

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2
3 BEFORE THE PATENT TRIAL AND APPEAL BOARD

4
5 NINTENDO CO., LTD., and NINTENDO OF AMERICA, INC.

6 Petitioners

7 v.

8 POLARIS POWER LED TECHNOLOGIES, LLC

9 Patent Owner

10
11 Case IPR2023-00778

12 U.S. Patent No. 8,223,117

13
14 Videoconference Deposition of

15 R. JACOB BAKER, Ph.D., P.E.

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1 Pursuant to Notice, before Dawn M. Hart,
2 RPR/RMR/CRR and Notary Public.

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A P P E A R A N C E S (Continued)

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C O N T E N T S

EXAMINATION OF R. JACOB BAKER, Ph.D., P.E.	PAGE
By Mr. Brewster	5

E X H I B I T S

(Exhibits have been previously marked in
proceedings and are part of the IPR record.)

PREVIOUSLY MARKED EXHIBITS	PAGE
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Application Publication re	
Burke	

1 P R O C E E D I N G S

2 R. JACOB BAKER, Ph.D., P.E.

3 being first duly sworn or affirmed to
4 testify to the truth, the whole truth, and nothing
5 but the truth, was examined and testified as
6 follows:

7 EXAMINATION BY COUNSEL FOR THE PATENT OWNER
8 BY MR. BREWSTER:

9 Q Good morning, Dr. Baker.

10 A Good morning.

11 Q Just to go over some quick ground rules.

12 When I ask you a question, please let me
13 finish the question before you start to answer.

14 And also be sure to give your attorney, you know,
15 a short opportunity to object if he would like to.

16 However, you know, even if your attorney
17 objects, unless they explicitly instruct you not
18 to answer the question, you still have to answer
19 the question, okay?

20 A Yes.

21 Q We'll try to break roughly once an hour.
22 If for any reason you feel you need a break before

1 then, just let me know and we can try to find a
2 good place to stop.

3 During the deposition, you know, I may
4 direct you to an exhibit. I believe Ken today
5 will put those up on the screen for us. If you
6 have your own copy, you know, of your Declaration
7 or other exhibits, you can feel free to look
8 through those on your own, but that's how we'll be
9 handling exhibits.

10 All right. Dr. Baker, is there any
11 reason you can't give full and accurate testimony
12 today?

13 A No.

14 Q And what did you do to prepare for your
15 deposition today? And to be clear, I'm not asking
16 you to disclose any privileged conversations.

17 A I reviewed the Declaration in this
18 associated matter.

19 I'm going to pause for a moment, because
20 I'm not an attorney and I don't know the
21 procedure, but generally at the start of the depo,
22 the procedure -- which procedure we're talking

1 about is read into the record and the attorneys
2 introduce themselves, and we haven't done any of
3 that, so I might be a little bit more verbose in
4 answering these questions.

5 I reviewed the materials associated with
6 the Polaris/Nintendo IPR that I was working on. I
7 don't remember the exact number.

8 I met with Nintendo's attorneys. I
9 reviewed, like I said, the cited materials
10 associated with this IPR matter.

11 Q In your career how many inter partes
12 reviews have you been involved with, would you
13 say, roughly?

14 A I would guess 250 and probably out of
15 those, I'm guessing 210, maybe. I don't know the
16 exact number have been filed.

17 Q That's all right.

18 In those IPRs you've been involved with,
19 how many times would you say you've used three or
20 four or more reference combinations to invalidate
21 an independent claim, would you guess?

22 A I have no idea. I don't -- just to be

1 clear, I'm not -- I'm not offering legal opinions,
2 I'm just talking about how the prior art teaches
3 what's taught in the '117 patent at issue in this
4 case.

5 And maybe I should -- I don't have
6 anything open on my computer, but I'm going to
7 open a folder and read the patent number just so
8 when I say "'117" it's understood. I don't
9 remember the exact number beyond the last three
10 numbers.

11 Q 8,223,117 is the patent number.

12 A Okay. I'll -- that's what I refer to as
13 the '117 patent.

14 Q That's fair.

15 So would you say it's common in your
16 experience to use a three-reference combination
17 for you?

18 A I will generally use three or more
19 references if I look at something and I think that
20 it would have been obvious to a person of ordinary
21 skill in the art, but obviously taking someone's
22 word by itself is a little more difficult in

1 situations to do than actually taking their word
2 and looking for prior art that supports their
3 opinions.

4 I'll generally bring in prior art that
5 supports an opinion if I have it that's related to
6 a person of ordinary skill in the art
7 understanding something at the time of the
8 invention.

9 Q So in your Declaration, in ground 1, you
10 use a three-reference combination, Stoughton,
11 Mierzwinski and Nagai against the independent
12 claims, correct?

13 A I'm going to open a clean copy of my
14 Declaration that I have on my computer, but if
15 you'd like to post one that you want me to look at
16 instead, I can look at that one.

17 Q Yeah, you can you go ahead and check
18 your -- it's just -- you can look at the heading
19 above paragraph 132 of your Declaration.

20 A Yes, in ground 1, I'm looking at the
21 claims 1, 2, 9, 15 and 16 as being obvious over
22 Stoughton, but in view of Stoughton -- spelled

1 S-T-O-U-G-H-T-O-N -- and in view of Mierzwinski,
2 which is spelled M-I-E-R-Z-W-I-N-S-K-I, and Nagai,
3 which is spelled N-A-G-A-I.

4 Q And for ground 3 -- and just so you have
5 a bookmark, the header of paragraph 266, you use
6 five references as Gettemy, Rosenzweig, Kerman,
7 Bell and Whitted, right?

8 A Yes. This is a good example of me just
9 pointing to a prior art reference to support what
10 a person of ordinary skill in the art would have
11 known at the time of the invention.

12 Q Did you choose the references in these
13 combinations, Dr. Baker?

14 MR. LAUPPE: Objection. You know, I
15 just -- I instruct Dr. Baker to be careful here,
16 this seems to border on privileged information.
17 In fact, I instruct the witness not to answer.
18 That's privileged information.

19 Q Okay. Roughly how many references did
20 you consider, Dr. Baker, before settling on the
21 combinations in your Declaration?

22 A I don't recall. If I had to guess, I

1 would guess 20, but I don't remember.

2 Q And have you reviewed Nintendo's
3 invalidity contentions in the District Court case?
4 Are you familiar with those?

5 A No, I don't think so, not that I recall.

6 Q How did you search for the prior art you
7 considered in forming your opinions here?

8 A I mean I used the internet, there may
9 have been a search firm involved, I might have
10 looked at the applicant admitted prior art, and
11 looked at how that was -- or what it cited. I
12 don't exactly recall.

13 Q Let's start with ground 3 combination,
14 Dr. Baker. Gettemy is the primary reference in
15 your ground 3 combination, correct?

16 A Yes.

17 Q In your Declaration you say that in the
18 combination of Gettemy, Rosenzweig, Kerman, Bell
19 and Whitted, the light sensor of claim 1[B] is
20 comprised of Gettemy's light sensor 390 and main
21 processor 310, right?

22 MR. LAUPPE: Objection. Form.

1 A Yes, I discuss that in paragraph 288 of
2 my Declaration.

3 Q Now, let's look at the '117 patent, if
4 that could be brought up on screen. That's
5 Exhibit 2.

6 (Exhibit 2 was previously marked for
7 identification and is attached to the transcript.)

8 Q And, Dr. Baker, if you have your own
9 copy, feel free to use that. It's Exhibit 1001 in
10 the IPR record.

11 A I have it open here.

12 Q And if we could turn to Figure 4,
13 please. I believe that would be page 9 of the
14 patent.

15 Sorry, we all might have to turn our
16 heads a little bit here.

17 Now, component 402 in Figure 4 is
18 identified as the light sensor, right?

19 MR. LAUPPE: Objection. Form.

20 A In column 6, line 33 and 34 of the '117,
21 the embodiment in Figure 4 identifies 402 as a
22 visible light sensor, yes.

1 Q In the context of this figure, what kind
2 of light sensor or photosensor is that in your
3 opinion?

4 MR. LAUPPE: Objection. Form.

5 A I don't see any details in the '117
6 about what -- about 402. It's simply identified
7 as a visible light sensor.

8 Q And you agree that in the '117 patent,
9 column 6, lines 33 to 35, this element's
10 identified as being a visible light sensor
11 according to the claims, right?

