

Transcript of David Crane, Volume 2

Date: February 29, 2024
Case: Sony Interactive Entertainment LLC -v- Quantum Imaging LLC (PTAB)

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WORLDWIDE COURT REPORTING & LITIGATION TECHNOLOGY

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY INTERACTIVE ENTERTAINMENT LLC,
Petitioner,
vs.
QUANTUM IMAGING LLC,
Patent Owner.

Case No. IPR2023-00954
Patent No. 8,458,028
Case No. IPR2023-00959
Patent No. 10,255,724
Case No. IPR2023-00995
Patent No. 10,846,941
Case No. IPR2023-00996
Patent No. 10,991,165

VOL II VIDEOTAPED DEPOSITION OF DAVID CRANE

via videoteleconference

Thursday, February 29, 2024

REPORTED BY: Derek L. Hoagland

CSR No. 13445

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VOL II VIDEOTAPED Deposition of DAVID CRANE, taken before Derek L. Hoagland, a Certified Shorthand Reporter for the State of California, commencing at 10:59 a.m., Thursday, February 29, 2024, via videoteleconference.

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I N D E X

WITNESS PAGE
DAVID CRANE
EXAMINATION BY MR. SOROCCO 294, 430
EXAMINATION BY MR. WOO 399

E X H I B I T S

EXHIBIT DESCRIPTION MARKED
No. 2011 Crane condensed transcript Vol I 304

R E F E R E N C E D E X H I B I T S

EXHIBIT DESCRIPTION REFERENCED
No. 1004 IPR 954 '028 Crane Declaration 295
No. 1008 IPR 954 Robinson 324
No. 1004 IPR 995 '941 Crane Declaration 367
No. 1007 IPR 995 Pisanich 380
No. 1001 IPR 995 ''941 patent 381
No. 1004 IPR 165 '165 Crane Declaration 411

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10:59 a.m. P R O C E E D I N G S

THE VIDEOGRAPHER: Here begins Media No. 1 in the continued videotaped deposition of David Crane in the matter of Sony Interactive Entertainment LLC v. Quantum Imaging LLC in the United States Patent and Trademark Office before the Patent Trial and Appeal Board, Case Nos. IPR 2023-000954 and 00959 and 00995 and 00996.

Today's date is February 29th, 2024. The time on the video monitor is 10:59 a.m. Pacific Standard Time. The videographer today is Dylan Keisler, representing Planet Depos, and all parties at this videotaped deposition are attending remotely.

Would counsel please voice identify themselves and state whom they represent.

MR. SOROCCO: Yes. This is Doug Sorocco for patent owner. With me are Ann Robl and Marc Brockhaus. The three of us are with Dunlap Codding, PC. Also with us for patent owner is Homayoon Rafatijo with the Law Firm of Spencer Fane.

MR. WOO: This is Phillip Woo with the Law Firm of Duane Morris on behalf of the petitioner, Sony Interactive Entertainment. I'll be defending the witness today.

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THE VIDEOGRAPHER: Okay. And the court reporter today is Derek Hoagland, also representing Planet Depos, and the witness will now be sworn.

(Whereupon, the deponent is duly sworn by the court reporter.)

MR. SOROCCO: Thank you.

It's nice to see you again, Mr. Crane.

One minor thing on the videographer's read-in. I believe there's an extra zero in 2023-000954. I believe it's 2023-00954.

DAVID CRANE,

having first been duly sworn,

was examined and testified as follows:

EXAMINATION

BY MR. SOROCCO:

Q. Okay. Mr. Crane, when we left off on Monday, we were talking about what we had designated as the '028 patent, which is formerly known as the 8,458,028 patent. Do you recall our discussions, Mr. Crane?

A. Not specifically.

Q. Do you remember that we were discussing this patent, Mr. Crane?

A. Yes.

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Q. Okay. And this is the patent that Petitioner has filed Case Number IPR 2023-00954. Do you recall that information, Mr. Crane?

A. I will have to take your word for that. I don't have any documents in front of me.

MR. SOROCCO: Okay. If we could go to -- if we could bring up Exhibit 1004 in the 954 proceeding -- IPR proceeding, I would appreciate it, Joe.

THE TECHNICIAN: Sure thing. Stand by.

(Referencing Exhibit 1004 IPR 954.)

THE TECHNICIAN: Okay. The document has been uploaded into the chat.

MR. SOROCCO: Okay. Mr. Crane, if it would be more helpful to download or bring it up on your computer to make it easier to see, please feel free to do so.

Joe, could you scroll down to about the middle of the screen? There you go. You can stop right there.

BY MR. SOROCCO:

Q. Mr. Crane, do you recognize this document?

A. It looks correct.

Q. Okay.

MR. WOO: Wait, wait. Actually, I'd just like, as a matter of process, David, are you able to actually pull up the whole document if you need to or?

THE DEPONENT: I clicked on the download, so I

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presume that if I exited Zoom, I would find it in my Downloads folder, which then would mean I would need to open it in preview.

So the question is can I? Probably. Have I? Not at this point. Let me see what I have to do.

MR. WOO: And I just say that because if you need to look at more portions of the document that are being -- other than what's actually being displayed to you on the Zoom proceeding, you're welcome to do that.

THE DEPONENT: Well, let's see. Right now I'm not able to even hide Zoom. There it is.

Let's see what I have here. It appears to be in my download folder, and I am able to open it in preview. And let's see if I can return to Zoom.

I did not do that correctly.

MR. SOROCCO: Well, Mr. Woo, let's -- I'm happy to show as much of the document via Zoom screen as Mr. Crane needs, if it would be easier for him than opening up the PDF locally?

MR. WOO: Well, my preference is that Mr. Crane actually have a document he can look through as he needs, so rather than simply seeing what's on your screen, he can look at portions of the document for complete context if you're going to ask him questions about the document.

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So, David, let us know if you're able to open up the document, access it, and see it yourself.
THE DEPONENT: I do have it. I can put it on a separate screen. The issue is primarily that I'm navigating back and forth. It was not all that seamless.
All right. I appear to have it on both screens.
MR. WOO: Okay. Thank you, David.
BY MR. SOROCCO:
Q. Okay. Exhibit 1004 from the 954 IPR case, Mr. Crane, is your declaration that you -- that the petitioner filed in this case. Is that correct?
A. It looks like it.
Q. Okay. Great. And I will admit to you that it is the same document that we were chatting about on Monday.
MR. SOROCCO: If we could zoom -- or scroll down to page 47, Joe. Fantastic.
And if you could scroll down to what's labeled as Romanette iv. I believe this might be the 954. Yeah. Page 40 -- page 47, I'm sorry. It's page 47 on the PDF document itself. There you go. Romanette -- I just need to make a notation that the number of pages is off versus the numbered pages within the PDF, given the table of contents and the front page.

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BY MR. SOROCCO:
Q. Mr. Crane, at Romanette iv, which represents element 1[c] of claim 1 of the '028 patent, there is the language there that you have bolded, "Automatically integrating business-related content.
Do you see that language, sir?
THE REPORTER: I'm sorry. I'm sorry. I'm sorry. "Do see that language, sir?" And then the answer.
Mr. Crane, could you please repeat the answer?
THE DEPONENT: I believe I said, yes, I see it.
BY MR. SOROCCO:
Q. And Mr. Crane, as you may recall, we discussed antecedent basis in patent claims on Monday. Is that correct, sir?
A. I believe we discussed it on Monday.
Q. Okay. And what is your -- do you have a recollection of our discussion on Monday?
A. Not specifically.
Q. Okay. Do you have an understanding of antecedent basis in patent law?
A. I have a general understanding.
Q. Okay. And can you tell me your general understanding of antecedent basis in patent law?
A. I understand it to mean that within a claim, if a claim term is described using the word "the" rather than "a," it is referring back to an earlier reference to that same claim term in that claim.

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Q. Okay. And is it your understanding that in addition to "the," sometimes claims will use the word "said" to refer back to a prior indication of that claim term?
A. That wouldn't surprise me.
Q. Okay. So looking at Romanette iv, element 1[c], automatically integrating business-related content, is that the first indication of business-related content in claim 1?
MR. WOO: I advise the witness to look at the document as much as you need in order to form your answer.
MR. SOROCCO: Mr. Woo, I didn't object on Monday to those comments to the -- to Mr. Crane. However, I believe, pursuant to the guidelines -- I can pull it up real quick -- the -- let's see. Yeah, the -- the Appendix D testimony guidelines that it's -- it's improper to be telling the witness to look at the document before you answer. I certainly want Mr. Crane to take as much time as he needs, but I will object to your reminding him of that from time to time.
MR. WOO: For the record, I'm just advising him

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to look at it. You're putting something up on the screen and you're asking, is that the first appearance of that term in the claim. If you're asking him to look at the screen alone, he's not going to be able to answer that question. So it's a little bit unfair to say is that the first appearance without giving him proper context.
MR. SOROCCO: Understood, in this context. However, on Monday, we did have the documents in front of us.
MR. WOO: He doesn't have the document in front of him now. At least it's on the screen. So it's a different situation.
BY MR. SOROCCO:
Q. Given that -- Mr. Crane, given that it says "automatically integrating business-related content" and there's not the word "the" or "said" in front of it, would it be your understanding, sir, that that would be the first indication or recitation of business-related content in claim 1?
MR. WOO: Objection. Calls for a legal conclusion.
THE DEPONENT: I wouldn't consider it -- the lack of a term like "the" to indicate that it's the first.

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MR. SOROCCO: Okay. Let's go up to -- let's go to page -- in the PDF, page 44, Joe. And it's Romanette i. If you could stop right there.

Mr. Crane, if you could look at Romanette i and tell me whether or not the term "business-related content" is recited in Romanette i.

THE DEPONENT: The term "business-related content" shows up twice in that claim element, the preamble.

MR. SOROCCO: Okay. In the preamble.

Let's go to page 45, Romanette ii.

BY MR. SOROCCO:

Q. Does the term "business-related content show up in Romanette 2, Mr. Crane?

A. I do not see the term "business-related content in this claim.

Q. Okay.

MR. SOROCCO: Could we go to page 47, at the top, Romanette iii. Up a little higher. There you go.

BY MR. SOROCCO:

Q. In Romanette iii, do you see the language business-related content, Mr. Crane?

A. It's not on the screen there.

Q. Okay. Let's scroll back down to Romanette iv.

Other than the preamble of the claim, is the

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term "business-related content" -- strike.

Is the term "business-related content" in Romanette -- Romanette ii, iii -- ii and iii, Mr. Crane.

A. I believe that's just what we went through there.

Q. Okay. So other than the preamble, this is -- Romanette iv is the first recitation of the term "business-related content." Is that correct?

A. Other than the preamble, I believe that's correct.

Q. Okay. Let's look at page one twenty -- or excuse me, paragraph 125 on page 51.

Okay. And actually, I am going to draw your attention to what's been labeled section B right there between paragraphs 125 and 126. And for claim 3, the -- it -- you have bolded claim 3:

"The method of claim 1 wherein said game application displays branded business-related content to said users."

Do you see that language, Mr. Crane?

A. I do.

Q. Okay. And would it be your opinion that branded business-related content is the same as business-related content that we saw on Romanette iv on page 47?

A. That really depends on context. Branded

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business-related content should be branded.

Q. Okay. Is the term brandes -- "branded business-related content," the -- excuse me, the phrase, identical to "business-related content"?

A. The two phrases are not identical.

Q. Okay. And on paragraph 127.

MR. SOROCCO: If you could scroll down a bit, Joe.

BY MR. SOROCCO:

Q. You wrote:

"Additionally, and as noted above, Angles disclosed displaying advertisements to a user."

Do you see that language?

A. Yes.

Q. Okay. "And advertisements are a form of branded content."

Do you see that statement?

A. I do.

Q. And then it goes on:

"Advertisements are also business-related content intended to promote a company's business."

Do you see that language?

A. I do.

Q. Is it your opinion, Mr. Crane, in paragraph 127, that advertisements are both a form of branded content

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and business-related content?

A. In my experience with advertisements, they are overwhelmingly both.

Q. Okay. And I believe on Monday, you stated that you considered the terms "branded business-related content" and "advertisements" to be synonyms.

Do you recall that testimony, sir?

A. I don't recall that specific testimony.

MR. SOROCCO: Okay. Let's look at -- I'm actually going to pull up what I'm going to label as Exhibit 2011, and this is going to be the condensed transcripts of your testimony on Monday, Mr. Crane.

If you can make that document available to everyone, Joe.

THE TECHNICIAN: Stand by.

(Exhibit No. 2011 marked for identification.)

MR. SOROCCO: And this is the unofficial transcript that we've gotten in the interim days.

THE TECHNICIAN: It's been uploaded into the chat.

MR. SOROCCO: Okay. Can you open the document so we can look at it on the screen together?

Okay. And this is what's -- a mini version. So we're putting four pages of transcript and testimony on every actual page.

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So can you go down to page 64 of the document, Joe?
Okay. Right -- yeah, scroll up. I'm sorry. It's going to be, actually, page -- actual page 249. So if you scroll up a little bit. There you go. And if you could put that testimony just a little bit down a little further. There we go.
BY MR. SOROCCO:
Q. If you look at, on the upper left-hand side, Mr. Crane, starting in -- at line 8, I asked you the question about paragraph 127 of Exhibit 1004, that you made the comment advertisements are a form of branded content.
Do you see that question -- or I guess I should say, comment?
A. I see the quote from my declaration from paragraph 27. Is that what you're asking about right now?
Q. No. I'm just asking you to look on the screen, the Zoom screen, at line 8. This is a transcript of our discussion on Monday. I believe it was probably mid-afternoon or early evening. And at line 8, I stated "okay" with response to your prior answer, and then I went on and I stated:
"So in paragraph 127, you make the comment,"

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quote, "advertisements are a form of branded content, end quote."
Do you see that statement that I made?
A. I do.
Q. Okay. And that's referring to the quote coming from paragraph 127. Is that correct?
A. It appears to be.
Q. Okay. And I went on, and I asked you to tell me what is the basis for your statement.
Do you see that at line 10?
A. I do.
Q. Okay. And then your answer was:
"The entire field of advergaming, which was a decade before this -- this patent application, the persons of ordinary skill in the art that I've worked with in the area of branded advergaming, it would be considered synonymous."
So does that refresh your recollection, Mr. Crane, that you mentioned that branded business-related content and advertisements are synonymous?
A. I'm looking at this. I assume it's an accurate transcript of what I said.
Q. Okay. I'm just asking you, does it refresh your recollection?

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A. That there was a discussion about whether they were synonymous?
Q. Yes?
A. Yes, I see there was a discussion that they were considered synonymous.
Q. Okay. That was your opinion, sir, was it not?
A. General opinion, yes.
Q. Okay. What do you mean, general opinion?
A. I mean, that generally, branded -- let me rephrase that.
An advertisement is generally branded business-related content.
Q. Okay. You also talked -- you -- do you also recall that you testified that advertisement is also a form of business-related content?
A. I'm not surprised if I would have said that.
Q. Okay. And is it still your opinion today that business-related content and branded business-related content would be synonymous with advertisements?
MR. WOO: Objection to the -- objection. Form.
THE DEPONENT: It's still my opinion today that as a generalization, advertisement is a form of business-related content.
MR. SOROCCO: Okay. Thank you.
Let's go on to right -- back to Exhibit 1004,

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Joe.
THE TECHNICIAN: Stand by.
MR. SOROCCO: Okay. If you could go to -- there is a section C right above paragraph 130.
BY MR. SOROCCO:
Q. Okay. Do you see section C there at the mid -- at the top of the Zoom screen, Mr. Crane?
A. I do.
Q. Okay. And it states, in bold type:
"Claim 4: The method of claim 3 wherein said" -- whoop.
MR. SOROCCO: Joe, we lost the text on the screen.
THE TECHNICIAN: I do apologize for that. My Zoom decided to glitch a little bit.
MR. SOROCCO: No problem. It happens all the time.
BY MR. SOROCCO:
Q. So I believe I was reading out loud the language -- the bolded language of claim 4. So claim 4:
"The method of claim 3 wherein said branded business-related content is dynamically updated."
Do you see that language for claim 4, Mr. Crane?
A. I do.
Q. Okay. And do you see the term "said" in front

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of "branded business-related content," Mr. Crane?
A. I do.
Q. And per our previous discussion about antecedent basis in patent law, does the term "said" indicate anything to you?
A. In reading that, I would assume it refers to the branded business-related content that is referred to in claim 3.
Q. Thank you. And given that claim 4 states that the branded business-related content is dynamically updated, is it -- would it be fair to say that that is the branded business-related content that is introduced in claim 3 that is dynamically updated?
MR. WOO: Objection. Calls for a legal conclusion.
THE DEPONENT: I would assume that to be the case.
BY MR. SOROCCO:
Q. Okay. And why would you assume that to be the case?
A. If I can rephrase that. That's how I would read the claim as a non-attorney.
Q. Okay. Thank you.
I want to ask -- I want to ask a hypothetical of you, Mr. Crane.

