

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2
3 BEFORE THE PATENT TRIAL AND APPEAL BOARD

4
5 APPLE INC. and GOOGLE LLC
6 Petitioners

7 v.

8 SPACETIME3D, INC.
9 Patent Owner

10 Case IPR2023-00343
11 Patent 9,304,654 B2

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14 ZOOM DEPOSITION OF DR. HENRY FUCHS
15 (Reported Remotely via Web videoconference)
16 Chapel Hill, North Carolina (Deponent's location)
17 Wednesday, February 21, 2024
18 Volume 1
19
20

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PAGES 1 - 78

Page 1

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15 DEPOSITION OF DR. HENRY FUCHS, taken on
16 behalf of the Patent Owner, with the deponent
17 located in Chapel Hill, North Carolina, commencing
18 at 1:06 p.m., Wednesday, February 21, 2024,
19 remotely reported via Web videoconference before
20 REBECCA L. ROMANO, a Certified Shorthand Reporter,
21 Certified Court Reporter, Registered Professional
22 Reporter.

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Page 2

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I N D E X

DEPONENT	EXAMINATION
DR. HENRY FUCHS	PAGE
VOLUME 1	

BY MR. CORDREY	7
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PREMARKED EXHIBITS	
NUMBER	PAGE

	DESCRIPTION
Apple 1001	US 9,696,868 B2;
Apple 1001	US 9,304,654 B2;
Apple 1006	US 2005/0088447 A1;
Apple 1007	US 2005/0091596 A1;
Apple 1029	Merriam-Webster's Collegiate Dictionary Tenth Edition, IPR2023-00344;
Apple 1030	US 10,936,270 B2;

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PREMARKED EXHIBITS(cont'd)

NUMBER	DESCRIPTION	PAGE
Apple 1033	Supplemental Declaration of Dr. Henry Fuchs, IPR2023-00343;	
Apple 1033	Supplemental Declaration of Dr. Henry Fuchs, IPR2023-00344;	

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Chapel Hill, North Carolina;
February 21, 2024
1:06 p.m.
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THE COURT REPORTER: At this time, I will ask counsel to agree on the record that there is no objection to this deposition officer administering a binding oath to the deponent via remote videoconference, starting with the noticing attorney, please.

MR. CORDREY: No objection from the noticing attorney, patent owner SpaceTime3D.

MR. KHAN: No objection from Petitioner.

THE COURT REPORTER: If you could raise your right hand for me, please.

THE DEPONENT: (Complies.)

THE COURT REPORTER: You do solemnly state, under penalty of perjury, that the testimony you are about to give in this deposition shall be the truth, the whole truth and nothing but the truth?

THE DEPONENT: I do.

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1 DR. HENRY FUCHS,
2 having been administered an oath, was examined and
3 testified as follows:

4 EXAMINATION

5 BY MR. CORDREY:

6 Q. Good morning, Dr. Fuchs. Or I guess it's
7 closer to lunch time around where you are at.

8 A. Good morning.

9 Q. Let me just give you -- cover a few
10 preliminary instructions. You know, I understand
11 you've had your deposition taken several times,
12 including a couple times in this case. But just so
13 we're on the same page, I'll cover them briefly.

14 First off, are you taking any medication
15 that would affect your ability to testify fully and
16 completely today?

17 A. No.

18 Q. As you are likely familiar, we have a
19 court reporter here today that's taking down
20 everything we say, both my questions, your answers
21 and your counsel's objections.

22 As such, I will need a verbal response to
23 my questions.

24 Do you understand that?

25 A. Yes, I do.

1 Q. Thank you.

2 As we did last time, if you need a break
3 any time during the deposition today, I'm happy to
4 go off the record and take a five- or ten-minute
5 break as needed.

6 The only thing I will ask is that if
7 we're in a middle of a question that you allow me
8 to finish my question before we take that break; is
9 that all right?

10 A. Yes, that is fine.

11 Q. Okay. One last thing too, you understand
12 that during the breaks, under the rules, you are
13 not permitted to speak with your counsel about the
14 substance of your testimony while you're being
15 cross-examined.

16 Do you understand that?

17 A. I do.

18 Q. Are you ready to proceed with your
19 deposition?

20 A. I am.

21 Q. Let's just start out with, what did you
22 do to prepare for this deposition?

23 A. I reviewed some of the documents, and I
24 conferred with counsel.

25 Q. What documents did you review?

1 A. Among the documents that I reviewed was
2 my supplementary declaration, and I read parts of
3 some other documents of the -- that I referred to
4 in my supplementary declaration. And I probably
5 looked up a few things online.

6 Q. Starting with the documents that you
7 referred to in your supplementary declaration, do
8 you recall which documents you looked at?

9 A. Some of the documents I recall looking at
10 are parts of my original declaration, and I looked
11 at parts of the patent owner's response, and I
12 think I looked at parts of Dr. Schaefer's
13 deposition.

14 And there were some others. I may not
15 recall all of them.

16 Q. In terms of the materials that you looked
17 up online, what were those materials?

18 A. Sitting right here today, I don't
19 remember everything that I looked up online. But I
20 think they include looking up certain terms in the
21 state of the art, maybe certain of the references.

22 I don't remember all of them right now.

23 Q. Just so I understand your testimony, you
24 looked up certain of the references that are at
25 issue in this IPR?

1 A. I may have looked up online a version if
2 I couldn't find it in my local computer. I don't
3 remember now, because, you know, it's been a couple
4 of weeks, I think.

5 Q. Was there anything else that you recall
6 looking up online?

7 A. I remember looking up certain terms. I
8 don't remember exactly how many, but I do that
9 frequently.

10 I think one was "obviousness." I looked
11 up the word "obvious" as a dictionary definition.

12 Q. Why did you lookup "obvious"?

13 A. Because I thought it was relevant to
14 something in my supplementary declaration.

15 Q. What was that?

16 A. As I recall, I was looking at one of the
17 claims, and I was chuckling to myself how obvious
18 this was. And so I thought I would look up the
19 dictionary definition of "obvious."

20 Q. Do you recall which claim you were
21 looking at at the time?

22 A. No, I'm sorry; I don't recall which claim
23 it was.

24 Q. Were there any other terms that you
25 recall looking at online?

1 A. Sitting right here today, I don't recall
2 looking up any other terms, but I may have, because
3 I liked looking up things on the Web.

4 Q. Let me back up and just ask another
5 preliminary question so it's clear what we're
6 asking you about.

7 So you had provided, in IPR 2023-00343, a
8 supplemental declaration, Exhibit 1033; is that
9 right?

10 A. I wouldn't remember the exact number, but
11 I -- I wrote and signed and submitted a
12 supplemental declaration on the '868 and the
13 '654 patents.

14 Q. Correct, and that's my understanding as
15 well, that in the IPR 2023-00344, regarding the
16 '868 patent, you had submitted a supplemental
17 declaration, again, Exhibit 1033.

18 Does that refresh your recollection?

19 A. As I said, I submitted a supplemental
20 declaration on the '868 and '654 patents, but I
21 don't remember, offhand, the numbers.

22 Q. You understand that your deposition today
23 is regarding the subject matter of your
24 declarations in those matters; is that right?

25 A. I understand that the deposition today is

1 about my supplemental declarations on the '868 and
2 '654 patents.

3 Q. So when I ask you questions this
4 afternoon about your opinions, can we agree that
5 those questions are regarding those opinions that
6 you gave in your supplemental declarations?

7 MR. KHAN: Objection. Vague.

8 THE DEPONENT: I understand that I'm here
9 to answer questions you might have for me on the
10 supplemental declarations on the '868 and
11 '654 declarations that I gave.

12 Q. (By Mr. Cordrey) Now, turning back to
13 your preparation for the deposition, did you have
14 any meetings with anyone?

15 A. I met with Mr. Khan over Zoom.

16 Q. How many meetings did you have with
17 Mr. Khan?

18 A. I didn't count the number of meetings,
19 but they were over perhaps a week and a half or so.

20 Q. Approximately how many hours did you
21 spend preparing with Mr. Khan for your deposition?

22 A. I didn't count the number of hours I
23 spent on Zoom with Mr. Khan, but I would guess
24 maybe eight hours, something like that, over a span
25 of, I would guess, a week and a half.

1 Q. Thank you.

2 Now, in your analysis of the '654 and the
3 '868 patents, how did you define the term "images"?

4 A. Would it be okay if I looked at my paper
5 copy of my '868 supplemental declaration?

6 Q. If you are unable to answer the question
7 without referring to it, then that's fine.

8 I'd like to, though, if you could just
9 see if you can answer the question without having
10 to refer back to your declarations.

11 A. I would prefer to give you my best
12 answer. And to give you my best answer, I would
13 benefit from refreshing my memory by looking at the
14 paper copy of my supplemental declaration.

15 Q. That's fine.

16 A. As I say in my supplemental declaration,
17 the Merriam-Webster's dictionary defines an "image"
18 as a "a reproduction or imitation of the form of a
19 person or a thing"; "a tangible or visible
20 representation"; and "a vivid or graphical
21 representation or description."

22 I might add that -- that this -- the use
23 of the term "image," a person of ordinary skill in
24 the art would not have understood an image to be
25 limited in the manner that the patent owner wishes

1 it to be.

2 This is from my supplemental declaration,
3 page 8, paragraph 16.

4 Q. Thank you for pointing out where it is.

5 And that portion of your supplemental
6 declaration that you just referred to, that's in
7 both the '654 and the '868 supplemental
8 declarations; is that right?

9 A. I would have to check the '654, but I
10 believe I put it in both of them.

11 Q. This -- these definitions that you just
12 articulated for images, was there one -- you gave
13 me three different definitions.

14 Did you use one in particular?

15 MR. KHAN: Objection. Misstates
16 testimony.

17 THE DEPONENT: In my supplemental
18 declaration here on page 8, paragraph 16, I see
19 that I gave these three dictionary definitions of
20 the word "image," but I did not specify any one to
21 be primary.

22 Q. (By Mr. Cordrey) Correct, and so that
23 was really the basis of my question.

24 You did give these three distinct
25 definitions, and I'm trying to understand, in your

1 analysis of the claims of the '654 and the
2 '868 patents, which of these definitions did you
3 apply?

4 A. I kept in mind all of these, plus, of
5 course, the context of the term used in that
6 particular claim, or that particular element of a
7 claim, or that particular part of the
8 specifications.

9 Q. When you say you "kept in mind" the
10 context of that term, can you give me an example of
11 what you meant by that?

12 A. One example here from my
13 '868 supplementary declaration is on the bottom of
14 page 7, paragraph 14.

15 I see "in the example of Figure 13A noted
16 above and as described further, images in the 3D
17 immersive space can be interacted with." [as read]

18 That is one example of the term "images"
19 in the '868 patent specifications.

20 Q. I'm sorry, what was the document you were
21 looking at? I didn't catch that.

22 A. This is my supplementary declaration on
23 '868, on the bottom of page 7, the last line. This
24 is paragraph 14.

25 "In the example of Figure 13A noted

1 above" -- that figure is on page 6 -- "and as
2 described further below, images in the 3D immersive
3 space can be interacted with."

4 Q. So, Dr. Fuchs, in the portion you just
5 read, you're citing to the portion of the
6 specification at column 21, lines 12 through 43.

7 Is that where you based your
8 understanding of the sentence you just read about
9 images being able to be interacted with?

10 A. Assuming that the reference and column
11 and line numbers are correct, that is the place in
12 the '868 patent where I saw that "as described
13 below, images in the 3D immersive space can be
14 interacted with." [as read]

15 Q. Okay. So as I understand your testimony,
16 that's the portion of the specification that you
17 took into account or you considered when you
18 defined images as used in the '654 and the '868
19 patent claims; is that right?

20 MR. KHAN: Objection. Form.

21 Objection. Misstates testimony.

22 THE DEPONENT: As I said, this is one
23 example of the use of the word "image" or "images"
24 in the '868.

25 Q. (By Mr. Cordrey) Did you rely on any

1 other examples from the specification in your
2 understanding of what "images" means in the claims
3 of the '654 and the '868 patents?

4 A. For my understanding of the term "image"
5 in '868 and '654 patents, I relied on the entirety
6 of the specifications, and the claims, and the --
7 the prosecution history, and my own knowledge of
8 the field, and my own knowledge of the prior art at
9 the date of -- the critical date of these patents.

10 Q. There are other definitions that were
11 provided in the dictionary that you cited.

12 Why did you not select those as your
13 understanding of the term "images" as used in the
14 '654 and '868 patents?

15 MR. CORDREY: Rebecca, while he's looking
16 at that, can you enable the Share Screen on my end.

17 THE DEPONENT: Mr. Cordrey, are you ready
18 for my answer?

19 Q. (By Mr. Cordrey) Yes, please proceed.

20 A. I selected these three definitions from
21 the dictionary because they seemed like they were
22 most relevant to the topic at hand. There may be
23 other ones that are also relevant.

24 Q. I'm going to share with you the
25 dictionary that you included with your supplemental

1 declaration.

2 Okay. Can you see the dictionary
3 definition of "image" from Exhibit 1029 cited in
4 your supplemental declarations, Dr. Fuchs?

5 A. I do see that image.

6 Q. Okay. So there are several definitions
7 given, and it starts at the lower left-hand corner,
8 and it continues on to the upper right-hand corner
9 of page 578 of Exhibit 1029.

10 It looks like you had cited the
11 definitions from -- the definition in 1a, 4a and
12 6a; is that right?

13 A. I don't remember the numbers. I would
14 have to check them.

15 Q. Okay. Well, looking at the definition of
16 "image," there are other definitions here.

17 Did you rely on any of these definition?

18 MR. KHAN: Objection. Asked and
19 answered.

20 THE DEPONENT: As I remember this, I
21 selected these three as the ones that seem most
22 relevant. I think I read all of them, but I don't
23 remember to what extent I examined those before
24 choosing these three.

25 Q. (By Mr. Cordrey) Dr. Fuchs, so I'm just

1 trying to understand how you define the term
2 "images," and what the basis for that understanding
3 was.

4 So as I understand your testimony, you
5 relied on certain of these dictionary definitions
6 in Exhibit 1029, you relied on certain portions of
7 the specifications of the '654 and the
8 '868 patents, and you relied on certain portions of
9 the prosecution history of the '868 and
10 '654 patents; is that accurate?

11 A. I relied on the entirety of the
12 specifications, and the entirety of the claims, and
13 all the prior art I thought was relevant, and my
14 own knowledge in order to come up with an
15 understanding of the term "image."

16 Q. So an image as being interactive is
17 consistent with your view of the disclosure in the
18 specification; is that right?

19 MR. KHAN: Objection.

20 Objection. Misstates testimony.

21 THE DEPONENT: What I quoted from my
22 supplemental declaration on paragraph 14 is that
23 "in the example of Figure 13A noted above and as
24 described further below, images in the 3D immersive
25 space can be interacted with."

1 Q. (By Mr. Cordrey) So it's fair to say,
2 Dr. Fuchs, that images being interactive is
3 consistent with your understanding of the
4 specification; is that right?

5 MR. KHAN: Objection. Asked and
6 answered.

7 THE DEPONENT: As I said, "in the example
8 of Figure 13A noted above and as described further
9 below, images in the 3D immersive space can be
10 interacted with."

11 Q. (By Mr. Cordrey) Dr. Fuchs, I understand
12 you are reading from your declaration at
13 paragraph 14. I'm trying to understand exactly --
14 encapsulate your opinion on this issue, so it's not
15 helpful to simply regurgitate what's in your
16 declaration. I can read that.

17 So I'm trying to understand, you cited a
18 figure and a specific portion of the specification
19 for your understanding that images can be
20 interacted with.

21 So my question is, are there any other
22 portions of the specification or the prosecution
23 history that you relied upon for that
24 understanding?

