



Planet Depos®
We Make It *Happen™*

Transcript of David Crane

Date: February 26, 2024

Case: Sony Interactive Entertainment LLC -v- Quantum Imaging LLC (PTAB)

Planet Depos

Phone: 888.433.3767

Email: transcripts@planetdepos.com

www.planetdepos.com

WORLDWIDE COURT REPORTING & LITIGATION TECHNOLOGY

Transcript of David Crane
Conducted on February 26, 2024

1 (1 to 4)

1	2
1 UNITED STATES PATENT AND TRADEMARK OFFICE	1 APPEARANCES:
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD	2
3 SONY INTERACTIVE ENTERTAINMENT LLC,)	3 COUNSEL FOR PETITIONER
4 Petitioner,)	4 DUANE MORRIS LLP
5 vs.)	4 260 Homer Avenue
6 QUANTUM IMAGING LLC,)	5 Suite 202
7 Patent Owner.)	5 Palo Alto, California 94301
8 -----)	6 BY: PHILLIP W. WOO, ESQ.
9	7 pwwoo@duanemorris.com
10	8
11 Case No. IPR2023-00954	9 COUNSEL FOR PATENT OWNER
12 Patent No. 8,458,028	9 DUNLAP CODDING
13 Case No. IPR2023-00959	10 609 W. Sheridan Avenue
14 Patent No. 10,255,724	10 Oklahoma City, Oklahoma 73102
15 Case No. IPR2023-00995	11 BY: DOUG SOROCO, ESQ.
16 Patent No. 10,846,941	11 405.607.8600
17 Case No. IPR2023-00996	12 dsorocco@dunlapcoddng.com
18 Patent No. 10,991,165	12 -- AND --
19	13 BY: MARC BROCKHAUS, ESQ.
20	13 mbrockhaus@dunlapcoddng.com
21	14 BY: ANN ROBL, ESQ.
22	14 arobl@dunlapcoddng.com
23	15
24	16 ALSO PRESENT
25	17 KEN LAUGICO, VIDEOGRAPHER
	17 JAMES LEONG, SONY INTERACTIVE ENTERTAINMENT
	18 PATRICK DUNN WITH QUANTUM IMAGING
	18 HOMAYOON RAFATIJO WITH QUANTUM IMAGING
	19
	20
	21
	22
	23
	24
	25
1	4
1 UNITED STATES PATENT AND TRADEMARK OFFICE	1 I N D E X
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD	2 WITNESS PAGE
3 SONY INTERACTIVE ENTERTAINMENT LLC,)	3 DAVID CRANE
4 Petitioner,)	4 EXAMINATION BY MR. SOROCO 7
5 vs.)	5
6 QUANTUM IMAGING LLC,)	6
7 Patent Owner.)	7 E X H I B I T S
8 -----)	7 EXHIBIT MARKED
9	8 DESCRIPTION
10	8 No. 1003-A Report on the Filing or Determination 50
11	9 of an Action Regarding a Patent or
12	10 Trademark
13	11
14	12 R E F E R E N C E D E X H I B I T S
15	13 EXHIBIT DESCRIPTION REFERENCED
16	14 No. 1004 996 IPR Crane Declaration 13
17	15 No. 1005 996 IPR 14
18	16 No. 1001 Sony's Petition in IPR 996 38
19	17 No. 1008 PSO Manual 142
20	18 No. 1004 954 IPR Crane Declaration 190
21	19 No. 1001 '028 Patent 192
22	20 No. 1007 '811 Patent 201
23	21 No. 1008 Robinson Patent 270
24	22
25	23
	24
	25

PLANET DEPOS
888.433.3767 | WWW.PLANETDEPOS.COM

Quantum Imaging, LLC
Exhibit 2009
IPR2023-00954
Page 2

Transcript of David Crane
Conducted on February 26, 2024

2 (5 to 8)

5 1 9:14 a.m. PROCEEDINGS 2 3 THE VIDEOGRAPHER: Here begins Media No. 1 in 4 the videotaped deposition of David Crane in the matter 5 of Sony Interactive Entertainment LLC versus Quantum 6 Imaging LLC, PTAB, in the United States Patent and 7 Trademark Office, Case Number IPR2023-00954, -00959, and 8 -900995 and -00996. Today's date is February 26, 2024. 9 The time on the video monitor is 9:14. 10 The videographer today is Ken Lauguico, 11 representing Planet Depos. This video deposition is 12 taking place at 260 Homer Avenue, Suite 202, in 13 Palo Alto, California. 14 Would counsel please voice themselves and state 15 whom they represent. 16 MR. SOROCO: Yes. I am Douglas Sorocco for the 17 respondent, Patent Owner Quantum Imaging LLC. With me 18 is Marc, M-a-r-c, Brockhaus, B-r-o-c-k-h-a-u-s, also 19 with Quantum Imaging LLC, the respondent and patent 20 owner, and we are both with Dunlap Codding, PC. 21 MR. WOO: Philip Woo with the law firm of 22 Duane Morris on behalf of the petitioner, Sony 23 Interactive LLC, representing the -- defending the 24 witness. 25 Also online is Jim Leong, or James Leong,	7 1 MR. SOROCO: Great. Thank you. 2 3 DAVID CRANE, 4 having first been duly sworn, 5 was examined and testified as follows: 6 7 EXAMINATION 8 BY MR. SOROCO: 9 Q. And Mr. Crane, can you spell -- state and spell 10 your name for the record? 11 A. My name is David Crane; David, D-a-v-i-d, Crane, 12 c-r-a-n-e. My full name includes my middle name, 13 Patrick, P-a-t-r-i-c-k, although I don't generally use 14 it. 15 Q. Great. And then could you give me your address, 16 please. 17 A. I live at 2702 Brown Bear Court in Cool, 18 California. 19 Q. Cool, California. 20 And by reading your CV and your comment earlier 21 this morning about the squeaky bottle, I assume you've 22 have been deposed a number of times. Is that correct? 23 A. I have. 24 Q. Okay. So we're going to give you a shorter 25 version of the preliminaries today, since you've been
6 1 in-house counsel for Sony Interactive Entertainment LLC. 2 MR. SOROCO: And I should also indicate that 3 online is Ann Robl, and that's A-n-n, R-o-b-l, with 4 Dunlap Codding, representing the patent owner 5 respondent, Quantum Imaging LLC. 6 (Whereupon, the deponent is duly sworn by the 7 court reporter.) 8 MR. SOROCO: Good morning, Mr. Crane. 9 THE DEPONENT: Good morning. 10 MR. SOROCO: Before we begin, there was a 11 couple stipulations, Mr. Woo, I want to put on the 12 record. 13 We agreed that they allow the use of the 14 testimony in -- across all the IPR proceedings that 15 relate to the same questions, subject matter, terms, 16 things of that nature. 17 Do I have that correct? 18 MR. WOO: For the IPR proceedings, correct. 19 MR. SOROCO: Yes, for the IPR proceedings. 20 Thank you. 21 And then also, for the order of the 22 presentation, we're going to handle all of the 23 cross-examinations for across all of the IPR proceedings 24 and then any redirect you may have and then re-cross. 25 MR. WOO: That is fine.	8 1 through it. But let me know if I need to explain 2 anything in depth. 3 You understand you were administered an oath? 4 A. Yes. 5 Q. Okay. And you understand you're testifying 6 under penalty of perjury per that oath? 7 A. Yes. 8 Q. Okay. If you don't understand my questions, 9 please let me know in answering so I can clarify. Is 10 that fair? 11 A. I will do so. 12 Q. Okay. Great. And if you answer a question, I'm 13 going to assume you understood the question. Is that 14 fair? 15 A. Fair. 16 Q. Okay. And I ask that you're done -- wait until 17 I'm done asking the question before answering. Is that 18 fair? 19 A. Yes. 20 Q. Thank you. 21 And if you need a break, let me know. I 22 think -- I recently had a knee replacement, so we may be 23 taking breaks a little more often. But if you need 24 something, please let me know. 25 A. I will.

PLANET DEPOS
888.433.3767 | WWW.PLANETDEPOS.COM

Quantum Imaging, LLC
Exhibit 2009
IPR2023-00954
Page 3

Transcript of David Crane
Conducted on February 26, 2024

3 (9 to 12)

9 1 Q. Thank you. 2 Is there any reason why you cannot provide 3 compete, accurate, and truthful testimony today? 4 A. No. 5 Q. Great. When were you first contacted about the 6 IPRs between the petitioner and the respondent, between 7 Sony and Quantum Imaging? 8 A. I don't recall. It may have been sometime in 9 2023, maybe earlier, 2022. 10 Q. Okay. And then maybe it would be easier, who 11 contacted you, if you recall? 12 A. I was contacted by the law firm KXT. What was 13 their full name? KXT Associates? KXT – I don't know. 14 There was another law firm that was working on the IPR. 15 Q. That was the predecessor firm to Duane Morris, 16 correct? 17 A. Correct. 18 Q. Okay. Had you heard of Quantum Imaging LLC 19 before being contacted by KXT? 20 A. No. 21 Q. Okay. And had you heard of or knew of 22 Ms. Fran Barbaro prior to being contacted by KXT? 23 A. Fran Barbaro? 24 Q. Yes. 25 A. Not someone I knew.	11 1 them along, just so that I don't mistestify as to who -- 2 whose declarations it was. There's a declaration from 3 Alexander Harry, and my understanding is that it was 4 Alexander Harry who located, through eBay, and 5 identified the manual for the Phantasy Star Online, 6 which is one of the pieces of prior art I analyzed. So 7 you -- just accurately, it's declaration of 8 Alexander Henry [sic]. 9 There's a declaration of Nathaniel E. 10 Frank-White from the Internet archive, and from that -- 11 I often cite to the Internet archives, and some of these 12 things were so long ago they're no longer on the 13 Internet. And he basically attests to the provenance of 14 their capture of the websites that I may have used. 15 And a third declaration from a Mr. Sakuta, 16 Yoshihiro Sakuta. And Yoshihiro Sakuta was the original 17 author of that Phantasy Online manual that I used as one 18 of my pieces of prior art, in which he testifies as to 19 when that was created, when it was published, and such. 20 So I also had conversations -- privileged 21 conversations with counsel, maybe eight or nine hours 22 worth, via Zoom, that included Mr. Woo and James Leong. 23 And I had the opportunity to actually speak by Zoom to 24 Mr. Sakuta in the past week, and talked to him about the 25 creation of that -- that manual for Phantasy Star
10 1 Q. Okay. You do understand that she is the 2 inventor of the patents that you reviewed? 3 A. I would have to review the patent and look at 4 the names of the inventors. 5 Q. Okay. That's fair. We'll get to that in a 6 little bit. 7 Have you learned anything about Ms. Barbaro 8 since being engaged for this -- this IPR, at least for 9 your -- your engagement? 10 A. Not that I'm aware of. 11 Q. Okay. What did you do to prepare for your 12 cross-examination today? 13 MR. WOO: And I just caution the witness not to 14 divulge any attorney-client privilege -- 15 MR. SOROCO: Sure. 16 MR. WOO: -- or work product in answering, but 17 you may answer the question. 18 THE DEPONENT: I reviewed a number of documents 19 and had some phone and Zoom conversations. Documents I 20 reviewed include my four declarations and the associated 21 petitions, the PTAB institution decisions, the patent 22 owner responses, preliminary responses, I believe it's 23 called, and I reviewed the claim charts with the 24 original complaint. 25 I also reviewed some declarations, and I brought	12 1 Online. 2 MR. SOROCO: Wonderful. Thank you for that 3 detailed answer. I would posit that the declaration, 4 it's Alexander Harry, H-a-r-r-y, just to make that one 5 slight clarification there. And it was also provided as 6 Exhibit 1011 by petitioner in at least IPR reference 7 number IPR2023-00996. 8 BY MR. SOROCO: 9 Q. And Mr. Crane, I'm going to begin with your 10 declaration and comments and analysis in the 11 IPR2023-00996, which is referencing Patent 12 No. 10,991,165. 13 If I refer to the 1 -- quote, '165 patent, will 14 you -- is it fair to understand -- is it fair to ask 15 that you will understand that that refers to Patent 16 No. 10,991,165? 17 A. Yes. 18 Q. As shorthand. Thank you. 19 All right. So what did you review, who did you 20 speak to, we've got all of that. 21 And you did re -- you did review the petition 22 that Sony filed in this IPR, did I understand? 23 A. Yes. 24 Q. Okay. And you reviewed the patent owner 25 preliminary response, I believe you said?

Transcript of David Crane
Conducted on February 26, 2024

4 (13 to 16)

13 1 A. Yes. 2 Q. Okay. And you reviewed the PTAB institution 3 decision, I believe you said? 4 A. Correct. 5 MR. SOROCO: Okay. Great. I'm going to hand 6 you what's been previously marked by the petitioner as 7 Exhibit 1004. There you go. 8 MR. WOO: It's a previously marked exhibit. 9 MR. SOROCO: Previously marked exhibit in the 10 IPR proceedings, 1004. 11 (Referencing Exhibit 1004.) 12 BY MR. SOROCO: 13 Q. Do you -- what -- do you recognize what's been 14 marked as Exhibit 1004, Mr. Crane? 15 A. I will assume that it is a true copy of the 16 declaration that I filed in this action. I don't see 17 any additions or deletions as I flip through it, but I'm 18 just going to make that assumption. 19 Q. And I will make the statement to you that it is 20 a full and complete copy of what was attached as 21 Exhibit 1004 in the IPR proceeding, the 996 IPR 22 proceeding. 23 Is that your signature on page -- the last page, 24 page 117, of Exhibit 1004? 25 A. It is.	15 1 previously marked as one zero -- Exhibit 1005 in the 996 2 IPR? 3 A. Yes. This looks like my CV. 4 Q. Okay. And is -- that was your CV as of the time 5 of the filing of the petition? 6 A. I would expect this is the CV at the time of the 7 signing of my declaration. It does, of course, change 8 with new cases added over time. Well, there's KXT Law 9 right there. So I would have to say yes. 10 Q. Okay. And is there any updates to this CV, 11 Exhibit 1005, that you are aware of at this time that 12 need to be noted? 13 A. I'm not sure. There may be another case that 14 I'll have to add. I'm not very good at keeping it 15 updated until I really need it. So I can't be sure 16 about that answer. 17 Q. So from your prior answer, I assume, then, that 18 there isn't a time period that you update this on any 19 regularity? 20 A. Not on any regular basis. 21 Q. Okay. Great. On your first page of your CV, 22 which is Exhibit 1005, you mention your job description 23 as expert consultant with SGK Services -- Service, 24 excuse me, Inc. 25 Do you see that?
14 1 Q. And did you sign it on or about June 4th 2 of 2023? 3 A. I did. 4 Q. Okay. And did this -- are the opinions and 5 analysis and commentary in Exhibit 1004 constitute the 6 truthful, accurate opinions to the best of your 7 knowledge? 8 A. Yes. 9 Q. Great. And when did you have the last chance, 10 you said, I think, the last chance to go over 11 Exhibit 1004? 12 A. In the past week, I looked at it. 13 Q. Okay. And about how much time do you believe 14 that you spent looking at? 15 A. A couple hours. 16 Q. Okay. Did you notice any typographical errors 17 in the Exhibit 1004? 18 A. I don't think so. 19 MR. SOROCO: Okay. I'm going to hand you what 20 was also previously marked by the petitioners in the 21 99 -- I'm going to learn this eventually -- 996 IPR as 22 Exhibit 1005. 23 (Referencing Exhibit 1005.) 24 BY MR. SOROCO: 25 Q. Do you recognize what's been -- what was	16 1 A. Yes. 2 Q. Okay. And what is SGK Service, Inc.? 3 A. SGK Service, Inc. is an entity that markets my 4 services, mostly. 5 Q. Okay. And I assume, then, that this is not your 6 company? 7 A. That's correct. 8 Q. Okay. Does SGK have any meaning that you're 9 aware of? 10 A. It is the initials of Susan Kitchen, Susan and 11 Gary Kitchen, I believe, the two principals. 12 Q. Okay. Great. Thank you. 13 And included within Exhibit 105, as you 14 mentioned earlier, is a table that begins on page 2 and 15 kind of, in this version of your CV, goes on for about 16 two-and-a-half pages. Is that correct? 17 A. Yes. 18 Q. Okay. And it appears you have worked on a 19 number of patent cases. Is that correct? 20 A. That's correct. 21 Q. And of the patent cases, what percentage do you 22 believe you've worked on behalf of the patent owner? 23 A. I don't know what that percentage is. 24 Q. What do you estimate that be? 25 A. I would estimate it's maybe slightly higher on

17 1 invalidity because of my expertise in the field going 2 back until the time video games began. So I tend to be 3 hired for invalidity issues. 4 Q. Okay. And when you speak about invalidity 5 issues, that would be on behalf of the patent challenger 6 or the defendant asking that the patent be held invalid. 7 Is that correct? 8 A. It would be in favor of the patent challenger. 9 Q. Okay. Great. And then let's go back to 10 Exhibit 1004, which is your declaration. 11 All right. You had mentioned in paragraph 1 12 that you're not an employee of Sony or any affiliate -- 13 or subsidiary of Sony, at the last sentence there at 14 paragraph 1. Is that correct? 15 A. That's correct. 16 Q. Have you ever been an employee of Sony or any 17 affiliate? 18 A. I have never been an employee of Sony. I don't 19 think any of the companies I've ever been employed by 20 were subsidiaries of Sony. 21 Q. Okay. Of the companies that you've been 22 employed by, have they worked with Sony in any regard? 23 A. Occasionally. When you're doing development 24 games -- development of games, if you're going to 25 develop a product for Sony, I suppose that would qualify	19 1 below that rate? 2 A. It may have been at some point in the past. 3 When I'm being hired by a company that marks my rates 4 up, they beg me to lower my rates. I tend to not do it. 5 To be absolutely fair, maybe I did it once, but I'm 6 not -- I don't recall. 7 Q. Okay. Good for you for sticking to it. And I 8 didn't want to put you in an awkward position with 9 your -- your client and Mr. Woo being in the room. 10 The amount of time that you've spent in the IPRs 11 between Sony and Quantum Imaging, how much -- how many 12 hours would you estimate that you've spent? 13 A. You know, I made a mental note to check that, 14 because I do have records. I did not check it. I've 15 spent a lot of time on this case, well in excess of 100 16 hours. It could be as high as 200 hours going all the 17 way back. 18 Q. Okay. That's fair as an estimate, I -- I would 19 imagine. 20 On page 5, section A, I think it is, page 5, 21 section -- under section A, there we go, under 22 Publications, of Exhibit 1004, you state you are a 23 partial list of the published game titles for which I am 24 responsible. For the game design and/or programming 25 would include, and the colon, and then it lists a number
18 1 as working in some way with Sony. 2 Q. Okay. And have you been -- have you visited 3 Sony's headquarters as part of this work -- prior work, 4 excuse me? 5 A. As part of prior work. Probably. Yeah, I think 6 so. 7 Q. Okay. And with regard to the -- this -- and 8 I'll say this, the IPR petitions that you worked on 9 between Sony and Quantum Imaging, have you visited 10 Sony's headquarters, any of Sony's headquarters? 11 A. No, I don't think so. 12 Q. Okay. Sounds good. 13 Your ordinary and customary rate of \$500 in 14 paragraph 2, do you see that Mr. Crane? 15 A. Yes. 16 Q. Okay. What do you mean by ordinary and 17 customary? 18 A. It covers anything I have to do, which includes 19 travel, research, writing. So it's basically -- it is 20 my rate for everything. 21 Q. So you have one rate for testifying today, doing 22 research, and writing up your declarations and things of 23 that nature? 24 A. That is correct. 25 Q. Okay. And do you ever go above that rate or	20 1 of games. 2 What do you mean by you saying "for which I am 3 responsible"? 4 A. Yeah. That's an important point. You know, 5 I'm -- I'm known as one of the founders of giving credit 6 for game designers for what they did, and I strongly 7 dislike people who take credit for things they didn't 8 do. So I keep a list of these games. These are 95 or 9 more percent me, my design, my programming, my -- all 10 the technology I created and developed. I've been 11 involved in dozens, if not hundreds, of other games. 12 Where my contribution is less, I don't list them as my 13 games, as I do these. 14 Q. Thank you for that. I think you hit on where I 15 was going, to see who -- what credit you would take. 16 That is very nice of you to give credit to others. 17 Are any of these games that are listed in 18 paragraph, I guess it's 16, that spans page 5 and 6 of 19 Exhibit 1004, are any of these games flight simulator 20 games? 21 MR. WOO: And I will ask the witness just to 22 make sure you read the whole paragraph if you need, as 23 well as whatever rest of the document you need in order 24 to provide context. 25 THE DEPONENT: I would say that none of the

Transcript of David Crane
Conducted on February 26, 2024

6 (21 to 24)

21 1 games that I take personal credit for, 95 percent or 2 more of the game for flight simulators, of driving 3 simulators, Mech simulators, I do a lot of simulators, 4 do a lot of online games, but there is no flight 5 simulator game that says "Designed by David Crane." 6 BY MR. SOROCCO: 7 Q. Okay. Thank you for that. 8 You mentioned driving simulators in your last 9 answer. What did you mean by driving simulators? 10 A. Where you're controlling a vehicle and you're 11 driving around a track, driving around terrain, driving 12 around the world, using the physics and control 13 mechanisms that let you control a vehicle. 14 Q. Okay. And what -- the same question about 15 what -- what do you understand Mech -- I think it was 16 Mech simulations? 17 A. Mech simulations, yes. A Mech is something out 18 of science fiction, best known from Battle Tech. It's a 19 60-foot-tall robot that a human rides in. So you have a 20 cockpit view that's similar to a flight simulator or 21 similar to a driving simulator, with controls that you 22 can activate and a 3D view out the window. 23 Q. And for the court reporter, when we use the word 24 "Mech," we are referring to M-e-c-h, correct? 25 A. That's a typical spelling, yes.	23 1 Q. So you're saying it's -- game design is broader 2 than those examples that I gave? 3 A. Yes. 4 Q. Okay. What about programming? You used the 5 term "programming" there. What did you mean by -- per 6 that world, programming? 7 A. Programming is writing the code that makes those 8 things happen in the game. 9 Q. Okay. 10 MR. WOO: Counsel, could I just go off the 11 record for a little bit? My pen does not seem to be 12 working. I just need to get another pen. 13 MR. SOROCCO: Sure. Let's go off the record. 14 MR. WOO: Sorry. 15 MR. SOROCCO: No problem. 16 THE VIDEOGRAPHER: We're going off the record. 17 The time is 9:39. 18 (A recess transpires.) 19 THE VIDEOGRAPHER: And we are back on the 20 record. The time is 9:40. 21 MR. SOROCCO: Thank you very much. 22 BY MR. SOROCCO: 23 Q. And I didn't mean to intentionally skip over it, 24 Mr. Crane, but if we could go back a couple pages to 25 page 2 of Exhibit 1004. And I must say, it's a pleasure
22 1 Q. Thank you. 2 THE REPORTER: I played it. 3 BY MR. SOROCCO: 4 Q. And then if we go back to that first sentence of 5 paragraph 16, it says you were responsible for the game 6 design and/or programming. And I think you testified 7 that that would be that you were responsible for at 8 least 95 percent or more of the game design and/or 9 programming. Is that correct? 10 A. That's roughly the place I draw the line before 11 I call it my game. 12 Q. Okay. And what do you mean when you use the 13 term or phrase "game design"? 14 A. Game design is everything that happens after a 15 blank page of paper. You have to design what the world 16 looks like, what the characters look like, what the -- 17 how the characters are going to interact, and then 18 figure out how to make it fun so that people will want 19 to buy it. 20 Q. Okay. So if I was putting you into a different 21 kind of category, it would be writing the story, 22 correct, or creating the movie, creating the world? Is 23 that fair? 24 A. I would say that none of those shortcuts convey 25 the whole issue.	24 1 to meet a world-renowned video game designer and game 2 industry pioneer. 3 Can you briefly, though, just explain your 4 educational background? 5 A. Well, out of a very advanced high school, out of 6 which I was programming three computer programming 7 languages before I left high school, I got an 8 engineering degree from DeVry Institute of Technology, a 9 company created by Honeywell because they couldn't find 10 qualified engineers. So they decided to create a school 11 to make them. I got an engineering degree in that, and 12 then I began working in the industry in engineering at 13 National Semiconductor, the chip manufacturer. 14 Q. Okay. That's interesting. I did not know 15 that's why DeVry was started. 16 And you said you had a degree in engineering. 17 Is there a particular field of engineering your degree 18 was in? 19 A. No. They specified an engineering technology. 20 So they called it a BSEET, for technology. 21 Q. Okay. That's the reason why that word there is 22 electronic engineering technology. 23 A. Yes. 24 Q. It's not a standard electrical engineering 25 degree. Is that correct?

25 1 A. I'm not sure what a standard electrical 2 engineering degree would be. 3 Q. Well, why did DeVry differentiate between 4 electronic engineering technology versus electronic 5 engineering? 6 A. I don't know. You would have to ask them. 7 Q. Okay. That's fair. 8 And then, just briefly, your work history. Can 9 you go through your -- your work history, please? 10 A. Sure. I started at National Semiconductor right 11 out of school. I was recruited out of college. 12 Q. Mm-hmm. 13 A. And basically brought their -- their testing 14 technology in their chip development area into that 15 decade, whatever decade that was, and brought them into 16 the '70s, as they might say, added microprocessor 17 technologies to theirs. But after two years, I was done 18 with what I could learn at National. 19 And I then went to Atari to design video games 20 for the Atari video computer system, the VCS, also 21 called the 2600. I did that for two years and then 22 founded the company Activision. Activision was founded 23 on the principles of giving credit to game design ers 24 for doing a creative work, as opposed to being treated 25 by Atari like you're a cog in the wheel back in the lab.	27 1 over 75,000 hours. So each one of these things has to 2 do with game development. 3 I worked at a Hasbro spin-off called Isix for a 4 little while. Absolute Entertainment is a publishing 5 company. In 1995, I founded a company called 6 Skyworks that -- Skyworks Technologies, that treated the 7 Internet as a game console. So instead of making games 8 for consoles, we were making games for the Internet and 9 publish them over the Internet. I've done a lot of 10 that. 11 Done development for mobile gaming, online 12 gaming, client/server gaming, and then ended up at MTV. 13 Viacom, Nickelodeon is the company that did video games 14 here in San Francisco. 15 Q. Okay. Thank you for that. 16 Did any of those companies develop flight 17 simulator games? 18 A. I would have to look at every one of those 19 companies' products to be able to answer that question. 20 Q. Okay. That's fair. 21 Let's look at paragraph 18, page 6, of your 22 Exhibit 1004. And I'll note that when you were talking 23 about summarizing your work history, you were looking at 24 Exhibit 1005, which is the copy of your CV filed in the 25 petition, IPR petition.
26 1 So we gave credit to designers and pioneered a number of 2 different issues in a third-party publishing field that 3 didn't exist. And I stayed there until 1987. 4 Q. Okay. Why did you leave Activision in 1987? 5 A. In 1987, there had been a crash in the video 6 game business, and Activision weathered that crash 7 actually very well. We had a lot of cash where other 8 companies were going out of business. But the board of 9 directors didn't like what the CEO was doing and how he 10 was doing it, and that was the CEO that I had chosen 11 when I founded the company. And they booted him out, so 12 I left. 13 Q. All right. Well, we'll -- and then after 14 Activision, where -- what has been your -- oh, sorry. 15 THE VIDEOGRAPHER: That's okay. 16 BY MR. SOROCO: 17 Q. Your work history? 18 A. Oh, here we go. It's easier to look at the 19 cover of the CV. This works from backward to forward. 20 Q. And, again, just briefly, summarizing it. 21 A. Well, to summarize, I have been a video game 22 developer for this entire period, from 1977 pretty much 23 to present. I'm still actually developing games. And I 24 did a back-of-the-napkin calculation to find out that I 25 had been, as of today, working as a game developer for	28 1 Okay. So paragraph 18, do I understand kind of 2 down, let's see, one, two, three, four, five lines, it 3 says, the sentence beginning: 4 "Each of the online games that I developed 5 communicated online between a game computer and a 6 central gaming server either before, during, or after 7 game play?" 8 Did I read that correctly? 9 A. You read that correctly. 10 Q. Great. And do you have an understanding of what 11 the term "online games" means? 12 A. I do. 13 Q. And what would that understanding be? 14 A. An online game is a game with an online 15 component. 16 Q. Okay. And, again, are you using the term 17 "developed" there to be consistent with your testimony 18 in paragraph 16, which was 95 percent? 19 A. When I'm talking about games that I developed, 20 I'm talking about the games where I'm overwhelmingly 21 responsible for the design and programming. In the case 22 of online games, that includes the client-side software, 23 where the client -- where the game is run, and a large 24 percentage of the server side, although I had help 25 there.

