

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC. and GOOGLE LLC,¹
Petitioner,

v.

SPACETIME3D, INC.,
Patent Owner.

IPR2023-00343 (Patent 9,304,654 B2)
IPR2023-00344 (Patent 9,696,868 B2)

Record of Oral Hearing
Held: March 18, 2024

Before HUBERT C. LORIN, DAVID C. McKONE, and
SHEILA F. McSHANE, *Administrative Patent Judges*.

¹ Google LLC was joined as Petitioner to IPR2023-00343 and -00344, respectively, via the granting of motions for joinder filed in IPR2023-00579 and -00578, respectively.

IPR2023-00343 (Patent 9,304,654 B2)

IPR2023-00344 (Patent 9,696,868 B2)

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IPR2023-00343 (Patent 9,304,654 B2)

IPR2023-00344 (Patent 9,696,868 B2)

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The above-entitled matters came on for hearing at 3:25 PM EDT on Monday, March 18, 2024, at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

P R O C E E D I N G S

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JUDGE LORIN: Good afternoon. This is an oral hearing in IPR2023-00343 and IPR2023-00344. The oral arguments in these two cases have been consolidated for purposes of this hearing. Petitioner is Apple Inc. and Patent Owner is SpaceTime3D, Inc. Google LLC has been joined. The proceeding 00343 concerns U.S. Patent 9,304,654. And the patent that is the subject of the 00344 proceeding is 9,696,868. Are the other two Judges on the screen?

USHER: They are here. You should be able to hear them now.

JUDGE McKONE: I'm present, if you can hear me.

JUDGE LORIN: Oh, okay. Because I do not see you. Judge McShane?

USHER: It's being worked on

JUDGE McSHANE: I'm here.

JUDGE LORIN: Oh, you're also here?

JUDGE McSHANE: Yes, I'm here as well.

JUDGE LORIN: Okay. Very good.

JUDGE McSHANE: So, you just probably can't see me.

JUDGE LORIN: Yeah, we don't see you. Okay. So, I'm Judge Lorin. And as you heard, Judge McKone and Judge McShane are appearing remotely and you'll see them on video soon. Let's begin with Petitioner Apple. Could you introduce yourselves for the record?

MR. PATRICK: Your Honor, my name is Andrew Patrick. I'm here for Petitioner Apple. And I'm joined by my colleagues Usman Khan and

1 Karl Renner. Also on the line is Allen Kathir for Apple. And Yinan Liu is
2 here on behalf of Google.

3 JUDGE LORIN: Thank you. For Patent Owner?

4 MR. CORDREY: Good afternoon, Your Honor, this is Greg Cordrey
5 on behalf of the Patent Owner, SpaceTime3D. With me today is my
6 colleague, Todd Fitzsimmons.

7 JUDGE LORIN: Very good. Thank you so much. Okay. As I
8 always do, I'd like to remind the parties that this hearing is open to the
9 public. So be aware of that, please. A full transcript will be part of the
10 record. We received your demonstratives, so we'll have them before us.
11 And I see Judge McKone. Both Judges are now on the screen. When you
12 speak, please speak so that they can hear you. And also make sure you
13 identify the slides very clearly so we know where you are and what you're
14 focused on. Okay, Petitioner, you may begin.

15 MR. PATRICK: Thank you, Your Honor.

16 JUDGE LORIN: Would you like to reserve? Any time.

17 MR. PATRICK: Thank you, Your Honor. I would like to reserve 15
18 minutes.

19 JUDGE LORIN: Okay, you may proceed.

20 MR. PATRICK: May it please the Board. My name is Andrew
21 Patrick and I represent Petitioner Apple. I'd like to ask Your Honors to turn
22 to slide 2 of the deck, which provides an overview. As shown in the table of
23 contents provided on slide 2, we have organized our presentation today to
24 address the record evidence relating to whether a POSITA would have found
25 the claimed '654 and '868 Patents' subject matter obvious over the
26 combined teachings of the Anthony and Hanggie references, whether based

1 on obvious modifications to Anthony motivated by Hanggie's teachings, or
2 on obvious modifications to Hanggie motivated by Anthony's teachings. In
3 either case, we have, throughout these proceedings, referred to the combined
4 system yielded by those teachings as “HAC” for short, and we will continue
5 to do so today.

6 That said, it is important to note that Patent Owner’s briefing, in
7 addition to improperly attacking the applied references individually, rather
8 than addressing what a person of skill would have found obvious over their
9 combined teachings, and in addition to attempting to distinguish those
10 teachings based on terms that are not actually recited in the claims, also
11 failed to address several of the motivations that Dr. Fuchs explained would
12 have inspired the POSITA to combine those teachings in both directions.
13 This, ironically, despite SpaceTime having alleged that there would have
14 been no motivation to combine Hanggie and Anthony as proposed.

15 By leaving motivations uncontested, Patent Owner’s failed to present
16 evidence they could defeat the case for the HAC combination established by
17 the petitions and Dr. Fuchs's testimony. I'd like to first explore that issue
18 together, which I've identified in our demonstratives as issue one, and I'll
19 then plan to address on direct issues two, three, and four, respectively. The
20 obviousness over HAC of the common replacing features, of the common
21 ordering features, and of the features of the ‘868 Patent’s independent claim
22 13.

23 With that plan, I'd like to ask Your Honors to join me in turning to
24 slide 10, which presents on the right from Anthony exemplary figure 4,
25 illustrating the chronological organization of images within a 3D immersive
26 space and which presents, at left, related description from Anthony's

1 paragraph 42. More specifically, and as shown in the clip at left, Anthony
2 explains that all items stored in an operating system have certain properties,
3 for example a time attribute, and that those items may be visual
4 representations, for example, icons, thumbnails, and the like of a file folder,
5 virtual folder, or any other data object. Turning to slide 11, we can see that
6 Anthony's paragraph 42 continues by noting that any item property may be
7 used as an ordering attribute, a term referring to the attribute around which
8 data is primarily sorted or organized at a given time. For instance, in the
9 embodiment of Anthony illustrated by figure 4, the ordering attribute is
10 based on time, and the items are chronologically ordered into a logical,
11 dynamic timeline view in 3D, which is said to allow a user to easily navigate
12 and locate items.

13 More specifically, Anthony offers that items visually representing
14 data objects within the operating system may be chronologically arranged,
15 for example, by using a date of creation or date of edit attribute as the
16 ordering attribute. In its field section, Anthony expressly describes its
17 teachings as enabling a user to more efficiently view, find, and select a
18 group of objects on a graphical user interface. And Anthony later expressly
19 offers a paragraph 44 that its dynamic timeline allows a user to freely
20 navigate documents, files, or other data objects in a chronological manner.

21 Turning to slide 12, we see images from Hanggie, which discloses
22 rendering a desktop on a computer using a composited desktop model
23 operating system with intrinsic support for composition agnostic legacy
24 applications. More specifically, Hanggie indicates that its desktop window
25 manager uses advanced textures, lighting, and 3D transformations, yet
26 supports legacy applications. Notably, while Hanggie's compositing engine

1 enables 3D graphics and animation, transparency, shadows, lighting effects,
2 and other rich visual features on the desktop, it is further connected to a
3 legacy graphics device interface that provides 2D graphics services to both
4 legacy applications as well as the legacy window manager. The different 3D
5 graphics and 2D graphics interfaces are highlighted on slide 12 and
6 Hanggie's figure 1b.

7 Importantly, and as can be seen in the clip at left of slide 13, Hanggie
8 expressly discloses that the drawing modes are integrated such that the
9 operating system inherently has the capability to render the desktop using
10 either mode. More, Hanggie describes allowing the user to select which
11 mode should be used either automatically or manually, for example, using a
12 manual user control in accordance with a visual style or alternatively or also
13 based on power conservation conditions.

14 With that brief overview of the constituent references, I'd like to now
15 discuss Patent Owner's failure to fully address the HAC combination in each
16 of its two directions. Toward that end, I'd like Your Honors to turn with me
17 now to slide 15. As Dr. Fuchs testified and as shown on this slide, a person
18 of skill would have been motivated and found it obvious to combine the
19 teachings of Hanggie and Anthony to implement one or more windows
20 corresponding to one or more applications as displayed windows in
21 Anthony's timeline; implement control buttons on application windows
22 within the timeline that would allow a user to restore, maximize, minimize,
23 or close the windows; and, implement a control selection through which a
24 user can switch between 2D and 3D viewing of the application windows.

25 For instance, Dr. Fuchs noted that a person of skill would have been
26 motivated to modify Anthony based on Hanggie's teachings by

1 implementing Hanggie's control buttons in Anthony's 3D timeline windows
2 such that the user could close, minimize, maximize, or restore a window
3 when desired by selecting a corresponding button, as doing so would be
4 consistent with user expectations, convenient to the user, and would assist
5 the user in interacting with applications represented within the timeline,
6 since control buttons of this nature would have been understood to provide a
7 user with more control over the information displayed within the timeline in
8 application windows and would allow the user to view or interact with a
9 particular window only when desired. Moreover, consistent with these
10 advantages in Hanggie's teachings, Dr. Fuchs testified, the POSITA would
11 have found it obvious to implement the maximize control button such that
12 manual user selection of that button would result in Anthony's user interface
13 switching from a 3D timeline view, enabling user interaction with a plurality
14 of applications represented within windows displayed within that timeline to
15 a 2D view of a 2D maximized window, at least because doing so would
16 allow certain users to interact with an application in a 2D environment
17 similar to their past experiences in 2D, and make it unnecessary to expend
18 computing resources on rendering the 3D timeline while a window is in a
19 maximized state.

20 Dr. Fuchs further explained that a POSITA would have been
21 motivated to modify Hanggie based on Anthony's teachings in a manner
22 yielding the same HAC system, but additionally because the person of skill
23 would have recognized that ordering and representing Hanggie's windows in
24 this 3D dynamic timeline manner would allow for efficient, intuitive, and
25 user friendly navigation. Against this, SpaceTime argues in its Patent
26 Owner's responses, and sur-replies that, quote, there is no motivation to

1 combine Hanggie and Anthony as proposed because, for example, Hanggie's
2 description of use of a legacy drawing mode in circumstances in which
3 processor intensive calculations are inappropriate is allegedly inapplicable to
4 the proposed combination where, according to SpaceTime, only images are
5 presented in 3D space. Weirdly, SpaceTime goes on to state on the same
6 page that Hanggie does not -- and that's at the '868 sur-reply at 22.

7 SpaceTime goes on to state on the same page that Hanggie does not disclose
8 displaying images in 3D space but active windows, and to argue that
9 resource intensive features are only applicable when displaying legacy
10 application windows in 3D space rather than images, and that as such,
11 Hanggie does not provide the proposed motivation to modify Anthony, as
12 Petitioners suggest.