25 MR. KHAN: Objection. Asked and

1 answered.

2 THE DEPONENT: As I said, from my
3 understanding of this term, I relied on the
4 entirety of the specifications, and the claims, and
5 the prosecution history, and the prior art, and my
6 own background.

7 There's probably other places that I
8 could find in each one of these, if we had enough
9 time. But I don't know right now what the specific
10 places are in each one of these documents for which
11 I relied on for my understanding of this term.

12 Q. (By Mr. Cordrey) Well, it's accurate to
13 say that in your supplemental declaration, you
14 identified only Figure 13A and column 20 at lines
15 39 through 55 in the '654 patent for your
16 understanding that the images can be interacted
17 with; is that accurate?

18 MR. KHAN: Objection. Misstates
19 testimony.

20 Objection. Asked and answered.

21 THE DEPONENT: As I said, I relied on the
22 entire '868 and '654 specifications and claims,
23 prosecution history and prior art.

24 Now, I don't know offhand what other
25 places in the supplemental declaration I referred

1 to "image." But I could go through, if we had
2 enough time, the entire supplemental declaration
3 and see what I find of the term "image."

4 Q. (By Mr. Cordrey) Well, let me approach
5 it this way then, because we don't have several
6 days to cover your declaration here.

7 Is it fair to say that, at a minimum, you
8 cite to Figure 13A and column 20 at lines 39
9 through 55 in support of your understanding that
10 images can be interacted with in the '654 and
11 '868 claims?

12 A. I cite this example in my supplemental
13 declarations, and I believe there are other
14 statements in my supplemental declarations that
15 indicate my understanding of the term "image" in
16 '868 and '654.

17 Q. Sitting here today, without going through
18 your declaration in close detail, you are unable to
19 identify those portions; is that right?

20 MR. KHAN: Objection. Form.

21 Objection. Misstates testimony.

22 THE DEPONENT: Another example in my
23 '868 supplemental declaration in which I discuss
24 the term "images" in 3D immersive space is in
25 paragraph 11, starting on page 5, in which I talk

1 about how "The description of Figure 13A" -- again,
2 this same figure -- "in the '868 patent further
3 exposes the error in the patent owner's
4 characterization of images in 3D immersive space
5 necessarily being 'inactive.'" [as read]

6 And I go on to say that "Once a file" --
7 and this is from the '868's patent column 21, 29 to
8 43 lines. "Once a file, document, application or
9 desktop is added to the virtual space 300, it is
10 fully interactive and functional and appears no
11 different from, or close to, the original way the
12 program functions when it was not in the 3-D
13 Cartesian space 300".

14 Q. (By Mr. Cordrey) Following up on your
15 answer then, do I understand it's your contention
16 that the images in 3D are fully interactive in the
17 same or similar manner as objects in 2D?

18 MR. KHAN: Objection. Misstates
19 testimony.

20 THE DEPONENT: To be precise, we should
21 look at the claims themselves.

22 I'm just saying that in the
23 specifications of '868, on column 21, lines 29 to
24 43, the specifications say "Once a file document,
25 application or desktop is added to the virtual

1 space 300, it is fully interactive and functional
2 and appears no different, or close to, the original
3 way the program functions when it was not in the
4 3-D Cartesian space 300."

5 Q. (By Mr. Cordrey) Dr. Fuchs, in the
6 portion that you referred to just now in
7 paragraph 11 of your supplemental declaration, it's
8 preceded by a statement that says "A 'saved
9 Microsoft Word document 500 is running in a window
10 490 within a" virtual -- I'm sorry -- "within a 3D
11 virtual space 300 aside items 492, 494, 496 and
12 498.'"

13 My question is, is that, in your
14 understanding, referring to an image?

15 MR. KHAN: Objection. Vague.

16 THE DEPONENT: Can you clarify the
17 question, please. I don't understand exactly what
18 you mean by "is that."

19 What you are referring to within this
20 long list of terms?

21 Q. (By Mr. Cordrey) Essentially, is it your
22 position that a window in 3D space as referred to
23 in your declaration here is an image?

24 A. It looks to me that "window 490," as
25 described here in paragraph 11 of my declaration,

1 "within the 3D virtual space 300 alongside items
2 492, 494, 496 and 498," is "in the virtual space
3 300," and "is fully interactive and functional and
4 appears no different, and close to, the original
5 way the program functions when it was in the 3-D
6 Cartesian space 300."

7 And I think that because of that, it may
8 well be this example that I mentioned on page 7,
9 where I say that "Nowhere in the '868 patent
10 specification is there any disavowal or description
11 suggesting that an image cannot be active or is
12 incapable of receiving interactions."

13 Q. So to tie up that, then, what it sounds
14 like you're getting to is that that description of
15 "A 'saved Microsoft Word document 500 running in
16 window 490 within a virtual space 300 alongside
17 items 492, 494 and 496 and 498'" [as read], you
18 would regard as an image; is that right?

19 MR. KHAN: Objection. Form.

20 Objection. Misstates testimony.

21 THE DEPONENT: I think Figure 13A shows
22 that images in the 3D immersive space can be
23 interacted with.

24 Q. (By Mr. Cordrey) So going back to my
25 question, and is that an affirmative that the

1 portion described in your declaration about a
2 Microsoft Window -- I'm sorry -- "'Microsoft Word
3 document 500 running in a window 490 within a
4 virtual space 300 alongside items 492, 494 and 496
5 and 498'" [as read], in your understanding would be
6 an image?

7 MR. KHAN: Objection. Asked and
8 answered.

9 THE DEPONENT: I said that 13A shows that
10 "images in the 3D immersive space can be interacted
11 with."

12 Q. (By Mr. Cordrey) And you would regard
13 that as an image?

14 MR. KHAN: Objection. Vague.

15 THE DEPONENT: I just said that
16 Figure 13A shows that "images in the 3D immersive
17 space can be interacted with."

18 Q. (By Mr. Cordrey) And you regard that as
19 an image, as you understand that term?

20 MR. KHAN: Objection. Vague.

21 Objection. Asked and answered.

22 THE DEPONENT: I said there are images in
23 13A -- image -- that Figure 13A shows "images in
24 the 3D immersive space that can be interacted
25 with."

1 Q. (By Mr. Cordrey) In Figure 13A, is
2 window 490 an image, as you understand that term?

3 A. I didn't analyze which of these items and
4 I didn't say which of these items was an image.

5 What I said is in my declaration is that
6 in the example of Figure 13A, "images in the 3D
7 immersive space can be interacted with."

8 Q. Dr. Fuchs, in paragraph 14 of your
9 supplemental declaration, you say "in the example
10 of 13A noted above and as described further below,
11 images in the 3D immersive space can be interacted
12 with"; is that right?

13 A. In paragraph 14, I say "in the example of
14 Figure A noted above and as described further
15 below, images in the 3D immersive space can be
16 interacted with."

17 Q. So which images in the interactive space
18 at Figure 13 were you referring to?

19 A. I do see here in this paragraph of my
20 '868 supplemental declaration that I specified
21 which one of these images I was referring to.

22 Sitting right here today, it may well be
23 490, 492, 494, 496, 498. But I would have to study
24 this, I think, a little bit more as to which
25 specific ones.

1 Q. Dr. Fuchs, preceding paragraph 13 of your
2 supplemental declaration, you have a section
3 heading that states "PO has no Support for its
4 Fabricated Distinction Between Images and Windows."

5 Do you see that?

6 A. Yes.

7 Q. So is it your opinion, then, that the
8 '654 and '868 patents do not distinguish between
9 images and windows?

10 MR. KHAN: Objection. Misstates
11 testimony.

12 THE DEPONENT: What I said there was the
13 patent owner has no support for the patent owner's
14 fabricated distinction between images and windows.

15 Q. (By Mr. Cordrey) Do you disagree with
16 that statement that there's a -- strike that.

17 Do you have an understanding that there's
18 a distinction between images and windows?

19 A. What I said was that "Patent Owner has no
20 Support for" patent owner's "Fabricated Distinction
21 Between Images and Windows."

22 Q. What did you mean by that?

23 A. What I meant by that "Patent Owner has no
24 Support for" patent's owner "Fabricated Distinction
25 Between Images and Windows" is that the patent

1 owner argues that the Hanggie and Anthony
2 combination does not render independent claims
3 obvious, because the Anthony-Hanggie combination
4 allegedly does not disclose generating and
5 displaying images in the 3D immersive space.

6 That's what I meant.

7 Q. And is that -- that statement based on
8 your understanding that windows, as disclosed in
9 Hanggie, are images?

10 MR. KHAN: Objection. Mischaracterizes
11 testimony.

12 THE DEPONENT: I disagree with the patent
13 owner's contention that "the windows" in Hanggie
14 "are always active" and "as such, they are not"
15 active -- "they are not images as claimed."

16 That's what I disagreed with.

17 Q. (By Mr. Cordrey) So your position is
18 that the windows in Hanggie are images, and that's
19 why you disagree with the patent owner's
20 contention?

21 Is that what you're saying?

22 MR. KHAN: Objection. Misstates
23 testimony.

24 THE DEPONENT: I believe the patent
25 owner's arguments are incorrect and unsupported

1 that an image must be inactive or static and cannot
2 be active or dynamic.

3 MR. KHAN: I'm sorry, Counsel, can we
4 just go off the record for a second?

5 MR. CORDREY: What's the reason for going
6 off the record?

7 MR. KHAN: I just wanted to ask if --
8 we've been going a little over an hour. Maybe
9 around -- in five minutes or so, we can take a
10 short break.

11 MR. CORDREY: Take a break in five
12 minutes?

13 MR. KHAN: Yeah, if that works for you.

14 MR. CORDREY: Yeah.

15 So you don't want to go off the record
16 right now, but in five minutes?

17 MR. KHAN: Yeah, we can take a break. I
18 didn't want to have this conversation on the
19 record, so I was asking if we could go off the
20 record, yeah. Too late.

21 Yeah, if you are okay.

22 MR. CORDREY: Yeah, that's fine. We
23 can -- let me just finish up here with this
24 question, and we'll take a short break after that.

25 Q. (By Mr. Cordrey) Is that okay with you,

1 Dr. Fuchs?

2 A. Sure, that's fine.

3 Q. Okay. Yeah, Dr. Fuchs, I'm trying to
4 understand your position here with regard to your
5 understanding of images that you applied in your
6 analysis here in your supplemental declaration with
7 regard to the '654 and '868 patents and the Hanggie
8 reference.

9 So is it your understanding that windows,
10 generally, are images?

11 MR. KHAN: Objection. Asked and
12 answered.

13 THE DEPONENT: My understanding is that
14 in the term "images" as used in '868 and
15 '654 claims, the patent owner adds language
16 implicitly that is unsupported by the claims or by
17 specifications.

18 And such terms as "inactive" and "static"
19 and "active" and "dynamic" are not in the claims
20 when they refer to the term "image."

21 MR. CORDREY: That wasn't my question;
22 I'll strike that answer.

23 Can the court reporter read back my
24 question.

25 (Record read as follows:

1 "QUESTION: I'm trying to understand
2 your position here with regard to
3 your understanding of images that you
4 applied in your analysis here in your
5 supplemental declaration with regard
6 to the '654 and '868 patents and the
7 Hanggie reference. So is it your
8 understanding that windows,
9 generally, are images?")

10 MR. KHAN: Same objections.

11 THE DEPONENT: I'm sorry, I thought I
12 answered the question.

13 Q. (By Mr. Cordrey) No, I don't believe you
14 did.

15 The court reporter had read back the
16 question for you.

17 Did you need it read back again?

18 A. Sure, read it back again. And if I can
19 stop you at certain places so I make sure I
20 understand this question.

21 (Record read as follows:

22 "QUESTION: I'm trying to understand
23 your position here with regard to
24 your understanding of images that you
25 applied in your analysis here in your

1 supplemental declaration with regard
2 to the '654 and '868 patents and the
3 Hanggie reference. So is it your
4 understanding that windows,
5 generally, are images?")

6 MR. KHAN: Same objections.

7 THE DEPONENT: I need clarification on
8 that, please.

9 Generally?

10 I mean, this is all contextual, and
11 what -- what you are referring to, Mr. Cordrey,
12 "windows, generally, are images"?

13 Q. (By Mr. Cordrey) So referring to
14 Figure 13A, you testified that certain of the
15 windows, 490, 492, 494, may be images.

16 Are you unable to discern whether they --
17 by the virtue of the fact that they are windows
18 that they are images?

19 Or is there other information you'd need
20 to consider that is context-specific?

21 A. You referred to the Hanggie reference,
22 and that's not the Hanggie reference.

23 Q. I'm trying to understand, is it your
24 position that some windows are images and some
25 windows may not be images, depending on the

1 context?

2 A. I'm sorry, you asked about the Hanggie
3 reference?

4 Q. Yes.

5 Strike that question, and can you answer
6 the question I just asked.

7 MR. KHAN: Sorry, Counsel, I'm not sure
8 what the question being asked here is.

9 Can you just repeat it so we all know
10 what you are asking.

11 MR. CORDREY: Can the court reporter read
12 back that last question.

13 (Record read as follows:

14 "QUESTION: I'm trying to understand,
15 is it your position that some windows
16 are images and some windows may not
17 be images, depending on the
18 context?")

19 MR. KHAN: Objection. Vague.

20 THE DEPONENT: Can you be more specific,
21 please. I don't understand that question.

22 MR. CORDREY: Can you read back the
23 question one more time.

24 (Record read as follows:

25 "QUESTION: I'm trying to understand,

1 is it your position that some windows
2 are images and some windows may not
3 be images, depending on the
4 context?")

5 MR. KHAN: Objection. Vague.

6 THE DEPONENT: I'm sorry, are you asking
7 about a specific reference, like Hanggie?

8 Q. (By Mr. Cordrey) Would it make a
9 difference to your answer?

10 A. If you could give me some more specifics,
11 then I would be able to give you an answer more
12 appropriate to your question.

13 MR. CORDREY: Why don't we take our five-
14 to ten-minute break here.

15 It's 11:35 Pacific. Why don't resume
16 approximately 11:45, if that's okay with you
17 Dr. Fuchs and Mr. Khan?

18 MR. KHAN: Sure.

19 THE DEPONENT: That's fine with me.

20 MR. CORDREY: Let's go off the record.

21 (Recess taken.)

22 MR. CORDREY: Back on the record.

23 Q. (By Mr. Cordrey) Dr. Fuchs, earlier
24 today, we talked about some of the things that you
25 considered in forming your understanding of the

1 term "images."

2 Did you consider the prosecution history
3 of the '018 patent in connection with forming your
4 understanding?

5 A. Yes, I believe I did.

6 Q. I believe you testified last time that
7 you had not considered the '018 patent prosecution
8 history.

9 Is that something that you considered in
10 connection with your supplemental declaration?

11 A. I'm sorry, '018?

12 Q. Sorry, the '018 patent. It's not one of
13 the three that's the subject of these three IPRs.
14 It's a related patent.

15 A. I'm sorry, I thought you were referring
16 to prosecution history of '868.

17 Q. No, the prosecution history I'm referring
18 to is of the '018 patent, which is a related patent
19 to the three patents that are at issue in these
20 IPRs.

21 A. I'm sorry, I don't remember that number,
22 so I don't remember if I studied that.

23 Q. Let me direct you to paragraph 4 of your
24 supplemental declaration.

25 Let me know when you've got that in front

1 of you.

2 A. I see paragraph 4 of my '868 supplemental
3 declaration.

4 Q. Paragraph 4 starts out that you -- or "In
5 forming this Supplemental Declaration, I have
6 considered the following."

7 And then it goes on to list various
8 things.

9 Among the things, there's no listing here
10 of the prosecution history of the '018 patent. I
11 just want to confirm that that's accurate.