12 MR. LAUPPE: Objection. Form.

13 A I don't think I agree with that
14 question, simply because you added "according to
15 the claims" at the end.

16 My understanding is that claims are not
17 limited to particular embodiments, so -- I mean I
18 agree that 402 in column 6, lines 33 through 34,
19 is identified as a visible light sensor in the
20 embodiment of Figure 4.

21 Q And do you have an opinion on whether or
22 not Figure 4 is an embodiment of the claims of the

1 '117 patent?

2 A The description of Figure 4 is that it's
3 one embodiment of a brightness control circuit
4 with a multiplier circuit to combine a light
5 sensor output with a user adjustable PWM logic
6 signal.

7 So yes, it's one embodiment of a
8 brightness control circuit.

9 Q And in this embodiment, visible light
10 sensor 402 is a light sensor, correct?

11 A Yes.

12 Q And a typical photosensor would usually
13 output some sort of current when it detects light,
14 right?

15 MR. LAUPPE: Objection. Form.

16 A I don't know the specific context, but I
17 think I agree with that statement in general.

18 Q And that current is typically
19 proportional to the amount of light detected by
20 the sensor, right?

21 MR. LAUPPE: Objection. Form.

22 A Again, I don't know the particular

1 context, but in general, I would agree with that.

2 Q And that output -- or, excuse me, that
3 current flows from that light sensor, typically,
4 right?

5 MR. BREWSTER: Did we lose --

6 AV TECHNICIAN: I think we lost the
7 witness.

8 MR. BREWSTER: And the other attorney,
9 it seems.

10 We can take a break, or at least go off
11 the record.

12 (Technical interruption.)

13 (Off the record at 12:23 p.m.)

14 MR. BREWSTER: Go back on the record,
15 and I can repeat the question.

16 (Back on the record at 12:35 p.m.)

17 BY MR. BREWSTER:

18 Q All right. Before we went off, I had a
19 question pending that I'll repeat since it's been
20 a little bit.

21 We were talking about the light sensor
22 in Figure 4, and I had asked, typically current --

1 the current related to the detected ambient light
2 flows from that light sensor, right?

3 MR. LAUPPE: And just to reiterate my
4 objection. Object to form.

5 MR. BREWSTER: Okay.

6 A In Figure 4, it looks like a current
7 would flow from light sensor 402 in that
8 embodiment, yes.

9 Q So let's turn to paragraph 289 of your
10 Declaration, and you cite column 8, lines 10 to 40
11 of the '117 patent there, right?

12 A Among other cites, yes.

13 Q And those lines are describing Figure 5
14 of the '117 patent, right?

15 A Figure 5 is discussed in those lines,
16 yes.

17 Q And there is components described in
18 that -- in those lines of the '117 patent as well,
19 right?

20 A Yes. For example, the component
21 transistor 502 is discussed.

22 Q And are those components part of the

1 ambient light sensor in Figure 5?

2 MR. LAUPPE: Objection. Form.

3 A Figure 5 is another embodiment of an
4 ambient light sensor, so the components in Figure
5 5 would be part of that particular embodiment.

6 Q And in the column 8, lines 10 to 40, the
7 '117 patent describes an amplification circuit as
8 being part of the ambient light sensor of Figure
9 5, right?

10 MR. LAUPPE: Objection. Form.

11 A 506 is described as an amplifier in
12 Figures -- Figure 5, yes.

13 Q And that's part of the light sensor,
14 correct?

15 MR. LAUPPE: Objection. Form.

16 A In that particular embodiment, yes.

17 Q And the amplifier circuit is not
18 being -- or, excuse me, the amplifier circuit is
19 not described as being outside of or apart from
20 the light sensor in that portion of the patent,
21 correct?

22 MR. LAUPPE: Objection. Form.

1 A Just to make sure I'm understanding,
2 we're not -- we're separating out light sensor and
3 light -- ambient light detector.

4 Figure 5 is described as an ambient
5 light detector, and it will include a light
6 sensor, but I think to answer your question -- and
7 please reask it if I don't -- 506 is part of the
8 ambient light sensor.

9 Q In paragraph 289 of your Declaration,
10 you also cite column 8 at lines 41 to 62, correct?

11 A Yes.

12 Q And in those lines you are describing
13 Figure 6 of the '117 patent, correct?

14 A Yes, it's describing another embodiment
15 of an ambient light sensor.

16 Q And in Figure 6 there's a capacitor as
17 part of the ambient light sensor that adjusts the
18 response time of the sensor, correct?

19 A Yes.

20 Q And that capacitor is part of the
21 ambient light sensor, correct?

22 MR. LAUPPE: Objection. Form.

1 A The components, including capacitor 508
2 in Figure 6, are an embodiment of the ambient
3 light sensor.

4 Q Now, Dr. Baker, in your work presumably
5 you've worked with light sensors before, correct?

6 A Yes.

7 Q And generally how does a light sensor
8 work?

9 MR. LAUPPE: Objection. Form.

10 A I mean that's a really broad question.
11 It depends on the particular application.

12 I mean I discuss how the Gettemy light
13 sensor is doing what is claimed in the '117, but I
14 mean I work on light sensors from single diodes,
15 to arrays of photodiodes, to looking at --
16 including photodiodes with associated electronics
17 and even software for harvesting information from
18 a photodiode.

19 Q Understood.

20 To go through some specific examples,
21 then, how does a photoresistor generally work?

22 MR. LAUPPE: Objection. Form.

1 A Again, I don't know what particularly
2 we're talking about or the context, but just at a
3 high level, a photoresistor is a resistor that's
4 resistance will be changed or modulated with the
5 light that's shined on the resistor.

6 Q And that's a type of light sensor, then,
7 right?

8 A Yes.

9 Q And what about a photodiode?

10 MR. LAUPPE: Objection. Form.

11 A Again, I don't know specifically what
12 embodiment or what the context is, but in general,
13 if the photodiode is biased correctly with
14 appropriate electronics, the light hitting the
15 photodiode will cause a current to be generated.

16 Q And a photodiode, like a photoresistor,
17 is a type of light sensor, correct?

18 A Photodiode is -- could be a type of
19 light sensor, yes. I don't -- I mean, just to be
20 clear, it's not like a photoresistor. There are
21 different mechanisms for the operation.

22 Q Understood.

1 And one last example, generally, how
2 does a photo transistor operate?

3 A Well, assuming there's other things
4 around the phototransistor to bias it correctly
5 and harvest the information from the
6 phototransistor, light is shined on the base of
7 the phototransistor and current is generated.

8 Again, I don't know specifically what
9 we're talking about, or the context, but in
10 general, that's a high-level explanation.

11 Q And like the other two examples, a
12 phototransistor is a -- broadly, a type of light
13 sensor, right?

14 A Generally speaking, yes.

15 Q And you can purchase light sensors such
16 as photoresistors, photodiodes, phototransistors
17 from, say, a supplier or a catalog or the
18 internet, correct?

19 A In general, yes. I mean if you're --
20 give me some particular model or some specifics,
21 maybe the answer is no, but in general, yes.

22 Q And have you, in the course of your

1 work, purchased light sensors before?

2 MR. LAUPPE: Objection. Form.

3 A In the context of just general
4 photodiodes, photoresistors, phototransistors,
5 generally, yes.

6 Q And would you describe light sensors as
7 a standard type of component, generally?

8 A I mean maybe. I think in general you
9 could make that characterization, but I mean part
10 of my research is developing different types of
11 light sensors, and I don't think I would
12 characterize them as being standard because they
13 use new and different ways of doing things.

14 Q Understood.

15 Now, you said you had purchased light
16 sensors in the course of your work. Have you ever
17 purchased a light sensor that came with a
18 microprocessor?

19 MR. LAUPPE: Objection. Form.

20 A I think I have, but if you ask me for
21 the model number, I can't remember off the top of
22 my head.

1 As part of my research, I have a
2 measurement system that I designed with my
3 students to characterize various light sources,
4 and the output of that light sensor was used to
5 interact or interface with what's called a GPIB
6 bus, and we would then write MATLAB scripts to do
7 certain things so that we could characterize the
8 light source that we were using with our chips
9 that we designed with various photosensors on
10 them.

