UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

SPACETIME3D, INC.,
Patent Owner

IPR2023-00344
Patent 9,696,868

PETITIONER'S REPLY
TO PATENT OWNER'S PRELIMINARY RESPONSE

As authorized by the Board, Petitioner below addresses both the proper application of precedent under 35 U.S.C. § 325(d), and Patent Owner's new construction for the "replacing" steps of elements [1d-2] and similarly [1c-2].

A. Patent Owner's "Cumulative" Assertions Are Misguided, a More Complete Analysis Under *Advanced Bionics* Supports Institution

The undisputed facts show why denial under § 325(d) is ***not*** appropriate. For discretionary denial to be appropriate under § 325(d), a petition's "art and arguments must have been previously presented to the Office during proceedings pertaining to the challenged patent." *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7 (February 13, 2020). That is not the case here. Not a single one of the asserted references—Hanggie, Anthony, Matthews, and Robertson—was cited or considered during prosecution. The Examiner also did not consider the asserted ***combinations*** of Anthony-Hanggie (with or without Matthews and Robertson) (Grounds 1A-1D) and Hanggie-Anthony (with or without Matthews and Robertson) (Grounds 2A-2D), or any similar combinations.

No binding or persuasive authority supports denial under these circumstances, nor does a first-principles inquiry based on the *Advanced Bionics* framework and the *Becton* factors. Apparently, recognizing this deficiency, Patent Owner attempts to analogize the asserted references to unrelated patent documents that were identified during an Examiner search but never applied to the claims. APPLE1002, 11.

Tellingly, Patent Owner makes no attempt to present a comprehensive analysis under the Board's precedent. Instead, Patent Owner examines the asserted references individually and deems them "cumulative" based on alleged surface-level similarities to prior art evaluated during prosecution. In doing so, however, Patent Owner fails to consider the many material distinctions that the asserted reference combinations have over the prosecution art. Accordingly, the Board should reject Patent Owner's call for denial under § 325(d) and institute the Petition.

1. Part 1: The asserted art and arguments are not the same or substantially the same art as those considered during prosecution

The following analysis of *Becton* factors (a), (b), and (d) shows that Part 1 of the *Advanced Bionics* framework favors institution. The asserted art combinations of Grounds 1A-2D, and the parties' arguments regarding the same, are materially different from any considered during prosecution (in part, because a first action allowance was issued during prosecution). Further, Patent Owner's analysis of the asserted references ***individually*** should be discarded in favor of an objective evaluation based on the reference ***combinations*** advanced in the Petition.

a) Becton Factors (a) & (b): Prior Art Comparison & Cumulative Nature of Asserted Art

Patent Owner contends that Sciammarella, Freeman, Prager, Kamiwada, and Iida (references listed on the cover of the '868 Patent) are "virtually identical" to Anthony and Hanggie. POPR, 32. The flawed premise of Patent Owner's

conclusion is that none of these references discloses "switching back-and-forth between 2D and 3D space." POPR, 2, 9, 17, 22, 27. Not so.

As explained in the Petition, Hanggie teaches that it can be beneficial to switch from a 3D mode to a 2D mode to reduce graphics processing and thereby conserve battery power, and a POSITA would have recognized that those same advantages could be obtained by switching from a 3D to a 2D state upon user selection of a maximize control button. APPLE1003, ¶[62]; APPLE1006, ¶[0092]; Pet., 25-29, 55-58. Dr. Fuchs explains in his declaration that "the combination of Hanggie and Anthony would yield the predictable results of Anthony's system providing standard captions and control buttons for application windows represented within its 3D timeline, and being able to switch between 3D and 2D interface modes." APPLE1003, ¶[64]; Pet., 27.

The POPR attempts to analogize the disclosure in Sciammarella, Freeman, and Prager with Anthony. POPR, 32. However, Anthony's disclosure is fundamentally different from Sciammarella, Freeman, and Prager. For example, like Hanggie, Anthony's 3D environment can be implemented utilizing graphics technology such as DirectX®, Direct3D®, OpenGL®, and GDI. APPLE1007, ¶[0043]; APPLE1006, ¶[0040]. This technology enables use of the Compositing Desktop Window Manager (CDWM) 190 and Legacy Graphical User Interface Subsystem 192, which ultimately allow the Hanggie-Anthony and Anthony-Hanggie

combinations (either referred to as "**HAC**") to replace the 2D space with a 3D space (and *vice-versa*), thereby rendering obvious the claimed features of the '868 Patent. Sciammarella, Freeman, and Prager do not disclose such graphics systems. Anthony also has additional features, such as a slide-ruler-like GUI interface (shown at the bottom of Anthony's FIG. 4) that allow a user to move to different points of time in the chronological and dynamic timeline being displayed. APPLE-1007, FIG. 4, ¶¶42-46. None of the newly cited references in the POPR have this feature.