13 Now, beyond the fact that these arguments seemingly skirt past the
14 processor intensive calculations that would be involved in rendering and
15 presenting a 3D dynamic timeline including 3D window images, they
16 altogether failed to address the various motivations that Dr. Fuchs identified
17 for modifying Anthony based on Hanggie involving user expectations,
18 convenience, and control. Also left unaddressed were the motivations
19 offered for modifying Hanggie based on Anthony. SpaceTime additionally
20 argues at, for example, pages 23 and 24 of its '868 sur-reply that
21 conservation of battery power cannot be a motivation to switch from 3D to
22 2D upon user selection of the maximized control button. If the device is
23 only operating in 3D space when connected to an AC power source. Beyond
24 incorrectly asserting that the HAC device is only operating in 3D space
25 when connected to an AC power source. This argument suffers from similar
26 problems as the last. For example, ignoring motivations for switching from

1 3D to 2D upon user selection of the maximize button offered by Dr. Fuchs is
2 flowing from user expectations, convenience, and control. In short,
3 SpaceTime has failed to seriously contest that a POSITA would have
4 combined these references in the manner testified to you by Dr. Fuchs. And
5 unless there are questions on that point, I'd like to ask Your Honors to turn
6 with me now to slide 24, where we'll address the obviousness of the
7 common replacing features over HAC.

8 As shown on slide 24, the independent claims of the '868 and '654
9 Patents recite a replacing feature directed to replacing a plurality of images
10 within 3D space with an object in 2D space. More specifically, and for
11 example, the '868 Patent's claim 1 recites, quote, replacing said plurality of
12 images within said 3D immersive space with one of said first, second, and
13 third objects corresponding to said one of said plurality of applications
14 within said 2D space in response to said selection. Before moving on, I'd
15 like to note that absent from that language are the words active or inactive.

16 With that, I'd like to ask Your Honors to turn with me to slide 25. As
17 shown on Slide 25, Patent Owner's attempt to distinguish the applied prior
18 art from the replacing feature can be understood as resolving to two
19 arguments. First, as shown at upper right, Patent Owner repeats its pre-
20 institution argument that the claims require switching from 3D space to 2D
21 space and that HAC allegedly does not render such switching obvious. This,
22 despite the Board having preliminarily found at institution that the
23 independent claims do not require switching from 3D space to 2D space.
24 Second, as shown at lower right, Patent Owner repeats its pre-institution
25 argument that the claims require replacing inactive 3D images with an active
26 2D window object. This, despite the absence of any lexicography or

1 disclaimer in the specification that might conceivably support the
2 importation of such terms into the claims.

3 More specifically, and as shown on Slide 26, Patent Owner relies on,
4 in its attempt to read the terms inactive and active into the claims for its
5 argument, that HAC does not disclose the replacing feature. For example,
6 referring to the 3D window images displayed in HAC's 3D immersive space,
7 Patent Owner argues that by definition, because a user can interact with the
8 control buttons on the window, the window is not an image as required by
9 the claims. This argument is interesting at least insofar as it implies a view
10 by Patent Owner that if some portion of a thing being displayed is
11 interactive, then that displayed thing is definitionally not an image. And yet,
12 as we pointed out, the Petitioner replies, nowhere in the specification is there
13 any definition, disavowal, or description suggesting that an image cannot be
14 active or must be incapable of receiving interactions.

15 And on the contrary, and as we'll see in the next slide, the opposite is
16 true, as the specification itself repeatedly implies that images displayed in
17 the 3D space are interactive and retain the functionality of their 2D object
18 counterparts. For example, as shown in the highlighted text presented on
19 slide 27, the '868 and '654 Patents expressly state that, quote, in general, the
20 present invention displays graphics from the user's 2D finite desktop in 3D
21 infinite space while retaining the functionality of the 2D programs and
22 documents. In another portion of the specification, both patents add, quote,
23 furthermore, once the file, document, application, or desktop is added to the
24 virtual space 300, it is fully interactive and functional, and appears no
25 different from or close to the original way the program functions when it
26 was not in the 3D cartesian space 300.

1 In at least these instances, the ‘868 and ‘654 Patent specifications
2 include descriptions of interactive images presented in 3D space that
3 contradict the characterizations of the claimed plurality of images advanced
4 by Patent Owner in these proceedings, upon which Patent Owner heavily
5 relies in its attempt to distinguish HAC. More, and as we pointed out in the
6 Petitioner replies, Patent Owner offered in its response a statement that by
7 definition, HAC's 3D windows did not qualify as images based on there
8 being at least partly interactive, but did not, in doing so, actually offer any
9 definition or express construction of the term image. Instead, at that time,
10 Patent Owner offered that all terms other than 3D space and 2D space should
11 be given their plain and ordinary meaning.

12 I'd like to ask Your Honors to turn with me to slide 28, which shows
13 that, contrary to its earlier position, Patent Owner newly advanced a
14 construction of the term image for the first time in its sur-reply. More
15 specifically, Patent Owner advanced for the first time in its sur-reply an
16 express claim construction section in which it embraced an alternative
17 definition of image offered in a dictionary exhibit earlier submitted. Quote,
18 an optical counterpart of an object produced by an electronic device.
19 Interestingly enough, SpaceTime did not demonstrate in the sur-reply how
20 this newly offered construction allegedly distinguishes HAC. That said,
21 although Petitioner has not had an opportunity to respond to this late
22 construction with a paper or evidence, and although Petitioner respectfully
23 submits the Patent Owner should be considered to have forfeited its express
24 construction by offering it for the first time only in the sur-reply, HAC
25 renders the replacing limitation obvious even under SpaceTime's image

1 construction, and it's therefore not necessary to reach that construction to
2 rule in Petitioner's favor.

3 First, I'd like to ask Your Honors to turn with me to slide 31, which
4 addresses obviousness of the replacing limitation under plain meaning of the
5 term "image." At the left of slide 31, we can see Patent Owner's critical
6 misunderstanding of HAC by its response statement that in Anthony and
7 Hanggie, everything occurs on a single 3D GUI. This, of course is not
8 accurate, as Hanggie expressly discloses both a legacy drawing mode for
9 rendering 2D windows in a 2D desktop display, and a 3D drawing mode for
10 rendering 3D windows and a 3D desktop display, as well as the ability of a
11 user to freely switch between these two modes via manual user control.

12 Example disclosure from Hanggie's paragraph 92 on these points is
13 shown at the right side of slide 31. And as we earlier discussed in the
14 context of the HAC combination, and as Dr. Fuchs testified, a person of skill
15 would have understood and found obvious that manual user selection of the
16 2D mode, for example, by pressing a maximize button on a particular 3D
17 window image while the dynamic 3D timeline was being displayed, would
18 result in the 3D window images presented within that timeline being
19 replaced by the 2D window object corresponding to the selected image.

20 Now, with that in mind, I'd like to ask Your Honors to turn back to
21 slide 29, which provides further disclosure from Hanggie, demonstrating that
22 the 3D windows presented in HAC would in fact have been understood by a
23 person of skill to be images, whether under plain meaning or Patent Owner's
24 newly advanced construction. For example, and as shown at upper right,
25 Hanggie describes that an application can generate a 3D application window
26 and attach any number of content objects to that application window,

1 including, quote, a raster surface of specified size and pixel format to be
2 used as a diffused texture mapped to an application or system defined mesh,
3 along with optional accessory resources such as additional textures, light
4 map, specular map, bump, normal map, et cetera, lights, and a pixel shader.
5 At least because HAC's 3D windows include mapped textures in addition to
6 other content objects, Dr. Fuchs explained that a person of skill would have
7 understood those 3D windows to be images under plain meaning. Moreover,
8 the fact that HAC's 3D windows can include interactive control buttons does
9 not prevent those windows from being understood to be images under plain
10 meaning. To the contrary, the 3D windows are visually displayed to the user
11 on a monitor and are, in at least that sense, images. And those images are of
12 course each optical counterparts to objects produced by an electronic device.
13 When generated, for example, in response to manual user selection of a 3D
14 drawing mode after previously operating in a 2D drawing mode. HAC's 3D
15 timeline windows are optical counterparts to the earlier presented 2D
16 windows and their applications. In at least this way, HAC renders the
17 replacing step obvious both under plain meaning and under Patent Owner's
18 late-entered construction of the term image.

19 Unless Your Honors have further questions on this point, I'd like to
20 ask you to turn with me now to slide 33, where we'll address the ordering
21 limitation as shown on slide 33. The independent claims of the '868 and
22 '654 Patents recite an ordering feature in which the plurality of images in the
23 3D space are displayed in an order based on a last time that the user one of
24 (i) opened said first application and interacted with said first object, (ii)
25 opened said second application and interacted with said second object, and
26 (iii) opened said third application and interacted with said third object.

1 Before moving to the next slide, I wanted to just briefly highlight that in the
2 claims, the one of is recited before the numerals one, two, and three, and
3 each of the one, two, and three numerals recite opening an application first,
4 second, and third, respectively, and interacting with a corresponding 2D
5 object. With that in mind, let's turn to the prior art disclosure on slide 34.

6 As shown at the left of slide 34, which presents highlighted text from
7 Anthony's paragraph 42, Anthony teaches that its items can be
8 chronologically arranged according to a time-based ordering attribute, which
9 may be, for example, date of creation or date of edit. Shown on the right is a
10 figure provided by Dr. Fuchs illustrating how, in the HAC system, the
11 application windows would be displayed in a timeline and, consistent with
12 Anthony's teachings, would have been arranged based on an ordering
13 attribute, for example, date of edit. And as Dr. Fuchs explained, the date of
14 edit of a given window would, in at least some cases, correspond to the last
15 time that a user opened the corresponding application and interacted with the
16 window object.

17 As shown at the top left, as slide 35 and its Patent Owner responses,
18 SpaceTime attempted to distinguish HAC based on the assertion that the
19 claimed invention orders images based on the most recently used
20 applications. In making this argument, SpaceTime appears to be
21 distinguishing a use of the application from a use of documents or files
22 related to the application. But here again, SpaceTime's arguments are
23 divorced from the claim language. For instance, the ordering limitation does
24 not recite the words recently used. Setting aside the fact that SpaceTime's
25 response argument relies on language not recited in the claims, Petitioner's
26 replies, as shown at bottom left, noted that SpaceTime's argument fails to

1 address that user interaction with an application file through an application's
2 window object would require opening of the application and interaction with
3 that object. In at least that sense, interaction with an application's window
4 object would obviously involve use of the opened application. And for what
5 it's worth, both experts appeared to agree with this. For instance, in
6 paragraph 27 of his second declaration, Dr. Fuchs explained that a person of
7 skill would have understood that an application executable file is executed in
8 order to display an application window, and that if one were to enter a
9 character in an application window, such an interaction would be with both
10 the application and the application window, because the software executable
11 file running the application receives and provides instructions to display and
12 store the character in the application window.

13 For his part and as shown on the right side of slide 35, SpaceTime's
14 expert, Dr. Schaefer, acknowledged during his deposition that typically
15 when a user wants to interact with an application, the user opens an
16 application window. In columns 63 through 68 of his deposition transcript,
17 there's further testimony from Dr. Schaefer also acknowledging that when
18 running an application, for example, Microsoft Excel, and this is shown on
19 slide 37, an executable file is executed and a Microsoft Excel application
20 window captures a user keyboard input. Thus, both experts appear to agree
21 that interacting with an application window would involve opening and use
22 of the corresponding application.