Transcript of David Crane
Conducted on February 26, 2024

8 (29 to 32)

29 1 Q. Okay. And I don't mean to be pedantic, but 2 in -- your prior testimony was that developed was 3 95 percent, you did 95 percent of the work, I believe. 4 Is that hold true for the online games in paragraph 18? 5 A. Well, to be pedantic, 95 percent is an estimate. 6 It's just kind of where I draw the line before I say I 7 developed. And yes, that holds true here as well. 8 Q. Okay. Thank you. 9 Going on from that sentence: 10 "These games include those." 11 Do you see that sentence? 12 A. Yes. 13 Q. Okay. And then: 14 "Where a server communicated with and 15 synchronized game play between client computers, those 16 in which the game was managed by the game server, and 17 those in which the server was used to keep and track 18 game statistics." 19 Did I read that correctly? 20 A. Yes. 21 Q. Okay. And then I -- are those -- would you 22 agree with me that that outlines three different 23 alternatives of how game -- central game servers or 24 online games were set up? 25 A. Those are three examples. They are not	31 1 Could an online game use more -- one or more -- 2 or excuse me, two or more of these different means of 3 game play or game architecture? 4 A. Yes. 5 Q. Okay. Thank you. 6 Let's look at, on page 17, paragraph 19, just a 7 couple quick questions. 8 You -- the first sentence there: 9 "Many of the games I developed required 10 expertise in 3D environments." 11 A. Page? 12 Q. Oh, I'm sorry. Page 7. 13 A. Oh, you said 17. 14 Q. Oh, I'm sorry. Page 7. It's -- I'm -- 15 paragraph 19. 16 A. Okay. 17 Q. So the question was, is -- so this -- the 18 statement is: 19 "Many of the games I developed required 20 expertise in 3D environments." 21 Do you have an understanding of what the term 22 "3D environments" means? 23 A. Yes. 24 Q. Okay. Can you explain it to me, what your 25 understanding is of the term "3D environments"?
30 1 necessarily exhaustive. 2 Q. Okay. Could you give me an example -- for an 3 example of one that is not listed there? 4 A. Well, the simplest example that I did not even 5 include, probably because it's obvious, is online games 6 are overwhelmingly downloaded to a client and then 7 executed on the client. So the purpose of the server in 8 that particular case has an initial task of serving the 9 source code that's going to be run on the client and 10 then later tasks of synchronizing variables, 11 communicating world state to multiplayer, all of those 12 sorts of things. 13 Q. Okay. Are any other examples that are not 14 included? 15 A. There are so many issues. There's client-side 16 prediction, which makes guesses as to what the server is 17 going to do when it's thinking about it and you're tied 18 to a slow Internet connection. Yeah, I -- I can't give 19 you an exhaustive list here. 20 Q. Okay. But there are others? 21 A. There are others. 22 Q. Okay. And would an online game use one of these 23 means? Two of these means? Three of these means? 24 Could it -- I guess what I'm -- let me -- let me break 25 that question down.	32 1 A. A 3D environment is a simulation of a 2 three-dimensional world, not necessarily the real world. 3 It can be some, you know, alien planet or whatever. The 4 simplest definition is, many games are 2D, which are, 5 you have X and Y, but you don't have a Z component. And 6 if you're simulating a 3D environment, you can now move 7 into and out of the screen, as well as left and right. 8 Q. Okay. And then when was the first 3D 9 environment, as you define that term, that you developed 10 in a game? 11 A. These are not listed in chronological -- 12 chronological order. 13 One of the earliest is David Crane's Amazing 14 Tennis. That would have been in the -- I hesitate to 15 guess, but it was in the deep, dark past. Yeah, each 16 one of these uses a three-dimensional world as part of 17 its display to the player. 18 Q. Okay. And, again, not to be pedantic, but my 19 question was, what -- excuse me, when -- when was the 20 first, what was the date. And you -- I think you had 21 testified to that David Crane's amazing tennis was deep, 22 dark past. Would you -- could you estimate when that 23 deep, dark past would have been? 24 A. I would have to look at that up. 25 Q. Okay. Fair enough.

Transcript of David Crane
Conducted on February 26, 2024

9 (33 to 36)

33 1 And then -- so you anticipated my question, that 2 these games are not in chronological order. Is that 3 correct? 4 A. That's correct. 5 Q. Okay. If they're not in chronicle order, how -- 6 what order are they in? 7 A. They're in an arbitrary order. 8 Q. Okay. So there was no order intended by 9 paragraph 19? 10 A. Nothing that I recall. 11 Q. Okay. And then you have the -- let's see, one, 12 two, three, four, five -- six lines down, you use the 13 term "trueVR" or "into the realm of trueVR." Do you 14 have an understanding what you meant by the term 15 "trueVR"? 16 A. VR is -- stands for virtual reality, and it is 17 more a method of how the game player is experiencing the 18 game and less about the game itself. But the idea is, 19 typically in VR, you give a different image to both 20 eyes, and that way you get what appears to be a depth 21 that exists in the game, but you don't normally see it 22 when you're looking on a single screen. 23 Q. Okay. And so the -- I'll ask it this way. 24 Strike that. 25 How would you -- what is the difference between	35 1 end of the phrase "into the realm of trueVR," that these 2 games are examples of trueVR. Is that correct? 3 A. They are in the realm of trueVR. 4 Q. Okay. And are they in any order? 5 A. No. 6 Q. When was the first date that you created -- or 7 excuse me, you developed a trueVR game? 8 A. Again, I don't know the specific dates of these 9 games offhand. 10 Q. Okay. Is it fair to assume that Warrior 2000 11 was sometime, perhaps, ninety -- 1998, '99 or 2000? 12 A. I don't think you can make that assumption. I 13 think it was well before that. Warrior 2000 was a US 14 military concept of what warriors would be like in 2000, 15 the idea being that they would have mechanical suits to 16 wear, kind of like out of science fiction. 17 Q. Okay. And then -- okay. So let's go on. 18 An auto theme train simulation for a BMW X3, 19 nice car. Do you know when that trueVR game was 20 developed? 21 A. I don't recall. 22 Q. And then the same thing for going sports theme. 23 3D golf game for The Weather Channel. Do you 24 know when that trueVR game was developed? 25 A. I don't recall.
34 1 your use of the term "3D environments" versus trueVR? 2 A. I'm not sure there's an appreciable difference 3 between the two terms, really. 4 Q. Okay. I believe in your testimony you made a 5 comment about game play versus game environment or game 6 theme. Do I have that correct? 7 A. If it's in my declaration, show it to me. I 8 will see if I can answer that question. 9 Q. Okay. I'm reading back to your testimony a 10 moment ago, and this is rough. 11 But "VR stands for virtual reality, and it is 12 more a method of how the game player experienced the 13 game and less about the game itself, but the idea is 14 typically in VR you give different images to both eyes." 15 And then you explained depth. 16 So again, my -- your answer was, is that VR was 17 standing for method of how the game player experienced 18 the game. Is that correct? 19 A. That's an oversimplification. 20 Q. Okay. So your answer was an oversimplification 21 of VR? 22 A. Yes. 23 Q. Okay. All right. 24 When was the date -- assuming -- well, strike. 25 I assume that after the term end of the -- or	36 1 Q. Okay. And I'll ask you the last time. You go 2 down for a little bit farther. 3 "I was also a lead designer and programmer for 4 The Road, a VR experience." 5 Is a VR experience, is that referring to trueVR 6 earlier in that paragraph? 7 A. Yes. 8 Q. Okay. Do you have a recollection of when The 9 Road, a VR experience, was developed? 10 A. I don't recall as I sit here today. 11 Q. Okay. And it's -- you kind of end that 12 paragraph: 13 "I have extensive experience with 3D 14 environments and VR gaming." 15 Can you just briefly explain that extensive 16 experience? 17 A. I have developed many, many games that are -- 18 that use a 3D environment. I have spent many, many 19 hours, hundreds if not thousands of hours, working on 20 games with 3D environments and those that enter the 21 realm of virtual reality. I've done a lot of this 22 stuff. 23 Q. Okay. Is there additional games that are not 24 listed, trueVR games that are not listed in paragraph 25 19, that you have developed?

37 1 A. As I've said, I've been involved in many games 2 where I wasn't necessarily 95 percent responsible for 3 it. And I only list those that I can comfortably say 4 those are my games. 5 Q. Okay. 6 A. I made no effort to come up with a list of other 7 games that are 3D and/or VR, and it would take me 8 looking through my entire hard disk, probably, to be 9 able to answer that question. 10 Q. Okay. That's fair. 11 Paragraph 20 on that same page 7 of 12 Exhibit 1004, one, two, three lines down, you talk about 13 the mainframe computer languages that you have 14 programmed with -- programmed. There's one listed as 15 FOTRAN, F-O-T-R-A-N? 16 A. Oh. 17 Q. Am I to assume that's FORTRAN? 18 A. Thank you for finding the typo I missed. 19 Q. No worries. And that -- the goal wasn't to 20 point that out as a typo. It was to clarify that it 21 meant FORTRAN. Thank you. 22 MR. SOROCO: All right. Let's -- I'm going to 23 move on to -- I'm going to hand you what was previously 24 marked Exhibit -- I think it's 1001 in Sony's petition 25 in IPR 996. Grab that one.	39 1 Do you see down on the second column, on the 2 right-hand side, above (74), there was something called 3 a primary examiner? 4 A. I see a primary examiner. 5 Q. And who is the primary examiner? 6 A. Jonathan R. Messmore. 7 Q. Okay. Thank you. 8 And do you see -- I'm going to be jumping back 9 and forth between the columns. I apologize. 10 On the left-hand side, just a little bit below 11 where that primary examiner was listed, and it's (60): 12 "Related US application data." 13 A. I see that. 14 Q. Okay. And there's a language there used: 15 "Continuation of Application No. 16/833,127 16 filed on March 27th, 2020, now patent No. 10,846,941. 17 Do you have an understand of what the term 18 "continuation" means? 19 A. I have a layman's understanding. I'm not an 20 attorney. 21 Q. Okay. 22 A. And I rely on the attorneys to trace back to 23 continuation, continuation in part, and all of those 24 things that happen in the patent office. 25 But my basic layman's understanding is that it
38 1 (Referencing Exhibit 1001.) 2 BY MR. SOROCO: 3 Q. Do you recognize what's been marked as 4 Exhibit 1001? 5 A. This looks like what we are calling the '165 6 patent. 7 Q. Okay. And when was the '165 patent issued? 8 A. I assume the date of patent is the date of 9 issuance, which is April 27th, 2021. 10 Q. That is a good assumption. 11 And what is the name of the patent? 12 A. Interactive, virtual thematic environment. 13 Q. Okay. And a little further down below that 14 title, and it looks like the PTO uses a -- like a (72) 15 and then inventor. Do you see that the inventor's name 16 listed there? 17 A. Yes. 18 Q. And who is the inventor? 19 A. Frances Barbaro Altieri. 20 Q. Okay. And I will represent to you that Frances 21 Barbaro Altieri is Fran Barbaro, I think I called the 22 inventor earlier in this deposition. 23 A. From the name, I had no idea if it was a man or 24 a woman, and I repeat that I haven't met that person. 25 Q. Okay. Great.	40 1 is using the same specification -- that this patent uses 2 the same specification as that application and can 3 change nothing but the claims. 4 Q. Okay. And you mentioned the term "continuation 5 in part." What is your understanding of the term 6 "continuation in part"? 7 A. I gloss over that term entirely. As I say, I 8 just ask the -- ask the lawyers what -- what the 9 priority date is based on this disclosure. 10 Q. Okay. And then the second page, page 2 of this 11 Exhibit 1001, up at the top, you see on the left-hand 12 side it's related US application. It continues on from 13 the front page. About one, two, three, four, there's a 14 term called a division of application number, 15 12/073,967. 16 Do you see that? 17 A. I see it. 18 Q. Okay. Do you have an understanding of what the 19 term "division" means? 20 A. I do not. 21 Q. Okay. And then at the end of that related US 22 application date, excuse me, it states: 23 "Which is a division of application 24 No. 10/805,415 filed on March 22nd, 2004, now patent 25 No. 7,373,377."

41 1 Do you have an understanding of what, well, to 2 use shorthand, the '377 patent is? Or I would say in 3 patent -- strike that. 4 That last patent, 7,373,377, do you have any 5 understanding of any significance given to that patent 6 number by the patent office? 7 A. No. 8 Q. If I would convey to you that that is what is 9 called the -- the parent application, does that refresh 10 your memory? 11 A. I have heard that term. I would not come to 12 that conclusion from this language. 13 Q. Okay. And what would you understand parent 14 application to mean? 15 A. I would -- I would not necessarily understand 16 it, but I would guess that it was the first patent to be 17 issued. 18 Q. Okay. And would you guess that it would be the 19 first patent that was filed? 20 A. I don't know. 21 Q. Okay. Are there any patents that are indicated 22 as being filed after March 22nd, 2004? 23 A. There are a number of dates here that are after 24 2004. 25 Q. In the related US application data?	43 1 your declaration in this 996 IPR, and paragraph 24. 2 Okay. What -- what information were you 3 conveying with paragraph 24? 4 A. I believe paragraph 24 explains exactly what I'm 5 conveying. 6 Q. Can you please read it for the record or give me 7 a synopsis for the record of what paragraph 24 is 8 providing? 9 A. I would be happy to read it. 10 Q. That's not necessary. 11 Do you have an understanding of the information 12 that's being provided in paragraph 24? 13 A. As I said, it conveys what I'm attempting to 14 convey. So I'll read it into the record. It says: 15 "In forming the opinions set forth in this 16 declaration, I have considered and relied upon my 17 education, knowledge of the relevant field, knowledge of 18 scientific and engineering principles, and my 19 experience, as well as external materials cited in this 20 body -- or in the body of this declaration. I have also 21 reviewed and considered the '165 patent and its 22 prosecution history, and the following additional 23 materials." 24 Q. Okay. I can stop you there. 25 That last sentence that you read, "I have also
42 1 A. Yes. 2 Q. Can you point that out, please? 3 A. There's one filed August 4th -- 4 Q. Oh. 5 A. -- 2011. 6 Q. Scratch that. I asked the wrong question. 7 Thank you for pointing that out. 8 Is there any before March 22nd, 2004? 9 A. I don't see any dates before March 22nd, 2004. 10 Q. Okay. And let's go back to the first page. 11 There is a section on the left -- or right-hand side, 12 excuse me, called "The Abstract." Do you have an 13 understanding of what the abstract of a patent is? 14 A. I interpret the abstract as a -- I don't know, a 15 synopsis of what the inventor feels they are describing 16 in this specification. 17 Q. Okay. And why do you have that understanding? 18 Or what -- or excuse me. Strike that. 19 What -- what information or background do you 20 have that would give you that understanding? 21 A. I don't know. As I said, I'm not an attorney. 22 As I'm reading a patent from top down, if they said this 23 is a -- this is what we're going to be patenting here, 24 this is -- I'd see it as a summary or synopsis. 25 Q. Okay. Let's go back to Exhibit 1004, which is	44 1 reviewed and considered the '165 patent," which is 2 Exhibit 101 -- 1001 that we just went through a little 3 bit, "it's prosecution history," which is Exhibit 1003 4 that petitioners filed with the 996 IPR, what is a -- do 5 you have an understanding of the term "prosecution 6 history"? 7 A. I understand the prosecution history to be all 8 the communications back and forth between the patent 9 applicant and the patent examiner. It's very boring and 10 repetitive to read, but it's -- and it's a very long 11 document. But that's the way I think of it, as 12 communications between the two. 13 Q. So would it be fair to -- to summarize that as 14 that it's the back and forth between the inventor and 15 the patent office related to the attempt to get an 16 issued patent? 17 A. That sounds similar to what I'm saying. I'm not 18 sure I would necessarily characterize it that way. 19 Q. Okay. And we'll get into -- do you have an 20 understanding of what an information disclosure 21 statement is? 22 A. An information disclosure statement, I would 23 assume, discloses information. 24 Q. Do you have an understanding, a more particular 25 understanding in patent law, of what an information

Transcript of David Crane
Conducted on February 26, 2024

12 (45 to 48)

45 1 disclosure statement is? 2 A. As I said, I'm not a lawyer. So I couldn't 3 necessarily tell you what it meant in patent 4 prosecution. 5 Q. Okay. So if I look at your declaration, 6 Exhibit 1004, you say -- you state that you're not an 7 attorney in paragraph 25. Is that correct? 8 A. Correct. 9 Q. Okay. Paragraphs 26 through 39 are paragraphs 10 dealing with the law. Am I correct? 11 MR. WOO: And I'd advise the witness to look as 12 much as you need over the document to confirm before you 13 answer. 14 THE DEPONENT: Can you repeat the question. 15 MR. SOROCO: Sure. 16 BY MR. SOROCO: 17 Q. I said -- I asked you, paragraphs 26 through 39 18 are paragraphs dealing with the law, and I will revise 19 the question to be patent law. Am I correct? 20 THE DEPONENT: Again, I am not an attorney. The 21 attorneys have attempted to instruct me as to how the 22 law works, and from this section, this is what I have 23 been informed by counsel. So I can't judge whether or 24 not it's a true and accurate representation of the law, 25 since I'm not a lawyer, but I attempted to follow these	47 1 the law is provided to me and I understand it -- 2 endeavor to understand it the best I can. I don't know 3 if these paragraphs were used in my other declarations 4 or not. 5 BY MR. SOROCO: 6 Q. Okay. And it was your testimony that these 7 paragraphs were provided to you, correct? 8 A. That's correct. 9 Q. Okay. And when you said you endeavor to 10 understand them, that is understanding them as a layman. 11 Is that correct? 12 A. That is correct. 13 Q. Okay. If we go back up to paragraph 24 in 14 Exhibit 1004, at the end of it, you have certain items 15 listed there. You've list -- that you have reviewed -- 16 and that you've reviewed. Your statement was: 17 "I have also reviewed and considered the '165 18 patent, Exhibit 1001, its prosecution history, 19 Exhibit 1003, and the following additional materials." 20 And you have listed Exhibit 1007. Is that 21 correct? 22 A. Yes. 23 Q. Okay. And that is US Patent No. 5,933,811 to 24 Pisanich, et al., and then it's shorthanded as Pisanich, 25 P-i-s-a-n-i-c-h correct?
46 1 guidelines in reviewing the prior art, for example. 2 BY MR. SOROCO: 3 Q. Okay. And did you -- did you write paragraphs 4 26 through 39? 5 A. I did not. 6 Q. You did not. Who did -- who wrote paragraphs 26 7 through 39? 8 A. These were provided me by counsel. 9 Q. Okay. Are these paragraphs been used in other 10 declarations that you have provided in IPR proceedings 11 or the proceed -- strike that. 12 The proceedings that were listed in your pages 2 13 through 4 of your CV in Exhibit 1005? 14 A. Say that again. 15 Q. I will rephrase. 16 So Exhibit 1005, which is your CV, have 17 paragraphs 26 through 39 been used in declarations that 18 you have filed in the IPR proceedings you list in 19 Exhibit 1005? 20 MR. WOO: Objection. Form. 21 THE DEPONENT: You have my declarations. I only 22 have one of them in front of me. If you want me to 23 compare a bunch of paragraphs to see if they are exactly 24 identical between the two, I will be happy to. 25 Generally, when I do a declaration, the understanding of	48 1 A. Correct. 2 Q. Okay. And then below that is Exhibit 1008, and 3 then you list US Patent No. 7,168,051 to PS Man -- 4 PSO Manual, et al. And that's the letter P, the letter 5 S, the letter O, Manual, M-a-n-u-a-l, et al., and then 6 shorthand that, quote, PSO Manual, end quote. 7 Do you see that language? 8 A. I do. 9 Q. Okay. And is there a patent on the PSO manual, 10 Mr. Crane? 11 A. I believe that in my declarations I analyze just 12 the manual. I'm not sure if there is a patent on 13 Phantasy Star Online. I'm not sure of this citation 14 here, myself. 15 Q. Okay. Do you know what the Patent No. 7,168,051 16 is? 17 A. Not offhand. 18 Q. Okay. Do you know why you have that listed 19 there as reviewing it with regard to this 996 IPR? 20 A. My best guess, it would be it was an erroneous 21 copy/paste. 22 Q. Ah, gotcha. So this is from some other place 23 that you potentially used it? 24 A. Potentially, yes. 25 Q. Okay. Thank you. And, again, my goal was not

49 1 to embarrass you there. I just wanted to make sure I 2 understood. Okay. 3 So when you talked about the prosecution 4 history, you said it was a very long, boring document. 5 Do I -- am I recalling that correctly? 6 A. That's very much true. 7 Q. Unfortunately, I killed a lot of trees and I 8 have a copy of the prosecution history for patent -- the 9 '165 patent. I will give that to you, Mr. Crane. 10 Mr. Woo and the court reporter, a copy. 11 THE REPORTER: What number is this? 12 MR. SOROCO: Oh. Exhibit 1003, I believe. Is 13 that -- do you have that folder, Marc? 14 Yes, Exhibit 1003. 15 THE REPORTER: Thank you. 16 MR. SOROCO: Okay. And Mr. Woo, I want to 17 represent that the prosecution history filed as 18 Exhibit 1003 did not have any page numbers. This 19 exhibit, I had my paralegal add page numbers on the 20 bottom of it so that we could refer to specific page 21 numbers at the bottom. If you look down there, I think 22 it's the lower left-hand corner lists it like an 23 IPR2023-996 and then a -- let's see -- a six-digit code? 24 MR. WOO: Okay. 25 MR. SOROCO: Those are the page numbers. Did	51 1 A. I said that because I randomly opened up this 2 document and the first one I ran into was page 37, that 3 called it a supplemental. 4 Q. Okay. And do you have any understanding of why 5 it's called a supplemental information disclosure 6 statement? 7 A. I'm not an attorney. As a layman, I would 8 assume it's a supplement of some kind. 9 Q. Okay. Let's go back to Exhibit 1001, which is 10 Ms. Barbaro's '165 patent. On page 2, on the left-hand 11 column -- actually, let's go back to page 1. I'm sorry. 12 At the top of the right-hand column, with the 13 patent office nomenclature of (56), there is a section 14 called "References Cited." Do you have an understanding 15 of what references cited means? 16 A. My understanding is that a patent applicant is 17 required to cite existing patents that might be in the 18 field -- 19 Q. Okay. 20 A. -- of the patent that they're providing, and 21 it's required to cite those to the examiner. 22 Q. Okay. Are the references cited in this document 23 only provided by the inventor or their counsel? 24 A. My understanding is there is an initial list 25 created by the applicant, and that the examiner will do
50 1 we want to mark this as Exhibit, maybe, 1003-A? 2 MR. WOO: That's fine. 3 MR. SOROCO: Okay. 4 MR. WOO: So mark rather than reference? 5 MR. SOROCO: Yes. 6 So we will mark what was filed as Sony 7 Exhibit 1003 with the page numbers attached to the 8 bottom as Exhibit 1003-A. Okay. 9 (Exhibit No. 1003-A marked for identification.) 10 (Discussion off record.) 11 BY MR. SOROCO: 12 Q. Mr. Crane, I asked you if you had an 13 understanding of an information disclosure statement, 14 and I believe your testimony was it was a statement that 15 disclosed information. Was that correct? 16 A. That sounds right. 17 Q. Okay. Do you have any under -- do you know an 18 understanding of what an information disclosure looks 19 like? 20 A. I'm sure I've have seen them. I wouldn't 21 identify one necessarily, unless it said "supplemental 22 information disclosure statement" or something on it. 23 Q. Okay. And you used the term "supplemental" to 24 characterize the information disclosure statement. Is 25 there a reason why you used the term "supplemental"?	52 1 his own search and might add to that. 2 Q. Okay. So there may be references in here that 3 were added by the examiner, correct? 4 A. That is my understanding. 5 Q. Okay. And if you would look on page 4 of the 6 patent, on the right-hand side, down on the bottom, in 7 really small type down there, do you see the star, 8 "cited by examiner"? 9 A. I do. 10 Q. Okay. So that would indicate, wouldn't it, that 11 the things marked with a star had been cited by the 12 examiner? 13 A. Presumably. 14 Q. Okay. And if we go back to page 2, on the 15 left-hand column, and it's indicated by (56) and it's a 16 continuation of the references cited from the first 17 page, you will notice under US patent documents, there 18 is a 5,877,757 about one, two, three, four -- six 19 references down, and it was 3/1999 to Baldwin. That's 20 the inventor's name. Do you see that star there? 21 A. I do. 22 Q. Okay. Would that star indicate to you what I 23 showed -- given what I've showed you on page 4, that 24 that reference had been cited by the examiner? 25 A. I would presume that that one was cited by the

53 1 examiner. 2 Q. Thank you. Let's go to the last page -- oh, 3 strike that. 4 Looking at the references that begin -- the 5 references cited that begin on the first page, go to the 6 second page, go to the third page and go to the fourth 7 page, do you have any understanding about the number of 8 references that were cited? 9 MR. WOO: Objection. Form. 10 THE DEPONENT: I see that in this fine print, 11 there's at least a page of what look like patent 12 references and two-and-a-half pages of publications. 13 BY MR. SOROCO: 14 Q. Okay. Looking at page 4, on the right-hand 15 side -- the right-hand column, excuse me, and it is 16 about almost exactly halfway down, there is a reference 17 to EverQuest: Shadows of -- I'm probably going to say 18 this wrong Luclin, L-u-c-l-i-n. Do you see that 19 reference? 20 A. I do. 21 Q. And do you see that it was presumably -- I 22 assume it was published by Sony Online Entertainment, 23 and it was referenced as a game manual, 2001. Is that 24 correct? 25 A. I see that.	55 1 for many of these games. 2 Q. Thank you. 3 So looking at this column, this right-hand 4 column on page 4, to EverQuest Sony Online Entertainment 5 game manual 2001, is that indication that the patent 6 office was made aware of that reference? 7 MR. WOO: Objection. Form. 8 THE DEPONENT: I would assume that that's the 9 case. 10 BY MR. SOROCO: 11 Q. Okay. Let me direct you to Exhibit 1003-A. 12 That's the prosecution history. 13 Okay. And let's look at page -- it's going to 14 be IPR2020 -- the page numbers are there on the 15 left-hand side. Excuse me. And it is going to be 16 references as IPR2023-996_0000 -- or excuse me, 000 17 three zeros, and then 155. 18 A. Can we agree to shortcut it to just the number 19 on the right of that? 20 Q. I'd be happy to. Thank you. 21 Shorthanding it, we would be looking at page 155 22 of the prosecution history. 23 If you look at nonpatent documents that were 24 submitted to the Patent and Trademark Office, and 25 sheet -- on page 155 is sheet 20 of 21, so there were a
54 1 Q. Okay. Are you aware of the game EverQuest: 2 Shadows of Luclin? 3 A. I am familiar with EverQuest. I can't say that 4 I have played every version or even seen every version, 5 so I don't know if I've seen Shadows of Luclin. 6 Q. Okay. Generally, what is EverQuest? 7 A. EverQuest is an online adventure game. 8 Q. Okay. An online adventure game. 9 And can you briefly explain what EverQuest, 10 what -- what the game play was, in general, for 11 EverQuest? 12 A. I could easily confuse it with one of a dozen 13 others that are very similar, but the online adventure 14 game genre is played by multiple players, usually -- 15 Q. Okay. 16 A. -- in some sort of a dungeon environment. 17 They move around. They pick up things. They 18 drop things. They select weapons and fight with other 19 people. Some of them go on further to build new 20 weapons. You can do crafting. And there's -- there's a 21 lot of technology that's been around since the 1980s on 22 what an online adventure game looks like. 23 Q. Okay. Is it fair to say it's similar 24 to Dungeons-&-Dragons-type game? 25 A. Dungeons & Dragons was probably the prototype	56 1 significant number of references being cited, do you see 2 that the second one down is NPL, which stands for 3 nonpatent literature, number 99, EverQuest: Shadows of 4 Luclin? Do you see that reference? 5 A. I do. 6 Q. Do you understand that the fact that that 7 reference is on an information disclosure statement in 8 the prosecution history of the '165 patent, that it 9 was -- that this EverQuest: Shadows of Luclin manual 10 was submitted to the trademark -- Patent and Trademark 11 Office? 12 A. Your question is whether I understand it. I 13 would answer that I would assume that's the case. 14 Q. You would assume that's the case. 15 Let's look at page 97, then. Do you recognize 16 this page? 17 A. It looks very similar to the last one you showed 18 me. 19 Q. Okay. And I will indicate that it is the page 20 that was filed, with the exception on the bottom. Do 21 you see the notation that: 22 "All references considered, except where lined 23 through," and then "J.R.M/"? 24 A. I do. 25 Q. Do you have an understanding of what that means?