At best, Sciammarella, Freeman, and Prager provide arranged windows and data in a chronological order—which is a well-known concept, as indicated by the plethora of art with such disclosure. But identifying one common point based on a known concept in the art does not make these references cumulative to Anthony.

Moreover, as noted above, in analogizing the references, the POPR did not once consider combinations of these references. For instance, Patent Owner separately likens Iida and Kamiwada to Hanggie because Iida and Kamiwada allegedly disclose zooming features. POPR, 31-39. The POPR is completely devoid of any discussion pertaining to the combination of Iida or Kamiwada with Sciammarella, Freeman, or Prager.

And even if Iida and Kamiwada were individually considered, they are not cumulative to the teachings of Hanggie. For instance, as acknowledged by the Patent Owner, Iida uses vantage point zooming buttons 75 and 76 to perform zooming

operations. POPR, 36, 37. Vantage point zooming buttons 75 and 76 are different from the maximize control button at the top right of Iida's FIGS. 13 and 14. And in Iida, unlike Hanggie, the window includes a 3D space screen 7 portion and a separate 2D portion in which the vantage point zooming buttons 75 and 76 are displayed. Selection of the control buttons, such as the maximize button, in Iida would thus impact (e.g., maximize) both portions equally such that the window including both 2D and 3D spaces would be displayed when maximized. Accordingly, at least because HAC diverges from the prosecution art in a way that is material to the '868 Patent's "replacing" step of Element [1d-2], the asserted references and combinations are not cumulative. *See* Pet., 55-57, 22-34.

As noted above, the Petition asserts Anthony and Hanggie (with or without Matthews) ***as combinations***, not in isolation. *E.g.*, *StayLinked Corp. v. Ivanti, Inc.*, IPR2021-01366, Paper 19 at 23 (PTAB Feb. 15, 2022) (finding Becton factors (a) and (b) favoring institution where "the Examiner never specifically considered a combination of [the asserted references]"). Tellingly, Patent Owner does not even attempt to show that the Examiner considered anything resembling the Hanggie-Anthony or Anthony-Hanggie combinations, which can provide application windows with control buttons, such as the maximize button, which when selected allow the HAC system to switch between 2D and 3D user interfaces. Pet., 22-34. For at least this reason, the Grounds 1A-2D combinations are not cumulative.

b) Becton Factor (d) [Extent of Overlapping Arguments]:

The arguments on the prosecution record are divorced from those raised in this proceeding. The Examiner never rejected the Challenged Claims. To address this lack of application, Patent Owner asserts that references allegedly similar to Hanggie and Anthony were applied during prosecution of applications that are related to the '868 patent. POPR, 35, 11, 18, 29. But the related applications do not recite the same claim features, and the Examiner's application of different art to the different claims is irrelevant and cannot be the basis to support denial under 325(d).

2. Part 2: The Examiner materially erred in granting the Challenged Claims

To the extent the Board reaches Part 2 of the *Advanced Bionics* framework (which it need not do), the following analysis shows that each of *Becton* factors (c), (e), and (f) favor institution. The Examiner did not evaluate the asserted art combinations or substantially similar combinations in a meaningful way, as illustrated by the plainly erroneous reasons for allowance. Regardless, the Petition offers significant new evidence that goes far beyond the limited prosecution record.

a) Becton Factor (c) [Extent of Asserted Art Evaluation]

As discussed, no Office Action was issued during prosecution and no reference applied in a rejection.

None of the prosecution art that Patent Owner relies on formed the basis of a rejection ***against the Challenged Claims*** or substantially similar claims. Gottesman

and Freeman were cited against the claims of the ’018 parent patent. POPR, 13-15. But as Patent Owner concedes, those older claim sets were distinct from the Challenged Claims. *See* POPR, 16-17 (alleging that “a ‘mapping’ step” in the older claims differs from “being ‘replaced’” in the Challenged Claims). Besides, the record supports that the specific disclosures in the prosecution art that Patent Owner relies on were overlooked. Indeed, these disclosures do not feature prominently, if at all, in the Examiner’s rejections of the older claims. *Compare* POPR, 32-35 (citing EX2006 (Gottesman), [0015], [0031]-[0034], [0043], [0048]; EX2007 (Freeman), 13:22-48; EX2008 (Prager), 7:43-88), *with* EX2004, 69-87, 124-143, and 174-192 (applying Gottesman and Prager in first, second, and third Office Actions of parent patent claims; and Freeman in the third Office Action). POPR, 15.

Finally, even assuming *arguendo* that the Examiner meaningfully considered the asserted references or substantially similar references in other contexts, he did not do so in the same or substantially similar ***combinations*** as those asserted in the Petition. Patent Owner does not argue otherwise and cannot do so credibly.