11 Q And to be clear, when you purchased the
12 light sensor, you're saying it came with a
13 microprocessor, or was that separately obtained?

14 MR. LAUPPE: Objection. Form.

15 A Again, from memory, I don't specifically
16 recall, but it came as a board that you would
17 shine the light on, and there was a connector that
18 you connected to that would read out the
19 information about the light that you're receiving.

20 Q And what year was this, from your
21 recollection?

22 A The last time I did it was probably

1 2000, I'm guessing, 2017 would be the last year I
2 bought one.

3 What I purchased before -- I might have
4 purchased something in the '80s when I was doing a
5 lot of fiberoptic transmitter receiver design to
6 do characterization, but I honestly can't recall.

7 Q Do you remember the first time you did
8 that experiment with your students?

9 A Late -- like I just testified, it would
10 have been in the late 2010s, before 2020.

11 Q Got it. Thank you.

12 In paragraph 288 of your Declaration,
13 288, talking about Gettemy, you state that, quote,
14 the main processor uses stored configuration data
15 to select a brightness range, correct?

16 A I don't think that's exactly what I
17 said. Are we talking about the first sentence in
18 paragraph 288?

19 Q The second sentence, sorry.

20 Main processor 310 uses stored
21 configuration data to select a brightness range.

22 A That corresponds to the ambient light

1 level from the light sensors 390, yes, I see those
2 words.

3 MR. BREWSTER: If we could put up
4 Gettemy, which is marked Exhibit 3, on the screen,
5 please.

6 (Exhibit 3 was previously marked for
7 identification and is attached to the transcript.)

8 Q Figure 3, I believe, is page 5.

9 And do you see a component 390 in Figure
10 3, Dr. Baker?

11 A Yes.

12 Q And there's a signal output by light
13 sensor 390, correct?

14 A Yes, I discuss 390 and the signal from
15 ambient light sensor 390 in paragraphs 103 and 104
16 in my overview of Gettemy out of my Declaration.

17 Q And that signal output by light sensor
18 390, it's related to the ambient light level
19 detected by that sensor, correct?

20 MR. LAUPPE: Objection. Form.

21 A Yes, that brightness range is based upon
22 the ambient light sensor 390.

1 Q Well, to be specific, I'm talking about
2 the signal that you said was output by light
3 sensor 390. That signal that comes out of the
4 light sensor is related to the ambient light level
5 detected by the sensor, correct?

6 MR. LAUPPE: Objection. Form.

7 A Just to be consistent with what Gettemy
8 teaches in column 5 of Gettemy, line 31, it says:

9 In one embodiment, portable computer
10 system 300 includes one or more light sensors 390
11 to detect ambient light and provide a signal to
12 the main processor 310 for determining when to
13 implement a change in brightness range.

14 So there is a signal coming from the
15 light sensor, to answer your question, and it's
16 used by the main processor 310 to implement a
17 change in the brightness range.

18 Q And that signal is proportional in some
19 way to the amount of detected light, correct?

20 MR. LAUPPE: Objection. Form.

21 A I think in general I might agree with
22 that, but I mean there are non-linearities

1 where -- where the light sensor output may not
2 change with the ambient light, especially at lower
3 bright levels, but I mean in general I agree the
4 light sensor detects the ambient light level.

5 Q And like you testified earlier, it
6 outputs a current that in some way corresponds to
7 the detected ambient light, correct?

8 MR. LAUPPE: Objection. Form.

9 A I don't know if it outputs a current or
10 a voltage. I would say -- or agree with -- it
11 outputting -- or even a digital word -- I would
12 agree that the light sensor is outputting
13 something electrical that's used by the processor
14 to select the range as I discuss -- or as Gettemy
15 teaches in column 5, lines 31 through roughly 34.

16 Q And that electrical output that you're
17 discussing corresponds in some way to the light
18 that is detected by the sensor, correct?

19 A Yes. It might be a digital word that
20 the microprocessor reads and determines, you know,
21 basically what the -- what light is being sensed
22 by 390.

1 Q Sticking with that signal in line 33,
2 column 5, Gettemy doesn't perform any mathematical
3 transformation directly on that signal, right?

4 MR. LAUPPE: Objection. Form.

5 A I don't think I would agree with that.
6 If you look at Figure 3 and you look at light
7 sensor 390, it's connected to a digital bus, which
8 means the likely output of 390 is a digital word,
9 and I think it would be reasonable for the light
10 sensor to output, as I discuss in other places in
11 my Declaration, a -- information that can do what
12 is taught -- or what is -- or what is taught, I
13 guess I'll say, in column 5, lines 31 through 34.

14 So I mean that's the problem I have with
15 saying the output of light sensor 390 is a current
16 or voltage by itself. It may be, but if you look
17 at Figure 3, it really doesn't make sense because
18 the light sensor's connected to a digital bus, as
19 is, for example, the processor and the RAM.

20 Q And so there might be a component like
21 an ADC in between the light sensor and the digital
22 bus, then, correct?

1 MR. LAUPPE: Objection. Form.

2 A Well, I mean contained within the light
3 sensor there's going to be circuitry to do things
4 to the word that's put on the digital bus I think
5 is a reasonable conclusion.

6 It's -- Gettemy teaches what it teaches,
7 it doesn't teach the details of the circuitry in
8 390, it just teaches what it would do, but a
9 person of ordinary skill in the art would
10 understand there's just lots of design choices
11 that one could make to implement what was expected
12 or what is taught in Gettemy.

13 Q In your Declaration you take the
14 position that the brightness range is selected,
15 correct?

16 MR. LAUPPE: Objection. Form.

17 A I'm not exactly sure which limitation
18 we're talking about, but if we're talking about
19 that first element, yes, I take the position that
20 Gettemy teaches a first input configured to
21 receive a user signal indicative of a user
22 selectable brightness level which is a percentage

1 of the range that the light sensor provides to the
2 processor. If that's the element we're talking
3 about.

4 Q To be more clear, what I'm talking about
5 is in your Declaration, you say in several
6 locations, for example, paragraph 285, quote, the
7 particular brightness range selected, paragraph
8 286, which the processor selects.

9 Your opinion is that the system of
10 Gettemy selects the brightness range that's
11 displayed to the user in the user interface,
12 correct?

13 A Yes. And that's detailed in, for
14 example, Figure 5, that's annotated on page 178,
15 in paragraph 285.

16 Q Right. And that brightness range isn't
17 calculated, right?

18 MR. LAUPPE: Objection. Form.

19 A If I'm understanding correctly what
20 you're asking, it's not calculated by the
21 processor, it's selected by the processor, but
22 there may be calculations in the light sensor, you

1 know, to provide what the range is. For example,
2 in Figure 5, one of the ranges is from 5 to 65.
3 So to that extent there is calculation.

4 Q Now, when you say "calculation in the
5 light sensor," what do you mean?

6 MR. LAUPPE: Objection. Form.

7 A That the light sensor is configured to
8 sense an ambient light and to output a sensing
9 signal indicative of the ambient light level. I
10 mean I'm not saying there is, I'm saying there may
11 be. There isn't any details of what's taught in
12 the ambient light sensor.

13 A person of ordinary skill in the art
14 would understand there's all kinds of ways to
15 implement that light sensor, but I can't testify
16 there isn't some calculation in that block, and
17 there's obviously calculations elsewhere that I
18 discuss in my Declaration related to how the user
19 input is used, and then how to screen brightness
20 is adjusted based upon the ambient light sensed.

21 Q When you talk about calculations that
22 could take place in the light sensor block 390,

1 can you give some examples? Would they be other
2 components like a smoothing capacitor, things of
3 that nature?

4 MR. LAUPPE: Objection. Form.

5 A I don't recall giving opinions in my
6 Declaration about the implement -- the specifics
7 of the implementation of the 390 light sensor
8 other than what it does.

9 I can sit here and give you all kinds of
10 different ways that light can be sensed in output,
11 but unless it's related to some claim element, I
12 don't know the context in which those answers
13 would be useful or directed toward a claim
14 element.

