

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

VALVE CORPORATION,
Petitioner,

v.

IMMERSION CORPORATION,
Patent Owner.

IPR2024-00714
Patent 10,627,907 B2

Record Of Oral Hearing
Held: July 29, 2025

Before MICHAEL R. ZECHER, NEIL T. POWELL, and
CHRISTOPHER L. OGDEN, *Administrative Patent Judges*.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

LIBBIE DIMARCO, ESQ.
Wolf, Greenfield & Sacks, P.C.
601 Massachusetts Avenue, NW
Washington, DC 20001
(617) 646-8526
Elizabeth.DiMarco@WolfGreenfield.com

ON BEHALF OF THE PATENT OWNER:

AMY HAYDEN, ESQ.
Folio Law Group PLLC
1200 Westlake Ave. N.
Suite 809
Seattle, WA 98109
(301) 903-9368
amy.hayden@foliolaw.com

The above-entitled matter came on for hearing Tuesday, July 29, 2025,
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P-R-O-C-E-E-D-I-N-G-S

1:00 p.m.

MS. LOTT: Good morning. We will now go on record with IPR 2024-00714. Judge Ogden, it is now in your hands.

JUDGE OGDEN: Hello, welcome to the Patent Trial and Appeal Board. This proceeding relates to patentability challenges of US Patent Number 10,627,907. I'm Judge Ogden, and also appearing are Judge Zecher and Judge Powell.

Let's get started with appearances for both parties who will be arguing today. And also, if there's anyone else from your party that is appearing remotely with you today but will not be speaking, including any clients that may be in attendance, please identify them. And also, I'd like to ask you after the hearing to please stay and confer with the court reporter to make sure that there's no questions about the spelling of names or terms. So let's start with appearances for Petitioner.

MS. DIMARCO: Good morning, Your Honor. Libbie DiMarco from the law firm Wolf, Greenfield & Sacks on behalf of the Petitioner Valve Corporation. Appearing with me today are my colleagues from Wolf, Greenfield, Richard Giunta, who is LEAP counsel in this proceeding, and Nathan Speed.

JUDGE OGDEN: Okay. So, Ms. DiMarco, will you be arguing?

MS. DIMARCO: I will. Thank you, Your Honor.

JUDGE OGDEN: Okay. Thank you. Now appearances for Patent Owner.

MS. HAYDEN: Good morning, Your Honors, or good afternoon. This is Amy Hayden from Folio Law Group. And with me, I believe, on the

1 public line are my colleagues Cliff Win, Sam Kim, and Stefan Szpajda. And
2 I would like to --

3 JUDGE OGDEN: Will you be arguing?

4 MS. HAYDEN: Excuse me. Yes, I'll be arguing.

5 JUDGE OGDEN: Will you be arguing, Ms. Hayden?

6 MS. HAYDEN: That's right. And if this is the right time, I'd like to
7 reserve 15 of my 60 minutes for surrebuttal.

8 JUDGE OGDEN: Okay. I'll make a note of that.

9 MS. HAYDEN: Thank you, Your Honor.

10 JUDGE OGDEN: Before we begin, let me just go over a few
11 preliminary matters. This is a public hearing. There's a public line, and some
12 members of the public may be listening. So keep that in mind. I don't think
13 that there are -- nobody has mentioned that there'd be a need to discuss
14 confidential information. But if something does arise where there is a need,
15 please let us know.

16 The court reporter will be providing a transcript of the hearing, and
17 ultimately that will become part of the record. So to ensure the clarity of the
18 record, we'd ask that you identify yourselves before speaking and identify
19 any specific slide numbers or numbering of figures or any other identifying
20 information that would help somebody reading the transcript to locate it in
21 the record.

22 I'd like to ask everybody to mute themselves while not speaking. And
23 if you encounter any technical difficulties, please let us know immediately,
24 and we can pause the hearing if necessary. Per the hearing order, which is
25 paper 25 in this proceeding, each party will have 60 minutes of total time to
26 argue their cases. And Petitioner will open the argument and may reserve

1 rebuttal time, which should not exceed more than half of Petitioner's total
2 time.

3 And then Patent Owner will have the opportunity to respond to
4 Petitioner's arguments and can reserve surrebuttal time, which also should be
5 no more than half of Patent Owner's total time. And remember that
6 arguments should be limited to only those arguments previously presented in
7 your briefs.

8 I'd like to ask the parties also to hold any objections that you may
9 have about the opposing party's arguments until it's your time to speak. So
10 I'll maintain a clock. You should be able to see it behind me, hopefully on
11 your screen. And it may also, you know, be helpful for the parties to track
12 their own time as well if necessary. So Ms. DiMarco, would you like to
13 reserve rebuttal time for Petitioner?

14 MS. DIMARCO: Yes, thank you, Your Honor. I would like to reserve
15 15 minutes.

16 JUDGE OGDEN: Okay. I will put 45 minutes on the clock. And you
17 can begin when you're ready.

18 MS. DIMARCO: Thank you, Your Honor. One housekeeping issue.
19 We submitted slides on Friday in accordance with the scheduling order. I
20 have them available. If you'd like me to share my screen, I can. If you prefer
21 for me to just direct your attention to them, I'm okay with that as well.

22 JUDGE OGDEN: Whichever you'd prefer. We can see them if you do
23 put them up.

24 MS. DIMARCO: Okay. I will share them. And if you'd like me to
25 stop at any point, please just let me know.

26 JUDGE OGDEN: Okay. Thank you. You can go ahead when you're

1 ready.

2 MS. DIMARCO: Are you able to see the slides now?

3 JUDGE OGDEN: Yes.

4 MS. DIMARCO: Great. I'll begin with Petitioner's slide 3. And for the
5 record, this is Libbie DiMarco on behalf of Valve Corporation. The patent at
6 issue in this proceeding is Immersion's '907 patent. And this patent is
7 directed broadly to electronic devices that produce haptic effects. Like many
8 of Immersion's other patents, the specific embodiments described really
9 focus on video game devices and specifically video game controllers. And
10 there's an emphasis throughout this patent on what's called a user input
11 element.

12 If we move to Petitioner's slide 4, you can see one of the exemplary
13 embodiments in the '907 patent shown in figures 9a and 9b is a video game
14 controller. And it shows digital joystick 910, buttons 914, and trigger 918,
15 which we've highlighted in red. And those are all examples of user input
16 elements, though it could also take the form of a wheel, a knob, or really any
17 other item where input is provided to the device.

18 Now, the '907 patent specifically relates to rendering haptic effects at
19 definable positions of that user input element. So when the trigger is in a
20 certain position or the joystick is moved in a certain position, rendering a
21 haptic effect. And we've highlighted the language at the bottom of this slide
22 4, where the specification explains a wider range of haptic effects can be
23 achieved by rendering the haptic effects at these definable positions.

24 And that really encapsulates what the purported novelty of this patent
25 is. And if it sounds broad, it's because it is. It's exceptionally broad. If we
26 look at independent claim 1, which we've included on Petitioner's slide 5,

1 you can see there's really two sort of categories of claimed elements.

2 The first we label broadly as element 1a, and that is the defining
3 position and range information for the user input element. And 1b is
4 rendering a haptic effect in response to a certain positional movement of the
5 user input element. Now, the claim recites three specific position ranges, and
6 we label those as 1A1, 1A2, and 1A3.

7 It's a primary range of positions, and we show that here in blue. A
8 secondary range of positions, which we show in sort of a light-yellow color,
9 and then a boundary range of positions, which is shown in red. And that
10 boundary range is required to partially overlap with each of the primary and
11 the secondary ranges.

12 There are three independent claims at issue in this patent, and our
13 petition challenges all claims in the patent. This independent claim 1 shown
14 on slide 5 is a method claim. The other two independent claims, 8 and 15,
15 are substantially the same as claim 1, and the parties are in agreement on
16 that, that the issues really rise and fall together.

17 The primary difference is that those other two independent claims are
18 not method claims. So claim 8 relates to non-transitory storage medium,
19 while claim 15 is a device claim. So my arguments today are really going to
20 focus on independent claim 1, but the arguments apply with equal force to
21 all of the independent claims.

22 If we go back actually to slide 2 briefly, just to orient Your Honors.
23 We have presented six different grounds in our petition, but the grounds are
24 based on only three different primary references. And so it's sort of like three
25 groups of grounds. We have the Goldenberg reference, and that's grounds 1
26 and 2. We have the Rosenberg reference, and that's grounds 3 through 5.

1 And then a third reference, 11, which is ground 6.

2 Now, all of the disputes in this proceeding relate to whether the
3 primary reference in each sort of ground grouping meets the independent
4 claims. So there are no disputes specific to dependent claims. There are no
5 disputes about the combinations. And there are no disputes, really, about
6 anything other than the independent claims in terms of the arguments that
7 Immersion has raised.

8 And for that reason, my arguments today will not only be on the
9 independent claims, but I will also focus on the primary references more
10 than the secondary references or any motivations to combine. Moving on to
11 Petitioner's slide 6, the '907 patent describes and illustrates the claimed
12 concept of this position and range information in connection with two
13 figures. One of them is shown here on slide 6, and it's figure 2, and the other
14 I'll get to momentarily is figure 4.

15 Figure 2 is a schematic drawing, and it shows a range of motion 200
16 for a user input element. The range of 200 in this embodiment is broken up
17 into our primary range element 210, and we've highlighted that in blue on
18 slide 6. It also includes secondary ranges 220A and 220B. We've highlighted
19 those in sort of that light yellowish-orange color on this slide. And then it
20 also includes boundary ranges.

21 And the boundary ranges here in this embodiment are 230A and
22 230B, and they're just a single line in this embodiment. And you can see that
23 that boundary range appears in between the primary range and either of
24 those secondary ranges.

25 JUDGE OGDEN: So, Ms. DiMarco, is it your position that somebody
26 of ordinary skill in the art would understand that these are just lines with no

1 width, the boundary ranges are just lines with no width?

2 MS. DIMARCO: It's a good question, Your Honor. I think you could
3 interpret it two ways. I mean, it's a trigger input element in this embodiment,
4 and so I think it's illustrating the range of motion for a trigger input element,
5 which has a specific sort of start point and stop point. So it could be
6 interpreted as angles and, you know, it is described in an analog form where
7 the 0 to 255 is a full range of motion. On either side, the specification
8 describes that. So I do think they have a relative width, but perhaps not an
9 absolute width.

10 JUDGE OGDEN: And what evidence do we have that would be able
11 to tell us in what way the boundary range overlaps the primary and
12 secondary range?

13 MS. DIMARCO: So, for that, you'd have to rely on how a person of
14 ordinary skill in the art would interpret this figure and this description,
15 because this is the only description of the boundary range overlapping with
16 the primary range in the patent, and that's that excerpt that we have here
17 from the specification.