12 A. I don't remember the -- the number that
13 you refer to, and I don't remember -- so I don't
14 remember studying that.

15 I may have; I just don't remember.

16 Q. Sitting here today, do you have any
17 reason to believe that the materials you listed and
18 considered as set forth in paragraph 4 are
19 incorrect?

20 A. I listed these items as accurately as I
21 could. I hope that they are accurate.

22 Q. Let's turn to prior art reference
23 Exhibit 1006 to Hanggie. That's H-A-N-G-G-I-E.

24 And let me know when you have that in
25 front of you.

1 A. I'm looking at Hanggie Apple 1006.

2 Q. Dr. Fuchs, it's your contention that
3 Hanggie discloses the claimed image, correct?

4 MR. KHAN: Objection. Vague.

5 And objection. Misstates testimony.

6 THE DEPONENT: I'm sorry, can you clarify
7 that question, please. I don't know what you mean.

8 Q. (By Mr. Cordrey) It's your position that
9 Hanggie discloses the claimed image or images in
10 the challenged claims, correct?

11 MR. KHAN: Objection. Form.

12 Objection. Misstates testimony.

13 THE DEPONENT: In my original declaration
14 for '868, I describe how a Hanggie-Anthony
15 combination and an Anthony-Hanggie combination
16 renders obvious many of the challenged claims.

17 Q. (By Mr. Cordrey) With regard to the
18 limitations requiring images or a plurality of
19 images, you pointed to Hanggie Exhibit 1006 at
20 Figure 3, correct?

21 MR. KHAN: Objection. Vague.

22 THE DEPONENT: Can you be more specific,
23 please, where in my supplemental declaration are
24 you referring to?

25 Q. (By Mr. Cordrey) Well, I'm referring

1 generally to your contention that -- as set forth
2 in your declarations that Hanggie Figure 3
3 discloses the claimed images in the claims of the
4 '654 and '868 patent.

5 You are shaking your head "no."

6 What do you disagree with?

7 A. I describe a combination Anthony-Hanggie
8 system and a Hanggie-Anthony system that makes
9 obvious multiple claims in the '868 and '654.

10 Q. Right.

11 We're trying to drill down into the
12 specifics of your opinion, Dr. Fuchs.

13 Now, earlier, we were talking about your
14 understanding of what the claimed image or images
15 is.

16 Do you recall that testimony earlier
17 today?

18 A. Yes, I do.

19 Q. Okay. So referring to the prior art that
20 you rely in Hanggie Exhibit 1006, you previously
21 took the position that Figure 3 represented and
22 satisfied the limitations regarding claim
23 element 1c-1 relating to generating a plurality of
24 images.

25 Do you recall that?

1 A. Claim 1c-1 you are referring to, is that
2 something that I addressed in my supplementary
3 declaration?

4 Q. Yes.

5 By incorporation of your original
6 declaration, I believe this is part and parcel of
7 your opinion regarding the obviousness of the '654
8 and '868 claims.

9 A. So would you like me to refresh my memory
10 and go back and study my original '868 declaration?

11 Q. If you need to do that.

12 But let me ask a different question.
13 Maybe this will be easier for you since you don't
14 seem to have a recollection of your original
15 opinion.

16 At page 12 of your supplemental
17 declaration -- and I'll let you get that in front
18 of you.

19 A. I'm looking at page 12 of my
20 '868 supplemental declaration.

21 Q. There's a heading that says -- heading 2
22 that says "HAC" -- which is the Hanggie-Anthony
23 combination -- "displays images in the 3D immersive
24 space according to the claimed order."

25 Do you see that?

1 A. Yes, I see that heading.

2 Q. Okay. So the first part of that says
3 that "HAC displays images in the 3D immersive
4 space."

5 What do you rely upon in the prior art
6 for that feature of displaying images in the 3D
7 immersive space?

8 A. I rely on the Hanggie-Anthony combination
9 for displaying images in the 3D immersive space.

10 Q. Specifically, what portions of those
11 references do you rely upon?

12 A. I rely on multiple portions of those
13 references.

14 For example, as I state in paragraph 29
15 of my '868 supplemental, I rely on Hanggie's
16 application windows replacing Anthony's focal group
17 windows.

18 Q. And is it accurate that the reference to
19 Hanggie's application windows refers to Figure 3 in
20 the Hanggie reference?

21 A. It refers -- yes, my combination refers
22 to Figure 3, and then other things that are
23 disclosed in Hanggie and Anthony.

24 Q. Focusing on Figure 3 of Hanggie, do you
25 regard that as an image?

1 A. As I say in page 20, the Hanggie-Anthony
2 combination "computer generates a plurality of
3 images in the form of windows in 3 space that
4 respectively correspond to the three windows in 2
5 space." [as read]

6 Q. So Professor -- sorry -- Dr. Fuchs, you
7 quoted the first portion of paragraph 41, correct?

8 A. Yes, I quoted from first portion of
9 paragraph 41 in my '868 supplemental.

10 Q. Okay. And then following a quotation
11 from Hanggie, you also cite Figure 3.

12 Do you see that?

13 A. I see that.

14 Q. Okay. So Figure 3 is the support in
15 Hanggie for the limitation related to generating a
16 plurality of images; is that right?

17 MR. KHAN: Objection. Misstates
18 testimony.

19 THE DEPONENT: Figure 3 is one of the
20 references, but I go on to say "In generating a
21 composited window in 3 space, the Hanggie-Anthony
22 computer modifies various features of the
23 (previous) window in 2 space such as 'content size,
24 window position or scale, or a change to the pixels
25 of the contents diffuse texture.'" [as read]

1 So "Accordingly, the mapping relies on
2 images (windows) in the 3D immersive space that
3 correspond to but are different from the windows in
4 2D space." [as read]

5 Q. (By Mr. Cordrey) I'm going to share with
6 you an exhibit from your -- a portion of your
7 earlier declaration.

8 Do you have Exhibit 1003, which is your
9 original declaration in the '654?

10 MR. KHAN: Counsel, I'll just advise that
11 the scope connected to the second declaration says
12 that's the subject matter of this deposition.

13 MR. CORDREY: It is, and I think that
14 will be clear here.

15 MR. KHAN: Thank you.

16 THE DEPONENT: I found one tab on here.
17 I thought this was a clean copy, sir, but I should
18 tell you, I found one tab. It's been a while since
19 I've looked at this. And I'm removing the tab.

20 Yeah, so I have -- my understanding is
21 this a clean copy of my '654 original declaration
22 from 2022.

23 Q. (By Mr. Cordrey) Okay. And if I could
24 direct your attention to page 67, paragraph 106,
25 which I put on the screen as well.

1 A. I'm on page 67.

2 Q. Paragraphs 106 and 107.

3 There -- does this refresh your
4 recollection that you refer and rely upon Figure 3
5 as the portion of Hanggie that meets the limitation
6 regarding interacting with the plurality of images?

7 You can see it's set forth in paragraphs
8 106, 107 and 108.

9 A. I'm sorry, could you repeat the question,
10 please.

11 Q. Well, let me just ask the question this
12 way then.

13 Figure 3 of Hanggie as shown in paragraph
14 107, your contention is that's an image, correct?

15 A. What I'm showing there are the buttons in
16 Hanggie that would be incorporated into the
17 Anthony-Hanggie combination and that could be used
18 in the Anthony-Hanggie combination for various
19 operations.

20 Q. In that Anthony -- or the Hanggie-Anthony
21 combination, you regarded Figure 3 from Hanggie as
22 an image, correct?

23 MR. KHAN: Objection. Asked and
24 answered.

25 Objection --

1 THE DEPONENT: As I mention in my
2 '868 supplementary declaration here, again, on
3 page 20, "In generating a composited window in
4 3 space, the computer modifies various features of
5 the (previous) window in 2 space such as the
6 'content size, window position or scale, or a
7 change in the pixels of the contents diffuse
8 texture.'" [as read]

9 So the "mapping relies on images
10 (windows) in the 3D immersive space that correspond
11 to but are different from the window in 2 space."
12 [as read]

13 Q. (By Mr. Cordrey) Dr. Fuchs, obviously,
14 this isn't helpful for us if you're just going to
15 regurgitate word-for-word what's in your
16 declaration.

17 So my question is, simply put, you rely
18 on Figure 3 of Hanggie as the claimed image,
19 correct?

20 MR. KHAN: Objection. Misstates
21 testimony.

22 THE DEPONENT: I disagree with that. As
23 I have told you, Hanggie here discloses certain
24 capabilities. I combine that with Anthony. The
25 resulting Anthony-Hanggie combination is not this

1 window.

2 Q. (By Mr. Cordrey) So, Dr. Fuchs, the
3 question is, is this window from Hanggie an image?

4 A. I did not need to determine if this
5 Figure 3 was an image according to '868.

6 What I did was, I used this and other
7 teachings of Hanggie to combine with Anthony, and I
8 showed how the combined system would generate
9 windows in 3 space, and that, in that mapping,
10 those windows correspond to images in the 3D
11 immersive space, and they correspond to but are
12 different from the windows, the objects, in 2D
13 space.

14 Q. Doctor, if you just give me a second
15 here, I am going to switch exhibits --

16 A. Sure, take your time.

17 Q. -- and bring up the '654. And if you
18 have that in front of you, maybe you can find it at
19 the same time.

20 A. Okay. I'll look.

21 I have a paper copy of the '654 patent.

22 Q. Great.

23 If you could turn to claim 1. I'm trying
24 to put the same text up on the screen for the
25 benefit of Counsel.

1 MR. KHAN: By the way, your screen has
2 two black boxes on it. I'm not sure --

3 MR. CORDREY: I'm sorry, what does my
4 screen show?

5 MR. KHAN: It's showing two big black
6 boxes, one rectangular at the bottom, one larger.
7 Sort of weird.

8 MR. CORDREY: Okay. Let's try that
9 again.

10 MR. KHAN: There you go.

11 (Discussion off the stenographic record.)

12 Q. (By Mr. Cordrey) Dr. Fuchs, let me know
13 when you have Exhibit 1001 from the '654 IPR in
14 front of you.

15 And if you do, turn to the back, claim 1
16 at the top. We're looking at column 38.

17 A. I have column 38 in my paper copy open.

18 Q. Okay. Great.

19 You'll see there's a claim limitation
20 that starts at line 5, "displaying said plurality
21 of images in a three-dimensional space on said
22 display device in an order based on a last time
23 that said user one of," small roman numeral i,
24 "opened said first application and interacted with
25 said first object," small roman numeral ii, "opened

1 said second application and interacted with said
2 second object, and," small roman numeral iii,
3 "opened said third application and interacted with
4 said third object."

5 Did you follow me?

6 A. Yes.

7 Q. Okay. Focusing on the portion of that
8 paragraph that says, "one of," did you interpret
9 "one of" to modify "opened said first application
10 and interacted with said first" application?

11 Or did you understand "one of" modifies
12 what's in small roman numeral i, ii and iii?

13 MR. KHAN: Objection. Calls for legal
14 conclusion.

15 THE DEPONENT: It's been a little while
16 since I looked at this. But to answer your
17 question, I believe that my understanding of this
18 is that the said user "one of" is one of the three
19 that follow, the small roman numeral i, and small
20 roman numeral ii and small roman numeral iii. It's
21 one of those three, I believe.

22 But, again, it's been a little while
23 since I looked at this.

24 Q. (By Mr. Cordrey) So as I understand your
25 response, Dr. Fuchs, you used "one of" to modify

1 either small roman numeral i, ii, or iii; is that
2 right?

3 MR. KHAN: Objection. Asked and
4 answered.

5 THE DEPONENT: I believe that my
6 understanding is "said user one of," i, ii, or iii.

7 But, again, I wish I had more time to
8 refresh my memory, because it's been a little while
9 since I've looked at this.

10 Q. (By Mr. Cordrey) Okay. I'm going to
11 stop sharing this exhibit.

12 Dr. Fuchs, do you have Exhibit 1030 in
13 front of you?

14 I'm going to pull it up while you're
15 looking for the hard copy.

16 MR. CORDREY: Counsel, did it come up on
17 your screen?

18 MR. KHAN: Yes.

19 MR. CORDREY: Okay. Great.

20 THE DEPONENT: I have a paper copy,
21 Mr. Cordrey.

22 Q. (By Mr. Cordrey) Okay. And let me -- if
23 you can keep that handy, and then pull up your
24 supplemental declaration. The '868 is fine. You
25 have it in both of your supplemental declarations.

1 But the '868 -- I'm sorry -- or the '654, either
2 one, whatever is handy.

3 And if you would turn to -- I believe
4 it's page 9. It should be paragraph 16.

5 A. I have paragraph 16 of my
6 '868 declaration in front of me.

7 Q. Okay. If you turn to page 9, which is
8 paragraph 16.

9 A. Yes, I'm on page 9.

10 Q. Okay. So let me focus you on the last
11 two sentences of that paragraph that are there on
12 page 9.

13 It states "Moreover, nothing prevents
14 HAC's application windows in 3D space to be an
15 image with control buttons. Indeed, such window
16 design is a common feature in several computer user
17 interfaces."

18 Did I read that correctly?

19 A. Yes, those are the words that I see on
20 the page here.

21 Q. Okay. And then you refer to
22 Exhibit 1030, which is U.S. Patent No. 10,936,270,
23 Xu, et al; is that right?

24 A. Yes, I believe this refers to 1030,
25 Xu, et al.

1 Q. Okay. And you refer to Figures 4A
2 through F in that reference, in that Exhibit 1030.
3 Let me just start out, let's look at Figure 4A, the
4 first figure you reference.

5 Can you open Exhibit 1030 and look at
6 Figure 4A for me.

7 Let me know when you're there.

8 A. I am looking at 4A, Figure 4A, in
9 exhibit -- Exhibit 1030.

10 Q. Great.

11 What does Figure 4A show?

12 A. It shows window control buttons. And
13 that's what I referred to here as an example at --
14 where I refer to it in my '868 supplemental
15 declaration that window designs with control
16 buttons were "a common feature in multiple computer
17 interfaces."

18 Q. Is the window shown in Figure 4A -- did
19 you regard that as an image?

20 A. I did not make that judgment. I don't
21 think I mentioned anything like that in my
22 supplemental. I just referred to it as an example
23 of user interfaces which have images with control
24 buttons.

25 Q. What is the image that you just referred

1 to?

2 A. I referred to the Hanggie-Anthony
3 application windows in 3 space to be an image with
4 control buttons.

5 Q. So you didn't rely on Figure 4A to
6 disclose an image; is that right?

7 A. I relied on 4A as an example of a
8 computer user interface which has a window designed
9 with control buttons.

10 Q. Let's look at Figure 4B, which you also
11 referred to in your supplemental declaration.

12 What did you refer to Figure 4B for?

13 A. All of these figures that I refer to, 4A
14 to 4F, I refer to for computer user interfaces with
15 window designs that have control buttons.

16 Q. Did you ascertain whether any of these
17 windows were images?

18 A. I did not offer an opinion about that in
19 my supplemental declarations. I just wanted to
20 point out that there were examples of computer user
21 interfaces with window designs that have control
22 buttons.

23 MR. CORDREY: Okay. Counsel, can we take
24 another short break, maybe ten minutes, if that's
25 okay with everyone?

1 MR. KHAN: No objection with me.

2 THE DEPONENT: Fine with me.

3 MR. CORDREY: Rebecca?

4 Okay. Let's go off the record. We'll
5 reconvene in about ten minutes.

6 (Recess taken.)

7 MR. CORDREY: Back on the record.

8 Q. (By Mr. Cordrey) Dr. Fuchs, we've had a
9 few breaks throughout this day. I just want to
10 confirm with you that you have not had any
11 conversations with counsel for Petitioner regarding
12 your testimony today during the breaks?