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If an advertisement showed a, let's say, Tesla Model Y, would that constitute, in your opinion, a business-related content?
MR. WOO: Objection. Form.
THE DEPONENT: If an advertisement was promoting the sale of a product, I would consider it to be business-related content because they're trying to induce business.
BY MR. SOROCCO:
Q. Okay. I think you recharacterized my question a bit, so hang on one second.
I wanted to ask -- so if an advertisement had a Tesla Model Y on a billboard, would that billboard constitute business-related content?
MR. WOO: Objection. Form.
THE DEPONENT: I think that would depend on the advertisement. But my previous answer is the best way I can characterize how I would interpret that.
BY MR. SOROCCO:
Q. Okay. So assume a game, then, that you are playing on your computer shows a billboard with a Tesla Model Y on it. Would you say that the game was displaying branded -- or excuse me, business-related content?
MR. WOO: Objection. Form.

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THE DEPONENT: Could you repeat that question.
BY MR. SOROCCO:
Q. Yeah, sure. Suppose a game that you were playing on your PC showed a billboard with a Tesla Model Y on it. Would it be your opinion that that advertisement in the game displayed business-related content?
MR. WOO: Objection. Form.
THE DEPONENT: No. The question has the same caveat I'm talking about, is I'd have to see it. And if I saw this hypothetical of yours and it appeared to be promoting business, like attempting to sell a car or interest the player in buying a car, then that would be business-related content as -- as I see it on the billboard.
BY MR. SOROCCO:
Q. Okay. Do you have an understanding of what the term "dynamically updated" means?
A. I do.
Q. Can you please provide me with your opinion or understanding?
A. Dynamically is the opposite of statically, which means statically means it doesn't change. Content that is dynamically updated means it changes from the first one you see to something else.

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Q. Is there a timing component to your understanding of dynamically updated?
A. Timing in that it's different at some point?
Q. That was a question for you, sir. Is -- would timing be a component of your definition of dynamically updated?
A. I don't think there's any specific timing inferred. But as I said, it changes.
Q. Okay.
A. And so if it's one -- if it's one thing at one time and another thing at another time, it was dynamic.
Q. Okay. And going back to our hypothetical of a Tesla Model Y, if the advertisement changed as you were looking at it from a black Tesla Model Y to a pink Tesla Model Y, would that, in your opinion, be dynamically updated?
MR. WOO: Objection. Form.
THE DEPONENT: Probably.
BY MR. SOROCCO:
Q. Okay. Why probably?
A. I would want to see it in context, but otherwise, if it's dynamic, it's dynamic.
MR. SOROCCO: Okay. Can you -- Joe, can you scroll down a bit to the block quote under paragraph 131? There we go. A little bit higher.

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There we go.
Actually, let's scroll up. Oh, right stay there.
BY MR. SOROCCO:
Q. Do you see the language in paragraph 131 where you wrote:
"Angles teaches the limitation of this claim"?
MR. SOROCCO: And actually, Joe, why don't you scroll up so section C of -- there can be seen. There you go. Stop right there.
BY MR. SOROCCO:
Q. So you state in paragraph 131:
"Angles teaches the limitation of this claim."
And I assume that you're referring to claim 4, since paragraph 131 sits there under.
Is that fair, Mr. Crane?
A. Referring directly to claim 4, but of course that includes claim 3, since it's a dependent claim of 3.
Q. Sure. But when you say Angles teaches the limitations of this claim, is it fair to assume that you were referring to claim 4?
A. Generally, yes.
Q. Again, why generally?
A. I would refer back to claim 3 to confirm what

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the branded related content that claim 3 was referring to, since we're referring to claim -- said branded business-related content.
Q. All right.
A. But my statement is generally about the dynamically updated advertisement.
Q. Okay. That's what I was getting at.
So you state that -- you go on, excuse me, in paragraph 131 to state that:
"Angles teaches that when an advertisement (branded business-related content) is displayed to the user for a period of time, said advertisement is dynamically updated."
Do you see that language, Mr. Crane?
A. I do.
Q. Okay. And is the fact that the phrase "branded business-related content" in paren, end paren, "advertisement," is it fair to say that you are defining branded business-related content as an advertisement?
MR. WOO: Objection. Form.
THE DEPONENT: In the context of Angles, Angles was teaching advertisement, which generally is branded business-related content, as I have said.
MR. SOROCCO: Okay.
THE DEPONENT: So when I put that claim term in

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bold, I am referring to the claim term in claim 4, and in my opinion, Angles teaches that the advertisements discussed above were dynamically updated.
BY MR. SOROCCO:
Q. Okay. And let me simplify, since Mr. Woo made an objection to my prior question, is: The fact that you have "branded business-related content" bolded and following "advertisement," is there a connection that you're drawing between that word -- the word "advertisement" and the phrase "branded business-related content"?
A. I have drawn a connection between advertisement and branded business-related content in this analysis.
Q. Okay. And that connection is what?
A. Is that a person of ordinary skill in the art at the time of the application of the asserted patent would have understood an advertisement to generally mean branded -- or the term "branded business-related content" included advertisement.
Q. Okay. And then you go on in that sentence to state:
"Is displayed to the user for a period of time, said advertisement is dynamically updated."
Do you see that language?
A. I do.

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Q. And I note you used the word "said" in front of "advertisement," and it appears that some patent language has found its way into your -- your opinions there, sir.
But my question is, I had asked you if your definition or understanding of dynamically updated had a time component to it. Do you recall that question?
A. Well, first let me address this comment that you made that patent language worked its way into my analysis.
When I use the term "said," I use that as shorthand for that thing I was just talking about. I don't want to write that thing I was just talking about, so I might use the word "said." And if we scroll down and look at the block quote, that's what I'm referring to, because I included it as a reference.
Q. Okay. Then you -- but let me go back to my question related to dynamically updating having a time component to it.
Does your opinion not say, sir, that:
"An advertisement is displayed to the user for a period of time, said advertisement is dynamically updated"?
MR. WOO: Objection. Form. Document speaks for itself.

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THE DEPONENT: You just read my statement, and I stand by that statement.
BY MR. SOROCCO:
Q. Okay. The question I'm trying to get to is that I asked you whether or not, in your opinion, a dynamically updated included a time component. And I believe your testimony was that it may or it could, that it was not unqualified.
And so my -- what I'm asking you is, in your opinion in paragraph 131, did you state that dynamically updated included a time component?
MR. WOO: Objection. Form.
THE DEPONENT: My statement in 131 is a statement of what Angles teaches, and I supported that with a block quote that is below 131 and not showing on the screen.
BY MR. SOROCCO:
Q. Okay. Let's scroll down to that block quote, then. And the block quote from Angles, right, is that:
"If the consumer continues to view the electronic page 32, the advertising module 62 continues to update the customized advertisements, 30."
Do you see that language, Mr. Crane?
A. I do.
Q. So if the consumer continues to view --

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continues to view, does that imply a time component?
A. No specific time is talked about, but certainly time is passing as you're viewing a page.
Q. Okay. Thank you.
Then there is a -- oh. Well, if we go down a little further:
"For example, if a consumer views a particular electronic page 32 for more than a minute," and you've bolded "more than a minute" -- "the advertising module 52 can send a new customized advertisement."
Do you see that language, sir?
A. I do.
Q. Okay. So is the send a new customized advertisement, is it your opinion that that is the content being updated?
A. Sending a new customized advertisement is dynamically updated content, yes.
Q. Okay. A hypothetical is that if a game shows you an iPhone ad and a minute later shows a Samsung phone, is that, accord -- well, would that be, according to your testimony, branded business-related content that was dynamically updated?
MR. WOO: Objection. Form.
THE DEPONENT: As I said, the business-related content, I would have to see it to decide whether or not

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it was attempting to perform business. Most advertisements are. And if they change dynamically, then it is dynamically or dynamically updated business-related content.
BY MR. SOROCCO:
Q. Okay. So let me -- let me break my question down, then.
Have you ever seen, Mr. Crane, an iPhone ad that showed a picture of the iPhone with Apple listed on thereunder?
MR. WOO: Objection. Form.
THE DEPONENT: I have seen iPhone ads on billboards. And the second part of your question was with Apple indicated under it? Is that what your question was?
BY MR. SOROCCO:
Q. Well, let me ask. I'll break it further.
Have you ever seen an advertisement, it may be on a billboard, it may be on a screen of an iPhone?
A. I have seen iPhones advertised.
Q. Okay. Have you ever seen an iPhone advertised with the name of the company listed on the advertisement?
A. I have certainly seen iPhone ads with Apple's logo. I don't recall if that logo included the company

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name.
Q. Okay. Would the logo be something that you considered to be branded, a brand?
MR. WOO: Objection to form.
BY MR. SOROCCO:
Q. Okay. Mr. Crane, would the Apple logo be an item that you consider to be part of Apple's brand?
MR. WOO: Objection. Form.
THE DEPONENT: I would consider the Apple logo to be part of Apple's brand.
BY MR. SOROCCO:
Q. Okay. And if we go for the same question is, if -- have you seen an advertisement for a Samsung phone?
A. Probably.
Q. Have you seen an advertisement for a Samsung phone that has Samsung brand information on it?
A. Probably.
Q. Okay. And then I will get to my ultimate question, is that if a game shows the iPhone ad with the Apple logo on it and a minute later shows a Samsung ad with a Samsung brand information on it, according to your testimony, would that be a dynamically updated content?
MR. WOO: Objection. Form.

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THE DEPONENT: There's another issue. I don't know if we've discussed it or not. But if you are updating an ad, you are replacing an ad. So is -- does your question refer to replacing the iPhone ad with a Samsung ad?
MR. SOROCCO: I'm just saying that in -- at the beginning of your minute at -- it shows -- the advertisement shows an iPhone ad, and a minute later, 60 seconds later, the advertisement shows a Samsung ad. Was the change from the iPhone ad to the Samsung ad a dynamically updated content?
MR. WOO: Objection. Asked and answered. Form.
MR. SOROCCO: Counsel, he asked me the question and I broke it down for him.
THE DEPONENT: If the advertisement for the iPhone is on a billboard, for example, and that billboard image changes to an advertisement for the Samsung, then the advertisement was dynamically updated.
BY MR. SOROCCO:
Q. Okay. Thank you.
And I'm going to go back. We have talked about it.
Have you ever seen an ad for a Tesla automobile?
A. Probably.
Q. Okay. Have you ever seen an advertisement for a

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Tesla -- a black Tesla automobile?
A. I don't recall having ever seen a black Tesla automobile advertised.
Q. How about a white Tesla automobile advertised?
A. I have seen white Teslas advertised.
Q. Okay. And if the ad for a white Tesla changed to an advertisement to -- for a pink Tesla a minute later, would you say that the branded business-related content, i.e., the Tesla automobile, was dynamically updated?
MR. WOO: Objection to form.
THE DEPONENT: Could you repeat or rephrase that question without that i.e. or be more specific what that i.e. meant?
BY MR. SOROCCO:
Q. I would be happy to.
So again, all I'm asking is, if you see an advertisement for a black Tesla on a billboard and a minute later, as you're looking at the billboard, the Tesla advertisement changes color to pink, would you say that the advertisement was dynamically updated?
A. Yes.
MR. WOO: Objection. Form.
THE DEPONENT: Yes, I would.
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BY MR. SOROCCO:
Q. Okay. All right. We're going to move on from Angles to -- I believe you have a second -- let me find it real quick -- a second grounds for your belief that the '028 patent was unpatentable, to a reference of -- called Robinson. Yes. Okay.
MR. SOROCCO: So Joe, if you would go to page 68 of the PDF document itself.
Okay. If you scroll up there a little bit.
"Section D, ground 2: Claims 1, 3-9 are obvious over US Patent No. 7,168,051 to Robinson, et al., paren, quote, "Robinson," quote, paren, "in view of the knowledge of a POSITA."
Do you see that language?
A. I do.
Q. And is it your opinion that Robinson discloses all of the elements of those claims in the '028 patent?
MR. WOO: Objection. Form. Document speaks for itself.
THE DEPONENT: You know, I did document my opinion here, and my recollection is I would answer that question, yes, I believe it disclosed or at least taught or rendered obvious all of the claims of the asserted patent.
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BY MR. SOROCCO:
Q. Okay. I would --
A. I'm sorry. All of the challenged claims.
Q. Okay. I was going to clari for you.
MR. SOROCCO: Can we, Joe, can you pull up what is Exhibit 1008 in the 954 IPR?
THE TECHNICIAN: Stand by.
(Referencing Exhibit 1008 IPR 954.)
THE TECHNICIAN: Okay. The document has been uploaded into the chat.
MR. SOROCCO: Okay.
BY MR. SOROCCO:
Q. Do you recognize this document, Mr. Crane?
MR. WOO: And, again, Counsel, before Mr. Crane answers, I want to give him the opportunity, as appropriate, to retrieve the document for himself so he has it and he's not relying simply upon what's being displayed on the screen during the deposition.
MR. SOROCCO: That's fair, I believe.
Take your time, look through the document, and let me know.
THE DEPONENT: Well, this isn't a memory test. I haven't memorized every line of Robinson. I'm going to take your word that this is a true and complete copy of the Robinson reference.

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MR. SOROCCO: Okay. And let's go back now to your documents.
Exhibit 1004, Joe. And go to paragraph 177.
BY MR. SOROCCO:
Q. What is the -- in -- excuse me.
In paragraph 177, Mr. Crane, the last sentence, you state that -- oh, let me just talk about the entire paragraph. So strike the prior.
In paragraph 177, you're referring to the preamble, Romanette No. i of claim 1, and the language of Romanette i is:
"A method of integrating business-related content over a computerized network into a primary electronic device that accesses a game application from at least one secondary electronic device that accesses business-related content on a plurality of webpages the method comprising."
Do you see that language, sir?
A. I'm not on that same page on mine, and it scrolled off the top, but I'm going to presume that you read it correctly.
Q. Okay.
MR. SOROCCO: If you want to scroll up a bit, Joe. I'm sorry. You followed me. But --
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BY MR. SOROCCO:
Q. Okay. How does that --
A. Like I said, I'm going to assume you read it correctly.
Q. Okay. In your paragraph 177, you state that:
"Robinson discloses a client computer, a primary electronic device."
And you refer back to paragraph 89, when you were generally speaking about Robinson. And then you go on:
"And a server of webpages containing business-related content."
What do you mean -- or do you have an understanding of the term "server of webpages"?
A. Well, a server is a computer that is accessible through a network and provides data. Webpages are a very common use of servers. And so if a server is serving content to the web, that would be a server that serves webpages.
Q. Okay. And a little farther down, you say:
"Robinson also teaches an e-commerce server."
Do you see that language, sir?
A. Yes. I was about to scroll off the bottom.
MR. SOROCCO: Oh. If you could scroll down, Joe. I'm sorry. You can stop there. That would be

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great.
And do you have an understanding of what the term "e-commerce server system" means?
A. I do.
Q. What is that understanding?
A. The "e" stands for electronic and the "commerce" stands for doing business.
Q. Okay. What would you -- do you have an understanding of server system?
A. The server system, yes. It's a server computer, typically.
Q. Okay. Is there any -- what is the -- does the term "system" add any additional definition to that phrase?
A. Yeah, it very much can.
Q. Okay. And with respect to this specific language here in paragraph 177, how does it add information to that phrase?
A. Well, what it adds to that phrase is not specific to just this paragraph.
Q. Right.
A. If you hear about an electronic server system, that server system can include, you know, databases, external servers, connections to libraries. There's a number of things it can be. And you would still call it

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a server system.
Q. Okay. And you -- you -- the claim includes the language "at least one secondary electronic device."
Do you see that, sir?
MR. SOROCCO: If you can scroll up, Joe. There you go.
THE DEPONENT: "At least one secondary electronic device."
Yes.
BY MR. SOROCCO:
Q. Okay. And between the e-commerce server system and the server of webpages that you discuss in paragraph 177, which one of these items do you consider the secondary device within the meaning of the preamble of claim 1?
MR. WOO: Objection. Form.
MR. SOROCCO: Let me ask it a different way.
BY MR. SOROCCO:
Q. Do you have an understanding or a belief as to the term "secondary electronic device"?
A. I would consider that to be an electronic device that is separate from the primary electronic device.
Q. Okay. Within the claim term, is the e-commerce server system that you discuss in paragraph 177 the secondary electronic device?