In sum, the Examiner overlooked key disclosures in the prior art and failed to thoroughly vet the Challenged Claims during prosecution, which is a material error.

b) Becton Factor (e) [Other Errors in Examination]

The Examiner offered no reasons for allowance and no analysis other than a high level indication that certain references (majority of which were considered in

earlier parent applications) had been considered. APPLE1002, 9-11. The Examiner's lack of application of prior art references and consideration of other relevant art (such as art used in the Petition) is a material error.

c) Becton Factor (f) [Additional Evidence and Facts]

Deficiencies in the examination process aside, the Examiner simply did not have access to all that the Petition brings to bear. The extensive expert testimony and corroborating evidence submitted with the Petition provides key insights on the understanding a POSITA would have had of the asserted references, and the motivations a POSITA would have had for combining the references in the specific manner explained by Dr. Fuchs. APPLE1003, ¶¶59-85. Had the Examiner known what the Petition proves, the Challenged Claims would not have been granted.

B. Patent Owner's New Construction of the "Replacing" Step Cannot Save the Challenged Claims [Ground 1]

1. Patent Owner has not supported its new construction

Patent Owner's arguments against Ground 1 of the Petition focus on the "replacing" step of Element [1d-2] (and similarly element [1c-2]. POPR, 7, 40. According to Patent Owner, this "replacing" step requires "***replacing*** the plurality of [inactive] images ***(including the selected image)*** with an individual, active application." POPR, 45 (original emphasis), 35, 49, 1-2. The "*inactive*" and "*active*" adjectives in Patent Owner's interpretation are new additions to the express claim language and, in effect, a proposal for claim construction. Further, the '868

Patent specification itself provides through FIG. 9 and related discussion at least one example of a 3D environment that includes an active element (navigator 320) in addition to images corresponding to applications with which the user can interact, and the POPR fails to address that example.

Indeed, Patent Owner has not even attempted to support its proposed construction with a proper analysis based on cogent reasoning, the intrinsic and extrinsic evidence, and the principles of *Phillips*. As a result, Patent Owner's new construction—which was not introduced at the district court and appears for the first time in the POPR—is premature for adjudication, relies largely on attorney arguments, and should not be entered at this time.

2. Anthony and Hanggie satisfy Patent Owner's new construction

In reliance on its construction of the "replacing" feature (which Petitioner does not necessarily agree with), Patent Owner claims that Hanggie and Anthony fail to render obvious the "replacing" feature. This is incorrect (to the extent the terms "*active*" and "*inactive*" are relevant and understood as used by Patent Owner).

As explained in the Petition, Anthony's system (including when combined with Hanggie) teaches displaying various types of items that include "a visual representation of a file, folder, virtual folder, or any other data object that may be stored in an operating system and/or file system, for example, icons, thumbnails, and the like." APPLE1007, ¶¶[0042], [0036], [0038]; Pet., 10-12. A POSITA would

thus have understood that HAC's displayed windows or focal groups would have included or represented a plurality of inactive or active items depending on the data type or application (which Patent Owner fails to understand are also "data object[s] that may be stored in an operating system and/or file system being executed"). *Id.*; POPR, 42.

Indeed, as explained in the Petition, it would have been obvious to a POSITA that when Anthony's dynamic timeline displays a plurality of inactive images in 3D (some of which may include inactive application windows with control buttons), selection of a maximize button corresponding to a particular application window would cause that window to replace the images previously displayed in 3D with a 2D window that is active. *See* APPLE1003, ¶¶109-115; Pet., 34-58. As one example, a plurality of inactive web browser windows may be displayed as images in HAC's dynamic 3D timeline. *See* APPLE1003, ¶¶79-84, 40, 128. And, upon user selection of the maximize button for one of the web browser windows, the selected window is maximized and displayed in 2D space such that the associated browser can receive subsequent user inputs, and such that the maximized window replaces the 3D space and associated images. For at least this reason, even if Patent Owner's construction is adopted, HAC renders the claims obvious.

Respectfully submitted,

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/Usman Khan/

W. Karl Renner, Reg. No. 41,265
Andrew Patrick, Reg. No. 63,471
Kenneth W. Darby Jr., Reg. No. 65,068
Usman Khan, Reg. No. 70,439
Fish & Richardson P.C.
60 South Sixth Street, Suite 3200
Minneapolis, MN 55402
T: 202-783-5070
F: 877-769-7945
Attorney for Petitioner

CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on May 11, 2023, a complete and entire copy of this Petitioner's Reply to Patent Owner's Preliminary Response was provided by email to Patent Owner by serving the email correspondence addresses of record as follows:

Todd E. Fitzsimmons, Reg. No. 44,683
FITZSIMMONS IP LAW, P.C.
P.O. Box 199
Gardena, CA 90248
Phone (571) 210-8000
Email: todd@fitziplaw.com

Gregory Cordrey, Reg. No. 44,089
JEFFER MANGELS BUTLER & MITCHELL LLP
3 Park Plaza, #1100
Irvine, CA 92614
Phone (949) 623-7200
Email: gxc@jmbm.com

/Crena Pacheco/

Crena Pacheco
Fish & Richardson P.C.
60 South Sixth Street, Suite 3200
Minneapolis, MN 55402
pacheco@fr.com