18 And so, one interpretation in which we think is reasonable in our view
19 on how a person of ordinary skill in the art would interpret it is that in this
20 embodiment, the boundary range overlaps only at a single point, and that is
21 the dividing point between the primary range and the secondary range. Now,
22 the patent also explains that the primary range can extend into the secondary
23 range, and certainly a person of ordinary skill in the art would understand
24 that there could be more overlap than a single point, but at least we can
25 discern from this that a single point is sufficient.

26 JUDGE OGDEN: Okay. Thank you.

1 MS. DIMARCO: Now, looking to figure 4, which is the other figure
2 and description in the patent relating to this issue of defining a primary and
3 secondary range, figure 4 explains this as a flow diagram, so a series of
4 steps, which is often the case with method claims. And we've used
5 highlighting on this shown on Petitioner's slide 7.

6 The first step described is defining a primary range and a secondary
7 range of positions for the user input element. We've highlighted the
8 disclosure from the specification as well as the figure block diagram with the
9 blue and the orange. The next step is 420, where there's a boundary range of
10 positions defined. Again, references here that the boundary range partially
11 overlaps, but doesn't describe in any more detail what that means or the
12 extent of the overlap. Here we've highlighted that clause with red in both the
13 figure and the specification.

14 And then only after the ranges are defined, you have step 430, which
15 monitors the position of the user input element, and that's verbatim from the
16 specification states, after the various ranges are defined, functionality 400
17 monitors the position of the user input element at 430. Finally, the last step
18 in figure 4 is to render haptic effects when the user input element enters
19 positions within the boundary range, and that's step 440.

20 Now, looking at Petitioner's slide 8, we've included some excerpts
21 from the prior art, because the prior art used a different term, "force
22 profiles," but it used that term to refer to the same exact position and range
23 information that the '907 patent attempts to claim. And the force profiles in
24 the prior art establish position and range information and identify and apply
25 a force magnitude haptic effect when the user input element is at certain
26 positions.

1 So in the same way as the '907 patent describes, the prior art is doing
2 the same thing, but using different language force profiles rather than
3 boundary range or primary range. And on Petitioner slide 9, like the '907
4 patent, the prior art does depict these force profiles with images or figures.

5 Again, in the prior art, unlike the figure 2, which is shown as just a
6 diagram with no reference to magnitudes, for example, the prior art shows
7 an x- and y-axis showing force against displacement, or force against
8 position, if you will, and how and when the forces are applied. And I'll go
9 into the details of the prior art when we get to the grounds, but just for
10 orienting Your Honors, the prior art was doing the same things using
11 different language.

12 JUDGE OGDEN: So the '907 patent does in some embodiments
13 discuss profiles, particularly in figure 5?

14 MS. DIMARCO: Yes.

15 JUDGE OGDEN: What's your best evidence that figure 5 was
16 intended to be captured in the challenge claims in addition to figure 4?

17 MS. DIMARCO: Thank you, Your Honor. And I may, if you don't
18 mind, stop sharing my screen just so I can pull up figure 5.

19 JUDGE OGDEN: Sure.

20 MS. DIMARCO: Thank you. So the reference to profiles in figure 5
21 really is referring to the profiles, the normalized profiles, which are a
22 slightly different concept of the '907 patent. And the force profiles are
23 describing and defining in the prior art the same thing, which is haptic
24 effects applied based on the position of a user input element. The profiles
25 described later in the '907 patent have to do with the normalizing of a profile
26 for essentially resetting the position of the user input element.

1 And so, I don't think profile on its own, the word, is really relevant to
2 determining whether force profiles were meant to be included or excluded
3 from the '907 patent, because it's a completely different concept in terms of
4 what figure 5 and the associated description is referring to.

5 JUDGE OGDEN: Okay. So you're not saying that the profiles in
6 figure 5 are the same type of force profiles that are discussed in the prior art?

7 MS. DIMARCO: Exactly. I would say they're not at all the same.

8 JUDGE OGDEN: Okay.

9 MS. DIMARCO: I apologize for the slowness on going back and forth
10 with the screen sharing. Okay. I think it's back up. So with that background
11 on the patent, just a brief overview --

12 JUDGE ZECHER: Ms. DiMarco, this is Judge Zecher. I was looking
13 at claim 1. I have a quick question.

14 MS. DIMARCO: Please.

15 JUDGE ZECHER: I think you're going to jump into these issues here.
16 But I guess from reading that claim, is there anything in the claim itself or in
17 what appears to be pretty scant prosecution history that would indicate that
18 this defining position and range information somehow precludes predefining
19 it?

20 MS. DIMARCO: Not at all, Your Honor. And I do have probably too
21 many slides on that issue. If we want to just look strictly at the claim
22 language, I'll put slide 5 back up. But the claim language itself says defining
23 position and range information, and that is the only thing that the claim says.
24 And the specification uses the exact same language.

25 And as Your Honor noted, it's a scant file history in the sense that it's
26 really just one office action. There was no comments from the applicant. It

1 was just the examiner having a rejection. There was some interpretation of
2 the ranges, but then that rejection was eventually withdrawn on procedural
3 grounds. So we don't know much beyond the language.

4 And the language is both broad and also just common-sense English
5 language. Predefining is the same thing as defining, except there's a
6 temporal implication. But there's nothing that the claim says and nothing in
7 the specification that puts in a temporal requirement that defining has to
8 occur at or after a certain point.

9 Predefining is essentially a type of or a subset of defining position and
10 range information. And figure 4 makes it clear that defining is, in fact,
11 occurring before any monitoring happens, for example. So, if anything, the
12 figure 4 embodiment suggests that the defining position and range
13 information is actually a type of predefining.

14 JUDGE ZECHER: Okay. Thank you.

15 MS. DIMARCO: Thank you, Your Honor. Each ground presents a
16 common dispute. And the common dispute we've highlighted in yellow on
17 Petitioner's slide 10, that is this term that we were just discussing, defining
18 position and range information for the user input element. So it's both a
19 claim construction issue and then also for each ground, Immersion argues
20 that the primary reference does not disclose it.

21 Then for Rosenberg, which are grounds 3 through 5, that is the only
22 issue. And if Your Honors agree with Valve, with the petitioner, and reject
23 Immersion's proposed construction, because that's the only issue for
24 Rosenberg and because the Rosenberg grounds attack all challenge claims,
25 the petitioner prevails and the Board may not even reach the remaining
26 grounds or issues.

1 And we'll get to it in a bit, but we also have an alternative argument
2 where even if the Board is inclined to adopt Immersion's proposed
3 construction, the Rosenberg grounds would still satisfy all of the challenged
4 claims.

5 The Goldenberg grounds present two disputes, one of which is the
6 same overlapping issue with Rosenberg defining position and range
7 information. The second is whether Goldenberg discloses the three required
8 ranges, that primary, secondary, and boundary ranges. And then the final
9 ground, which is just based on Levin and one ground, it presents, actually,
10 three disputes. Two of them overlap, so the defining position and range
11 information overlaps with the other grounds.

12 Does Levin disclose the claimed boundary range of positions is very
13 similar to the Goldenberg issue. And then Levin presents a third unique
14 issue, which is does Levin satisfy the requirement of rendering a haptic
15 effect in response to an entry of the user input element to one or more
16 positions within the boundary range.

17 Because I have limited time and because the issues get sort of
18 increasingly complex through the grounds in terms of number of disputes, I
19 will spend most of my time on the claim construction issue and Rosenberg.
20 And then I'll also touch on Goldenberg and Levin, and happy to answer any
21 questions Your Honors may have. But I think really the main disputes
22 between the parties at this point are claim construction and centered on
23 Rosenberg.

24 So moving to claim construction. On Petitioner's slide 13, I have
25 illustrated the term at issue, which we've now seen a few times, defining
26 position and range information, along with each party's position. Petitioner's

1 position is that no construction is necessary because the claim term is
2 easily understandable to a person of ordinary skill in the art.

3 Patent Owner proposed a very specific and narrow construction, a step
4 taken by or a feature allowing a user or device to change the settings of a
5 controller to adjust the claimed ranges based on user input. Now that
6 proposed construction is about three times as long as the claim words
7 themselves and adds a number of requirements that are nowhere in the claim
8 words and nowhere in the specification. And the Board already considered
9 this proposed construction at the institution stage and rejected the proposed
10 construction.

11 There are really two issues that are raised by Immersion's proposal.
12 And the first is, is there a requirement that the ranges have to be user
13 modifiable? And the second is, does the claim language defining position
14 and range information exclude predefined ranges? And that would be the
15 force profiles. So the force profiles for the most part are predefined ranges
16 and positions where a specific force is applied. And we've touched on that a
17 bit, so I'll try to go quickly through that issue, but I'll address each issue in
18 turn.

19 So first, as we've illustrated on Petitioner's slide 15, the specification
20 makes it clear that there is no user modifiable requirement. Specifically, the
21 specification at column 529 through 30 says that the primary range and
22 secondary ranges may be fixed or variable. And we know that the boundary
23 range generally is between them, so the boundary range also may be fixed or
24 variable.

25 The Board considered this exact disclosure at the institution stage and
26 determined that an embodiment -- this disclosure suggests that an

1 embodiment in which all the range information is fixed, i.e., unalterable by
2 the user, would be within the scope of the claimed invention. Nothing has
3 changed since then. Immersion has not identified any further support or any
4 reason to deviate from that finding, and the Board should reach the same
5 conclusion in the final written decision.

6 Now, in Immersion's Patent Owner Response, Immersion addressed
7 this language from the specification, arguing that regardless of whether it's a
8 fixed or variable range, user input is still required. In other words, that
9 portion of the specification, according to Immersion, still is consistent with
10 and supports its proposed construction.

11 Here, the Patent Owner Response cites to that language we just looked
12 at, which is, in some embodiments, primary range 210 and secondary ranges
13 220A, 220B, may be fixed or variable. Nothing about that language
14 addresses or even suggests user input. It certainly does not require it.
15 Instead, it suggests that whether you have user input or not, you can still
16 satisfy this claim.

17 Likewise, as I mentioned before, figure 4 confirms that the ranges
18 themselves may be defined without any user input, and certainly without
19 being user modifiable, because figure 4 is an embodiment in which the steps
20 occur in order, and only after the various ranges are defined, the
21 functionality begins monitoring the position of the user input element.

22 Now, that doesn't mean that it's the only covered embodiment, and
23 certainly a user modifiable implementation could be covered. That's not the
24 question. We're not saying it wouldn't be covered. The question really is, is it
25 required that it be user modifiable? And the answer to that question is no.

26 The ancillary question is, does it also -- does the claim term defining

1 position and range information exclude predefined ranges/force profiles?
2 Here, we've excerpted the claim language, which we've already looked at.

3 At institution, the Board found we see nothing in the challenged
4 claims explicitly limiting when the recited ranges of positions must be
5 defined. The ranges evidently could, for example, be defined in firmware.
6 And we've excerpted that quote on Petitioner's slide 20. And again, the
7 Board was correct, and Immersion has not identified anything that would
8 support deviating from that conclusion at the final written decision stage.