13 A. That's correct, I have not communicated
14 with counsel for the petitioner during the breaks.

15 Q. Okay. And that would include any form of
16 electronic communication: Email, texts, phone
17 calls, video calls?

18 A. That's correct, I have not had any phone
19 calls or telephone calls or Zoom or email or text.
20 To my knowledge, I have had no contact with counsel
21 during these breaks.

22 Q. Okay. I'll assume that includes
23 Instagrams, telegrams, smoke signals?

24 A. Yes.

25 Q. Okay.

1 A. I think it includes all the ones that you
2 referred to.

3 Q. All right. Very good.

4 Yeah, I don't have a lot more left. Just
5 a few areas I want to touch on.

6 We were talking earlier today about your
7 understanding of the claim term "images."

8 You recall that testimony?

9 A. Yes.

10 Q. So do you regard a JPEG as an image as
11 you understand that term?

12 MR. KHAN: Objection. Relevance. Scope.

13 THE DEPONENT: I understand that JPEG is
14 a form of compressing images that is a very
15 different context then the '868 or '654 use of the
16 term "image."

17 Q. (By Mr. Cordrey) In your understanding
18 of a JPEG, can you interact with a JPEG image?

19 MR. KHAN: Objection. Relevance. Scope.

20 THE DEPONENT: Depending on the context
21 and depending on what you mean by "interaction,"
22 there are ways of interacting with a JPEG image.

23 But, again, the term "image" used in '868
24 and '654 are, I think, quite distinct from the use
25 of JPEG in image compression.

1 Q. (By Mr. Cordrey) Would the same
2 distinction that you have in mind regarding JPEGs
3 apply to a bitmap image?

4 MR. KHAN: Objection. Vague.

5 Objection. Scope.

6 THE DEPONENT: Can you be more specific
7 about "the same"?

8 Q. (By Mr. Cordrey) You had made some
9 distinctions -- you didn't specify precisely what
10 they were -- between a JPEG and the claimed image.

11 I'm just asking if those same
12 distinctions, unidentified, you would make them
13 with regard to a bitmap image?

14 MR. KHAN: Objection. Vague.

15 Objection. Outside the scope.

16 THE DEPONENT: A bitmap image can be
17 interacted with in various ways, depending on the
18 context.

19 However, a bitmap image of the term
20 "image" is very different than the term "image"
21 used in the '868 and '654 patents.

22 Q. (By Mr. Cordrey) Earlier, you testified
23 or we discussed your use of Exhibit 1029, which is
24 a Merriam-Webster dictionary, in support of your
25 understanding of the term "image."

1 Do you recall that testimony?

2 A. Yes, I do.

3 Q. Who selected that particular dictionary?
4 Was that something that you identified, or did
5 counsel present that to you?

6 A. My recollection is that we discussed it
7 several times and what would be the best place, the
8 best dictionary. And this is what I thought would
9 be the best one.

10 Q. Did you consider using a technical
11 dictionary for looking up the term "image"?

12 A. My recollection is that I considered that
13 and couldn't find one that had a more appropriate
14 definition for "image."

15 Q. Is it your understanding that the
16 definition -- the definitions you relied upon from
17 Exhibit 1029 are fairly characterized as a
18 layperson's understanding of the word "image"?

19 MR. KHAN: Objection. Vague.

20 THE DEPONENT: I judge that the
21 definitions that I used from that dictionary were
22 the best ones that I could find for this report,
23 and that they would be appropriate for a general
24 audience and also for a person of ordinary skill in
25 the art at the time of this critical date of the

1 patent.

2 Q. (By Mr. Cordrey) Let me direct your
3 attention to the '868 patent now. And
4 specifically, I would like to ask you something
5 about claim 13.

6 I'll give you a minute to get it in front
7 of you, if you'd like.

8 A. My apologies, there was another -- a
9 blank bookmark. I thought I removed all of them.

10 I think they were just at the start of
11 the -- of the claims. But there's nothing on --
12 nothing I can see on the paper copies and nothing
13 on the bookmark.

14 Let me turn to the appropriate --
15 claim 13, did you say?

16 Q. Yes, claim 13 of the '868.

17 A. I'm looking at the '868 patent, claim 13.

18 Q. Great.

19 My question is pretty straightforward.

20 Claim 13 recites wherein the -- "further
21 comprising the step of receiving a request from
22 said user to switch from said 2D space to said 3D
23 space."

24 Do you see that?

25 A. "Comprising the step of receiving a

1 request from said user to switch from said 2D space
2 to said 3D space."

3 I see that, sir.

4 Q. In your analysis, how did you interpret
5 the term "to switch" or "switching"?

6 A. I interpret this that there was a "step
7 of receiving a request from the user to switch."
8 [as read]

9 Q. Okay. You just repeated the words in the
10 claim that I just read to you.

11 A. They are pretty clear to me. It doesn't
12 say that the switching actually has to take place.
13 It just says "receiving the request from the said
14 user to switch." [as read]

15 Q. How did you interpret the request to
16 switch in this claim?

17 A. I interpreted the request to switch
18 meaning that the user would make some indication to
19 the system, such as, you know, a button press,
20 something that I specify like in the
21 Hanggie-Anthony combination.

22 Q. What does it mean to you to "switch from
23 2D space to said 3D space"? [as read]

24 A. Can you be a little more specific?

25 Do you mean in this context of this

1 claim 13?

2 Q. Yes.

3 Sorry, yes, in the context of claim 13.

4 A. Okay. My reading of this is that the
5 claim states that there's a "step of receiving a
6 request from the user to switch" [as read], and
7 that, in reaction to that step, an object in the 2D
8 space is replaced with a plurality of images.

9 But I don't see the requirement that the
10 entire switching needs to be done. That's
11 certainly one possibility, but it's not a
12 requirement. It just says "a request from the user
13 to switch" [as read], and then there's a
14 replacement of the said object in the 2D space with
15 a plurality of images.

16 But there's no requirement here to switch
17 the entire 2D space to the 3D space.

18 Q. Dr. Fuchs, it sounds like you are reading
19 this in a sense that the step comprises receiving a
20 request to replace something in 2D space with
21 something in said 3D space.

22 Is there any distinction you made between
23 "replacing" and "switching"?

24 MR. KHAN: Objection. Vague.

25 THE DEPONENT: The way I read claim 13

1 is, there is a request to switch; and then, in
2 response to that request, there is a replacing of
3 the object in 2D space with a plurality of images.

4 I think that's pretty clear.

5 There's not an actual requirement to
6 switch the entire 2D space to the 3D space.

7 Q. (By Mr. Cordrey) Just so I understand
8 your testimony, is there any difference if the
9 claim had said "receiving a request from said user"
10 and then "replacing said object in said 2D space
11 with said plurality of images in response to the
12 request"?

13 Is that any different than what's recited
14 in claim 13?

15 MR. KHAN: Objection. Calls for
16 speculation.

17 Objection. Out of scope.

18 THE DEPONENT: You are asking me now to
19 analyze a different claim than what's on -- in
20 '868?

21 Q. (By Mr. Cordrey) I'm trying to
22 understand how you interpreted claim 13.

23 And one way I'm trying to do that is to
24 see if what you are saying, in essence, is that the
25 claim merely recites receiving a request, and then

1 replacing object in said 2D space with a plurality
2 of objects in response to that request.

3 Is that, in essence, your understanding
4 of claim 13?

5 MR. KHAN: Objection. Asked and
6 answered.

7 THE DEPONENT: My understanding of
8 claim 13 is that there is a request to switch, and
9 then there is a step of replacing a 2D -- an object
10 in 2D space with a plurality of images; but that
11 there is no requirement to switch the entire 2D
12 space and everything in it with the entire 3D
13 space.

14 I don't see that anywhere in the
15 claims -- in this claim 13.

16 Q. (By Mr. Cordrey) When you say there's
17 "no requirement to switch," what is your
18 understanding of the term "switch"?

19 What meaning do you give to that?

20 MR. KHAN: Objection. Asked and
21 answered.

22 THE DEPONENT: Well, I read the patent
23 owner's argument that there is a requirement, which
24 I disagree with here, that the entire 2D space must
25 somehow be switched to the entire 3D space.

1 The particular details of that switching
2 I don't think are necessary here, because it's just
3 a request. So it's a request, you know, with a
4 little button that says "switch 2D to 3D", whatever
5 that may mean. But it's just a button. It's a
6 request from the user.

7 And since claim 13 is very explicit here
8 about what is required, whatever the definition is
9 of "switch" is irrelevant because claim 13
10 explicitly states what needs to be done.

11 It says here that "wherein said step of
12 replacing said object in said 2D space with said
13 plurality of images."

14 It's very clear in claim 13. Whatever
15 the definition of "switch" is, it doesn't -- is not
16 required.

17 Q. (By Mr. Cordrey) Okay. Let me switch
18 gears.

19 In your declarations, you used, for
20 instance, the Excel application, I believe -- give
21 me one second; let me find it.

22 Okay. Dr. Fuchs, in your supplemental
23 reports or declarations for both the '868 and the
24 '654, you used an example of a composite figure.
25 For instance, at paragraph 28.

1 Sorry, strike that.

2 Just give me one second.

3 A. Sure.

4 Q. Okay. Dr. Fuchs, do you recall from the
5 Anthony reference that it uses the example of the
6 Excel application and Excel files?

7 It's Exhibit 1007, for instance, at
8 paragraph 49.

9 A. I have Anthony here.

10 Sorry, and -- and what are you referring
11 to in Anthony, please?

12 Q. There's a reference to, for example, the
13 application, Excel, and Excel spreadsheets in
14 paragraph 49.

15 A. I see paragraph 49 in Anthony and the
16 reference to Excel spreadsheets.

17 Q. Right.

18 And it refers to, you know, Excel files
19 as a -- one type of file type.

20 So my question for you is, would you
21 agree that there's a distinction between the date
22 when a user last opens the Excel application versus
23 the date when a user may open a specific Excel
24 file?

25 A. The prior art reference, Anthony, I did

1 not use in isolation in my reports. I used the
2 combination of Anthony and Hanggie and Hanggie and
3 Anthony, and, for some claims, I used an additional
4 reference or two.

5 So it's -- this particular paragraph and
6 reference to Excel spreadsheet I think is
7 irrelevant.

8 What's important, I believe, here is that
9 in the combination that I describe of Anthony and
10 Hanggie, it makes very clear -- Anthony makes very
11 clear that all items stored in an operating system
12 can be used in this way. And the term "item" in
13 Anthony can be a file or folder or virtual folder
14 or data object.

15 And, as I specify in my reports, the
16 Anthony focal groups in the combination of Anthony
17 and Hanggie that I describe would be replaced by
18 Hanggie's application windows. And those
19 application windows in the Anthony-Hanggie
20 combination would have various attributes, among
21 them, the dates when they were created, or the
22 dates where they were last used, or many other
23 characteristics, which, as Anthony describes, can
24 each be used in the ordering that the user wishes
25 of that instance.

1 Q. With that in mind, you would agree with
2 me that the date an application was last open is a
3 different attribute then the date a file type
4 relating to that application was last opened?

5 MR. KHAN: Objection. Misstates
6 testimony.

7 Q. (By Mr. Cordrey) So I'll give you an
8 example.

9 I may open Excel on my -- on my laptop
10 computer, you know; and then, three weeks later --
11 I've kept the Excel application open, and three
12 weeks later, I open a particular Excel file.

13 The date when the Excel application was
14 opened is a different date than the date when that
15 particular Excel file was opened, correct?

16 MR. KHAN: Objection. Vague.

17 THE DEPONENT: So I gather you are
18 referring to something that's relevant to one of
19 the claims in '868 or '654; is that right?

20 Q. (By Mr. Cordrey) Yes, all my questions
21 are relevant to your opinions in these cases.

22 A. Okay. Well, the one that you seem to be
23 asking about is, for example, 1c-2 in '868, where,
24 among other things, it says "based on a last time
25 that said user one of," and then there's three

1 choices. And each one is "opened said first
2 application and interacted with said first object."

3 Now, that means "and interacted with said
4 first object." And so it's combining those two.
5 Because when you open an application, you are
6 interacting with an object. And the requirement
7 here, as I read this, is "opened said first
8 application and interacting with said first
9 object."

10 Not "or." It doesn't say, open said first
11 application or interacted with said first object.
12 No, it's an "and."

13 And so the description that I give of the
14 Hanggie-Anthony combination would make that very
15 clear, because in the combination, Anthony's focal
16 groups would be replaced by Hanggie's application
17 windows, and any kind of ordering that is a mark
18 within that application can be used by the user in
19 the Anthony-Hanggie combination for his or her
20 benefit.

21 Q. So given all that, what would be the
22 answer to my question?

23 A. As far as I can tell, in the '868 and
24 '654 patents, the term about the last time that the
25 user opened something is a combination of opened an

1 application and interacted with an object.

2 And so I believe that those two together
3 mean that an application is opened and interacted
4 with an object.

5 Q. So that means that, in my question to
6 you, the dates would be the same?

7 MR. KHAN: Objection. Misstates
8 testimony.

9 THE DEPONENT: I disagree.

10 The important time as far as claim 1c-2
11 of '868 is the last time that the user opened an
12 application and interacted with an object.

13 Q. (By Mr. Cordrey) Right.

14 So I open an Excel application a month
15 ago. Two days ago -- I keep it open.

16 Two days ago, I open a particular Excel
17 file.

18 Would the dates, the attribute dates when
19 those were opened, be the same date?

20 In other words, aren't those different
21 attributes? The date that the application was
22 opened is a different attribute than the date when
23 a particular file type was opened.

24 A. There are many attributes that can be
25 associated with items in an operating system.

1 What's relevant to us here is what do the
2 claims say in '868 and '654. And what I'm telling
3 you is that in claim 1c-2, the relevant statement
4 is "opened the first application and interacted
5 with said first object." [as read]

6 Q. Okay. That's not answering my question,
7 I guess.

8 Is your answer, I guess, essentially that
9 you didn't consider, in forming your opinions,
10 whether the example I gave you referred to
11 different attributes and, thus, could be different
12 dates?

13 Is that what you're saying?

14 MR. KHAN: Objection. Misstates
15 testimony.

16 THE DEPONENT: What I said was, there are
17 many attributes that are in an operating system
18 item. The ordering of them can be done in an
19 Anthony-Hanggie combination, as Anthony clearly
20 states, in any order, in any attributes, in any
21 item.

22 So if you wanted to, in an
23 Anthony-Hanggie combination, you could order any
24 item or any set of items against any attributes.
25 If you wanted to, you could order them on any one

1 of those that you wanted.

2 But what's relevant to us here is what
3 the claims state. And what the claims state in
4 1c-2 is, the last time that the user "opened said
5 first application and interacted with said first
6 object."

7 Q. (By Mr. Cordrey) Yeah, I understand what
8 you're saying, and you've repeated it a couple
9 times now.

10 And if you don't have an answer to the
11 question, either because you didn't consider it or
12 you don't think it's relevant, that's fine; just
13 let me know.

14 We can disagree on that, and I'm sure we
15 do disagree on certain things.

16 A. What is your question now?

17 Q. Yeah.

18 So the question was what I originally
19 asked. If I had opened an Excel application a
20 month ago, and I kept it open, and I opened a
21 particular Excel file two days ago, wouldn't you
22 agree that the date each of those were opened is a
23 different date?

24 MR. KHAN: Objection. Calls for
25 speculation.

1 Objection. Asked and answered.

2 THE DEPONENT: Can you be a little more
3 clear? And maybe I could be more helpful to you.

4 When you opened the application of Excel
5 a month ago, you open that with the first object;
6 is that -- is that what you're saying?

7 Q. (By Mr. Cordrey) Let's say I went to my
8 start button, and I found the application in my
9 start menu, and I opened it without regard to
10 opening up a particular file. That's how I opened
11 it.