57 1 A. I would assume, since we know the name of the 2 primary examiner, Jonathan R. Messmore, that he made a 3 notation on this page that the references on this page 4 were considered. 5 Q. Okay. And the reason why you have that 6 understanding -- or strike that. 7 Do you have that understanding because NPL99 8 referencing EverQuest: Shadows of Luclin is not struck 9 through -- lined through, excuse me? 10 A. Well, again, it's an assumption, looking at it 11 not as an attorney. But if I were doing, you know, some 12 archaeological dig and I found this piece of paper, I 13 would make that assumption, that because it's not 14 struck -- struck through, then the examiner claims he 15 considered it. 16 Q. Okay. Thank you. 17 And you did review the prosecution history in -- 18 that's in one zero zero -- Exhibit 1003, correct? 19 A. I did review this document. 20 Q. Okay. Thank you. 21 If we turn back to Exhibit 1001. 22 A. Actually, let me rephrase. I -- I reviewed 23 electronically a document that looks like this, but 24 without page numbers. 25 Q. Okay. Why the patent office doesn't put	59 1 NPS Institutional Archive Dspace Repository, 1994, and 2 then I assume the author is Cooke, C-o-o-k-e, Joseph M., 3 et al. 4 Do you see that? 5 A. I do. 6 Q. Okay. And let's see if we can summarize this a 7 little quickly. 8 Based upon what we went through with EverQuest 9 in your testimony a short time ago, do you have an 10 understanding with regard to those three references, 11 with respect to them being cited in the prosecution 12 history of the '165 patent? 13 A. This is not something that I can confirm or 14 deny, but I would assume that these things were cited to 15 the examiner. 16 Q. Okay. You said you could not confirm and deny, 17 so we are going back to the prosecution history that has 18 been indicated as Exhibit 1003-A. Let's look at 19 page 41. 20 A. I'm there. 21 Q. And this is entitled "A Supplemental Information 22 Disclosure Statement By the Applicant," so this refers 23 to that supplemental that you mentioned perhaps earlier 24 in your testimony. 25 Down at the bottom, the last three nonpatent
58 1 trade -- page numbers on it, I have no idea. 2 A. Yeah. 3 Q. Okay. So let's go back to Exhibit 1001, which 4 is the '165 patent. And, again, on page 4, the 5 right-hand column -- oh, strike that. Let's move 6 forward. 7 On the right-hand column, on the right-hand 8 column, we'll go back to that EverQuest: Shadows of 9 Luclin reference. Is there a star next to it? 10 A. No. 11 Q. Okay. Going down further in that right-hand 12 column, about one, two, three, four or five references 13 up from the bottom of the right-hand column, there is a 14 reference to a Microsoft Flight Simulator 2004: A 15 Century of Flight. Do you see that? 16 A. I do. 17 Q. Okay. And then after that is a history of 18 Microsoft Simulator Wikipedia -- from the Wikipedia 19 retrieve from the Internet, with the Internet URL there, 20 on May 11th, 2020. 21 Do you see that? 22 A. Yes. 23 Q. Okay. And then the last reference is NPSNET, 24 flight simulation dynamic modeling using quater -- 25 quaternions, Q-u-a-t-e-r-n-i-o-n-s, Calhoun. Oh, the	60 1 documents referenced, NPL2, NPL3, are those the same 2 references that are indicated on column -- the 3 right-hand column on page 4 of the -- of the '165 4 patent? 5 A. NPL2 looks like it is the same one as Microsoft 6 Flight Simulator 2004 on page 4 of Exhibit 1001. NPL3 7 looks like it is the same history of Microsoft Simulator 8 from Wikipedia. 9 Q. Okay. 10 A. I don't see the NPSNET. 11 Q. Okay. Let's go to page 42. And middle of the 12 page, do you see NPL4? 13 A. I do. 14 Q. And is NPL4 the same reference as what is listed 15 there on the last reference on the right-hand column of 16 page 4 of the '165 patent? 17 A. It looks like it. 18 Q. Great. Let's turn to pages -- or page 37. 19 Does this appear to be the same supplemental 20 information disclosure statement that we looked on 21 page 41 and 42 -- or page 41, excuse me? 22 A. It appears to be the same. 23 Q. Okay. And at the bottom of the page, do you see 24 the information: 25 "All references considered except where lined

Transcript of David Crane
Conducted on February 26, 2024

16 (61 to 64)

61 1 through /J.R.M/"? 2 A. I do. 3 Q. And are any of -- are -- are either of NPL2 or 4 NPL3 lined through? 5 A. It does not appear so. 6 Q. Okay. Let's look at page 38. Do you see NPL4? 7 A. I do. 8 Q. And is NPL4 the same as the last reference on 9 the right-hand column on page 4 of the '165 patent? 10 A. It appears to be. 11 Q. Okay. And do you see the reference at the 12 bottom of page 38 that: 13 "All references considered except where lined 14 through /J.R.M/"? 15 A. I see that. 16 Q. Is NPL4 lined through? 17 A. It does not appear to be. 18 Q. Given the NPL2 and 3 on page 37 and NPL4 on 19 page 38 are not lined through, would you understand that 20 the examiner considered those references? 21 A. All I can -- the only conclusion I can draw from 22 that is that the examiner says the references were 23 considered. I wasn't there. I can't tell if he did or 24 not. 25 Q. Fair enough.	63 1 Are there general buckets of information in the 2 '165 patent? 3 MR. WOO: Objection. Form. 4 THE DEPONENT: What is a bucket of information? 5 BY MR. SOROCO: 6 Q. Let me try it a different way. 7 Have you heard or been told -- excuse me. 8 Are you aware that patents are often referred to 9 as having drawings, specification, and claims? 10 A. Yes. 11 Q. Okay. What pages of a patent typically make up 12 the drawings? 13 A. That varies between US and international. I 14 believe that the drawings usually come first, then the 15 specification, then the claims in the US application. 16 Q. Okay. Do you know where the claims are in the 17 '165 patent? 18 A. The short answer is, at the end. 19 Q. Okay. 20 A. The longer answer is, beginning in column 43. 21 Q. Okay. And is there any type of guidepost to 22 indicate what are the claims? 23 A. Yeah. The claims are always indicated by the 24 phrase, "What is claimed is," colon. 25 Q. Thank you.
62 1 Okay. Let's go back to Exhibit 1001. 2 Oh, let me ask are, you familiar with Microsoft 3 Flight Simulator 2004: A Century of Flight? 4 A. I'm familiar with many of the Microsoft flight 5 simulators. I believe the Century of Flight is one that 6 I had reviewed. 7 Q. Okay. And are you familiar with the history of 8 Microsoft's simulator that was listed on Wikipedia page 9 URL listed? 10 A. I probably did not look at that Wikipedia 11 listing -- 12 Q. Okay. 13 A. -- in particular. 14 I couldn't have looked at it in 2004 or whenever 15 it was looked at. I don't use Wikipedia, since it can 16 change through peer review. 17 Q. Okay. NPSNET: Flight Simulation Dynamic 18 Modeling, do you have -- are you familiar with that 19 document? 20 A. I don't believe so. 21 Q. Are you familiar with what NPSNET is? 22 A. I have no personal knowledge of it. 23 Q. Okay. The '16 [sic] patent in Exhibit 1001, 24 what components make up the patent? Are there -- strike 25 that.	64 1 THE DEPONENT: How long have we been going? 2 MR. SOROCO: We've been going about an hour and 3 a half. Do you need a break? 4 THE DEPONENT: I can go longer, but we should 5 take a few breaks. 6 MR. SOROCO: Okay. Let's go off the record. 7 THE VIDEOGRAPHER: We are going off the record. 8 The time is 10:42. 9 (A recess transpires.) 10 THE VIDEOGRAPHER: We are back on the record. 11 The time is 11:06. 12 MR. SOROCO: Thank you very much. Welcome 13 back, Mr. Crane. 14 BY MR. SOROCO: 15 Q. I want to look at page 9 of Exhibit 1004, 16 starting with paragraph 25. And that's your declaration 17 in the IPR 996. 18 Okay. Are you there? 19 A. Page 9, but starting 24. 20 Q. Okay. 21 A. Okay. 22 Q. Actually, starting paragraph 25. 23 A. Oh, okay. 24 Q. You state that you are not an attorney, and 25 we've discussed it a couple times, and that -- I believe

Transcript of David Crane
Conducted on February 26, 2024

17 (65 to 68)

65 1 it was your testimony that paragraphs 26 through 39, 2 that those paragraphs were given to you by counsel at 3 some point in time. Is that correct? 4 A. That's correct. 5 Q. Okay. I'm going to ask you a series of 6 questions that are going to kind of repeat themselves, 7 but in -- and ask a little bit about your -- what you 8 understand some of these legal terms to mean based upon 9 your understanding. I will always want to know what 10 your understanding is. I'm not looking for a legal 11 conclusion. 12 Do you believe that fair -- is that fair for 13 you? 14 A. Yes. 15 Q. Okay. Great. And if -- if I'm asking a 16 question that seems to be going into asking a legal 17 conclusion, I'm sure your counsel will object. But if 18 he doesn't, feel free to point that out and I'll -- I'll 19 rephrase the question. 20 Paragraph 26, you use the phrase, at the last -- 21 it looks like the last ending section of your paragraph 22 26, and you refer to the "alleged invention." Do you 23 see that language there at the end of paragraph 26? 24 A. I do. 25 Q. Okay. Is there any reason why you use the term	67 1 you mean by the term factors? 2 MR. WOO: Objection. Mischaracterizes the 3 testimony -- the declarant. He actually testified he 4 did not write these sections. 5 MR. SOROCCO: You are correct. 6 BY MR. SOROCCO: 7 Q. What is your understanding of the term 8 "factors"? Excuse me. 9 A. Yeah. Again, it's not my word, but I would 10 interpret it to be three factors. It's hard to define 11 it without using the term. 12 To consider when considering prior art. 13 Q. Okay. Have you ever heard or been told that 14 it's considered to be a test for determining 15 obviousness? 16 A. I don't know if I've ever heard it characterized 17 that way. 18 Q. Okay. And I am going to -- strike that. 19 This -- these factors are often referred to as 20 what are called the Deere factors or the Deere test, 21 which refers to a case dealing with John Deere, I 22 believe. And if I use the shorthand "Deere factors" or 23 "Deere test," would you -- would it be fair to 24 characterize the last three -- those last three items 25 that way?
66 1 "alleged" in front of invention? 2 A. Well, in any discussion of a patent, while I 3 recognize that a patent is presumed to be valid, if it 4 doesn't do anything inventive in my opinion, I would 5 consider it an alleged invention. 6 Q. Okay. So you -- you hit upon it. You 7 anticipated again my next question, about that you 8 understand that an issued patent is presumed -- 9 statutorily presumed to be valid, correct? 10 A. I understand that's the case, yes. 11 Q. Okay. Do you believe that Ms. Barbaro is an 12 inventor, according to the claims of the '165 patent? 13 MR. WOO: Objection. Form. 14 THE DEPONENT: I believe she's an applicant. 15 She applied for and received a patent. 16 BY MR. SOROCCO: 17 Q. Okay. 18 A. I would say if you applied for and received a 19 patent, I would call you an inventor. 20 Q. Okay. Paragraph 27, the paragraph ends in what 21 I would characterize as three concepts that are (1), 22 (2), (3). Do you see those? 23 A. I do. 24 Q. Para -- or statements. 25 And you characterize them as factors. What did	68 1 MR. WOO: Objection. Form. 2 MR. SOROCCO: Let me re -- let me rephrase. 3 BY MR. SOROCCO: 4 Q. Would it be fair for me to characterize or use 5 as shorthand "Deere factors" to refer to the items 6 numbered 1, 2 and 3 in Paragraph No. 27? 7 MR. WOO: Objection. Form. 8 THE DEPONENT: I wouldn't be comfortable with 9 that because I don't know what the Deere factors are, 10 what other factors might be in the Deere factors. 11 MR. SOROCCO: Okay. 12 THE DEPONENT: Perhaps you can just refer to it 13 as the three factors in paragraph 27. 14 BY MR. SOROCCO: 15 Q. Okay. Let's -- since you -- you referred to 16 them as assessing the obviousness of the claimed subject 17 matter. How about the obviousness -- factors for 18 determining obviousness of paragraph 27? 19 A. That again, that's -- that's broad. It doesn't 20 necessarily include just these three factors. 21 Q. Okay. So is it your understanding that there 22 are more than these factors? 23 A. What I'm trying to say is that if you start 24 shorthand it into other terms, it would be harder for 25 me to isolate it to these three factors that we're

69 1 talking about. 2 Q. Okay. That's fair. 3 Am I to understand that you use this -- these 4 factors to determine the obviousness of the claims of 5 the '165 patent? 6 A. That was what I endeavored to do, yes. 7 Q. Okay. And if you did not use the factors of 8 paragraph -- this is going to get wonky -- paragraph 27, 9 would your analysis be improper? 10 MR. WOO: Objection. Form. 11 THE DEPONENT: I can't answer that. That would 12 be a legal conclusion, I think. 13 BY MR. SOROCO: 14 Q. Okay. Did you use these factors on every 15 analysis that you did of the claims of the '165 patent? 16 MR. WOO: Objection. Form. 17 THE DEPONENT: As far -- as far as I recall. 18 BY MR. SOROCO: 19 Q. Okay. That's fine. That's fair. 20 Paragraph 28 -- well, we know this, I'm sorry, 21 that that legal definition was given to you, correct? 22 A. Yes. 23 Q. Okay. I guess it's one, two, three -- three or 24 four sentences down, you make the statement: 25 "Instead, for claimed subject matter to be	71 1 analyzing here for the most part, what do you mean? 2 A. I wasn't combining references for an 3 anticipation analysis. I was looking at what a person 4 of ordinary skill in the art would understand these 5 references to mean in the context of the patent. 6 Q. Okay. And I think you just used the term 7 "anticipation analysis"? 8 A. That's -- 9 Q. Did you -- did you mean -- 10 A. That's a layman saying that word, not a lawyer. 11 Q. Okay. Yeah. In the law, patent law, 12 anticipation has a very specific meaning. You were not 13 asked to make an anticipation -- strike that. 14 Do you have any understanding of the term 15 "anticipation" as it's used in patent law? 16 A. I would say it's a standard that involves 17 certain specificity. I wasn't asked to do an 18 anticipation analysis for this declaration, and I could 19 be wrong, but I don't think I used the term in this 20 declaration. 21 Q. Okay. What -- I believe the term you used was 22 "obviousness analysis." How does an obviousness, in 23 your understanding, obviousness analysis, differ from an 24 anticipation analysis? 25 MR. WOO: Objection to the extent it calls for a
70 1 obvious over multiple references, including the 2 knowledge of a POSITA, there must be some reason or 3 motivation for POSITA to combine the reference -- prior 4 art references to arrive at the claimed subject matter." 5 Do you see that language? 6 A. I do. 7 Q. Do you have an understanding of that language? 8 A. It's my understanding that these references 9 should refer to the same field of art, solve similar 10 problems. And, again, back to page -- paragraph 27, 11 we're looking at the scope and content of prior art, 12 differences between the claims, and the level of 13 ordinary skill. 14 Q. Okay. And you use the phrase "reason or 15 motivation" there in the middle of that sentence, or I 16 guess I should say towards the end of that sentence. Do 17 you have any particular understanding of reason or 18 motivation? 19 A. If I were to define motivation, again, not as an 20 attorney, it would be to look at references and see how, 21 if you needed to improve some invention, you might use 22 those references to do that. The motivation would be to 23 improve. That's not what I was analyzing here, for the 24 most part, but that's how I would define motivation. 25 Q. Okay. When you say it wasn't what you were	72 1 legal conclusion. 2 THE DEPONENT: My definition is that what I was 3 looking for is things that would be obvious to a person 4 of ordinary skill in the art. 5 MR. SOROCO: Okay. Mr. Woo, would you like to 6 make a standing objection as I ask all of these 7 questions related to the legal standards? 8 MR. WOO: Sure. 9 MR. SOROCO: Okay. 10 BY MR. SOROCO: 11 Q. Going on a little further, you say that: 12 "I understand that this motivation to combine 13 need not be explicit, but may be inferred." 14 What did you mean by the term "explicit," need 15 not be explicit? 16 A. Well, the rest of that sentence, I think, 17 answers that question. Something may be inferred. It 18 is an understanding, not necessarily the same words 19 being used. 20 Q. Okay. Is there -- when would you look to 21 have -- to make an inference? 22 MR. WOO: Objection. Form. 23 THE DEPONENT: Oh, that was the end of the 24 question? I was waiting for you to finish. 25 ///

73 1 BY MR. SOROCO: 2 Q. Oh, I'm sorry. Then I will rephrase the 3 question for you. 4 When in this motivation to combine analysis 5 or -- that you state that it need not be explicit, so 6 the motivation does not need to be explicit, but may be 7 inferred -- and that's my paraphrasing of that 8 sentence -- when would you infer it, the motivation to 9 combine, versus finding an explicit motivation to 10 combine? 11 A. I'm not sure how to answer that question. 12 Q. Okay. Well, you use the term -- well, we know 13 that you didn't write this, these sections. But the 14 term is "may be inferred," and this is the language or 15 the standards that you used for your analysis. What did 16 you understand the term "inferred" meant? 17 A. I would define the term inferred as to draw a 18 conclusion based on your experience. 19 Q. Okay. Just your experience? 20 A. Not necessarily just your experience, but that's 21 a fine short definition, I'd say. 22 Q. Okay. What about your knowledge? 23 A. Knowledge is always important. 24 Q. Okay. 25 A. To go along with your experience.	75 1 and other factors. 2 Q. Okay. What makes something insubstantial versus 3 something -- I'm -- that is substantial? 4 A. I would say that if you are making a statement 5 trying to explain an invention and you don't even 6 mention something because it's well known in the art, it 7 wouldn't be substantial to the invention. It's not an 8 inventive concept. 9 So I'd say a substantial thing would be 10 something that seems inventive to the person of ordinary 11 skill in the art and insubstantial would be something 12 that they would just understand generally. 13 Q. Okay. And we're talking about in this sentence, 14 a few words before, is the missing element. So it's 15 whether the missing element would be insubstantial. 16 A. Yeah. A good example is when you asked me that 17 question about, I don't know, two questions ago, and I 18 said your experience, and you said, would it also 19 include your background, would it also include -- when I 20 said experience, I include a person's background and a 21 person's knowledge and a person's experience and such. 22 So if there's a missing element that is not written down 23 and a person, based on his experience and such, sees it 24 as not a significant aspect to the invention, it would 25 be insignificant.
74 1 Q. And your background? 2 A. That's another factor. 3 Q. Okay. And is it your knowledge and experience 4 that it is inferred? 5 MR. WOO: Objection. Form. 6 THE DEPONENT: This is referring to the 7 knowledge and experience of a person of ordinary skill 8 in the art. 9 BY MR. SOROCO: 10 Q. Correct. Good. 11 At the last part of this paragraph 28, I think 12 it's in the last sentence, it goes: 13 "I further understand that a prior piece of art 14 that discloses fewer than all of the elements of a 15 patent claim may render a patent claim obvious if 16 including the missing element would have been obvious to 17 POSITA. For example, the missing element represents 18 only an insubstantial difference over the prior art." 19 Do you have an understanding of what 20 insubstantial difference means? 21 A. I would think of an insubstantial difference as 22 being one that is obvious to the reader. 23 Q. You are probably anticipating my next question. 24 But what -- what would make it obvious to a reader? 25 A. His experience, his knowledge, his background,	76 1 Q. Okay. And again, I'm going to ask you who -- 2 whose opinion that it's an insubstantial difference 3 matters? 4 A. That is -- 5 Q. For the analysis? 6 A. That is the person of ordinary skill in the art. 7 Q. Okay. That's what I was trying to get at. 8 Thank you. 9 Do you have an understanding as to what subject 10 matter as a whole means in paragraph 29? 11 MR. WOO: Objection. Form. Advise the witness 12 to review and read as much of paragraph 29 as you need 13 to, to answer the question, any surrounding passages as 14 well. 15 THE DEPONENT: Well, again, I didn't write this. 16 But it looks like it's making a distinction between 17 subject matter claimed and subject matter as a whole. 18 The subject matter as a whole could be that particular 19 field of gaming, even if it's not claimed. 20 BY MR. SOROCO: 21 Q. Okay. Let's break it apart a little bit. Okay? 22 I understand that a patent claim is obvious. 23 Okay? That's the analysis that you undertook, correct, 24 to determine whether the claims of the '165 patent were 25 obvious over the prior art, correct?

77 1 A. That is the analysis I performed. 2 Q. Okay. And then it goes on: 3 "If the differences," right, "between the 4 subject matter claimed." 5 That would be the claims of the '165 patent, 6 correct? 7 A. Presumably. 8 Q. Okay. Why presumably? 9 A. If that's what the term -- if that is the -- how 10 the claim is being used -- the term "claim" is being 11 used in this paragraph. 12 Q. Okay. So you believe that the term "claimed" 13 does not refer to the claims of the patent? 14 MR. WOO: Objection. Form. 15 THE DEPONENT: I didn't say that. I said that 16 presuming that it does refer to the claims, then your -- 17 your question, I would have to agree to. 18 BY MR. SOROCO: 19 Q. Okay. So it's the subject matter claimed -- the 20 differences that are being analyzed is between the 21 subject matter claimed, presumably, and the prior art, 22 correct? 23 A. Yes. 24 Q. Okay. 25 MR. WOO: Objection. Form.	79 1 "That the POSITA would have knowledge of all 2 relevant references available during the relevant time 3 period." 4 Do you have an understanding of what knowledge 5 of all relevant references? 6 A. Yeah, again, it's patent law and I'm not a 7 lawyer. 8 Q. Mm-hmm. 9 A. But I believe or understand that there's a 10 presumption that even though a person of ordinary skill 11 in the art may not have read every patent that's ever 12 written, it's assumed that he has that knowledge. 13 Q. Okay. Would a POSITA know everything you know? 14 MR. WOO: Objection. Form. 15 THE DEPONENT: I am a person of extraordinary 16 skill in the art. I have worked more than 50,000 hours 17 as of the time of this patent with dozens of people who 18 I would consider persons of ordinary skill in the art, 19 and no, I would not expect a person of ordinary skill in 20 the art to know everything I know. 21 BY MR. SOROCO: 22 Q. Okay. This is a nit-pick, but in the 23 paragraphs -- well, no. Strike that. 24 Paragraph 30, at the end of that paragraph -- 25 again, we're talking about the mo -- teaching,
78 1 BY MR. SOROCO: 2 Q. Okay. And then it goes on: 3 "Such that the subject matter as a whole would 4 have been obvious." 5 Do you see that language? 6 A. Yes. 7 Q. Do you have an understanding of that language? 8 A. That language states that if a patent -- that a 9 patent claim is obvious if the differences between the 10 subject matter claimed in the prior art are such that 11 the subject matter as a whole would have been obvious. 12 Q. Okay. And if we go back to paragraph 27, those 13 factors that we discussed a little earlier, number 2, 14 the differences -- "the difference," excuse me, "or 15 differences between each claim of the patent and the 16 prior art," are that -- is that the same differences 17 that are being discussed here in paragraph 29? 18 MR. WOO: Objection. Form. Calls for a legal 19 conclusion. 20 MR. SOROCO: Okay. I will -- I will withdraw 21 the question. 22 BY MR. SOROCO: 23 Q. The end of paragraph 29, the last sentence, and 24 actually it's the part of the sentence on page 11. It's 25 that --	80 1 suggestion, motivation, or reason to combine. Do you 2 see that language? 3 A. Teaching, suggestion, motivation, or reason to 4 combine. I see that. 5 Q. Okay. And then the motivation -- 6 "But other times, the motivation linking the 7 prior art references is common sense to a POSITA." 8 Do you see that language? 9 A. I do. 10 Q. Okay. Do you have an understanding of the term 11 "common sense"? 12 A. I mean, common sense is the ability to read 13 something and understand what it means. It's common 14 sense. 15 Q. Okay. All right. Paragraph 31 talks about 16 obvious to try the combination, and again, I believe 17 this is talking about prior art references, or what is 18 disclosed in prior art references. But do you have an 19 understanding of the term "obvious to try"? 20 A. Well, the next sentence or paragraph is much -- 21 I guess it's the next sentence -- zeros in on that much 22 easier. If you're trying to -- if you've seen that 23 someone used a technique to -- approve -- to improve one 24 device and you're trying to invent a device, it would be 25 obvious to try to use something that you've seen used.