15 Q Well, I'm just asking you -- it said
16 that there might be calculations in the light
17 sensor, and I'm just asking if you can give me an
18 example of a calculation in the light sensor that
19 could possibly be taking place here.

20 MR. LAUPPE: I don't mean to interrupt
21 you, objection, form.

22 MR. BREWSTER: No problem.

1 A Well, I mean, again, I don't know the
2 particular context and how it relates to the
3 claims at issue, but one simple calculation would
4 be a moving average of the -- a digital word that
5 could be output that removes very small
6 variations.

7 A calculation could be, like you
8 mentioned, a filtering using a capacitor or
9 inductors or things along those lines if we're
10 talking about analog computation.

11 There's just a lot of ways a person of
12 ordinary skill in the art would be able to
13 implement this. It's just, you know, the design
14 choices, constrained by cost or functionality.

15 Q Understood.

16 In paragraph 286 you say:

17 I have not mapped the sensing signal of
18 claim 1[B] to a raw sensor signal, correct?

19 A Yes.

20 Q And so the brightness range you're
21 talking about in paragraphs 285 to 287, that's not
22 a raw sensor signal, right?

1 A Correct.

2 Q And that brightness range isn't output
3 by the light sensor at block 390, right?

4 MR. LAUPPE: Objection. Form.

5 A I don't think I can answer affirmative
6 to that question simply because the sensor could
7 be outputting information that is used by the
8 processor to select the range which may include
9 like what the average light is and maybe some
10 variation if there's noise on the light.

11 What I think is clear is the sensing
12 signal is used to -- for -- by the processor to
13 set the range and, thus, set like the min and the
14 max in the display as seen in Figure 5.

15 Q Right. The sensing signal's used by the
16 main processor, like you said, correct?

17 A Yes.

18 MR. BREWSTER: Now, we had a brief
19 interruption, but are we all right with taking a
20 short break before I move on to the next exhibit?

21 THE WITNESS: Yes.

22 MR. BREWSTER: All right. Let's take a

1 five-minute break, roughly, or do you want 10
2 minutes, Dr. Baker? You let me know.

3 THE WITNESS: How about 10 minutes?

4 MR. BREWSTER: Great. Let's aim for
5 about 10:22, if that works for everybody.

6 (A recess was taken at 1:12 p.m.)

7 (Back on the record at 1:22 p.m.)

8 BY MR. BREWSTER:

9 Q Now, turning to Kerman and Rosenzweig,
10 Dr. Baker, in your Declaration, for example,
11 paragraph 65, you say that your combination relies
12 on Kerman and Rosenzweig, right?

13 A For some reason scrolling on my PDF
14 isn't working, so with the mouse, I'm having to
15 use the roller. It's taking a bit longer.

16 Paragraphs -- sorry?

17 Q Take your time. No rush.

18 A Yes, ground 3 relies on the combination
19 listed in the first sentence of paragraph 65.

20 Q And your ground 3 combination relies on
21 both references, correct?

22 MR. LAUPPE: Objection. Form.

1 A Well, I rely on them to the extent they
2 inform, or support my opinion, that a person of
3 ordinary skill in the art, or what a person of
4 ordinary skill in the art would have known at
5 the -- you know, at the time Gettemy was -- or
6 before the 2003 priority date of the '117 patent.

7 So to the extent they support my opinion
8 of what a person would have understood, either one
9 would, or both, would provide support for my
10 opinion.

11 Q Well, you say in paragraph 65, ground 3
12 relies on Gettemy in combination with Kerman and
13 Rosenzweig, correct?

14 A Yes.

15 Q Are Kerman and Rosenzweig, in your
16 opinion, equivalent references?

17 MR. LAUPPE: Objection. Form.

18 A I don't -- I mean to some degree, yes,
19 but I mean to other points, no. I mean, for
20 example, they're different -- they talk about
21 different syntax.

22 Q And Kerman is a reference discussing

1 ActionScript®, correct?

2 A Well, the -- yeah, ActionScript® using
3 Flash, yeah.

4 Q And ActionScript® is a language for
5 writing Macromedia Flash applications, right?

6 A I think I would agree with that.

7 Q And the Gettemy reference describes a
8 personal digital assistant, or PDA, right?

9 A That's one example of the portable
10 computer system, yes, a PDA.

11 Q Are you aware of any PDAs or portable
12 computer devices that use Macromedia Flash as an
13 operating system?

14 MR. LAUPPE: Objection. Form.

15 A I mean, not as writing the operating
16 system, but I don't know, I haven't really looked
17 at that, but I can't sit here and give an example,
18 no.

19 Q And the Rosenzweig reference is about
20 Macromedia Director, correct?

21 MR. LAUPPE: Objection. Form.

22 A Yes, Rosenberg [sic] is a book entitled

1 Using Macromedia Director 8.

2 Q And Macromedia Director is like a web
3 application programming platform, correct?

4 MR. LAUPPE: Objection. Form.

5 A I mean at a high level, yes. I mean
6 there would be other uses for the, you know, basic
7 programming techniques.

8 Again, I use these just to support my
9 opinion that a person of ordinary skill in the art
10 would have understood how to write simple code, as
11 I discussed in the Declaration.

12 Q And you're not aware of a PDA or a
13 portable computer that used the Lingo language
14 from Rosenzweig for the operating system, correct?

15 MR. LAUPPE: Objection. Form.

16 A Just to be clear on this and another
17 answer about using them for the operating system,
18 I don't know of any operating systems written in
19 those languages, but I do know that operating
20 systems use those languages to execute programs.

21 I mean, Flash at that time was very
22 popular, and those processors would execute

1 scripts to do certain things; for example, look at
2 GUIs, graphical user interfaces, and adjust the
3 parameters of a GUI, everything from where a
4 slider bar might be displayed, to the values
5 stored or displayed on the slider bar.

6 So I mean I don't think the operating
7 system implementation in those languages -- I
8 don't know of any situations where they'd write an
9 operating system in Flash or Lingo.

10 I'm not saying they haven't, somebody
11 hasn't done it, I just -- that's not really the
12 point of those languages, it's more for the user
13 interface.

14 Q Have you ever used ActionScript® or
15 Lingo to interact with device hardware?

16 MR. LAUPPE: Objection. Form.

17 A I mean probably back 20-plus years ago
18 when my daughter was into web pages and things,
19 I'd write little scripts with her. So I might
20 have used those. I'm sure I used Flash. I know I
21 used Flash, but I don't know about Lingo.

22 Q To be clear, you used them to interact

1 with device hardware rather than display, let's
2 say, you know, an animation or a web application?

3 MR. LAUPPE: Objection. Form.

4 A Yeah. I mean, doing things like sensing
5 colors, or displaying what colors are, or
6 adjusting volumes or things like that. But I mean
7 that was a long time ago, and she did all kinds of
8 stuff.

9 Q Were there any other references you
10 considered about languages for portable computer
11 user interfaces in forming your opinions?

12 A My opinions with regard to those two
13 references are just related to, as discussed in
14 paragraphs, for example -- at least one of them --
15 paragraph 302 discusses Kerman.

16 I mean they were more related to showing
17 formulas for calculating min and max and the
18 current value. I don't know if I would
19 characterize them as you did in your
20 characterization as -- I forget the exact
21 wording -- but specifically for portable device
22 interfaces or whatever the language was you used.

1 I just used them to illustrate that a
2 person of ordinary skill in the art would
3 understand that calculating min/max and a position
4 based on a percentage input from a user would have
5 been within their toolbox, in their scope of
6 knowledge.

7 Q Let's turn to paragraph 332 of your
8 Declaration, Dr. Baker.

9 A I'm there.

10 Q Now, in this paragraph you say you're
11 not relying on any specific circuitry or
12 techniques from Whitted and Bell, correct?

13 A Yes.

14 Q So in your proposed combination you're
15 relying on modifying the software that runs on the
16 main processor of Gettemy, correct?

17 MR. LAUPPE: Objection. Form.

18 A I don't -- give me a second to look at
19 Whitted and Bell. I'm not sure I agree with
20 "modifying," though the use -- or without
21 qualifying the use of "modifying" in your
22 question, but give me a second to look -- review

1 my memory on Whitted and Bell.