12 A. Can you explain to me how you can do
13 that?

14 Q. Assume for the sake of argument I can do
15 that.

16 A. I think that's not a good assumption,
17 sir.

18 Q. Why?

19 A. If you're -- because I'm not sure that
20 you could come up with a situation where you could
21 open an application without having a data object.

22 Q. In your response, is a data object a
23 particular Excel file?

24 Is that what you're referring to?

25 A. I'm referring to the first object as

1 stated in the claims.

2 If you open an Excel application, and you
3 get a blank screen, you still have a data object.
4 It's still a file. It still has headers. It still
5 takes up space. It still has some default
6 parameters in it, the number of rows, the number of
7 columns.

8 You have now opened up a first
9 application and interacted with first object.

10 Now, you said, sometime later, you're
11 going to open up another Excel file. Okay. So
12 that's opened a second application, and you
13 interacted with a second object. Yes?

14 Those two are the first and the second --
15 or they can be the first and the second bullet
16 points in claim 1c-2.

17 Q. In your explanation, you referred to a
18 blank screen.

19 Would that blank screen have
20 application-specific data?

21 A. Yes, yes, that -- well, what I meant by a
22 blank screen, it's not that it's totally white.
23 When you open up Excel, you don't get a white
24 square on your screen.

25 You get something that already has rows

1 and columns and numbers of rows and columns. That
2 is a first object like in '868 1c-2.

3 Q. And the blank rows and columns, then, is
4 the application-specific data?

5 A. Absolutely. Absolutely.

6 It's specific to that application. I
7 mean, there's going to be some default number of
8 rows, some default number of columns.

9 Q. Dr. Fuchs, sitting here today, are you
10 aware of any corrections that you need to make to
11 either of your supplemental declarations in the
12 '343 or '344 IPRs?

13 A. Are you referring to my '868 and
14 '654 supplementals?

15 Q. Yeah, that was in the question.

16 A. As I mentioned at the beginning, when I
17 was reading through them, I found a couple of
18 typographical errors. But I don't think they are
19 anything significant.

20 I think one was that I highlighted
21 something in yellow, but then it didn't show up.
22 And I highlighted it in pink, I think.

23 And I think there was another place that
24 was singular and plural.

25 And I think there was a third something

1 where I put two words together, you know,
2 unintentionally.

3 But I don't think any of these changed
4 the meaning of the sentence. I'm not aware of
5 anything that I would change in either of these
6 supplementals.

7 Q. In your supplemental declarations, did
8 any of your opinions expressed in your original
9 declarations change?

10 A. I'm not aware that any of my opinions in
11 my original declarations changed.

12 MR. CORDREY: I think that's all we have
13 today.

14 I'll turn it over to Counsel and reserve
15 the right for follow-up, but we'll stop at this
16 point.

17 MR. KHAN: Thank you. Is it okay if we
18 take a five-minute break and come back? So about
19 4:50 Eastern, 1:50 Pacific.

20 MR. CORDREY: That works.

21 THE DEPONENT: Fine with me.

22 (Recess taken.)

23 MR. KHAN: Back on the record.

24 I have no further questions.

25 MR. CORDREY: Okay.

1 THE DEPONENT: If we go off the record,
2 if have one further question for Mr. Cordrey.

3 MR. CORDREY: Sure, we can go off the
4 record.

5 I think -- once we're off the record, I
6 do want to ask the court reporter about the timing
7 of the transcript.

8 But that's all that we have, the patent
9 owners have, so we can conclude this deposition and
10 go off the record.

11 THE COURT REPORTER: Okay. We're off.
12 (TIME NOTED: 4:50 P.M.)

13 MR. CORDREY: Okay. Can we get an
14 expedited copy for the 28th, please, and a rough
15 today?

16 THE COURT REPORTER: Yes, and I can get
17 you a rough today.

18 Mr. Khan, do you need a rough and an
19 expedited copy as well?

20 MR. KHAN: A rough would be great, and
21 regular delivery.

22 THE COURT REPORTER: Okay. Thank you.

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I, DR. HENRY FUCHS, do hereby declare under penalty of perjury that I have read the foregoing transcript; that I have made any corrections as appear notes; that my testimony as contained herein, as corrected, is true and correct.

Executed this ____ day of _____,
2024, at _____, _____.

DR. HENRY FUCHS

1 I, Rebecca L. Romano, a Certified Shorthand
2 Reporter of the State of California, do hereby
3 certify:

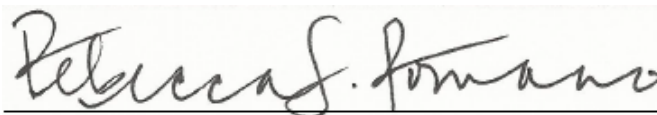
4 That the foregoing proceedings were taken
5 before me remotely at the time and place herein set
6 forth; that any deponents in the foregoing
7 proceedings, prior to testifying, were administered
8 an oath; that a record of the proceedings was made
9 by me using machine shorthand which was thereafter
10 transcribed under my direction; that the foregoing
11 transcript is true record of the testimony given.

12 Further, that if the foregoing pertains to the
13 original transcript of a deposition in a Federal
14 Case, before completion of the proceedings, review
15 of the transcript [] was [X] was not requested.

16 I further certify I am neither financially
17 interested in the action nor a relative or employee
18 of any attorney or any party to this action.

19 IN WITNESS WHEREOF, I have this date
20 subscribed my name.

21
22 Dated: February 27, 2024

23 
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Rebecca L. Romano, RPR, CCR
25 CSR. No 12546

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DEPOSITION ERRATA SHEET

Case Name: Apple Inc. and Google LLC vs.
SpaceTime3D, Inc.

Name of Deponent: Dr. Henry Fuchs
Date of Deposition: February 21, 2024
Job No.: 6463190

Reason Codes: 1. To clarify the record.
2. To conform to the facts.
3. To correct transcript errors.

Page _____	Line _____	Reason _____
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DEPOSITION ERRATA SHEET

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_____ Subject to the above changes, I certify that
the transcript is true and correct

_____ No changes have been made. I certify that
the transcript is true and correct.

DR. HENRY FUCHS

1 GREGORY S. CORDREY, ESQ.

2 gcordrey@jmbm.com

3 February 27, 2024

4 RE: APPLE INC. vs. SPACETIME3D, INC.

5 February 21, 2024-DR. HENRY FUCHS-JOB NO.6463190

6 The above-referenced transcript has been
7 completed by Veritext Legal Solutions and
8 review of the transcript is being handled as follows:

9 ___ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext
10 to schedule a time to review the original transcript at
11 a Veritext office.

12 ___ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF
13 Transcript - The witness should review the transcript and
14 make any necessary corrections on the errata pages included
15 below, notating the page and line number of the corrections.
16 The witness should then sign and date the errata and penalty
17 of perjury pages and return the completed pages to all
18 appearing counsel within the period of time determined at
19 the deposition or provided by the Code of Civil Procedure.
20 Contact Veritext when the sealed original is required.

21 ___ Waiving the CA Code of Civil Procedure per Stipulation of
22 Counsel - Original transcript to be released for signature
23 as determined at the deposition.

24 ___ Signature Waived - Reading & Signature was waived at the
25 time of the deposition.

Page 79

1 ___ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF
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3 make any necessary corrections on the errata pages included
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7 appearing counsel within the period of time determined at
8 the deposition or provided by the Federal Rules.
9 _X_ Federal R&S Not Requested - Reading & Signature was not
10 requested before the completion of the deposition.

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APPLE INC. vs. SPACETIME3D, INC.

DR. HENRY FUCHS-JOB NO.6463190

E R R A T A S H E E T

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WITNESS

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018 36:3,7,11 36:12,18 37:10			3 3:17 23:12 24:4 25:5 38:20 39:2,21 41:19,22,24 42:3,11,14,19 42:21 44:4,13 44:21 45:4,18 46:5,9 52:3 77:5 30 80:1 300 23:9,13 24:1,4,11 25:1 25:3,6,16 26:4 343 72:12 344 72:12 3491 1:23 38 47:16,17 39 21:15 22:8 3d 15:16 16:2 16:13 19:24 20:9 22:24 23:4,16 24:10 24:22 25:1,22 26:10,16,24 27:6,11,15 29:5 40:23 41:3,6,9 43:2
1			
1 1:18,25 4:3 39:23 40:1 46:23 47:15 77:4 80:1 10,936,270 4:22 50:22 1000 3:8 1001 4:10,12 47:13 1003 43:8 1006 4:14 37:23 38:1,19 39:20 1007 4:16 63:7 1029 4:18 18:3 18:9 19:6 55:23 56:17 1030 4:22 49:12 50:22,24 51:2,5,9 1033 5:4,8 11:8 11:17 106 43:24 44:2 44:8 107 44:2,8,14 108 44:8			

[3d - advise]

45:10 46:10 50:14 57:22 58:2,23 59:17 59:21 60:6 61:12,25 62:4	5	783-5070 3:10	92614 3:19
	5 22:25 47:20 500 24:9 25:15 26:3 55 21:15 22:9 578 18:9	8	949 3:20
4		8 14:3,18 827 1:22 868 11:12,16,20 12:1,10 13:3,5 14:7 15:2,13 15:19,23 16:12 16:18,24 17:3 17:5,14 19:8,9 21:22 22:11,16 22:23 23:2,23 25:9 27:20 28:8 31:7,14 32:6 33:2 36:16 37:2 38:14 39:4,9 40:8,10,20 41:15 42:9 45:2 46:5 49:24 50:1,6 51:14 54:15,23 55:21 57:3,16 57:17 60:20 62:23 65:19,23 66:23 67:11 68:2 72:2,13 868's 23:7	a
4 36:23 37:2,4 37:18 41 42:7,9 43 16:6 23:8,24 49 63:8,14,15 490 24:10,24 25:16 26:3 27:2,23 33:15 492 24:11 25:2 25:17 26:4 27:23 33:15 494 24:11 25:2 25:17 26:4 27:23 33:15 496 24:11 25:2 25:17 26:4 27:23 498 24:12 25:2 25:17 26:5 27:23 4:50 73:19 74:12 4a 18:11 51:1,3 51:6,8,8,11,18 52:5,7,13 4b 52:10,12 4f 52:14	6 6 16:1 623-7200 3:20 6463190 1:24 77:4 654 11:13,20 12:2,11 13:2 14:7,9 15:1 16:18 17:3,5 17:14 19:7,10 21:15,22 22:10 22:16 28:8 31:7,15 32:6 33:2 39:4,9 40:7 43:9,21 46:17,21 47:13 50:1 54:15,24 55:21 62:24 65:19 66:24 68:2 72:14 67 43:24 44:1 6a 18:12		a1 4:14,16 ability 7:15 able 16:9 35:11 above 15:16 16:1 19:23 20:8 27:10,14 78:22 79:6 absolutely 72:5 72:5 account 16:17 accurate 19:10 21:12,17 37:11 37:21 41:18 accurately 37:20 action 76:17,18 active 25:11 29:14,15 30:2 31:19 actual 60:5 actually 58:12 add 13:22 added 23:9,25 additional 64:3 addressed 40:2 adds 31:15 administered 7:2 76:7 administering 6:8 advise 43:10
	7	9	
	7 4:5 15:14,23 25:8 7321 76:24 78 1:25	9 50:4,7,9,12 9,304,654 1:10 2:10 4:12 9,696,868 4:10	

[affect - b2]

affect 7:15 affirmative 25:25 afternoon 12:4 ago 67:15,15,16 69:20,21 70:5 agree 6:7 12:4 63:21 65:1 69:22 al 50:23,25 allegedly 29:4 allow 8:7 alongside 25:1 25:16 26:4 analysis 13:2 15:1 31:6 32:4 32:25 58:4 analyze 27:3 60:19 answer 12:9 13:6,9,12,12 17:18 23:15 31:22 34:5 35:9,11 48:16 66:22 68:8 69:10 answered 18:19 20:6 21:1,20 26:8 26:21 31:12 32:12 44:24 49:4 61:6,21 70:1 answering 68:6	answers 7:20 anthony 29:1,3 38:14,15 39:7 39:8 40:22 41:8,23 42:1 42:21 44:17,18 44:20,20 45:24 45:25 46:7 52:2 58:21 63:5,9,11,15,25 64:2,3,9,10,13 64:16,16,19,23 66:14,19 68:19 68:19,23 anthony's 41:16 66:15 apologies 57:8 appeal 1:3 2:3 appear 75:4 appearances 3:1 appearing 3:2 79:18 80:7 appears 23:10 24:2 25:4 apple 1:5 2:5 3:4 4:10,12,14 4:16,18,22 5:4 5:8 38:1 77:2 79:4 81:1 application 23:8,25 41:16 41:19 47:24 48:1,3,9,10 50:14 52:3	62:20 63:6,13 63:22 64:18,19 65:2,4,11,13 66:2,5,8,11,16 66:18 67:1,3 67:12,14,21 68:4 69:5,19 70:4,8,21 71:2 71:9,12,20 72:4,6 applied 31:5 32:4,25 apply 15:3 55:3 approach 22:4 appropriate 35:12 56:13,23 57:14 approximately 12:20 35:16 areas 54:5 argues 29:1 argument 61:23 70:14 arguments 29:25 art 9:21 13:24 17:8 19:13 21:5,23 37:22 39:19 41:5 56:25 63:25 articulated 14:12 ascertain 52:16 aside 24:11	asked 18:18 20:5,25 21:20 26:7,21 31:11 34:2,6,8 44:23 49:3 61:5,20 69:19 70:1 asking 11:6 30:19 34:10 35:6 55:11 60:18 65:23 associated 67:25 assume 53:22 70:14 assuming 16:10 assumption 70:16 attention 43:24 57:3 attorney 3:7,16 6:11,13 76:18 attribute 65:3 67:18,22 attributes 64:20 67:21,24 68:11,17,20,24 audience 56:24 avenue 3:8 aware 72:10 73:4,10
b			
b 80:1 b2 1:10 2:10 4:10,12,22			

back 11:4 12:12 13:10 25:24 31:23 32:15,17,18 34:12,22 35:22 40:10 47:15 53:7 73:18,23 background 21:6 based 16:7 29:7 47:22 65:24 basis 14:23 19:2 beginning 72:16 behalf 2:16 believe 14:10 22:13 29:24 32:13 36:5,6 37:17 40:6 48:17,21 49:5 50:3,24 62:20 64:8 67:2 benefit 13:13 46:25 66:20 best 13:11,12 56:7,8,9,22 big 47:5 binding 6:9 bit 27:24 bitmap 55:3,13 55:16,19 black 47:2,5 blank 57:9 71:3 71:18,19,22	72:3 board 1:3 2:3 bookmark 57:9 57:13 bottom 15:13 15:23 47:6 boxes 47:2,6 break 8:2,5,8 30:10,11,17,24 35:14 52:24 73:18 breaks 8:12 53:9,12,14,21 briefly 7:13 bring 46:17 bullet 71:15 butler 3:14 button 58:19 62:4,5 70:8 buttons 44:15 50:15 51:12,16 51:24 52:4,9 52:15,22	cartesian 23:13 24:4 25:6 case 1:9 2:9 7:12 76:14 77:2 cases 65:21 catch 15:21 ccp 79:9,12 ccr 1:21,22,23 76:24 certain 9:20,21 9:24 10:7 19:5 19:6,8 32:19 33:14 45:23 69:15 certainly 59:11 certified 2:20 2:21 76:1 certify 76:3,16 78:22,23 challenged 38:10,16 change 42:24 45:7 73:5,9 81:4,7,10,13,16 81:19 changed 73:3 73:11 changes 78:22 78:23 chapel 1:16 2:17 6:1 characteristics 64:23	characterizati... 23:4 characterized 56:17 check 14:9 18:14 choices 66:1 choosing 18:24 chuckling 10:17 cite 22:8,12 42:11 cited 17:11 18:3,10 20:17 citing 16:5 civil 79:19,21 claim 10:20,22 15:6,7 39:22 40:1 46:23 47:15,19 54:7 57:5,15,16,17 57:20 58:10,16 59:1,3,5,25 60:9,14,19,22 60:25 61:4,8 61:15 62:7,9 62:14 67:10 68:3 71:16 claimed 29:15 38:3,9 39:3,14 40:24 45:18 55:10 claims 10:17 15:1 16:19 17:2,6 19:12
	c		
	ca 79:9,12,21 california 1:21 3:19 76:2 calls 48:13 53:17,17,19,19 60:15 69:24 capabilities 45:24 carolina 1:16 2:17 6:1		