9 JUDGE ZECHER: Ms. DiMarco, this is Judge Zecher. If we look at
10 claim 1 there, I believe Immersion makes an argument in their briefs that the
11 preamble of that claim, which recites a method for controlling user input
12 element, has some interplay with this defining step in the claim. Can you
13 address that?

14 MS. DIMARCO: Yes, absolutely, Your Honor. So I saw that
15 argument which Immersion raised in its Sur-reply for the first time, setting
16 aside the procedural propriety or lack thereof of that. I'd say that Immersion
17 does not, and let me look, because I know I have a slide on this. Immersion
18 does not support that argument. So they make the argument as an attorney
19 argument, but without factual or legal support. And I've pulled up
20 Petitioner's slide 34.

21 So here, and I'm glad you raised it because I found the Sur-reply here
22 that we've excerpted on slide 34 to be a little bit misleading. Part of the
23 support that Immersion cites to, and that last sentence where Immersion
24 argues this defining step must therefore be performed as part of a method for
25 controlling a user input element, there must be control by a user that in turn
26 causes the settings of a controller to adjust the claimed ranges.

1 But that last quote there isn't from the patent. Immersion is actually
2 quoting its own proposed construction, and so they're citing their own
3 construction to support their argument. So it's a circular argument. They
4 don't cite any legal authority or basis for finding that this language
5 controlling a user input element within the preamble would be limiting in
6 some way.

7 And even if we accepted that it was relevant to the construction or that
8 it does have some type of limiting effect, it doesn't say anything about a
9 user. It's referring back as the claim does, all of the claims do solely to the
10 user input element itself. And the patent is clear that one of the ways that the
11 user input element is controlled is by rendering the haptic effects when it's in
12 the boundary range of positions.

13 So it's a circular argument. It certainly may have some relevance, but
14 it doesn't support their proposed construction for defining and certainly
15 doesn't support injecting a requirement that the user modify or do anything
16 specific to establish what their ranges are.

17 JUDGE ZECHER: Yeah, I guess something I was thinking about with
18 this argument as well, and I don't remember what slide you're on, if it was 17
19 or 18, that had the claim language for claim 1, all the independent claims.
20 This language only appears in claim 1, correct? In the preamble. We don't
21 see this language in claim 8 or 15, which is a computer readable medium
22 claim and an apparatus claim. So it would seem odd that somehow this one
23 claim would have a controlling aspect or a claim construction that we could
24 not bear to read on the other two. Is that fair?

25 MS. DIMARCO: It's an interesting point, Your Honor. I think that's
26 right. The parties have already agreed that claims 1, 8 and 15 should be

1 treated and interpreted the same way, including for purposes of this clause.
2 And the other claims are not method claims. So I think this is really
3 reflecting nothing more than a non-limiting preamble. I don't think it has any
4 relevance to whether the defining the position and range information needs
5 to have user input.

6 JUDGE ZECHER: Okay. Thank you.

7 MS. DIMARCO: One sort of last note, and then I may skip ahead just
8 in the interest of time. In Immersion's Sur-reply, and this is at page 6 of the
9 Sur-reply, which we show on Petitioner's slide 21. Immersion sort of has this
10 fallback argument. The plain and ordinary meaning of defining also excludes
11 predetermined position and range information loaded into memory.

12 Now, this again is a new argument they didn't make in the Patent
13 Owner Response, but it's interesting. I think it reflects two things. First, it
14 shows that Immersion is probably aware of the weakness of their proposed
15 construction because it is so narrow and so specific and there just isn't
16 support. But it also fails on the merits because ultimately what Immersion
17 does is just repackage all of the arguments it makes to support its specific
18 construction and then labels it as the plain and ordinary meaning.

19 So even if it's considered the alleged plain and ordinary meaning,
20 which Immersion argues excludes predetermined position and range
21 information, fails for all of the same reasons that Immersion's specific
22 proposed construction fails.

23 Immersion raised four arguments in its Patent Owner Response to
24 support its proposed construction. And I'm not going to go through all of
25 them because most of what I just described is relevant and covers those. The
26 only one that I will touch on is the second one shown on Petitioner's slide

1 22, which is this grammar argument. And the grammar argument -- and I'm
2 looking now at Petitioner's slide 32. It took up a substantial amount of space
3 in the Patent Owner Response.

4 Immersion spent several pages arguing that as a matter of grammar,
5 the claim term defining excludes using predetermined profiles. And
6 according to Immersion, it was this present continuous tense of the word
7 define as defining rather than using the word define itself.

8 And in our Reply, which I've shown an excerpt of on page 33, but that
9 goes on for several pages as well, we essentially completely dismantled this
10 argument because Immersion is not only wrong as a matter of claim
11 interpretation on the law, but they were also wrong as a matter of grammar
12 because defining in the context of the claims actually isn't the present
13 continuous tense.

14 So their argument completely falls apart for two separate reasons. It
15 would also implicate a large majority of method claims, which are often
16 written with the ING verb tense. And so assigning a temporal requirement
17 would have potentially longstanding ramifications.

18 Now, after we submitted our Reply that dismantled the grammar
19 argument, Immersion filed their Sur-reply where they actually criticized us
20 for discussing the grammar in our Reply, despite the fact that we were
21 merely responding to the grammar arguments they raised. So it appears to us
22 that they have either abandoned or substantially walked back on the
23 grammar arguments and either way they feel for the reasons that we
24 explained in our Reply.

25 And then my last comment on claim construction before I move on to
26 the ground specific issues. I just wanted to note that Immersion does rely on

1 intrinsic evidence to support its proposed construction, but the intrinsic
2 evidence that Immersion relies on, first of all, it's the third argument that
3 they make in their Patent Owner Response to support their proposed
4 construction, which I think is telling of how little there is in the alleged
5 intrinsic evidence to support them.

6 But there are sort of two portions of the specification that Immersion
7 points to as supporting them. And one of them is with regard to figure 5,
8 which we did already discuss. And I just wanted to note the specific
9 argument that Immersion makes, which is that in this discussion here of
10 functionality 500 shown on Petitioner's slide 37, which is in connection with
11 figure 5, Immersion argues that the only way of defining the position and
12 range information disclosed by the '907 patent requires the device to actively
13 define such information based on user input.

14 And then Immersion cites to this excerpt from the patent where it
15 says, in some instances, these values may be calculated based on movement
16 of the user input device from the maximum out position to the grounding
17 position. And that quote shows up on the '907 patent column 9, line 44.

18 And if you look at the actual language in the patent, it does not
19 support Immersion's statement that the only way of defining the position and
20 range information is through the device actively doing it. In fact, the
21 specification says the opposite. It literally says only in some instances are
22 the values calculated based on the movement of the user input device.

23 And then lastly, as I've already said, it's not user input necessarily, it's
24 input from the user input device. And those are two separate things. The
25 claims do not require any user action. They do require action by the user
26 input element. And those are not necessarily the same.

1 JUDGE OGDEN: Ms. DiMarco, this quote, I understand it to be in the
2 context of figure 5.

3 MS. DIMARCO: Yes, Your Honor.

4 JUDGE OGDEN: And also at the same time, this also sort of mirrors
5 some language in some of the dependent claims, like dependent claim 2,
6 which depends from claim 1. And so I'm just wondering, how do we
7 reconcile that? It seems like at least for dependent claims, they're bringing in
8 some of this disclosure with regard to figure 5. Can we apply this part of the
9 disclosure to the challenge claims, even though it's in the context of figure
10 5?

11 MS. DIMARCO: It's an excellent question, Your Honor. Thank you
12 for raising it. So I've turned to Petitioner's slide 41 because we have
13 addressed this issue on slides 41 and 42. This was raised in Patent Owner's
14 Sur-reply where Patent Owner makes the same argument now relying on the
15 dependent claims rather than that excerpt I showed from describing figure 5
16 from the patent.

17 And as Your Honor notes, this very similar language appears in all of
18 the sort of second dependent claims. So that's dependent claim 2, and then 9
19 from claim 8, and 16 from claim 15. And where it says the boundary range is
20 calculated based on a movement of the user input element from a maximum
21 out position to a grounding position.

22 So while the language is similar to the excerpt that we looked at, it
23 still doesn't support Immersion's argument and it doesn't support
24 Immersion's proposed construction. Because if you recall, the proposed
25 construction requires that it be user modifiable, that it can't be predefined.
26 Certainly this calculation could be predefined. Even though it requires a

1 movement of the user input element from a maximum out to a grounding
2 position, there's no reason that couldn't occur during a manufacturing
3 process, for example, predefining the profile so that they are set for later use.

4 So, again, Immersion is reading in these sort of temporal restrictions
5 where a user, a human user presumably, is taking some action after the fact,
6 but that is not in the claims. So, again, the claims are focusing on the
7 element itself, not a user action. Even if the boundary -- sorry. Go ahead,
8 Your Honor.

9 JUDGE OGDEN: Counsel, if we were to agree with Patent Owner on
10 this point with respect to this language, would that only affect dependent
11 claims like claim 2 and maybe 16, and I think one other claim?

12 MS. DIMARCO: Absolutely, Your Honor. So I think Immersion
13 argues that these dependent claims suggest that the independent claim also
14 requires a user modifiable action. And while we disagree that they support it
15 at all, if anything, it suggests that the independent claims in any other claim
16 that lacks this language does not require a user action. So I think if Your
17 Honors found it relevant, it would be specific to only these dependent
18 claims.

19 JUDGE OGDEN: But your position is that the patentability of the
20 dependent claims is not properly an issue because it hasn't been disputed
21 until the Sur-reply?

22 MS. DIMARCO: It has never been disputed even in the Sur-reply,
23 Your Honor. This argument is raised only to support Immersion's proposed
24 construction and their dispute of claim 1. So they're trying to pull in this
25 language from the dependent claims to say that the independent claims
26 should be interpreted more narrowly as well, but they actually never

1 separately disputed a single patentability issue for any dependent claim in
2 this entire proceeding in any filing.

3 JUDGE OGDEN: Okay. Thank you.

4 MS. DIMARCO: Okay. So one last point on the claim construction
5 issue because this is something that I think Your Honors may find relevant
6 as well. In Immersion's Sur-reply, they also point to this trigger data as a
7 type of user data, and Immersion argues that that can be used in defining
8 position and range information. This again is a misconstrue of what the
9 specification actually says. And I've shown Immersion's argument on
10 Petitioner's slide 43.

11 The specification says something quite different. So what the
12 specification actually says is that the trigger engine 316 may modify the
13 haptic data, not the position and range information, but the haptic data based
14 on user input data such as trigger data. And so it's in that trigger data
15 indicates a position or a range of one of or more of the triggers, but the
16 specification doesn't say anything about trigger data being used to define or
17 set or establish the position and range information.

18 So what the specification actually says is that haptic data may be
19 modified based on trigger data. Well, that's consistent with the other
20 requirement of the claim rendering a haptic effect in response to movement
21 of the user input element. And so this section of the specification, once
22 again, does not support Immersion's proposed construction.