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MR. WOO: Objection. Form.
THE DEPONENT: I refer to my paragraph 90, which is talking about Figure 3 of Robinson, and it specifies a server object 330 that contains everything needed to serve up webpages and applications. So without reviewing it in detail, I believe I was probably referring to the user -- or the server -- I'm sorry, the server object 330 as the secondary electronic device disclosed by Robinson.
MR. SOROCCO: Okay. If you could scroll down a little bit, Joe, so we can see the entirety of 177.
BY MR. SOROCCO:
Q. You state that Robinson, in the second sentence, discloses a client computer, a primary electronic device. Is the fact that the language "a primary electronic device" defining in some manner -- or strike.
Did you intend the language "a primary electronic device" to refer to client computer?
A. The bolded primary electronic device is the language directly in front of the claim element above, and in my analysis, I looked at the claim language "a primary electronic device" and reviewed Robinson to determine if Robinson teaches a primary electronic device.
Q. Okay.

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A. And that -- that's what this statement says.
Q. Okay. And if we go on, you state that:
"And a server of webpages containing business-related content." And then again it states, "At least one secondary electronic device," paren, end paren.
Do you see that language?
A. I do.
Q. Did you intend the bolded language, at least one secondary device, to reference webpages -- or excuse me, a server of webpages containing business-related content?
MR. WOO: Objection. Form.
THE DEPONENT: Similar to the previous answer, what I -- the reason I put that bolded text in there is because that's the claim element. It is what I am searching for when I'm analyzing Robinson. And I referred to my description in paragraph 90 about a server capable of serving webpages and/or applications. And since that's different than the primary electronic device, I said that Robinson discloses a secondary electronic device.
BY MR. SOROCCO:
Q. Okay. Is it your opinion, then, that a server of webpages, as disclosed in Robinson, teaches at least

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one secondary electronic device as that term or phrase is used in the preamble of claim 1?
A. That is the opinion I set forth here, and I believe that.
Q. Okay. Thank you.
The next sentence goes on to say:
"Robinson also teaches an e-commerce server."
And, again, you have the language:
"At least one secondary electronic device," and then you add "that accesses business-related content."
Do you see that language, Mr. Crane?
A. I do.
Q. Okay. Is it your opinion, then, that an e-commerce server as disclosed in Robinson teaches at least one secondary electronic device that accesses business-related content as used in the preamble of claim 1?
MR. WOO: Objection to form.
THE DEPONENT: That paraphrases my opinion that I stated here, yes.
BY MR. SOROCCO:
Q. Okay. Why do you -- is the bolded language different with respect to server of webpages as opposed to an e-commerce server? And what I mean by different is a server of webpages, you then tie it to at least one

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secondary electronic device, but an e-commerce server was tied to the language, at least one secondary electronic device that accesses business-related content.
A. I don't recall any reason for that difference.
Q. Okay. On --
MR. SOROCCO: If we could go to paragraph 91.
BY MR. SOROCCO:
Q. Do you see the language in paragraph 91, that you wrote:
"Also shown in Figure 3 of Robinson is an," quote, "e-commerce system 360"?
A. I do.
Q. Okay. In -- so Robinson discloses an e-commerce system 360. Is that correct?
A. It does.
MR. SOROCCO: Okay. Let's go back to paragraph 177. I'm sorry to make Joe go back and forth through so many pages here.
BY MR. SOROCCO:
Q. Okay. Do you see that last sentence, "Robinson also teaches an e-commerce server," Mr. Crane?
A. I do.
Q. Okay. In paragraph 91, you quoted Robinson as disclosing an e-commerce system 360, yet in

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paragraph 177 you state that Robinson also teaches an e-commerce server, referring back to paragraph 91.

Is an e-commerce server and an e-commerce system the same device?

A. Typically, an e-commerce system back then was executed by a server. Offhand, I don't know that I would say they were absolutely identical, but certainly an e-commerce system would be considered by a person of ordinary skill in the art to use a server.

Q. Okay. And you said the word -- let me get this here so I have it, the language.

You said:

"Typically, an e-commerce system back then was executed by a server."

Would an e-commerce system back then, which I assume you mean prior or at the time that Robinson was filed, would it have to be executed by a server?

MR. WOO: Objection. Form. Mischaracterizes the testimony.

MR. SOROCCO: Okay. Let's scroll up in the language, then.

BY MR. SOROCCO:

Q. You stated in your answer:

"Typically, an e-commerce system back then was executed by a server."

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Are you aware or have any knowledge of e-commerce systems that were not executed by a server?

A. As I sit here today, I am not aware of any e-commerce systems that did not use a server.

Q. Okay. Is it fair to say that simply because you were not aware of them that they did not exist?

A. It is certainly possible that things that I am not aware of exist.

Q. Okay. I'm just curious, if we go back -- scroll down to 177, why you chose to call to Robin -- what Robinson teaches in 177 an e-commerce server, referring back to paragraph 91, where the Robinson is actually teaching an e-commerce system.

A. No reason. They're all involving electronic devices.

Q. Okay. Does that mean that the language is not -- should not be considered to be precise in your declaration, Mr. Crane?

MR. WOO: Objection. Form.

THE DEPONENT: I don't know that that's a fair characterization. I always do my best to be precise.

BY MR. SOROCCO:

Q. Okay. And I think we talked about, on Monday, that, you know, giving credit to your colleagues, programmers, that you would only take credit for things

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that were 95 percent or more, in your opinion, I think, programmed or designed by you. Is that a fair characterization?

MR. WOO: Objection. Form.

THE DEPONENT: In referring to game products that I created or that were on the market, I am simply very careful not to take credit where credit is not due. So if I list a game that I have created, I am the primary creator of that game and I don't list dozens or hundreds of other games that I may have contributed to, but only partially.

BY MR. SOROCCO:

Q. Okay. And that care that you took with regard to that 95 percent or taking credit, did you take the same level of care in choosing the language e-commerce server versus e-commerce system?

MR. WOO: Objection. Form.

THE DEPONENT: As I said, I'm very careful when documenting my opinion. I do the best I can.

BY MR. SOROCCO:

Q. Okay. And if Robinson did not actually teach an e-commerce server, would it be fair to say that the system should not be interpreted as encompassing a server?

A. I wouldn't say that.

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Q. Why?

A. Well, you're referring to a single sentence in an entire declaration, and Robinson speaks for itself. It talks about the devices in the block diagram in Figure 3, for example, and whether I happen to use the term "server" instead of "system" doesn't change what Robinson teaches.

Q. Okay. I'm just trying to get an understanding of what the basis for your opinions. And so, you know, I know you're a man that takes care great in things, so I just want to make sure we both understand why you referred in one place to what Robinson teaches as an e-commerce server when the quote is actually e-commerce system. That's all.

A. Is there a question there?

Q. No, there's no question.

MR. SOROCCO: How long have we been on the record?

THE VIDEOGRAPHER: We've been on the record for one hour and 12 minutes.

MR. SOROCCO: I would like to take a -- just a short ten-minute break, please.

THE VIDEOGRAPHER: Okay. We are going off the record. The time is 12:11.

(A recess transpires.)

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THE VIDEOGRAPHER: We are back on the record. The time is 12:22.

MR. WOO: Before we get started, I do not want to note that we started about an hour late due to technical difficulties, in that patent owner's crew was not prepared. So the deposition was supposed to begin at 10 o'clock. Our witness, Mr. Crane, has been waiting, and we had to wait an hour, basically, to get started. Thank you.

MR. SOROCCO: Are you finished?

MR. WOO: I am finished.

MR. SOROCCO: Okay. Thank you.

Mr. Crane, can we -- I would like to direct your attention, if we could bring Exhibit 1004 back up, Joe. And if you could scroll down to paragraph 180, that would be great.

BY MR. SOROCCO:

Q. And if we look at Romanette ii, which is element 1[a], the language of the claim is:

"Receiving a request at said primary electronic device to initiate a locally executed game application that is accessible at said primary electronic device from a user interface with said network."

Do you see that language, Mr. Crane?

A. I do.

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Q. Okay. Do you have an understanding of what the term "locally executed" means?

A. I do.

Q. Okay. And can you tell me what that understanding is?

A. I would consider that to be a program -- a program executed at a user's electronic device, his home computer, whatever.

Q. Okay. And in the next section of that claim, or next sentence, I guess I should say, of the claim, is the way you have it broken out here, you've got the game -- so you have the -- the language is "initiated locally executed game application," and then you go on to say, "that is accessible at said primary electronic device."

What -- do you have an understanding of what the phrase -- or the term "accessible" means with respect to this claim?

A. Can be accessed by.

Q. I'm sorry. You broke up a bit for me. Could you repeat your answer.

A. I would say that accessible is, quote, can be accessed by.

Q. Can be accessed. Okay.

And then it goes on to "at said primary electronic device from a user -- from a user interface with said network."

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Is your -- your opinion in paragraph 180, you said that:

Robinson teaches this limitation disclosing a user request to download software to be locally executed."

Do you see that language?

A. I do.

Q. Okay. And then you go on in his -- locally executed at his primary electronic device. And then you said:

"Said locally executed software being the 3D computing environment that can be configured to display realtime avatars and play online games," and then, paren, "locally executed game application."

Do you see that language?

A. I do.

Q. Okay. And is it your opinion that -- as stated here in paragraph 180, that an online game is locally executed?

A. Yes.

MR. WOO: Objection. Form.

MR. SOROCCO: Was that objection form, Mr. Woo?

MR. WOO: Yes, it was. Correct.

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BY MR. SOROCCO:

Q. And do you believe -- or do you have an opinion that the terms "accessible" and "locally executable" have different meanings, Mr. Crane?

A. Yeah. They are different.

Q. Okay. Can you explain how they're different?

A. Again, locally executed would be executed locally on a user's computer. And the fact that the user has access to that program would mean it's accessible to him.

Q. Okay. At the time that the Robinson patent application was filed, is it a fair statement to say that all online games were locally executable at that time?

MR. WOO: Objection. Form.

THE DEPONENT: Well, in the first place, I considered these issues from the priority date of the asserted patent. I would have to research based on what you just asked about, which was the date of the Robinson reference.

BY MR. SOROCCO:

Q. Okay. Well, let's ask, then, at the time of the patent -- the priority date of the '028 patent, at that time do you have an opinion as to whether all online games were locally executable?

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A. Yes.
Q. Okay. And what is that opinion, sir?
A. As of that date, all online games had a locally executed program component.
Q. Okay. Thank you.
Can we look back a bit at paragraph 72 of Exhibit 1004? I believe this is just in your background section, Mr. Crane.
Okay. At paragraph 72, you state that:
"Note that a web browser is a computer program that resides locally on a person's personal computer."
Do you see that language, sir?
A. I do.
Q. Okay. And I believe we discussed Shockwave and Flash on Monday. But do you have an opinion as to whether Shockwave -- or excuse me. Strike that.
Do you have an opinion as to whether a player could play a game with only Shockwave installed?
A. Shockwave was a plug-in to all of the browsers at the time. I'm not sure what that would mean to have Shockwave only installed.
Q. Okay. If Shockwave was downloaded into a browser of the time period -- strike.
Can a player at the time -- could a player at the time of the patent filing or the priority date of

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the '028 patent play a game with only Shockwave installed?
MR. WOO: Objection. Asked and answered.
THE DEPONENT: Yeah, I believe that's the same question, and I'm not sure how Shockwave could be installed only.
BY MR. SOROCCO:
Q. Do you have an opinion or an understanding that whether a user could go out and download Shockwave directly to their browser?
A. A user could download Shockwave to their browser. That's a -- that was a possibility.
Q. Okay. And if the user only downloaded Shockwave to their computer, could they thereafter immediately play a game?
MR. WOO: Objection. Form.
THE DEPONENT: I don't recall what Shockwave did immediately after downloading.
BY MR. SOROCCO:
Q. Okay. Would a browser program or plug-in such as Shockwave or Flash serve as a locally executed game application as that term is used in the '028 patent?
A. Yes.
Q. Let's go back to paragraph 181, please.
You state in paragraph 181 that:

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"Software requested and downloaded into a user's client machine is accessible at said primary electronic device from a user interface with said network as claimed."
Do you see that language?
A. I do.
Q. Okay. At what point does the game become accessible at said primary electronic device?
A. Well, a complete answer of that would require a lot of context, but generally on a PC, once an application is downloaded into the PC, it's accessible at that point.
Q. Okay. And with regard to your understanding of the term accessible with respect to online games, where would the game be stored while the user is playing the game?
MR. WOO: Objection. Form.
THE DEPONENT: As we discussed, I think, on Monday, an online game has a local component, a server component, and a communication component, and you download the game to your electronic device. That game is stored on your home computer, your personal device, and is executed from there.
BY MR. SOROCCO:
Q. Okay. When you say that it is -- I believe,

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download the game to your electronic device, does that mean that it's saved to your local electronic device?
A. It is at least cached, if not also saved elsewhere.
Q. And the term cached is spelled c-a-c-h-e-d, correct?
A. Correct.
Q. And what does it mean to be cached in this -- with regard to an online game?
A. It means to be stored. But the implication is that it is temporary storage that can go away at some time without user interaction.
Q. Okay. Prior to the online game being downloaded, saved, or cached through the -- what do you call it -- local electronic device, is the game accessible to that device?
MR. WOO: Objection. Form.
THE DEPONENT: It can be.
BY MR. SOROCCO:
Q. Okay. And then would you say that a game is locally accessible when the local device holds the game?
A. If the game is stored locally, then yes, it would be locally accessible.
Q. Okay. Do you have an understanding of the term the pri -- "hold" with regard to a primary device and an

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online game?
A. I missed a couple words of that question.
Q. Sure. I'll read it to you.
Do you have an understanding of the term "hold" with regard to a primary device and an online game?
MR. WOO: Objection. Form.
THE DEPONENT: That question, you used the word hold, h-o-l-d?
MR. SOROCCO: That's correct.
THE DEPONENT: I would need some context to even understand what you're asking.
BY MR. SOROCCO:
Q. Let me ask this way. Can a game application that is being executed locally by a user of a local electronic device, while the game is not stored on the device?
MR. WOO: Objection. Form.
THE DEPONENT: Yeah, that was like half a question.
BY MR. SOROCCO:
Q. Okay. Is it possible for a game application to be executed locally by a user of a local electronic device before the game is stored on the local electronic device?
A. If I heard that question correctly, it is

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possible to execute a program on a local electronic device at any time, with or without downloading games.
Q. Let me ask again. Is it possible for a game application, so a game application, to be executed locally by a user of a local electronic device before the game application is stored on the local electronic device?
MR. WOO: Objection. Asked and answered. Form.
THE DEPONENT: All right. Now that I'm starting to get an idea, can you repeat it?
BY MR. SOROCCO:
Q. Sure. Is it possible for a game application to be executed locally by a user of a local electronic device before the application is stored on the local electronic device?
A. I would not consider it possible to execute a game application that is not stored on the user's client machine.
Q. Okay. I'm going to ask another hypothetical.
If a game is hosted on a primary electronic device, can a user of a secondary electronic device that establishes a network connection to the primary electronic device execute the game application on the primary electronic device and play the game on the secondary electronic device?