[claims - cordrey]

21:4,22 22:11 23:21 29:2 31:15,16,19 38:10,16 39:3 39:9 40:8 57:11 61:15 64:3 65:19 68:2 69:3,3 71:1 clarification 33:7 clarify 24:16 38:6 77:4 clean 43:17,21 clear 11:5 43:14 58:11 60:4 62:14 64:10,11 66:15 70:3 clearly 68:19 close 22:18 23:11 24:2 25:4 closer 7:7 code 79:9,12,19 79:21 codes 77:4 collegiate 4:18 column 16:6,10 21:14 22:8 23:7,23 47:16 47:17 columns 71:7 72:1,1,3,8	combination 29:2,3 38:15 38:15 39:7 40:23 41:8,21 42:2 44:17,18 44:21 45:25 58:21 64:2,9 64:16,20 66:14 66:15,19,25 68:19,23 combine 45:24 46:7 combined 46:8 combining 66:4 come 19:14 49:16 70:20 73:18 commencing 2:17 common 50:16 51:16 communicated 53:13 communication 53:16 completed 79:7 79:17 80:6 completely 7:16 completion 76:14 80:10 complies 6:17 composite 62:24	composited 42:21 45:3 compressing 54:14 compression 54:25 comprises 59:19 comprising 57:21,25 computer 10:2 42:2,22 45:4 50:16 51:16 52:8,14,20 65:10 conclude 74:9 conclusion 48:14 conferred 8:24 confirm 37:11 53:10 conform 77:5 connected 43:11 connection 36:3,10 consider 33:20 36:2 56:10 68:9 69:11 considered 16:17 35:25 36:7,9 37:6,18 56:12 consistent 19:17 20:3	cont'd 5:1 contact 53:20 79:9,20 contained 75:4 content 42:23 45:6 contention 23:15 29:13,20 38:2 39:1 44:14 contents 42:25 45:7 context 15:5,10 33:20 34:1,18 35:4 54:15,20 55:18 58:25 59:3 contextual 33:10 continues 18:8 control 50:15 51:12,15,23 52:4,9,15,21 conversation 30:18 conversations 53:11 copies 57:12 copy 13:5,14 43:17,21 46:21 47:17 49:15,20 74:14,19 cordrey 3:15 4:5 6:12 7:5 12:12 14:22
---	---	--	---

[cordrey - definitions]

16:25 17:15,17 17:19 18:25 20:1,11 21:12 22:4 23:14 24:5,21 25:24 26:12,18 27:1 28:15 29:17 30:5,11,14,22 30:25 31:21 32:13 33:11,13 34:11,22 35:8 35:13,20,22,23 38:8,17,25 43:5,13,23 45:13 46:2 47:3,8,12 48:24 49:10,16 49:19,21,22 52:23 53:3,7,8 54:17 55:1,8 55:22 57:2 60:7,21 61:16 62:17 65:7,20 67:13 69:7 70:7 73:12,20 73:25 74:2,3 74:13 79:1 corner 18:7,8 correct 11:14 14:22 16:11 38:3,10,20 42:7 44:14,22 45:19 53:13,18 65:15 75:5 77:5 78:22,23	corrected 75:5 corrections 72:10 75:3 79:14,15 80:3 80:4 correctly 50:18 correspond 42:4 43:3 45:10 46:10,11 counsel 3:1 6:7 8:13,24 30:3 34:7 43:10 46:25 49:16 52:23 53:11,14 53:20 56:5 73:14 79:18,22 80:7 counsel's 7:21 count 12:18,22 couple 7:12 10:3 69:8 72:17 course 15:5 court 2:21 6:6 6:15,18 7:19 31:23 32:15 34:11 74:6,11 74:16,22 cover 7:9,13 22:6 created 64:21 critical 17:9 56:25 cross 8:15	csr 1:21,21,22 76:25 d d 4:1 23:12 24:4 25:5 d.c. 3:9 data 64:14 70:21,22 71:3 71:20 72:4 date 17:9,9 56:25 63:21,23 65:2,3,13,14,14 67:19,21,22 69:22,23 76:19 77:3 79:16 80:5 81:24 dated 76:22 dates 64:21,22 67:6,18,18 68:12 day 53:9 75:6 days 22:6 67:15 67:16 69:21 declaration 5:4 5:8 9:2,4,7,10 10:14 11:8,12 11:17,20 13:5 13:14,16 14:2 14:6,18 15:13 15:22 18:1 19:22 20:12,16 21:13,25 22:2 22:6,18,23 24:7,23,25 26:1 27:5,9,20	28:2 31:6 32:5 33:1 36:10,24 37:3,5 38:13 38:23 40:3,6 40:10,17,20 43:7,9,11,21 45:2,16 49:24 50:6 51:15 52:11 declarations 11:24 12:1,6 12:10,11 13:10 14:8 18:4 22:13,14 39:2 49:25 52:19 62:19,23 72:11 73:7,9,11 declare 75:1 default 71:5 72:7,8 define 13:3 19:1 defined 16:18 defines 13:17 definition 10:11,19 18:3 18:11,15,17 56:14,16 62:8 62:15 definitions 14:11,13,19,25 15:2 17:10,20 18:6,11,16 19:5 56:16,21
--	---	--	--

[delivery - dr]

delivery 74:21 depending 33:25 34:17 35:3 54:20,21 55:17 deponent 2:16 4:2 6:9,17,23 12:8 14:17 16:22 17:17 18:20 19:21 20:7 21:2,21 22:22 23:20 24:16 25:21 26:9,15,22 28:12 29:12,24 31:13 32:11 33:7 34:20 35:6,19 38:6 38:13,22 42:19 43:16 45:1,22 48:15 49:5,20 53:2 54:13,20 55:6,16 56:20 59:25 60:18 61:7,22 65:17 67:9 68:16 70:2 73:21 74:1 77:3 deponent's 1:16 deponents 76:6 deposition 1:14 2:15 6:8,20 7:11 8:3,19,22 9:13 11:22,25	12:13,21 43:12 74:9 76:13 77:1,3 78:1 79:19,23,25 80:8,10 describe 38:14 39:7 64:9,17 described 15:16 16:2,12 19:24 20:8 24:25 26:1 27:10,14 describes 64:23 description 4:9 5:3 13:21 23:1 25:10,14 66:13 design 50:16 designed 52:8 designs 51:15 52:15,21 desktop 23:9 23:25 detail 22:18 details 62:1 determine 46:4 determined 79:18,23 80:7 device 47:22 dictionary 4:19 10:11,19 13:17 14:19 17:11,21 17:25 18:2 19:5 55:24 56:3,8,11,21	difference 35:9 60:8 different 14:13 23:11 24:2 25:4 40:12 43:3 45:11 46:12 54:15 55:20 60:13,19 65:3,14 67:20 67:22 68:11,11 69:23 diffuse 42:25 45:7 dimensional 47:21 direct 36:23 43:24 57:2 direction 76:10 disagree 28:15 29:12,19 39:6 45:22 61:24 67:9 69:14,15 disagreed 29:16 disavowal 25:10 discern 33:16 disclose 29:4 52:6 disclosed 29:8 41:23 discloses 38:3,9 39:3 45:23 disclosure 19:17	discuss 22:23 discussed 55:23 56:6 discussion 47:11 display 47:22 displaying 29:5 41:6,9 47:20 displays 40:23 41:3 distinct 14:24 54:24 distinction 28:4 28:14,18,20,24 55:2 59:22 63:21 distinctions 55:9,12 distinguish 28:8 doctor 46:14 document 15:20 23:8,24 24:9 25:15 26:3 documents 8:23,25 9:1,3,6 9:8,9 21:10 dr 1:14 2:15 4:3 5:5,9 7:1,6 9:12 16:4 18:4 18:25 20:2,11 24:5 27:8 28:1 31:1,3 35:17 35:23 38:2
---	--	--	---

39:12 42:6 45:13 46:2 47:12 48:25 49:12 53:8 59:18 62:22 63:4 72:9 75:1 75:11 77:3 78:25 79:5 81:2 drill 39:11 dynamic 30:2 31:19	entire 21:22 22:2 59:10,17 60:6 61:11,12 61:24,25 entirety 17:5 19:11,12 21:4 errata 77:1 78:1 79:14,16 80:3,5 error 23:3 errors 72:18 77:5 esq 79:1 essence 60:24 61:3 essentially 24:21 68:8 et 50:23,25 exact 11:10 exactly 10:8 20:13 24:17 examination 4:2 7:4 examined 7:2 8:15 18:23 example 15:10 15:12,15,18,25 16:23 19:23 20:7 22:12,22 25:8 27:6,9,13 41:14 51:13,22 52:7 62:24 63:5,12 65:8 65:23 68:10	examples 17:1 52:20 excel 62:20 63:6,6,13,13,16 63:18,22,23 64:6 65:9,11 65:12,13,15 67:14,16 69:19 69:21 70:4,23 71:2,11,23 executed 75:6 exhibit 11:8,17 18:3,9 19:6 37:23 38:19 39:20 43:6,8 47:13 49:11,12 50:22 51:2,5,9 51:9 55:23 56:17 63:7 exhibits 4:7 5:1 46:15 expedited 74:14,19 explain 70:12 explanation 71:17 explicit 62:7 explicitly 62:10 exposes 23:3 expressed 73:8 extent 18:23	fact 33:17 facts 77:5 fair 20:1 22:7 fairly 56:17 familiar 7:18 far 66:23 67:10 feature 41:6 50:16 51:16 features 42:22 45:4 february 1:17 2:18 6:2 76:22 77:3 79:3,5 federal 76:13 80:1,8,9 field 17:8 figure 15:15,25 16:1 19:23 20:8,18 21:14 22:8 23:1,2 25:21 26:16,23 27:1,6,14,18 33:14 38:20 39:2,21 41:19 41:22,24 42:11 42:14,19 44:4 44:13,21 45:18 46:5 51:3,4,6,8 51:11,18 52:5 52:10,12 62:24 figures 51:1 52:13 file 23:6,8,24 63:19,24 64:13 65:3,12,15
e			
e 4:1 37:23 79:9 79:12 80:1 81:3,3,3 earlier 35:23 39:13,16 43:7 54:6 55:22 easier 40:13 eastern 73:19 edition 4:19 eight 12:24 either 49:1 50:1 69:11 72:11 73:5 electronic 53:16 element 15:6 39:23 email 53:16,19 employee 76:17 enable 17:16 encapsulate 20:14			
		f	
		f 51:2 fabricated 28:4 28:14,20,24	

67:17,23 69:21 70:10,23 71:4 71:11 files 63:6,18 financially 76:16 find 10:2 21:8 22:3 46:18 56:13,22 62:21 fine 8:10 13:7 13:15 30:22 31:2 35:19 49:24 53:2 69:12 73:21 finish 8:8 30:23 first 7:14 41:2 42:7,8 47:24 47:25 48:9,10 51:4 66:1,2,4,7 66:8,10,11 68:4,5 69:5,5 70:5,25 71:8,9 71:14,15 72:2 fish 3:5 five 8:4 30:9,11 30:16 35:13 73:18 focal 41:16 64:16 66:15 focus 50:10 focusing 41:24 48:7 folder 64:13,13 follow 48:5,19 73:15	following 23:14 37:6 42:10 follows 7:3 31:25 32:21 34:13,24 79:8 foregoing 75:2 76:4,6,10,12 form 13:18 16:20 22:20 25:19 38:11 42:3 53:15 54:14 forming 35:25 36:3 37:5 68:9 forth 37:18 39:1 44:7 76:6 found 43:16,18 70:8 72:17 fr.com 3:11 frcp 80:1 frequently 10:9 front 36:25 37:25 40:17 46:18 47:14 49:13 50:6 57:6 fuchs 1:14 2:15 4:3 5:5,9 7:1,6 16:4 18:4,25 20:2,11 24:5 27:8 28:1 31:1 31:3 35:17,23 38:2 39:12 42:6 45:13 46:2 47:12	48:25 49:12 53:8 59:18 62:22 63:4 72:9 75:1,11 77:3 78:25 79:5 81:2 fully 7:15 23:10 23:16 24:1 25:3 functional 23:10 24:1 25:3 functions 23:12 24:3 25:5 further 15:16 16:2 19:24 20:8 23:2 27:10,14 57:20 73:24 74:2 76:12,16	getting 25:14 give 6:20 7:9 13:11,12 14:24 15:10 35:10,11 46:14 57:6 61:19 62:20 63:2 65:7 66:13 given 18:7 66:21 76:11 go 8:4 22:1 23:6 30:4,15 30:19 35:20 40:10 42:20 47:10 53:4 74:1,3,10 goes 37:7 going 17:24 22:17 25:24 30:5,8 43:5 45:14 46:15 49:10,14 71:11 72:7 good 7:6,8 54:3 70:16 google 1:5 2:5 3:4 77:2 graphical 13:20 great 46:22 47:18 49:19 51:10 57:18 74:20 gregory 3:15 79:1
		g	
		g 37:23,23 gather 65:17 gcordrey 3:21 79:2 gears 62:18 general 56:23 generally 31:10 32:9 33:5,9,12 39:1 generate 46:8 generates 42:2 generating 29:4 39:23 42:15,20 45:3	

[group - included]

group 41:16 groups 64:16 66:16 guess 7:6 12:23 12:25 68:7,8	66:16 happy 8:3 hard 49:15 head 39:5 headers 71:4 heading 28:3 40:21,21 41:1 helpful 20:15 45:14 70:3 henry 1:14 2:15 4:3 5:5,9 7:1 75:1,11 77:3 78:25 79:5 81:2 highlighted 72:20,22 hill 1:16 2:17 6:1 history 17:7 19:9 20:23 21:5,23 36:2,8 36:16,17 37:10 hope 37:21 hour 30:8 hours 12:20,22 12:24	image 13:17,23 13:24 14:20 16:23 17:4 18:3,5,16 19:15,16 22:1 22:3,15 24:14 24:23 25:11,18 26:6,13,19,23 27:2,4 30:1 31:20 38:3,9 39:14 41:25 44:14,22 45:18 46:3,5 50:15 51:19,25 52:3 52:6 54:10,16 54:18,22,23,25 55:3,10,13,16 55:19,20,20,25 56:11,14,18 images 13:3 14:12 15:16,18 16:2,9,13,18,23 17:2,13 19:2 19:24 20:2,9 20:19 21:16 22:10,24 23:4 23:16 25:22 26:10,16,22,23 27:6,11,15,17 27:21 28:4,9 28:14,18,21,25 29:5,9,15,18 31:5,10,14 32:3,9,24 33:5 33:12,15,18,24	33:25 34:16,17 35:2,3 36:1 38:9,18,19 39:3,14,24 40:23 41:3,6,9 42:3,16 43:2 44:6 45:9 46:10 47:21 51:23 52:17 54:7,14 59:8 59:15 60:3,11 61:10 62:13 imitation 13:18 immersive 15:17 16:2,13 19:24 20:9 22:24 23:4 25:22 26:10,16 26:24 27:7,11 27:15 29:5 40:23 41:3,7,9 43:2 45:10 46:11 implicitly 31:16 important 64:8 67:10 inactive 23:5 30:1 31:18 incapable 25:12 include 9:20 53:15 included 17:25 79:14 80:3
h	h 37:23 81:3 hac 40:22 41:3 hac's 50:14 half 12:19,25 hand 6:16 17:22 18:7,8 handled 79:8 handy 49:23 50:2 hanggie 29:1,3 29:9,13,18 31:7 32:7 33:3 33:21,22 34:2 35:7 37:23 38:1,3,9,14,15 38:19 39:2,7,8 39:20 40:22 41:8,20,23,24 42:1,11,15,21 44:5,13,16,17 44:18,20,21 45:18,23,25 46:3,7 52:2 58:21 64:2,2 64:10,17,19 66:14,19 68:19 68:23 hanggie's 41:15 41:19 64:18	i	
	identified 21:14 56:4 identify 22:19 ii 47:25 48:12 48:20 49:1,6 iii 48:2,12,20 49:1,6		