23 Okay. There are some other claim construction issues raised in the
24 proceedings, but in the interest of time, I'm not going to touch on them
25 because they are only relevant to the Goldenberg and Levin grounds. And if
26 and when I get to those grounds, I will discuss them briefly in the context of

1 the relevant limitation. For now, I'll move on to grounds 3 through 5 to
2 discuss Rosenberg and how the claim construction dispute applies
3 specifically to Rosenberg.

4 So just looking briefly at Petitioner's slide 48, we have three
5 Rosenberg grounds. Collectively, they reach all of the challenged claims.
6 Rosenberg relates to a computer system with an interface device, and the
7 interface device provides force feedback to the user. As relevant to this
8 proceeding, it's really the interface device, which we've shown on
9 Petitioner's slide 49. It's element 14 there. It has a local microprocessor. It
10 has memory. It has sensors. It has an object 34, which Rosenberg calls a user
11 object. And it also has actuators that exhibit force feedback or a haptic
12 effect.

13 Interestingly, Rosenberg does depict a user in figure 1 in relation to
14 the overall system. Rosenberg, as I mentioned, it's a system for providing
15 user -- I'm sorry, it's a system for providing force feedback at a user input
16 element or a user object. And the way that Rosenberg describes doing this is
17 through a force sensation process using force profiles stored in memory.
18 And that's the term that I used earlier.

19 Those force profiles are simply force values that have been previously
20 calculated. They may have been sampled and stored. They could have been
21 previously generated using an equation or by sampling and providing
22 digitizing forces. So for example, setting up your user object before you're
23 going to actually start using it through a sampling.

24 Rosenberg describes many different force profiles. The ones that we
25 relied on in the petition are depicted on Petitioner's slide 50 in figures 10A
26 and 10C, and these are referred to as restoring force profiles. If we move to

1 Petitioner's slide 51, for ground 3, we mapped Rosenberg to meet claim 1 in
2 two different ways. I'll focus my comments on the with dead band version,
3 which is figure 10C. And that's shown at the bottom of this slide 51.

4 So the way that this force profile operates and I'll describe it with
5 reference to figure 10C is the user object will have a range of movement.
6 Every object does. It could be 360 degrees, it could be 180 degrees, it could
7 be three dimensional, two dimensional, but in this, in Rosenberg, it's got a
8 range of movement. And the force profile shown in figure 10C shows you
9 the displacement of the object within its range of movement, and that's in the
10 X direction. And the Y direction is the force, the magnitude of a force that's
11 going to be exhibited probably by an actuator.

12 So as you move to the right of the center of the axis, which Rosenberg
13 calls an origin point, you will have force exhibited in a sort of positive value
14 as you're moving clockwise. As you move left in a counterclockwise
15 direction, you will feel like a negative force. That's why it's called a
16 restoring force. Whatever direction you're moving, you're going to get a
17 restoring force sort of urging you back to that central point, that origin point.

18 In our mapping, we have called the range of positions surrounding
19 that origin point, which Rosenberg calls a dead band region or a dead zone.
20 It's labeled as 318 in 10C, and we've highlighted it in blue. That's what we
21 call the primary range of positions. Over on the right-hand side, which sort
22 of lines up with the 316 range in Rosenberg, and Rosenberg calls that a
23 range 316 of positions, that's what we call the secondary range of positions.
24 And in that range, there is a constant or continual force applied.

25 In the dead zone or dead band region, there's a low force or sometimes
26 a zero force right at the center point. And then in our boundary range, which

1 is in that R region in between the two, it's a steep force, so a strong force is
2 applied. It's low at the start, high at the end, and that boundary range of
3 positions in this mapping of ours overlaps with each of the primary and the
4 secondary ranges at the start point of each.

5 So it's just like figure 2 of the '907 patent, and Immersion has never
6 disputed that aspect. So there's no dispute over whether these ranges are
7 primary, boundary, and secondary for Rosenberg. They did raise that dispute
8 for Goldenberg. They did raise that dispute for Levin. They did not raise that
9 dispute for Rosenberg. The only dispute which I've shown on Petitioner's
10 slide 52 for Rosenberg is whether Rosenberg needs defining position and
11 range information. And Immersion's entire argument rises and falls with the
12 claim construction.

13 So for example, on Petitioner's slide 54, we have an excerpt from
14 Patent Owner Response at 56 where Immersion's argument, and this is
15 characterized as Immersion's arguments against Rosenberg for this claim
16 limitation, is because the '907 patent doesn't cover force profiles,
17 Rosenberg's force profiles can't meet this defining position and range
18 information. And that argument is really repeated consistently throughout
19 their arguments against Rosenberg.

20 If the Board rejects Immersion's proposed construction, that argument
21 necessarily fails and Petitioner prevails against all challenge claims because
22 Immersion has never disputed the combinations and has never disputed a
23 single dependent claim. Immersion also argues in their Patent Owner
24 Response that the force profiles themselves can't meet limitation 1A because
25 they're just pictures, essentially calls them your illustrations or graphs.

26 So that is not sufficient to satisfy the defining position and range

1 information requirement of the independent claims. But that's a
2 mischaracterization of both our petition and Rosenberg itself. We never said
3 that the graph itself is what meets the limitation. The force profiles are
4 certainly depicted in the graph and the graph is very helpful in understanding
5 where the positions are and how they relate to the force that's exhibited, but
6 it is not the mere graph that we point to.

7 And as we've shown on Petitioner's slide 56, the Board, again, already
8 considered this very argument at the institution stage and correctly
9 determined that Petitioner is doing exactly what I described, and the Board
10 disagreed with Patent Owner that we're just equating this step with the
11 figures themselves.

12 JUDGE OGDEN: So you're starting to get into your rebuttal time,
13 which is fine. The clock will just count up, but you can continue for as long
14 as you like.

15 MS. DIMARCO: I'll go for maybe just a few more minutes and then
16 I'll try to reserve at least ten for rebuttal. And thank you, Your Honor, for
17 pointing that out to me. Again, just reiterating, Immersion raises no separate
18 disputes against grounds 4 or 5, does not ever dispute the dependent claims.

19 And I'll briefly touch on Goldenberg so that we have a chance and I'll
20 save Levin for rebuttal if needed or if Your Honors have questions.
21 Goldenberg raises two disputes. The first really is already encompassed by
22 what I've covered, so I'll skip it. It's really the application of the claim
23 construction issue to Goldenberg. And it's very similar to what I described in
24 the context of pure claim construction, as well as how it applies to the
25 Rosenberg reference.

26 The other dispute, which we haven't discussed yet is whether

1 Goldenberg discloses the three required ranges. And that dispute is unique to
2 the Goldenberg grounds in the sense of it wasn't in Rosenberg, but it does
3 appear again in the Levin grounds.

4 So Goldenberg is really directed to a knob primarily. It's not limited to
5 that, but the embodiments are described in connection with a knob. Like
6 Rosenberg, Goldenberg exhibits haptic effects based on the position of the
7 knob and explains how those forces are applied in connection with the
8 knob's position using force profiles. We rely primarily on figure 8, the figure
9 8 embodiment, which is a jog shuttle force profile. We show that here on
10 slide 67 of Petitioner's demonstratives.

11 The way that we have mapped Goldenberg is shown on Petitioner's
12 slide 72. And this is similar to how we did the 10A embodiment that I didn't
13 cover for Rosenberg. We have divided the range of movement for
14 Goldenberg's object into a primary range of positions where the object is
15 moving clockwise and it feels a force feedback in one direction, and then a
16 secondary range of positions where the object is moving to the left or
17 counterclockwise and feels a force in the opposite direction.

18 And then the boundary range is in what Goldenberg itself describes as
19 negative P1 to positive P1, where there's a much stiffer spring force applied
20 and that's why you see that second curve with a steeper incline on this slide.
21 And we show those ranges with blue for primary, orange for secondary and
22 red for boundary.

23 Now, Immersion has argued that we wrongly divided the sort of
24 baseline, if you will, the X line area into a primary and secondary range, and
25 that that should be treated as a single range, whether you want to call it
26 primary or whether you want to call it secondary, but it can't be split into

1 two ranges.

2 And the Board, again, already considered and rejected this argument.
3 There is nothing in Goldenberg and there's nothing in the patent in terms of
4 what a primary and secondary range means that would preclude logically
5 dividing positions into groupings like we've done. The primary range is a
6 sensible grouping of positions to a person of ordinary skill in the art because
7 those are all the positions in the X direction that are getting force feedback
8 in a single direction.

9 Likewise, the secondary range of positions is a logical grouping of
10 positions as well, moving in the opposite direction getting feedback, again,
11 in the opposite direction. And then the boundary range is also a logical
12 grouping of positions because that is the only range where this different
13 spring forces exhibited. And we explained all that in our Petition, we
14 supported it with the views of a person of ordinary skill in the art.

15 And the Board at institution agreed that there was nothing inconsistent
16 about treating that negative P1 to positive P1 range as a boundary range,
17 while also separating the remainder of the positions into primary and
18 secondary.

19 The last point I'll make, and then I'll rest for rebuttal is just, I
20 neglected to mention when I was discussing Rosenberg. In our Reply, we
21 did provide an alternate theory for meeting the defining position and range
22 information requirement, even if the Board is inclined to adopt Immersion's
23 proposed construction.

24 Now, we have a slide on it, although I'm -- so Petitioner's slide 58,
25 even if the Board adopts Immersion's proposed construction, Rosenberg
26 actually would still meet it because Rosenberg supports and discloses the

1 switching between, as I mentioned, it describes many different force
2 profiles. And we relied on 10A and 10C, you could switch between 10A and
3 10C. You could also switch between any of the other force profiles disclosed
4 in Rosenberg.

5 And when a user makes a selection to switch, or the system makes a
6 selection to switch based on the user's activity from one profile to another,
7 that would satisfy Immersion's proposed construction. So if the Board is
8 inclined to adopt it, Rosenberg actually would still meet all of the challenged
9 claims, and they would all be rendered unpatentable. So with that, I'll save
10 the remainder of my time for rebuttal, unless Your Honors have additional
11 questions.

12 JUDGE OGDEN: Thank you, Ms. DiMarco. I don't think we have any
13 further questions at this point. You have about eight minutes left for rebuttal
14 time. So let's move to Patent Owner. Ms. Hayden, you said that you would
15 like to reserve 15 minutes of surrebuttal time. Is that still correct?

16 MS. HAYDEN: Yes, that's correct.

17 JUDGE OGDEN: Okay. You can start when you're ready.

18 MS. HAYDEN: Okay. Thank you, Your Honor. Since Ms. DiMarco
19 shared her slides, I'll go ahead and share ours as well. So just one moment
20 for that. Okay. And are you able to see my slides?

21 JUDGE OGDEN: Yes, we can see. Thank you.

22 MS. HAYDEN: Okay. Thank you very much. I'm going to begin my
23 presentation with a brief background of the invention, and then I'll move on
24 to the meeting of the claim term defining position and range information.
25 And as Ms. DiMarco correctly said, this appears in all challenged claims and
26 bears relevance to all grounds. Patent Owner agrees with that that much, at

1 least.