23 I'd like to ask Your Honors to turn with me now to slide 36, which
24 provides a table of the evolving interpretations offered by SpaceTime for the
25 ordering limitation in this proceeding up to and including the explicit
26 construction offered by SpaceTime for the first time in its sur-reply. As I

1 noted earlier with respect to the replacing feature, in its responses,
2 SpaceTime had indicated that no constructions were necessary other than for
3 the 2D space and 3D space terms, and that other terms should be given their
4 plain and ordinary meaning. At that same time and as just discussed,
5 SpaceTime suggested that the ordering must be based on the most recently
6 used applications. Contrary to its earlier position, SpaceTime then
7 introduced an express construction for the ordering limitation in its sur-
8 reply, which we reproduced at the right side of the table. Specifically,
9 SpaceTime now contends that the ordering limitation should be construed as
10 based on a last time that said user (1) opened said first application or
11 interacted with said first object; (2) opened said second application or
12 interacted with said second object; and (3) opened third application or
13 interacted with said third object.

14 Notably, SpaceTime's late-express construction eliminates the words
15 “one of” and several instances of “and” from this limitation more specific,
16 more SpaceTime has actually replaced the word “and” in each of the
17 enumerated one, two, and three clauses with the word “or”. In doing so,
18 SpaceTime has drastically departed from the actual claim language, again,
19 without any recourse to allege, disavow, or lexicography that might
20 conceivably justify that attempt. And here again, Your Honors, although
21 Petitioner has not had an opportunity to respond to this late construction
22 with a paper or evidence, and although Petitioner respectfully submits that
23 Patent Owner should be considered to have forfeited its express construction
24 by offering it for the first time only in the sur-replies filed March 1.

25 HAC renders the ordering limitation obvious both under plain and
26 ordinary meaning and under SpaceTime's late construction, and it's therefore

1 not necessary to reach that construction to rule in Petitioner's favor. For
2 instance, and as previously noted with respect to slide 34, Anthony discloses
3 that data items can be chronologically ordered based on attributes including
4 a time of edit or a time of creation. And Dr. Fuchs testified that, consistent
5 with Anthony's teachings, a person of skill would have chronologically
6 arranged 3D application windows within Anthony's 3D dynamic timeline
7 according to a time-based ordering attribute. For example, Dr. Fuchs, in his
8 original '868 declaration at paragraphs 94 and 102, explained that a person
9 of skill would have understood that the last time a user edited application
10 data via a 2D application window object, in at least some instances,
11 corresponds to the time when the application was last opened and interacted
12 with. And in at least this way, 3D application windows chronologically
13 ordered according to the date of edit of the corresponding 2D application
14 window objects would be ordered based on the last time that a user opened
15 and interacted with the 2D window objects.

16 More, although the lateness of SpaceTime's construction means that
17 Petitioner has not had the normal opportunity to enter additional evidence
18 confronting that construction, we respectfully submit that the date of
19 creation of a 2D application window object would have been understood by
20 a person of skill as the time when the corresponding application was opened.
21 And since HAC arranges 3D application windows based on a time of
22 creation of the corresponding 2D window objects, or based on a time of edit
23 or interaction with the corresponding 2D window objects, Petitioner submits
24 that the ordering limitation is obvious even under SpaceTime's late and
25 improper construction.

1 JUDGE McKONE: When I look at the Patent Owner's construction,
2 they replace the terms “and” with “or” as compared to what you think the
3 construction should be. Isn't that essentially broadening the claim?

4 MR. PATRICK: Thank you, Your Honor, for the question. It's an
5 interesting question, and it's not something that's been fully developed
6 through debate between the parties. In some sense, it might be thought to
7 broaden the claim by suggesting that you could have an ordering based on an
8 opening or an interaction in that way. But it seems, as best we understand it,
9 that SpaceTime is attempting this late construction in order to try to
10 distinguish HAC based on the notion that HAC would not have rendered
11 obvious ordering based only on opening, for example. And, of course, with
12 the construction coming in when it did, and with Patent Owner in its
13 response having earlier said that the claims should be given their plain and
14 ordinary meaning, we looked at that originally in the petition and after the
15 response in our replies as involving just a plain reading of the terms where
16 they say and instead of or. And where they indicate that the ordering would
17 occur based on a last time that said user “one of”, and then it lists these three
18 enumerated things, open said first application, and interacted with said first
19 object, and so on.

20 Now, part of what's interesting about this, again as we understand the
21 sur-reply is SpaceTime is now arguing that the plain language of the claim
22 as it's written, would not result in a completion of the following wherein step
23 that describes a presentation of a first one in the order, a second one in the
24 order, and a third one in the order. Because if there were a determination of
25 order based on a last time that said user “one of” each of these three things
26 opened and interacted that that would resolve a first one in said order, but

1 according to them, not the second and third one in said order. So, it seems,
2 as best we understand it from the sur-reply, that they're suggesting that the
3 plain language of the claim, this doesn't function in order to create the
4 recited order of first, second, and third in the following wherein clause.

5 Now, as a response to that, we'd simply point out that again, this plain
6 language requires that there's an ordering that's based on a last time that a
7 user "one of" one of these three things, and it seems that if that were
8 performed, what would result would be a determination at least of the first
9 one in said order. And with that it seems that it's just left open as to how the
10 second and the third one in said order would ultimately be resolved as
11 recited in that wherein clause. And as far as we can tell, and as far as we
12 know from the briefing presented on this up to this point, there's nothing
13 specific within the specification of these patents that would require that the
14 second and the third be resolved all in that one step on that based on. Rather
15 the claim language indicates there's a determination of an order based on
16 these things, and it leaves open a possibility that the second and third could
17 then perhaps be determined in some other way. So --

18 JUDGE McKONE: Is that consistent with the *SuperGuide* case that
19 says that when we have something like "one of" apply to each of three
20 different things, it's one of one, one of two, and one of three?

21 MR. PATRICK: It's an interesting question, Your Honor, and with
22 apologies, I'll say I'm not completely familiar with that case. I would say
23 that it's consistent with the grammar as presented in the plain language of the
24 claim itself. And certainly, this is an issue that's again newly raised in the
25 sur-reply. Whereas in the response, Patent Owners seem content to say that
26 the claims ought to be given their plain and ordinary meaning, and then

1 having said that, they offered that the ordering would just be based on the
2 most recently used applications. And so, this does represent a departure, we
3 believe, from the language of the claims and from the earlier position, and
4 not one that's actually justified by any sort of definition or disavowal or
5 lexicography within the specifications.

6 JUDGE McKONE: It's your position, though, that all you have to
7 show on that is that it's essentially left "open said first application and
8 interact with said first object," and two and three are optional? Or you just
9 showed two, and then one and three are optional, et cetera?

10 MR. PATRICK: That's right, Your Honor, as I understand it, the
11 notion would be that there would be a selection here in terms of the ordering
12 based on the last time that said user one of one, two, or three, and then
13 within each of one, two, or three, there is the term "and". And so, what's
14 required for the enumerated selection to occur would be that there was an
15 opening of the corresponding application and an interaction with the first
16 object. And it was with that understanding of the claim that Dr. Fuchs
17 originally testified as to obviousness based on HAC, where HAC based on
18 the description within Anthony would have rendered obvious chronological
19 ordering within a 3D timeline based, for example, he told us on a last date of
20 edit, and again demonstrating that a last date of edit would involve both an
21 opening and an interaction.

22 Now, if we understand that there's an attempt to distinguish here HAC
23 by SpaceTime based on a notion that it doesn't also render obvious in
24 ordering based, for example, just on opening, that defies actually the
25 description offered by Anthony, again, for example, where it plainly
26 describes as part of its chronological ordering for presentation in 3D timeline

1 that that could be achieved based instead on a date of creation. And again,
2 date of creation of a 2D window object would, in the typical case be
3 understood as resulting from the opening of the corresponding application.
4 That would be a creation of that object.

5 And so, here we think it's obvious either way. Whether what they're
6 now saying is required is merely opening, then HAC renders that obvious for
7 the same reasons that Dr. Fuchs testified to simply using date of creation as
8 opposed to date of edit as the ordering attribute. If, on the other hand, the
9 term is read as it's written as involving opening and interaction, then HAC
10 renders it obvious based on the date of edit as earlier described in the
11 petition and testified to by Dr. Fuchs.

12 Before turning to the next issue for the direct, I just wanted to pause to
13 see if there were further questions on this point now, as we'd be happy to
14 address them. Okay, hearing none, I'll ask Your Honors to turn with me
15 now to slide 40, which addresses obviousness of the '868 Patent's claim 13.
16 So, claim 13 recites an additional step of "receiving a request from said user
17 to switch from said 2D space to said 3D space." Claim 13 depends from 12,
18 which depends from independent claim 10. It specifies, claim 13, that the
19 replacing of an object in 2D space with images in 3D space as recited in
20 independent claim 10 is performed in response to that request, again,
21 receiving a request from said user to switch from said 2D space to said 3D
22 space.

23 Now, I'd like to ask Your Honors to turn to slide 41. Claim 13 is
24 rendered obvious by HAC and in particular by virtue of Hanggie's
25 disclosure. For example, shown here from paragraphs 92, 57, and 65. And
26 as shown on the left side of slide 41, in paragraph 92, Hanggie explains that

1 a user can switch between the legacy 2D mode and the 3D mode by virtue of
2 a manual selection. A user may be interested in making the switch, for
3 example, to save battery power, because one of the modes, for example, the
4 3D mode, may consume more battery power. Or as Hanggie also explained,
5 they may be wanting to make that switch based on a preferred visual style,
6 again relating to user experiences with 2D interfaces versus 3D interfaces,
7 and preferences along those nature -- along those lines.

8 Now, the user's manual selection corresponds to the claimed request
9 to switch from 2D space to 3D space. The images that are rendered in 3D
10 space as a result of the selection can include base content, window frames,
11 control buttons, and several other features, as noted in part in Hanggie's
12 paragraphs 57 and 65, shown on the right side of slide 41.

13 And if you would, I'd like to ask Your Honors to turn to slide 43. Dr.
14 Fuchs explained in paragraph 59 of the declaration shown here that -- the
15 one that accompanied the petition, that Hanggie's control selection can be
16 used to switch between the modes. Dr. Fuchs explained that this control
17 selection can be implemented using various suitable control buttons that
18 would allow the user to switch from the 2D mode to the 3D mode. And so
19 before, as an example, in switching from 3D to 2D, we were describing
20 selection of a maximized button, resulting in the replacement with a 2D
21 window object. In a similar scenario, one could imagine a minimize button
22 going back to the timeline. But the point is Hanggie was express in the user
23 being able to select at will between the two modes, and Dr. Fuchs noted that
24 in his declaration. So, on the right side of slide 43, paragraph 56 of Dr.
25 Fuchs's second declaration accompanying the Petitioner's reply is shown in

1 paragraph 56, Dr. Fuchs provides similar testimony with some clarification
2 of the mapping in his earlier statements from the first declaration.

3 With that, if you would, I'd like to ask Your Honors to turn back to
4 slide 42. One of the arguments the Patent Owner makes is that claim 13
5 requires switching from 2D space to 3D space. And there are a couple of
6 responses to this. First, as Dr. Fuchs noted in his deposition testimony
7 shown on the right side of the slide, actually performing the switching is not
8 reciting in claim 13. And a look at the language in claim 13 reproduced here
9 on the left side of the slide confirms what Dr. Fuchs says. Claim 13 requires
10 receiving a request to switch from the 2D space to the 3D space, and in
11 response to receiving the request, replacing the object in 2D space with the
12 images in the 3D space. Nowhere in claim 13 is there a requirement to
13 actually perform the switching from 2D space to 3D space, although if there
14 were, that also would have been obvious.