2 Q If it helps, in paragraph 332 you say:

3 Under the proposed combination based on
4 Gettemy, the software executed by main processor
5 310 would have been further adapted.

6 So to repeat my question, you're
7 proposing modifying the software on Gettemy's main
8 processor, correct?

9 A I guess the issue I'm having is I like
10 the word "adapted" more than "modified," because
11 the person of ordinary skill in the art would have
12 understood there's lots of different ways you can
13 do things, and they would have been informed by
14 what's taught in Whitted and Bell to inform how
15 they did things. So to that extent, the software
16 could have been adapted to do -- to do things.

17 I mean, it's within the scope or the
18 wheelhouse of a person of ordinary skill in the
19 art at that time. And I discuss that more at the
20 end of paragraph 332.

21 Q So to be specific, you're proposing
22 adapting Gettemy software to determine whether the

1 user's selected brightness value is below a
2 predetermined threshold, correct?

3 MR. LAUPPE: Objection. Form.

4 A I'm simply saying that the user, or that
5 the person of ordinary skill in the art, would
6 have been informed by those references to ensure
7 that the visible display brightness control signal
8 is above a predetermined level when the ambient
9 light decreases to approximately zero. And I'm
10 parroting part of the claim language because
11 that's what my analysis focused on.

12 Q And you say in this paragraph that the
13 software executed by main processor 310 would have
14 been further adapted, before generating the
15 brightness control signal that it sends to display
16 controller 370 to change the current display
17 brightness to check whether the display brightness
18 value computed at claim 1[c] exceeds a
19 predetermined minimum threshold level, correct?

20 A Yes.

21 Q So let's look at Figure 5 of Gettemy,
22 and for the screen share, that would be Exhibit --

1 I've lost track myself, apologies.

2 That would be Exhibit 3, Figure 5,
3 please. And that's page 7.

4 So looking at Gettemy's Figure 5,
5 Dr. Baker, brightness range 510 up top, the range
6 shown there is 5 to 65 nits, correct?

7 A Yes.

8 Q In paragraph, I believe, 324 of your
9 Declaration you state that:

10 The system in Gettemy will not permit
11 the user to set the slider below the lower end of
12 the displayed range.

13 Correct?

14 A Yes.

15 Q So the designers of the system don't
16 allow a user to set the brightness bar below 5
17 nits, correct?

18 MR. LAUPPE: Objection. Form.

19 A Gettemy alone, as discussed in 324,
20 limits the minimum to the 5, yes.

21 Q And that value is, in this example,
22 picked by the designers of the system, right,

1 programmed in, correct?

2 MR. LAUPPE: Objection. Form.

3 A Well, I mean to the extent that the
4 value's dependent on the ambient light, yes.

5 Q And specifically I'm asking, the number
6 5 is -- I believe you say in your Declaration
7 there's stored configuration data for these
8 brightness ranges, right, and presumably that
9 number is somewhere in that data, correct?

10 MR. LAUPPE: Objection. Form.

11 A No. The number -- the range is going to
12 be dependent on the ambient light set. It's not
13 like a stored thing that you just read out and --
14 and use, but I mean it's -- as I discuss in the
15 Declaration, how the claim elements practiced by
16 Gettemy.

17 Q So it's your testimony Gettemy doesn't
18 store the lower and upper bounds of these
19 brightness ranges anywhere?

20 MR. LAUPPE: Objection. Form.

21 A We kind of changed topics there a little
22 bit. Now I'm -- now I'm understanding that you're

1 asking if the light sensor's output is read and
2 stored somewhere, and my answer is yes, but
3 before, I thought you were asking a question of
4 whether there was a preset or predetermined values
5 that were basically used based on some wide range
6 of ambient light sensor output, and to that
7 question, if I'm making any sense, the answer is
8 no.

9 Q I am having a little trouble with your
10 position.

11 What I'm asking is, these ranges in
12 Figure 5, right, we have 5 to 65, 20 to 100, 20 to
13 300. You see those, correct, ranges, 510, 520,
14 530?

15 A I see those examples in Figure 5 of
16 Gettemy, yes.

17 Q Do you disagree that those values are
18 held in memory by the system somehow?

19 MR. LAUPPE: Objection. Form.

20 A I don't disagree that different ranges
21 will be held in memory at certain points in time.
22 What I had a problem with is saying that they were

1 only these three ranges, and only those three
2 ranges are stored, and you're not -- what you're
3 getting from that, the light sensor isn't what
4 I've discussed in my Declaration. I don't think
5 that's a reliable conclusion.

6 Q I'm actually asking you something
7 different. I'm just saying that -- well, I guess
8 I'm trying to figure out if you agree that these
9 values, like you said, they're stored in memory at
10 some point.

11 Do you agree that the designers of the
12 Gettemy system decided that range 510 should be
13 from 5 nits to 65 nits?

14 MR. LAUPPE: Objection. Form.

15 A I believe that the -- if we're pointing
16 to the light sensor and the light sensor's
17 providing the range, then if those are the
18 designers working on the light sensor, then yes,
19 they could have a range where the output,
20 depending on the light data that they're sensing,
21 from that point of view, I would agree.

22 Q Just to be clear, it's not really a

1 trick question.

2 So you agree that the reason range 510
3 starts at 5 and ends at 65 is that that was a
4 conscious choice made by the designer of this
5 system, that these numbers didn't come out of thin
6 air, somebody chose 5 and 65 or 20 and 100?

7 MR. LAUPPE: Objection. Form.

8 A Well, based upon the ambient light
9 sense, there would be a corresponding range and to
10 the extent that's what you're talking about, yes.

11 Q Yeah, I'm just trying to figure out if,
12 you know, you agree that these are intentionally
13 chosen numbers. And correct me if I'm wrong, but
14 it sounds like you do agree with that.

15 MR. LAUPPE: Objection. Form.

16 A Well, they're intentionally chosen based
17 upon the ambient light sensed. And so the range
18 would be dependent on what light is being sensed
19 by the light sensor.

20 So from that point of view, that range
21 is designed into the system based upon the light
22 sensor behavior and desired characteristics that

1 they need with the display, yes.

2 Q To be clear -- maybe I'm being a little
3 confusing here. I'm not asking about how one
4 finds themselves in range 510 or 520. I'm just
5 asking about how it is that range 510 is from 5 to
6 65.

7 Was that an intentional choice of the
8 system designer? That's my question. And I'll
9 let you answer. Go ahead.

10 MR. LAUPPE: Objection. Form.

11 A Those ranges are based upon the ambient
12 light sensed. So I -- I don't think -- they're
13 somewhat independent of the ambient light, but
14 based upon the ambient light sensed. And I don't
15 see them as being fixed, I think these are three
16 examples of ranges.

17 I imagine that, for example, if the
18 device were to go into a darker area, then perhaps
19 the range might shrink, and I point out that that
20 opinion is based upon -- if you notice the range
21 in 510 is 60, the range in 520, which is a little
22 brighter, is 80, and the range in 530 is even

1 bright. It's -- when it's even brighter, it's
2 280.

3 So I think the range is going to be
4 dependent on the ambient light, and to the extent
5 we're talking about the ambient light setting and
6 how it sets the range being something a system
7 designer designs, then I agree with that, that
8 it's not just these three values, there's -- it's
9 going to depend on the ambient light.

10 Q Right, right. I understand what you're
11 saying, and I understand that you testified there
12 could be more than three ranges.

13 Again, all I'm just trying to ask is,
14 for any given example range, you know, let's say
15 there's three, let's say there's five, a human
16 being is choosing what the lower and upper bound
17 of each -- of however many ranges are in the
18 Gettemy system, correct, that's a design choice?

19 MR. LAUPPE: Objection. Form.

20 A Yes, on what's output by the light
21 sensor dependent on, you know, the history of the
22 sensor and averaging and filtering and all the

1 other things that could be considerations.

2 Q So in paragraph 324 of your
3 Declaration -- and forgive me if -- scratch that.

4 You say in that same paragraph:

5 Nothing in Gettemy states that the
6 purpose of the summation of the minimum value of
7 the brightness range is to ensure that the final
8 display brightness value used to control the
9 brightness of the display meets a predetermined
10 desired level of brightness.