Transcript of David Crane
Conducted on February 26, 2024

21 (81 to 84)

81 1 Q. Okay. Paragraph 32, you talk about market 2 demand in that first sentence, and if I can paraphrase 3 it, it's market demand often drives innovation. 4 Do you have an understanding of what market 5 demand driving innovation means? 6 A. Yeah. Market demand is -- we're all trying to 7 make money when we make products. The market demand 8 could lead us in one direction or another. 9 Q. Okay. Are -- do you -- do you believe that if 10 market demand leads to a product -- strike. 11 Do you believe that if market demand leads to a 12 product, that that product would be always obvious? 13 MR. WOO: Objection. Form. Calls for a legal 14 conclusion. 15 THE DEPONENT: Yeah, I don't know that the two 16 are related one to one like that. 17 BY MR. SOROCO: 18 Q. Okay. Let me try a hypothetical. 19 Does market demand drive innovation in cancer 20 treatment? 21 A. I would presume it might, but I don't have any 22 personal experience to understand how market demand 23 would do that. 24 Q. Okay. Well, let me ask you in your experience, 25 how does market demand drive game development?	83 1 in many patent specifications the inventor will describe 2 multiple embodiments of what they consider to be their 3 invention, and the embodiment is a particular way of 4 executing the invention, I guess. 5 Q. Okay. And you go on to say that these 6 embodiments could be -- or -- could be related to each 7 other in a single prior art reference. What does that 8 mean? 9 MR. WOO: Objection. Calls for a legal 10 conclusion. 11 BY MR. SOROCO: 12 Q. Do you have an understanding of what that means, 13 Mr. Crane? 14 A. What paragraph are we on here? 15 Q. I'm sorry. Paragraph 35 still. 16 A. Ah, okay. 17 Q. Okay. Talking about combining embodiments, and 18 it goes on to say that the related those -- you can 19 combine -- excuse me. Strike that. 20 "Combining embodiments related to each other in 21 a single prior art reference would not ordinarily 22 require a leap of inventiveness." 23 I'll leave it there. 24 What does leap of inventiveness mean? Or do you 25 have an understanding of what leap of inventiveness
82 1 A. Oh, I suppose an example would be, I've got a 2 multiplayer game and everyone is complaining that there 3 aren't enough players in the game. I have to innovate 4 up and down the line from the client to the server in 5 order to support more players. That would be, I've 6 identified a market demand, that there are more players 7 who want to pay me to play my game, and so I have to 8 change that game to make it better. 9 Q. Okay. In your hypothetical that you just gave, 10 would the demand of the marketplace supply a motivation 11 to combine references, prior art references? 12 MR. WOO: Objection. Form. Calls for a legal 13 conclusion. 14 THE DEPONENT: It might. 15 BY MR. SOROCO: 16 Q. Okay. The last part of paragraph 32, you use 17 the term again: 18 "But of ordinary skill and common sense." 19 Whose ordinary skill and common sense are you 20 referring to in that last sentence? 21 A. That is the POSITA. 22 Q. Okay. Paragraph 35 on page 12 talks about 23 combining embodiments. Do you have an understanding of 24 what the term "embodiments" means? 25 A. Again, not a lawyer. My understanding is that	84 1 means? 2 A. Again, it's hard to define inventive without the 3 term inventive. This paragraph, which I did not write, 4 appears to say that multiple embodiments can be combined 5 without having to be inventive. 6 Q. Okay. And I don't mean to be combative, but 7 while you -- we have ascertained that twenty -- 8 paragraphs 26 through 39 of your declaration, you did 9 not write. I believe it's your testimony that you used 10 this information to inform your analysis. Is that 11 correct? 12 A. I believe my testimony was that I endeavored to 13 use this, yes. 14 Q. Okay. So endeavoring to use this legal 15 information, can I presume that you have an 16 understanding of these terms? 17 MR. WOO: Objection. Form. 18 THE DEPONENT: You can assume that if I saw the 19 combining of embodiments, it would not ordinarily 20 require a leap of inventiveness. They're both there in 21 front of you, you can combine what they say. 22 BY MR. SOROCO: 23 Q. Okay. Paragraph 38: 24 "Objective indicia" -- indicia, i-n-d-i-c-i-a, 25 "of nonobvious must be commensurate in scope with the

Transcript of David Crane
Conducted on February 26, 2024

22 (85 to 88)

85 1 claimed subject matter." 2 Do you have an understanding of the term of 3 "objective indicia"? 4 A. That is not a term I'm clear on. It's defined 5 elsewhere, I think, but it's a very legal term. 6 Q. Okay. And then as -- I will use the word 7 finally, because you do in paragraph 39, that one cannot 8 use hindsight to determine if an invention was obvious. 9 Do you see that language? 10 A. I do. 11 Q. Do you under -- do you have an understanding of 12 what that language means? 13 A. Yes. 14 Q. Okay. What is your understanding of that 15 language? 16 A. When I'm determining what I believe a person of 17 person of ordinary skill in the art would understand or 18 reference, it is based on that person of ordinary skill 19 in the art and his experience at that time. 20 Q. Okay. So if you had used hindsight in your 21 analysis, would that part of your analysis or opinion be 22 improper? 23 MR. WOO: Objection. Form. 24 THE DEPONENT: I am not aware of any example in 25 which I used hindsight. I've -- if that was pointed out	87 1 Q. Okay. Why did you use the word "guidelines" in 2 paragraph 40? 3 A. Probably for the same reason I describe it as I 4 endeavor to use these guidelines. It's something I try 5 to do. If I didn't, point it out to me. 6 Q. Okay. Do you believe that the legal 7 propositions in paragraphs 26 through 39 can be set 8 aside? 9 A. That's a legal conclusion. 10 Q. I don't believe so. 11 A. No? 12 Q. Do you believe that the legal proposition that's 13 through paragraphs 26 through 39 can be set aside? 14 MR. WOO: Objection. Form. It does call for a 15 legal conclusion. 16 THE DEPONENT: I would not intentionally set 17 them aside. And I don't know legally whether or not 18 this section represents current patent law. I have 19 simply been told it does. 20 BY MR. SOROCO: 21 Q. Okay. That's a good question, or good prop -- 22 point. 23 When were these paragraph given to you? 24 A. I don't recall. 25 Q. Have you ever updated them since they were first
86 1 to me, I would make a determination as to whether I 2 thought my analysis was accurate. 3 BY MR. SOROCO: 4 Q. I think that's a little different than the 5 question I asked. As an expert, I'm allowed to ask some 6 hypotheticals. 7 What I asked is, if you used hindsight, would 8 your opinion or the analysis that relies on that 9 hindsight be improper? 10 MR. WOO: Objection. Form. Calls for a legal 11 conclusion. Asked and answered. 12 THE DEPONENT: I had been informed that one 13 cannot use hindsight. If someone contended that I did, 14 I would want to analyze that contention and see if it 15 would have affected my conclusion. 16 BY MR. SOROCO: 17 Q. Okay. All right. And then on paragraph 40, you 18 state that: 19 "I provide my opinions in this declaration based 20 on the guidelines set forth above." 21 I think that we -- I think that you testified 22 that the information in 26 through -- paragraphs 26 23 through 39 was a recitation of the law as it was given 24 to you? 25 A. That was my understanding.	88 1 given to you? 2 A. I don't think so. 3 Q. Okay. So it is possible that the law may have 4 changed between you being given these paragraphs and 5 today? 6 MR. WOO: Objection. 7 THE DEPONENT: I assume -- 8 MR. WOO: Form. 9 THE DEPONENT: I assume the law changes all the 10 time. 11 BY MR. SOROCO: 12 Q. Unfortunately, sometimes. Okay. 13 Going into the level of one of ordinary skill in 14 the art, I'm in page forty -- or excuse me, paragraph 44 15 on page 15 of your declaration, Exhibit 1004, one, two, 16 three, four after talking about your Bachelor of Science 17 in electronic engineering technology in '75 and your 18 decades of computer programming experience, and with 19 experience with advertising support in games, which you 20 discussed earlier in your declaration. You note that 21 you were a person of more than extraordinary than the 22 ordinary level. Excuse me. I didn't mean to 23 mischaracterize what the sentence said. Is that correct 24 that you -- is that correct that you believe yourself to 25 be a person of more than ordinary level of skill in the

89 1 art as -- as of the date of the '165 application? 2 A. It is a fair statement that I was -- 3 Q. Okay. 4 A. -- a person with more than ordinary skill in the 5 art as of the date of the '165 application. 6 Q. Okay. And then the next sentence: 7 "In forming my opinion, I have drawn on my 8 academic background and professional experience." 9 Do you see that for -- that -- that sentence? 10 A. Yes. 11 Q. Okay. "My opinions herein, however, were formed 12 taking in account the prospective of an ordinary skilled 13 artisan." 14 Okay. Looking at those last two sentences, in 15 forming my opinions you have drawn on your academic 16 background and professional experience, but your 17 opinions -- the next sentence is, my opinions herein, 18 however, were formed after taking into account of an 19 ordinary skilled artisan. 20 Those two sentences appear to contradict one 21 another, sir. Could you please explain how sentences 22 that in forming my opinion and my opinions herein, 23 however, were formed -- strike that. 24 In your understanding, what did you mean in: 25 "In forming my opinion, I have drawn on my	91 1 perhaps, creep of memories? 2 A. My -- my primary interaction with the video game 3 business these days is I speak at conferences. I tell 4 stories from the old days. I am always being refreshed 5 on my memory of those things that went on at those 6 times. 7 Q. Okay. And were -- did you refresh your memories 8 in any particular way with regard to your opinions set 9 forth at Exhibit 1004? 10 A. Exhibit 1004 stands by itself. I -- you're 11 looking for one particular way that I refreshed my 12 recollection? 13 Q. We could start there, yes. 14 A. I -- nothing comes to mind. Although, if I'm 15 looking for, for example, the date of a piece of prior 16 art, there's an industry -- respected industry website 17 called MobyGames. MobyGames has gone to a great deal of 18 effort of identifying the dates that games were 19 published. They are specifically very careful about 20 crediting the proper people for what they did. I have 21 spoken to them on that, and they are very -- they are 22 sticklers on that. 23 So yeah, I might reflect my recollection by 24 saying, when did that game out, well, let's go look at 25 MobyGames, see when that came out, let's go look at the
90 1 academic background and professional experience?" 2 A. What I mean by those two sentences is, I have 3 more than ordinary skill in the art, and based on my 4 academic background and professional experience, but 5 when I formed my opinions, I did not take into account 6 anything that I did not believe that a person of 7 ordinary skill in the art at that time would have 8 understood. 9 Q. Okay. And I think we -- in Exhibit 1001, we got 10 down the testimony, and -- and while -- as we were 11 walking through the patent, the '165 patent, it was 12 filed on March 22nd, 2004. So how were you able to 13 reflect back to that date in forming your opinions? 14 A. I don't find that to be a difficult process. 15 Q. Okay. Why? 16 A. I have been in the video game business for 17 decades, and I look back on what was known then, what 18 did a person of ordinary skill in the art know then, 19 what did the people I used to work with know, what items 20 would I have to help them with, what items would I not 21 trust them to make a decision on. All of those factors 22 just go back to, you know, thousands of hours of 23 experience. 24 Q. Okay. And, you know, March 22nd, 2004, is 25 nearly 20 years ago. How are you able to guard against,	92 1 Internet archive and let's see what was talked about for 2 that. 3 So yeah, I mean, I experienced it, and I have 4 all that experience, and if I need to be refreshed, 5 there are resources to use. 6 Q. Okay. That's a little further forward. But you 7 just referenced the Moby -- MobyGames website. That's 8 M-o-b-y-g-a-m-e-s dot com, I believe? 9 A. That's correct. 10 Q. Okay. What type of website is mobygames.com? 11 Is it a static? Is it a social media site? 12 A. It is a database of data that's found in the 13 real world. I wouldn't call it a social site, but it 14 does allow for peer reviewers to bring in proof of who 15 was listed in a particular manual as the author, for 16 example, and then they review that and kind of fight 17 over it and decide what date they're going to put on. 18 So it is modified over time. I've never found 19 anything on it that was erroneous, personally, so I tend 20 to believe it. As I said, it's -- it's renowned in the 21 industry. I've never had anyone tell me that there was 22 a problem with MobyGames. 23 Q. Okay. And you said that information goes into a 24 database with MobyGames? 25 A. Correct.

93 1 Q. How does that information get into the database? 2 A. It's entered by the manager of the website, I 3 assume. 4 Q. Are there users of mobygames.com? 5 A. There are approved reviewers, people who -- not 6 everybody has every game, so there might be a callout to 7 who's got this game, show me the manual. 8 Q. Mm-hmm. 9 A. Show me screenshots from this game, that sort of 10 thing. 11 Q. Okay. And how do you become a peer reviewer of 12 mobygames.com? 13 A. I have no idea. 14 Q. Okay. Are you a peer reviewer of mobygames.com? 15 A. I am not. 16 Q. Okay. Do you have an account or login with 17 mobygames.com? 18 A. I don't think so. The information is all 19 publicly available. 20 Q. Okay. Earlier, I believe that you testified 21 that you don't use Wikipedia. Is that correct? 22 A. I might use it to see what people are saying, 23 but I don't rely on it. I will look at their citations 24 in the back and find the actual citation that they are 25 referring to.	95 1 piece of paper in a manual, for example, that trumps 2 everything. 3 Q. Okay. But you testified, I believe, that you 4 don't know how peer reviewers are determined or created 5 with mobygames.com. Correct? 6 MR. WOO: Objection. 7 THE DEPONENT: I do not know that. 8 MR. WOO: Objection. Form. 9 MR. SOROCO: Okay. 10 BY MR. SOROCO: 11 Q. Page 15 of your exhibit -- of your declaration, 12 Exhibit 1004, paragraph 45, you use the term "priority 13 date." Do you have any particular understanding of the 14 significance of that term? 15 A. Again, it's a legal term, patent term. I know 16 it has something to do with the application date, 17 although in some cases it's a year before the 18 application date. And it's complicated enough that I 19 don't ever try to determine one. I just ask the 20 attorneys and let them -- ask them to inform me what 21 that date is. 22 Q. Okay. So I think some -- in your declaration 23 you -- you make the comment: 24 "I have been informed that a prior art 25 references" -- or "a reference is prior art."
94 1 Q. Okay. Why don't you rely on it? 2 A. You know, generally, it can be changed by peer 3 review, by anybody, as far as I know. 4 Q. Mm-hmm. 5 A. I mean, I've looked at my own Wikipedia page and 6 been tempted sometimes to some things. But I figured, 7 if that's what people think, that's fine. So yeah, I 8 mean, it -- it's generally not considered as good as 9 finding the reference behind which they -- they cite to. 10 Q. Okay. I'll give you credit for not changing 11 your own Wikipedia reference. 12 A. Give me credit for having one. 13 Q. Yeah, that's -- that's significant. 14 You used the term "peer reviewers" with regard 15 to Wikipedia. Are the peer reviewers of Wikipedia 16 different than the peer reviewers of MobyGames? 17 A. I don't know how Wikipedia approves their -- the 18 people who are allowed to make changes, but I have heard 19 that it's very open. 20 Q. As compared to? 21 A. As compared to MobyGames. 22 Q. Okay. 23 A. I believe there's a lot of -- I called it 24 argument, but there's a lot of ways to resolve 25 disagreements, and if it's written on a piece of page --	96 1 You're getting that information from the 2 attorney? 3 A. That's correct. 4 Q. Okay. 5 MR. SOROCO: We can go off the record for a 6 moment. 7 THE VIDEOGRAPHER: We are going off the record. 8 The time is 11:53. 9 (Discussion off record.) 10 THE VIDEOGRAPHER: We are back on the record. 11 The time is 11:53. 12 MR. SOROCO: Okay. 13 BY MR. SOROCO: 14 Q. Well, let's get into the '165 patent, which is 15 Exhibit 1001. 16 In paragraph 46 of your declaration, you make 17 the statement, second sentence, I believe: 18 "Per the abstract, the patent discloses," and 19 then you have a quote, "integrating information, 20 including real-time information, to the virtual thematic 21 environment using a computer system such that the -- 22 such that the computer system includes an interactive 23 software application," with some additional language 24 there. 25 When you use the term "discloses," what are

97 1 you -- do you have an understanding of what that term 2 means? 3 A. Well, I know it's a legal term in patent law. 4 To me, it means that it -- if someone were to read it, 5 they would now have this information. 6 Q. Okay. Paragraph 47: 7 "Note that said virtual interactive environment 8 might be, for example," and then you have a quote, "a 9 game or a particular website, such as a museum website, 10 store, school, hospital, et cetera." 11 Do you see that -- 12 A. I do. 13 Q. -- quote? 14 And you reference it to the abstract, I believe? 15 No. Yeah, the abstract. 16 A. Well, in that case, the "it" is Exhibit 1001, 17 not the Exhibit 1001 abstract. I may be using the "it" 18 incorrectly. 19 Q. Okay. 20 A. But it's actually talking about column 7. 21 Q. Okay. So you're talking that -- you're pulling 22 that reference there from column 7, lines 26 through 27? 23 A. That's correct. 24 Q. Okay. Let's -- if you can -- you're ahead of me 25 there.	99 1 A. That quote could start with, "The user enters 2 the thematic environment, whether it is a game, 3 et cetera," on and on. 4 Q. Mm-hmm. 5 A. So prior to a game, it could include what I just 6 read. 7 Q. Okay. Is there anything after the et cetera 8 that is missing? 9 A. And then afterward, there is a comma. 10 Q. Mm-hmm. 11 A. "And is taken into a 3D virtual world." 12 Q. Thank you. 13 If you go to the back -- paragraph 48, the 14 background, which you entitle, you look at what's called 15 the Background of the Invention section. And, again, 16 id, I assume that's referring, id, to the Exhibit 1001, 17 the '165 patent, and you reference column 1 -- or excuse 18 me. Yeah, column 1, lines 35 through 48. Is that 19 correct? 20 A. I do reference column 1, 35 to 48. 21 Q. Okay. You use the phrase "the '165 patent 22 suggests that," and then you have, I guess, the quote 23 from 35 through 48, "Existing virtual environments are 24 increase" -- oh, excuse me. Oh, it's -- the quote is 25 actually further down in that section. It's -- the
98 1 If we can look at Exhibit 1001, which is the 2 '165 patent. Let's go to column 7, lines 26 through 27. 3 Does your quote in paragraph 47 contain the 4 entire quote of lines 26 -- no, it's not -- it's not 5 just 26 and 27. 6 Does it include the entirety of that sentence 7 beginning on lines 25 -- or 26, excuse me? 8 A. Well, my statement does, but the quote doesn't. 9 If you see in 47, I was looking for what the patent 10 would describe -- how the patent would describe a visual 11 interactive environment. And so I found in column 7 12 that the patent described it as -- at least that in the 13 thematic environment, whether it is a game -- particular 14 website, museum website, et cetera. 15 Q. Okay. If you look at your -- the quote, though, 16 in paragraph 47, it ends with, "et cetera," period, 17 correct? 18 A. True. 19 Q. Okay. Does the sentence in column 7, lines 26 20 through 29 -- strike that. 21 Does your quote in paragraph 47 include all of 22 the language that is referenced in the sentence from 23 which you took your quote? 24 A. I quoted only a portion of that sentence. 25 Q. Okay. What portion is missing in your quote?	100 1 quote comes from column 1, lines 44 through 48. Would 2 you agree? 3 MR. WOO: Objection. Form. The document speaks 4 for itself. 5 MR. SOROCO: I can rephrase the question if you 6 would like, Mr. Crane. 7 THE DEPONENT: Please. 8 BY MR. SOROCO: 9 Q. Okay. You reference column 1, lines 35 through 10 48, and then the '165 patent suggests that, and then you 11 have a quote. You include the word "existing" in the 12 quote, but then it's: 13 "Virtual environments, especially those present 14 on the Internet." 15 Isn't it true that that quote actually begins on 16 line 44 and goes to line 48? 17 MR. WOO: Objection. Form. Document speaks for 18 itself. 19 THE DEPONENT: I mean, I provided a citation to 20 the place from which this language comes. Obviously, if 21 I was going to cite the entire patent every time I made 22 a citation, this document would be unwieldy. So, yeah, 23 I cited 35 to 48, the -- I also put "existing" in 24 brackets to indicate what is stated here as the virtual 25 environments. Since it's "the," it's referring to other

101 1 parts that I didn't cite to. So this is -- the gist of 2 what this patent is saying is that: 3 "[Existing] virtual environments, especially 4 those present, on the Internet, for example, have not 5 provided the user with a real-world experience." 6 That's a quote right out of the patent. 7 BY MR. SOROCCO: 8 Q. Okay. I think my question is just -- is fairly 9 simple. It's just that this quote is not at column 1, 10 lines 35 through 48? 11 A. This quote is included in the passage on 12 column 1 from 35 to 48, with the exception that I 13 shortened it by putting bracket -- bracket -- what did I 14 do? Bracket existing. 15 Q. Okay. And "existing," your bracket existing 16 there, that existing that you added is because the 17 term -- the quote was "the virtual environments," 18 correct, in the '165 patent? 19 A. Yes, because it said "the virtual environments," 20 it was referring to a description above that I didn't 21 choose to cite to. 22 Q. Right. Would that be the sentence: 23 "Virtual environments are increasingly of 24 interest to users for entertainment (i.e., games) and 25 educational purposes?"	103 1 this -- you wanted to know if they were in this section, 2 the background section? 3 MR. SOROCCO: Summary of the invention. 4 THE DEPONENT: The summary of the invention. 5 I'd have to read the entire thing or -- 6 BY MR. SOROCCO: 7 Q. So you don't know? 8 MR. WOO: If you -- 9 THE DEPONENT: I remember seeing real time, real 10 world. I remember seeing those terms in this patent. 11 BY MR. SOROCCO: 12 Q. Okay. But you don't know without reviewing 13 whether or not "real world information" is in the 14 summary of the invention? 15 MR. WOO: If you need to, you can review. 16 MR. SOROCCO: I believe my question said without 17 reviewing. 18 THE DEPONENT: I don't know without reviewing 19 the summary of the invention if the term "real world" is 20 there. 21 BY MR. SOROCCO: 22 Q. Okay. And the reason why I'm asking you, 23 Mr. Crane, about real world is, in 51, you then go: 24 "Other real-world information discussed includes 25 content from the real world, content from the sponsors'
102 1 A. Those are the virtual environments the patent 2 was talking about, and that is included in the block 3 quote I included. 4 THE DEPONENT: Somebody is not muted. 5 BY MR. SOROCCO: 6 Q. Paragraph 50 on page 16, you state that: 7 "Note that from the example types given." 8 I assume that's given in the quote that you put 9 in paragraph 49. Is that correct? 10 A. I am referring to the bulleted list that I cited 11 to here. 12 Q. Okay. And you say: 13 "Real-time information" -- going on in 50, 14 paragraph 50: 15 "Real-time information in the '165 patent 16 appears to also include real-world information." 17 Do you believe there's a difference between 18 real-time information and real-world information? 19 A. Yes. 20 Q. Did Ms. Barbaro use the term "real-world 21 information" in the summary of the invention? 22 MR. WOO: Objection. Form. The document speaks 23 for itself. 24 THE DEPONENT: My recollection is that those two 25 phrases are used in the patent. I would have to review	104 1 websites, information." 2 I'm just trying to understand where real-time 3 information transposed into real-world information. So 4 my question is -- is -- strike it. 5 Let's look at Figure -- oh. 6 What does real-world information mean to you, or 7 do you have an understanding of real-world information? 8 A. Information from the real world. 9 Q. Okay. Do you believe that that is -- or do you 10 have an understanding of the term real-time information? 11 A. I do. 12 Q. What is it? 13 A. Real-time information is happening now. It's 14 basically in the present, between the past and the 15 future. 16 Q. Okay. Looking at paragraph 52, you drew 17 attention to Figure 1 as being a schematic display of a 18 six-level architecture of an interactive software 19 platform, and then you reproduced Figure 1 there at the 20 top of page 17 and you said that the -- in paragraph 53: 21 "According to the purported invention, the 22 interactive software platform can be served to any 23 device." 24 Do you see that language? 25 A. I do.

105 1 Q. Okay. And again, you used "purported 2 invention." We already talked about the statutory 3 presumption of validity, correct? 4 A. We did discuss that. 5 Q. Okay. What devices are shown in Figure 1 of 6 Exhibit 1001, as far as devices? 7 A. I see what looks like a desktop computer, a 8 television monitor, a cordless phone without a screen, a 9 tablet maybe -- or no. That looks like a whiteboard. A 10 camera, digital camera. A box with a box on it. I 11 don't know what that is. You got another TV monitor. 12 Let's call that one a television, and we'll call the 13 previous one a monitor. A laptop, and what looks like 14 probably cellular phones. 15 Q. With or without a screen? 16 A. I can't tell. 17 Q. And these devices that are shown in Figure 1 18 are -- do you believe these to be representative of 19 electronic devices as a whole? 20 MR. WOO: Objection. Form. 21 THE DEPONENT: As a whole. Although, one of 22 those pictures, like I said, looks like a whiteboard to 23 me. 24 BY MR. SOROCO: 25 Q. Okay. And now we're getting into the QIE, and	107 1 A. I cited to two explanations of what the QIE does 2 in this and the next paragraph. 3 Q. Okay. So what did you find that the QIE does at 4 the bottom of page 17, the quote from the patent? 5 MR. WOO: Objection. Document speaks for 6 itself. 7 THE DEPONENT: The quote from the patent is that 8 the QIE module interprets content such that the content 9 is manipulated and accessed by any device. 10 MR. SOROCO: Okay. 11 THE DEPONENT: So it performs an interpretation 12 function. 13 BY MR. SOROCO: 14 Q. Does it only perform an interpretation function? 15 A. That quote says that it performs an 16 interpretation function. 17 Q. Doesn't it also use the term "manipulated," that 18 the content is manipulated? 19 A. It does say that the content is manipulated. 20 Q. Does it also say that the content is made and 21 accessed by any device? 22 A. It can be accessed by any device. 23 Q. Okay. In paragraph 54, you go on to state that: 24 "A more detailed description of what the QIE 25 does can be found in column 15."
106 1 that is a -- the letter Q, I India, E Echo. Q is quiet. 2 I'm not good on my military. 3 And you state in 53: 4 "Note that the term Quantum Imaging Engine or 5 Quantum Imaging Environment (QIE) module, or simply QIE, 6 is not a industry term, but a black box." 7 What do you mean by the phrase "black box"? 8 A. A black box is defined by its inputs and its 9 outputs and could be magic inside. 10 Q. Okay. And inputs and outputs, does that 11 indicate that there's some type of activity happening 12 inside the black box? 13 A. It is presumed that in an electronic system, a 14 black box operates on the inputs and generates the 15 outputs. 16 Q. Okay. And you go on to say: 17 "The specification described what the QIE does." 18 Is that correct? 19 A. That's the next page? 20 Q. No. That's the bottom of page 17, right before 21 the block quote. 22 A. Okay. Yes. 23 Q. Okay. And you found in the patent several -- at 24 least two instances where the '165 patent describes what 25 the QIE does, correct?	108 1 And then there's a fairly significant quote, 2 correct? 3 A. Yes. 4 Q. Okay. I'm not going to have you read that quote 5 out into the record. But can you summarize what the 6 quote is saying that the QIE does? 7 MR. WOO: Objection. Advise the witness to read 8 as much of that as you need in order to -- to provide 9 your answer. Also, the document speaks for itself. 10 THE DEPONENT: To summarize this quote, the 11 high-level summary is that the QIE performs some magic 12 black box function in order to take content and 13 manipulate it or interpret it and transmit it to any 14 device, and that's pretty key, any device. We can't do 15 that, and this patent doesn't explain how to do that. 16 But going on with the summary, there is 17 representation of the layout and design may be in the 18 representation of zones, and the layout and design may 19 be set up as zones, for medical, retail, entertainment 20 purposes. I don't -- as I sit here today I don't know 21 what the patent is referring to as zones. 22 And it pertains to the most common denominator, 23 the application architecture and the content. What that 24 means is you've got the content and you're somehow 25 magically translating it to work on any electronic

Transcript of David Crane
Conducted on February 26, 2024

28 (109 to 112)

109 1 device, which, again, is something that we cannot do in 2 the video game business, but it's an interpreter that 3 will take all of the rich content, interpret the 4 information into objects to be manipulated and accessed 5 via any device, and place these objects or information 6 into the appropriate format that is designed or will be 7 designed by the developer. It is a laundry list of 8 things that it claims that it might do, but it doesn't 9 tell us how to do that. 10 BY MR. SOROCCO: 11 Q. Okay. So I think you used the phrase "magic 12 black box function" as part of your answer. Does a 13 patent have to describe how to do a function? 14 MR. WOO: Objection. Calls for a legal 15 conclusion. 16 BY MR. SOROCCO: 17 Q. In your understanding. I'll rephrase. 18 In your understanding, does a patent have to 19 disclose how to perform a function? 20 A. It is my understanding that if a patent simply 21 claims that this black box can do this magical thing and 22 doesn't explain how to do it, it is severely lacking as 23 a patent. 24 Q. Okay. And if a POSITA would understand to do 25 it --	111 1 MR. WOO: Objection. Form. 2 THE DEPONENT: This is kind of a Holy Grail in 3 the video game business, and that is, what if we made a 4 game on the PC in 2002 and we wanted it to play on a 5 game console, like the Atari or Intellivision or 6 Genesis, Sega Genesis, whatever, or Dreamcast? Wouldn't 7 it be nice if we could make a thing that would be able 8 to translate the game so that it can be used on any 9 device? So first of all, any device is ridiculous. I 10 mean, obviously, devices -- there are other devices that 11 are listed here, although, I mean, a toaster is an 12 electronic device and obviously can't be done. 13 So I do have a concern with this thing, this 14 QIE. It's not an industry term. They made it up. The 15 patent applicant made it up, named it, in fact, after 16 their own company, I think, Quantum, and gave it 17 capability that cannot be done, has not been done, and 18 there are companies spending hundreds of millions of 19 dollars trying to make it happen, and included it in a 20 patent without telling us how they plan to do it. 21 BY MR. SOROCCO: 22 Q. Okay. So you referred to it as the Holy Grail 23 if it can be done. Is that correct? 24 A. Yes. 25 Q. And you indicated that putting it in a patent
110 1 THE REPORTER: Would or wouldn't? 2 MR. SOROCCO: No. Would. 3 BY MR. SOROCCO: 4 Q. If -- Excuse me. If a POSITA would understand 5 how to do it, would it be necessary to disclose it in 6 the patent? 7 MR. WOO: Objection. Form. Calls for a legal 8 conclusion. 9 THE DEPONENT: Outside of the context of this 10 QIE, if a POSITA understood how something was done, it 11 would not necessarily have to be described in detail in 12 the patent, I don't think. 13 BY MR. SOROCCO: 14 Q. Okay. And you, I think, used the term, again, 15 "magically translate." Do I -- that seems to imply that 16 you have some derision for this QIE? 17 A. I don't dislike magic. I just dislike trying to 18 claim an element that can't be done; and, therefore -- 19 and that they don't tell us how to do it; and, 20 therefore, I am unable to determine what it's supposed 21 to do. 22 Q. Okay. And you say that I can't do it -- or it 23 can't be done, excuse me. Your testimony was it can't 24 be done. Is it that you can't do it or it can't be 25 done?	112 1 was ridiculous? 2 MR. WOO: Objection. Mischaracterizes the 3 testimony. 4 MR. SOROCCO: I believe your testimony was, 5 first of all, any device is ridiculous. I mean, 6 device -- there are devices are listed here. "Although, 7 I mean a toaster is an electronic device and obviously 8 can't be done." That is your testimony. 9 THE DEPONENT: It's ridiculous to use the term 10 "any device," and yes, that is my opinion. 11 BY MR. SOROCCO: 12 Q. Okay. Is the language "any device"? 13 A. Yes. 14 Q. Okay. Are you aware that the term "QIE" has 15 been construed by a court? 16 A. I am. 17 Q. Okay. And are you aware of that construction? 18 A. I showed in my declarations what constructions I 19 used. I understand they are changing over time. 20 Q. Would -- 21 A. So what I used for this declaration, I do 22 include a section that explains what I understood QIE to 23 be, how it -- I understood it to be construed. 24 Q. Okay. And you made this -- strike that. 25 I believe your testimony was that it was