15 And so, as a second point, as is evident from the teachings of
16 Hanggie, turning back, for example, to slide 41, Hanggie discloses switching
17 between the modes. The HAC system, in fact, can do both. It can replace
18 an object in 2D space with images in 3D space, and vice versa, while also
19 switching the spaces. And thus, even if there were any construction that
20 required the switching to be performed by this claim, HAC would still
21 render claim 13 obvious.

22 And with that, as I'm coming near the close of my direct, I just wanted
23 to say a few things about SpaceTime's story and its lack of connection to the
24 claims. And it was interesting, we've heard things about the alleged
25 invention stories of the '868 and '654 Patents, and that that yielded
26 something counterintuitive or exceptional. And specifically, for example,

1 Patent Owner argues that by capturing images that were static or inactive
2 and displaying them in 3D and limiting user interaction with applications to
3 corresponding 2D application windows, Patent Owner was able to
4 implement this counterintuitive system. That is, in Patent Owner's alleged
5 system, displaying the images in 3D space would not consume many system
6 resources and would allegedly consume less resources than when the objects
7 are being displayed in the 2D space because the images in the 3D space are
8 inactive or static, said to be.

9 The problem for SpaceTime is that whatever they contend is the
10 alleged invention is not found in the claims of the '868 and '654 Patents.
11 And further, as we explained earlier, with respect to the replacing feature,
12 none of the challenged claims require that the objects in 2D only be active or
13 that images in 3D only be inactive or static. And it's not just the claims.
14 Even the patent specifications are silent and don't use these words, for
15 example, active or inactive to describe the objects in 2D or images in 3D in
16 the manner the Patent Owner does.

17 And to the extent that Patent Owner's power saving story is
18 considered, the challenged patents do not even mention the word power, and
19 thus any distinction from the prior art the Patent Owner is attempting to
20 establish has no support in the claims or the specification. Even if
21 SpaceTime's remarks regarding the story behind its technology are true. In
22 the '868 and '654 Patents, SpaceTime clearly attempted to capture claims
23 with a broader scope and thereby omitted words that they are now arguing
24 help distinguish from the prior art. But SpaceTime can't have that both
25 ways. In trying to capture broader scope, they open the door for prior art

1 such as HAC, to be applied against their claims. And as we've discussed,
2 HAC renders those claims obvious.

3 And with that, Your Honors, unless there are further questions, I'll
4 step back from the podium.

5 JUDGE LORIN: Any questions? No? No, very good. Thank you,
6 Counsel.

7 MR. PATRICK: Thank you, Your Honors.

8 MR. CORDREY: Your Honor, I'm ready to proceed whenever you
9 are.

10 JUDGE LORIN: Yes, very good. You may proceed.

11 MR. CORDREY: Good afternoon, Your Honors. Again, this is Greg
12 Cordrey on behalf of the Patent Owner, SpaceTime3D, addressing the 00343
13 IPR, and the 00344 IPR. Before I get into my presentation, I just wanted to
14 address a couple of the issues and some statements made by Apple's
15 Counsel. The first is, again, as with the presentation in the '048 Patent, they
16 took issue with and characterized our claim constructions as being late.
17 Again, as I believe Justice McKone pointed out, their petition wasn't
18 particularly helpful. They claimed plain and ordinary meaning, and
19 oftentimes it wasn't until their reply that we actually got the meaning that
20 they were referring to fleshed out. And lo and behold, those definitions were
21 far from the plain and ordinary meaning, hence our need to address those in
22 our sur-reply.

23 Moreover, in our Patent Owner's response, we did actually put forth
24 certain of our definitions. So, for instance, in our Patent Owner response in
25 the '654, and by the way, I'm referring today in my presentation to the '654
26 Patent and the 00343 IPR. But as you may know, the 00344 IPR and the

1 '868 Patent are largely similar. So, the arguments will follow from one to
2 the other. And our papers have the appropriate citations for the '868 Patent
3 and the 00344 IPR.

4 But in our Patent Owner's response on, for instance, the meaning of
5 chronological order, we set that forth in our Patent Owner's response at page
6 40. And again, this was not something that was thrust upon Apple's Counsel
7 in our sur-reply. Counsel also had mentioned that Dr. Fuchs took and
8 interpreted Hanggie's composite window as an image. Not so actually. Let
9 me, excuse me here for a second. In fact, at his deposition, Dr. Fuchs
10 testified, actually that, quote, he did not need to -- sorry, I'm just going to
11 read it.

12 MR. FITZSIMMONS: No, I know, but the slide's not up there.

13 MR. CORDREY: Oh, okay.

14 MR. FITZSIMMONS: No, the PowerPoint is not up is what I'm
15 saying, for the -- okay, there you go. Thank you.

16 MR. CORDREY: Okay. Looking at the second bullet, I'm sorry, for
17 the first bullet and slide 50. In fact, Dr. Fuchs testified, quote, that he did
18 not need to determine if this figure 3, this is the composite window of
19 Hanggie, was an image according to the '686 [sic] Patent. So, in fact he did
20 not take a position on that.

21 And you'll see and I'll cover this briefly. But there's no evidence in
22 the record, in fact, that Hanggie's composite window is an image as a person
23 of ordinary skill in the art would understand that term. In fact, all evidence
24 is to the contrary. All the evidence supports that Patent Owner's proposed
25 construction of image is what one of ordinary skill would have understood.
26 And I'll walk through that support for that briefly.

1 I believe Justice McKone had asked about the *SuperGuide* case. And
2 we cited some authority in our Patent Owner's response on the interpretation
3 of "one of" and what that means in the context of when it is followed by a
4 couple of options. Those cases specifically distinguished the *SuperGuide*
5 case. In the *SuperGuide* case, they had a litany of options following the one
6 of language and that's where it was determined that it was not disjunctive.
7 In the cases cited in our response, they distinguished *SuperGuide* in the
8 sense that the cases were only followed by two options. And in that context,
9 one of, where you have two options is interpreted to be disjunctive. So, it
10 turns out to be one of. So, when you have one of A and B, it turns out to be
11 interpreted as one of A, or one of B, or B.

12 JUDGE McKONE: The cases that you cited, they were non-
13 precedential. Correct?

14 MR. CORDREY: That's correct, Your Honor. Now let me go back to
15 the beginning here, and I'm going to, again, just touch briefly on the
16 background of the patents. I'm not going to spend a lot of time, because we
17 don't have a lot of time, and frankly, you've heard from Counsel from both
18 sides as to the background. But the '654 Patent and the '868 Patent share
19 the same specification as the '048 Patent. They likewise describe and claim
20 a novel 3D GUI interface where both you have a simultaneous 3D GUI
21 displaying images in 3D, and at the same time simultaneously, you have a
22 2D application that's opened. Again, whether it's hidden or it's off screen.
23 But it's the same situation. The difference here being in the 48 Patent, you
24 were dealing with webpages, in the '654 and the '868 Patents, you're dealing
25 with applications.

1 So again, that the 3D GUI, as Counsel had pointed out runs locally on
2 a computer, as shown in this illustration. The application in the 2D desktop,
3 again, the application itself, with the application-specific data, is hidden or
4 drawn off screen, so it may be behind the 3D GUI. Again, this is important,
5 though, because as you'll see, the claims of the '654 and the '868 both refer
6 back to the application that was opened, and this allows the seamless
7 transition. So, there's claim language that goes from the switching from the
8 images that are in the 3D GUI back to the applications in the 2D desktop.
9 And that is only because you have a 2D desktop that's open and it mirrors
10 the 3D images. The difference being that the 3D images, you can't interact
11 with the underlying content. So, if I had, say, an image of a Word document
12 and actually had part of the content that was imaged, I certainly couldn't
13 edit, in that 3D GUI, the Word document at that point. However, I could
14 switch, I could interact with that icon, take myself to the 2D application
15 where it would come up, right where it had been left off. And if I'm at page
16 64, I'm back at page 64 and I can edit the underlying application-specific
17 data. And all this was recited in the claim and I'll touch on that briefly.

18 This is just a brief illustration. I think you've seen this before, so I
19 won't belabor this about this, about the --

20 JUDGE McSHANE: Counsel, I'm sorry to interrupt. Could you,
21 while you were flipping between slides, could you just do slide call-outs? I
22 really appreciate that. Thank you.

23 MR. CORDREY: My apologies. I practiced it, but I always have a
24 hard time doing it. Okay, so this was slide 5, by the way. Let's turn to slide
25 6. Again, slide 6 just illustrates again that a critical aspect of this invention
26 is that you have this mirroring. And the mirroring, again, is important

1 because it reduces the latency. So, you're not having to, when you switch
2 from a 3D image and you go back to the actual 2D, the application in the 2D
3 desktop, you actually don't have to reopen the application and find where
4 you left off. You're actually right in sync with where the 3D image was
5 captured.

6 Turning to slide 7. Again, we've covered a lot of this. The
7 importance of this mirroring, again, leads to the fact that you can switch
8 seamlessly between the 3D images, or the images in 3D and the applications
9 in 2D. Now, the specification goes on to discuss the importance of creating
10 a visual history of a user's computing session. Again, Counsel for the Patent
11 Owner spoke in the '048 Patent briefly about the history that's created when
12 you're surfing webpages and how those are. The same applies here with
13 respect to their applications. So, for instance, in this instance, if you look on
14 slide 8, figure 20, you have three applications running. In the lower left-
15 hand corner, for instance, in the foreground you can see a webpage that's
16 been opened. That was the last application that was opened or interacted
17 with. Before that you have images from an application, the Yahoo image
18 search. Okay? And again, that displays the application that was either open
19 or interacted with before the webpage. So, it's in the middle ground. And
20 then in the background you have a Yahoo search that was again either open
21 or interacted with before those other two applications were opened or
22 interacted with. So, that's the chronology that's discussed in the
23 specification and it's actually claimed in the claims of the '868 Patent and
24 the '654 Patent.

25 So, again, I won't belabor the claims here. Basically, two pieces of
26 prior art at issue, the Anthony and the Hanggie. They're in both IPRs in both

1 grounds. Petitioner and the Patent Owner have addressed both, whether it's
2 Hanggie in view of Anthony, or Anthony in view of Hanggie. The
3 arguments here today apply to all the grounds except for the arguments that
4 my Co-Counsel will discuss on claim 13 of the '868.

5 Okay. So, basically, there are four contentions here for patentability.
6 The first one relates to the order in which the 3D images are arranged.
7 That's the chronology. I'll get to that. The second one relates to what we
8 call the replacing step. And there's two aspects to the replacing step. The
9 first relates to the plurality of images, and the second relates to replacing the
10 images with set object. That is the one that was opened in the 2D desktop
11 that I just referred to. The last one obviously refers to the lack of motivation
12 to combine Hanggie and Anthony. And then the fourth would relate
13 specifically to claim 13 of the '868.

14 So, here's the language on the first argument, and you can see here the
15 claim language in the far left. And the issue here, as Counsel had pointed
16 out, is this interpretation of the last time that said user did "one of." Now,
17 Petitioner's position on this is that the "and" between "opened" and
18 "interacted" -- I'm sorry, the "or," let me back up a second. The claim
19 language that has an "and" between small Roman numeral one, two, and
20 three. That, and it should be an "or" because of the one of. Now, I will say
21 under both parties constructions, there's no dispute here that one of the
22 "ands" should become an "or" in light of the one of language. It's just a
23 question of what does the "one of" modify. And in Petitioners' view, they
24 have the "one of" modifying small Roman numeral one, two, or three so that
25 it would read something like the last time said user "one of" small Roman
26 numeral one, small Roman numeral two, or three. Now, the Patent Owner's

1 position is that the “one of” modifies the “opened a first application and
2 interacted with the first object” such that it should read that it's the last time
3 said user, last time a user opened a first application or interacted with the
4 first object, or opened a second application or interacted with a second
5 object, and opened a third application or interacted with a third object.