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MR. WOO: Objection to form.
THE DEPONENT: Well, what your hypothetical does is reverse the second -- first -- primary and secondary devices, so the -- the result is the same. You can host a game on a primary electronic device and download it to a secondary electronic device and play it from there. So in that hypothetical, you just reverse the first and second -- the primary and secondary electronic devices.
BY MR. SOROCCO:
Q. In order for the secondary electronic device to play it from the primary electronic device, do I understand your testimony to be that it would have to be downloaded from the primary electronic device to the secondary electronic device?
MR. WOO: Objection. Form.
THE DEPONENT: In order for a game to be executed, its client code has to be downloaded onto the device that's going to execute.
BY MR. SOROCCO:
Q. Okay. All right. Let's look at paragraph 188 in Exhibit 1004, please. Your paragraph 188 starts out:
Shown in Figure 9, Robinson discloses the persistent client window 912 integrated into the whole of the 3D computing environment," and then paren, "the locally executed game application," end paren, "using a

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window within the desktop window."
Do you see that language, sir?
A. I do.
Q. Okay.
MR. SOROCCO: And if we pull up Figure 9 of Robinson, which is Exhibit 1008.
THE TECHNICIAN: Stand by.
MR. SOROCCO: Yes, please, Joe. And if you will scroll down to Figure 9, please. Can you rotate that 90 degrees clockwise? I think it's up there at the top of that box. There you go. Okay.
BY MR. SOROCCO:
Q. Do you recognize Figure 9 from the Robinson patent?
A. I do.
Q. Mr. Crane?
A. I do.
Q. Okay. And do you see the language "persistent client window 912" there in the middle of that figure?
A. Yes.
Q. Okay. Do you have an understanding of what the persistent client window 912 refers to?
A. Yeah. I discuss that in my background description of Robinson on around paragraph 93.
Q. Okay. And generally, what is the -- your

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understanding of the persistent client window 912?
A. It's a window within the three-dimensional desktop that Robinson talks about as part of his invention.
Q. Okay. And what is a three -- or do you have an understanding of what a virtual desktop means?
MR. WOO: Objection. Form.
THE DEPONENT: Yeah. I mean, Robinson talks about this at length. This is -- this is your computer display. But instead of just looking at icons and various backgrounds, it's a 3D view. It's kind of a three-dimensional browser. So, yeah, that's -- that's something that Robinson talks about a lot.
BY MR. SOROCCO:
Q. Okay. And do you --
MR. SOROCCO: Joe, is there a way to put up this Figure 9 side by side or adjacent with paragraph 188 of Exhibit 1004?
THE TECHNICIAN: Yes, I can do that. Just give me one moment.
MR. SOROCCO: Okay. Okay. Probably need to size, unfortunately, just down just a little bit the Exhibit 1004 so everyone, especially Mr. Crane, can see. That's probably a little too small. Maybe 65 percent.
Okay. That way I think we can see the entire

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paragraph. There we go.
BY MR. SOROCCO:
Q. Looking at paragraph 188 --
MR. SOROCCO: Actually, let's scroll up to the top of that page 73, Joe.
BY MR. SOROCCO:
Q. And if we look at Romanette iv, claim element 1[c], the language is bolded from the claim:
"Automatically integrating business-related content from at least one of said webpages of said secondary electronic device into said locally executed game application during execution of said game application."
Do you see that language, Mr. Crane?
A. I do.
Q. Okay. Do you have an understanding of what the term "automatically integrating" means?
A. Well, we have discussed the term "automatic," and as I discussed, it's without manual -- well, it's the opposite of manually. Put it that way.
Automatically integrating is a little more flexible. The idea of taking content and integrating it into something is -- it can be an automatic -- an automated process.
Q. Okay. With respect to game application, which

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is mentioned here in claim 1[c], claim element 1[c], what does the term "integration" mean with respect to integration of content into a game application?
A. Well, that covers issues that I have raised in my declaration here, bringing in advertisements, putting them into a game. Another example in Robinson is dragging and dropping. Upon dropping, it gets integrated into a 3D environment. You know, integrating is including it into the game application.
Q. Okay. And my -- is it your understanding -- or excuse me.
Is it your opinion that an advertisement that is displayed in that persistent client window 912 would be integrating business-related content into said locally executed game application?
MR. WOO: Objection to form.
THE DEPONENT: No. Go ahead.
MR. WOO: Objection. Form.
THE DEPONENT: I talked over somebody here.
BY MR. SOROCCO:
Q. Well, let me -- I mean, your counsel objected to the form of the question, but I'm -- I'll read from paragraph 188 of your declaration is, you state that:
"Any disclosure of an advertisement displayed in the persistent client window," and then I'll add, which

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is when persistent client window 912 shown in Figure 9 on the right-hand side, and then you go on, "Teaches the claimed automatically integrating business-related content onto the next page into said locally executed game application."
Do you see that language of yours, Mr. Crane?
A. Sadly, I do not. 188 is cut off.
Q. Oh, I'm sorry.
MR. SOROCCO: Please scroll down to 188. Yeah, let's do the bottom of one -- of page 73 and top of 74.
BY MR. SOROCCO:
Q. Now, do you see that language that I basically read the last sentence of, paragraph 188 to the top of paragraph -- or excuse me, to page 74 of the PDF?
A. I see the entirety of paragraph 188.
Q. Okay. And you state that:
"Any disclosure of an advertisement into the persistent client window" -- and then I will say that's persistent client window 912 -- "teaches the claimed automatically integrating business-related content."
That's -- is that your opinion, Mr. Crane?
A. It's a summary.
Q. What additional information would you add to that to make it not a summary?
A. Well, as we discussed this morning, you know,

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you nailed down my opinions of advertisements and whether there's business-related content. I've explained that. So taking in all of the understanding of what these terms mean, generally if you take an advertisement and it happens to contain business-related content, and you integrate it into a game application, that's what this paragraph says, and it says that Robinson explicitly discloses that.

Q. Okay. So the content, once it is displayed -- the advertising content, excuse me, once it's displayed in the persistent client window 912, is it your opinion that that is automatically integrating that advertisement or business-related content into the locally executed game application?

MR. WOO: Objection. Form.

THE DEPONENT: It is my opinion that that is integrating. Automatically is based on case-by-case basis, but generally it would be automatically integrated.

MR. SOROCCO: Okay. Can you, on the right-hand side, Joe, go to what is column 12 at the top of the page? I believe it's probably -- naw, it's going to be down in the document. There you go.

Do you see those numbers at the tops of the columns? There you go. You can see it. If you go down

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to column 12, that would be perfect.

BY MR. SOROCCO:

Q. Okay. Column 12, and if you go all the way to the bottom. Column 12, line -- it looks to be about 66 and 67, states:

"When the computer system detects that the user does not have an application" --

MR. SOROCCO: And then if you go down to window -- or column 13, the top of column 13, Joe.

BY MR. SOROCCO:

Q. -- "window open that covers the user's viewing of the persistent client window or that only the user's computer desktop is being displayed, it will continue to display advertisements or messages within the persistent client window that are being cycled from its buffer."

Do you see that language, Mr. Crane?

A. I do.

Q. Okay. Do these passages talk about advertisements being displayed within the persistent client window 912 or being integrated into the application?

MR. WOO: Objection. Form.

THE DEPONENT: Well, I can't see the previous part. Was that just on 112?

MR. SOROCCO: Yeah. If you want to go over

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there, Joe, and take him to it.

Or if you want to open up 1008 on your computer there so you can see the entirety of it.

THE DEPONENT: 1008, was it put into the chat window? I did not see it.

MR. SOROCCO: Could you put that in the chat window real quick, Joe?

THE TECHNICIAN: Sure. It's already there, but I can redo it.

MR. SOROCCO: And it's -- 1008 is a copy of the Robinson '051 patent.

THE TECHNICIAN: Okay. I just uploaded.

THE DEPONENT: I just opened the chat window, and it's no longer -- so right there. The last one is Exhibit 1008? I mean, yes, I will download it. I have not.

MR. SOROCCO: Okay.

THE DEPONENT: But all I really want to do is see the bottom of column 12.

Okay. Back to 13.

So I'm prepared if you could repeat your question.

BY MR. SOROCCO:

Q. Okay. Do you have an opinion as to what these -- what lines 66 through 67 on column 12 and lines

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1 through 5 on the top of column 13 disclose?

A. This section is talking about an option or a situation where once it's determined that the advertisement's not being covered up, the users viewing of the window is not being covered up, it will cycle through a buffer of advertisements. So it's about displaying advertisements during a particular timeframe when they are not being covered up by something else.

Q. And if we go back to paragraph 188 of your declaration, if we scroll down a little bit, you cited those same or similar areas around column 12 in the first para -- or first indented paragraph, line 62 to 66. Is that correct, Mr. Crane?

A. That first block quote is 62 to 66.

Q. Okay. It doesn't appear that you quoted lines 1 through 5, but you did quote in your second block quote lines 5 through 11 on column -- the top of column 13. Is that correct?

A. That's correct.

Q. Okay. And is it your opinion that those advertisements that are being discussed at the bottom of page 12 -- or excuse me, column 12 and the top of column 13 are integrated into the game application, Mr. Crane?

MR. WOO: Objection to form.

THE DEPONENT: It is my opinion that these

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advertisements are being integrated into this 3D desktop application.
BY MR. SOROCCO:
Q. Fair.
I've got a hypothetical for you, Mr. Crane. Do you watch football, by chance?
A. I do.
Q. Okay. And if you're watching a football match on TV -- is that something that you do, I guess I should ask?
A. I have.
Q. Okay. And have you ever had an advertisement that pops up during a football match?
A. I have seen advertisements pop up.
Q. Okay. And do those adver -- did those advertisements block your view of the match, by chance?
MR. WOO: Objection to form.
THE DEPONENT: The pop-ups that I'm referring to did not.
BY MR. SOROCCO:
Q. Okay. Why did they not?
A. They put advertisements in the bottom right-hand corner so that they can advertise while you're watching the game.
Q. Okay. Have you ever had -- or have you ever

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been watching a football match where advertisements were laid on top of the video or the content of the match itself?
A. Advertisements that I'm thinking of right now are displayed after -- you know, during a break, when the football is not actually being displayed, full-screen commercials, that sort of thing.
Q. All right. Okay. And would you say that those advertisements were being displayed alongside the football game, or were they being integrated into the football game?
A. I would say that neither of the two examples that I just gave were integrated into the football game.
Q. Okay. Does that mean that they were displayed alongside the football game?
A. The pop-up ads were displayed alongside a video feed from the football game. Full-screen commercials were not.
Q. Okay. If -- another watching a football match, on a computer screen. Have you ever done that, Mr. Crane?
A. Never.
Q. Okay. Have you ever watched a sporting event of any type on a computer screen?
A. Not that I recall. I watch sporting events on

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television.
Q. Okay. And let me ask, do you have an understanding of what it means to integrate content into a game application?
A. I do.
Q. Okay. And what is that understanding?
A. Well, I was a -- I was very active in advergaming, and if you were integrating an advertisement into a video game, that typically means to put it into the video game in some way so it's part of the game.
Q. Okay.
MR. SOROCCO: All right. If we can move on real quick to paragraph 201, and we're going to look at --
And you can take away Exhibit 1008 on the right-hand side for the moment.
Okay. If you zoom in a bit. Thank you.
BY MR. SOROCCO:
Q. So if you see in Section C, you were talking again about claim 4 that we talked about earlier with regard to Angles, and we again see that same language where the brand -- said branded business-related content is dynamically updated.
Do you see that language?
A. I do.

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Q. Okay. And is the branded -- is the business -- excuse me. Strike that.
Is the branded business-related content in claim 4 the same as the branded business-related content in claim 3?
MR. WOO: Objection. Form.
THE DEPONENT: As before, that would be my understanding.
MR. SOROCCO: Okay. Let's go on to page 80, paragraph 204, and let's scroll down. We're going to be talking about claim 5 at the moment. Let's scroll down to paragraph 206.
BY MR. SOROCCO:
Q. This is relating to element 5[a] of claim 5 of the '028 patent. And element 5[a] is executing game-related user actions in said game application as a result of user choices.
Do you see that language, Mr. Crane?
A. I do.
Q. Okay. And you go on in paragraph two thousand -- two zero -- 206 that Robinson teaches this limitation.
"A user can click on an avatar section," quote/unquote, "of an advertisement and choose," paren, "a user choice," end paren, "a virtual-body avatar to

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represent the user."
And then you have, "See paragraph 101," correct?
A. Yes.
MR. SOROCCO: Okay. Let's go to paragraph 101 very quickly. I'm sorry, Joe. If you could go to paragraph 101. Okay. Scroll down a little bit. I just want to make sure that we have that entire quote from Robinson. I believe we do. I don't believe it goes on. Nope.
BY MR. SOROCCO:
Q. Do you see the quote from Robinson there from column 15, lines 48 through 57, that's displayed on the -- on the screen, the Zoom screen?
A. I do.
Q. Okay. What is the 3D VR environment as described in this passage?
A. Well, that would be cited elsewhere in Robinson. I didn't cite to it.
Q. Okay. Do you have an understanding of what a 3D VR environment is?
A. I do.
Q. Okay. What is your understanding?
A. As we discussed on Monday, virtual reality environment is one that is -- looks like reality, but it's virtual.

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Q. Okay.
A. In some ways, it looks like reality. It is three-dimensional, which means it has both X, Y, and Z components as far as the code is concerned. So it's like, you know, second light, a product where you can walk around, interact with other avatars in a -- in a virtual environment, a simulation of the real world.
Q. Okay. And if you look there, right before 3D VR environment is the term "if the advertisement is a 3D VR environment." Do you see that distinction there in the first sentence?
A. I do.
Q. Okay. You gave a definition a moment ago of a 3D VR environment. How does that change with respect to -- or excuse me. Does it change with respect to the fact that it's relating to an advertisement?
MR. WOO: Objection. Form.
THE DEPONENT: A 3D virtual environment is what it is. I don't think it would change if it was related to an advertisement.
BY MR. SOROCCO:
Q. Okay. If we go down one, two, three, four -- fourth line in that block quote, the sentence starting:
"The user can then virtually walk around that advertisement, meet other virtual users who have entered

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into the collaborative VR advertisement in the same way from their own computer desktop."
Do you see that language?
A. I do.
Q. Okay. So is it fair to say that the 3D VR environment described here in paragraph -- your paragraph 101, citing column 15, line 48 through 57 of Robinson, refers to a -- advertisements in which the users participate?
A. This 3D VR environment referred to in this block quote is explained further in -- just above it in the patent. I have a block quote that you will find above my paragraph 101 that explains that it's an option, that the advertisement can be presented as a 3D advertisement and become a 3D spatial environment.
Q. Right. But if we look at that block quote --
MR. SOROCCO: Up a little bit. Joe, if you'll scroll up to the block quote at the top of the page. There.
BY MR. SOROCCO:
Q. "Further, the present invention can be used to embed a similar VR spatial environment behind a static or dynamic two-dimensional advertisement that is placed in the persistent client window 912."
Do you see that language, Mr. Crane?

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A. I do.
Q. So when we're talking again about the information that you cited here from Robinson, it related to an advertisement. These paragraphs relate to an advertisement, do they not?
A. They do.
Q. Okay. Is there any reference to a game in these examples that you give from Robinson in paragraphs 100 and 101 of your declaration?
A. Well, this entire section that he is describing is talking about creating a 3D environment with avatars. As the person who created one of the first avatars in the video game business, I will tell you that avatars speak to game developers as a gaming environment. As I said, a 3D environment brings to mind a game like Second Life, where you are operating an avatar, interacting with everyone. So to a person of ordinary skill in the art, when you talk about walking an avatar through a VR spatial environment, that is a game mechanism.
Q. Okay. Thank you for that. I assume that's your professor hat on, that we discussed on Monday.
But again, my question was long, but maybe a bit simpler than that.
What I'm asking is, are the block quotes from

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Robinson that you included in section 100 and section 101 have -- do they have to do with games?
MR. WOO: Objection. Form. Asked and answered.
THE DEPONENT: My previous professorial diatribe says that yes, they would be considered that -- to be that case. If you want to ask me if this block quote contains the word "game" absent of either any other disclosures in this specification or a knowledge of a person of ordinary skill in the art, the word "game" does not appear in that block quote.
BY MR. SOROCCO:
Q. Correct. And does the term "online gaming" appear in either of these block quotes?
MR. WOO: Objection. Document speaks for itself.
THE DEPONENT: I don't see the term "online gaming" in this quote. I'm not looking at the one that -- or I can scroll down in my -- I --
MR. SOROCCO: Yeah, Joe, if you would scroll down to the bottom so he can see it, that would be wonderful. The block quote at the bottom of the page, Joe. There you go.
THE DEPONENT: So again, if you're asking if the term "online gaming" appears in this block quote, it does not.