Transcript of David Crane
Conducted on February 26, 2024

29 (113 to 116)

113 1 changing over time, that the construction was changing 2 over time. I don't see it in the real time. 3 THE REPORTER: Would you like to go off the 4 record? 5 MR. SOROCO: Yes. 6 MR. WOO: Okay. Sure. 7 THE VIDEOGRAPHER: We're going off the record. 8 The time is 12:21. 9 (Discussion off record.) 10 THE VIDEOGRAPHER: We are back on the record. 11 The time is 12:22. 12 BY MR. SOROCO: 13 Q. Mr. Crane, in your prior testimony, I asked you 14 if you're aware of the construction that the Court had 15 given the term QIE, and your answer was that you were 16 showed -- you showed it in your declaration what 17 constructions you used. And then you went on to say, "I 18 understand they are changing over time." 19 What do you mean by they are changing over time? 20 A. What I mean is I've been involved in this patent 21 specification family since at least 2023, probably 2022, 22 I think, and there are times when there aren't any 23 constructions, there are times when both parties have 24 different constructions. There's, you know, a lot going 25 on. And I did review that there was a Markman order in	115 1 Q. Okay. And that was the -- that universal 2 translator, that is what you referred to as the black 3 box, correct? 4 A. Yes. 5 Q. Okay. And then you were given or you were 6 informed about the definition for which you state that 7 you use that construction in paragraph 66, correct? 8 A. That's the interpretation I was instructed to 9 use. 10 Q. Okay. And if you look at this interpretation, 11 right, and you come up here with two pages -- two 12 paragraph -- the second line -- the -- towards the end, 13 it's manipulated so as to be accessible on different 14 types of devices, correct? 15 A. Yes. 16 Q. Is there anything in there that says any device? 17 A. No. 18 Q. Okay. That's what I wanted to get to. 19 So is it your testimony, then, that if 20 Ms. Barbaro had invented or had developed this universal 21 translator, that she would have developed the 22 Holy Grail? 23 MR. WOO: Objection. Mischaracterizes 24 testimony. Form. 25 THE DEPONENT: If she had managed to develop a
114 1 this case, and so I believe that that has been locked 2 down by the Court. But it did change over time up to 3 that point. 4 Q. Okay. I understand. Thank you. 5 And that definition that you used, at least in 6 your analysis in this declaration you gave on June 3rd 7 of -- or June 4th of 2023, I believe, yes, was, if we 8 look at paragraph 66, you were told or you were informed 9 that QIE is to be interpreted as a software layer which 10 receives and interprets content such that the content is 11 manipulated so as to be accessible on different types of 12 devices for use within the virtual thematic environment. 13 I -- and I apologize, I didn't give you time to get to 14 it. 15 So paragraph 66 on page 25. 16 A. All right. I have 65 and 66. 17 Q. 65 is your paraphrasing of what the QIE was 18 describing, correct, the term QIE described, correct? 19 A. Yeah. Well, I say I would paraphrase the QIE. 20 What I'm saying is that I believe that a person of 21 ordinary skill in the art reading this patent would say, 22 wowee, that's cool, something that can translate to any 23 device. And that was before -- my opinion outside of 24 the claimed construction that I then used for my 25 analysis.	116 1 universal translator that could change the game -- could 2 present the game -- manipulate the data and present the 3 game on any device, that would be game changing in the 4 industry. It would be -- I called it the Holy Grail 5 because I know that people are spending hundreds of 6 millions of dollars trying to achieve that. But I would 7 certainly expect Ms. Barbaro to explain how it is she 8 did it, because everybody else is having trouble doing 9 it. 10 BY MR. SOROCO: 11 Q. And again, you said any device, but the 12 construction is any type of device, correct? 13 MR. WOO: Objection. Form. 14 THE DEPONENT: Reading the patent, it discusses 15 any device. So if you are saying Ms. Barbaro invented 16 the QIE as she described it in the patent, that's one 17 thing. The Court's construction does not use the term 18 "any device," so I'm trying to answer your question 19 about what Ms. Barbaro should be revered for having 20 created. 21 BY MR. SOROCO: 22 Q. Okay. And that construction that you were given 23 in paragraph 66, you understand that that was a 24 construction given by a district court, correct? 25 A. I was instructed to use this construction at the

117 1 beginning of my analysis. I don't know if that 2 construction -- I don't know exactly where that 3 construction came from or if it's compatible with the 4 current market order. 5 Q. Okay. But -- 6 A. You'd have to look at it. 7 Q. But at the time that your analysis was done and 8 the opinions you made that we were discussing in 9 Exhibit 1004, this is the definition that you used? 10 A. This is the definition that I used for my 11 analysis. 12 MR. SOROCCO: Okay. I'm about ready to kind of 13 move on. We talked about 12:30. We're about two 14 minutes. Do you want to -- 15 MR. WOO: Yeah. 16 MR. SOROCCO: -- go off the record? 17 MR. WOO: That's fine. 18 MR. SOROCCO: Okay. 19 THE VIDEOGRAPHER: Okay. We're going off the 20 record. The time is 12:28. 21 (A recess transpires.) 22 THE VIDEOGRAPHER: And we are back on the 23 record. The time is 13:37. 24 MR. WOO: Yeah. So just for the record before 25 we get started, I just wanted to clear -- clarify that	119 1 instructed to apply. 2 Q. Okay. 3 A. We haven't gone to the Court's construction. 4 Q. Okay. Do you understand there to be a different 5 court's construction at this point? 6 A. I would have to compare them, but they're 7 probably similar. 8 Q. Okay. On paragraph 67, you stated: 9 "As an expert in the video game field, it's my 10 opinion that a POSITA as effective filing date would 11 understand how to recognize and implement a virtual 12 environment." 13 What's -- what -- do you have an understanding 14 of what the term "virtual environment" would be to a 15 POSITA in the effective filing date of the '165 patent? 16 A. I do. 17 Q. What is that? 18 A. That is a video game environment that is -- 19 differs from the real world in that it's virtual, it 20 doesn't exist except in math. 21 Q. Okay. You go on that: 22 "On the other hand, I find the term thematic to 23 be entirely subjective." 24 Why do you hold the opinion that thematic is 25 subjective?
118 1 our witness, Mr. Crane, will be available for seven 2 hours today, per the notices that were served. And so I 3 think let's play it by ear, see what happens, but seven 4 hours. 5 MR. SOROCCO: Okay. 6 MR. WOO: Okay? 7 MR. SOROCCO: I understand that's what you're 8 making him available for. 9 Where are we at on the record, time? 10 THE VIDEOGRAPHER: 2 hours and 49 minutes. 11 MR. SOROCCO: Okay. Thank you. 12 BY MR. SOROCCO: 13 Q. All right. Good afternoon, Mr. Crane. Did you 14 have a nice lunch? 15 A. It was fine. 16 Q. Good. If we turn to paragraph 61 on page 24 of 17 Exhibit 1004, which is your declaration in the 996 IPR, 18 you start off in paragraph 61: 19 "I am not a legal expert or an attorney" -- and 20 we've gone through that -- "and offer no opinions on the 21 law." 22 And we've talked a little bit before lunch about 23 the QIE and the interpretation that the Court provided 24 with regard to what a POSITA would understand QIE to be. 25 A. Actually, what we discussed was what I was	120 1 A. Thinking about it, I believe that one person of 2 ordinary skill in the art would -- might understand the 3 term thematic, another might not. Two people would 4 consider them two different things, which is why they're 5 subjective. So I consider it to be subjective because 6 different people would interpret it different ways. 7 Q. Okay. You understand -- do you understand, 8 excuse me, that a patentee is entitled to be their own 9 lexicographer? 10 MR. WOO: Objection. Calls for a legal 11 conclusion. Form. 12 THE DEPONENT: What is a lexicographer? 13 BY MR. SOROCCO: 14 Q. The ability to create their own terms. 15 A. I was not aware that that's a tenet of law, but 16 I've certainly seen a lot of specifications where people 17 use whatever term they want to use. 18 Q. Okay. Grammatically, is the term "thematic" an 19 adjective? A noun? Adverb? 20 MR. WOO: Objection. Form. 21 THE DEPONENT: In modifying the term 22 environment, I guess it would be an adjective. 23 BY MR. SOROCCO: 24 Q. Okay. And what do you understand an adjective 25 to be, grammatically be?

Transcript of David Crane
Conducted on February 26, 2024

31 (121 to 124)

121 1 A. Something that modifies a noun. 2 Q. Okay. On paragraph 68, counter to that 3 argument, you're talking about, I believe, the 4 subjectivity of the term. 5 No. Excuse me. Strike that. 6 You're informed that there have been arguments 7 that because the '165 specification suggests some themes 8 as a guideline, such as geographically themed or 9 pertaining to a museum or store, school, hospital, that 10 the term would not be purely subjective. And you said, 11 counter to that argument is my belief that any one 12 person might see a theme where another doesn't. 13 Hypothetically, can you give me a situation 14 where someone might see a theme where another person 15 might not? 16 A. Oh, any number of examples. If you were driving 17 in a driving game and you were driving through the 18 desert, one person might say the theme is it's a driving 19 game, one person might say it's a desert game, one 20 person might say it doesn't have a theme until you drive 21 into Disneyland. It's just a term that is -- you know, 22 it's just indefinite, in my opinion. 23 Q. The term you used -- you just used the word 24 "indefinite." Do you have an understanding of what the 25 term "indefinite" means in patent law?	123 1 THE DEPONENT: I don't recall what I have done 2 in this declaration pertaining to indefinite terms. 3 BY MR. SOROCO: 4 Q. Okay. Your -- 5 MR. WOO: Counsel, for the record, also, as you 6 know, IPR proceedings are only limited to anticipation 7 or obvious under 102 and 103, and specifically with 8 respect to patents in print or publication. So 9 indefiniteness is not an issue covered by IPR 10 proceedings. 11 MR. SOROCO: Thank you for the legal seminar. 12 And I understand your comments. Thank you. He had 13 mentioned the word "indefiniteness," and I was entitled 14 to ask him what he understood the word indefiniteness to 15 mean. 16 BY MR. SOROCO: 17 Q. Let's go on to your unpatentability analysis, 18 starting in, I guess, the Section 9 on page 26. 19 Basic background. The basic background is 20 relating to what, Mr. Crane? 21 A. This is sort of a treatise on what a person of 22 ordinary skill in the art at the time of the application 23 would have known about the video game business. 24 Q. Okay. Is there a particular reason why you 25 decided to use the flight simulator as a -- as your --
122 1 MR. WOO: Objection. Calls for a legal 2 conclusion. Form. 3 THE DEPONENT: Yeah, I'm not going to provide a 4 legal conclusion. But the term "indefinite" to me means 5 it's not definite. 6 BY MR. SOROCO: 7 Q. I didn't ask for a legal conclusion. I asked if 8 you were aware of any particular -- or if you had any 9 particular understanding of the term "indefinite" in 10 patent law. 11 A. I have in the past been asked to look at a 12 patent through the eyes of a person of ordinary skill in 13 the art and see if there's enough definition in the 14 specification to define a term, and if not, it would be 15 arguably indefinite. 16 Q. And have you found the claims of the patent to 17 be indefinite in your analysis? 18 MR. WOO: Objection. Outside the scope. 19 THE DEPONENT: I have found terms in this patent 20 that I don't think have enough definition in the 21 specification. 22 BY MR. SOROCO: 23 Q. Okay. And you've -- have you -- for all of 24 those, have you marked them as being such? 25 MR. WOO: Objection. Outside the scope.	124 1 as the basis for your treatise, using your term? 2 A. Well, a flight simulator game is Section 1. 3 It's not the only thing in here. But it is -- it is -- 4 I consider it kind of my role in this to explain to the 5 Court what was known at the time in the video game 6 business, and in the -- on the chance that the reader of 7 this declaration don't know what a flight simulator game 8 is, I included it here. 9 Q. Okay. And is this your understanding of what a 10 flight simulator game is? 11 MR. WOO: Objection. Form 12 You can -- 13 THE DEPONENT: I certainly explained what a 14 flight simulator game is in my declaration. 15 BY MR. SOROCO: 16 Q. Okay. Page 31, in respect to -- there's a 17 footnote 5. Do you see that footnote, sir? 18 A. I'm getting there. Okay. 19 Q. Okay. You cite to Wikipedia? 20 A. Mm-hmm. 21 Q. I think you earlier testified that Wikipedia was 22 unreliable? 23 A. What I testified was I typically don't use it. 24 I used it here. 25 Q. Okay. If we look at paragraph 80, the end of

125 1 it, the -- I guess it's the last sentence. 2 "Thus, as of the earliest prior date of the '165 3 patent, March 22nd, 2004, the concept of virtual reality 4 and augmented reality systems such as flight simulators 5 integrating a wide range of current information, 6 including real-world terrain, signage, and sponsorship 7 materials was well known." 8 To whom was it well known? 9 A. That was well known to the person of ordinary 10 skill in the art. 11 Q. And do you have any -- do you cite any 12 information to indicate that it was well known? 13 A. The -- that statement is my opinion on knowing 14 what a person of ordinary skill in the art would know 15 back then. A flight simulator was a very common form of 16 gaming. People played them, studied them. So this is 17 information that, in my opinion, was well known in the 18 art to the person of ordinary skill in the art. 19 Q. Okay. Paragraph 81, in the first couple words, 20 "as was well-known," is that again based on your 21 opinion? 22 MR. WOO: Objection. Form 23 THE DEPONENT: When I say "as was well known," I 24 am referring to as would have been well known to a 25 hypothetical person of ordinary skill in the art at that	127 1 problem that we all dealt with in the day. You design a 2 game on the PC and tweak it for keyboard and mouse, and 3 then you start to put it on the Xbox or something, and 4 they have a gaming controller and now the game play 5 completely changes. 6 So was -- your question was, was it possible 7 that you might find a gaming console that could play a 8 PC game unmodified? It's possible, not the typical 9 case, though. 10 MR. SOROCO: Okay. Can we go off the record 11 for a moment? 12 THE VIDEOGRAPHER: We are going off the record. 13 The time is 13:50. 14 (Discussion off record.) 15 THE VIDEOGRAPHER: We are back on the record. 16 The time is 13:51. 17 MR. SOROCO: Okay. 18 BY MR. SOROCO: 19 Q. My question was, could -- would it be possible 20 to run software written with a PC using a keyboard and a 21 mouse on a gaming console? My question, I was a bit 22 imprecise. 23 My question should have been: Would software 24 written for a PC that used a keyboard and mouse, would 25 that software be able to run on a gaming console?
126 1 time. 2 BY MR. SOROCO: 3 Q. Okay. Paragraph 82 on page 32, the paragraph 4 starts out: 5 "There were many differences across devices, 6 including screen size, resolution, rendering and 7 processing power, differences in controllers, and even 8 the language utilized by operating systems -- system 9 menus and messages." 10 Do you see that language, sir? 11 A. I do. 12 Q. Okay. 13 "Regarding controllers," next sentence, and then 14 you have, "a PC would have a keyboard and a mouse, a 15 gaming console would have a joy pad, and a mobile device 16 might have a touch screen." 17 Do you see that language? 18 A. I do. 19 Q. Okay. Could -- would it be possible to run 20 software written with a PC using a keyboard and a mouse 21 on a gaming console? 22 A. There might be scenarios in which you can find a 23 gaming console that is equipped with a keyboard and 24 mouse, and you might get one game out of some number 25 able to play. These are generalizations. This was a	128 1 A. And generally, the answer is no. But would it 2 be possible? There may be scenarios in which it would 3 be possible. 4 Q. Okay. And the same type of question, would 5 software written for a gaming soft -- console having a 6 joy pad be able to run on a mobile device having a touch 7 screen? 8 MR. WOO: Objection. Form 9 THE DEPONENT: Not without modification. 10 BY MR. SOROCO: 11 Q. Okay. And your answer with regard to a PC and a 12 gaming console, that was as of the priority date in 13 March twenty -- 2004? 14 A. Correct. 15 Q. Okay. So how are different types of devices 16 playing the flight simulator game on each device? 17 A. If you look at a flight simulator game, such as 18 those pictured on the next page, the game is playing on 19 the console, the Apple II, Atari, the computer, 20 Commodore 64, Atari SC. Them programs running on those 21 machines differ dramatically. They differ from 22 rendering software for the 3D seen out the window. They 23 differ on imagery that is displayed and clicked on in 24 the -- the cockpit. So these games are executed on the 25 console in order for you to play the game.

129 1 Q. Okay. And is that a little bit further on in 2 paragraph 82, that you state: 3 "To publish a game on different platforms, the 4 game program had to be configured to manipulate game 5 content to work on different devices?" 6 Is that summarizing your prior answer? 7 A. Yes. I mean, that's not as complete as it could 8 be because what -- those modifications are made at the 9 game-design level, the game-programming level. So it's 10 really what you're doing is you're writing a different 11 version of the game for each one. 12 Q. And that was going to be my next question, was, 13 is that, if I have software that runs flight simulator 14 on an Apple II in 1984, the software for the Track -- or 15 the TRS-80, excuse me, in 1987, those would be different 16 computer software games. Is that correct? 17 A. Yes. 18 Q. And then the last sentence in paragraph 82 is 19 "well known in the art." Again, is that your opinion of 20 what a POSITA would know? 21 A. That is my opinion on what a person of ordinary 22 skill in the art would know. 23 Q. Okay. And then it goes on: 24 "The conventional method of doing so," being how 25 to publish game -- the same game on different platforms,	131 1 paragraph 84 what you referred to as conventional method 2 of publishing a game on different platforms in 3 paragraph 82? 4 MR. WOO: Objection. Form 5 MR. SOROCO: Well, let me clarify that 6 question, then. 7 BY MR. SOROCO: 8 Q. Is the conventional rendering technology as you 9 use that phrase in paragraph 84 the same as the 10 conventional method of doing so, i.e., publishing a game 11 on different platforms, that you refer to in paragraph 12 82? 13 A. Those terms do not refer to the same thing. 14 Q. Okay. What does the term in 84, paragraph 84, 15 conventional rendering technology, refer to? 16 A. Conventional rendering technology is technology 17 that was developed in the video game field as far back 18 as the 1980s for the game Doom, for example, to be able 19 to display a first-person shooter in a 3D environment. 20 That became the standard that people used going forward. 21 Q. Okay. So is a different type of technology, 22 then, what you described as the conventional method in 23 paragraph 82? 24 A. It's not a question of technology. I could use 25 the term for the conventional method of creating
130 1 "was to create a different version of the game for each 2 device." 3 Do you see that language? 4 A. I do. 5 Q. Okay. And is that what we've been discussing as 6 far as -- I think you said game design and programming 7 had to occur in order for the program to run on a 8 different device? 9 A. That's what we're talking about in this whole 10 paragraph. 11 Q. Okay. And I guess this is probably a question 12 you want to roll your eyes at, Mr. Crane. But was the 13 Flight Simulator II software that was used to play on 14 the 1984 Apple II capable of running on a Commodore 64? 15 A. No. 16 Q. And then was the Flight Simulator II software on 17 the 1984 Commodore 64 capable of being played on the 18 TRS-80 in 1987? 19 A. No. 20 Q. Okay. In paragraph 84, you say: 21 "As far back as the 1980s, conventional 22 rendering technology was configured to interpret and 23 manipulate game content so as to be accessible on 24 different types of devices." 25 Is that conventional rendering technology in	132 1 different versions as what we used to call making a 2 port, a p-o-r-t. It just stands for porting the code, 3 converting the code over to a different console. So 4 that's the convention method, is the port. This is 5 rendering technology. It's unrelated. Just because 6 they both use the term "conventional," it's unrelated. 7 Q. Okay. That's what I was trying to figure out. 8 In paragraph 84, though, it's different types -- 9 excuse me. So as to be accessible on different types of 10 devices. 11 What does it mean to be accessible? 12 A. In the case of a game, it means to play the 13 game, to view the game, to control the game. 14 Q. Okay. So the conventional rendering technology 15 in paragraph 84, would you say is a different way of 16 making the game accessible on a different type of device 17 that is from porting, as you used that term in 18 paragraph 82? 19 A. Well, there's certainly overlap. What you're 20 trying to do when you port is you are making different 21 versions for the display code and such. So the 22 conventional rendering technology I'm talking about in 23 paragraph 84 is primarily to make the display work on 24 different devices. 25 Q. Okay. And for paragraph 84, that conventional

133 1 rendering technology, would it require a different 2 version of the game for each display? 3 A. Yeah, it's hard to explain that to a 4 nontechnical person. But every time rendering 5 technology is written, it uses the same procedures, the 6 same concepts, the same techniques, but it's never the 7 same program. 8 Q. Okay. And just so we're on the same page, I 9 have a Bachelor's of Science in biochemistry and worked 10 for Ernst & Young as a MSI -- MIS IT consultant, so. 11 A. How many games have you made? 12 Q. Not many. But I was writing them when I was 14 13 as well. 14 The concept in the -- in the end of paragraph 15 84: 16 "The concept of -- of interpreting and 17 manipulating content such that the content is accessible 18 on different types of devices was well known." 19 Do you see that -- 20 A. Yes. 21 Q. -- sentence? 22 Is that referring to the QIE that we discussed 23 in paragraph 66? 24 A. It's just a generic statement of what a person 25 of ordinary skill in the art would have known.	135 1 Q. Mm-hmm. 2 A. -- where it queries a server and gets real-world 3 information, real-world terrain, real-world weather, 4 real time events, such as traffic in your pattern, 5 real -- simulation of real-world chatter from the 6 controllers, air traffic controllers -- 7 Q. Mm-hmm. 8 A. -- that sort of thing. 9 So take a standard flight simulator. Everybody 10 knows what -- what they're doing, but prior to this kind 11 of invention, the flight simulator always took place in 12 the same place with the same airplanes and no real-time 13 weather, things like that. 14 Q. Okay. I didn't ask this. But did you know -- 15 do you know the inventor Pisanich? 16 A. I do not. 17 Q. Okay. Figure 1 at the top of page 35 of 18 Pisanich, can you explain to me what you understand that 19 figure to be describing or showing? 20 A. Well, figure 1 is a high-level block diagram. 21 It shows that games are being presented -- game 112 is 22 being presented to player 120, for example, and it's 23 communicating with a game data server 108, and the game 24 data server is communicating with remote servers that 25 have information on them such as air traffic control
134 1 Interpreting and manipulating content is something that 2 you did when making a port. 3 Q. Okay. And -- strike. 4 Let's move on to the overview of the prior art. 5 International publication WO 02062436A2, and that's 6 issued to Pisanich, I think is how you say that, and 7 it's P-i-s-a-n-i-c-h, is the first piece of prior art 8 that you have in your -- I believe, in your report. 9 Were you aware of this prior art reference 10 before being hired for this IPR? 11 A. Yes. 12 Q. Okay. How did you become aware of it? 13 A. I had seen it on a previous case. 14 Q. Okay. Was this piece of prior art given to you 15 or did you identify it as being relevant for this case? 16 A. This was given to me. 17 Q. Okay. You were informed that Pisanich was prior 18 art. Was that counsel -- 19 A. Yes. 20 Q. -- that informed you of that, as we discussed 21 earlier? 22 A. Same as usual. 23 Q. Okay. So Pisanich generally teaches what? 24 A. Pisanich teaches an advancement, an enhancement 25 to flight simulator games --	136 1 data and weather data provided by, you know, like 2 government servers. 3 Q. Okay. And the other games that you referred to, 4 are they shown on this block diagram? 5 A. In this block diagram, there's a box labeled 6 "Other Games," which is discussed in Pisanich, such as 7 racing games and such. 8 Q. Okay. 9 A. I think they're just trying to indicate that 10 there are multiple embodiments that can get this 11 real-world information from the game data server. 12 Q. Okay. Is game 112 the same as other games, 116? 13 A. No. 14 Q. Okay. Let's look at paragraph 94 on page 38, if 15 you will. Let me know when you get there. 16 A. 94 on 38. Yep. 17 Q. Okay. You state that: 18 "Pisanich discloses a game system implemented 19 using an object-oriented design, as shown in Figure 3." 20 I don't mean to insult you with this question. 21 But do you have an understanding of object-oriented 22 design? 23 A. Well, yes and no. Object-oriented design is an 24 often misused term. In Pisanich, I understand what they 25 mean is they have programming objects and servers and

137 1 such that communicate with each other. 2 Q. Okay. Why does Figure 3 that you just pointed 3 to demonstrate object-oriented design? 4 A. Figure 3 is pictured because of the citation 5 that I make down below, and Pisanich is describing 6 Figure 3 as being implemented using an object-oriented 7 design. 8 Q. Okay. And looking at Figure 3 at the top of 9 page 39, what is game 112 referring to? 10 A. It's an expansion of that Figure 1 box game 112. 11 Q. Okay. And in this figure, what does game 112 12 refer to, what elements -- excuse me. What elements are 13 being referred to as game 112? 14 A. I believe it's everything inside that box. 15 Q. Inside the box, meaning game data server 10 -- I 16 think that's 8, is outside the game 112? 17 MR. WOO: Objection. Form. 18 THE DEPONENT: That's a true statement. 19 BY MR. SOROCCO: 20 Q. Okay. Is it a true statement that on the bottom 21 of that box, display 332, audio system 336, joystick 22 340, and keyboard 344 are outside game 112? 23 A. I'm not sure that that's the case. The language 24 in Pisanich may suggest that those should be inside the 25 box, and they are not. But generally what we're seeing	139 1 block quote of referring to Figure 3 at game system 107, 2 and then you had, sic, 10, you believe that 107 -- game 3 system 107 is actually referring to game 112? 4 A. I believe that's the case. 5 Q. Okay. In paragraph 95, at the last sentence, 6 last part of the last sentence -- well, let's do the 7 last sentence. 8 "As was well known in the art prior to the 9 effecting filing date of the '165 patent, game engines 10 are reprogrammed modules written to implement required 11 logic functions." 12 Do you see that sentence? 13 A. No. Where did you move me? 14 Q. I'm sorry. Paragraph 95 on page 40. 15 A. Okay. 16 Q. Okay. So "As was well known in the art prior to 17 the effective filing date of the '165 patent, game 18 engines are preprogrammed modules written to implement 19 required logic functions." 20 Do you see that sentence? 21 A. Yes. 22 Q. Okay. You started out, "As was well known." Is 23 that well known to you? 24 A. Game engines are well known to the person of 25 ordinary skill in the art at that time.
138 1 there is 120 from Figure 1, and then the interface 2 between 120 and the game 112. Again, it could be inside 3 the box or outside the box, in my opinion. 4 Q. Okay. My -- my question was a little bit more 5 narrower, which was: In Figure 3, represented -- or 6 reproduced on page 39, does this figure show display 7 332, audio system 336, joy stick 340, and keyboard 344 8 inside or outside the box? 9 A. This figure, which it's right here in my 10 declaration, anybody can see it, the box does not 11 enclose those four items there. 12 Q. Thank you. 13 And player 120, that does not -- that box does 14 not include -- excuse me. 15 The box we earlier defined as game -- 16 including -- that game 112 includes, the items within 17 the box does not include player 120. Is that correct? 18 A. That is correct. 19 Q. Okay. 20 A. I noticed that I have a footnote that -- I 21 believe there was a typo, and when they're talking in 22 this discussion about this box game 112, they used 107, 23 which from context I'm pretty sure they were talking 24 about game 112. 25 Q. Okay. So that's on page 39, when you have this	140 1 Q. Okay. And would you agree with me that game 2 engines, being preprogrammed modules, are not supported 3 with any citations? 4 MR. WOO: Objection to form. 5 BY MR. SOROCCO: 6 Q. That's -- yeah, let me rephrase that. 7 Would you agree with me that you do not have a 8 citation as to game engines being preprogrammed modules 9 written to implement required logic functions? 10 THE DEPONENT: I do not provide a citation for 11 that statement. 12 BY MR. SOROCCO: 13 Q. Okay. Let's move on to PSO real quick. 14 Again, were you aware of the PSO -- and I -- 15 manual? I think it's the Phantasy Star Online manual. 16 This is prior reference No. 2 on page 40. Were you 17 aware of this prior to this -- being hired for these 18 IPRs? 19 A. Well, to be clear, I was very well of Phantasy 20 Star Online. It was a groundbreaking work back when it 21 came out. I don't think I ever read the manual, but 22 then I generally don't read manuals. 23 Q. Okay. And did you play -- 24 A. Yes. 25 Q. -- the game Phantasy Star Online?