11 Correct?

12 A Yes, those are -- that sentence is
13 basically in paragraph 324.

14 Q So your position is that the system's
15 minimum selectable brightness level doesn't ensure
16 a predetermined desired level of brightness?

17 MR. LAUPPE: Objection. Form.

18 A Would you mind asking the question
19 again?

20 Q Sure. So you -- in that sentence I read
21 to you, you refer to, quote, the minimum value of
22 the brightness range, correct?

1 A Yes.

2 Q But your position is that the minimum
3 value of the brightness range doesn't ensure that
4 the brightness of the display meets a
5 predetermined desired level of brightness,
6 correct?

7 MR. LAUPPE: Objection. Form.

8 A Gettemy doesn't explicit say that the 5,
9 for example, that's added to the 30, the range is
10 60 times the user's input of .5. It doesn't say
11 that the 5 is the minimum -- the minimum value to
12 ensure a certain brightness level.

13 That's why I have the other discussion
14 and I brought in Whitted and Bell and provided
15 discussion of how those would inform a person of
16 ordinary skill in the art about design choices and
17 how to implement the slider or adjusting the
18 display in the portable computing device taught by
19 Gettemy.

20 Q A user can't set the screen brightness
21 below 5 nits in Figure 5, though, correct?

22 MR. LAUPPE: Objection. Form.

1 A The user can't move the slider below 5.
2 And if I recall -- and maybe this is wrong -- but
3 I don't know if the user actually knows or
4 understands what nits are. Rather, the user sees
5 a slider and moves the slider to adjust the
6 brightness independent of nits, so they wouldn't
7 know that, for example, 510 in Figure 5, 5 nits
8 was the minimum.

9 Q Sure. But you agree they can't move it
10 below that, whether disclosed or undisclosed
11 value, correct?

12 MR. LAUPPE: Objection. Form.

13 A I agree the user can't move the GUI
14 slider beyond the end of the left side of the bar.

15 Q Can you think of any reason a person of
16 ordinary skill in the art would have picked a
17 minimum screen brightness level that wasn't a
18 minimum level of acceptable brightness?

19 MR. LAUPPE: Objection. Form.

20 A Would you mind reasking the question? I
21 thought you said user picked the minimum
22 brightness and ...

1 Q Sorry, a person of ordinary skill in the
2 art -- I'll reask the question.

3 You had said in your paragraph that
4 nothing in Gettemy states that the purpose of
5 that, you know, minimum value of the brightness
6 range we discussed was to ensure a predetermined
7 desired level of brightness, right?

8 A In paragraph 324 I think you summarized
9 that correctly.

10 Q Okay. And so what I'm asking is, if
11 you're saying you're not sure -- well, excuse me.

12 If you're saying you don't agree that 5
13 is necessarily a predetermined desired level of
14 brightness, can you think of any reason why
15 somebody designing a system by Gettemy would have
16 chosen that number if it wasn't an acceptable
17 predetermined desired level of brightness?

18 MR. LAUPPE: Objection. Form.

19 A I'm having trouble following the
20 questions, but I'll try to answer, and maybe I
21 don't answer the question correctly, but -- or
22 answer the correct question, I should say.

1 I think that having the minimum value of
2 5, as I wrote there, would ensure that the user
3 can't fall below some minimum value, as I wrote
4 there in paragraph 324.

5 But what oftentimes -- when you're
6 doing, as I discuss later in the following
7 paragraphs -- and I'll just say I discuss it in
8 the following paragraphs in an attempt to
9 answer -- is that you don't want the behaviors you
10 adjust the slider to be perfectly linear, you
11 don't want it to just linearly decrease.

12 But as, for example, seen in some of the
13 figures that are in, say, paragraph 329, as you
14 move the slider, you don't -- you want the
15 behavior to be more rounded and more controllable
16 so that the movement of the cursor doesn't have as
17 much effect. You want it to be rounded out.

18 And that's what I discuss in those
19 following paragraphs, how you would use -- or how
20 a person of ordinary skill in the art would have
21 been informed using Whitted and Bell and others to
22 provide behavior that was desirable for a

1 particular type of display, whether it be
2 backlight or just a front vision LCD or whatever
3 the display was.

4 Q Maybe it will be easier if I break down
5 the question a little bit.

6 So using range 510 as an example, you
7 agree that 5 is the minimum value of that
8 brightness range, right?

9 A In Gettemy alone, yes.

10 Q And it's your position that that's not
11 necessarily a predetermined desired level of
12 brightness, right?

13 A 5 can be a predetermined level of --
14 predetermined level, as I discussed in this
15 section. It's just when you are moving the
16 cursor, how you calculate what the actual display
17 is doing, and you adjusting, and how you're
18 setting things I guess is more what I'm
19 discussing.

20 The claim element requires maintained
21 above a predetermined level when the ambient light
22 level decreases to approximately zero. And so I

1 discuss how you would be -- how the cursor could
2 be maintained above a predetermined level with the
3 other references.

4 If you look at paragraph 324, I talk
5 about the position of the cursor relative in
6 Gettemy alone and how it's adjusted. But I do
7 agree that 5 in Gettemy would be used to represent
8 a lower bound of a range of brightnesses in a
9 display.

10 Q And you agree that in that -- what I
11 believe Gettemy calls it the darker dimly lit
12 embodiment brightness range 510, the lower bound
13 makes sure that the screen brightness doesn't fall
14 below 5 nits, correct?

15 MR. LAUPPE: Objection, form.

16 A Yes. I mean, I -- as I showed in that
17 example, if you were to move the slider to zero,
18 then 5 would be the output, and that's to make
19 sure the brightness doesn't fall below the lower
20 bound of the range 5 to 65 in that particular
21 example.

22 Q Is it your opinion that 5 nits is an

1 acceptable level of display brightness in a dim
2 environment?

3 MR. LAUPPE: Objection. Form.

4 A I don't know that. That is really
5 subjective depending on who's looking at it and,
6 for example, their eyesight. It may have been
7 acceptable when I was 30, but it's not acceptable
8 now.

9 Q Is it fair to say that somebody
10 designing a system with a minimum selectable
11 brightness generally sets that with what the
12 system designer believes is an acceptable minimum?

13 MR. LAUPPE: Objection. Form.

14 A I think the designer tries to do or
15 provide in general -- speaking in generalities --
16 a good balance between giving the user what they
17 want and long battery life.

18 For example, I mean the Whitted and Bell
19 references talk about like aging and displays and
20 how you would adjust the minimum levels depending
21 on, you know, age, if I remember correctly, but I
22 mean it's just very subjective to -- and there's

1 always going to be something, some decision that's
2 wrong for some particular user.

3 But I mean all of these are just design
4 choices where you're trying to provide products
5 that the user is happy with and will recommend
6 others buy.

7 Q And as we discussed earlier, you know,
8 in this brightness range, some human somewhere
9 picked the number 5 as the minimum of this
10 particular range, right?

11 MR. LAUPPE: Objection. Form.

12 A Well, again, going back and
13 incorporating all my answers earlier about the
14 light sensor providing a range, someone is going
15 to design that light sensor to output, you know,
16 some specific formatted data that the processor
17 will use to draw the GUI.

18 But yeah, somebody has to pick and
19 select things in the system and has to design
20 them. They have to make choices on what they
21 think the user wants and is the most useful, given
22 the concerns about reliability and lifetime and

1 battery life.

2 Q So in paragraph 324 you used two phrases
3 in that sentence beginning, "But nothing in
4 Gettemy states."

5 We have the minimum value of the
6 brightness range, and we have a predetermined
7 desired level of brightness, right?

8 A That sentence uses those terms, yes.

9 Q And in that sentence you say that
10 nothing in Gettemy states that the purpose of that
11 minimum value of brightness range is to ensure the
12 display meets a predetermined desired level of
13 brightness, correct?

14 MR. LAUPPE: Objection. Form.

15 A What I'm saying, Gettemy doesn't
16 explicitly say that.

17 Q In your opinion, then, what is the
18 difference between a minimum selectable brightness
19 value and a predetermined desired level of
20 brightness?

