected by a human machine interface, such as a joy stick. *Id.* at 17:33–35, 17:41–43. The color of the cursor is a user option. *Id.* at 17:24. Also, the size of the cursor may be modified. *Id.* at 17:30–32. The three-dimensional cursor is moved to a specific sub-volume of interest, such that the cursor contains the sub-volume of interest. *Id.* at 17:26–41.

D. Illustrative Claim

Petitioner challenges claims 1–4, 6–9, and 11–21 of the '691 patent. Pet. 1. Claims 1 and 20 are the independent claims. Claims 2–4, 6–9, and 11–19 depend directly from claim 1. Claim 21 depends directly from claim 20. Independent claim 1, reproduced below, is illustrative of the claimed subject matter.

1. [1 pre]¹ A method comprising:
 - [1a] generating a three-dimensional image space or volume from a plurality of two-dimensional radiological image slices;
 - [1b] generating a three-dimensional cursor that has a non-zero volume;

¹ Petitioner's designations to reference the elements of claim 1 are set forth in brackets. Pet. v. Herein we refer to the elements of claim 1 using Petitioner's designations.

- [1c] displaying the three-dimensional cursor in the three-dimensional medical image space or volume;
- [1d] responsive to a first input, moving said three-dimensional cursor within the three-dimensional medical image space or volume; and
- [1e] responsive to a second input, selecting portions of the two-dimensional radiological image slices corresponding to the volume of the three-dimensional cursor for further processing.

Ex. 1001, 22:49–63.

E. Evidence

Petitioner relies on the patent document references summarized in the table below.

Name	Patent Document	Exhibit
Getty	US 2009/0147073 A1	1005
Tomoda	US 2004/0059214 A1	1006
Betting	US 7,242,402 B1	1007
Traughber	US 2015/0110374 A1	1008
Deering	US 5,287,437	1009
Shimotani	US 2013/0076876 A1	1010
Zhou	US 2016/0129637 A1	1011
Schoolman	US 5,488,952	1028

Petitioner relies on the non-patent literature reference summarized in the table below.

Name	Non-Patent Literature Title	Author	Exhibit
Cevidanes	<i>Image analysis and superimposition of 3-dimensional cone-beam computed tomography models</i> , American Journal of Orthodontics and Dentofacial Orthopedics, Vol. 129, No. 5, pp 611-618, May 2006.	Lucia H. S. Cevidanes et al.	1012

F. Asserted Grounds

Petitioner asserts that the challenged claims of the '691 patent are unpatentable based on the following grounds summarized in the table below:

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1–3, 9, 12–15	103 ²	Getty, Tomoda
4	103	Getty, Tomoda, Betting
6	103	Getty, Tomoda, Traughber
7	103	Getty, Tomoda, Deering
8	103	Getty, Tomoda, Deering, Schoolman
11	103	Getty, Tomoda, Shimotani
16–19	103	Getty, Tomoda, Cevidanes
20, 21	103	Getty, Tomoda, Zhou

III. DISCRETIONARY DENIAL OF THE PETITION

A. Discretionary Denial — Parallel District Court Proceeding

Patent Owner contends we should exercise our discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review based on the trial date in the parallel district court proceeding. Prelim. Resp. 30–40 (citing, *e.g.*, *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential)). Because we determine that we should exercise our discretion under 35 U.S.C. § 314 and deny institution of *inter partes* review for other reasons set forth below, we need not address Patent Owner's contentions concerning discretionary denial based on the parallel district court proceeding.

² The Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102 and 103. Based on the record before us at this juncture (*see, e.g.*, Pet. 2–4; Ex. 1001), we use an effective filing date for the '691 patent that is after the effective date of the applicable AIA amendments. We, therefore, refer to the AIA version of 35 U.S.C. §§ 102 and 103. Our determinations herein do not change regardless of which versions of those statutes we use.

B. Discretionary Denial — Parallel Petitions

In deciding whether to institute an *inter partes* review, we consider the guidance in the Consolidated Trial Practice Guide, which states the following:

Based on the Board’s experience, one petition should be sufficient to challenge the claims of a patent in most situations. Two or more petitions filed against the same patent at or about the same time . . . may place a substantial and unnecessary burden on the Board and the patent owner and could raise fairness, timing, and efficiency concerns. . . .

Nonetheless, the Board recognizes that there may be circumstances in which more than one petition may be necessary, including, for example, when the patent owner has asserted a large number of claims in litigation or when there is a dispute about priority date requiring arguments under multiple prior art references. In such cases two petitions by a petitioner may be needed, although this should be rare.

CTPG 59.