141 1 A. I played a little. 2 Q. Okay. Do you remember playing the game? 3 A. I remember more watching. One of the things 4 that we did is, our time was so valuable making games 5 that we had a department of testers, and when the 6 testers were not busy testing, their job was to go out 7 and buy the latest games. And we would -- once a week, 8 we'd go in and say, what you got, what's hot. And I 9 watched a lot of Phantasy Star Online, played a little. 10 Q. And you said you were aware of it prior to this, 11 being engaged for this IPR. Did anybody -- excuse me. 12 After you were hired for the IPR, did you 13 make -- did you -- strike that. 14 After being hired for the IPR, did you bring 15 this to the attention as prior art, or was it brought to 16 your attention? 17 A. This prior art was provided to me. 18 Q. Okay. Prior to being hired, engaged in the IPR 19 and having this prior art being brought to your 20 attention, had you -- when was the last time that you 21 had played Phantasy Star Online? 22 A. The last time I would have played Phantasy Star 23 Online is back in the early 2000s. 24 Q. Is the prior reference, Phantasy Star Online, 25 which we'll just start calling as you did, quote, PSO,	143 1 BY MR. SOROCO: 2 Q. Do you recognize this document? 3 MR. WOO: And advise the witness to spend as 4 much time as you need in order to refamiliarize yourself 5 with this document. 6 THE DEPONENT: It looks like a scan of the 7 document I was given. 8 BY MR. SOROCO: 9 Q. Okay. And the document that you were given was 10 the PSO manual, correct? 11 A. The PSO manual, yes. 12 Q. Okay. Would you turn to the second page of the 13 Exhibit 1008? Which I believe is a photocopy, probably, 14 of pages 2 and 3 of the manual, although there are not 15 page numbers that I can see. 16 MR. WOO: There are actually page numbers that 17 are indicated on some portions of the manual, for the 18 record, if you -- 19 MR. SOROCO: Oh, yeah, you're correct. As it 20 gets down into the actual manual, this was probably 21 the -- the introduction. 22 So the introductory two pages containing the -- 23 the typical warnings that you see on documents that us 24 lawyers make folks put in in a table of contents, on the 25 right-hand side.
142 1 Paula Sophia Oscar, manual -- is the -- excuse me. Is 2 the Phantasy Star Online manual, PSO manual, a technical 3 manual? 4 A. No. It's a consumer manual. 5 Q. Okay. What do you mean by a consumer manual? 6 A. It taught consumers how to play the game. 7 Q. Okay. I think that's why you said that you 8 didn't pay much attention to manuals. Isn't that 9 correct? 10 A. Generally, that statement is true. 11 Q. Did you enjoy just jumping into the game itself? 12 A. I dated -- my career dates back to when there 13 weren't manuals. 14 Q. You state in paragraph 98 at the top of 41 that: 15 "Phantasy Star Online was a game for the Sega 16 Dreamcast game console." 17 Do you see that statement? 18 A. Yes. 19 Q. Okay. I'm going to hand you what has been 20 previously marked as Exhibit 108 by Petitioners in the 21 996. 22 THE REPORTER: Is that 108 or 1008? 23 MR. SOROCO: 1008. I'm sorry. 24 (Referencing Exhibit 1008.) 25 ///	144 1 THE DEPONENT: Yeah, I see it. And where the 2 staples are, it looks like this is the front page over 3 here and the back page to the left. 4 BY MR. SOROCO: 5 Q. And looking at the warnings on the left-hand 6 side, do you see a section called "Operating 7 Precautions"? 8 A. I do. 9 Q. Okay. The second bullet point down states that: 10 "The Sega Dreamcast" -- I think it's "GD-ROM 11 disk is intended for use exclusively on the Sega 12 Dreamcast video game system. Do not use this disk in 13 anything other than a Dreamcast console, especially not 14 in a CD player." 15 Do you see that statement? 16 A. I do. 17 Q. Okay. Do you know what a GD-ROM disk is? 18 A. I do. 19 Q. What is a GD-ROM disk? 20 A. GD-ROM is a specially formatted gigabit -- or 21 gigabyte ROM. At the time, CDs were only 640 megabit -- 22 megabytes. This contained more data, a specially 23 formatted disk that Sega made. 24 Q. Okay. Was Sega the only producer of a GD-ROMs? 25 A. I'd have to confirm that, but I think so.

Transcript of David Crane
Conducted on February 26, 2024

37 (145 to 148)

145	147
1 Q. Okay. So you believe, then, that it's -- the	1 with the Dreamcast console."
2 GD-ROM is a -- is proprietary to Sega, or was	2 Do you see that statement?
3 proprietary to Sega?	3 A. I do.
4 A. Likely.	4 Q. Could this Fantasy Star Online software that
5 Q. Okay. Down further, on the left-hand side, do	5 accompanied this manual be played on other game consoles
6 you see a Sega Dreamcast video use section?	6 at the time this was released?
7 A. I do.	7 A. It would not operate on any other game console.
8 Q. And it states:	8 Q. Why was that?
9 "This GD-ROM can only be used with a Sega	9 A. It's programmed specifically for the Sega
10 Dreamcast video game system."	10 Dreamcast.
11 Do you see that, first sentence?	11 Q. Okay. If Fantasy Star Online wanted to be
12 A. Yes.	12 played on another console at the time, what would they,
13 Q. Okay. It says:	13 Sega, had to have done?
14 "Do not attempt to play this GD-ROM on any other	14 A. Sega would have had to rewrite the game for that
15 CD player. Doing so may damage the headphones and/or	15 console, adjusting for the programming language in that
16 speakers." The game is -- "This game" -- excuse me --	16 console, adjusting for the screen resolution of that
17 "is licensed for home play on the Sega Dreamcast video	17 console, the controllers, the audio system, the Sprite
18 game system only."	18 system, the rendering capability. All of the technical
19 And then you get your typical copyright notice,	19 aspects of the Dreamcast would have to be rewritten, or
20 right, unauthorized copying reproduction, rental is	20 what we would call back then ported, to a version that
21 going to violate all applicable laws?	21 would work on that hypothetical next game you want to
22 A. I see all that.	22 play it on, next console you want to play it on.
23 Q. Okay. The -- why was this game -- why -- strike	23 Q. Okay. All right. You can put that 1008 aside
24 that.	24 for the moment. We're going to go back to your
25 Why is this prohibition of playing the GD-ROM in	25 Exhibit 1004, your declaration.
146	148
1 other CD players necessary?	1 On page 41, paragraph 98, where we talked about
2 A. I can explain what is the most likely reason.	2 the Sega Dreamcast game console, at the bottom of
3 Q. Okay.	3 that -- or I guess I should say, the last portion of
4 A. Basically, a CD that is played on a CD player	4 that paragraph that is not including the quote, that you
5 contains data that is audio scanned at 44 kilohertz	5 state that:
6 sample rate, I believe. And at 44 kilohertz, the data	6 "The PSO manual identified that PSO operated in
7 does not change rapidly. So one word of data, the next	7 a client/server configuration."
8 one has very little change. It's only -- I mean, I am	8 Did you see that? Do you see that --
9 on video, so I can draw pictures in the air, but	9 A. I do.
10 they're -- they're doing wave forms.	10 Q. -- statement?
11 Q. Mm-hmm. Yes, sir.	11 Where does the PSO player's manuals disclose
12 A. But the GD-ROM contained data, and that meant	12 that it's a client/server configuration?
13 the data, if interpreted as 16-bit data, you know,	13 A. Taking the manual in -- in its entirety, a
14 bytes, could go from minus a million to plus a million	14 person of ordinary skill would see that the game is
15 in one -- in one sample.	15 played on the Sega Dreamcast, which is a client, and
16 Q. Okay.	16 would see that it communicates with a server and shows
17 A. So you've got data can be anywhere, and that	17 you how to log on to that server. So it's obvious that
18 means that if you were to play that as audio, you would	18 it's a client/server configuration.
19 get excruciatingly loud and noisy noise, and I believe	19 Q. Okay. And in this -- you may have already
20 that they felt that that kind of noise could damage	20 answered this. But what do you understand client to
21 headphones.	21 mean in a client/server configuration?
22 Q. Okay. And then on the top of the column on the	22 A. Typically in a client/server configuration, the
23 right -- or the right-hand side of the page, it says:	23 client is the computer that is being operated by the
24 "Thank you for purchasing Fantasy Star Online.	24 player.
25 Please note that this software is designed only for use	25 Q. All right. Let's turn to page 44, paragraph

149 1 101, of Exhibit 1004. 2 Looking at paragraph 101, you start: 3 "PSO manual also answered the question what is 4 PSO on page 2. PSO is a network RPG." 5 I believe that's role-playing game. Is that 6 correct? 7 A. That is correct. 8 Q. Okay. 9 "Online, you will meet a variety of people from 10 all over the world." 11 Do you see that sentence? 12 A. I do. 13 Q. Okay. What were these people using to play the 14 PSO game around the world? 15 A. Each person who is playing around the world is 16 playing the localized region version of the console. So 17 in Japan, there was one version, in PAL regions like 18 Europe, there was another version, and in the US, there 19 was another version of the hardware. 20 Q. And these are versions of the Sega Dreamcast, 21 right? 22 A. They are. 23 Q. Okay. What does the PSO player's manual, which 24 is Exhibit 1008, state that must be used to play the 25 game? Again, if we go back to the second and third	151 1 So these different systems are different 2 versions of the Sega Dreamcast. They're all Sega 3 Dreamcast consoles, though, correct? 4 MR. WOO: Objection. Form. 5 THE DEPONENT: They were a version of the Sega 6 Dreamcast console that was available to people in 7 those -- in those regions. 8 BY MR. SOROCO: 9 Q. Okay. Do you know what the name was on all the 10 consoles that were sold into these different regions? 11 A. I have seen a lot of different names used, where 12 they use a subtitle and a name. Specifically as I sit 13 here today, I couldn't tell you what the Japanese 14 Dreamcast machine was called, or the European or the 15 American? 16 Q. Do you believe they all have the name Sega on 17 them? 18 A. I would guess that they had Sega on them, for 19 sure, yeah. 20 Q. Would you believe that they all had the name 21 Dreamcast on them? 22 A. I would expect them to, although, you know, in 23 Japanese, they -- sometimes they give it to you in Kanji 24 or whatever, you know. 25 Q. All right. Let's look at the grounds, your --
150 1 page -- or excuse me. I guess it's the inside of that, 2 on the right-hand side. Does it not say that they must 3 have the Sega Dreamcast in order to play a PSO? 4 A. "This software is designed only for use with the 5 Dreamcast console." 6 Q. Okay. Is that your answer or are you reading 7 from the -- the document? 8 A. I read from the document. 9 Q. Okay. Is the -- what you read from the document 10 any different than your answer? 11 MR. WOO: Objection. Form. 12 THE DEPONENT: Which answer? 13 BY MR. SOROCO: 14 Q. You said you read that statement from the 15 manual. Do you disagree with that statement in the 16 manual? 17 MR. WOO: Objection. Form. 18 THE DEPONENT: The Sega -- the Phantasy Star 19 Online software was designed for use with the Dreamcast 20 console. 21 BY MR. SOROCO: 22 Q. I'm asking -- 23 A. I agree. 24 Q. Okay. That's what I was asking. It was a 25 simple question, do you agree.	152 1 your non-patentability grounds. 2 Ground 1 on page 54, at Section C, states that 3 you are -- it's your belief after analysis -- that's my 4 characterization -- that claims 135, 7 through 12 and 23 5 to 26 of the '165 patent are obvious over international 6 publication WO 02062436A2, i.e., Pisanich, in view of 7 the knowledge of a POSITA. Is that correct? 8 A. That's the header for this section, yes. 9 Q. That's correct. I assume that this header is a 10 summation of your opinion. Is it not? 11 A. It should be. You asked me once if I had seen 12 any typos. 13 Q. Yes. 14 A. It's coming to mind that I think in one of the 15 declarations the header is correct in the body, but it 16 didn't get translated into the table of contents. So we 17 need to be aware of the fact that one of these might be 18 wrong when we get there. 19 Q. Okay. But do you see anything that is wrong 20 here in the header for Section C? 21 A. I would have to look and see which claims 22 exactly to compare it, but I -- I don't see anything 23 wrong. 24 Q. Okay. Yeah, I believe those -- those are the 25 correct claims, but we can check that.

Transcript of David Crane
Conducted on February 26, 2024

39 (153 to 156)

153 1 You state in the second sentence of 2 paragraph 17: 3 "Both references are directed to interactive 4 environments." 5 Is that one of those typographical errors that 6 you believe might exist? 7 A. Yes. I mean -- well, no. Both references 8 meaning the referenced Pisanich and the patent. So if I 9 say both of these references in that particular case, 10 I'm talking about the patent -- 11 Q. Oh, okay. 12 A. -- and the prior art are both. 13 Q. Gotcha. So you're saying both the '165 patent 14 and Pisanich are direct -- references directed to 15 interactive environments? 16 A. That's what that sentence means, yes. 17 Q. Okay. Great. 18 If we go down to 118, you talk about -- a little 19 bit about Pisanich. And four lines up from the bottom 20 of that paragraph, you state that: 21 "A POSITA would have recognized that a flight 22 simulator simulated an interactive virtual environment 23 and, as such, integrated a wide range of real-world 24 information. See paragraph 80." 25 Correct?	155 1 the patent in the prior art. Do you remember the second 2 factor? 3 A. Generally, yes. 4 Q. Okay. And what does Pisanich not disclose? 5 Or excuse me. Let me rephrase that. 6 What claim elements of the '165 patent does 7 Pisanich not disclose? 8 MR. WOO: Objection. Form. 9 THE DEPONENT: My analysis of Pisanich as it 10 relates to the patent goes on for pages and pages. It 11 is in the record already in my declaration. And I took 12 each of these claims and every element of every claim 13 and discussed how Pisanich, combined with the knowledge 14 of a POSITA, rendered them obvious. 15 BY MR. SOROCO: 16 Q. Okay. I understand that. However, those 17 obviousness factors in paragraph 27 on page 9, the 18 second is identifying -- or excuse me. The second 19 factor to be evaluated is the difference or differences 20 between each claim of the patent and the prior art. And 21 I believe it was just your testimony that in all of this 22 analysis that you did, that you looked at the claim 23 element and made a determination of whether that claim 24 element was obvious over Pisanich. Is that correct? 25 MR. WOO: Objection. Mischaracterizes the prior
154 1 A. Yes. 2 Q. Okay. If we go to paragraph 80, which is on 3 page 31. Again, I believe we went through this. You 4 end the paragraph explaining about what flight 5 simulators taught, and you say "was well known." And I 6 believe we discussed well known there and well known in 7 paragraph 81 as being well known to POSITA. Correct? 8 A. That's correct. 9 Q. Okay. I just wanted to clarify. 10 And there's no -- is there a -- strike. 11 Does paragraph 80 have a citation indicating 12 that that information was well known? 13 A. There are citations above that talk about 14 Microsoft Flight Simulator 2000. I do have citations 15 describing some of these flight simulators as having 16 billboards and sponsored aircrafts and that sort of 17 thing. 18 Q. Okay. But not there in paragraph 80, which was 19 my -- 20 A. There is no citation in paragraph 80. 21 Q. Thank you. One of the things in those factors 22 that we discussed back in -- way back in the legal -- 23 the factor -- obviousness factors that we discussed on 24 page 9 earlier in your testimony, one of those factors 25 was the difference or differences between each claim of	156 1 testimony. 2 THE DEPONENT: The process that I performed was 3 to go through each of the asserted claims and look at 4 the patent and Pisanich. And I don't recall any 5 particular place where I specifically call down and say 6 these are different, instead pointing out that they are, 7 you know, obvious under the knowledge of a POSITA. 8 BY MR. SOROCO: 9 Q. Okay. So if you did not point out any 10 differences in your analysis, what -- strike that. 11 Paragraph 119, you state: 12 "A POSITA would have been motivated to combine 13 and collectively consider the teachings of Pisanich with 14 the knowledge and state of the art of video games." 15 Do you see that statement? 16 A. I do. 17 Q. And then it says: 18 "To arrive at the subject matter." 19 What is the motivation in the term that you 20 use -- the word -- or excuse me. 21 What -- what do you understand the term 22 "motivated" to mean in the first part of that sentence? 23 A. This statement refers to a person of ordinary 24 skill in the art with what he knew about the video game 25 business --

Transcript of David Crane
Conducted on February 26, 2024

40 (157 to 160)

157 1 Q. Mm-hmm. 2 A. -- at the time. 3 Would combine his knowledge and see that he'd 4 arrive at the same subject matter as the '165 patent. 5 Q. Okay. And then later on in that paragraph 119, 6 you state that Pisanich, with his knowledge of the state 7 of the art, to arrive at the subject matter claimed by 8 the '165 patent." 9 Do you see that statement? 10 A. I do. 11 Q. What do you mean -- or how would Pisanich, 12 excuse me, arrive at something? 13 MR. WOO: Objection. Form. 14 THE DEPONENT: If our hypothetical person of 15 ordinary skill in the art were reading the '165 16 patent -- I'm referring specifically to the claims that 17 were asserted -- it is my opinion that he would see that 18 this subject matter has been addressed in the state of 19 the art of the video games to date. 20 BY MR. SOROCO: 21 Q. Okay. Let me ask it this way. When you use the 22 term or the phrase "to arrive at," what definition of 23 that phrase -- what definition did you give that phrase? 24 MR. WOO: Objection. Form. 25 THE DEPONENT: Plain and ordinary English terms.	159 1 did disclose. Sitting here today, I can't tell you what 2 it didn't disclose in any way. 3 BY MR. SOROCO: 4 Q. Is your testimony that it -- there was nothing 5 that Pisanich didn't disclose of the element -- claimed 6 elements of the '165 patent? 7 MR. WOO: Objection. Form. 8 THE DEPONENT: My testimony is that my analysis 9 was to determine if Pisanich did disclose the elements 10 in the claims that are asserted, not an analysis of what 11 they didn't disclose. 12 BY MR. SOROCO: 13 Q. Again, I'll just turn you back to paragraph 27 14 at page 9 of your declaration, those obviousness 15 factors. 16 You were instructed and you understood that you 17 were to evaluate obviousness, second one, the difference 18 or differences between each claim of the patent, and the 19 prior art. 20 Are you -- is it your testimony that you did not 21 perform that step? 22 MR. WOO: Objection. Form. 23 THE DEPONENT: My testimony is that I looked for 24 similarities. Similarities are the opposite of 25 differences. So to that extent, if I'm analyzing
158 1 Arriving at the subject matter, he would see that the 2 prior art rendered obvious the subject matter. 3 BY MR. SOROCO: 4 Q. Okay. Let's move on. 5 Paragraph 120, that first statement there before 6 the -- the second comma, it says: 7 "Exemplary systems disclosed in Pisanich and 8 '165 patent serve interactive content in a substantially 9 similar manner." 10 What definition were you using for 11 substantially? 12 MR. WOO: Objection. Form. 13 THE DEPONENT: Substantially is better than 14 partially. 15 BY MR. SOROCO: 16 Q. You are a man that is very specific, going so 17 far as to saying 95 percent of a game had to be written 18 by you or developed by you. That is the best definition 19 to give to substantially? 20 A. I think it's a fine definition. 21 Q. Okay. Generally looking at Pisanich, what does 22 it not disclose relating to the claims of the '165 23 patent? 24 MR. WOO: Objection. Form. 25 THE DEPONENT: My analysis was all about what it	160 1 similarities, I'm analyzing differences at the same 2 time, just not documenting them as differences. 3 BY MR. SOROCO: 4 Q. Okay. We'll move on. 5 Page 56 of your Exhibit 1004, on paragraph 123, 6 about halfway, you make the statement: 7 "A POSITA would have understood that a computer 8 game that received information from an external server, 9 commonly referred to as a client server game system, 10 included a client upon which the game was played and a 11 server." 12 Do you see that statement? 13 A. I do. 14 Q. Okay. Is that your opinion? 15 A. It is my opinion that a POSITA would have 16 understood what a client server game system is and that 17 it included a client and a server. 18 Q. Okay. Looking at Romanette ii, which is element 19 1[a], you see that -- I guess it's at the top of page 20 57. It is the section header "Providing a Graphics User 21 Interface (GUI) Module For Use in the Client System." 22 Do you see that? 23 A. I do. 24 Q. Okay. When a claim uses A in front of a term, 25 do you have any understanding of the significance of the

161 1 A here? 2 A. I would say that's the other way around. If a 3 claim uses "V," it's referring back to an antecedent -- 4 antecedent that is usually identified with an "A." 5 Q. Okay. So in this example, you -- you 6 anticipated my next question. 7 The fact that an A graphics user interface, 8 that's the first time, typically, it is used in a claim, 9 correct? 10 A. Correct. 11 Q. Okay. And then if you look at the -- the end of 12 it, it says "for use in the client system," which means 13 it refers to the first-time client system was used, 14 which was in a -- the preamble of claim 1, correct? 15 A. The client system refers back to the client in 16 the preamble. I agree. 17 Q. Correct. Okay. So you understand, then, the 18 concept of antecedent basis within claims, patent 19 claims. 20 A. I do. 21 (Reporter clarification.) 22 Q. Okay. Great. Top of page 59 in your 23 Exhibit 1004, your declaration in Exhibit 1004. 24 Do you see that Figure 3 annotated? 25 A. I do.	163 1 application. A person of ordinary skill in the art 2 would find that hard to digest unless it's treated as a 3 software layer inside the game. 4 Q. Okay. Again, you have the annotation "secondary 5 applications," and I believe my question was, what does 6 secondary applications refer to? 7 A. It is those things that are within the game as 8 software modules. 9 Q. Okay. Let me make this simple. 10 Does the term secondary applications refer to 11 those items that it looks like you've put in a 12 broken-lined boundary box? 13 A. No. 14 Q. Okay. So it isn't referring to any of the items 15 that are shown by these boxes on Figure 3? 16 A. Any one of those could be considered secondary 17 applications. The dotted line refers to the GUI module. 18 Q. Okay. When you say any of them could be 19 secondary applications, what are you referring to as any 20 of them? 21 A. The rendering engine, the audio engine, force 22 feedback engine, player control engine. 23 Q. Okay. So those items could be secondary 24 applications? 25 A. Yes.
162 1 Q. Who annotated this document -- this figure? 2 A. Me. 3 Q. Okay. You -- let's look through this a little 4 bit. 5 You've got -- you -- should I assume that 6 everything that is red was annotated by you -- 7 A. Yes. 8 Q. -- on this figure? 9 You annotated game data server 108 with QIE 10 module, correct? 11 A. I did. 12 Q. Okay. You indicated or annotated game 112 with 13 primary application, correct? 14 A. Yes. 15 Q. Okay. You then have, down here on the left-hand 16 side, secondary applications. And to what does the term 17 "secondary applications" refer? 18 A. That's just using language from the asserted 19 patent. 20 Q. Mm-hmm. 21 A. In my opinion, it doesn't use that term very 22 well. To a game developer, a game is an application, 23 and it might contain software layers inside or modules 24 inside. So one of the claim terms in the patent is 25 primary -- or secondary application inside a primary	164 1 Q. Okay. 2 A. With the caveat that a secondary application 3 doesn't make sense unless it's maybe a module within the 4 game. 5 Q. Okay. You've got, below that, "first user 6 interface." What is that referring to? 7 A. It's the user interface to the player. 8 Q. Okay. And what on this drawing or figure does 9 first user interface refer to? 10 A. It refuse -- refers to the display that's 11 displaying the rendering engine, which is, of course, 12 controlled by the application manager and the traffic 13 manager in the game whole system. 14 Q. Okay. But again, on this document, would that 15 be -- is the first user interface referring to 16 display 332? 17 A. Yes, generally. 18 Q. You've got, to the right of there, second user 19 interface. To make this short, is that referring to the 20 audio system 336? 21 A. Yes. 22 Q. Okay. Back up into the main part of the figure, 23 you have digital content library module. What does that 24 refer to? 25 A. The storage inside the world manager, I believe.

Transcript of David Crane
Conducted on February 26, 2024

42 (165 to 168)

165 1 Q. Okay. And then finally, you have in the top, 2 thematic publishing logic module? 3 A. Yeah, that is for the entire game 112, really. 4 Q. So everything within that boundary box that you 5 had testified earlier represented game 112? 6 A. Yeah. This is the box that is creating the -- 7 the video game, the flight simulator. 8 Q. Okay. 9 A. And so it's publishing the -- the game to the 10 user. 11 Q. Okay. On paragraph 125 on page 59, you state: 12 "Thus, Pisanich disclosed or at least rendered 13 obvious." 14 Do you see that language? 15 A. Yes. 16 Q. Okay. Are you saying that disclose -- that 17 Pisanich disclosed everything in Romanette ii, claim 1, 18 element A? 19 A. I'm stating that it either disclosed or rendered 20 obvious. It's kind of a blanket statement to make sure 21 I'm not missing anything, but it either disclosed it or 22 rendered it obvious, yes. 23 Q. Okay. And is it true that when we go through 24 your declaration that that is a statement that you 25 repeat multiple times, basically for every element	167 1 rendered obvious. It's kind of a blanket statement to 2 make sure I am not missing anything, but it neither 3 disclosed it -- but it either disclosed it,"excuse me, 4 "or rendered it obvious, yes." 5 THE DEPONENT: That is generally the meaning of 6 that statement to me. 7 BY MR. SOROCO: 8 Q. And the reason I'm asking you that is just to 9 save us some time so that we don't have to ask you that 10 question every time that it pops up. 11 In paragraph 126, you state as an initial 12 matter: 13 "This claim element requires only the existence 14 of a quantum imaging environment module in the system 15 and does not contain any limitations on the function." 16 Why did you -- why did you point out this 17 distinction? 18 A. Simply because that claim element is met if the 19 prior art disclosed a module. 20 Q. Okay. Paragraph 128, you state: 21 "Pisanich taught a rendering engine that used 22 conventional technology to display objects internal to 23 cockpit and display objects external in the virtual 24 thematic, conventional technology based on our earlier 25 discussion that were not" -- you're using conventional
166 1 claim, I guess I should say? 2 A. I do repeat it multiple times. 3 Q. And every time you repeat it, does it have the 4 same definition that you just gave it? 5 MR. WOO: Objection. Mischaracterizes the 6 testimony. 7 MR. SOROCO: Okay. Let me re-ask the question. 8 BY MR. SOROCO: 9 Q. The times that you used "disclosed or at least 10 rendered obvious" in other parts of your declaration, 11 were you giving it the same definition that you just 12 testified to? 13 MR. WOO: Objection. Mischaracterizes 14 testimony. Form. 15 THE DEPONENT: Yes. It's -- part of that 16 question was, which I just testified to, and I'd have to 17 remember what is it. 18 MR. SOROCO: Sure. You stated -- yeah, go up. 19 Thank you, Marc. 20 BY MR. SOROCO: 21 Q. Okay. Are you saying that disclose -- that 22 Pisanich disclosed everything in Romanette ii, claim 1, 23 element A. That was my question. 24 Your answer was: 25 "I am stating that it either disclosed or	168 1 technology in -- with different definitions in different 2 places, in context, correct? 3 MR. WOO: Objection. Form. Mischaracterizes 4 the testimony. 5 BY MR. SOROCO: 6 Q. Well, isn't it true, Mr. Crane, that you have 7 given at least two definitions for conventional 8 technology? 9 A. No. Conventional gets used multiple times, but 10 conventional technology is different. Back when we were 11 talking about porting a game, that was a conventional 12 method. 13 Q. Okay. And in this situation here, what was the 14 conventional technology that was used to display objects 15 internal to the cockpit and display objects external to 16 the aircraft? 17 A. That's the technology that had been around for 18 decades, at least one decade, for creating a flight 19 simulator, the ability to render objects outside the 20 display and to display objects internal to the cockpit. 21 Q. Okay. In paragraph 129, you said -- you started 22 the sentence: 23 "Said conventional technology." 24 Is that the conventional technology in -- you 25 had mentioned in paragraph 128?