2 I'll then explain how each of the petition's six grounds fail, beginning
3 with Rosenberg, moving to Goldenberg, and then wrapping up with Levin.
4 So I'm on slide 9 of Patent Owner's demonstratives, and I wanted to first turn
5 to the claims so we can take a look at those. There's three independent
6 claims in this patent, and all three are challenged in this proceeding. Claim
7 1, shown on slide 9, is a method claim directed to a method for controlling a
8 user input element and has two steps.

9 In the first step, this method controls a user input element by defining
10 position and range information for that user input element, including
11 primary, secondary, and boundary ranges of positions. Moving to claim 10,
12 the claim specifies that the boundary range must partially overlap with each
13 of the primary and secondary ranges. The parties are in agreement on that as
14 well.

15 And in the second step, moving to slide 11, this method renders a
16 haptic effect in response to entry of a user input element to one or more
17 positions within the boundary range.

18 I'll now turn to the other two independent claims in this patent,
19 starting with independent claim 8. Independent claim 8 is a non-transitory,
20 computer-readable storage medium that stores a program comprising
21 instructions for carrying out the same two steps that we saw in claim 1,
22 defining position and range information and rendering a haptic effect. And
23 independent claim 15 is a device claim that has a memory that also stores a
24 program including instructions for carrying out the same two steps.

25 Although the same two steps, the defining and rendering steps, appear
26 in all of the challenge claims, claim 8 and claim 15 and their dependents are

1 different from claim 1 and its dependents. Claim 8 and 15 expressly require
2 a program including instructions for carrying out both steps, including the
3 defining step. Method claim 1 does not contain this program comprising
4 instructions for limitation. So Patent Owner just used --

5 JUDGE OGDEN: Ms. Hayden, did Patent Owner carve out arguments
6 about the distinctions between claims 1, 8 and 15 in the Patent Owner
7 Response?

8 MS. HAYDEN: Yes, Your Honor. On page 20 of the Patent Owner
9 Response -- I apologize I don't have a slide for that, but it's at the top of the
10 page. I could read the text, but it is very similar to what I have just said.

11 We'd said in the Patent Owner Response, quote, in claim 8, the
12 instruction of the program stored on a non-transitory computer-readable
13 storage medium must permit the user to presently define the position and
14 range information rather than using predetermined information. Similarly,
15 the device of claim 15 must be capable of defining the position and range
16 information in the present rather than merely using only stored
17 predetermined settings.

18 So something in there I do want to address is this presently point. That
19 is not something that's necessary for Your Honors to consider whether the
20 defining needs to happen in the present or not. The point is that the program,
21 the claimed program, a piece of software, has to be what does the defining
22 step in both claims 8 and 15. And unless there's any other questions on that,
23 I'll move on to -- well, I guess I have already been talking about claim
24 construction, but I'll move on to the claim construction issues in more detail
25 for the defining term.

26 So I'm moving to slide 15 of Patent Owner's presentation, which

1 shows what our proposed construction is. And this is something that
2 Petitioner's Counsel discussed a good bit, and in particular, the based on user
3 input aspect of it. But as the claim language shows, and as we address both
4 in the Patent Owner Response as well as our Sur-reply, moving to slide 29.

5 Even if Your Honors reject Patent Owner's proposed construction, the
6 based on user input aspect in particular, the Board must, of course, still give
7 this limitation defining position and range information its plain and ordinary
8 meaning in the context of the intrinsic record, and particularly the claims at
9 issue. So I'd like to focus on what the plain language of the claims requires.

10 Here, the claims make clear themselves that predetermined position
11 and range information that is loaded into memory is excluded from the scope
12 of the challenge claims. And again, as I had already said this, but I do think
13 it bears repeating that this is true whether or not the Board agrees that user
14 input is required for the defining step.

15 And let's take a look at why this is the case. Moving on to slide 30,
16 here we again see Claims 8 and 15, and as we have already discussed just a
17 moment ago, that both of these claims expressly require a program
18 comprising instructions for defining position and range information. That the
19 claimed storage medium and device contain instructions for performing the
20 defining step makes clear that these claims are not directed to position and
21 range information loaded into memory, but rather position and range
22 information that is defined by the claimed program. Is that another way --

23 JUDGE OGDEN: So could it be that Claims 8 and 15 would exclude
24 a situation where you're defining the three ranges solely in hardware, but
25 maybe it would allow you to define the ranges in software or firmware?

26 MS. HAYDEN: I think that's exactly what Claims 8 and 15 require --

1 JUDGE OGDEN: But then does Claim 1 allow it to be defined in
2 hardware by contrast to that?

3 MS. HAYDEN: I would say it does. And looking at slide 31 of our
4 presentation, the specification points to both software that can implement
5 this functionality 400 that is discussed in the briefing. That's what this
6 functionality defines, these claimed ranges, and says that it may be
7 implemented by software or that it could be implemented by any
8 combination of hardware and software.

9 So the Claims 8 and 15, they're expressly limited to a program
10 comprising instructions for and Patent Owner's reading that program as a
11 piece of software. And that's the software embodiment that we see at the
12 beginning of the paragraph that's shown from specification on slide 31. But
13 there's also the option that is not claimed by Claims 8 and 15, but falls
14 within the scope of Claim 1, where the defining of those ranges can be done
15 by hardware, software, or a combination of the two.

16 JUDGE OGDEN: Okay. Thank you.

17 MS. HAYDEN: And we've already touched on this issue briefly when
18 I discussed the presently language from the Patent Owner Response, but I
19 wanted to address this in the context of Your Honors and the Board's
20 institution decision. So I'm on slide 32 of our presentation. On pages 10 and
21 11 of the institution decision, the Board found that there is nothing in the
22 claims explicitly limiting when the recited ranges of positions must be
23 defined. Even if that is correct, it is respectfully beside the point that I'm
24 making here, that there has to be, for Claims 8 and 15, this program that
25 defines the claimed ranges.

26 And as we discussed for claim 1, there needs to be software or

1 hardware to perform that defining step. And again, this is true whether or not
2 the Board adopts the based on user input aspect of Patent Owner's
3 construction or not. And unless Your Honors have any questions on claim
4 construction, I'd like to move to the grounds at this time.

5 JUDGE ZECHER: Ms. Hayden, this is Judge Zecher. I guess I'm
6 somewhat confused here. Are you saying that because the language in
7 claims 8 and 15 have this instructions word, that it somehow precludes any
8 sort of pre-defining, it has to be kind of actively defining. Is that what I hear
9 you saying?

10 MS. HAYDEN: Not exactly. So I think that this when or presently
11 issue is, it really is respectfully beside the point. Because the point is that
12 there needs -- that for the prior art to disclose or render obvious the asserted
13 claims, the petition needs to point to software that performs this limitation,
14 particularly for claims 8 and 15. Or explain why the disclosures of the art
15 would render software that performs this limitation obvious.

16 And that is going to be the thrust of the arguments that I'm going to
17 get into in a little while, unless you have further questions on the prior art
18 that Rosenberg, Goldenberg, and Levin references. Because the petition does
19 not present any of that type of argument about why this program is disclosed
20 in those references or why it's rendered obvious.

21 JUDGE ZECHER: Okay. But you would agree that claims 1, 8, and
22 15, the three independent claims at issue here, don't have any sort of
23 temporal requirement for when this defining occurs?

24 MS. HAYDEN: I would agree with that.

25 JUDGE ZECHER: Okay. Thank you.

26 MS. HAYDEN: Okay. I'm going to move to the Rosenberg reference

1 just in the interest of time. And you may have noticed I'm not discussing the
2 based on user input aspect of our construction. I may discuss that more at the
3 end of my presentation, but just given the limited time, I wanted to make
4 sure we got through the grounds. I think that's been briefed by the pardons a
5 lot. Of course, happy to answer any questions you have, but if not, I'm going
6 to just move on to Rosenberg now.

7 Okay. I'm going to move to slide 42, the Patent Owner's
8 demonstratives. Ms. DiMarco explained what the petitioner was mapping the
9 claim ranges to. So, again, I won't repeat that. But the point I want to make
10 is that the petition points to no disclosure in Rosenberg in which those
11 ranges are defined, either under Patent Owner's construction or under the
12 plain meaning.

13 Rather on reply that's shown on slide 42 at pages 15 and 16, Petitioner
14 admits that Rosenberg's force profiles are, quote, predetermined commands
15 stored in a table. And as such are, quote, thus predefined sets of position and
16 range information. In the wake of this admission, the petition's Rosenberg
17 theories fail both under Patent Owner's construction, as well as the plain
18 language of the claims that we've been discussing more today.

19 Under Patent Owner's construction, predefined sets of position and
20 range information cannot be defined based on user input. Moving to slide
21 43, even if the Board does not adopt Patent Owner's construction, the
22 petition's Rosenberg theories fare no better. Because as we've discussed in
23 the context of the claims, and particularly these claims 8 and 15, the plain
24 meaning of defining excludes predetermined position and range information
25 that's loaded into memory.

26 And I don't want to show these claims too much. I'll just do it one

1 more time. On slide 44, this is because these claims 8 and 15 require a
2 program comprising instructions for defining position and range
3 information. So to succeed on its Rosenberg theories, particularly as to these
4 claims, the Petition must show that Rosenberg discloses or renders obvious a
5 program with these defining capabilities.

6 Moving to slide 45, the Petition's only theory on claims 8 and 15, on
7 page 50 of the petition, maps the claim program to, quote, the set of software
8 instructions executed by Rosenberg's microprocessor to implement its force
9 profiles. What the petitioner is pointing to here are software instructions that
10 cause haptic effects to be output, not software instructions that cause
11 position and range information to be defined.

12 For claims 8 and 15, the Petition does not point to any disclosure of
13 software in Rosenberg that causes position and range information to be
14 defined. And for claim 1, as we discussed earlier, it is a bit broader, allowing
15 software and or hardware to perform this defining step. The Petition also
16 doesn't point to any disclosure of any combination of software or hardware
17 in Rosenberg that causes position and range information to be defined.

18 I did want to briefly address an argument that Petitioner made on
19 reply that Ms. DiMarco made in her presentation today. And moving to slide
20 46, I'm sorry, 47. And this is the argument on page 14 of the Reply that
21 Rosenberg meets this defining limitation because it discloses, quote,
22 switching from utilizing one profile to a different profile based on how the
23 user is interacting with the system. And the Petitioner cites paragraphs 103,
24 121, and 166 in support of that argument.

25 But Rosenberg does not disclose any such profile switching as the
26 Reply suggests. Paragraph 103 describes previously calculated force profiles

1 with previously calculated being a quotation from Rosenberg. Paragraph 166
2 describes the profile with a dead band without any indication that Rosenberg
3 system can switch between the profiles with and without a dead band or
4 really any other profiles for that matter.