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MR. SOROCCO: Okay. Thank you.
I think that that concludes my questions on the '028 patent. How -- what's the amount of time on the record at this point?
THE VIDEOGRAPHER: We are at two hours and six minutes, about to be two hours and six minutes.
MR. SOROCCO: Okay. I'd like to take just a quick ten-minute break to get re-set up. We're going to talk about the '941 patent, i.e., 10,846,941, when we come back.
MR. WOO: Actually, Doug, it's been three hours since the deposition was supposed to start. It's actually past the lunch hour for Mr. Crane. We're at 1 o'clock Pacific Time.
MR. SOROCCO: Okay. Yeah.
MR. WOO: So I prefer, David, do you want to take some time for lunch?
THE DEPONENT: I always eat lunch, every day.
MR. WOO: I think we need some time for lunch, Doug.
MR. SOROCCO: Okay. That's fine. I'm -- I'm -- being out here on the East Coast, I wasn't -- we already had our lunch. So I apologize.
THE VIDEOGRAPHER: Okay. We're going off the record. The time is 13:17.

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(A recess transpires.)
THE VIDEOGRAPHER: We are back on the record. The time is 14:04.
MR. SOROCCO: Okay. And what is the total time on record at the moment, just so I can keep track?
THE VIDEOGRAPHER: Two hours and eight minutes.
MR. SOROCCO: Okay. All right. We're going to -- as I mentioned before, we all stopped to get a little refreshment. We're going to turn to IPR 2023-00995, relating to US Patent No. 10,846,941, and like we did for the '165 and the '028, we're going to refer to this as the '941 patent.
BY MR. SOROCCO:
Q. Is that fair, Mr. Crane?
A. Yes.
Q. Okay.
MR. SOROCCO: Joe, if we could pull up Exhibit 1004 in the 995 IPR, please.
(Referencing Exhibit 1004 IPR 995.)
THE DEPONENT: For window management, do you anticipate going back to any of these other windows we have open? It will be easier -- it will be easier to find the one you're looking for or talking about if I don't have other 1004s open. You know what I mean?
MR. SOROCCO: No. We will only be opening new

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ones now, I believe, here in the '941. So anything we opened previously, you're free to close.
THE DEPONENT: Great. Done.
MR. SOROCCO: Great. And Joe, are you going to share that in the chat?
THE TECHNICIAN: Yes. It's been uploaded.
MR. SOROCCO: Great. Mr. Crane and anyone else, you can download a copy of Exhibit 1004 from the chat.
And Mr. Crane, as with the other documents, please take your time to look at it, if you wish. Spend as much time with it as you wish. But can you --
BY MR. SOROCCO:
Q. Do you recognize what's been uploaded -- or what's been put in front of you as Exhibit 1004?
MR. WOO: While Mr. Crane is looking at that, Derek, realtime seems to have stopped for me.
(Discussion off the record.)
THE VIDEOGRAPHER: Do we want to go off the record to discuss this?
MR. WOO: Yeah, that -- that -- that's fine. Give me a second, if I can figure out how -- what's going on.
THE VIDEOGRAPHER: We are going off the record. The time is 14:08.
(A recess transpires.)

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THE VIDEOGRAPHER: We are back on the record. The time is 14:10.
BY MR. SOROCCO:
Q. Okay. I think before we went off the record, I had asked you, Mr. Crane, if you recognize what's been uploaded through the chat, or what has been put in front of you here in the Zoom as Exhibit 1004.
A. I reviewed the version I downloaded, just scanned through it. I have no reason to believe it's not a true and correct copy of my declaration.
Q. Okay. Great.
MR. SOROCCO: Joe, if you could turn to page 55, please. And -- in the document. There we go. And scroll up. Right there. Perfect. You're starting to learn what the sections are we're going to be talking about.
Just to get us kind of oriented here, we are now looking at claim 1 of the '941 patent, and this is your analysis -- actually, let's go back two pages, Joe, to page 53.
And if we look at Section C, the header is "Ground 1: Claims 1, 3, 5, 7-12, and 23-26 are Obvious Over International Publication WO 02/062436A2," paren, quote, "Pisanich," P-i-s-a-n-i-c-h, end quote, end paren, "In View of the Knowledge of a POSITA."

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Do you see that language I just quoted to you, Mr. Crane?
A. I do.
Q. Okay. And if we go back to page 55 of the PDF, of Exhibit 1004, I note that section -- what you've started as section 1 -- or subsection 1 of section C being a claim-by-claim analysis of claim 1 -- excuse me, subsection from there is, uh, A discussing claim 1, and then Romanette i being element 1, being the preamble of claim 1 of the '941 patent.
Do you see all of that language there at the top of page 55 of the PDF, Mr. Crane?
A. Right above paragraph 120?
Q. Yes, sir.
A. I see it.
Q. Thank you.
What elements of claim 1 -- excuse me. Strike that.
Did you look at the Pisanich reference with respect to claim 1 of the '941 patent?
A. I did.
Q. And did you determine certain opinions relating to the disclosure of the '941 patent with respect to the claims of the '941 patent?
A. I formed opinions and documented them in this declaration.

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Q. Okay. Excuse me. Let me re-ask that question.
And did you determine certain opinions relating to the disclosure of Pisanich, excuse me, with respect to the claims of the '941 patent?
MR. WOO: Objection to form.
THE DEPONENT: I formed opinions relating to Pisanich and documented them in my declaration.
BY MR. SOROCCO:
Q. Okay. And what elements of claim 1 were not disclosed in Pisanich?
MR. WOO: Objection. Form.
THE DEPONENT: My recollection is I went through every element of every asserted claim and found them all to be disclosed to a person of ordinary skill in the art by Pisanich.
BY MR. SOROCCO:
Q. Okay. And Romanette i, element 1 of claim 1, which is the preamble, states:
"One or more non-transitory computer-readable medium storing an interactive software application platform comprising."
Do you see that language, sir?
A. I do.
Q. Okay. And do you have any opinions as to the

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meaning of the phrase "interactive software application platform"?
A. A software application is an application that runs on a computer. If it's interactive, it typically means interactive with multiple players, but it doesn't necessarily mean that, I guess. It's basically an online game.
Q. Okay. So is it your opinion that interactive software application platform is synonymous with an online game?
A. In my opinion, a person of ordinary skill in the art would read that phrase as being a game.
Q. Okay. Yeah, one thing that we have not talked about the preambles with regard to any of the claims or any of the -- the -- of the patents that we -- or of the challenged claims of the patents in any of the IPRs is statements that you made typically after the first element of claim 1, being the preamble. You made the statement that "Should the preamble be deemed to be limiting." Do you have an understanding of what that, I guess, sentence fragment or phrase means?
MR. WOO: Objection. Form.
THE DEPONENT: I'm not an attorney, but I have been in situations where there's been discussions between the parties or between the parties and the

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Court, and the determination in some cases is made as to whether or not the preamble is important, basically. I mean, limiting as in includes limitations that limit the claimed invention.

BY MR. SOROCCO:

Q. Okay. And that's your general understanding from your experiences, correct?

A. That's correct.

Q. Okay. And further, this third line in paragraph 20:

Paren, "i.e., the claimed software application featuring object-oriented programming techniques."

Where does Pisanich disclose oriented programming -- object-oriented programming techniques?

A. I would imagine I captured those citations in my paragraphs between 89 and 92.

MR. SOROCCO: Okay. So if we go to paragraphs 89 through 92 of your declaration, if we look at, actually, paragraph 92 -- there we go.

BY MR. SOROCCO:

Q. If you look at paragraph 92 of your declaration, it states:

"Pisanich disclosed a game system implemented using an object-oriented design as shown in Figure 3."

Do you see that language?

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A. I do.

Q. Does the Figure 3 show -- of Pisanich show an object-oriented design?

A. The detailed description of -- oops -- Figure 3. Did I say Figure 2? No, Figure 3.

Q. I'm sorry if I misspoke.

A. I think you asked Figure 2. But to complete my answer, the description in the detailed description of figures for Figure 3 describes Pisanich as an object-oriented design.

Q. Okay. And do you have an understanding of what object-oriented design means?

A. Its general understanding is a design that's broken down into objects.

Q. Okay. And if we look at what I believe is a block quote on page 39 below Figure 3 of Pisanich, column 10, lines 1 through 5, it states that:

"Referring to Figure 3 in a game system 107," and then you noted that that was probably a typographical error and should be game system 112, "going on as shown, implemented using an object-oriented design. Pisanich goes on to say the specialized objects preferably store their own data, request data from other objects when needed, and provide data to other objects when requested."

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Do you see that language, sir?

A. I do.

Q. Okay. And do you agree with the definition of object-oriented design given here by Pisanich?

MR. WOO: Object. Form.

BY MR. SOROCCO:

Q. Well, let me start, is this sentence, "The specialized objects preferably store their own data," and then ending with "other objects when requested," is that a definition that Pisanich has given to object-oriented design?

A. I would describe those as features that Pisanich wants to -- or would -- would have his objects implement.

Q. Okay. So does object-oriented designs -- design preferably store their own data?

Scratch that.

In object-oriented design, do the specialized objects preferably store their own data?

A. It's not uncommon in object-oriented design for the objects to store their own data.

Q. Okay. And is it common in object-oriented design for the objects to request data from other objects when needed?

A. It is not uncommon in object-oriented design for

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objects to communicate data with other objects.

Q. Okay. And finally, is it common in object-oriented design for the objects to provide data to other objects when requested?

A. That is included in my last statement, communication between objects.

Q. Okay. Great.

MR. SOROCCO: If we go back to paragraph 20, please -- actually let's go to 127.

Okay. Scroll up a little bit. There you go.

BY MR. SOROCCO:

Q. In Romanette iii, element 1[b], the claim language reads:

"A primary application providing the virtual thematic environment and a secondary application within the primary application with secondary application being different from the primary application, the secondary application being launched from the primary application and having first content utilized within a same application environment as second content provided by the primary application."

Do you see that claim language?

A. I do.

Q. Okay. And you go in paragraph 127 to state that:

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"Pisanich taught the claimed primary application in the form of a game system."
Is that correct?
A. That's correct.
Q. And that:
"The game system provided a virtual thematic environment, such as a flight simulator."
Is that correct?
A. Yes.
Q. Okay. And then:
"Whether realtime air traffic information for the flight simulator was served from the server component of the game system. See game data server at paragraph 88."
Is that correct?
A. That's correct.
Q. Okay. And the annotated version of Figure 3 shown on page 59, if Joe will scroll down. We went over in some detail with regard to the '165 patent that this was a -- this figure was annotated by you. Is that correct?
A. That's correct.
MR. SOROCCO: Okay. Let's go back, Joe, to that Romanette iii on page 58, the claim language.
///

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BY MR. SOROCCO:
Q. Do you have an understanding, Mr. Crane, of what it means for a secondary application being launched from the primary application as to how its words are used in claim element 1[b]?
A. We discussed this on Monday. If you have a module within a program and you invoke it to do something, it would be launched.
Q. Okay. And if we go up a little further, it says -- the claim says a primary --
MR. SOROCCO: Oops. Sorry. Go back. I meant to stay within that Romanette iii, Joe. Sorry.
BY MR. SOROCCO:
Q. The claim says:
"A primary application providing the virtual thematic environment and a secondary application within the primary application."
Do you have an understanding of what the phrase "secondary application within the primary application," Mr. Crane?
A. Yeah. As I understand it in this case, it would give the plain and ordinary meaning to the term application, and that if you're going to have something that's within something else, it's going to be a program or a module. So a secondary application within the primary application is going to be a secondary software program within a primary software program.
Q. Okay. And that's based upon your understanding of one of ordinary skill in the art?
A. Yes.
Q. Okay. And if we go down -- oh, let's stay in that Romanette iii. It also states in there -- this is a packed claim element -- that the secondary application being different from the primary application.
Do you have an understanding of that claim language?
A. I would expect the secondary program module to not be the same as the primary program module.
Q. Okay. And when you say "not be the same," what do you -- what do you mean by that?
A. Different from.
Q. Okay. Is there a level or quantity of difference that's required, based on your answer?
MR. WOO: Objection. Form.
THE DEPONENT: I believe that a person of ordinary skill in the art would understand what the term "different" means and not -- not requiring any quantification.
MR. SOROCCO: Okay. Let's look at Pisanich. It is, Joe, going to be Exhibit 1007 in the 995 IPR.

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THE TECHNICIAN: Just a moment.
(Referencing Exhibit 1007 IPR '995.)
THE TECHNICIAN: It's been uploaded to the chat.
MR. SOROCCO: Okay. And I believe I probably made a mistake there, so I actually need you to -- you can keep that up for the moment.
Can you bring up Exhibit 1001 and publish it to everyone, which is -- Exhibit 1001 is a copy of US Patent No. 10,846,941.
THE TECHNICIAN: Counsel, I'm not seeing a 1001 and then the last three numbers ending in 941.
MR. SOROCCO: Hmm. Okay. Let me upload that real quick.
Joe, do you see the uploaded US Patent No. 10,846,941?
THE TECHNICIAN: Let me just refresh real quick, because I just refreshed.
Okay. Yep. I see it here now. Give me one second to download it.
It's up on the screen and it's also uploaded into the chat.
MR. SOROCCO: All right. Thank you.
BY MR. SOROCCO:
Q. Okay. What's in front of everybody right now, what's been published to the chat, is Exhibit 1001,

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which is a copy of US Patent No. 10,846,941 submitted by the petitioners in the IPR 2023-00995.

(Referencing Exhibit 1001 IPR 2023-00995.)

MR. SOROCCO: Could you go to column 13 of the '941 patent, Joe?

Okay. And then can you scroll down a ways? We're going to be lines 53-ish. Excellent. And can you highlight as I read, for me? I'm going to start with line 53.

"Methods and systems consistent with the present invention are carried out by providing an input means or user selection means, including hot clickable icons, et cetera, selection buttons, in a menu, dialogue box, or a role-down window of an interface provided at the client, and user may input commands through a keyboard, pen, stylus, mouse, speech, processing means, touch screen, or other input/selection means."

If you can stay -- stop there for a moment.

BY MR. SOROCCO:

Q. Mr. Crane, did you see that language that's highlighted on the screen and that I just read?

A. I see it.

Q. Okay. In that highlighted information, right one, two, three, four -- the fifth line of highlighted information down, it is an interface provided at the

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client.

Do you see that language?

A. Yes.

Q. In the context of the '941 patent, do you have an understanding of the term an interface?

A. An interface without context is, at least in computer gaming or computer software, is the way on which the computer -- a user interfaces with the program. This listing you gave here is a whole bunch of examples of interface methods.

Q. Okay. And in answer to my question, you used the word that I asked you to define or if you had a definition. So can we try again?

You have -- you said you have a definition of an interface. Can you be a bit more specific as to what that definition is, please?

MR. WOO: Objection. Mischaracterizes the testimony. Form.

THE DEPONENT: I have never been asked to define interface. It's an interface. I understand you didn't like the fact that I used the term interface in my definition of interface, but it is a way of connecting a user to a computer or a piece of software.

BY MR. SOROCCO:

Q. And when you used the term "connecting" in your

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definition, I believe you said it is a way -- your answer was, "But it is a way of connecting a user to a computer or a piece of software."

Would it be fair to say that connecting a user means that the user is able to communicate with or interact with the interface?

MR. WOO: Objection. Form.

THE DEPONENT: Well, I mean, to be pedantic, this is talking about a roll-down window of an interface, and that in itself is just one small item. If you asked me if I thought a user could communicate to software using a selection from a pull-down menu, I would say yes.

BY MR. SOROCCO:

Q. Okay. And there's -- in that language that I read to you, there's lots of different types of ways for communication, isn't there? Dialogue boxes are listed, a -- buttons, hot clickable icons. The user may input commands for a keyboard pen stylus. Does it not, Mr. Crane?

A. In the highlighted section, there's a laundry list of systems or interface devices described by this patent language as an input means, or user selection means.

Q. Okay. If we go down a little further and beyond

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where I highlighted, the selection means that you mentioned may also be constituted by a dedicated piece of hardware or its functions may be executed by code instructions executed on the client processor involving a display unit for displaying a selection window and keyboard for entering a selection, for example.

Do you see that language I just read?