169 1 A. It is. 2 Q. And then you went on to say: 3 "Included rendering technology configured to 4 account for differences between multiple gaming devices 5 as needed." 6 Is that the porting technology -- or 7 methodology, I guess I should say, that you used 8 previously or testified to previously? 9 MR. WOO: Objection. Form. 10 THE DEPONENT: It's the conventional rendering 11 technology that is then configured during a port to 12 account for different gaming devices. 13 BY MR. SOROCO: 14 Q. Okay. In paragraph 130 on page 61, you said: 15 "Moreover, Pisanich taught a game data server 16 18 -- 108 module that taught the features of a QIE 17 module in the claim server system configured to 18 interpret content such as the content was manipulated to 19 be served into different games, presumably on different 20 devices." 21 So you -- why did you use the word "presumably" 22 there in that sentence, Mr. Crane? 23 A. Well, this diagram, we have the primary game 112 24 and then other games. It was an assumption on my part 25 that other games could be played on other devices.	171 1 Would it be fair to say that if you had found a cite 2 within Pisanich teaching different devices, that you 3 would have cited it rather than using the term 4 presuming -- presumably, excuse me? 5 MR. WOO: Objection. Form. 6 THE DEPONENT: I wouldn't say that's a fair 7 statement. I don't know what I would have done based on 8 what I did or did not find. 9 BY MR. SOROCO: 10 Q. Okay. But to date, looking at paragraph 130, 11 you presumed it was on different devices. You did not 12 provide a cite showing that it was on different devices, 13 correct? 14 A. Yeah. Looking at this declaration several 15 months later, I don't recall if I captured multiple 16 devices disclosed in Pisanich. 17 Q. Okay. I believe you testified earlier, at the 18 beginning of the day, that you looked at this 19 declaration in the last week. Is that correct? 20 A. I did. 21 Q. Okay. So looking at -- down below the Figure 1 22 of Pisanich, on page 61: 23 "Moreover, a second player may play an entirely 24 different game 116, for instance, a car racing game or a 25 football game than the game 112 being played by the
170 1 Q. Is there anything in there that supports your 2 presumption, or assumption? 3 A. Well, the discussion on playing an entirely 4 different game kind of suggests it. I -- as I sit here 5 today, I can't say that Pisanich specifically says that 6 there are different devices, but there are diff -- they 7 are manipulating the data differently based on a game. 8 Q. Okay. But we testified -- you testified that it 9 could be -- I think it was a car racing game and a 10 flight simulator game that -- games 112 and other games, 11 116. Is -- did I have that correct? 12 A. The examples they give are a car racing game or 13 a football game -- 14 Q. Oh. 15 A. -- might be 116, and we've been talking about 16 game 112 being a flight simulator game. 17 Q. Okay. Does -- is there any explicit device 18 disclosure in Pisanich where the different devices that 19 game 112 and other games 116 are being played on 20 different devices? 21 MR. WOO: Objection. Form. 22 BY MR. SOROCO: 23 Q. Let me ask that question a different way, 24 Mr. Crane. 25 You stated presumably on different devices.	172 1 first player. However, the different game 116 may 2 request the same type of data, weather, for example." 3 Okay. Do you agree that a car racing game has a 4 car racing theme? 5 A. Generally, I would say that a car racing game 6 has a car racing theme. 7 Q. Okay. And do you agree that a football game 8 generally has a football theme? 9 A. I would say that a football game has a football 10 theme. 11 Q. Okay. Is a car racing theme the same as a 12 football theme? 13 A. Not necessarily. Probably not. 14 Q. Probably not. That's an interesting... 15 A. You could be playing football and having cars 16 driving around you. It's certainly possible. But as a 17 general rule, I would say those are different themes. 18 Q. Okay. Thank you. 19 Paragraph 131 on page 62: 20 "Each type of game, game 112 and other games, 21 116, relied on the game data server 1A to provide a 22 range of information specific to that game's needs." 23 And then you go on: 24 "Thus, Pisanich taught that the game server -- 25 game data server 1A could be connected to multiple

Transcript of David Crane
Conducted on February 26, 2024

44 (173 to 176)

173 1 devices playing different games in said server, 2 interpreted and manipulated content," and I'm going to 3 assume to -- "to be accessed by multiple devices," 4 again, that to be accessed by said multiple devices. 5 Correct? 6 A. I would say that probably should have been "be." 7 Q. Okay. And where does -- where is this taught in 8 Pisanich? 9 A. Well, in Pisanich, the other games 116, if you 10 play it on different devices, these are happening 11 simultaneously in a game system. You can only play one 12 game at a time. So that would be the other devices. 13 And it states that the type of data -- it may request 14 the same type of data, but that type of data would be 15 used differently in different games. That game -- 16 racing game may also be drawing from that same server 17 real time data about automobile traffic and, a maritime 18 data might collect and store sea conditions. 19 So Pisanich is explaining that this game 112 and 20 this game 116 both ask for data from game data server, 21 but the server -- the data that they receive from 22 external sources is transmitted to them in the context 23 of what they need. 24 Q. Okay. Going down to Romanette iv, four, which 25 is element 1[c], and providing a thematic publishing	175 1 server 108 requests -- makes requests for real-time 2 data? 3 A. That's best seen in the annotated figure on 67. 4 There's plenty of disclosure in Pisanich about 5 connecting to these servers from far away, but 6 presumably they talk about the Internet connection to do 7 that. I'm not sure. We'll get to that, I'm sure. And 8 in order to obtain data from a server, you have to 9 request that data from a server. 10 Q. Okay. Who -- so you refer to the figure on 67, 11 the annotated figure. Who created this figure? 12 A. I did. 13 Q. Okay. 14 MR. SOROCO: It's been about an hour and half 15 since we came back. Would you like a break, Mr. Crane? 16 THE DEPONENT: Sure. 17 MR. SOROCO: Okay. Let's go off the record. 18 THE VIDEOGRAPHER: Okay. We're going off the 19 record. The time is 15:02. 20 (A recess transpires.) 21 THE VIDEOGRAPHER: We are back on the record. 22 The time is 15:21. 23 BY MR. SOROCO: 24 Q. Mr. Crane, I think when we broke, we were 25 talking about Figure 1, the annotated Figure 1 on
174 1 logic module in one of the client or the server systems. 2 Where does Pisanich teach a client or a client system? 3 A. That was specifically stated in one of the 4 citations that we had in the last few pages. 5 Q. If you would like me to help, we did talk about 6 it in paragraph -- you spoke about it in paragraph 123, 7 but it was a POSITA would have understood that a 8 computer game that received information from an external 9 server included a client and a server. 10 A. Okay. 11 Q. Okay. So based upon that representation, it was 12 POSITA, your knowledge of POSITA, that Pisanich was 13 disclosing a client system, correct? 14 A. That is a true statement. 15 Q. Okay. Let's look at page 65, paragraph 140, 16 referring to Romanette vii, which is element 1[f] of 17 claim 1 of the '165 patent. It's -- in that language, 18 it's sending a request for the first -- four first 19 real-time information via the QIE module to the 20 worldwide web. 21 In paragraph 140, you said, referring to the 22 game server 108 that functioned as a QIE module: 23 "Pisanich taught that the game server sent 24 requests for real-time information." 25 Okay? Where in Pisanich does it teach that game	176 1 page 67 of your declaration in Exhibit 1004. Correct? 2 A. Yes. 3 Q. Okay. And I -- I think we left where discussing 4 game data server 108 requests the data, or we had 5 mentioned that previously maybe. 6 My question is, is where on Pisanich does it 7 teach requesting the real-time data? 8 A. Again, as I said, this is based on the knowledge 9 of a person of ordinary skill in the art. Internet 101 10 or Server 101 is, if you want to get information from a 11 server, you have to request it. 12 Q. Okay. Is that the only way to get information 13 from a server? 14 A. It's the primary way. 15 Q. What are other ways? 16 A. You can set up push notifications and ask it to 17 send you data every so many minutes or whatever, but 18 then you might not be there to receive it. So in video 19 games, which are real-time live action, you send a 20 request and you get data back. 21 Q. But as I believe you just testified, requesting 22 data, real-time data, is not the only way to get that 23 real-time data, correct? 24 A. There are many ways to use computers, as many 25 ways as there are programmers.

177 1 Q. Okay. I think I have -- I have heard it said 2 that for every way that you want to do something, there 3 is -- every programmer will have 15 ways to be able to 4 do it for you. Is that a fair statement? 5 A. I've never heard that quote. There's 15 ways to 6 do it wrong, I could say. 7 Q. And you've probably seen all 15 of those, if not 8 more? 9 A. That's a fact. 10 Q. Okay. Let's go to page 69, Romanette x, which 11 is claim element 1[i]. And that's providing access to 12 the first real-time information within the virtual 13 thematic environment via the first user interface. Do 14 you see that language? 15 A. Yes. 16 Q. Okay. And when we say "the first real-time 17 information," we're referring back to real time, A for 18 first real time or first real-time information. Is that 19 correct? 20 A. It is referring to an antecedent. I would just 21 like to see what it says. 22 Q. Sure. 23 A. Which -- which claim element was it? 24 Q. I believe it's on page 65, Romanette vii, excuse 25 me, Roman element 1[f], sending a request for first	179 1 i.e., or if you want to put it in brackets, software 2 layer, within the primary application, again within 3 brackets, software layer, correct? Is that -- do I 4 understand your testimony correctly? 5 A. That is what I'm trying to point out. However, 6 I'm using my recollection of the construction of that 7 term. We haven't even looked at the Markman order, have 8 we? 9 Q. We have not. 10 A. I would be interested in what that exact 11 language is for that. 12 Q. I understand. However, we are talking about the 13 analysis that you did in your Exhibit 1004, correct? 14 A. True. What was the construction at the time of 15 this analysis? 16 Q. That's correct. 17 A. No. I'm saying, what was the construction at 18 the time of this analysis? Refresh my memory. It's 19 been many, many months. 20 Q. For what element is that? 21 A. For secondary application within a primary 22 application. 23 Q. I'm not sure what -- I don't have that 24 construction at the moment, so... 25 A. Then it was probably plain and ordinary meaning.
178 1 real-time information. 2 A. Okay. 3 Q. And then again, next line, "Within the virtual 4 thematic environment." 5 Again, as you put it, antecedent basis to a 6 prior virtual thematic environment, correct? 7 A. Correct. 8 Q. And then again, "Via the first user interface." 9 Again referring antecedent basis back to first 10 user interface, correct? 11 A. Via the first user interface, yes. 12 Q. Okay. Bottom of page 69, Romanette xi, which is 13 claim element 1[j], reading: 14 "Providing at least one secondary application 15 within the primary application at the client system." 16 Do you see that language? 17 A. I do. 18 Q. Okay. The claim term is within the primary 19 application, and I believe you testified earlier that 20 "within" was bothersome to you? 21 A. Generally. There's one application. That's the 22 game. But I believe the way it was construed as a 23 software layer, that works here. 24 Q. Okay. So when you say being construed as a 25 software layer, at least one secondary application,	180 1 Q. On page 70, at the top, I guess this is 2 referring -- again, we're in paragraph 149. It says: 3 "Been well known" -- starting on page 69: 4 "Been well known to a POSITA is merely one of a 5 variety of ways to program software to accomplish 6 substantially the same functionality." 7 Again, why did you choose to use the word 8 "substantially" there? 9 A. The same reason as I said before. 10 Q. Can you repeat that, please. 11 A. It's greater than -- the word escapes me now, 12 but my testimony is on the record if you want to go back 13 and read it. 14 Q. Okay. But substantially, you're saying 15 substantially here is you're defining it the same as you 16 did previously? 17 A. Correct. 18 Q. Okay. I believe you said earlier with respect 19 to -- have to find your figure. 20 Page 59, your annotated figure 3, that audio 21 engine 320. And I believe your testimony was either is 22 a secondary application or could be a secondary 23 application. 24 Okay. Why would that be a secondary 25 application?

181 1 A. Well, that, first of all, brings us back to the 2 secondary application being a module within the game. 3 If it's going to be inside the primary application, it's 4 not going to be a different application. It's going to 5 be some sort of a software module. 6 And the question of how can this be a secondary 7 application is because it could be a module within the 8 primary application. 9 Q. Okay. Looking at page 73, paragraph 162, 10 Romanette xvi. And this is claim element 1[o]. 11 "Enabling the user to control the at least one 12 secondary application through a second user interface." 13 Do you see that language? 14 A. I do. 15 Q. Okay. And the user for element 1[o]-- 16 A. That's the letter "O." 17 Q. Yeah, sorry, letter "O." What is the second 18 user interface? 19 Excuse me. Let me rephrase that. 20 So in element 1[o], there is a second user 21 interface language used? 22 A. It is a second user interface. 23 Q. Right. What is A -- what is the A second user 24 interface? 25 A. Pisanich taught a second interface in the game	183 1 One of the legal information that was given to you to 2 use was that it was the review of the claims -- in fact, 3 I'll just get it -- as a whole. You broke all of the 4 reference elements out, you know, 1A, 1B, 1C. Where as 5 a whole did you consider the claim elements and whether 6 they are obvious to one of ordinary skill in the art? 7 MR. WOO: Objection. Form. 8 THE DEPONENT: When I'm doing analysis like 9 this, if I find that every claimant element individually 10 is obvious, then I am considering the whole claim as 11 well. It's all -- it's just a sum of its parts. 12 MR. SOROCOCCO: Okay. Thank you. 13 BY MR. SOROCOCCO: 14 Q. Going on to claim 2 -- actually, let's move on, 15 just to move on a little quicker. 16 If we can go to claim -- or page 93. We're in a 17 different section now, and we're talking about the PSO 18 manual. 19 Actually, let's go back to page 91. I'm sorry 20 to make you jump around. 21 It says: 22 "Ground 2, claims 1357 to 12, and 23 to 26, are 23 obvious over PSO manual in view of the knowledge of a 24 POSITA." 25 Do you see that?
182 1 that allowed the player to select the geographical 2 location in which he would be flying. 3 Q. Okay. And that is the second user interface? 4 A. That is a second user interface. 5 Q. Okay. Is that the only second user interface 6 that Pisanich taught? 7 MR. WOO: Objection. Form. 8 THE DEPONENT: Yeah, offhand, I can't say 9 what... 10 MR. SOROCOCCO: Okay. 11 THE DEPONENT: Let's find it in my declaration. 12 BY MR. SOROCOCCO: 13 Q. Page 74, paragraph 164, you end with: 14 "Thus, Pisanich disclosed, or at least rendered 15 obvious in view of the knowledge of POSITA, this claim 16 element." 17 Do you see there that language? And -- do you 18 see that language? Sorry. 19 A. This is prior to the claim 2? 20 Q. Yes. Sorry. 21 A. So 164. Yes. 22 Q. 164. Okay. 23 And we have discussed that paragraph, or the 24 phrasing of that paragraph, earlier. 25 And then you move on to claim 2 in Section B.	184 1 A. I do. 2 Q. Okay. So it's your testimony that the PSO 3 manual renders obvious the claims -- the referenced 4 claims of the '165 patent? 5 A. In view of the knowledge of a POSITA. 6 Q. Okay. 7 A. That is my opinion. 8 Q. Okay. So let me just make sure I answer -- ask 9 that question. 10 So the PSO manual, in view of the knowledge of 11 POSITA, as we've discussed, in your opinion, renders all 12 of the claim -- or the reference claims, excuse me, on 13 page 91, the challenge claims, obvious. Is that 14 statement correct? 15 MR. WOO: Objection. Form. 16 THE DEPONENT: I believe that that is correct. 17 At least as I was writing it, I was certain of the 18 facts. Do you really want me to go through? Or I guess 19 we will go through this and make sure that that's true. 20 BY MR. SOROCOCCO: 21 Q. No. I'm just asking you if that was your -- if 22 that was your -- your opinion? 23 A. That was my opinion upon my analysis. 24 Q. Okay. Great. We had gone through, I think, 25 some -- one of the other subject headers, and there was

Transcript of David Crane
Conducted on February 26, 2024

47 (185 to 188)

185 1 some discussion of whether the header was correct or 2 not. So... 3 A. I think it was more the table of contents is 4 where the header information was wrong. 5 Q. Okay. We haven't even talked about the table of 6 contents. 7 A. No, we haven't. 8 Q. Generally fine. There's not -- not a terrible 9 amount of information there that isn't elsewhere. 10 So the Dreamcast -- we had talked a little bit 11 about the Dreamcast manual, and that's Exhibit 1008, 12 correct? And if you want to bring that up -- 13 A. I have it. 14 Q. -- in front of you. 15 Great. 16 And I believe you testified that it could have 17 different regions, I think it was Japanese -- in Japan 18 or Europe or -- I think it was Japan and Europe? 19 A. And the US. 20 Q. And the US. Correct. 21 Is it your testimony that those consoles, or 22 those different regional consoles, had different 23 software on them? 24 A. Yes. 25 Q. Okay. Were they different hardware?	187 1 A. Yes. 2 Q. -- within the game? 3 A. It was part of the software. 4 Q. Okay. And it was construct sentences to be sent 5 via chat to any destination around the world. 6 And then you go on to state: 7 "The word select system at the destination 8 received, interpreted, and manipulated the cont for any 9 device -- content for any device translated into the 10 language of the recipient." 11 Do you see that sentence? 12 A. Yes. 13 Q. Okay. Where does the PSO manual disclose that 14 the receipt, interpretation, and manipulation of the 15 content occurred at the destination? 16 A. It explains that -- and this -- I had mentioned 17 that Phantasy Star Online was groundbreaking in many 18 ways. This is another one of those ways. I could chat 19 with someone in Japan, and they were playing on a 20 Japanese console. And I select -- said, hi, how are 21 you, and that comes out in gibberish as far as I'm 22 concerned, but it comes out in Japanese in the Japanese 23 manual -- or on the Japanese console. If my -- if the 24 recipient was in Finland, they would receive a different 25 language result. So it is processed by the console that
186 1 A. Yes. 2 Q. Okay. And were there parts of them that were -- 3 that were the same? 4 MR. WOO: Objection. Form. 5 THE DEPONENT: There are parts of them that 6 were largely the same. 7 BY MR. SOROCO: 8 Q. Okay. 9 A. That doesn't mean they're exactly the same. 10 Q. Okay. And I assume, then, the opposite is true 11 as well, is that there were parts of them that were 12 different? 13 A. I suppose you could say the opposite is true. I 14 mean, I'm thinking like a Sprite system that is designed 15 to output a certain number of Sprites. You get more 16 Sprites in the Japanese version than you do in the 17 American version. So it would look very much the same 18 hardware-wise, but for various clocking reasons and 19 such, it's different. 20 Q. Okay. All right. I think on page 95, 21 paragraph 238, you talk about the PSO manual describing 22 a word select feature that was embedded in the game. 23 A. Yes. 24 Q. And I assume embedded in the game means that it 25 was software --	188 1 knows what the language is that it's supposed to be 2 displayed. 3 Q. Okay. So the content of the word select was 4 predetermined, correct? 5 MR. WOO: Objection. Form. 6 THE DEPONENT: It was selected by a game player 7 during play. How is that -- how is that predetermined? 8 BY MR. SOROCO: 9 Q. Did the player select from a drop-down menu, or 10 did they type in a phrase? 11 A. They were selecting from a fixed set of possible 12 chats. 13 Q. And your statement was, the word select system 14 at the destination received, interpreted, and 15 manipulated the content, and my comment -- my question 16 was, where does the PSO manual describe where those 17 three things occurred? 18 A. In the first place, it's the understanding of a 19 person of ordinary skill in the art, if the manual says 20 that I can chat with a person in Japan and they receive 21 it in Japanese, that would be the disclosure you're 22 looking for. I would have to find it. I don't know if 23 I cite to it specifically. Yeah, up in the background 24 section. I have to look through it though. 25 So yes, I believe that a person of ordinary

189 1 skill in the art would understand the teachings of the 2 PSO manual that his text is manipulated and interpreted 3 and displayed in the language of the recipient, and that 4 would necessarily happen at the recipient computer. 5 Q. Okay. Again, it was the word select system at 6 the destination received it, interpreted it, and 7 manipulated it? 8 A. Correct. 9 Q. My question is simply, could it have been at the 10 originating player rather than at the destination? 11 A. That would not be the case. The originating 12 computer doesn't necessarily know the language of the 13 recipient. 14 MR. SOROCCO: I think if we can go off the 15 record for about ten minutes, and I'll get set up and we 16 will go into the next IPR. 17 MR. WOO: Okay. 18 MR. SOROCCO: Okay. 19 THE VIDEOGRAPHER: We're going off the record. 20 The time is 15:42. 21 (A recess transpires.) 22 THE VIDEOGRAPHER: We're back on the record. 23 The time is 15:56. 24 MR. SOROCCO: Had a nice break and stretch 25 there, Mr. Crane?	191 1 A. Yes. 2 Q. Okay. Great. And as I said, I'm not going to 3 go through all the background, your education and things 4 of that nature. I do on page 9, paragraph 24. In this 5 paragraph, it sets forth the information that you have 6 considered, in addition to your education, knowledge in 7 the relevant field and knowledge of scientific 8 engineering principles, and your experience and the 9 other external materials cited, that you have reviewed 10 and considered the '028 patent, which is Exhibit 1001, 11 which I will hand out in a minute, its prosecution 12 history, which is Exhibit -- previously marked 13 Exhibit 1003, and then the following additional 14 materials related to Exhibit 1007, Exhibit 1008, and 15 Exhibit 1009. And those are exhibits that Petitioner's 16 previously marked as such. And they refer to -- 17 generally, to the prior art references that you relied 18 upon in the '028 patent, correct, in your opinions for 19 the '028 patent? 20 A. Yes. 21 Q. Okay. And we will get into each one of them 22 individually. I -- as I said, if -- a moment ago, I'm 23 going to assume that the understanding of the law is 24 generally the same in paragraphs 26 through 39. Is that 25 a fair assumption?
190 1 THE DEPONENT: Got to straighten my knees. 2 BY MR. SOROCCO: 3 Q. So we are going to begin getting into your 4 opinions -- analysis, opinions, and testimony with 5 regard to IPR 2023-00954, which has to do with US Patent 6 No. 8,458,028. And like earlier, we can use a shorthand 7 of the '028 patent, and the 954 IPR. Is that fair? 8 A. Fair. 9 Q. Okay. And I haven't looked at it paragraph by 10 paragraph, just with time and everything, but I assume 11 that your background and education hasn't -- didn't 12 change between the 996 proceeding and this proceeding in 13 the 954 IPR? 14 A. I also would assume they are the same. 15 MR. SOROCCO: Okay. I'm going to give you what 16 was handed -- Petitioner's designated as Exhibit 1004. 17 (Referencing Exhibit 1004.) 18 BY MR. SOROCCO: 19 Q. Which is your deposition -- or excuse me, your 20 declaration in this 954 IPR, correct? 21 A. Apparently. 22 Q. Okay. And I will -- I will -- 23 A. Yes, that's my signature in the back there. 24 Q. Okay. That's your signature on page 94, and it 25 was signed on or about May 23rd, 2023. Is that correct?	192 1 A. I would assume that as well. 2 Q. Okay. And the level of skill in the art, again, 3 I will assume that generally that is the same as in the 4 956 IPR. Correct? 5 A. I would assume that as well. 6 Q. Okay. Great. All right. Let's start -- now, 7 you've got your -- your opinion -- or your declaration. 8 Let's take a look first at -- I'm going to hand you 9 what's been marked -- previously marked by Petitioners 10 as Exhibit 1001, and this is a copy of the issued '028 11 patent. 12 (Referencing Exhibit 1001.) 13 BY MR. SOROCCO: 14 Q. Is that correct? 15 A. It looks the same. 16 Q. Okay. And the front of the patent generally has 17 the same sections and information on it. Obviously, the 18 bibliography is specific to the '028, but is similar to 19 the '165. Is that correct? 20 A. Yes. 21 Q. Okay. Great. Turning to the first figure, 22 Figure 1. Okay. Can you tell me generally what you 23 understand Figure 1 to communicate, or the information 24 it's showing? 25 MR. WOO: Objection. Form.

Transcript of David Crane
Conducted on February 26, 2024

49 (193 to 196)

193 1 THE DEPONENT: Certainly in the middle, there's 2 a network. That network interconnects a number of 3 different boxes. Those boxes include an electronic 4 device with a web browser and a user, a secondary 5 primary device called primary electronic device 2, which 6 contains game application and character profiles and 7 game benefit records, and then a number of external 8 servers, secondary device 20, 26, 32, and a couple 9 databases. 10 BY MR. SOROCO: 11 Q. Okay. And all connected by a network labeled 12 Network 10, correct? 13 A. Correct. 14 Q. Okay. Could you turn to Figure 2, please. Do 15 you have an understanding of what information is being 16 communicated by Figure 2? 17 A. Generally. I remember it's a second embodiment 18 of some of the same concepts. 19 Q. Okay. Do you recall any differences between 20 Figure 1 and Figure 2? 21 A. Yeah. Obviously, there are differences. I may 22 have addressed those differences in my declaration, but 23 they are not the same. 24 Q. Okay. We will go through them individually in a 25 moment, then. I was just looking for your general	195 1 Q. And then there is a block quote with a footnote 2 to a site called fandom.com? 3 A. Yes. 4 Q. Do you have an understanding of the website 5 fandom.com? 6 A. Not particularly. I was using Shockwave in 7 1995, as were all the other people working with me at 8 Skyworks Technologies. So I just -- if it helps, you 9 know, I want to cite somebody who points out the date. 10 Q. Okay. 11 A. A lot of these people are trying to keep track 12 of dates and things. 13 Q. Okay. Why is that, that they're interested in 14 keeping track of dates and things? 15 A. Largely because of the collectors. Collectors 16 care about rare games that happened at particular times, 17 and they care about when the dates were, so that -- 18 anyway, so fans and collectors love to accumulate 19 details about the games. 20 Q. Okay. It's kind of the provenance of the games 21 or information around them. Is that correct? 22 A. Somewhat, yeah. 23 Q. Okay. I note in this footnote 5 in the URL that 24 it includes the word "Wiki"? 25 A. Mm-hmm.
194 1 understanding. 2 I note on page 26 of your declaration reference 3 to mobygames.com. Is that the same MobyGames that we 4 discussed with regard to the 956 IPR? 5 A. It is. 6 Q. You -- on page 28, you describe, Section 3, I 7 guess, using a web browser as a game application. And 8 this is in -- generally in the section, I think you 9 entitled it "Background Information." So it's in 10 Romanette numeral ix on page 24, under section 11 Background Information. So on page 28. 12 A. Yes, I do create a background information in 13 here, kind of putting on my professor hat and explaining 14 to one who might not know what an advergaming is and what 15 was known at that time. 16 Q. Okay. And then in Section 3, you specifically, 17 as you are -- with your professor hat on, explain using 18 a web browser as a game application, correct? 19 A. Correct. 20 Q. Okay. And you have made -- in paragraph 70, you 21 talk about a major leap in browser-based gaming came 22 when Macromedia launched its Shockwave browser plug-in 23 in 1995. 24 Do you see that in paragraph 70? 25 A. Yes.	196 1 Q. What -- do you have an understanding of what the 2 word Wiki there means? 3 A. I don't know how they would use it necessarily, 4 but generally it is a fan-supplied information. 5 Q. Okay. 6 A. And then, of course, they fight over it to make 7 sure it's all accurate. 8 Q. Okay. Is that similar to the peer reviewers of 9 mobygames.com that we discussed earlier? 10 A. It's close -- closer to Wikipedia, I would say, 11 as, again, the fan reviewers -- or the reviewers on 12 MobyGames, my recollection is that they are very 13 carefully curated. 14 Q. Okay. And as opposed to Wikipedia, where it's 15 more open, would you say? 16 A. That's my understanding. 17 Q. Okay. In paragraph 71, you state that 18 Macromedia followed Shockwave with Flash, which is you 19 claim -- which you state is another browser plug-in 20 designed to add multimedia and game-playing 21 functionality to a standard web browser program. 22 Do you see that language? 23 A. I do. 24 Q. Okay. Do you have an general understanding of 25 how Flash operated?