[includes - knowledge]

includes 53:22 54:1 including 7:12 incorporated 44:16 incorporation 40:5 incorrect 29:25 37:19 independent 29:2 indicate 22:15 indication 58:18 information 33:19 instagrams 53:23 instance 62:20 62:25 63:7 64:25 instructions 7:10 interact 54:18 interacted 15:17 16:3,9 16:14 19:25 20:10,20 21:16 22:10 25:23 26:10,17,24 27:7,11,16 47:24 48:1,3 48:10 55:17 66:2,3,11 67:1 67:3,12 68:4	69:5 71:9,13 interacting 44:6 54:22 66:6,8 interaction 54:21 interactions 25:12 interactive 19:16 20:2 23:10,16 24:1 25:3 27:17 interested 76:17 interface 52:8 interfaces 50:17 51:17,23 52:14,21 interpret 48:8 58:4,6,15 interpreted 58:17 60:22 ipr 9:25 11:7 11:15 47:13 ipr2023-00343 1:9 2:9 5:6 ipr2023-00344 4:20 5:10 iprs 36:13,20 72:12 irrelevant 62:9 64:7 irvine 3:19 isolation 64:1	issue 9:25 20:14 36:19 item 64:12 68:18,21,24 items 24:11 25:1,17 26:4 27:3,4 37:20 64:11 67:25 68:24	24:15 25:19 26:7,14,20 28:10 29:10,22 30:3,7,13,17 31:11 32:10 33:6 34:7,19 35:5,17,18 38:4,11,21 42:17 43:10,15 44:23 45:20 47:1,5,10 48:13 49:3,18 53:1 54:12,19 55:4,14 56:19 59:24 60:15 61:5,20 65:5 65:16 67:7 68:14 69:24 73:17,23 74:18 74:20 kind 66:17 know 7:10 10:3 21:9,24 34:9 36:25 37:24 38:7 47:12 51:7 58:19 62:3 63:18 65:10 69:13 73:1 knowledge 17:7,8 19:14 53:20
		j	
		jeffer 3:14 jmbm.com 3:21 79:2 job 1:24 77:4 79:5 81:2 jpeg 54:10,13 54:18,18,22,25 55:10 jpegs 55:2 judge 56:20 judgment 51:20	
		k	
		keep 49:23 67:15 kept 15:4,9 65:11 69:20 khan 3:6,11 6:14 12:7,15 12:17,21,23 14:15 16:20 18:18 19:19 20:5,25 21:18 22:20 23:18	

[l - mischaracterizes]

l	listed 37:17,20 listing 37:9 little 27:24 30:8 48:15,22 49:8 58:24 62:4 70:2 llc 1:5 2:5 3:4 77:2 llp 3:14 local 10:2 located 2:17 location 1:16 locked 79:12 80:1 long 24:20 look 10:18 23:21 46:20 51:3,5 52:10 looked 9:5,8,10 9:12,16,19,24 10:1,10 13:4 43:19 48:16,23 49:9 looking 9:9,20 10:6,7,16,21,25 11:2,3 13:13 15:21 17:15 18:15 38:1 40:19 47:16 49:15 51:8 56:11 57:17 looks 18:10 24:24 lookup 10:12	lot 54:4 lower 18:7 lunch 7:7 m machine 76:9 made 55:8 59:22 75:3 76:8 78:23 maine 3:8 make 32:19 35:8 51:20 55:12 58:18 66:14 72:10 79:14 80:3 makes 39:8 64:10,10 mangels 3:14 manner 13:25 23:17 mapping 43:1 45:9 46:9 mark 66:17 materials 9:16 9:17 37:17 matter 11:23 43:12 matters 11:24 mean 24:18 28:22 33:10 38:7 54:21 58:22,25 62:5 67:3 72:7 meaning 58:18 61:19 73:4	means 17:2 66:3 67:5 meant 15:11 28:23 29:6 71:21 medication 7:14 meetings 12:14 12:16,18 meets 44:5 memory 13:13 40:9 49:8 mention 45:1 mentioned 25:8 51:21 72:16 menu 70:9 merely 60:25 merriam 4:18 13:17 55:24 met 12:15 microsoft 24:9 25:15 26:2,2 middle 8:7 mind 15:4,9 55:2 65:1 minimum 22:7 minute 8:4 35:14 57:6 73:18 minutes 30:9 30:12,16 52:24 53:5 mischaracteri... 29:10
----------	---	--	---

[misstates - open]

misstates 14:15 16:21 19:20 21:18 22:21 23:18 25:20 28:10 29:22 38:5,12 42:17 45:20 65:5 67:7 68:14 mittell 3:14 modifies 42:22 45:4 48:11 modify 48:9,25 month 67:14 69:20 70:5 morning 7:6,8 multiple 39:9 41:12 51:16	no.6463190 79:5 81:2 north 1:16 2:17 6:1 notating 79:15 80:4 noted 15:15,25 19:23 20:8 27:10,14 74:12 notes 75:4 noticing 6:10 6:13 number 4:8 5:2 11:10 12:18,22 36:21 37:12 71:6,6 72:7,8 79:15 80:4 numbers 11:21 16:11 18:13 72:1 numeral 47:23 47:25 48:2,12 48:19,20,20 49:1	70:22,25 71:3 71:9,13 72:2 objection 6:8 6:12,14 12:7 14:15 16:20,21 18:18 19:19,20 20:5,25 21:18 21:20 22:20,21 23:18 24:15 25:19,20 26:7 26:14,20,21 28:10 29:10,22 31:11 34:19 35:5 38:4,5,11 38:12,21 42:17 44:23,25 45:20 48:13 49:3 53:1 54:12,19 55:4,5,14,15 56:19 59:24 60:15,17 61:5 61:20 65:5,16 67:7 68:14 69:24 70:1 objections 7:21 32:10 33:6 objects 23:17 46:12 61:2 obvious 10:11 10:12,17,19 29:3 38:16 39:9 obviously 45:13	obviousness 10:10 40:7 offer 52:18 offhand 11:21 21:24 office 1:1 2:1 79:11 officer 6:8 okay 8:11 13:4 16:15 18:2,6 18:15 30:21,25 31:3 35:16 39:19 41:2 42:10,14 43:23 46:20 47:8,18 48:7 49:10,19 49:22 50:7,10 50:21 51:1 52:23,25 53:4 53:15,22,25 58:9 59:4 62:17,22 63:4 65:22 68:6 71:11 73:17,25 74:11,13,22 once 23:6,8,24 74:5 ones 17:23 18:21 27:25 54:1 56:22 online 9:5,17 9:19 10:1,6,25 open 47:17 51:5 63:23 65:2,9,11,12
n	n 4:1 37:23 name 76:20 77:2,3 necessarily 23:5 necessary 62:2 79:14 80:3 need 7:22 8:2 32:17 33:7,19 40:11 46:4 72:10 74:18 needed 8:5 needs 59:10 62:10 neither 76:16 nevada 1:22	o	
	o0o 6:4 74:24 oath 6:9 7:2 76:8 object 47:25 48:2,4 59:7,14 60:3,10 61:1,9 62:12 64:14 66:2,4,6,9,11 67:1,4,12 68:5 69:6 70:5,21		

[open - patents]

66:5,10 67:14 67:15,16 69:20 70:5,21 71:2 71:11,23 opened 47:24 47:25 48:3,9 65:4,14,15 66:1,7,25,25 67:3,11,19,22 67:23 68:4 69:4,19,20,22 70:4,9,10 71:8 71:12 opening 70:10 opens 63:22 operating 64:11 67:25 68:17 operations 44:19 opinion 20:14 28:7 39:12 40:7,15 52:18 opinions 12:4,5 65:21 68:9 73:8,10 order 19:14 40:24 47:22 68:20,23,25 ordering 64:24 66:17 68:18 ordinary 13:23 56:24 oregon 1:22	original 9:10 23:11 24:2 25:4 38:13 40:5,10,14 43:9,21 73:8 73:11 76:13 79:10,20,22 originally 69:18 outside 55:15 own 17:7,8 19:14 21:6 owner 1:8 2:8 2:16 3:13 6:13 13:25 28:13,19 28:23,24 29:1 31:15 owner's 9:11 23:3 28:13,20 29:13,19,25 61:23 owners 74:9	77:6,8,10,12,14 77:16,18,20,22 77:24 78:2,4,6 78:8,10,12,14 78:16,18,20 79:15 80:4 81:4,7,10,13,16 81:19 pages 1:25 79:14,17,17 80:3,6,6 paper 13:4,14 46:21 47:17 49:20 57:12 paragraph 14:3,18 15:14 15:24 19:22 20:13 22:25 24:7,25 27:8 27:13,19 28:1 36:23 37:2,4 37:18 41:14 42:7,9 43:24 44:13 48:8 50:4,5,8,11 62:25 63:8,14 63:15 64:5 paragraphs 44:2,7 parameters 71:6 parcel 40:6 park 3:17 part 15:7 40:6 41:2	particular 14:14 15:6,6,7 56:3 62:1 64:5 65:12,15 67:16 67:23 69:21 70:10,23 parties 3:2 parts 9:2,10,11 9:12 party 76:18 patent 1:1,3,8 1:10 2:1,3,8,10 2:16 3:13 6:13 9:11 11:16 13:25 15:19 16:12,19 21:15 23:2,3,7 25:9 28:13,13,19,20 28:23,25 29:12 29:19,24 31:15 36:3,7,12,14,18 36:18 37:10 39:4 46:21 50:22 57:1,3 57:17 61:22 74:8 patent's 28:24 patents 11:13 11:20 12:2 13:3 15:2 17:3 17:5,9,14 19:8 19:10 28:8 31:7 32:6 33:2 36:19 55:21 66:24
---	---	---	--

pdf 79:12 80:1 penalty 6:19 75:2 79:16 80:5 period 79:18 80:7 perjury 6:19 75:2 79:17 80:6 permitted 8:13 person 13:19 13:23 56:24 pertains 76:12 petitioner 6:14 53:11,14 petitioners 1:5 2:5 3:4 ph.d. 3:6 phone 53:16,18 pink 72:22 pixels 42:24 45:7 place 16:11 56:7 58:12 72:23 76:5 places 21:7,10 21:25 32:19 plaza 3:17 please 6:11,16 17:19 24:17 33:8 34:21 38:7,23 44:10 63:11 74:14 plural 72:24	plurality 38:18 39:23 42:2,16 44:6 47:20 59:8,15 60:3 60:11 61:1,10 62:13 plus 15:4 po 28:3 point 52:20 73:16 pointed 38:19 pointing 14:4 points 71:16 portion 14:5 16:4,5,16 20:18 24:6 26:1 42:7,8 43:6 44:5 48:7 portions 19:6,8 20:22 22:19 41:10,12 position 24:22 29:17 31:4 32:2,23 33:24 34:15 35:1 38:8 39:21 42:24 45:6 possibility 59:11 preceded 24:8 preceding 28:1 precise 23:20 precisely 55:9 prefer 13:11	preliminary 7:10 11:5 premarked 4:7 5:1 preparation 12:13 prepare 8:22 preparing 12:21 present 56:5 press 58:19 pretty 57:19 58:11 60:4 prevents 50:13 previous 42:23 45:5 previously 39:20 primary 14:21 prior 17:8 19:13 21:5,23 37:22 39:19 41:5 63:25 76:7 probably 9:4 21:7 procedure 79:19,21 proceed 8:18 17:19 proceedings 76:4,7,8,14 professional 2:21	professor 42:6 program 23:12 24:3 25:5 prosecution 17:7 19:9 20:22 21:5,23 36:2,7,16,17 37:10 provided 11:7 17:11 79:19 80:8 pull 49:14,23 put 14:10 43:25 45:17 46:24 73:1 <tr> <td colspan="4">q</td></tr> <tr> <td colspan="4"> question 8:7,8 11:5 13:6,9 14:23 20:21 24:13,17 25:25 30:24 31:21,24 32:1,12,16,20 32:22 34:5,6,8 34:12,14,21,23 34:25 35:12 38:7 40:12 44:9,11 45:17 46:3 48:17 57:19 63:20 66:22 67:5 68:6 69:11,16 69:18 72:15 74:2 questions 7:20 7:23 12:3,5,9 </td></tr>	q				question 8:7,8 11:5 13:6,9 14:23 20:21 24:13,17 25:25 30:24 31:21,24 32:1,12,16,20 32:22 34:5,6,8 34:12,14,21,23 34:25 35:12 38:7 40:12 44:9,11 45:17 46:3 48:17 57:19 63:20 66:22 67:5 68:6 69:11,16 69:18 72:15 74:2 questions 7:20 7:23 12:3,5,9			
q											
question 8:7,8 11:5 13:6,9 14:23 20:21 24:13,17 25:25 30:24 31:21,24 32:1,12,16,20 32:22 34:5,6,8 34:12,14,21,23 34:25 35:12 38:7 40:12 44:9,11 45:17 46:3 48:17 57:19 63:20 66:22 67:5 68:6 69:11,16 69:18 72:15 74:2 questions 7:20 7:23 12:3,5,9											

[questions - relied]

65:20 73:24 quite 54:24 quotation 42:10 quoted 19:21 42:7,8	78:12,14,16,18 78:20 81:6,9 81:12,15,18,21 rebecca 1:21 2:20 17:15 53:3 76:1,24 recall 9:8,9,15 10:5,16,20,22 10:25 11:1 39:16,25 54:8 56:1 63:4 receiving 25:12 57:21,25 58:7 58:13 59:5,19 60:9,25 recess 35:21 53:6 73:22 recited 60:13 recites 57:20 60:25 recollection 11:18 40:14 44:4 56:6,12 reconvene 53:5 record 6:7 8:4 30:4,6,15,19,20 31:25 32:21 34:13,24 35:20 35:22 47:11 53:4,7 73:23 74:1,4,5,10 76:8,11 77:4 rectangular 47:6	refer 13:10 31:20 37:13 44:4 50:21 51:1,14 52:12 52:13,14 reference 16:10 31:8 32:7 33:3 33:21,22 34:3 35:7 37:22 41:18,20 51:2 51:4 63:5,12 63:16,25 64:4 64:6 referenced 79:6 references 9:21 9:24 41:11,13 42:20 referred 9:3,7 14:6 21:25 24:6,22 33:21 51:13,22,25 52:2,11 54:2 68:10 71:17 referring 13:7 24:14,19 27:18 27:21 33:11,13 36:15,17 38:24 38:25 39:19 40:1 63:10 65:18 70:24,25 72:13 refers 41:19,21 41:21 50:24 63:18	refresh 11:18 40:9 44:3 49:8 refreshing 13:13 regard 25:18 26:12,18 31:4 31:7 32:2,5,23 33:1 38:17 41:25 51:19 54:10 55:13 70:9 regarded 44:21 regarding 11:15,23 12:5 39:22 40:7 44:6 53:11 55:2 registered 2:21 regular 74:21 regurgitate 20:15 45:15 related 36:14 36:18 42:15 relating 39:23 65:4 relative 76:17 released 79:22 relevance 54:12,19 relevant 10:13 17:22,23 18:22 19:13 65:18,21 68:1,3 69:2,12 relied 17:5 19:5 19:6,8,11
r			
r 81:3,3 r&s 80:1,9 raise 6:15 reaction 59:7 read 9:2 15:17 16:5,8,14 18:22 20:16 23:5 25:17 26:5 31:23,25 32:15,17,18,21 34:11,13,22,24 42:5,25 43:4 45:8,12 50:18 58:8,10,14,23 59:6,13,25 61:22 66:7 68:5 75:2 reading 20:12 59:4,18 72:17 79:24 80:9 ready 8:18 17:17 really 14:23 reason 30:5 37:17 77:4,6,8 77:10,12,14,16 77:18,20,22,24 78:2,4,6,8,10			