5 And the paragraph 121, which Petitioner quotes in its Reply shown on
6 this slide, describes determining what type of force should be output, quote,
7 from Rosenberg based on the object's current position, velocity, and or
8 acceleration. Because the user's manipulations of object 34 may have caused
9 a new type of force to be output -- excuse me, a new type of force to be
10 required.

11 Paragraph 121 is therefore explaining how Rosenberg's system uses
12 user input to know what force to apply, not that it can switch between force
13 profiles based on user input or based on anything else. And moving to slide
14 48 --

15 JUDGE OGDEN: What about the end of that paragraph 121, which
16 says that also other inputs, such as a user activating buttons or other input
17 devices 39 and interface device 14 can change the type of forces required on
18 object 34. Is that suggesting that some sort of user interaction, like pushing a
19 particular button can change the type of force profile that's needed in that
20 circumstance, and therefore you're switching to a different force profile?

21 MS. HAYDEN: That's not what Rosenberg is saying respectfully,
22 Your Honor. Rosenberg in that portion that you quoted is just describing a
23 user interacting with a, for example, a game controller and the type of force
24 that user feels, the type of haptic feedback that the user feels changing in
25 response to the user interaction with it. There's no description of a user
26 somehow changing between the 10A and 10C force profiles or any other

1 force profiles in Goldenberg -- excuse me, in Rosenberg.

2 JUDGE OGDEN: If we were to agree with Petitioner on this point,
3 would you concede that changing from one force profile to a different force
4 profile would be defining position and range information as recited in the
5 claims?

6 MS. HAYDEN: No, Your Honor, Patent Owner wouldn't agree with
7 that premise, because even assuming, as we are for the sake of this
8 argument, that Rosenberg did disclose using user input to select a force
9 profile, the selection would not actually define position and range
10 information as required by the challenge claims. The challenge claims
11 require defining a primary, secondary, and boundary range of positions.
12 Simply switching between predetermined force profiles wouldn't define
13 anything. It would just change from one force profile to another.

14 JUDGE OGDEN: Well, if we assume again that we agree with
15 Petitioner that there is a definition of the three ranges that happens when you
16 define a force profile at some point, would you agree that if there is a switch
17 between two different force profiles in Rosenberg that that occurs in
18 software?

19 MS. HAYDEN: There's no disclosure one way or the other of how the
20 predetermined force profiles are defined in Rosenberg, and that's the
21 problem with the Petition's theories in general, as well as this new argument
22 that we're discussing now that they made on reply.

23 There needs to be, particularly for these claims in 18 we've been
24 discussing, there needs to be a program disclosed in Rosenberg or rendered
25 obvious by Rosenberg that defines these three claimed ranges. And there is
26 nothing in the Petition or in Petitioner's Reply argument that points to any

1 type of software that would perform that step.

2 JUDGE OGDEN: If the three ranges have been predefined at some
3 point, and software just merely switches from one to another, wouldn't that
4 be effectively a definition of the three ranges based on software by the fact
5 of that you're selecting a set of ranges that come with a particular force
6 profile.

7 MS. HAYDEN: Your Honor, no, Patent Owner would not agree with
8 that. So thinking of the claim language, the program comprising instructions
9 for defining, what you're describing would be more of a program comprising
10 instructions for changing between already defined force profiles. So the
11 definition of the claimed ranges, the primary, secondary, and, it's not
12 tertiary, boundary range, would have already happened, not within the
13 Rosenberg reference, within the system disclosed there, but using some
14 other mechanism that isn't pointed to in the Petition.

15 JUDGE OGDEN: So you're saying that it's not good enough merely to
16 select a set of three predefined ranges in software. You're saying that
17 software itself has to initially select the three ranges?

18 MS. HAYDEN: That's right, Your Honor. Looking at the claim
19 language, it isn't just selecting a force profile, it's defining three ranges of
20 positions, the primary, secondary, and boundary ranges. And the definition
21 has to be defining where those ranges -- well, let's look at the claim
22 language, but the definition has to be defining the positions that are within
23 each range. Just switching between profiles where that definition has already
24 occurred does not carry out that defining step that's in all of the challenge
25 claims.

26 JUDGE OGDEN: Okay. Thank you.

1 MS. HAYDEN: And unless Your Honors have any additional
2 questions on Rosenberg, I was going to move to Goldenberg at this time.
3 Okay. I'm going to move to slide 54. And this slide shows what the petition's
4 mapping is. I'll go over it briefly since it wasn't covered that much in
5 Petitioner's presentation.

6 So the Petition maps the primary range to the portion of that first
7 spring effect to the right of the origin, and the secondary range to the portion
8 of the first spring left of the origin, and the boundary range to the entire
9 range of the second spring, both left and right of the origin. And we've
10 addressed in our papers why Patent Owner does not believe that splitting this
11 first spring effect into two different ranges is appropriate.

12 But even setting aside that argument here, as with Rosenberg, the
13 Petition points to no disclosure in Goldenberg in which the ranges that are
14 shown on slide 54 are defined either under Patent Owner's construction or
15 under the plain meaning. Rather, on reply at page 18, Petitioner admits that
16 Goldenberg's force profiles are, quote, predetermined ranges. And as with
17 Rosenberg, in the wake of this admission, the Petition's Goldenberg theories
18 fail under Patent Owner's construction.

19 Moving on to slide 55 just to show that, and this also shows the quote
20 from the Reply at page 18. Under Patent Owner's construction,
21 predetermined ranges cannot be defined based on user input. But moving to
22 slide 56, but even if the Board does not adopt Patent Owner's construction,
23 the petition's Goldenberg theories fare no better under the plain meaning of
24 the defining phrase.

25 As we discussed both in the context of claim construction and in the
26 context of Rosenberg, the plain meaning of this phrase excludes

1 predetermined position and range information loaded into memory. And this
2 is because, as we discussed, both claims 15 and 8, expressly require that
3 program comprising instructions for defining. So just as with Rosenberg, to
4 succeed on its Goldenberg theories, the Petition must show that Goldenberg
5 discloses or renders obvious a program with these defining capabilities.

6 And moving to slide 58, the Petition's only theory on claims 8 and 15
7 shown on this slide, and this is from pages 25 to 26 of the Petition. And it --
8 sorry about that. Back to slide 58. In this portion of the Petition, the
9 Petitioner points to force profiles stored in memory that are implemented by
10 Goldenberg's processor. This is very analogous to the portion of Rosenberg
11 that the Petition points to.

12 And here, for Goldenberg, the Petition alleges that the microprocessor
13 processors set sensor signals to determine appropriate output actuator signals
14 based on the stored force profiles. So as with its Rosenberg theories, what
15 Petitioner is pointing to is, again, software instructions that cause haptic
16 effects to the output, not software instructions that cause position and range
17 information to be defined.

18 For claims 8 and 15, Petitioner does not point to any disclosure of
19 software, as it must in Goldenberg, that cause position and range information
20 to be defined. And for claim 1, Petitioner does not point to any disclosure of
21 any combination of software and hardware. So for this reason alone, the
22 petition's Goldenberg theories fail. And moving to slide 60.

23 JUDGE OGDEN: Counsel, I think I understand your position about
24 that. When we're talking about force profiles, we're talking about something
25 that's output rather than an input. But I'm wondering if, even though you
26 have a force profile that determines, you know, what particular forces

1 happen at a particular position, you're still -- there's still some position
2 information in there, right?

3 So, for example, if whatever the force profile is, if it somehow defines
4 that at a particular distance from the origin, there will be a certain force at a
5 certain level, you're still defining something that happens within a range of
6 input positions, aren't you?

7 MS. HAYDEN: Your Honor, if I understand your question -- I'll
8 respond to it. But if I'm off base, please just let me know. So I think that
9 there's two different things going on here. Looking back to the claims, there
10 are two steps. There's the defining position and range information, and then
11 the rendering haptic effect. I believe what Your Honor is referring to is more
12 using the defined position and range information to render a haptic effect.
13 And that's the same thing that the Petition is pointing to on this slide 58,
14 pages 25 to 26 of the Petition. Does that answer Your Honor's question?

15 JUDGE OGDEN: Well, the defining position and range information
16 step doesn't necessarily say anything about what you do with those positions.
17 It just says that you're defining them. And later on, of course, you render a
18 particular haptic effect if you're entering the boundary range of positions.

19 But my question is, if you have a force profile, isn't there inherently in
20 that profile some sort of a definition of ranges of positions, even though the
21 ultimate goal of the force profile is to output a haptic effect, isn't there still
22 inherent in a force profile particular ranges of a user input element that
23 would cause a particular effect? So it seems like there's some ranges of
24 positions that are distinguished in some way. And isn't that enough for that
25 limitation 1A?

26 MS. HAYDEN: So I'll break that into two parts, whether there would

1 be the defined range information in a pre-stored force profile, and then
2 whether that's enough for 1A. So there would be defined information about
3 those ranges in a predefined force profile. There would need to be in order
4 for there to be -- for Goldenberg, for example, for the jog shuttle model that
5 Petitioner relies on, there would need to be that information stored in
6 memory so that the appropriate haptic effects could be rendered in response
7 to the user input.

8 But looking back at claims 8 and 15 and moving on to the second part
9 of that issue, no, that is not enough for claim element 1A, particularly for
10 claims 8 and 15, which expressly require, and therefore the prior art needs to
11 disclose, a program comprising instructions for defining position and range
12 information.

13 So Petitioner bears the burden to prove what the prior art shows. So
14 the Petition needs to show and point to a program comprising instructions
15 for defining position and range information, not just a program comprising
16 instructions for rendering haptic effects.

17 But looking again back at slide 58, all that the Petitioner points to are,
18 at most, a program comprising instructions for rendering haptic effects, not
19 for defining in the first instance this position and range information. So what
20 the Petitioner is pointing to on pages 25 to 26 of the Petition for Goldenberg
21 and the analogous disclosures we talked about for Rosenberg and what I can
22 get to for Levin, no, those parts of the Petition fail to meet Petitioner's
23 burden to prove claim element 1A.

24 JUDGE ZECHER: Ms. Hayden, this is Judge Zecher. I guess what I'm
25 struggling with here is this whole distinction that you're drawing with the
26 program language in claims 8 and 15 and how it somehow requires or

1 justifies a construction that's slightly different than claim 1. You mentioned
2 page 20 of the Patent Owner Response is where you made this argument, is
3 that correct?

4 MS. HAYDEN: Yes, that is one place where this argument is
5 reflected in the Patent Owner Response and -- excuse me sorry.

6 JUDGE ZECHER: Yeah, so I was trying to read through that area of
7 the Patent Owner Response just to get some context and I was actually
8 reading above on page 19 and it seems like you said the exact opposite there.
9 Middle sentence starts with since, about four lines down, it says since each
10 of the independent claims 1, 8, and 15 recite substantially identical defining
11 limitations with only one insignificant difference, they should be interpreted
12 in the same way. So I just I'm struggling to understand how this program for
13 instruction justifies a different interpretation.