Here, Petitioner filed two petitions on the same day, both challenging claims 1–4, 6–9, and 11–21 of the ’691 patent. As Petitioner acknowledges (Ranking Notice, 1), Petitioner also challenges claim 5 in the IPR2021-00878 proceeding. *See, e.g.*, ’878 Petition, 1. In this proceeding, Petitioner presents eight obviousness grounds involving the same secondary references applied in the IPR2021-00878 proceeding. *Compare* Pet. 2–3, with ’878 Petition, 1–2. In the instant proceeding, Petitioner relies on Getty as the primary reference in each of its obviousness grounds (Pet. 2–3), whereas Petitioner relies on US 2006/0279569 A1 (“Acosta”) as the primary reference in the IPR2021-00878 proceeding. ’878 Petition, 1–2.

Petitioner ranks this Petition second between the two petitions. Ranking Notice, 1–2. As a reason for instituting in both proceedings, Petitioner first points to the difference in disclosures of Getty and Acosta

with respect to the term “three-dimensional cursor” recited in the independent claims. In particular, Petitioner contends that Getty “explicitly discloses the use of a 3D cursor.” *Id.* at 2. Petitioner contends that “[t]herefore, Petitioner did not find it necessary to advance a construction of a ‘3D cursor’” in the instant proceeding. *Id.* Petitioner acknowledges, however, “[b]ecause the ‘3D cursor’ is an important term in the ’691 Patent claims, clarification of what a 3D cursor is would benefit all parties including the Board.” *Id.* According to Petitioner, the benefit of providing the construction is an “additional reason” that Petitioner ranks the ’878 Petition, which includes Petitioner’s construction of the term “three-dimensional cursor,” ahead of the instant Petition. *Id.*

Patent Owner responds “to the extent that seeking a claim construction in only one petition is asserted as justification for parallel petitions, nothing prevented Petitioner from seeking claim constructions in each of its petitions and if anything Petitioner was obligated to do so.” Response to Ranking Notice, 3 (citing 37 C.F.R. § 42.104(b)(3)). Patent Owner also asserts that contrary to its arguments here, in the parallel district court proceeding Petitioner “has agreed that a ‘cursor’ as recited in the claims of the ’691 patent is ‘an indicator moveable within a three-dimensional image, image space, and volume.’” Prelim. Resp. 11 (citing Ex. 2005, 5). Patent Owner also advances an argument that Getty does not teach “selecting portions of two-dimensional image slides corresponding to the volume of a *three-dimensional cursor*.” *Id.* at 18 (emphasis added).

Petitioner has not persuaded us that any disclosure in Getty provides sufficient support for instituting on both parallel petitions. Petitioner’s argument pointing to the difference in disclosures of Getty and Acosta with

respect to the term “three-dimensional cursor” recited in the independent claims does not persuade us to institute on both parallel petitions.

Petitioner’s second reason for instituting in both proceedings is that different grounds are presented and “[e]ach Petition provides a strong showing of unpatentability and/or obviousness.” Ranking Notice, 2–3. Patent Owner responds that “there is nothing special or unique about the circumstances of this challenge to justify Petitioner’s getting two bites at the ’691 patent.” Response to Ranking Notice, 3. Patent Owner also asserts that instituting on both parallel petitions would unfairly burden Patent Owner. *Id.* at 4.

Having reviewed all Petitioner’s challenges, we are unable to discern any material difference between the parallel petitions that would be sufficient to outweigh the inefficiencies and costs to the Board and Patent Owner that would result from instituting on both parallel petitions. The mere fact that Petitioner may have had additional art to assert does not, on these facts, justify the additional burden of a second petition directed to the same claims.

In view of the above, Petitioner has not adequately explained why the Petition in this proceeding contains sufficient material differences in its analysis to support instituting an additional *inter partes* review of the challenged claims. Accordingly, because we institute *inter partes* review of claims 1–9 and 11–21 of the ’691 patent on the grounds presented in the IPR2021-00878 petition, we exercise our discretion under § 314(a) to deny institution in this proceeding.

IV. CONCLUSION

For the foregoing reasons, based on a balanced assessment of the circumstances of this cases, we exercise our discretion under 35 U.S.C.

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§ 314, and deny the instant Petition requesting institution of *inter partes* review of claims 1–4, 6–9, and 11–21 of the '691 patent in IPR2021-00877.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied as to claims 1–4, 6–9, and 11–21 of the '691 patent in IPR2021-00877 and no trial is instituted in this case.

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FOR PETITIONER:

W. Karl Renner
Roberto J. Devoto
Usman A. Khan
FISH & RICHARDSON P.C.
axf-ptab@fr.com
devoto@fr.com
khan@fr.com

FOR PATENT OWNER:

Tarek N. Fahmi
Jonathan Tsao
ASCENDA LAW GROUP, PC
tarek.fahmi@ascendalaw.com
jonathan.tsao@ascendalaw.com