21 MR. LAUPPE: Objection. Form.

22 A Well, I mean one predetermined level of

1 brightness could be based upon a range of users
2 which might be different than what a manufacturer
3 might say is a brightness level based upon the
4 operation of the display.

5 So, for example, if one were targeting a
6 market with a device where the potential customers
7 are -- need a brighter display, then they would
8 design it so that even though you could go -- have
9 the display go to a lower level based upon what
10 the light sensor is outputting in that range, it
11 doesn't -- it stays brighter than what the minimum
12 is depending on what the -- you know, depending
13 on -- or designed for the consumers or the user of
14 the product.

15 Q Why wouldn't you just change the -- what
16 you refer to as the minimum value of the
17 brightness range?

18 MR. LAUPPE: Objection. Form.

19 A Well, as I discussed earlier, you might
20 want to have an asymptotic approach as you -- user
21 approaches the minimum value where you approach
22 it, but you don't actually get to it, just so

1 there's a little bit more logarithmic control,
2 it's not a linear variation, as I discussed
3 earlier.

4 Q So you're talking about this asymptotic
5 approach. Where in your Declaration do you
6 discuss that?

7 A Well, I mean you can see an asymptotic
8 behavior in like the figures in paragraph 329.

9 So if we look -- let's look at Figure 5
10 there. You see that as the display brightness is
11 linear for the majority of the ambient luminance,
12 but as it gets darker and darker, you start to see
13 where it -- instead of it behaving linearly, it
14 kind of curves, and I use the fancy word
15 asymptotic as it approaches but doesn't hit.

16 Q I'm familiar with the term, but is it
17 your opinion that the dotted line in Figure 5 does
18 not flatten out?

19 MR. LAUPPE: Objection. Form.

20 A I don't recall having an opinion on
21 that. I mean it could flatten out. The key
22 takeaway is you can have it flatten out above a

1 predetermined value like 5 nits.

2 Q And when you say "asymptotically
3 approach the minimum," that would mean it gets
4 very close to the minimum, correct?

5 MR. LAUPPE: Objection. Form.

6 MR. BREWSTER: Sorry.

7 Q Even if it doesn't actually reach the
8 minimum, it gets very close, correct?

9 MR. LAUPPE: Just reiterate my
10 objection. Sorry.

11 A If that's the way it's designed, yes.
12 That could be designed so that it's well above the
13 minimum. I mean it's just a design choice on how
14 the designers -- or what the designers feel is the
15 best decision, given all the variables.

16 THE WITNESS: When we get another good
17 breaking point, can we take a break? I'm not in
18 any hurry, I just ...

19 MR. BREWSTER: Yeah. Actually, I think
20 now is a good time for another break, that sounds
21 good. We can come back at 11:26 if that works for
22 everybody.

1 THE WITNESS: Yes.

2 MR. BREWSTER: Great.

3 (A recess was taken at 2:16 p.m.)

4 (Back on the record at 2:26.)

5 BY MR. BREWSTER:

6 Q So let's talk about the combination of
7 Gettemy with Bell and Whitted, Dr. Baker.

8 You say in paragraph 324 of your
9 Declaration -- we went over this statement
10 earlier -- Gettemy will not permit the user to set
11 the slider bar -- or sorry -- set the slider below
12 the lower end of the displayed range.

13 Correct?

14 A I remember that discussion, yes.

15 Q And so your opinion, then, is because
16 that lower end of the displayed range is not a
17 predetermined desired level of brightness, a
18 person of ordinary skill in the art would be
19 motivated to add two different references or
20 combining two additional references with Gettemy,
21 correct?

22 MR. LAUPPE: Objection. Form.

1 A I mean I discuss why a person of
2 ordinary skill in the art would have been
3 motivated to make the modification to Gettemy
4 that, you know, even at the lower level, that may
5 have been too dark, and they want to keep it above
6 some certain level that, as we discussed, is above
7 a certain level of brightness, then that's why I
8 talked about the Whitted and Bell. And then I
9 also talked about what they teach to some minor
10 degree.

11 Q We had touched on this earlier, but if 5
12 nits, as you say, might have been too dark or too
13 dim, why wouldn't you just make the minimum higher
14 than 5 nits?

15 MR. LAUPPE: Objection. Form.

16 A Well, I mean if -- you could adjust the
17 lower levels as a design choice in Gettemy alone,
18 but, you know, there's the other concerns that I
19 discussed that are brought up in the Whitted and
20 Bell references on why you would adjust the
21 display brightness the way you would. For
22 example, using non-backlit displays and how the

1 adjustment is done.

2 It's just there are different design
3 choices that one could make. And I'm not going to
4 argue that that isn't true.

5 Q So when you say you're not going to
6 argue it's not true, you mean you're not going to
7 argue that making the minimum higher wouldn't also
8 accomplish this goal or ...

9 MR. LAUPPE: Objection. Form.

10 A Well, I mean when you say "this goal,"
11 I'm not entirely sure what you mean. If the goal
12 is simply to have a bright enough display and
13 that's what the designers are going for, then yes,
14 you could increase the minimum to have a bright
15 enough display. But we talked about how the user
16 might want more adjustment at the lower end, and
17 so there's an asymptotic relationship.

18 I briefly talked about displays aging
19 and there being an adjustment to compensate for
20 like the back light not being as bright.

21 I mean these are all just design
22 choices, and I gave specific examples of what a

1 person of ordinary skill in the art could have
2 done based upon references and what was taught in
3 the literature before the '117 patent was --
4 before the '117 patent's priority date.

5 Q So you mentioned just now in your answer
6 the idea that display brightness can degrade over
7 time, correct?

8 A I said that was possible and that might
9 have been a design consideration, but I said also
10 that a person of ordinary skill in the art would
11 have lots of design considerations.

12 Q In paragraph 336 specifically you say,
13 it was well-known that conventional displays would
14 often become dimmer as they age, and further on,
15 referring to Smelker, you say that conventional
16 LCDs over their lifetime will decrease in
17 brightness by about 50 percent, correct?

18 A That's what's Smelker explained, yes.

19 Q There's another reference in this
20 paragraph, your Exhibit 1020 of Burke, correct?

21 A Yes.

22 Q And you talk about Burke's mention of

1 bulbs of an LCD-type display aging, correct?

2 A Yes.

3 Q Now, the Burke reference is referring to
4 fluorescent tube backlighting, CCFL displays,
5 right?

6 A Give me a second. I think that's right.
7 I think Burke was using the traditional backlit
8 light that was a CFL through a Fresnel lens, if I
9 remember correctly, and Fresnel is spelled
10 F-R-E-Z-N-E-L [sic].

11 Q And just to clarify, it's CFL in this
12 case, not CCFL, right?

13 A Did I say CCFL? If I did --

14 Q I said CCFL.

15 A Oh, okay. Okay.

16 Give me just a second, I'll verify that.

17 Q Don't worry, I'm just trying to make
18 sure I'm right here.

19 I'm looking at column 2. CCFT it says,
20 cold cathode fluorescent tubes.

21 A Where was that in column 2?

22 Q Sorry, that is on -- or sorry, it's

1 pages for Burke, it's an application, that would
2 be in paragraph 23 of Burke.

3 A Yep, I see that.

4 Q And have you worked with cold cathode
5 fluorescent tubes in your career?

6 A Not that I can recall.

7 Q Would you happen to know roughly how
8 long the lifetime of a CCFT backlit display is?

9 A I could guess, but I don't know sitting
10 here right now what it is.

11 Q Does the system in Gettemy use cold
12 cathode fluorescent tubes?

13 MR. LAUPPE: Objection. Form.

14 A Gettemy teaches different types of
15 displays. Example of those teachings is in --
16 seen in the bottom of column 1. I don't recall
17 the specific type of backlight used in Gettemy.
18 If a backlit display is used as being specified.

19 Q You're not aware of any reference to
20 fluorescent bulb type backlights in Gettemy?

21 MR. LAUPPE: Objection. Form.

22 A I think Gettemy is somewhat agnostic to

1 the type of display used.

2 Give me a second, if I can see if there
3 is some preferred embodiment, but from memory, I
4 think they're just teaching a display, and then
5 they teach -- or Gettemy teaches that it could be
6 one of many types of displays, but give me a
7 second.