20:23 21:3,11 21:21 52:7 56:16 relies 43:1 45:9 rely 16:25 18:17 39:20 41:5,8,11,12,15 44:4 45:17 52:5 remember 9:19 9:22 10:3,7,8 11:10,21 18:13 18:20,23 36:21 36:22 37:12,13 37:14,15 remote 6:9 remotely 1:15 2:19 76:5 removed 57:9 removing 43:19 render 29:2 renders 38:16 repeat 34:9 44:9 repeated 58:9 69:8 replace 59:20 replaced 59:8 64:17 66:16 replacement 59:14 replacing 41:16 59:23 60:2,10 61:1,9 62:12	report 56:22 reported 1:15 1:20 2:19 reporter 2:20 2:21,22 6:6,15 6:18 7:19 31:23 32:15 34:11 74:6,11 74:16,22 76:2 reports 62:23 64:1,15 representation 13:20,21 represented 39:21 reproduction 13:18 request 57:21 58:1,7,13,15,17 59:6,12,20 60:1,2,9,12,25 61:2,8 62:3,3,6 requested 76:15 80:1,9 80:10 required 62:8 62:16 79:20 requirement 59:9,12,16 60:5 61:11,17 61:23 66:6 requiring 38:18 reserve 73:14	respectively 42:4 response 7:22 9:11 48:25 60:2,11 61:2 70:22 resulting 45:25 resume 35:15 return 79:17 80:6 review 8:25 76:14 79:8,10 79:13 80:2 reviewed 8:23 9:1 richardson 3:5 right 6:16 8:9 9:18,22 11:1,9 11:24 14:8 16:19 18:8,12 19:18 20:4 21:9 22:19 25:18 27:12,22 30:16 39:10 42:16 49:2 50:23 52:6 54:3 63:17 65:19 67:13 73:15 roman 47:23 47:25 48:2,12 48:19,20,20 49:1 romano 1:21 2:20 76:1,24	rough 74:14,17 74:18,20 rows 71:6,25 72:1,3,8 rpr 1:21 76:24 rules 8:12 80:8 running 24:9 25:15 26:3 <tr> <td colspan="4">s</td></tr> <tr> <td colspan="4"> s 3:15 79:1 81:3 sake 70:14 satisfied 39:22 saved 24:8 25:15 saw 16:12 saying 23:22 29:21 60:24 68:13 69:8 70:6 says 24:8 40:21 40:22 41:2 43:11 48:8 58:13 59:12 62:4,11 65:24 scale 42:24 45:6 schaefer's 9:12 schedule 79:10 scope 43:11 54:12,19 55:5 55:15 60:17 screen 17:16 43:25 46:24 47:1,4 49:17 71:3,18,19,22 </td></tr>	s				s 3:15 79:1 81:3 sake 70:14 satisfied 39:22 saved 24:8 25:15 saw 16:12 saying 23:22 29:21 60:24 68:13 69:8 70:6 says 24:8 40:21 40:22 41:2 43:11 48:8 58:13 59:12 62:4,11 65:24 scale 42:24 45:6 schaefer's 9:12 schedule 79:10 scope 43:11 54:12,19 55:5 55:15 60:17 screen 17:16 43:25 46:24 47:1,4 49:17 71:3,18,19,22			
s											
s 3:15 79:1 81:3 sake 70:14 satisfied 39:22 saved 24:8 25:15 saw 16:12 saying 23:22 29:21 60:24 68:13 69:8 70:6 says 24:8 40:21 40:22 41:2 43:11 48:8 58:13 59:12 62:4,11 65:24 scale 42:24 45:6 schaefer's 9:12 schedule 79:10 scope 43:11 54:12,19 55:5 55:15 60:17 screen 17:16 43:25 46:24 47:1,4 49:17 71:3,18,19,22											

[screen - specifications]

71:24 sealed 79:20 second 30:4 43:11 46:14 48:1,2 62:21 63:2 71:12,13 71:14,15 section 28:2 see 13:9 14:18 15:15 18:2,5 22:3 27:19 28:5 37:2 40:25 41:1 42:12,13 44:7 47:19 50:19 57:12,24 58:3 59:9 60:24 61:14 63:15 seem 18:21 40:14 65:22 seemed 17:21 select 17:12 selected 17:20 18:21 56:3 sense 59:19 sentence 16:8 73:4 sentences 50:11 set 37:18 39:1 44:7 68:24 76:5 several 7:11 18:6 22:5 50:16 56:7	shaking 39:5 share 17:16,24 43:5 sharing 49:11 sheet 77:1 78:1 short 30:10,24 52:24 shorthand 2:20 76:1,9 show 47:4 51:11 72:21 showed 46:8 showing 44:15 47:5 shown 44:13 51:18 shows 25:21 26:9,16,23 51:12 sign 79:16 80:5 signals 53:23 signature 76:24 79:22,24,24 80:9 signed 11:11 significant 72:19 similar 23:17 simply 20:15 45:17 singular 72:24 sir 43:17 58:3 70:17 sitting 9:18 11:1 22:17	27:22 37:16 72:9 situation 70:20 size 42:23 45:6 skill 13:23 56:24 small 47:23,25 48:2,12,19,19 48:20 49:1 smoke 53:23 solemnly 6:18 solutions 79:7 sorry 10:22 15:20 24:10 26:2 30:3 32:11 34:2,7 35:6 36:11,12 36:15,21 38:6 42:6 44:9 47:3 50:1 59:3 63:1 63:10 sort 47:7 sounds 25:13 59:18 space 15:17 16:3,13 19:25 20:9 22:24 23:4,9,13 24:1 24:4,11,22 25:1,2,6,16,22 26:4,10,17,24 27:7,11,15,17 29:5 40:24 41:4,7,9 42:3,5 42:21,23 43:2	43:4 45:4,5,10 45:11 46:9,11 46:13 47:21 50:14 52:3 57:22,23 58:1 58:2,23,23 59:8,14,17,17 59:20,21 60:3 60:6,6,10 61:1 61:10,12,13,24 61:25 62:12 71:5 spacetime3d 1:7 2:7 3:13 6:13 77:2 79:4 81:1 span 12:24 speak 8:13 specific 20:18 21:9 27:25 33:20 34:20 35:7 38:22 55:6 58:24 63:23 71:20 72:4,6 specifically 41:10 57:4 specification 16:6,16 17:1 19:18 20:4,18 20:22 25:10 specifications 15:8,19 17:6 19:7,12 21:4 21:22 23:23,24
---	---	---	---

[specifications - telephone]

31:17 specifics 35:10 39:12 specified 27:20 specify 14:20 55:9 58:20 64:15 speculation 60:16 69:25 spend 12:21 spent 12:23 spreadsheet 64:6 spreadsheets 63:13,16 square 71:24 start 8:21 51:3 57:10 70:8,9 starting 6:10 9:6 22:25 starts 18:7 37:4 47:20 state 6:19 9:21 41:14 69:3,3 76:2 79:9,12 stated 71:1 statement 24:8 28:16 29:7 68:3 statements 22:14 states 1:1 2:1 28:3 50:13 59:5 62:10 68:20	static 30:1 31:18 stenographic 47:11 stenographic... 1:20 step 57:21,25 58:6 59:5,7,19 61:9 62:11 stipulation 79:21 stop 32:19 49:11 73:15 stored 64:11 straightforward 57:19 strike 28:16 31:22 34:5 63:1 studied 36:22 study 27:23 40:10 studying 37:14 subject 11:23 36:13 43:12 78:22 submitted 11:11,16,19 subscribed 76:20 substance 8:14 suggesting 25:11 supplemental 5:4,8 11:8,12	11:16,19 12:1 12:6,10 13:5 13:14,16 14:2 14:5,7,17 17:25 18:4 19:22 21:13,25 22:2,12,14,23 24:7 27:9,20 28:2 31:6 32:5 33:1 36:10,24 37:2,5 38:23 40:16,20 41:15 42:9 49:24,25 51:14,22 52:11 52:19 62:22 72:11 73:7 supplementals 72:14 73:6 supplementary 9:2,4,7 10:14 15:13,22 40:2 45:2 support 22:9 28:3,13,20,24 42:14 55:24 sure 31:2 32:18 32:19 34:7 35:18 46:16 47:2 63:3 69:14 70:19 74:3 sw 3:8 switch 46:15 57:22 58:1,5,7 58:14,16,17,22	59:6,13,16 60:1,6 61:8,11 61:17,18 62:4 62:9,15,17 switched 61:25 switching 58:5 58:12 59:10,23 62:1 system 39:8,8 46:8 58:19 64:11 67:25 68:17
t			
t 81:3,3 tab 43:16,18,19 take 8:4,8 30:9 30:11,17,24 35:13 46:16 52:23 58:12 73:18 taken 2:15 7:11 35:21 53:6 73:22 76:4 takes 71:5 talk 22:25 talked 35:24 talking 39:13 54:6 tangible 13:19 teachings 46:7 technical 56:10 telegrams 53:23 telephone 53:19			

[tell - two]

tell 43:18 66:23 telling 68:2 ten 8:4 35:14 52:24 53:5 tenth 4:19 term 13:3,23 15:5,10,18 17:4,13 19:1 19:15 21:3,11 22:3,15,24 26:19 27:2 31:14,20 36:1 54:7,11,16,23 55:19,20,25 56:11 58:5 61:18 64:12 66:24 terms 9:16,20 10:7,24 11:2 24:20 31:18 testified 7:3 33:14 36:6 55:22 testify 7:15 testifying 76:7 testimony 6:19 8:14 9:23 14:16 16:15,21 19:4,20 21:19 22:21 23:19 25:20 28:11 29:11,23 38:5 38:12 39:16 42:18 45:21 53:12 54:8	56:1 60:8 65:6 67:8 68:15 75:4 76:11 text 46:24 53:19 texts 53:16 texture 42:25 45:8 thank 8:1 13:1 14:4 43:15 73:17 74:22 thing 8:6,11 13:19 things 9:5 11:3 35:24 37:8,9 41:22 65:24 69:15 think 9:12,20 10:4,10 18:22 25:7,21 27:24 43:13 51:21 54:1,24 57:10 60:4 62:2 64:6 69:12 70:16 72:18,20,22,23 72:25 73:3,12 74:5 third 48:3,4 72:25 thought 10:13 10:18 19:13 32:11 36:15 43:17 56:8 57:9	three 14:13,19 14:24 17:20 18:21,24 36:13 36:13,19 42:4 47:21 48:18,21 65:10,11,25 tie 25:13 time 6:6 7:7 8:2 8:3 10:21 21:9 22:2 34:23 36:6 46:16,19 47:22 49:7 56:25 65:24 66:24 67:10,11 69:4 74:12 76:5 79:10,18 79:25 80:7 times 7:11,12 56:7 69:9 timing 74:6 today 7:16,19 8:3 9:18 11:1 11:22,25 22:17 27:22 35:24 37:16 39:17 53:12 54:6 72:9 73:13 74:15,17 together 67:2 73:1 told 45:23 took 16:17 39:21 top 47:16	topic 17:22 totally 71:22 touch 54:5 trademark 1:1 2:1 transcribed 76:10 transcript 74:7 75:3 76:11,13 76:15 77:5 78:22,23 79:6 79:8,10,13,13 79:22 80:2,2 trial 1:3 2:3 true 75:5 76:11 78:22,23 truth 6:21,21 6:22 try 47:8 trying 14:25 19:1 20:13,17 31:3 32:1,22 33:23 34:14,25 39:11 46:23 60:21,23 turn 37:22 46:23 47:15 50:3,7 57:14 73:14 turning 12:12 two 47:2,5 50:11 64:4 66:4 67:2,15 67:16 69:21 71:14 73:1
---	--	---	---

[type - week]

type 63:19,19 65:3 67:23 typographical 72:18	35:25 36:4 39:14 43:20 48:17 49:6 54:7,17 55:25 56:15,18 61:3 61:7,18	64:24 65:25 66:18,25 67:11 69:4 uses 63:5 using 56:10 76:9 usman 3:6	visible 13:19 vivid 13:20 volume 1:18 4:3 vs 77:2 79:4 81:1
u	understood 13:24 unidentified 55:12 unintentionally 73:2 united 1:1 2:1 unsupported 29:25 31:16 upper 18:8 use 13:22 14:14 16:23 54:15,24 55:23 64:1 used 15:5 16:18 17:13 31:14 44:17 46:6 48:25 54:23 55:21 56:21 62:19,24 64:1 64:3,12,22,24 66:18 user 47:23 48:18 49:6 50:16 51:23 52:8,14,20 57:22 58:1,7 58:14,18 59:6 59:12 60:9 62:6 63:22,23	v v 1:6 2:6 vague 12:7 24:15 26:14,20 34:19 35:5 38:4,21 55:4 55:14 56:19 59:24 65:16 various 37:7 42:22 44:18 45:4 55:17 64:20 verbal 7:22 veritext 79:7,9 79:11,20 version 10:1 versus 63:22 video 53:17 videoconfere... 1:15 2:19 3:2 6:10 view 19:17 virtual 23:9,25 24:10,11 25:1 25:2,16 26:4 64:13 virtue 33:17	w waived 79:24 79:24 waiving 79:21 want 30:15,18 37:11 53:9 54:5 74:6 wanted 30:7 52:19 68:22,25 69:1 washington 1:23 3:9 way 22:5 23:11 24:3 25:5 44:12 47:1 59:25 60:23 64:12 ways 54:22 55:17 we've 30:8 53:8 web 1:15 2:19 3:2 11:3 webster 55:24 webster's 4:18 13:17 wednesday 1:17 2:18 week 12:19,25

[weeks - zoom]

weeks 10:4 65:10,12	24:9 25:15 26:2 45:15,15 56:18
weird 47:7	
went 70:7	words 50:19 58:9 67:20 73:1
whereof 76:19	
white 71:22,23	works 30:13 73:20
window 24:9 24:22,24 25:16 26:2,3 27:2 42:21,23,24 45:3,5,6,11 46:1,3 50:15 51:12,15,18 52:8,15,21	wrote 11:11
	x
	x 4:1 76:15 80:9 xu 50:23,25
	y
windows 28:4,9 28:14,18,21,25 29:8,13,18 31:9 32:8 33:4 33:12,15,17,24 33:25 34:15,16 35:1,2 41:16 41:17,19 42:3 42:4 43:2,3 45:10 46:9,10 46:12 50:14 52:3,17 64:18 64:19 66:17	yeah 30:13,14 30:17,20,21,22 31:3 43:20 54:4 69:7,17 72:15 yellow 72:21
	z
wish 49:7 wishes 13:25 64:24 witness 76:19 79:13,16 80:2 80:5 81:24 word 10:11 14:20 16:23	zoom 1:14 12:15,23 53:19

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

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