6 Now, this is the case law I was alluding to earlier. And you can see,
7 for instance, I believe both cases discuss the *SuperGuide* case. And you can
8 see in the *3rd Eye Surveillance* case, they explain a little bit here in this
9 parenthetical, but basically when the content here is not a list but an option
10 of two, the duality of the term makes it a binary choice. So, really it's
11 disjunctive. It's option A or option B.

12 Now, their specification supports Patent Owner's construction of this
13 language and the specification gives basically two embodiments in which
14 you are either opening -- the order is based on opening the application, or the
15 order is based on interacting with the application. So, this is the portion of
16 the specification in slide 14 that discusses the option of the order based on
17 opening an application. And you can see we've quoted the text from the
18 specification, and this is all one continuous stream of text from column 12,
19 but it relates to three different applications. And you can see that it
20 describes, basically, that the last application that was opened, which was the
21 web browser, is in the foreground. The Yahoo image which was opened
22 before that is in the middle ground. And the Yahoo search that was opened
23 first is in the background.

24 The specification also has a disclosure, embodiments that talk about
25 the order based on interacting with the application. So, here on slide 15 we
26 have figures 13a and 13b. In 13a, the specification describes that a visual

1 event occurs to the Yahoo search application 492 and that has the result of
2 moving the application from the middle ground to the foreground, as you
3 can see in figure 13b. So, again, this is the specification support for the
4 claim language that talks to the chronology of how the images in 3D space
5 are displayed.

6 So, the correct claim construction, based on the case law, based on the
7 specification and the claim language itself should be: a last time that said
8 user “one of” opened said application and interacted with said object is a last
9 time said user opened said application or interacted with said object. Now,
10 as you will see, Petitioner's construction does not disclose or suggest the last
11 of opening or interacting, but in fact conflates those two separate
12 requirements in the claim. So, this is on the left-hand side of slide 17. You
13 can see, Dr. --

14 JUDGE McKONE: What does that mean, Petitioner conflates the
15 opening and interaction, but you say that we only need one, what difference
16 does it make if they conflate them? It shouldn't be, as shown, correct?

17 MR. CORDREY: It makes a big difference, because if they conflate
18 those two, and so you read it as they are proposing, where they basically
19 open and interact, and you're displaying the last of either the first application
20 that opens and interacts, the second application that opens and interacts, or
21 the third that opens and interacts, you're basically displaying only one image
22 of those three images. And, perhaps, on slide 18 here I have a better
23 illustration to kind of explain exactly what happens if you adopt their
24 language. So, you can see you have three applications. If you were to adopt
25 their proposal, basically, you would display the last of either a first
26 application that opened and interacted, or second application that opened and

1 interacted, or a third application that opened and interacted. So, you end up
2 with one image, which is the last of the three applications that was opened
3 and interacted with displayed. Now that's directly contrary to the claim
4 language, which is on the right there of slide 18 that talks about displaying a
5 plurality of images. Furthermore, if you go further down the claim, you see
6 that we've stricken out some language. That language relates to the order in
7 which they are displayed, those applications, and you can see that the
8 application depends very much on placing them, depending on the order in
9 which each of the three applications was opened or interacted with.

10 So, let's turn to the prior art now and talk about this in the context of
11 the prior art. There's no dispute among the parties that Hanggie doesn't
12 disclose any ordering. The Petitioner relies on Anthony's dynamic timeline
13 for ordering items, data files, photographic images. And you can see in slide
14 19 figure 4, Apple's Counsel also put it up. It's an example of a dynamic
15 timeline where it displays items which it defines as being files and folders.
16 Now Anthony goes on to talk that this 3D GUI, this dynamic timeline, is
17 helpful to organize hundreds if not thousands of digital photographs and
18 files. In contrast, well -- I'm sorry. Anthony goes on to also talk about
19 ordering these items by attributes, and you can see some of the attributes on
20 slide 20. And this is a quote from Hanggie paragraph 42. I'm sorry,
21 Anthony. Paragraph 42 talks about the file name, file size, date of creation,
22 modification date, et cetera. Figures 2 and 3 from Anthony also reveal also
23 some file attributes as well. File name, modification date, the size, file type,
24 et cetera.

25 Notably, what's important about this disclosure in Anthony is that
26 Anthony says nothing about attributes, including a date when an application

1 was last open. And that's because Anthony treats applications much
2 differently than it treats file types. So, once again, here's figure 4. And you
3 can see that Anthony has a taskbar, and on that taskbar is where it lists its
4 applications. In fact, this is a pretty conventional taskbar. And Dr. Schaefer
5 explains, in fact, that this makes perfect sense to a person of ordinary skill in
6 the art because the number of open applications is typically very small. I
7 think he called it negligible compared to the number of files that you
8 typically would have on a computer.

9 Let's go look at slide 22. So, this combination of Hanggie and
10 Anthony doesn't work for two reasons. And the first reason is that Anthony
11 orders data, objects, files and folders and not applications. It's true that
12 Anthony discloses that you can sort these on file attributes, but if you were
13 to sort these based on the file type, for instance, what you would get is what
14 Dr. Schaefer illustrated in slide 22 as the annotated version of figure 4,
15 where you have the application type at the top of the window as the focal
16 group, and then you have the various data files that are organized according
17 to that attribute. The important thing here though is that even if you were to
18 organize it in this fashion, that doesn't result in disclosing or indicating when
19 the application was opened and when the object, the content, was
20 subsequently interacted with.

21 And these are two distinct events. And that's important because as I
22 pointed out in the claims, the claims make a distinction based on a
23 determination as to which of these events occurred later to determine the
24 order in which the images in 3D are displayed. So, this goes directly to the
25 claim language.

1 Now the second reason why the proposed combination doesn't work is
2 that Anthony doesn't teach or suggest when an application was opened.

3 Now the Petitioner essentially argues that any interaction with a file is
4 an interaction with the application. So, I open an Excel file, I'm interacting
5 with Excel application. Fair enough, we don't dispute that, but the opposite
6 isn't true. As Dr. Schaefer explains here on slide 24, you can open an
7 application without interacting with a file. In fact, Dr. Schaefer gave an
8 example. You can use the, I think he said, the icon or from the start menu,
9 and you can open an application such as Excel without interacting with a
10 particular file. So, Petitioner's assumption that interacting with a file is
11 interacting with an application doesn't get you there, because the assumption
12 doesn't take into account when an application is merely opened. And again,
13 that goes directly to the claim language, which looks for the last of when an
14 application was open or interacted with. Okay. So, this is an important
15 distinction in the prior art and the claimed inventions.

16 And let's go to slide 26. Now, the Petitioner himself or itself
17 demonstrated that applications are displayed differently than the claimed
18 ordering. So, again we have from the petition, Petitioner's proposed
19 combination, and this is the image that's on top of slide 26. And you can see
20 we've annotated and pointed out that their combination itself has a taskbar
21 where applications are displayed, the open applications are displayed. And
22 this is consistent with the image of Anthony figure 4, which is right below it.
23 And again, as I pointed out earlier, this completely makes sense to the
24 people of ordinary skill in the art, given the limited number of applications,
25 typically that you would be dealing with compared to the number of files.

1 Now the Petitioner responds that in the '654 Patent, open applications
2 are not presented on a taskbar. But this is exactly the point. In the claimed
3 inventions, the images are arranged in 3D space based in part on when the
4 individual application was opened. In the proposed combination, however,
5 images are arranged in 3D spaced based on when the individual data files,
6 not applications, were created or edited. And again, you can see the taskbar
7 in Anthony shows that Anthony discloses displaying the applications
8 themselves on a conventional taskbar. So, what you're left with in slide 28 is
9 that the '654 Patent does this, and this applies to the '868 Patent as well, so
10 that the most recently used or open applications are presented in the
11 foreground of the 3D space. In Anthony and the proposed combination, the
12 open applications are presented on the taskbar, not in 3D space. And this is
13 because the 3D timeline is used to locate recently created or edited data files,
14 not applications.

15 So, let's go to slide 29. Let me just sum up our position here on this
16 one limitation. So, we have the construction of a last time that said user
17 "one of." Patent Owner contends that it means last time that an application
18 was opened or the last time it was interacted with -- interacting with an
19 object. As I pointed out, the claim language supports this interpretation.
20 The case law supports this interpretation. The specification supports this
21 interpretation. Petitioner's construction, in fact, impermissibly reads out
22 claim limitations and makes no sense. In fact, when Counsel was asked
23 what about the other applications, he had no answer, because it doesn't make
24 any sense under their construction. He alluded to the fact that somehow
25 they'd be dealt with, but it wasn't explained in the claim. And yet, if you
26 look at the specification, if you look at the claim language, if you look at the

1 case law, it makes perfect sense and you don't have that open question as to
2 what happens with the other applications. Anthony's items are files and
3 folders. Everybody agrees on that. The Board recognized that in their
4 opinion, I believe it was at the decision at 24. It doesn't deal with ordering
5 applications. And Anthony's file and folder attributes do not take into
6 account when an application is opened. And then finally, Dr. Schaefer
7 explained that there is a meaningful distinction between when an application
8 is opened and when it is interacted with.

9 So, in short, this combination does not teach or suggest the claimed
10 ordering of the application's limitation. And for that reason, this alone, the
11 Board should confirm the Patentability of the claims on this ground.

12 Now turning to the second argument for Patentability relating to the
13 replacing step. Recall that there are two aspects to this argument. The first
14 aspect relates to the plurality of images, and the second relates to replacing
15 images with said object. Excuse me for one moment. Now, on the first
16 point, the language makes clear that the image is not an object, and it
17 requires both. And you can see the claim language in slide 32 on the left,
18 where you recite specifically replacing said plurality of images. And then it
19 goes on with one of said first, second and third objects. Clearly these terms
20 have different meanings, and to assign them the same meaning would violate
21 the canon of claim construction and it would render the claim somewhat
22 nonsensical.

23 Now, Petitioner's position on this point, and this is from the reply
24 brief and we heard it today, is that the images in 3D are fully interactive and
25 function the same or a similar manner as objects in 2D space. Patent
26 Owner's position is the plain and ordinary meaning of "image," which

1 essentially is the context of how image, the term “image”, is used in a
2 computer context. So, for instance, an example would be a bitmap or a
3 JPEG, a screenshot, a thumbnail. It's essentially the optical counterpart of
4 an object produced by an electronic device.