A. I do.

Q. Okay. And do you have an understanding of the type of communications that are described in this overall paragraph from line 53 through 65 of column 13?

MR. WOO: Objection. Form.

THE DEPONENT: I would say that language pretty concisely defines a selection means that may be hardware or software. To me, that means it could be a keyboard or a soft keyboard on the screen, for example. And it could involve a display unit, and it could involve a keyboard.

BY MR. SOROCCO:

Q. Okay. Would it be fair to characterize these -- this laundry list, I think as you put it, as ways of the user and the computer communicating with one another?

MR. WOO: Objection. Form.

THE DEPONENT: I would describe the input means as a way for the user communicating to the computer or

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the software.
BY MR. SOROCCO:
Q. Okay. And are there -- or do you have an opinion as to the computer -- these means defining a computer communicating back to a user?
A. Well, that language says that the selection means may involve a display unit.
Q. Okay.
A. If there's a display unit, the computer may be communicating back to a user.
Q. Okay. So is it fair to say that this paragraph discusses two-way communication between a user and a computer or software, using your language?
MR. WOO: Objection. Form.
THE DEPONENT: I would probably not characterize it that broadly. This section, the highlighted section, plus the one below, talks about input means, and those input means may use a display unit. So whether or not there's actually communication explained here back from the -- from the computer just because there's a display unit, I'm not sure that's necessarily true.
BY MR. SOROCCO:
Q. While it may not be necessarily true, it may be necessarily true. Is that correct?
MR. WOO: Objection. Form.

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THE DEPONENT: No. Again, these are input means, and the input means may involve a display unit, but it doesn't talk about whether or not that display unit is communicating information back to the user.
BY MR. SOROCCO:
Q. Isn't it true, though, that down below, on line 60, that the selection means is also -- may include a display unit for displaying a selection window?
MR. WOO: Objection. Form. Document speaks for itself.
THE DEPONENT: It does say that the selection means may include a display unit for displaying a selection window.
BY MR. SOROCCO:
Q. Okay. So the display of a selection window would provide communicate -- communication back from a computer or software -- or excuse me, the selection means -- strike.
Isn't it true that a display unit of the selection means would provide communications back to a user?
MR. WOO: Objection. Form.
THE DEPONENT: Well, I have answered the question three different ways, and as I'm saying is the selection means may involve a display unit, but there's

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nothing here saying that there's information conveyed back from the computer to the user on that display unit.
BY MR. SOROCCO:
Q. So the language involving a display unit for displaying a selection window does not indicate to you that it is displaying information back to a user?
A. It's not an indication that it's communicating information back to a user. Simplest example would be it's displaying buttons that are clickable.
Q. Isn't the fact that it's displaying buttons that's clickable providing information back to a user?
MR. WOO: Objection. Form.
THE DEPONENT: Not necessarily.
BY MR. SOROCCO:
Q. I think your answers speak for themselves here, Mr. Crane. Let's go back to -- let's go to paragraph 142. Excuse me, Exhibit 1004, your declaration. And, in fact, let's go back right above paragraph 138, and it's Romanette iv.
MS. ROBL: Pardon me. But you're in the wrong Exhibit there. That's the 954 exhibit, 1004.
MR. SOROCCO: I think it's, Joe, the third one over from the right.
Okay. Let's go to, again, between paragraph 137 and 138. I think again we're in the wrong -- sorry.

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Joe, we should be in Exhibit 4, 1004, in IPR 2023-00995.
There we go. And if you could go to paragraph 137, or right below paragraph 137, please.
There. Perfect.
BY MR. SOROCCO:
Q. In the middle of this page, about Romanette iv, which is claim element 1[c], it starts out:
"A graphics user interface module, including software that renders graphical display elements."
Do you see that plain language, Mr. Crane?
A. I do.
Q. Okay. In the middle of that claim, it states, a -- "the GUI" mod -- "module."
Do you know to what that language refers?
A. I would have to confirm, but I would assume that the graphical user interface that's described as a graphical user interface is the first reference in this claim to a graphical user interface; and, therefore, the -- the one that uses the V is referring to that one.
Q. Okay. And -- and it states that the GUI, or GUI, module providing according to claim element 1[c].
What does the GUI module provide?
A. A GUI module, which is a graphical user interface, provides a first user interface that is associated with the primary application, enabling the

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user to access the primary application.
Q. Through the first user interface, correct?
A. Yes.
Q. And then it goes on, does it not:
"And a second user interface associated with the secondary application and enabling the user to access the secondary application through the secondary user interface"?
Does it not?
A. I see that.
Q. Okay. So again I will ask, what does the GUI module provide within the framework of claim element 1[c]?
A. The GUI module provides a first user interface that is associated with the primary application, enabling the user to access the primary application through the first user interface.
Q. Okay.
A. There's a secondary user interface described in this claim as well.
Q. Okay. And that second user interface is also provided by the GUI module, is it not?
MR. WOO: Objection. Form.
BY MR. SOROCCO:
Q. Mr. Crane?

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A. Yeah, I'm looking to see if I consider that and before a second user interface to be provided by the GUI module.
Q. Okay.
A. I read it as a separate second user interface.
Q. But you do not read this claim element that the GUI module provides both a first user interface and a second user interface. Is that correct?
MR. WOO: Objection (inaudible).
THE DEPONENT: As I sit here today, I'm not sure how I read it while I was writing this -- this declaration. It's certainly a -- a gray area, a possible source of confusion.
BY MR. SOROCCO:
Q. What do you mean, a possible source of confusion, Mr. Crane?
A. It could be read either way, to me.
Q. Well --
(Simultaneous speakers.)
BY MR. SOROCCO:
Q. -- looking at it -- I mean, looking at it grammatically, doesn't it say the GUI module providing a first user interface with certain characteristics, comma, and a second user interface associated with?
MR. WOO: Objection. Form.

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THE DEPONENT: It could be read that way, since this claim starts talking about a graphic user interface.
MR. SOROCCO: Okay. Thank you.
We can move forward to paragraph -- I'm sorry. I've lost it. One moment. Hmm.
Okay. If we can go to page 94. And scroll down, please, to section D.
BY MR. SOROCCO:
Q. In section -- or header D, excuse me, you stated:
"Ground 2 per: Claims 1, 3, 5, 7 to 12 and 23 to 26 are obvious over PSO manual in view of the knowledge of a POSITA."
Is that correct?
A. I see that.
Q. And PSO manual talks about, if we look at paragraph -- or refers to what is outlined in paragraph 221 is the Phantasy Star Online game as documented in the PSO manual, correct?
A. Yes.
Q. Okay. And we discussed the PSO manual earlier with regard to the '165 patent, correct?
A. We did.
Q. Okay. If we could go to page 97 within the PDF

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document, and if we go to Romanette ii, which is claim element 1[a], and it states:
"At least one thematic publishing logic module containing virtual thematic environment rules."
Do you see that language, Mr. Crane?
A. I do.
Q. Okay. And then you have paragraphs 228, which discusses what you believe the PSO manual taught, and then 229 talks about the virtual thematic environmental rules, and then at 230 you summed up your opinion, if I may characterize it that way, that the PSO manual disclosed or at least rendered obvious in view of the knowledge of a POSITA this claim element.
Do you see all that language?
A. Yes.
Q. Okay. And this claim element, referring to claim element 1[a], correct?
A. Correct.
Q. Okay. Where does the PSO manual teach a thematic publishing logic module?
A. I refer back to my paragraph 110.
Q. Okay.
A. Where I show what is shown that the game will do on its screen, which shows the virtual thematic environment.

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Q. Okay. So let's go back to paragraph 110 on page, oh, 50.
Okay. Looking at paragraph 110, where in paragraph 110 of your opinion, Mr. Crane, does it disclose a thematic publishing logic module?
A. My analysis here is what a person of ordinary skill in the art would infer from this picture, and that is that there is a virtual thematic environment. That virtual thematic environment, the theme is some foreign alien planet. It is a 3D virtual environment with players fighting each other, players running into non-player characters. A lot of that can be seen in the screen, and a person of ordinary skill in the art would understand that if he sees this screen on a Dreamcast, that Dreamcast is implementing a virtual thematic module.
Q. It's a -- the language is thematic publishing logic module of claim element 1[a], and I appreciate that discourse, again, Professor Crane. But, again, if I'm looking at paragraphs 110, 228, and 229 of your opinion, where in those paragraphs do you discuss where PSO manual discloses a thematic publishing logic module?
A. I'm glad you appreciate my answer because the answer is the same. It is an inference that would be made by a person of ordinary skill in the art. This

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can't appear on the Dreamcast screen unless there is a module that is publishing it to the screen.
Q. Okay. And you used the term "inference," did you not?
A. I did.
Q. Okay. What do you mean by an inference?
A. It is a logical conclusion, in this particular case, an inescapable logical conclusion, that if there is something that you see on the screen, there is a software module that is publishing it to the screen.
Q. An inescapable logical conclusion is your definition of inference. Did I understand that correct, Mr. Crane?
A. In this context, that is the case.
MR. WOO: Objection. Form. Mischaracterizes the testimony.
MR. SOROCCO: I'm going to object to your objection there, Phil. I read his language back to him directly.
MR. WOO: No. But he -- he defined it, so that's the objection.
MR. SOROCCO: I -- did that -- did the realtime get your objection correct there, Phil? I don't feel like it did.
MR. WOO: I think the realtime transcription is

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wrong. It's -- my objection is, he did not define -- he did not define it.
BY MR. SOROCCO:
Q. Okay. Let's go back, then. I just wanted to make sure that we got the objection correct.
I said -- I asked the question, "What do you mean by an inference, Mr. Crane?"
Your response was, "It's a logical conclusion, in this particular case, an inescapable logical conclusion, that there is something that you see on the screen that there's a software module that is publishing it to the screen."
And I asked the question, "An inescapable logical conclusion is your definition of inference?"
I understand Mr. Woo's objection.
Is it your -- is your definition of inference an inescapable logical conclusion, Mr. Crane?
MR. WOO: Objection. Form.
THE DEPONENT: Well, without a dictionary, I wouldn't want to be able to tell you what inference means in every connotation. The best way to explain that is, if you replaced my testimony where I used inference with the term "inescapable logical conclusion," then it would still be accurate.
MR. SOROCCO: Okay. Let's go to page -- or

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paragraph 234 -- excuse me, paragraph 232.
BY MR. SOROCCO:
Q. Okay. Paragraph 232 of your opinion is:
"The PSO manual also disclosed launching the chat and mail function from the game (primary application) either through the soft keyboard or a Dreamcast keyboard," paragraph 103, "or with a shortcut interface," and then you include page 25 of the PSO manual.
Can you -- do you have an understanding of the term "launching" as it's used within the paragraph 232?
A. The PSO manual talks about how you can bring up the chat function, which would be a module within the primary application, and I would consider that to be launching the chat module.
Q. Okay. Does -- does the PSO manual page 25 snippet that you've provided here on page 98, does it include or use the word "launching" or "launch"?
A. This snippet of the manual does not use the word "launch" or "launching."
Q. Okay. Let's go now to paragraph 234 and, actually, Romanette iv.
Okay. If you look at Romanette iv, it's element 1[c] of claim 1 of the '941 patent. It starts out:
"A graphics user interface GUI module, including

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software that renders graphical display elements."
Do you see that language, Mr. Crane?
A. I do.
Q. Does -- where in the PSO manual is a GUI module that includes software disclosed?
A. In this section, I -- in my discussion of the GUI module, I refer to my paragraph 103 above.
Q. Okay. And where in the PSO module (sic) does it technically describe how a GUI module provides a first user interface?
A. Moving back to paragraph 103.
Q. Okay. And where in the PSO manual does it technically describe how a second user interface is associated with the secondary application?
A. The PSO manual shows visually the popping up of the chat window, and it is inescapable logical conclusion to a person of ordinary skill in the art, looking at what can be put on the screen, that there is a module that publishes that to the screen.
Q. Okay. Let's go to paragraph -- or Romanette b, right under paragraph 237.
As disclosed in the PSO manual, Mr. Crane, would you consider word select a secondary application?
MR. WOO: Objection. Form.
THE DEPONENT: I would.

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BY MR. SOROCCO:
Q. Okay. I'm going to say last question, assuming that I can take a few -- ten minutes to speak with my colleagues.
But based upon that hypothetical, Mr. Crane, where in the -- or strike that.
Does the PSO manual teach any technical information about how the PSO game was programmed?
MR. WOO: Objection. Form.
THE DEPONENT: The PSO manual describes the operation of a piece of software, and if it is a person of ordinary skill of the art looking at this manual, there are teachings in this manual to that person based on his experience.
BY MR. SOROCCO:
Q. Is the PSO manual a technical manual, Mr. Crane?
MR. WOO: Objection. Form.
THE DEPONENT: I know what you're looking for, but my previous answer stands.
MR. SOROCCO: Okay. If I could take ten minutes in our room, and then I will tender the witness, Phil.
MR. WOO: Okay. Ten minutes.
MR. SOROCCO: Thanks.
THE VIDEOGRAPHER: We are going off the record. The time is 15:12.

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(A recess transpires.)
THE VIDEOGRAPHER: We are back on the record. The time is 15:25.
MR. WOO: Okay. Mr. Crane, thank you for your time today just getting through this.

EXAMINATION

BY MR. WOO:
Q. Counsel asked you earlier what you did to prepare for your cross-examination. That was a question on Monday.
Do you recall that?
A. I do.
Q. And you testified that you reviewed some declarations. Is that correct?
A. Yes.
Q. And you testified that one of those declarations was from Mr. Yoshihiro Sakuta.
Do you remember that?
A. Yes.
MR. SOROCCO: Objection. Goes beyond cross-examination. New evidence.
BY MR. WOO:
Q. Who is Mr. Sakuta?
MR. SOROCCO: Again, objection under 37 CFR Section 42.64. I'm objecting to the admissibility of

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this evidence in this deposition.
BY MR. WOO:
Q. You may answer, Mr. Crane.
A. As I testified on Monday, Mr. Sakuta is the author of the PSO manual and signed a declaration attesting to that fact.
MR. SOROCCO: Phil, according to 37 CFR Section 42.64, once I've made the objection, it is on you to provide evidence to cure my objection; otherwise, we're -- we are back to the board.
MR. WOO: We can talk to the board, but he -- you -- you asked it and he raised it.
MR. SOROCCO: I --
MR. WOO: That's it.
MR. SOROCCO: I asked what he did to prepare, and I never asked him a single question about any of those declarations, Phil.
MR. WOO: Well, it's -- so on -- adding these for the -- I'm putting these in as the exhibits.
Do -- does the court reporter and the tech --
MR. SOROCCO: Again, you're going to get a motion to exclude. I did not ask a single question on those exhibits or declarations that you're asking about, Phil.
MR. WOO: Okay.

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MR. SOROCCO: Not a single question. And I did that very, very purposely because Mr. Crane tipped his hand at the beginning. So --

MR. WOO: I'm entering these as exhibits.

Court Reporter, how do you -- how do you advise on marking these documents, these exhibits, please?

MR. SOROCCO: You cannot -- you cannot admit these exhibits until it is proven that they have -- that they's admissible, Phil, under 37 CFR Section 42 --

MR. WOO: We can go to the board on this, but we will proceed.

MR. SOROCCO: We will go -- we will go to the board. I am not allowing this evidence to be admitted into the deposition.

MR. WOO: So --

MR. SOROCCO: Phil.

MR. WOO: So continuing on, continuing on, Mr. Crane.

BY MR. WOO:

Q. Who is Mr. Sakuta?

MR. SOROCCO: Objection. Out of scope of cross. Inadmissible.

MR. WOO: No. That -- that was part of your question. So --

MR. SOROCCO: It was not my question. I -- my

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question was, is what did you review. And he told -- he made a comment about some declarations, and I had not a single follow-up question about any of those declarations, Phil.

MR. WOO: Okay. Well, let's go to the board. Give me a second.

MR. SOROCCO: We will.

MR. WOO: We will go to the board.

MR. SOROCCO: Okay. Let's go to the board.

Well, we're not going to the board right now. It's 6:30 on the East Coast. So --

MR. WOO: Okay. Hold on. Let's go off the record for a moment.

THE VIDEOGRAPHER: We are going off the record. The time is 15:29.

(A recess transpires.)

(Monté Squire enters the proceeding.)

THE VIDEOGRAPHER: We are back on the video record. The time is 15:38.