8 I think that's right. It says many
9 types, many different kinds of screens can be used
10 in the portable computing device.

11 Q And in column 1, roughly lines 60 to,
12 let's say, 67, the bottom, Gettemy lists a number
13 of types of displays, right?

14 A Yes.

15 Q And it doesn't mention CCFT displays,
16 correct?

17 MR. LAUPPE: Objection. Form.

18 A It mentions LCD displays in column 1,
19 line 44. And an LCD display would have a
20 backlight which could be a CCFT -- consist of CCFT
21 tubes.

22 Q But it doesn't explicitly mention "CCFT"

1 in Gettemy, correct?

2 MR. LAUPPE: Objection. Form.

3 A I don't see "CCFT" listed in Gettemy,
4 no.

5 Q Gettemy does talk about, for example,
6 LED displays, field-emission displays, OLED
7 displays, correct? In that same section I was
8 referencing earlier.

9 A Yes. There's OLED, OEL, poly-LED, and
10 field-emitting displays listed in that particular
11 sentence.

12 Q And have you worked with OLED, OEL,
13 poly-LED or FET displays in your career before?

14 MR. LAUPPE: Objection to form.

15 A Yes, I have patents in those areas.

16 Q And are you aware of what the typical
17 service life of those displays is?

18 MR. LAUPPE: Objection. Form.

19 A It's really -- that's a really loaded
20 question, because it depends on what point in the
21 technology you're talking about. When the
22 technology is new, in general, the life is shorter

1 than when the technology is more mature. It just
2 depends.

3 Q You said it depends on what point,
4 right? What about circa 2004?

5 A From memory, I think that display --
6 flat panel displays degrading was a big deal then,
7 because the technology was still maturing, but I
8 mean I'd need to see a specific example of a
9 display and what we're talking about, because I'm
10 sure that some manufacturers actually folded
11 because their displays weren't as reliable as
12 other manufacturers.

13 So I just can't give any specific
14 answers without more context into what we're
15 talking about. I mean I can speak in
16 generalities, but when you do that, there's always
17 going to be a situation where what you say is
18 wrong.

19 Q Well, what about LED backlit displays,
20 were those mature around 2004?

21 MR. LAUPPE: Objection. Form.

22 A I mean there may have been some

1 monochromatic backlit displays that were mature,
2 where the light behind the LCD was red, for
3 example.

4 I -- from recollection, during that time
5 frame, all of the portable electronic displays
6 that I'm familiar with had some sort of tube in an
7 array, and then they used the Fresnel lens to
8 diffuse the light to make it appear more uniform
9 as it shined through the LCD.

10 But I mean I -- I don't -- I can't say
11 one way or another anything definitive without
12 more information and some specific product and
13 having looked at it.

14 I mean I can speak in generalities. I
15 don't think there was many, if any, high-volume
16 white LED light sources back in that time frame.
17 That doesn't mean there wasn't, I just can't think
18 of that being the case right off the top of my
19 head.

20 Q Let's look back at the Burke reference.

21 MR. BREWSTER: And if we could have that
22 put up. That's marked Exhibit 4.

1 Paragraph 32, which is on page -- just
2 save you the scrolling -- is on page -- what's
3 marked page 20 of that document.

4 AV TECHNICIAN: Okay, stand by.

5 MR. BREWSTER: Confusing. There's a
6 page No. 3 on the top, but in the bottom right it
7 says page 20.

8 (Exhibit 4 was previously marked for
9 identification and is attached to the transcript.)
10 BY MR. BREWSTER:

11 Q So, Dr. Baker, looking at Burke, in this
12 paragraph Burke is talking about increasing the
13 current to maintain the user-defined brightness
14 level, correct?

15 MR. LAUPPE: Objection. Form.

16 A The last sentence talks about adjusting
17 the bulb current to maintain the brightness at the
18 user-defined level, yes.

19 Q But Burke is not talking about changing
20 the user's selection, right? It's talking about
21 making sure the display meets that selected
22 brightness level, right?

1 MR. LAUPPE: Objection. Form.

2 A It's talking about a mathematical
3 equation lookup table that takes the user input
4 and the brightness of the bulbs in adjusting the
5 level of the backlight.

6 Q Right, but specifically it says, in 32,
7 that it's adjusting the bulb current to maintain
8 the brightness at the user-defined level, correct?

9 MR. LAUPPE: Objection. Form.

10 A Yes, it says "at the user-defined level"
11 at the very end of the paragraph.

12 Q So if the system detects that the bulbs
13 are not, for whatever reason, age, for example,
14 are not meeting the desired level of brightness,
15 it will increase the current to make sure they can
16 meet that selected level of brightness, correct?

17 MR. LAUPPE: Objection. Form.

18 A Yes, I think I agree with that.

19 Q Okay. Now, briefly going back to your
20 combination of Gettemy with Bell and Whitted, what
21 you propose there is different than what Burke
22 proposes, correct?

1 MR. LAUPPE: Objection. Form.

2 A I don't think I agree with that. I mean
3 if you look at, for example, paragraph 337 on the
4 top of page 218, what the goal of my combination
5 is, is to adjust the brightness, display
6 brightness value, you know, so that you can
7 compensate for the issues that are discussed in
8 Whitted and Bell.

9 Q But in the combination of Gettemy with
10 Bell and Whitted, you're not monitoring bulb
11 brightness and adjusting current based on that
12 measurement, right?

13 MR. LAUPPE: Objection. Form.

14 A Well, I mean you might want to do that.
15 I mean there's design choices where you could have
16 a variable that changes with the age of the
17 display and the brightness that you sense.

18 But I mean I didn't talk about that. I
19 just talked about how you could modify for a user,
20 or a design engineer could modify the Gettemy
21 system, as influenced or taught by Bell and
22 Whitted to do -- to do various things, and one of

1 them would be to have the brightness stay above
2 some level, but bright enough for the user to see
3 what's going on, as I discuss in detail in those
4 paragraphs.

5 And I discuss in maybe more detail on
6 the bottom of page 216 about what a user -- you
7 know, what would happen if you didn't adjust the
8 levels and what could happen with aging, user may
9 not be able to see the screen.

10 And the takeaway is there's just lots of
11 design choices, and I discuss Gettemy and how it
12 could be modified based upon what a person of
13 ordinary skill in the art would have understood
14 looking at Whitted and Bell and found desirable or
15 may be desirable.

16 MR. BREWSTER: All right, Patrick, no
17 further questions from me.

18 Thank you very much, Dr. Baker.

19 THE WITNESS: Thank you.

20 MR. LAUPPE: How about we just take 10,
21 and then we'll get back on the record. I'll let
22 you know if I have any further questions.

1 MR. BREWSTER: All right.

2 (A recess was taken at 3:01 p.m.)

3 (Back on the record at 3:04 p.m.)

4 MR. LAUPPE: So just going back on the
5 record just to say that Petitioners have no
6 further questions.

7 (Off the record at 3:04 p.m.)

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CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

I, Dawn M. Hart, Certified Reporter and
Notary Public within and for the State of
Maryland do hereby certify:

That R. Jacob Baker, Ph.D., P.E., the witness
whose deposition is hereinbefore set forth, was
duly sworn by me before the commencement of such
deposition and that such deposition was taken
before me and is a true record of the testimony
given by such witness.

I further certify that the adverse parties,
Nintendo Co., Ltd. and Nintendo of America, Inc.,
was represented by counsel at the deposition.

I further certify that the deposition of R.
Jacob Baker, Ph.D., P.E., occurred remotely on
Friday, January 26, 2024, commencing at 12:04 p.m.
to 3:04 p.m.

I further certify the inspection, reading
and signing of said deposition was not discussed
on the record.

I further certify that I am not related to
any of the parties to this action by blood or

1 marriage, I am not employed by or an attorney to
2 any of the parties to this action, and that I am
3 in no way interested, financially or otherwise, in
4 the outcome of this matter.

5 IN WITNESS WHEREOF, I have hereunto set my
6 hand this 29th day of January, 2024.

7 My commission expires:

8 January 2, 2025

9
10 

11 _____
12 NOTARY PUBLIC IN AND FOR THE
13 STATE OF MARYLAND

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