5 Now on the second point, recall that the said first, second, or third
6 application that replaces the images goes back to an earlier step of opening
7 an application. I didn't put the claim language up for claim 1, but the claim
8 proceeds with an initial step of opening an application and then generating
9 application-specific data. And then later on, when you get to this claim, the
10 images in 3D are replaced by said first, second, and third objects
11 corresponding to said one, a plurality of applications within a 2D, or two
12 dimensional space in response to an interaction. Now again, this is an
13 important distinction because images under the ordinary sense, as a person
14 of ordinary skill in the art would understand, you can't modify the
15 underlying content of an image. So, I can have a picture of a Word
16 document with a brief on it, but I can't modify that brief. However, if I
17 switch to the application, I can then modify the application-specific data in
18 that application. And as the patent explains, that application is mirroring the
19 images that are presented in 3D. So, not only does this allow me to resume
20 editing in the actual application, but it also allows me to resume editing
21 where I left off. Again, an important distinction, because I'm not just
22 opening the application anew and starting at page one, I'm actually going
23 back to the opened application at the point where I left it off.

24 JUDGE McKONE: This construction of “image,” you presented this
25 for the first time in the sur-reply, is that correct? That's what you have on
26 the screen?

1 MR. CORDREY: We did, and that was in response to Petitioner's
2 reply, where they fleshed out their understanding of what they purported to
3 characterize as the plain and ordinary meaning of an "image," and they cited
4 to Exhibit 1029. 1029 is Merriam Webster Dictionary, and they give a
5 very -- they refer to some very generic definitions of image, not necessarily
6 related in the computer context. We pointed to a different one in the same
7 dictionary, and as you'll see, we have some other evidence that supports that.

8 Okay, so let's talk about Petitioner's construction of "image." As you
9 heard from Counsel, it's largely based on statements in the '654, and '868
10 Patents that the images are, quote, fully interactive and functional, and that
11 was cited in their reply brief. Again, we are responding to their
12 interpretation of images as set forth in the reply, and also on subsequent
13 deposition of Dr. Fuchs on the same in his supplemental declaration.
14 However, what the Petitioner fails to address is how this functionality is
15 accomplished.

16 So, if you look to the specification, there's basically two ways of
17 interacting with the image that relate back to this quote that the Petitioner
18 relies on. So, on slide 34 in the left-hand column, you have the specification
19 discussing the mapping interactions to an off screen 2D output. And I won't
20 get into a lot of detail on this given our time constraints, but this is the
21 example that Mr. Fitzsimmons alluded to earlier in the '048 Patent with
22 regard to figure 3 and how you map inputs from a bitmapped image to the
23 application. The right-hand column in slide 34 refers to the prosecution
24 history of the '018 Patent. Again, to remind you, this is the parent
25 application to the '048. But more importantly, this is where the mapping
26 interactions to the off screen 2D output was claimed. So, this was the first

1 way the specification describes interacting with an image. And you can see
2 there's figure 3, and we've highlighted some of the boxes in slide 35, and you
3 can see the specification describes in those boxes how that mapping occurs.
4 And notably, you'll note that the "image" that's referred to in a specification
5 at this point is a bitmap image. Okay.

6 JUDGE McKONE: That's an example, correct?

7 MR. CORDREY: That is an example. That's correct.

8 JUDGE McKONE: Is the dispute, basically, Petitioner would like an
9 "image" to be something that is visible that you might be able to interact
10 with, whereas you want an "image" to be something that is visible that you
11 cannot interact with?

12 MR. CORDREY: Yeah, it comes down to the -- Petitioner is trying to
13 read the claim language --

14 JUDGE McKONE: Did I --

15 MR. CORDREY: Yeah. Yeah, yeah.

16 JUDGE McKONE: Did I articulate it correctly?

17 MR. CORDREY: Here's the way I would understand it. You're close.
18 Petitioner is trying to articulate "image" that is fully interactive so that it
19 reads on Hanggie's composite window. Okay?

20 JUDGE McKONE: They want "image" to be something that's visible
21 but broad enough to be interactive.

22 MR. CORDREY: Something that --

23 JUDGE McKONE: Correct?

24 MR. CORDREY: Correct. And what that means when you say
25 interactive is that you can modify the underlying content. Okay? That's
26 what Hanggie talks about. And in Hanggie not only is the window fully

1 interactive, but so too is the content. If it's a Word document, you can
2 modify the text. If it's an Excel spreadsheet, you can modify the numbers,
3 so.

4 JUDGE McKONE: Now, if you want to read "image" more narrowly
5 to be something that is visible but which you cannot interact with, what is
6 your basis for a limiting construction? Is there some kind of words of
7 disavowal or definition that you want to point us to?

8 MR. CORDREY: Well, there are several reasons, Your Honor. The
9 first would be that the claim language itself makes a distinction between
10 images that aren't modifiable, where you can't modify the window and you
11 can't modify the content and objects, where you can modify the application
12 and the underlying application-specific data. Okay, so that's an important
13 distinction. So, images cannot --

14 JUDGE McKONE: But did the claim make this in terms of exclusion
15 or family?

16 MR. CORDREY: No, this is the claim language. So, the claim is
17 requiring that you interact with an image and that takes you to you replace
18 those images with the application so that you can modify then the
19 application-specific data. So, it would make no sense -- if you could modify
20 the content of an image, then it would make no sense in the context of the
21 claim to replace that image with something so that you could modify the
22 underlying application-specific data. Did you follow?

23 JUDGE McKONE: I understand what you're saying.

24 MR. CORDREY: Okay. Let's see. Let me get to -- I think I
25 answered. There's more support here that we have as well. So, this sums up
26 a little bit, on slide 38, some of the support for our construction. That image

1 should be given its plain and ordinary meaning, which we contend and the
2 Patent supports, as does the case law, that it refers to basically something
3 like a bitmapped image. It's not something where you can modify the
4 underlying content. As I pointed out, the asserted patents refer to, the
5 example they gave as bitmapped images. In fact, even Petitioner's newly
6 submitted evidence in its reply, the Xu reference, which Petitioner submitted
7 to, ostensibly for the reason to show that windows could be interactive. But
8 that evidence as well talks about image data being a bitmap image or a JPEG
9 image. Again, these are all -- reflect the understanding of those skilled in
10 the art as to what an image would mean in the context of this art.

11 JUDGE McKONE: Ordinarily, we don't restrict the claims to the
12 examples given in the specification, so that's what I'm looking for. I'm
13 looking for something where we would be able to limit the claim to specific
14 file formats that cannot be edited.

15 MR. CORDREY: Okay.

16 JUDGE McKONE: It just seems like you're pushing us towards.

17 MR. CORDREY: Well, I think in our view, what we're pushing
18 towards is what we understand to be a person of ordinary skill in the arts
19 understanding of what an image would be in the context of this patent. And
20 we point out that the patent itself has the example of bitmapped images. The
21 claim language itself distinguishes between images that are not fully
22 interactive, and applications in which the underlying application-specific
23 data is. And so, all those, again, suggest that the Petitioner's construction of
24 an "image" as being something that's fully interactive to the same extent as
25 an application in 2D is simply not correct. It's far too broad. But
26 understandably they propose that because that's the only definition that reads

1 on Hanggie's composite window, which is, and everybody agrees, is fully
2 interactive.

3 So, let me turn to the proposed combination here now in light of this.
4 Now, the Petitioner proposed a combination earlier where it said Hanggie is
5 the image, the composite window of Hanggie's image. And we're looking on
6 slide 40 at figure 3 of Hanggie. Now, in slide 40 it makes clear, and these
7 are references from Hanggie, as I pointed out, that its composite window is
8 fully interactive. And in fact, Hanggie goes on to describe, in fact, that the
9 content of the window is also interactive. And these are the examples where
10 you can edit the text for a word processor or numeric grid for a spreadsheet
11 application, or images for a photo editing application.

12 In fact, the experts both agree that Hanggie is fully interactive. Here
13 on slide 41, you have Dr. Fuchs from his declaration, again explaining the
14 interactivity of Hanggie's composite window, largely parroting the same
15 interactivity that I just showed you on slide 40. Dr. Schaefer also testifying
16 that Hanggie does not generate images, but again displays active
17 applications. And it's not just the windows that are active in Hanggie's
18 composite window, but it's also the content, the application-specific data.
19 Now, Petitioner relied on the interactivity, in fact, of Hanggie's composite
20 window. This is the petition at 52 and this is quoted in slide 42. And you
21 can see that Petitioner highlighted the control boxes 305. And Petitioner
22 argues that those control boxes can be used to switch from the composite
23 mode to the legacy mode, which it reads as the applications in 2D.
24 However, again, if that composite window of Hanggie truly meets the claim
25 language of an "image," then those control buttons are just images of control
26 buttons, which is to say they're not interactive. You could not maximize the

1 composite window of Hanggie because those control buttons are simply an
2 image of Hanggie's composite window. They're not actually interactive.

3 JUDGE LORIN: So, are you saying that because it's fully interactive,
4 it can't be an image?

5 MR. CORDREY: Correct. That's right. And there is no evidence in
6 the record that Hanggie's is an image. In fact, all evidence is to the contrary.
7 You saw, I just pointed out, Hanggie's own disclosure talks about how
8 interactive it is. Both experts agree that it's interactive, and there's no
9 evidence that, other than the say so - attorney argument - that Hanggie's
10 composite window meets the definition of an image.

11 JUDGE LORIN: I mean, images can be interactive.

12 MR. CORDREY: But you cannot modify the underlying content. So,
13 if I were to use an analogy, I can have an image of an apple, but I can't take
14 a bite of it, right? So, images can be to some extent, like in this case in the
15 claim, you can interact with the image by clicking on it, right.

16 JUDGE LORIN: Right.

17 MR. CORDREY: But you're not modifying the underlying content in
18 that image, right? And that's the distinction here, because here, Hanggie's
19 composite window is fully interactive, at least according to both experts and
20 everything else in the record. There's nothing in the record, in fact, that says
21 that the Hanggie's composite window is in fact an image, as somebody of
22 ordinary skill in the art would understand that term.

23 JUDGE McKONE: So, the image, now, is something that can be
24 interacted with but not modified?

25 MR. CORDREY: Well, the claims say that the image is, interacting
26 with an image, and by clicking on that image, it takes you to the application

1 that's drawn off screen, the 2D application in the 2D desktop, where you are
2 able then to modify the underlying application-specific data. So, that's the
3 distinction.

4 So, this is essentially just to recap, this is kind of putting a fine point
5 on it that any contention that you are adding control buttons above the
6 image, I'm sorry. Sorry. If Hanggie's composite window is an image, you
7 cannot interact with the underlying content, including the maximize buttons
8 as proposed in Petitioner's proposed combination. And if you can interact
9 with that button, then it's not the claimed image. Now, the same is true even
10 if you were to contend that the composition window is a thumbnail. So, if
11 you were to say that, take for instance, this composite window were to be
12 something like a thumbnail, much like Anthony discloses. Now, this is a
13 theory that wasn't articulated in the petition, but if you were to go down that
14 path, Anthony discloses that when you click on the thumbnail, it opens the
15 file, okay. But this is much different than the claim language. So,
16 remember the claim language, when you click on the image, it takes you
17 back to set application, and again, you're going back to the application that
18 was opened and you're going back to that application where you left off.
19 Okay, so that's again the antecedent basis of the "said application." And
20 said application-specific data takes you back to the original application that
21 you opened earlier in the claim step and the application-specific data that
22 you generated. Anthony simply discloses opening the file. And so, you
23 would basically be starting, if it were a Word document, you'd be opening
24 Word and you'd be back at page one, not where you left off. And Anthony
25 describes this at paragraph 47.