MR. WOO: Okay. I would like to make an -- introduce my partner, Monté Squire, also a partner of Duane Morris, also representing petitioner in these proceedings, these IPR proceedings. Mr. Squire is a former PTAB judge with experience at the board level, and I'm going to continue with this line of -- I'm going

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to continue with this line of questioning. I would like to -- I've explained the situation to Mr. Squire.

Mr. Squire, could you please inform counsel about how the proceedings should work in this deposition?

MR. SQUIRE: Sure. It is my understanding that there is an objection to evidence being introduced on redirect. And under the practice at the board and just the standard practice in connection with these depositions, on redirect, that is counsel's opportunity to ask questions, but also introduce evidence or exhibits as necessary. And to the extent that there's an objection to that evidence, that objection is to be lodged, but it's certainly no basis to foreclose the entry of the exhibit or to foreclose any questioning about the exhibit. That's certainly an issue that usually gets taken up and should be taken up properly as part of the motion to preclude, which is later -- which is later in the trial schedule.

MR. WOO: And with that, if you could stay on, Monté.

Counsel, you introduced this. You opened the door on this. Your question -- almost your very first question was, and I quote, and this appears at the transcript at page 10, and this is the Monday

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transcript, page 10, lines 11 through 12:

"What did you do to prepare for your cross-examination today," unquote?

That is your question.

MR. SOROCCO: And you believe -- and you believe -- Phil, and you believe that question opened the door to declarations from third-party witnesses that you did not provide as supplemental evidence earlier in the proceedings? Just because you --

(Simultaneous speakers.)

MR. SOROCCO: Because you moved -- no. You missed your date for supplemental evidence, and you're now trying to back it in with a very cute little argument.

And I appreciate Mr. Squire coming on at a late time. However -- and the fact that he was a former PTAB judge. But at this point, he is a -- he is here on behalf of a client, not here on behalf of the PTAB, and while I appreciate his experience and I assume his knowledge, I don't care. I am not allowing these documents to be entered into the record at this point in time.

MR. WOO: They will come into the record. If you have any objections to this, you can take it up on a motion to exclude after we finish up the deposition.

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This is my --
MR. SOROCCO: I will take it up on a motion to exclude. I'm calling off the deposition. I'm ending the deposition right here and now.
MR. WOO: If you would like to jump off -- if you would like to exit the deposition, you are welcome to. I will continue with my redirect.
MR. SOROCCO: You do not get -- your redirect is limited to what he filed in the declaration -- in his declaration of exhibits pursuant to --

(Simultaneous speakers.)
MR. SOROCCO: -- 37 -- 37 CFR 42.53(d)(5)(2).
MR. WOO: That's completely incorrect, Counsel.
MR. SOROCCO: Well, that's not -- you may think so, but I disagree.
MR. WOO: Well, we can have that disagreement, but we will continue on.
So Court Reporter, please advise on how you would like to mark these exhibits. I will have some questions for the witness regarding these exhibits.
MR. SOROCCO: That's extremely scuzzy, Phil. I'll just let you know that, on the record.
THE REPORTER: If you want to designate them whatever exhibit you desire them to be marked as, either

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next in order or another number or letter, that's your call.
MR. WOO: Let's call these deposition exhibits petitioner's deposition exhibits, please.
MR. SOROCCO: At this point in time, I'm suspending the deposition. You're oppressing. You're harassing. You're doing all the stuff you were doing last time. I'm suspending the deposition, Phil.
MR. WOO: If you want to leave, that's fine.
MR. SOROCCO: We are suspending the deposition. Once again, as I told you Monday night, it is not a may, it is not a could suspend, it is shall suspend, or will suspend. Okay? We're suspending the deposition. The parties walk away and we go to the board. Okay?
MR. WOO: No, that's not correct. So if you want --
MR. SOROCCO: Yes, it is. That's what happened the other night.
MR. WOO: -- that's fine.
MR. SOROCCO: Phil, that's what happened the other night.
MR. WOO: No.
MR. SOROCCO: We're suspending the deposition. All right? And if you go on --
(Simultaneous speakers.)

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MR. SOROCCO: -- I will bring it up to the board -- to the board for sanctions.
Once again, we are bringing -- you're harassing, you're oppressing this deposition. You're pushing things that are not intended to be entered. And we are suspending the deposition tonight.
MR. WOO: You opened the door on this. If you would like --
MR. SOROCCO: I didn't open the door.
MR. WOO: (Inaudible).
MR. SOROCCO: Those questions did not open the door.
MR. WOO: -- door on this.
MR. SOROCCO: Well, then we'll have the board to make that decision in the morning. I am suspending the deposition tonight, Phil, period.
MR. WOO: So you may leave and we'll continue.
MR. SOROCCO: No. That doesn't work that way.
MR. WOO: Yes, it does work that way.
MR. SOROCCO: When I say the deposition is suspended, the parties walk away.
MR. WOO: This is unreasonable on your part. This is unreasonable and very, very harassment. You started this and --
MR. SOROCCO: Right.

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MR. WOO: -- you will not allow redirect.
That's completely unreasonable.
MR. SOROCCO: No, it's not unreasonable. I'm not allowing redirect on evidence that is not allowed to come in, Phil.
And, again, I'm suspending the proceedings if you go on at this point, you're going on in contravention of the consolidated trial guidelines that stand -- state specifically that in these situations the deposition must be suspended. I'm suspending the deposition, period.
MR. WOO: Monté, I would like you to --
MR. SOROCCO: Monté, at this point in time, is not --
MR. WOO: Monté is not --
MR. SOROCCO: -- part of the deposition.
MR. WOO: Monté --
MR. SOROCCO: He's not a part of this deposition. You started in defending this deposition.
MR. WOO: He is counsel of record in this IPR proceeding, Doug.
MR. SOROCCO: He is not. He did not.
MR. WOO: Are you trying to tell us now that you can dictate which counsel of record in the IPR proceeding are allowed to represent and attend a

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deposition, Doug? That is --
MR. SOROCCO: I didn't say he couldn't attend the deposition. I said speaking in the deposition, Phil. You started with taking the deposition. Just like I can't hand off the cross-examination to somebody else once I've started cross examination, Phil. All right?
So again, I'm suspending the proceedings, pending going to the board for a ruling on whether this evidence comes in or not.
MR. WOO: So we will continue, and if you --
MR. SOROCCO: You don't continue -- you don't continue, Phil. It's simple in the consolidated trial guidelines. Okay? The proceedings are suspended, just like we did Monday night and we were going to the board Tuesday morning when the parties agreed otherwise. Okay?
MR. WOO: That's incorrect, and we will continue.
MR. SOROCCO: You are not going to continue, Phil. I will --
MR. WOO: We are going to continue.
MR. SOROCCO: You're not going to continue.
MR. WOO: Derek, are you prepared?
THE REPORTER: The --

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MR. SOROCCO: Once again, Phil, if the objecting witness or party so demands, the testimony must be suspended for the time necessary to obtain a ruling from the board. Okay? The deposition is suspended, period. I don't know why you -- you're not following the rule at this point in time, but, again, I'm an objecting party. I am demanding that this deposition be suspended, period.
MR. WOO: Let's go off the record.
THE VIDEOGRAPHER: Okay. We are going off the record. The time is 15:47.
(A recess transpires.)
THE VIDEOGRAPHER: We are back on the record. The time is 15:57.
BY MR. WOO:
Q. Mr. Crane, I would like to direct you -- I will refer you back to Sony Exhibit 1004 in the IPR proceeding for the IPR matter 2023-00996. And this is a pleading that concerns US Patent No. 10,991,165. If I refer to this proceeding as the '165 IPR, will you understand what I mean?
A. I will. I'm going to have to find that exhibit here.
Q. Actually, I will.
A. Or you can bring -- you can bring it up.

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Q. Okay. Let me do that.
Okay. I just put it into the system. Let me know if you can access it, David.
THE REPORTER: Is this a previously marked exhibit?
MR. SOROCCO: This was one of the exhibits from Monday.
(Referencing Exhibit 1004 IPR '165.)
BY MR. WOO:
Q. Okay. And David, let me know when you're ready.
A. All right. I have it.
Q. Okay. Now, Counsel previously asked you if you noticed any typographical errors in your declaration, which is Exhibit 1004 for the '165 proceeding. Do you recall that questioning?
A. Yes.
Q. And you testified that you believed that some of the heading information in the table of contents was wrong.
Do you recall that?
A. Yes. In one of my declarations, there was -- the table of contents had an error.
Q. All right. Yes. Thank you.
Can you please turn to page 54 of your declaration, the one that you have open now?

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A. I'm there.
Q. Okay. At the top of the page 54, there's a heading.
Do you see that?
A. Yes.
Q. That heading recites Ground 1: Claims 1, 3, 5, 7-12, and 23-26 are Obvious Over International Publication, and I'll shorten it to Pisanich, in View of the Knowledge of a POSITA.
Do you see that?
A. I do.
Q. And, now, counsel asked you if there was any error in that heading.
Do you recall that?
A. I'm not sure about that specific heading.
Q. Okay. I will represent to you that he did ask you that question. And you testified, and I quote:
"I would like to -- I would have to look and see which claims exactly, to compare it, but I -- I don't see anything wrong with that heading."
That appears at transcript -- the earlier transcript 152 -- page 152, lines 21 through 23.
Anyway, in response to your answer regarding whether the heading for ground 1 in your declaration, which appears at the top of page 54, was correct,

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Counsel stated, and I quote:
"Okay. Yeah, I believe those -- those are the correct claims, but we can check on that."
This appears at transcript 152, lines 24 through 25.
Do you recall that?
A. Vaguely.
Q. Okay. Let's check on the actual claims you analyzed for ground 1, please.
So your analysis for ground 1 starts at page 54 and it goes through pages -- through page 91 of your declaration, and your analysis is broken out by claims, with the claim numbers identified in the headings.
Do you see that?
A. Yes.
Q. Could you just review your headings in your analysis for ground 1, which goes from page 54 through 91 and make a note for yourself of what claims you actually analyzed for ground 1? And let me know when you're done.
A. It looks like my analysis in ground 1 covers claims 1, 3, 5 -- 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, and 18.
Q. Thank you, Mr. Crane. Now compare those claims with the claims recited in the heading of page 54 of

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your declaration.
Now, the heading at the top of page 54 identifies claims 1, 3, 5, 7 through 12, and 23 through 26, correct?
A. It does.
Q. Now, I would like to ask you, do you think that the heading at the top of the page 54 in your declaration, which is Exhibit 1004 of the '165 IPR proceeding is, correct?
A. No. I think it should refer to these claims that I just mentioned.
Q. Thank you.
So there is a typographical error in the heading of 4, correct?
A. That would be my assumption.
Q. So how should the heading at the top of page 54 in your declaration be revised to correct the typographical error, Mr. Crane?
A. Claims 1 through 3, 5 through 8, 10 through 12, and 18.
Q. Thank you.
Let's turn to the same document, page 59 of your declaration. And let me know when you're there, Mr. Crane.
A. I am there.

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Q. At the bottom of page 91, there's another heading.
Do you see that?
A. Page -- what page -- I went to page 59.
Q. I'm -- I'm sorry. 91.
A. Okay.
Q. I apologize if I misspoke. Page 91.
A. Okay. I'm there.
Q. Okay. In the bottom of page 91, there is a -- another heading. Do you see that one?
A. I do.
Q. And that heading currently recites Ground 2: Claims 1, 3, 5, 7 through 12 and 23 through 26 are Obvious Over PSO Manual in View of the Knowledge of a POSITA.
Do you see that?
A. I do.
Q. And counsel previously asked you if the statement in the heading at the bottom of page 91 in your declaration was correct, and this appeared at transcript page 183, lines 22, through page 184, line 14. Now, do you recall that question?
A. Vaguely.
Q. And, now, you testified, and I will represent to you that you stated:

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I believe that is correct, at least I was writing -- as -- as I was writing it. I was certain of the facts. Do you really want me to go through, or I guess we'll go through this and make sure that that's true."
Do you recall that?
A. Sure.
Q. Okay. Let's check the actual claims you analyzed for ground 2.
So your analysis for ground 2, similar to your analysis for ground 1, you -- you break it out by claim limitations and you have separate headings for each of the claims that you cover.
Ground 2 analysis starts at page 91 and goes through page 115 of your declaration. And if you could, Mr. Crane, please review the headings in your analysis for ground 2 and make a note for yourself which claims you actually analyzed for ground 2, and then let me know when you're done.
A. Yeah, scanning all the way through to 115, it's the same numbers.
Q. Okay. And could you please state what numbers those claims -- please state the number of the claims that you actually analyzed for ground 2.
A. Claims 1 through 3, 5 through 8, 10 through 12,

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and 18.
Q. Now, turning back to the bottom of page 91 in your declaration, is the heading at the bottom of page 91 correct?
A. No.
Q. And why not?
A. It should read claims 1 through 3, 5 through 8, 10 through 12, and 18.
Q. Great. Thank you very much.
Please turn to page 35 of your declaration, same document that you're on. Let me know when you're there.
A. Okay. I'm at 35.
Q. At page 35 of your declaration are two figures reproduced from the prior art Pisanich reference.
Do you see that?
A. Yes.
Q. Counsel previously asked you to explain what you understood Figure 1 of Pisanich to be describing or showing.
Do you recall that?
A. Vaguely.
Q. There is a box in Figure 1 of Pisanich that is labeled "Game 112."
Do you see that?
A. Yes.

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Q. Okay. You testified previously that game 112 in Figure 1 of Pisanich could be a flight simulator -- flight simulator game.
Do you recall that?
A. Yes.
Q. There's another box in Figure 1 of Pisanich that is labeled "Other Games 116."
Do you see that?
A. I do.
Q. You testified that examples of the other games 116 are, and I quote, car racing game or a football game. Do you recall that?
A. Yes.
Q. Please turn to page 33 of your declaration, which is Sony -- the same -- same document.
A. Okay.
Q. All right. At page 33, there are illustrations for six versions of a flight simulator -- simulator game.
Do you see that?
A. Yes.
Q. And one of the versions is labeled "Apple II 1984," and another version is labeled "TRS-80 1987."
Do you see that?
A. Yes.

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Q. You testified that the software that runs a flight simulator on Apple II in 1984 and the software that runs a flight simulator for the TRS-80 in 1987 would be, and I quote, different computer software games.
Do you recall that?
A. Yes.
Q. So with that testimony in mind, please turn back to page 35 of your declaration, which shows Figure 1 of Pisanich.
A. Okay.
Q. In your opinion, would a POSITA looking at Figure 1 of Pisanich understand that the other games 116 could be other versions of a flight simulator game?
A. Could be.
Q. Okay. If the other games 116 in Figure 1 at Pisanich is some other version of a flight simulator game, would you agree that a POSITA would understand the game to have a flight simulator theme?
A. Yes.
Q. And if the game 112 in 1 of Pisanich is a flight simulator game, would that game also have a flight simulator theme?
A. It would.
Q. Would a POSITA understand that different

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versions of a flight simulator game each having a flight simulator theme relate to the same virtual thematic environment?
A. They would relate to similar thematic environments. I mean, it's -- the theme would be the same.
Q. Okay. I would like to switch over to the IPR for the '028 patent. Okay?
So first counsel asked you whether you have an understanding of how Shockwave operated.
Do you recall that?
A. Vaguely.
Q. And you testified that a web browser -- actually, I'll come back to that.
I would like to refer you to Sony Exhibit 1004 in the IPR proceeding IPR 2023-0094 (sic). This is the proceeding that concerns the '028 patent. And if I refer to this proceeding as the '028 IPR, will you understand what I mean, David?
A. Yes.
MR. WOO: I'm going to introduce -- this is a prior exhibit, for the record, that was introduced in the Monday deposition, and I'm just going to make it available in the -- for Mr. Crane, the witness, to see. And I will put it up for everyone.

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I just entered it into the chat feature of the Zoom meeting. Let me know when you are able to access that, Mr. Crane.
THE DEPONENT: I have it.
BY MR. WOO:
Q. Okay. Please turn to page 33 of your declaration, which is Exhibit 1004 from the '028 IPR. Let me know when you're there.
A. I have page 33.
Q. At the -- at page 33, there's a Figure 9 reproduced from the prior art Angles reference.
Do you see that?
A. Yes.
Q. At the bottom of page 33 is a quote from Angles that includes, quote:
"The content provider computer 14 can integrate the customized advertisements 30 into offerings such as online games, video programming, Internet radio, virtual reality environments, and the like."
Do you see that?
A. No.
Q. Oh.
A. Where are we?
Q. I thought it would be page 33 of the...
A. Is it IPR 954?