14 MS. HAYDEN: A different interpretation for claims 8 and 15 as
15 opposed to claim 1?

16 JUDGE ZECHER: Yes.

17 MS. HAYDEN: Okay. Thank you for that clarification. So I'm also
18 looking at page 19 of the Patent Owner Response and I see the portion
19 you're pointing to. I read this portion of the Patent Owner Response as not
20 talking about the preambles of the claims, but talking about the claim
21 element 1A, if you will, the part that begins defining position and range
22 information.

23 And perhaps this could have been a little bit more articulate,
24 particularly given the content that's on page 20. But the content on page 20
25 that I read earlier that I think Your Honor has in front of him, this makes
26 clear that Patent Owner's position is that this program comprising

1 instructions for language is an important claim limitation of claims 8 and 15,
2 and that the program that's referred to there is a limitation on these claims.
3 And as such, it needs to be shown by the Petition that this claim limitation is
4 met.

5 And that's the argument that I've been talking about now is that our
6 position is that the Petition simply just does not show any program
7 comprising instructions for defining position and range information.

8 JUDGE ZECHER: Yeah, but that has layers of complexity because
9 you're basically saying it needs to actively do it and you can't rely on
10 predetermined profiles, right?

11 MS. HAYDEN: Not precisely.

12 JUDGE ZECHER: I guess I'm a little bit more confused then, so
13 please elaborate.

14 MS. HAYDEN: Sure. So there doesn't need to be an active definition.
15 What these claims 8 and 15, and if it's helpful, I'm on slide 57, is that claim
16 8 is a non-transitory computer readable storage medium type claim and
17 claim 15 is a device claim. And I think maybe something that is a little bit
18 confusing, and it's partially my fault, is that I've been referring to this as the
19 defining step. But these storage medium and device claims, they don't really
20 have steps.

21 They have a program that comprises instructions that is capable of
22 carrying out steps. There doesn't need to be any steps performed for these
23 claims to be infringed. And I know we're not talking about infringement
24 here, but for these claims to be infringed or met by the prior art, there doesn't
25 need to be some active defining. And that is another distinction between
26 claims 8 and 15 as opposed to claim 1.

1 So here, what the Petition needed to demonstrate is a computer
2 readable storage medium that stores a program comprising instructions for
3 defining for claim 8, and for claim 15, a device that on a memory stores a
4 program that has instructions for defining. There doesn't need to be an active
5 definition. It's just that that storage medium and the device need to be
6 capable of carrying out the definition. There needs to be software on that
7 storage medium or device that's capable of doing so. And that is what the
8 Petition hasn't shown.

9 JUDGE ZECHER: Okay. So you're basically saying that Goldenberg
10 doesn't have a computer readable medium with a program capable of doing
11 this or memory capable of doing this? Is that what your argument is then?

12 MS. HAYDEN: Yes, exactly. That's right.

13 JUDGE ZECHER: Okay. Thank you.

14 MS. HAYDEN: And unless Your Honors have anything further on
15 Goldenberg, I was going to move to Levin. Actually, before I move to
16 Levin, I did want to cover one other issue on Goldenberg. It's similar to the
17 Rosenberg issue we were discussing, a new reply argument. So I'll briefly
18 cover this. So for the first time on reply, this is page 19 of the Reply. I'm on
19 slide 60 of Patent Owner's demonstratives.

20 Petitioner argues that Goldenberg meets the defining limitation
21 because Goldenberg discloses allowing a user to change from one force
22 profile to another. Very similar argument to what they made with
23 Rosenberg. And in support of this, they cite paragraphs 12, 108, and 115 to
24 117. But Goldenberg doesn't disclose any such profile switching.

25 Paragraph 12 simply discloses providing force feedback as a user
26 scrolls through menu items. And paragraphs 118 and 115 to 117 describe

1 two different embodiments, a detent-based embodiment and the jog-shuttle
2 model on which the petition relies. And I anticipate that you may have the
3 same question that you had earlier on about Rosenberg. So what if we
4 assume Goldenberg does disclose allowing a user to switch between force
5 profiles? Would this switching meet the claim element 1A? And again, no.

6 The claim definition has to define the position and range information,
7 not just define which force profile is going to be used. So there needs to be
8 this software or hardware that allows the definition of this position
9 information to happen. And simply switching between predetermined
10 profiles doesn't define any positions or ranges. So now with that, I will move
11 on to Levin unless there's any other questions on Goldenberg.

12 JUDGE OGDEN: Can we just touch on the issue of whether or not
13 Petitioner's alternative argument based on Patent Owner's proposed claim
14 construction is an improper new reply argument? Weren't they just
15 responding to Patent Owner's proposed construction? And why wouldn't that
16 be proper -- a fair response to the Patent Owner Response?

17 MS. HAYDEN: Yeah, that's a good question. And I agree with you
18 that it's a proper use of a reply to reply to Patent Owner's construction. It's
19 not an improper reply argument. It is still new on reply, but it's just not an
20 improper new reply argument.

21 JUDGE OGDEN: Okay. I understand, thank you.

22 MS. HAYDEN: Okay. Now turning to Levin. That's the last reference
23 I'll be talking about today. I'm moving to slide 72 of Patent Owner's
24 presentation. And this is showing figure 6b of Levin and the Petition's
25 mapping, mapping the primary range of positions to Levin's first detent 128,
26 the secondary range to a second detent 130, and the boundary range to this

1 overlap zone between positions P3 and P2. Overlap zone meaning the
2 overlap of the two detents.

3 Moving to slide 73. I'm starting probably to sound like a broken
4 record at this point, but just as with Rosenberg and Goldenberg, the Petition
5 does not point to any disclosure in Levin in which those ranges we just
6 discussed are defined, either under Patent Owner's construction or under the
7 plain meaning. Rather, the Petition admits at page 69, shown on the slide,
8 that Goldenberg's force profiles are, quote, predefined force effects stored in
9 a memory.

10 And with this admission, the petition's Levin theories have to fail,
11 both under Patent Owner's construction, as well as the plain meaning of the
12 term in view of the program comprising instructions for language.
13 Predetermined force effects and their corresponding ranges cannot be
14 defined within the meaning of the claims based on user input under Patent
15 Owner's construction.

16 And moving to slide 74, even if Your Honors do not adopt Patent
17 Owner's construction, the petition's Levin theories still fail under the plain
18 meaning of that phrase. And as we've discussed a lot today, the plain
19 meaning excludes this predetermined position and range information that's
20 been loaded into memory.

21 And moving to slide 76, I wanted to take a look at what the petition
22 points to in Levin for claims 8 and 15. So to succeed on its Levin theories,
23 particularly for claims 8 and 15, the Petition needs to show that Levin
24 discloses or renders obvious a computer program that's capable of defining
25 the position and range information for the user input element.

26 And the petition's only theory for claims 8 and 15 on this point, and

1 this is from pages 80 to 81 of the Petition, it maps the claimed program to,
2 quote, the set of software instructions executed by Levin's microprocessor to
3 implement Levin's detent force profiles. And as we discussed a moment ago
4 on page 69, the Petition admits that Levin's detent force profiles are
5 predefined force effects stored in memory.

6 So as with the Rosenberg and Goldenberg theories, what Petitioner is
7 pointing to for Levin are software instructions that cause haptic effects to be
8 output rather than software instructions that cause position and range
9 information to be defined. For claims 8 and 15, Petitioner does not point to
10 any disclosure of software for carrying out this step. And for claim 1, they
11 don't point to any software for defining position and range information or
12 hardware to do that for that matter either. So just as with the Rosenberg and
13 Goldenberg grounds, the Petition's Levin theories therefore fail.

14 And unless Your Honors have any questions on the Levin ground, I
15 was going to take a step back and look at the claim construction issue,
16 specifically discussing Patent Owner's proposed construction.

17 Okay. I'm going to go back to slide 15 of our presentation. So the
18 construction we've proposed, and this is a construction that was proposed in
19 the Patent Owner Response in response to the institution decision, was a step
20 taken by or a feature allowing a user or device to change the settings of a
21 controller to adjust the claimed ranges based on user input. And this is a
22 construction that's supported by the intrinsic record.

23 And I know I focused on a different aspect of the meaning of this term
24 today, kind of what the claim language, particularly the language of claims 8
25 and 15 require. And I have not focused very much on the based on user input
26 aspect. This isn't something the Board needs to reach to find for the Patent

1 Owner. But this construction, as we've addressed in our briefing, is
2 supported by the intrinsic record as well.

3 And I wanted to just look at a couple of things briefly, beginning with
4 claim 1. So I'm moving to slide 16 of our presentation now. And as shown in
5 claim 1, the claim language makes clear that this claim is directed to a
6 method for controlling a user input element. And this method includes the
7 step we've been talking about a lot today, defining position and range
8 information.

9 So this portion of the claim that's highlighted in yellow, a method for
10 controlling a user input element, this makes clear that the defining step must
11 be performed as part of a method for controlling user input element.
12 Therefore, there must be control by a user that in turn causes, as Patent
13 Owner's construction sets forth, the settings of a controller to adjust the
14 planning ranges.

15 Moving to slide 17, we're looking at some language we've looked at a
16 lot today, so I won't harp on that too much. But I just wanted to make a point
17 about something that was in Your Honors institution decision, where you
18 held that nothing in these claims requires that a user directly interacts with
19 the claimed program. But that's not what Petitioner's -- excuse me, that's not
20 what Patent Owner's construction requires.

21 Patent Owner's construction does not require direct interaction with
22 the claimed program. Rather, the user has to take action to adjust the claimed
23 ranges, which action in turn provides inputs to the claim program so that the
24 ranges are defined. And as we saw, claim 1 makes clear that this defining
25 step is part of a method of controlling the user input element such that a user
26 must take a controlling action that in turn causes the claim definition.

1 And I just briefly wanted to address this portion of claim 1 in the
2 context of claims 8 and 15. It is the case that claims 8 and 15 do not
3 explicitly contain the same controlling language. But it's a candidate of
4 claim construction that disclosure of the claim 1 disclosure is going to be
5 relevant to how claims 8 and 15 are understood, since claims should be
6 interpreted consistently throughout the patent as long as the claim language
7 does not provide a reason not to. And I think I have --

8 JUDGE OGDEN: Counsel, I can sort of see it both ways because
9 there's also the doctrine of claim differentiation, which is that if one claim
10 has language that other claims don't, that we should give meaning to that
11 extra language.

12 MS. HAYDEN: Yes, and I think that doctrine of claim differentiation
13 that Your Honor mentioned, that's a doctrine that's really at play when
14 looking at this program comprising instruction score languages in claims 8
15 and 15, that's not in claim 1.

16 And I imagine that everyone here may be wondering, well, is it
17 possible that claims 8 and 15 could be valid and claim 1 would be invalid?
18 It's possible because they have different claim scope, and perhaps the same
19 could be true with this language from claim 1, that it only applies to claim 1.