1 And again, I won't belabor this, but the importance of this distinction
2 is that in Anthony's case, if you simply just open the file and you're not
3 going back to where you left off because you're just simply opening a file, as
4 opposed to going back to opening the application that had previously been
5 opened and remained opened, then you have issues about delay and having
6 no ability to pick up exactly where you had left off, all important benefits of
7 the claimed invention that it's described in the patent. So, again, this is
8 another important reason why the challenged claims are not obvious over
9 these grounds.

10 So, let me briefly cover their lack of motivation to combine. Okay, so
11 anyway, slide 48, the GUI's of Hanggie and Anthony are both in 3D space.
12 Now in slide 49, Petitioners take issue with the characterization that
13 Hanggie's GUI takes place entirely in 3D space. However, Petitioner's
14 argument that Hanggie discloses 2D space is based on paragraph 92 of
15 Hanggie, but paragraph 92 doesn't discuss anything about 2D space. What
16 paragraph 92 discusses is Hanggie's ability to provide legacy support for
17 non -- legacy support for applications using its invalidation DWM. And
18 again, you can see in the slide 49 the excerpt from paragraph 49, sorry, from
19 paragraph 92 where Hanggie is discussing that it does have this legacy
20 support. And you can see in figure 2 from Hanggie that it's configured to
21 receive and process both compositing-aware applications and legacy
22 applications. So, again, there's nothing in paragraph 42 that, I'm sorry,
23 paragraph 92 that says specifically that Hanggie's legacy support or legacy
24 mode is actually a 2D space.

25 Now, even if the Petitioner was correct, and we assume for the sake of
26 argument that paragraph 92 of Hanggie teaches going from 3D to 2D space.

1 Petitioner's original theory was that Hanggie's composite window was an
2 object, not an image. And in fact, in its Institution Decision, the Board
3 recognized this. And if you look at slide 50, the third bullet down, the Board
4 had stated, quote, the "Petitioner, however, relies on Hanggie's application
5 window as teaching the recited 'object,' not the recited 'plurality of
6 images.'" The Board went on to say that "Petitioner relies on the 3D
7 windows in Anthony's timeline as teaching the recited 'plurality of images
8 within said three-dimensional space.'"

9 And if you look the second bullet, again, Dr. Schaefer testified that a
10 person of ordinary skill in the art would have understood that Hanggie does
11 not generate images, but active applications. And then finally, as I
12 mentioned earlier, Dr. Fuchs testified that he did not need to determine if
13 figure 3 of Hanggie was an image according to the '868 Patent. So, he didn't
14 disagree with Dr. Schaefer; he simply decided or didn't take a position on the
15 issue.

16 So, basically, Petitioner cannot have it both ways. If the item in the
17 foreground of Petitioner's proposed combination is a composite window,
18 then it's not an image. If it's an image, then there's no motivation from
19 employ from switching from the composite window to the legacy CDWM
20 (phonetic). And that's because, as Dr. Schaefer explained, and this is on
21 slide 51, that the '654, the claimed inventions have a different way, provide
22 a different solution to reduce the power, than Hanggie's use of a 2D mode
23 accomplishes. And that's in the display of images of open applications in
24 3D. So, the inventions here have a completely different solution. And
25 therefore, Hanggie's motivation of conserving power doesn't apply here with
26 the claimed inventions because they are -- Hanggie is dealing with a

1 composite - the power consumption requirements of a composite window
2 that's fully interactive in 3D.

3 Now the Petitioner responds in slide 52, in its brief. In its reply, it
4 said the purported advantage of manipulating images in 3D does not negate
5 the advantages of more efficient system resource utilization by transitioning
6 from images in 3D space to an object in 2D space as expressly disclosed by
7 Hanggie. But as I just covered in the previous slides, Hanggie does not
8 teach transitioning from images in 3D space to an object in 2D space. The
9 composite window is not an image and therefore provides no motivation for
10 the combination that the Petitioners propose. Again, the switching disclosed
11 in Hanggie is only to alleviate the processor intensive calculations required
12 for the desktop compositing CDWM or window.

13 JUDGE LORIN: Counsel, if you want time to rebuttal, you have 10
14 minutes left.

15 MR. CORDREY: Okay, let me get to -- okay, at this point, I'm going
16 to defer to my Co-Counsel, who will take over the discussion on claim 13 of
17 the '868 Patent.

18 JUDGE LORIN: Okay. Very good.

19 MR. FITZSIMMONS: Thank you, Your Honor.

20 JUDGE LORIN: And again, you have 10 minutes left for rebuttal.

21 MR. FITZSIMMONS: Yep. Thank you, Your Honor. What I'd like
22 to mention real quickly before I go to slide 13 is just to follow up on the
23 conversation that was just had. As Mr. Cordrey explained, nobody has taken
24 a position that Hanggie is an image. In fact, they argued that images were
25 only disclosed in Anthony, that was memorialized in the Board's Institution
26 Decision. And now, again, that's why he's saying, can't really have it both

1 ways. If one was to say, okay, Hanggie's CDWM is not an image, but
2 Anthony teaches that you could take thumbnail of that and so forth. What
3 happens when you interact with the thumbnail in Anthony? Anthony
4 explicitly teaches. Anthony is Exhibit 1007. At paragraph 47, that if the
5 icon in the focal group represents a file, double clicking the file will cause
6 the system to attempt to open the file. We have the exact same claim
7 language here that we had in the '048 that we talked earlier. We have that
8 the replacing is with "said object". "Said object" is the object that was
9 generated previously when you opened the application before the images
10 were captured. It's just like the "said rendered first webpage." Now we
11 have "said object" where you interact with said object to modify said
12 application-specific data. What happens after the interaction in the images is
13 based on what was previously generated and open and existing in 2D space
14 before the capturing of images. I'll just say that.

15 With respect to claim 13, which is what I wanted to address here.
16 Claim 13, first of all, in the Institution Decision, the Board found that the
17 Petitioner had not shown sufficiently that the combination of Anthony and
18 Hanggie teaches or suggests this limitations of claim 13. In the reply brief,
19 what they're doing is merely repeating the same arguments that they did in
20 the petition, and they're saying that there is motivation in Hanggie to
21 actually replace the objects. But wait a minute. Claim 13 is not just the
22 replacing of the objects. Replacing of the objects was in claim 10, from
23 which claim 13 depends. Claim 13 requires receiving a request to switch
24 and then making this replacement in response to switching. Judge, I'm
25 sorry, my vision is blurry here. You said earlier in the earlier presentation,
26 does the replacing have to take place by switching out or replacing,

1 switching between one space and the other? In those claims, no. In this
2 claim, yes. This claim requires that you're receiving a request to switch, and
3 in response to that switching, you are then doing the replacing. That's what
4 claim 13 is.

5 So, putting aside the motivation to combine Hanggie and Anthony,
6 which Mr. Cordrey already discussed, they're essentially reading out the
7 word "switch" both times from the claim language. And why are they doing
8 that? Because Dr. Fuchs, their expert, said - this is quote from his testimony
9 [this is because the definition of switch is irrelevant and not required.

10 Claim 13 doesn't say that the switching actually has to take place. So, giving
11 no value to the meaning of the word switch that's used twice in the claim,
12 and the claim has quite a bit of language, but a lot of it is repetitive from
13 claim 10, this is just pointing out what the replacement has done in response
14 to. It's in response to receiving a request to switch. By reading out the
15 switching component, it's just receive a request, receive a request. And in
16 claim 10 we have an object that is being replaced with a plurality of images.
17 But it doesn't say what triggers that. This says what triggers that. It's a
18 request to switch. There's a switching of the spaces. And by completely,
19 you know, we saw earlier how the specification does the switching. Right?
20 We've got the 3D on the desktop, and you bring up the 2D application that's
21 active and open in the hidden 2D space and so forth. So, we see how that
22 operates with respect to the specification. But how does it operate here?
23 The Board asked Petitioner to provide more insight. Petitioner did not, but
24 merely repeated how the replacing is done, but didn't address the switching
25 issue. Now they talk about Hanggie and so forth. But with respect to the
26 first switching, switching from 3D to 2D, they had to maximize an object so

1 that it took over the whole screen so that one object could replace a plurality
2 of images. This particular claim requires the opposite. A plurality of images
3 replaces one object. Where is the switching and how do you accomplish
4 this, replacing one with a plurality? I mean, yes, the Board could draw their
5 own conclusions and their own theories and hypotheses. But they failed to
6 set forth in the petition and they failed to specifically identify where this
7 switching is and how you replace one with many as required between claim
8 1 and -- claim 10, I'm sorry, and then claim 13 depends from claim 10.

9 Just real briefly. Well, actually, I will stop there and leave the last
10 four and a half minutes for rebuttal.

11 JUDGE LORIN: Thank you.

12 MR. FITZSIMMONS: Thank you, Your Honor.

13 JUDGE LORIN: Petitioner?

14 MR. PATRICK: Thank you, Your Honors. So, there are many topics
15 that I'd like to cover. I suppose I might begin where we just left off in terms
16 of claim 13 and what is involved there. And it is our position, and it has
17 been our position that although claim 13 does not actually recite that the
18 switching takes place, that even if it did, it would be obvious over HAC in
19 the combination of Anthony and Hanggie. And along those lines, Dr. Fuchs
20 testified in his original declaration, and then again in the supplemental
21 declaration that expressly within Hanggie is the capability of switching in
22 response to a user selection from a 2D presentation mode to a 3D
23 presentation mode, or vice versa. And when we were speaking in terms of
24 the limitation that we'd earlier referred to as the replacing limitation
25 involving switching from 3D space, they would argue is required to 2D
26 space, but more importantly, and is actually claimed, switching from a

1 plurality, or rather switching from a plurality of 3D images to a 2D window
2 object. That was accomplished by user selection of the maximize control
3 button that's present in those 3D window objects and that was given by Dr.
4 Fuchs at that time as an example of user selection of the type of control
5 button that's expressly contemplated by Hanggie.

6 Now, we were just asked to consider together how it is that one might
7 switch from a 2D window object to a plurality of 3D window objects. And
8 along those lines, and as invited, I would ask Your Honors to consider a
9 scenario in which there is presented to the user a 2D window object in a
10 maximized state. Having previously been at the 3D dynamic timeline view
11 of HAC, the user selected the maximize and we arrived, as rendered obvious
12 by HAC, at a state in which the 2D window object is being presented in its
13 2D space, maximized. Would have been further obvious that selection of
14 minimized in that scenario could function as the expressly contemplated
15 Hanggie user manual selection that would return to the 3D dynamic timeline
16 and HAC. And in that instance what would occur? It would be returned
17 then to the plurality of 3D window images.

18 Relatedly, we've heard so much today about static images or inactive
19 images versus active windows, and we heard from Counsel that mirroring is
20 critical to the invention. And yet the claims don't expressly recite mirroring.
21 They don't recite static or inactive or active or any of these things. And to
22 be clear, it's not that we're saying that images as claimed must be interactive.
23 Rather, "images" as a term is broad enough to be inactive or active. And
24 considering the record as existed even back to the petition and with the
25 original declaration and what went on pre-institution, there was at that time
26 an earlier debate between the parties as to whether there is a distinction to be

1 had over HAC in view of active windows versus static images. And as we
2 pointed out, HAC renders obvious these claims even under the assumption
3 of there being required active 2D window and inactive or static images. And
4 as an example of that, depending on the nature of the applications being
5 presented in the 3D dynamic timeline view of HAC, those windows and
6 their content might have been presented in an inactive state. And so, for
7 example, inactive web browser windows that weren't being updated could
8 just be presented as capturing the images that were originally present in the
9 2D window objects.