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Q. My apologies if I gave you the wrong one. Hold on. It should be 954 and -- one second here. I'm sorry. That's -- it's actually on page 34. My apologies. I misspoke.
The quote begins -- the quote from Angles begins on the top of page -- I'm sorry.
The quote from Angles begins at the bottom of page 33, and it goes on into the top of page 34.
A. Starting with "the embodiment shown in Figure 9"?
Q. Let's see?
A. At the bottom of 33?
Q. 33. The embodi -- exactly. "The embodiment shown in Figure 9." Exactly.
A. I have that on the screen.
Q. Okay. So if you go to the very next page, and, like, that continues a quote, and at the top of page 34 is the quote. It's about midway through the first line, a little bit more than halfway through the first line. It starts with the language, "The content provider computer 14."
Do you see that?
A. Yes.
Q. Okay. And then that's quote -- the rest of the quote I gave to you, which I'll repeat.

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"The content provider computer 14 can customize advertisements 30 into offerings such as online games, video programming, Internet radio, virtual reality environments, and the like."
Do you see that?
A. I do.
Q. Would a POSITA reading Angles understand that the only place where customized advertisements could be integrated into an online game is at the content provider computer?
A. No.
Q. And why not?
A. If you are integrating customized advertisements into virtual reality environments on billboards, for example, that integration has to occur inside the game code, which is on the client device, in order to change its perspective to match the billboard as you're driving around in a 3D world, for example.
Q. Okay. So where does the integration actually occur in that situation, Mr. Crane?
A. That integration has to occur during game play while it's executing.
Q. Executing where?
A. On the client device.
Q. Okay. Is that the user computer?

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A. Yes.
Q. So just to confirm, would a POSITA reading Angles understand that the customized advertisements could be integrated into an online game at the consumer computer shown in Figure 9 of Angles?
A. That's where that would take place.
Q. Okay. Thank you.
You testified earlier today -- I'm sorry.
You testified earlier on Monday that when talking about a primary application and a secondary application, that you were just using language from the asserted patent. And this comes at transcript page 162, lines 12 through 17. Do you recall that?
A. Vaguely.
Q. Okay. And you testified that, and I quote:
"In my opinion, it doesn't use the term very well to a game developer. A game is an application, and it might contain software layers inside or modules inside, so one of the claim terms in the patent is primary or secondary application inside a primary application. A person of ordinary skill in the art would find that hard to digest unless it's treated as a software layer inside the game."
Do you recall that testimony?
A. I do.

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Q. Okay. Could you please elaborate on what you meant by that, Mr. Crane?
A. Well, a person of ordinary skill in the art making a video game would consider the game to be the application, and any modules that happen to be inside the game wouldn't use the term "application." It would be, you know, confusing at best. Just it's not the normal use of the term "application." The application is that whole thing that you download.
Q. Okay. So in your declaration earlier, you testified that you were responsible for a number of published game titles. Does that sound familiar?
A. I certainly was.
Q. Yeah. And some of those game titles, or at least one of those game titles, includes Pitfall, for example. Does that ring a bell?
A. That's a true statement.
Q. Yeah. Would a POSITA consider Pitfall a game application?
A. Yes.
Q. Would a POSITA think that a game application like Pitfall would include secondary applications?
A. I don't see how.
Q. Okay. And why do you say that, Mr. Crane?
A. Again, the game is an application. It's run on

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a console.
Q. Okay. So for purposes of your declaration in the '165 IPR proceeding, why did you say that a game such as that disclosed in Pisanich was a primary -- primary application having a secondary application?
A. I would have to refer to that exact language. Typically, as I stated, I take the claim terms in the language of the patent and search the prior art for how the understanding of a person of ordinary skill would interpret that prior art. So I probably just used the term of the patent.
Q. Okay. Earlier today in your testimony, you talked about an inference being an inescapable logical conclusion.
Do you recall that?
A. I do.
Q. Does an inference always mean an inescapable logical conclusion to you?
A. Well, as I believe I said at that point, that's what I meant by inference in that sentence. But I'm not a dictionary. I don't know what the inference in every connotation or every context is going to mean.
Q. When you testified earlier that based upon some images from one of the prior art references, that there was an inference that those images -- I'm sorry, those

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images were an inference or -- of a thematic publishing logic module.
Did you recall that?
A. Not those exact words, but something along those lines.
Q. Is there a situation in which just pictures or images from game play would not indicate a thematic publishing logic module?
A. I don't know offhand.
Q. If there was actually a thematic publishing logic module inside a game, would you expect to see source code for that?
A. I would love to see source code for it, but not in an IPR proceeding.
Q. Okay. But if you actually had the source code for a game, would you be able to look in the source code and find a thematic publishing logic module, as best you can understand it, for that claim term?
A. I certainly would.
Q. And if the source code did not have what you would expect for a thematic publishing logic module, do you think then that accused -- or that product would not have a thematic publishing logic module?
Apologies if my question is confusing. Let me withdraw that question and ask another one.

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If you -- if you had source code for a game and you did not find source code for a thematic publishing logic module, what would you conclude as to whether the game had or did not have a thematic publishing logic module?
A. Yeah, I don't know. I mean, I would have to analyze the source code. It's -- it's too hypothetical a question for me to answer as I sit here today.
Q. Okay.
MR. WOO: Let's go off the record for about ten minutes, please.
THE VIDEOGRAPHER: We are going off the record. The time is 16:23.
(A recess transpires.)
THE VIDEOGRAPHER: We are back on the record. The time is 16:30.
MR. WOO: I will note for the record that the earlier objection lodged by counsel with respect to the declarations and the documents that Mr. Crane referred to is an objection over evidence and, for the record, Appendix D to the 2020 Consolidated Trial Practice Guide provides that an objection at the time of examination, whether to evidence, to a party's conduct, or to the officer's qualifications, to the manner of taking the testimony or any aspect of the testimony must be noted

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on the record, but the examination still proceeds. Testimony is taken subject to any such objection.

That is our basis for continuing with the examination of Mr. Crane with respect to the documents that he reviewed as opened -- as the door was opened by Mr. Sorocco's earlier question.

Mr. Sorocco, as we understand it, is relying on another part of the Consolidated Trial Guide, which I quote for the record, which is Point No. 9.

"At any time during the testimony, the test -- the witness or a party may move to terminate or limit the testimony on the ground that is -- that it is being conducted in bad faith or in a manner that unreasonably annoys, embarrasses, or oppresses the witness or party. The witness or party must promptly initiate a conference call with the board to discuss the proposed motion.

"37 CFR section 42.20(b). If the objecting party -- if the objecting witness or party so demands, the testimony must be suspended for the time necessary to obtain a ruling from the board, except as a board may otherwise order."

With that said, there's nothing about the exhibit, which is the declarations that Mr. Crane was prepared to talk about, that unreasonably annoys, embarrasses, or oppresses the witness or party. So

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therefore, Mr. Sorocco, Counsel's, objection and attempt to terminate and end the testimony is improper.

With that, we would like to -- we plan to take this up with the board tomorrow to seek the board's guidance on that, and then after that, we expect the board to give guidance and we will proceed accordingly.

We are done with our redirect.

MR. SOROCCO: Okay. Give me five minutes, please.

THE VIDEOGRAPHER: Okay. And we are going off the record. The time is 16:33.

(A recess transpires.)

THE VIDEOGRAPHER: We are back on the record. The time is 16:41.

EXAMINATION

BY MR. SOROCCO:

Q. Okay, Mr. Crane. In Mr. Woo's redirect, he asked you a question regarding -- and I'm going to be referring to the '165 patent, so it would be your Exhibit 1004 in the IPR 996.

Do you have that in front of you?

A. Yes.

Q. Okay. Mr. Woo asked you a question, and with regard to page 35, I believe, of this declaration. And it is with regard to, I believe, Figure 1 on the upper

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left-hand side. And his question to you is regarding if -- that games 112 and other games 116. He asked you, would a POSITA looking at Figure 1 of Pisanich understand that the other games 116 could be other versions of a flight simulator game.

Do you see that -- or do you recall that testimony?

A. Yes.

Q. Or question?

And you answered, "Could be," correct?

A. I believe so.

Q. Okay. Can you turn to page 61 of your declaration, please?

Are you there, sir?

A. Not quite.

There we are.

Q. Okay. If you look at that, Pisanich Figure 1 is, once again, reproduced there in the middle of the page. Is that correct?

A. Yes.

Q. And this is in paragraph 130 of your declaration, and it looks like you are block quoting from Pisanich after that figure. And do you see that language there in the block quote, Mr. Crane?

A. I do.

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Q. Okay. And the first sentence says:

"Moreover, a second player 124 may play an entirely different game 116, for instance, a car racing game or a football game."

Do you see that language --

A. I do.

Q. -- Mr. Crane?

A. I do.

Q. And isn't it true that a -- I believe Mr. Woo asked you about different versions of the flight simulator game with regard to this other games 116. Isn't that correct?

A. Was that (inaudible) question.

Q. Yeah. I'm sorry.

Isn't it correct that -- is it -- is it correct that Mr. Woo asked you with regard to other versions of flight simulator -- if other versions of flight simulator games could be other games 116 to a Pisanich? Do you recall that testimony?

A. Yes.

Q. Or question?

Okay. Is it still your testimony that the other games 116 could be other versions of flight simulator games, given that Pisanich himself stated that it may -- a second player, 124, may play an entirely different

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game 116?
A. "Pisanich certainly (inaudible).
MR. WOO: Objection. Form.
THE DEPONENT: Oh. What?
MR. WOO: Objection. Form.
THE DEPONENT: Pisanich certainly explicitly talks about how it may be a different game.
BY MR. SOROCCO:
Q. Sure?
A. I was asked if the -- a person of ordinary skill in the art looking at this would consider it might also be another flight simulator.
Q. Sure. But one of ordinary skill in the art, sir, is going to look at what Pisanich --
(Simultaneous speakers.)
MR. WOO: Objection, Counsel.
MR. SOROCCO: -- correct?
MR. WOO: You didn't let the witness answer completely. If you are planning on cutting him off, that's objectionable.
MR. SOROCCO: Please go ahead.
I thought he was finished.
THE DEPONENT: What I said was, the characterization of the question in redirect was whether a person of ordinary skill in the art would consider

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that other games 116 might be another version of a flight simulator, and I said, if for no other reason that when you design a system like this, you don't design it for a single player playing a single game. Pisanich talks about how you've got multiple players, other players, 124, playing games, and they're using the same game data server and, you know, interfacing with real world weather and all that sort of thing. So that was what I answered.
BY MR. SOROCCO:
Q. Thank you. But again, the question was -- strike.
One of ordinary skill in the art would be reviewing Pisanich based upon what Pisanich discloses, correct?
A. Yes.
Q. Okay. And Pisanich discloses in this paragraph block quoted at the bottom of page 61 that an entirely different game 116, for instance, a car racing game or a football game, may be played by a second player, 124, correct?
A. It says that a second player may play an entirely different game.
Q. I understand you want to stand on "may," but the document speaks for itself.

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If we can go to yesterday -- or excuse me, Monday, page 228 of your testimony. And I asked you, referring specifically to Figure 9, where is the electronic page and customized advertisement created in Angles?
Do you remember that question?
A. No.
Q. Okay. Your answer was:
"The electronic page is created on the content creator. The customized advertise is passed to the content provider, and the combined data is sent down to the consumer computer."
"12, correct," was my addition.
And you said, "Consumer computer 12. Thank you."
Do you recall that testimony?
A. Vaguely.
Q. Okay. And is it -- if we bring up PTAB Figure -- PTAB, your Exhibit 1004 and PTAB proceeding ending in '954, Figure 9 on page 33. Can you let me know when you're there, sir?
A. I'm there.
Q. Okay. So your testimony was that the electronic page is created on the content creator, and we talked about content creators and advertisement creators being

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those computers 14 and 18. Do you remember that testimony from Monday, sir?
A. From Figure 9, content provider computer is number 14.
Q. Okay?
A. And the other content provider computer is 18.
Q. Okay. So your testimony was:
The electronic pages created on the content creator, the customized advertise is passed to the content provider and the combined data is sent down to the consumer computer."
You testified on redirect that the consumer computer was combining the electronic page and customized advertisement. Is that correct, sir?
A. I don't believe I used the term "combining" there.
Q. Excuse me. Electronic -- or put together?
A. Integrated maybe?
Q. Combination, excuse me.
"The combination of the electronic page and customized advertisement" --
MR. WOO: Objection.
BY MR. SOROCCO:
Q. -- would happen on the consumer computer 12.
Was that your -- do you recall that testimony,

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sir?
MR. WOO: Objection. Form. Mischaracterizes the testimony.
THE DEPONENT: I don't see the testimony in front of me that you're questioning. I believe I was saying that the integration can happen at the consumer computer.
BY MR. SOROCCO:
Q. Yes. You said that the integration -- or I would assume it's combination, since that's the -- I believe, the claim language, or the language in the Angles, right? Yeah.
Incorporated, excuse me, is the language if we look at the bottom of page 33.
"The embodiment shown in Figure 9 allows the customized advertisements 30 to be incorporated directly into the content provider's offerings."
So the customized advertisement is incorporated with the electronic page at the content provider computer 14. Isn't that correct?
MR. WOO: Objection. Form.
THE DEPONENT: I believe my testimony was that the advertisement and the content are combined in the content provider, delivered to the consumer computer. In redirect, we were talking about what also happens in

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the consumer computer.
BY MR. SOROCCO:
Q. And if I go back to your testimony from Monday, I asked the question, is reading from lines 38 through 42 of Angles, do you have an understanding of how the customized advertisement is sent and is received by the content provider computer 14 and sent along to the consumer computer 12. Do you recall that question?
A. Not specifically.
Q. Okay. Your answer was:
"My understanding from reading this section is that there is a customized advertisement that is incorporated into content information which is then forwarded to the user computer."
Do you recall that -- your testimony, sir?
A. Yeah. That's my understanding.
Q. Okay. And is it also -- that's fine.
MR. SOROCCO: I have no further questions.
MR. WOO: Okay. Are you done, Doug?
MR. SOROCCO: Yeah. No further questions.
MR. WOO: Okay. So for the record, I would like to freeze the record as it is, and then I suggest would go to the board tomorrow with the dispute over the evidence that you contend, Doug, is not fairly in the case and which we believe should be fairly allowed

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entered as appropriate evidence that was directly initiated by your own questioning.
MR. SOROCCO: And as I discussed that I do not agree with your characterization. That was a general statement. That's like saying that a witness can create their own document stating that they did not murder their wife, and when they were asked what documents they reviewed they could put in the statement as evidence for the truth of the matter. It's -- it's absurd.
So we'll -- we'll talk to the board in the morning, I guess.
MR. WOO: That's very good.
THE VIDEOGRAPHER: Okay. Then this will end the deposition of David Crane for today. We are going off the record. The time is 16:54.
THE REPORTER: Briefly, do both sides require the rough draft?
MR. SOROCCO: Yes.
MR. WOO: Yes.
(Proceeding adjourns at 4:54 p.m.)

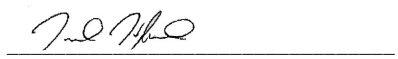
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REPORTER'S CERTIFICATE

STATE OF CALIFORNIA) ss.
I, DEREK L. HOAGLAND, CSR #13445, State of California, do hereby certify:
That DAVID CRANE 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 party, PETITIONER, was represented by counsel at the deposition.
I further certify that the deposition of DAVID CRANE, occurred virtually, via videoteleconference on Thursday, February 29, 2024,, commencing at 10:59 a.m. to 4:54 p.m.
I further certify that I am not related to any of the parties to this action by blood or marriage, I am not employed by or an attorney to any of the parties to this action, and that I am in no way interested, financially or otherwise, in the outcome of this matter.

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IN WITNESS WHEREOF, I have hereunto set my hand this 1st day of March, 2024.



DEREK L. HOAGLAND, CSR #13445
NOTARY PUBLIC IN AND FOR THE
CALIFORNIA

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