20 But as we've addressed in our briefing, the method for controlling a
21 user input element, there's other portions of the intrinsic record that support
22 having the based on user input aspect apply to all claims. And I think with
23 that, I will stop there and reserve the remainder of my time for rebuttal,
24 unless Your Honors have any questions. Okay. Thank you.

25 JUDGE OGDEN: Okay. Thank you, Ms. Hayden.

26 MS. HAYDEN: Let me figure out how to stop sharing, apologies.

1 JUDGE OGDEN: Okay. You have about 13 and a half minutes left
2 for surrebuttal time.

3 MS. HAYDEN: Thank you, Your Honor.

4 JUDGE OGDEN: Let's go back to Petitioner. Ms. DiMarco, you have
5 about eight minutes of rebuttal time. You can start when you're ready.

6 MS. DIMARCO: Thank you, Your Honor. So just to pick up where
7 Immersion's counsel left off on the controlling a user input element, the
8 language that's present only in claim 1, but not claims 8 and 15. I think to
9 this extent, Immersion has argued that that language requires interpreting
10 claim 1 as excluding predetermined force profiles or any user input.

11 That argument is immediately dispelled by figure 4, which the patent
12 itself describes as a flow diagram of functionality for controlling a user input
13 element associated with a haptic output device, according to an example
14 embodiment of the present invention. And as I covered in detail in my
15 opening argument, figure 4 plainly predefines the ranges. Those are steps
16 that occur before there's any input from the user input element. So the
17 controlling a user input element language does not support Immersion's
18 proposed construction.

19 Separately, at the beginning of today's argument, Your Honor asked
20 that we reserve any objections until after opposing counsel concluded. I do
21 have a few objections to the arguments that Immersion's counsel made, and
22 it's really twofold. So first is the argument she made trying to distinguish
23 between claims 1, 8, and 15, arguing that 8 and 15 should be or could be
24 interpreted differently. We've already seen from page 19 that the Patent
25 Owner Response actually said explicitly the opposite. It said they should be
26 interpreted the same way.

1 Likewise, on page 9 of the Patent Owner Response, Immersion
2 argued, and I'll share my screen if it's helpful, if I'm able. Referring to claim
3 8 and claim 15, Immersion argued that claim 8 is substantially the same as
4 claim 1, claim 15 includes substantially the same limitations. And although
5 noting the language following the preamble and passing, never once argued
6 that it would justify a different interpretation of claims 8 and 15. And then
7 said, since independent claims 8 and 15 contain substantially the same
8 limitations, all discussion below applies equally to claims 1, 8, and 15.

9 Now, the entire discussion in the Patent Owner Response about claim
10 construction is the same for all three claims. There is not a single argument
11 arguing for a different interpretation.

12 Then separately, and it's related, the Patent Owner Response, the
13 entirety of the ground-specific arguments are on claim 1. And you can see
14 this even just from glancing at the table of contents. There are no arguments
15 that the petition failed to show that that preamble language about a computer
16 readable storage medium or program comprising or any other aspects of
17 claims 8 and 15 were not satisfied by the petition.

18 And in fact, our petition for every ground covered those requirements
19 in detail, explaining how the force profiles, which are loaded into firmware
20 and comprise a set of instructions, are met. Patent Owner Immersion never
21 disputed that. That was not raised in the Patent Owner Response, and any
22 arguments against those claims on the merits have been waived. So I would
23 like to formally make those two objections and ask that the Board find them
24 waived as outside the scope of the Patent Owner Response. Now --

25 JUDGE OGDEN: Okay. Thank you. I'll let counsel for Patent Owner
26 address that in surrebuttal time and then we'll take that issue of the

1 objections under advisement.

2 MS. DIMARCO: Thank you. Now, on the merits of counsel's
3 arguments on claims 8 and 15, where she really focused on the computer
4 readable storage medium, the instructions comprising, we did, in fact,
5 absolutely satisfy those requirements in the petition. And I don't have any
6 specific slides at hand because it wasn't raised in the Patent Owner
7 Response. But just on the merits briefly, to implement a force profile in the
8 devices that are described in Goldenberg, Rosenberg, and Levin, you have to
9 load it into memory. And all of the references describe that.

10 We cite those disclosures in our petition. And it is unchallenged in the
11 Patent Owner Response, and it is unchallenged even in the Sur-reply on the
12 merits. We say, for example, in our petition on page 26, the program is the
13 set of software instructions executed by Goldenberg's microprocessor to
14 implement its force profiles. We have similar arguments for Rosenberg. We
15 have similar arguments for Levin. And those are unchallenged.

16 There is no point at which in the petition we're limiting it to the
17 instructions that output the haptic effect, which is what Immersion's counsel
18 is suggesting or arguing. We're talking about the entire force profile, which
19 does define the position and range information associated with specific force
20 magnitudes. So, as we explain in detail in the petition, claims 8 and 15,
21 including those additional requirements for computer-readable storage
22 medium and processor instructions, those are satisfied.

23 I will also just make an objection, which I think I already stated, but
24 that Immersion's shifts to the plain meaning of the claims is not in the Patent
25 Owner Response. They're essentially trying to change their proposed
26 construction because their proposed construction failed. And they make that

1 change after seeing our Reply, which says why their proposed construction
2 can't work. Immersion should not be allowed to just offer multiple different
3 claim constructions to try to avoid the prior art.

4 And with that, Your Honors, I guess just confirming one last point
5 Your Honor raised, and I think Immersion's counsel conceded, are
6 arguments with the alternative theories for Rosenberg and Goldenberg
7 satisfying the defining limitation. Yes, we raised them for the first time in
8 the Reply. But as counsel conceded, it was proper under 37 CFR 42.23
9 because it does respond to arguments that Immersion itself raised and
10 specifically Immersion's proposed construction. And with that, I don't have
11 anything further for rebuttal.

12 JUDGE OGDEN: Okay. Thank you, Ms. DiMarco. I don't think we
13 have any further questions. Let's go back to counsel for Patent Owner. Ms.
14 Hayden, you have about 13 and a half minutes of rebuttal time. You can start
15 when you're ready.

16 MS. HAYDEN: Okay. Thank you, Your Honor. I'll first address the
17 waiver or forfeiture argument that Ms. DiMarco raised. I can't remember if it
18 was waiver or forfeiture, but whichever one that was, I'd like to talk about
19 that and talk about that in the context of page 9 of the Patent Owner
20 Response, as well as our arguments more generally.

21 So page 9 of the Patent Owner Response, the portion that Ms.
22 DiMarco pointed to indicates that claim 8 is substantially the same as claim
23 1, except it has a different preamble. And that's the point that we've been
24 making today. There's a different preamble for claim 8, and there is a
25 different preamble for claim 15. But it is correct to say that it is substantially
26 the same because it has the same two defining and rendering steps.

1 And the statement that's on the bottom of page 9, since the dependent
2 claims 8 and 15 contain substantially the same limitations, all discussion
3 below applies equally to claims 1, 8, and 15, unless otherwise stated.

4 So I think it would be evident from our presentation today, but also
5 from the briefing, that it's Patent Owner's position that user input is required
6 for all of the claims. There may be different reasons for different claims, but
7 it's the same for all of the claims. And the same with the fact that Petitioner
8 needed to point to either software or a combination of hardware and
9 software to show that that software or hardware performs this defining step.
10 And I wanted to move on and talk about something else that --

11 JUDGE ZECHER: Ms. Hayden, this is Judge Zecher. What about Ms.
12 DiMarco's point that in all the prior art that they apply against the claims
13 here, that they're always pointing to these force profiles being loaded into
14 memory and executed by the processor. Is that not sufficient?

15 MS. HAYDEN: It's not, Your Honor. And that was the next point I
16 was going to move to. I'll actually share my screen again. I just wanted to
17 look at three slides in particular in my presentation. Okay. And are you able
18 to see my slides?

19 JUDGE ZECHER: Yes.

20 JUDGE OGDEN: Yes.

21 MS. HAYDEN: Thank you for confirming. I'm moving to slide 45. So
22 I think Your Honor had asked something along the lines of, you know,
23 Valve is pointing to a program that carries out -- excuse me, maybe I
24 shouldn't put words in your mouth. But what the Petition is pointing to is a
25 program that is a set of software instructions executed by Rosenberg's
26 microprocessor to implement its force profiles.

1 So that program that they're pointing to, it's a set of software
2 instructions, but it's not a set of software instructions that defines any of the
3 position and range information. Because as the Petitioner readily admits, this
4 position and range information is just simply loaded into memory. There are
5 no instructions, software instructions, in Rosenberg, and the same is true for
6 the other references, that define those ranges.

7 And I have slides on the other two references, but if Your Honors
8 have any questions on Rosenberg, I can answer those now.

9 Okay. I'll go ahead and move to the analogous disclosure from
10 Goldenberg that the petition points to. So this is, again, Petition page 25 to
11 26. And the petition points to instructions of a force process that may be
12 stored in local memory, quoting paragraph 66. And they also quote
13 paragraph 73 of Goldenberg, force profiles can be stored in a memory on a
14 device. And that's what the Petition is pointing to when specifically
15 discussing the program comprising instructions for limitation of claim 8.

16 And this is not sufficient because there is no program comprising
17 instructions for defining the claimed ranges discussed anywhere in this
18 excerpt from the petition, or for that matter, anywhere in Goldenberg. And
19 the same is true for Levin.

20 Moving to slide 73. As we discussed earlier, the petition freely admits
21 that Levin's force profiles on which it relies are predefined and are stored in
22 memory. And when discussing the program comprising instructions for
23 limitation of both claims 8 and 15, points to not a program for defining
24 anything, but quote, a program that is the set of software instructions
25 executed by Levin's microprocessor to implement Levin's detent force
26 profiles, with those force profiles being stored in memory.

1 So this program that the petitioner is pointing to is simply a piece of
2 software that causes haptic effects to be rendered in accordance with the
3 force profile, nothing more. And unless Your Honors have any questions,
4 that's all I had for my surrebuttal.

5 JUDGE OGDEN: Okay. Doesn't look like we have any further
6 questions. Thanks, Ms. Hayden. Thanks, both parties for appearing today
7 and answering our questions, I think it's been very helpful. We'll take the
8 case under advisement and issue our decision in due course. We are
9 adjourned.

10 (Whereupon, the above-entitled matter went off the record at 2:58
11 p.m.)

PETITIONER:

Richard F. Giunta
Nathan R. Speed
WOLF, GREENFIELD & SACKS, P.C.
rgiunta-ptab@wolfgreenfield.com
nathan.speed@wolfgreenfield.com

PATENT OWNER:

David D. Schumann
Palani P. Rathinasamy
Moses Xie
Timothy Dewberry
Ryan Meyer
FOLIO LAW GROUP PLLC
david.schumann@foliolaw.com
palani@foliolaw.com
moses.xie@foliolaw.com
timothy.dewberry@foliolaw.com
ryan.meyer@foliolaw.com