10 Now, we did explain, at that time, that they would include, in addition
11 to the content that Hanggie explains as being textured onto the frames there,
12 control buttons. And those control buttons do offer the controls that
13 Hanggie describes as beneficial in the ways that we've discussed. It
14 continues to be our position that the ability of the user to interact with
15 control buttons does not necessarily mean that the plurality of images that
16 are presented are themselves active. Certainly, they could have in certain
17 situations static image content that would not be changing. And in at least
18 that sense, HAC, we continue to argue, renders obvious even under this
19 construction of image that's now been offered.

20 Now, with respect to the offering of that construction and the sur-
21 reply, I believe, Judge McKone, that you'd asked a question to Counsel as to
22 whether that was first offered in the sur-reply, and the answer came back
23 that yes, it was offered responsive to position that Petitioner had taken in the
24 reply. Well, that doesn't justify the entry of a late new construction. At
25 most it would justify a responsive argument to the reply position. And

1 instead, what we saw there was creation of this new sur-reply construction
2 and its attempted application.

3 Now again, we're happy to say that it's not necessary to reach that
4 construction to rule in our favor, because the art renders obvious even under
5 it. And similar to that with respect to the additional new construction that
6 we've heard so much about with respect to the ordering limitation, we render
7 obvious under either interpretation.

8 Now, one thing we heard that we definitely want to respond to here is
9 the statement by Counsel that we said that there is no dispute that one of the
10 instances of “and” in the ordering limitation should be read out. That's not
11 accurate. That's not something that we've stated. We've never taken a
12 position that language in this claim ought to be expressly read out or
13 otherwise modified. That's a position that SpaceTime is now taking after
14 previously stating that plain meaning suffices, and after seeing our reply to
15 their response position that ordering would occur based on last use of an
16 application. And certainly, the art does demonstrate the obviousness of that.
17 Again, the obviousness of ordering based on a last time that the user does
18 “one of” each of these three enumerated things, each of which individually
19 includes opening an application and interacting with the 2D window object.
20 That's obvious. It's further obvious over what they're now attempting to do
21 to their own claim language. We didn't offer an express construction.

22 JUDGE McKONE: I just wanted to make sure I understand your
23 position. So, it's your position that you only have to show one of one, two,
24 and three?

25 MR. PATRICK: Yes, Your Honor, that's correct.

1 JUDGE McKONE: Okay. And how do you reconcile that with the
2 *SuperGuide* case, which seems mainly to say the opposite of that?

3 MR. PATRICK: Yeah. So, in terms of the claim language itself and
4 what it states, again, it says based on the last time that said user “one of,”
5 and then it enumerates these three options, one, two, and three. And with
6 that it seems that the determination of ordering must be based on one, two,
7 and three, a selection, a last time that said user “one of.” And if you have a
8 determination of a last time that said user sis “one of” “one of” those three
9 things, you would resolve actually to the first one in said order as the claim
10 in the next clause continues on to state. And in that regard, we don't see this
11 language as requiring an express construction and indeed both Petitioner and
12 Patent Owner at the response stage. in the response --

13 JUDGE McKONE: Well, I'm not sure I'm stating an express
14 construction here. Just reading the language grammatically as *SuperGuide*
15 would tell me to read it grammatically. Whether you agree with the
16 grammar put out in *SuperGuide* or not, I don't get to disagree with it.

17 MR. PATRICK: Understood, Your Honor. And I appreciate your
18 question. I think with that part of what I would say here is that we just did
19 not have an opportunity to brief on the construction that was newly offered
20 at the sur-reply or to fully consider the question that you're now asking as to
21 the correct grammatical construction under *SuperGuide* because this express
22 construction was only offered at the sur-reply stage. I appreciate your
23 asking the question.

24 We think that as we applied it, as we understood it by its plain
25 language in the petition, and then in the reply, we've demonstrated based on
26 HAC that it's obvious to have an ordering based on the last time user “one

1 of” opened an application and interacted. And further, we demonstrated that
2 you would have resolved, based on the last date of edit, as explained in
3 Anthony, to an order in which there would be a first image presented in a
4 foreground, and a second in the background behind that foreground, and a
5 third ultimately in the background even behind that.

6 So, we think that we've met that. We think that we've also met based
7 on the date of creation as we discussed today, and in response to this new
8 argument raised at the sur-reply, that HAC additionally would render
9 obvious ordering based on date of creation of the 2D window objects as
10 corresponding to opening of the applications. And given that, even if Patent
11 Owner were granted its new construction, we think we've shown
12 obviousness based on HAC as it was applied and based on the evidence
13 that's already of record. And in that sense, there's not a need to expressly
14 construe this term even now, even after the attempt has been made.

15 But again, I'd, I'd like to say we're not aware of anything here that
16 justifies this late attempt by SpaceTime to modify the language of their own
17 claim by removing “one of” and by removing several instances of “and”.
18 Lexicography doesn't justify that, for example, and neither do the cases that
19 they cited. It seems they simply discovered that they didn't like the language
20 as written within their claims after seeing our replies to their responses. And
21 in that regard, it's worth noting we are here in proceedings in which
22 amendments were optionally available to Patent Owner. They chose not to
23 exercise the option to pursue amendments in these IPRs, and they now seek
24 to change the meaning of their claims at this very late stage. Respectfully,
25 we submit that that shouldn't be allowed, and that Your Honors caution
26 Patent Owner in the scheduling orders that new arguments submitted after

1 the Patent Owner responses, for example in the sur-replies, may be
2 considered forfeit. We think that's actually an appropriate situation here to
3 consider these new constructions entered in the sur-replies forfeit. And
4 certainly, we have, regardless, demonstrated the obviousness of the claims
5 under either the plain meaning, as Patent Owner originally said those terms
6 should be understood, or under their new sur-reply constructions. And so, in
7 either case, we think that you have available to you the record that would be
8 necessary to rule in our favor on these points.

9 JUDGE LORIN: Any questions? No? All right, thank you, Counsel.

10 MR. PATRICK: Thank you, Your Honor.

11 MR. FITZSIMMONS: Do we have four and a half minutes left? I
12 thought that's where we stopped.

13 JUDGE LORIN: Yes, you have four and a half left.

14 MR. FITZSIMMONS: Thought it was four, thank you. Real briefly,
15 I'd like to address the *SuperGuide* case, because that was a case that was
16 briefed and that we considered, because the cases that we did cite addressed
17 that. The *SuperGuide* case is distinguishable on two fronts. One, it wasn't
18 "one of," it was "at least one of." And two, that was followed by a field. It
19 was followed by a start time, a stop time. It was different program
20 information. So, what they did was, they applied at least one of a start time,
21 at least one of a stop time, and they could apply that to the field. In this
22 case, it's not "at least one," it's one, "one of." And the cases that we cite
23 compare that to *SuperGuide* and say it makes no sense to apply it in that way
24 because we're not talking "at least one of," but we're talking "one of." Okay,
25 let's say you do the *SuperGuide* where you put one inside the parenthetical,
26 and it would be, in this case, one of opening and one of interacting. You

1 can't -- there is no -- there's only opening. Opening is either opening or not
2 opening. It's like the cases we cite where there's a bit flag. Either the bit
3 flag is set or not set. It's one or the other.

4 Again, with opening, it's at least one "opening." There is no such
5 thing as more, you know, with the application if you read the claim
6 language. So, the language doesn't even make sense if you apply literally
7 the *SuperGuide* rationale to the claim language. But it does and is
8 distinguishable exactly how the cases that have been cited, in fact, we found
9 didn't cite to them, but PTAB cases as well, Board decisions that
10 distinguished it on the exact same grounds as the cases that we've identified
11 in here.

12 Also, you mentioned earlier, Judge McKone, that --

13 JUDGE McKONE: I'm utterly confused right now because I thought
14 I was leaning your direction on the application of *SuperGuide*'s case in your
15 favor, and you just, I think, talked me out of it.

16 MR. FITZSIMMONS: Well, I mean, Super --

17 JUDGE McKONE: Now, I'm not sure that it supports your --

18 MR. FITZSIMMONS: *SuperGuide* is talking about what to modify.
19 And the question would be, back in the day and early 2000s, claiming
20 something as A or B would generally get an indefiniteness argument. And
21 the common way to claim it was one of A and B, which results in A or B
22 when *SuperGuide* came about because it was at least one and then gave a
23 list. And you're familiar with the case that it got trickled throughout. It was
24 at least one of A, at least one of B, at least one of C. So, we do have that "at
25 least one" does modify, but what it modifies is at least one, just like the
26 specification supports, at least one of opening or interacting.

1 And again, Your Honor, you got it right, also, when you earlier
2 characterized it as it's not just one of opening it or interacting, which you
3 originally said, wouldn't that make it broader? No, it's a last time, a last time
4 that "one of" opened or interacted. So, what is the time associated with
5 opening? Well, you open a file and there's a first time, what's the time
6 associated with interacting? You may never interact. So, the last time is the
7 time it was opened. If you do interact, it's probably a subsequent time after
8 it was opened. But the claim requires that determination, a determination to
9 determine of those two times and of which one was the last time. So,
10 anyway, I just thought I would clarify that. So, thank you for that.

11 We also agree, and this "image," that the term "image" probably
12 doesn't even need to be construed, because the reason that the term "image"
13 only came in for the first time in their reply brief with a dictionary
14 definition, which we adopted, one of those dictionary definitions, is because
15 their theory is that, or at least it seems to be more recently, that Hanggie is
16 the image. So, we asked their expert during his deposition, is Hanggie an
17 image?. And he goes, I had no need to determine that. That's not his job.
18 So, they have no basis to argue that it's an image. It's only their argument.
19 Their own attorney has not reached that conclusion -- I mean their own
20 expert; and the other experts have reached contrary conclusions. And the
21 Board said during the Institution Decision that it appears that they're relying
22 on Anthony for the images, and Hanggie for the objects.

23 Well, again, if you go to Anthony and you go to the paragraph that I
24 cited, I believe 47, it says that when you interact with it, you open a file.
25 Well, again, we're not opening a file in response to interacting with it. We're
26 presenting said object. And earlier, opposing counsel made a comment that

1 this mere language is not repeated in the claims. It is. It's just repeated here
2 as it was in the '048. You have an object that gets opened, and then later on
3 in the replacing step, it's "said object." It's just like "said," or the rendered
4 first webpage, it mirrors back and forth. So, I would say if the Court finds
5 that the '048, the "rendered first webpage" rationale rings true, then the
6 object that's being replaced here, which is in the claim language,
7 subsequently interacted with to modify said application-specific data. The
8 same logic applies there as well.

9 So, if the Board doesn't have any further questions.

10 JUDGE LORIN: Further questions? It doesn't seem like there are any
11 further questions. So, thank you, Counsel. Thank you very much.

12 MR. FITZSIMMONS: Thank you, Your Honor.

13 JUDGE LORIN: And thank you all for coming and thank you for all
14 your arguments. Final written decisions will be out soon, so thank you so
15 much. All right, the hearing is adjourned.

16 (Whereupon, the proceedings at 5:31 p.m. were concluded.)

IPR2023-00343 (Patent 9,304,654 B2)

IPR2023-00344 (Patent 9,696,868 B2)

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