197 1 A. I do. 2 Q. Okay. And I didn't ask this. But do you have 3 an understanding of how Shockwave operated? 4 A. I am an expert in that. 5 Q. Okay. Generally for those of us, can you 6 explain with your professor hat on a little bit how 7 Shockwave operated? 8 A. Yeah. I mean, we've talked earlier about online 9 games, and as I've said, online game is a game that has 10 an online component. It is typically done with program 11 being performed inside the client communicating to the 12 server. And in these days, Internet wasn't very fast, 13 so you designed it so that you would have lots of -- 14 most of what was going on was going on on the client, 15 because it is more powerful than the Internet is fast. 16 So you would often front load a lot of the tasks. 17 So in a web browser, I mean, a web browser is 18 typically designed to just browse the web, click on 19 hyperlinks and move to one page or another. But once we 20 started putting in browser plug-ins like Shockwave, it 21 made the web browser into, in essence, a game-playing 22 console. So it had all the capability to move Sprites 23 around, to do game logic, to display things, to animate. 24 All of the things that you need for a game are now 25 embedded into the plug-in that's embedded into the web	199 1 A. If you had Shockwave installed, you could play a 2 game out of your cache, but you had to originally get 3 that game from somewhere. 4 Q. Okay. And cache being spelled c-a-c-h-e, 5 correct? 6 A. That's correct. 7 Q. And when you say you had to have it -- it had to 8 be installed in your cache, that means you had visited 9 that website at some prior point in time. Is that 10 correct? 11 A. Correct. 12 Q. And I believe you said that Shockwave, or it may 13 have been Flash, please correct me, that it turned your 14 web browser into a game console. Is that correct? 15 A. That is basically the purpose. 16 Q. Okay. And similarly -- well, let me ask this 17 question. 18 A game console can't play a game until a game is 19 put into the game console. Is that correct? 20 A. Yeah, generally. I mean, a game console needs 21 to have software to play a game, and those are sold 22 separately, usually. 23 Q. Okay. Back in time prior to the -- at the 24 priority date of the '028 patent, which is 25 June 4th, 2013, is that --
198 1 browser. 2 So that's how web-browser-based online gaming 3 works. 4 Q. Okay. And is that the same with Flash? 5 A. It is the same with Flash. 6 Q. Okay. Or I should say, that's -- Flash operates 7 similarly to Shockwave, or has the same functionality, I 8 guess I should say, as Shockwave? 9 A. Flash also makes the browser capable of playing 10 games. To be -- I should be clear that with Shockwave, 11 and Flash as well, if you go to a web page and you want 12 to play a game, you download the game from that web page 13 into your browser so that that's actually being hosted 14 on your client, and that's where you're playing it. So 15 you use the browser functionality to go around and look 16 for pages, but once you get to the page, you -- you can 17 click and download a game and play it. 18 Q. Okay. Would you have to have -- would you have 19 to have Shockwave or Flash installed prior to playing 20 the game? 21 A. If you didn't, there would be an error message 22 and a link to install it. 23 Q. Okay. And if you had Shockwave or Flash 24 installed on your -- in your browser, could you play a 25 game without going to a web page?	200 1 A. Yes. I mean -- 2 Q. Oh -- okay. Go ahead. 3 A. Regardless of your priority date, a game console 4 has to have its software, and software is generally sold 5 separately. It's the razor blade and razor analogy. 6 Q. And I misspoke. The priority date would be 7 October 16th, 2002. The June 4th, 2013, was the issue 8 date. 9 Okay. All right. I guess -- I want to just 10 clean up again for my understanding. But can a player 11 play a game on their browser with only Shockwave 12 installed? 13 MR. WOO: Objection. Form. Asked and answered. 14 THE DEPONENT: If you only have Shockwave 15 installed, you don't have a game installed, and so you 16 won't be able to play a game. 17 BY MR. SOROCO: 18 Q. Okay. Would it be a fair analogy to say that 19 it's a vessel waiting to do something? 20 A. It is exactly like any game console. You plug 21 it in, hook it up to the television set, and it 22 basically does nothing until you put a game in. 23 Q. That's why my son gets unhappy when he gets a 24 console but not -- not any games for Christmas, is 25 what you're -- is that a fair analogy?

201 1 A. Yeah. 2 Q. Okay. And then, can a player play a game with 3 only Flash installed? 4 A. It's the same answer. 5 Q. Okay. Same answer. Great. 6 Page 29, looking at paragraph 72 of your 7 declaration, you make the statement at the bottom, the 8 last sentence, I guess it is of that paragraph 72. 9 "The playing of browser-based games is well 10 known in the art, and a POSITA would have recognized 11 that a browser program that resides on a game player's 12 computer serves as a locally executed game application." 13 Do you see that statement? 14 A. I do. 15 Q. Okay. Does that statement have a citation to 16 it? 17 A. No citation on that sentence. 18 Q. Okay. And, again, is this coming out of your 19 opinion? 20 A. This is my opinion of what a person of ordinary 21 skill in the art would have recognized. 22 Q. Okay. Great. 23 MR. SOROCO: I'm going to hand you what has 24 been previously labeled -- marked Exhibit 1007. 25 (Referencing Exhibit 1007.)	203 1 to direct you and you can look at paragraph 78 of your 2 declaration on page 31. I'm going to -- we're going 3 to -- I'm going to refer to the actual Angles patent 4 rather than the -- your declaration. But Figure 1, what 5 is -- generally, do you have an understanding of what 6 Figure 1 communicates? 7 A. I think I describe it very concisely in my 8 declaration. It's an interactive system that includes 9 these various things. There's a consumer computer that 10 presumably there's a consumer operating it, an 11 advertisement provider computer and a content provider 12 communicator, a few other boxes, and they all 13 communicate over a communication medium. For Figure 1, 14 it implies that the advertisement computer communicates 15 directly to the consumer computer, as does the content 16 provider. I believe in Figure 2, it changes that. 17 Q. Okay. So staying with Figure 1 for a moment, 18 the consumer computer is labeled as 12. Is that 19 correctly -- correct, excuse me? 20 A. Yes. 21 Q. Okay. And it communicates with the content 22 provider computer, computer 14, correct? 23 A. It does. 24 Q. And the content provider -- and what is the -- 25 what is the communication between consumer provider
202 1 BY MR. SOROCO: 2 Q. And this is US Patent No. 5,933,811 to Angles, 3 et al. And that's Angles, A-n-g-l-e-s. 4 Do you see that? 5 A. Yes. 6 Q. Okay. And paragraph 75 on page 29 of your 7 declaration, Exhibit 1004, starts out: 8 "Angles teaches the serving of customized 9 advertisements." 10 And then there's a block quote. 11 Do you have an understanding of what a serving 12 of customized advertisements means? 13 A. There's nothing magical about the term. It's 14 advertising -- advertisements that are customized. 15 Q. Okay. And to whom are they customized? 16 A. That's discussed later in the declaration. 17 Typically when you talk about a customized 18 advertisement, you're customizing them to a particular 19 user. 20 Q. Okay. Great. And if we look at Figure 1 -- and 21 I'm just going to refer to patent 5,933,811 as the 22 Angles patent, if that's acceptable to you. 23 A. It is. 24 Q. Thank you. 25 If you turn to Figure 1 of Angles, and I'm going	204 1 computer 12 and provider computer 14? 2 A. It looks like it's identified as item 10. 3 Q. Okay. 4 A. Through 20. 5 Q. 10 through 20? 6 A. Yeah. 7 Q. Could it be electronic page 32? 8 A. The communication lines are what we just 9 described. 10 Q. Right. 11 A. I would have to look up. I believe electronic 12 page 32 is on the content provider computer. 13 Q. Okay. I'll -- if you take a look at column 7, 14 line 47. 15 Are you there? 16 A. I just got there. 17 Q. Okay. Line 47 begins: 18 "A block diagram of the preferred interactive 19 communication system is shown in Figure 1. The 20 interactive communication system 10" -- so the 21 overall -- I believe that refers to the overall 22 interactive -- the overall system. 23 Would you understand that to being that? 24 A. Yeah, probably. 25 Q. Okay. And then it talks about the consumer

205 1 computer 12, a content provider computer 14 and an 2 advertisement provider computer 18. 3 I just -- you had thought -- mentioned in your 4 testimony that 10 was referring to the communications, 5 but it's the overall system. 6 That content provider computer, it receives 7 information from the consumer computer 12? 8 A. The block diagram makes it appear there is 9 bidirectional communication between the consumer 10 computer and the advertisement provider. 11 Q. Okay. And is there direct communication between 12 the consumer computer 12 and the advertisement provider 13 computer 18? 14 A. In Figure 1, there is not a direct communication 15 link shown between the content provider and the 16 advertisement provider. 17 Q. I'm sorry if I misspoke. In Figure 1, I meant 18 the consumer computer 12 -- 19 A. Mm-hmm. 20 Q. -- and the advertisement provider computer 18. 21 Is there direct communication? 22 A. It is indirect because it's through a 23 communication medium, but the block diagram indicates 24 there is a bidirectional communication. 25 Q. And if we look at advertisement request	207 1 there is -- is it your testimony that there is no 2 link -- or direct -- bidirectional -- or there is no 3 bidirectional communication directly between consumer 4 computer 12 and advertisement computer 18? 5 MR. WOO: Objection to form. 6 THE DEPONENT: I would say, to make sure that's 7 not misstated, there is no -- in the block diagram, 8 there are no arrows pointing to it, which I would think 9 of as an intercommunication that is a direct connection. 10 That doesn't mean that the advertisement computer isn't 11 connected directly to the consumer computer through the 12 content provider computer in the same way they're 13 communicating through a communication medium. 14 BY MR. SOROCO: 15 Q. Sure. Is that shown, though, in Figure 9? 16 A. There are no arrows that show it going through 17 the content provider computer, if that's what you mean. 18 Q. Yeah. Well, let's look at Figure 1, right? 19 There is a -- there are arrows going from -- let me get 20 back to Figure 1. There are arrows showing 21 bidirectional communications between consumer computer 22 12 and advertisement provider computer 18 in Figure 1, 23 correct? 24 A. Yeah. I mean, again, with the caveat this is an 25 abstraction. And I would read the patent specification
206 1 twenty -- well, let's back up for a minute here. I'm 2 sorry. Strike that. 3 You stated in Figure -- that in Figure 2, there 4 is a second embodiment, I believe was your testimony? 5 A. I shouldn't have said that without looking, but 6 that is my recollection. 7 Q. Okay. And was your recollection correct? 8 A. On Figure 2, it uses a lot of the same blocks 9 and interconnects them a little differently. 10 Q. Okay. What about Figure -- let's look at 11 Figure 9. Let's look at Figure 9. Do you understand 12 Figure -- or do you have an understanding of Figure 9? 13 A. Yeah. This is the figure I was thinking of that 14 is very much like Figure 1, but the interconnections are 15 different. 16 Q. Okay. And when you say the interconnections are 17 different, what do you mean? 18 A. In this particular case, the consumer computer 19 has bidirectional communication with a content provider. 20 The advertisement computer has bidirectional 21 communication to the content provider computer. Unlike 22 Figure 1, there is no bidirectional communication 23 directly shown between consumer computer and 24 advertisement provider computer. 25 Q. Okay. So just so I understand this correctly,	208 1 in how they describe those to determine exactly what 2 they are. But looking only at the block diagram, there 3 appear to be arrows that go between those two and those 4 two. 5 Q. Okay. That is fair. 6 Well, let's look for just a moment, then, at the 7 specification of the Angles patent. And, again, if we 8 look at column 7, line 47, the preferred interactive 9 communication system is shown in Figure 1, and the 10 interactive communication system 10 includes a consumer 11 computer 12, a content provider computer 14, and an 12 advertisement provider computer 18. Do you see that 13 language? 14 A. Yes. 15 Q. And then if we go to the next paragraph, 16 beginning on line 53, I believe, it says: 17 "In operation, a consumer directs the consumer 18 computer 12 to communicate with the content provider 19 computer 14 via the communications medium 20." 20 Do you see that language? 21 A. I do. 22 Q. Okay. And then it goes on. 23 "Once the consumer computer 12 establishes a 24 communication link with the content provider computer 25 14, the content provider computer transfers an

209 1 electronic page 32 to the consumer computer 12." 2 Do you see that language? 3 A. I do. 4 Q. And then, "The preferred electronic page 32 5 contains an embedded advertisement request 26." 6 Do you see that language? 7 A. Yes. 8 Q. Okay. And so if we go back to Figure 1, when 9 you, I think, mentioned that it was an abstraction and 10 we would need to look at the specification of the 11 patent, the communication between the consumer computer 12 12 -- depicted in Figure 1, what is depicted in Figure 1 13 is consumer computer 12 communicating with content 14 provider 14 such that content provider computer 14 sends 15 an electronic page 32 back to the consumer computer 12. 16 Is that correct? 17 A. Yeah, paraphrasing, missing some terms. The -- 18 there's an -- there's a creation of a communication 19 link, but generally this paragraph in the patent talks 20 about Figure 1 and shows those communication links. 21 Q. Okay. And the electronic page 32 contains an 22 embedded advertisement request 26, correct? 23 A. Yes. 24 Q. Generally, is there anything in Figure 1 that 25 indicates that this is a game system?	211 1 Q. Okay. Performing a program. Do you mean 2 running a program? 3 A. If I'm executing, yes. 4 Q. Okay. And the embedded advertise -- going on: 5 "The embedded advertisement request directs the 6 consumer computer 12 to establish a communication link 7 with the advertisement provider computer 18." 8 Do you see that language? 9 A. I do. 10 Q. Okay. What is the language -- your general 11 knowledge, what does the language "directs the consumer 12 computer 12 to establish a communications link" mean? 13 A. It means there are instructions to reach out to 14 another computer over your communication medium, which 15 if the Internet, it would be probably a URL. 16 Q. Okay. 17 A. So there has to be an instruction, which means 18 the consumer computer has to be executing something. 19 Q. Okay. 20 A. And reaching out to the advertisement provider 21 computer. 22 Q. And then it goes on: 23 "Furthermore, the embedded advertisement request 24 directs the advertisement provider computer 18 to 25 execute a content provider script non show -- (not
210 1 A. The term "game" is not used in Figure 1. 2 Q. Okay. Is the term "game" used in the 3 specification? 4 MR. WOO: I need to advise the witness to look 5 up the specification. This is not a memory test. 6 THE DEPONENT: Yeah. As I sit here, I'm not 7 sure. I believe I addressed that issue elsewhere in my 8 declaration. So I'm reluctant to be able to say that 9 the word "game" is not referred to in here. 10 BY MR. SOROCO: 11 Q. Okay. That's fair, I believe. 12 When -- if we go back to that paragraph -- or 13 column 7, the bottom of the column, we look onward. 14 "When the consumer computer 12" -- I'm sorry. I 15 didn't wait for you to get there. Are you there? 16 A. Yes. 17 Q. Okay. 18 "When the consumer computer 12 receives 19 electronic page 32, it executes the embedded 20 advertisement request." 21 Do you see that language? 22 A. Yes. 23 Q. Okay. What does it mean to execute something? 24 A. In computer parlance, executing is performing a 25 program.	212 1 shown)." And then, "The content provider script exists 2 on the advertisement provider computer 18 and contains a 3 provider content member code (not shown)." 4 Do you see that language? 5 A. I do. 6 Q. Okay. And the it says: 7 "The advertisement provider computer 18 uses the 8 content provider member code to track the number of 9 advertisements viewed by the consumer computer 12." 10 Do you see that? 11 A. I do. 12 Q. And then it goes on: 13 "Connected to a particular content provider 14 computer 14." 15 So I think that specification language lines up 16 with the general discussion we had about Figure 1. Does 17 it not? 18 A. With a lot of things not shown. 19 Q. Okay. But generally, the operation of 20 communications between the consumer computer 12, the 21 content provider computer 14, and the advertisement 22 provider computer 18, the communications between those 23 three computers? 24 MR. WOO: Objection. Form. 25 THE DEPONENT: I would say that generally for

Transcript of David Crane
Conducted on February 26, 2024

54 (213 to 216)

213 1 this embodiment shown in Figure 1, the specification 2 supports the communication arrows. 3 BY MR. SOROCO: 4 Q. Okay. This is what happens when I pull it out 5 of my notebook. I'm getting it out of order. 6 Okay. I'm going to move into your analysis of 7 your claims, beginning in your declaration, 8 Exhibit 1004. If you could turn to me -- or I'll start 9 on page 43, Section C. The header is "Ground 1 claims 1 10 and 3 to 9 are obvious over US Patent No. 5,933,811 to 11 Angles, et al. in view of the knowledge of a POSITA." 12 Do you see that header there? 13 A. I see that. 14 Q. Okay. Assuming that those are indeed the 15 challenged claims as -- is there -- are there any errors 16 in that header? 17 A. Not that I'm aware of. 18 Q. Okay. Let's move on to your claim-by-claim 19 analysis starting with claim 1, Romanette i, claim 20 element 1, the preamble on page -- it's at the -- almost 21 at the bottom of page 44. 22 Do you see that section there, right above 23 Section 106? 24 A. I am there. 25 Q. Okay. Paragraph 106, excuse me.	215 1 MR. WOO: Objection. Form. 2 THE DEPONENT: Yes. 3 BY MR. SOROCO: 4 Q. Okay. If we look at Romanette ii, which is 5 element 1[a] of claim -- the claim 1 of the '028 patent, 6 the language is: 7 "Receiving a request that said primary 8 electronic device to initiate a locally executed game 9 application that is accessible at said primary 10 electronic device from a user interfaced with said 11 network." 12 Do you see that language? 13 A. I do. 14 Q. Okay. You go on in paragraph 109 that: 15 "Angles teaches operating a locally executed 16 game application as accessible at said primary device." 17 Do you see that? 18 A. Yes. 19 Q. And then you go on to say: 20 "In the form of a red -- web browser." 21 Correct? 22 A. Yes. 23 Q. Okay. And in claim -- do you have an 24 understanding of the claim term "locally executed game 25 application" in independent claim element i[a]?
214 1 Do you have an understanding of what primary 2 electronic device means in the preamble of claim 1, 3 Mr. Crane? 4 A. A primary electronic device. I mean, primary is 5 separate, but an electronic device is obviously an 6 electronic device. I would typically think of that as 7 being a computer. 8 Q. Okay. 9 A. Primary and secondary are issues that come up 10 later, I think. 11 Q. Okay. Let's go on to the paragraph 108. And 12 here you use a framing that we talked about in the I956 13 IPR about thus -- and I'm just going to paraphrase -- 14 the prior art reference disclosed or at least rendered 15 obvious in view of the knowledge of POSITA this claim 16 element. 17 Do you see that language in 108? 18 A. Yes. 19 Q. Is that framing -- framework -- do you recognize 20 that framework from what we discussed in the 956 IPR? 21 A. I do. 22 Q. Okay. And does this -- is it your -- would it 23 be your testimony that this framework is the -- should 24 be afforded the same definition that you gave it in the 25 956 IPR?	216 1 A. I do. 2 Q. What is your understanding with regard to that 3 claim term? 4 A. If I'm sitting at a computer and I'm executing a 5 game application on my computer, that computer is local 6 to me, so it's locally executed. 7 Q. Okay. Do you have an understanding of 8 accessible at said primary electronic device? 9 A. Same thing. 10 Q. Okay. And what is your -- when you say same 11 thing, is -- are you saying yes? 12 A. I'm saying that a game that I'm executing on my 13 computer that's sitting right in front of me locally is 14 accessible as well. 15 Q. Okay. And you state in paragraph 109: 16 "As noted in Section IX.A.3, a POSITA would have 17 recognized a web browser to be a locally executed gaming 18 application." 19 Is that -- do you see that language? 20 A. I do. 21 Q. Do you have an understanding of what locally 22 executed gaming -- oh, we asked that. I'm sorry. 23 Strike that. 24 Okay. In Angles -- let's take a look at Angles 25 again, Exhibit 1007. And let's look at column 1, line

217 1 64 through 66, please. 2 A. Column 1, line 60 through something. 3 Q. 4 through 66. 4 A. Okay. 64 is the middle of a sentence. 5 Q. Mm-hmm. Let's go up. I'm sorry. I have it 6 tagged wrong. There's a sentence that says: 7 "As is well known in the art." 8 I believe that's 62. 9 "HTML format is a set of conventions for marking 10 different portions of a document so that each portion 11 appears in a distinctive format. For example, the HTML 12 format identifies or tags a portion of the document to 13 identify different categories of text," and then title, 14 header, body text, et cetera. 15 Do you see that language? 16 A. Yes. 17 Q. Okay. And do you have an understanding of HTML 18 language, Mr. Crane? 19 A. I do. 20 Q. Okay. And with -- we talk about -- you had 21 mentioned that in your -- in paragraph 109, you said 22 that the -- operating a locally -- that Angles teaches 23 operating a locally executed game application that is 24 accessible at said primary device in the form of a web 25 browser. Is it -- do you have an understanding that a	219 1 Do you see that language? 2 A. I do. 3 Q. Do you have any understanding, general 4 understanding, of what not yet been fully developed 5 means? 6 A. At the time this specification was written, I 7 would have to look at that date, but it -- he's 8 mentioning HTML. HTML can do a lot more than just 9 format tags. HTML has input and output tags that allow 10 you to actually perform functions on your local 11 computer. 12 Q. Okay. 13 A. And, you know, following his logic, if you only 14 think of HTML as web browser and clicking on hyperlinks 15 and such, there's a lot more that can be done. 16 Q. Okay. Great. Thank you. 17 Would you say that an application is generally 18 accessible by an electronic device using HTML? 19 MR. WOO: Objection. Form 20 THE DEPONENT: HTML would be a method for 21 serving an application into a web browser. 22 BY MR. SOROCO: 23 Q. Okay. Let's look at, just for one moment, 24 paragraph 181 of your declaration. 25 Actually, let's strike that. I apologize for
218 1 web browser uses HTML? 2 A. It can. 3 Q. It can. When does it not? 4 A. When it doesn't. 5 Q. Can you give me an example of when a web browser 6 does not use HTML? 7 A. A web browser has the ability to do file 8 transfers. It may or may not use HTML. It might also 9 be using XML instead of HTML. It can execute CGI, which 10 is not in an HTML format. CGI, that stands for common 11 gateway interface, basically a way to talk to the server 12 without using HTML. There's many of different things 13 that a web browser can do without using HTML. 14 Q. Okay. Let's look at column 2, lines 17 through 15 19. 16 A. Hmm. 17 Q. Let's go above that. Sorry. I'm off a couple 18 for each of these. 19 "Although the Internet and the worldwide web." 20 Let's go up to 13 through 19. 21 "Although the internet and the worldwide web, 22 together with other interactive devices, are used widely 23 to share information among users, the full range of 24 possibilities for use of these interactive computer 25 servers have not yet been fully developed."	220 1 making you do that. 2 All right. Looking at Romanette i4 -- or I -- 3 Romanette iv on page 47, dealing with your analysis of 4 claim element i[c], do you see that Mr. Crane? 5 A. I am on page 47. 6 Q. Okay. And the claim language of element i[c] 7 is: 8 "Automatically integrating business-related 9 content from at least one of said web pages of said 10 secondary electronic device into said locally executed 11 game application during execution of said game 12 application." 13 Do you see that language? 14 A. I do. 15 Q. Okay. Do you have any understanding of what 16 execution or executed means with regard to claim element 17 i[c]? 18 A. Executing a game is running the game program. 19 Q. Okay. And does Angles teach automatically 20 integrating business-related content? 21 A. That's what my analysis of this section 22 discusses. 23 Q. Okay. So let's talk a little bit about that, 24 then. 25 On page -- let's look at column 20, lines 45 to

221 1 48 -- I think I've got them -- of the Angles patent. 2 A. Lines? 3 Q. 45 to 48 and 50 to 52. I will have you start at 4 48. 5 A. 45? 6 Q. Actually, let's -- let's go to Figure 8 first. 7 I'm sorry. 8 Figure 8. Do you have an understanding of what 9 Figure 8 generally conveys, the information in Figure 8 10 generally conveys? 11 MR. WOO: I would advise the witness to read as 12 much of that figure and any other related sections in 13 order to form your understanding before you answer. 14 THE DEPONENT: So there are three boxes in this 15 flowchart. Each box explains what it's doing, accessing 16 a customer database and analyzing registration data. 17 Following that is, you can select appropriate 18 advertisements and send those to the -- those to the 19 consumer, and basically then turns around and bills the 20 advertiser for the content that's being displayed. 21 BY MR. SOROCCO: 22 Q. Okay. And now let's go to column 20, if you 23 would. 24 We will start at line 45, which states: 25 "In Figure 8, a detailed flowchart of the	223 1 page 47, do you address the execution or the ex -- the 2 locally executed game application during execution? Do 3 you address that limitation in your analysis? 4 A. Well, here's one example, right here in my 5 declaration. 6 "Angles teaches the idea of using advertising 7 information that has been provided in" -- let's be very 8 careful to quote it here. Where am I? 2163. 9 "Integrate the custom advertisements into signs and 10 billboards which appear in the interactive game. 11 Q. Okay. 12 A. So that integration is occurring in the 13 interactive game. 14 Q. Okay. Thank you. 15 Let's look at Figure 9 for a moment. Let's 16 flesh this out a little bit. And I believe you 17 testified earlier that you had a general understanding 18 of the information flow in Figure 9. Is that correct? 19 A. As an abstraction, yes. 20 Q. Okay. And you -- I believe you testified that 21 you understood that this is an alternative embodiment to 22 the preferred embodiment of Figure 1? 23 MR. WOO: Objection. Mischaracterizes the prior 24 testimony. Form. 25 MR. SOROCCO: What prior testimony does it
222 1 operational states which occur during process 712 are 2 shown." 3 Do you see that info -- that sentence? 4 A. I do. 5 Q. "Beginning in a start state 712, the advertising 6 module proceeds to state 800." 7 Do you see that statement? 8 A. Yes. 9 Q. Okay. "In state 800, the advertising model 62 10 uses the consumer member code 22 to access the 11 corresponding consumer preferences stored in the 12 consumer's profile in the registration database." 13 Do you see that language? 14 A. I do. 15 Q. Okay. When is the -- when does the Angles 16 patent describe storing -- excuse me, use -- when does 17 the advertising module 62 use the consumer member code? 18 A. In column 20, lines -- as described in 19 column 20, lines 45 to 51. 20 MR. WOO: Objection. Document speaks for 21 itself. Form. 22 THE DEPONENT: That occurs in flowchart 23 statement 800. 24 BY MR. SOROCCO: 25 Q. Okay. Thank you. In section Romanette iv on	224 1 mischaracterize? 2 MR. WOO: You said "preferred." I don't think 3 he actually used -- I don't think he called the 4 embodiment preferred. 5 MR. SOROCCO: I think that's the language that 6 the patent uses. 7 MR. WOO: You said that he -- he characterized 8 it. You said preferred. So your question: 9 "I believe you testified you understood that 10 this alternative embodiment to the preferred embodiment 11 of Figure 1." 12 I think it's unclear whether he referred, the 13 witness referred, to Figure 1 as the preferred 14 embodiment. 15 MR. SOROCCO: I understand. 16 BY MR. SOROCCO: 17 Q. If you could very quickly turn to column 4 of 18 the patent. 19 A. Okay. 20 Q. If you go down about two-thirds of the way, do 21 you see the section Brief Description of the Figures, 22 about line 50? 23 A. I do. 24 Q. Okay. And you see the language where it says: 25 "Figure 1 is a high-level block diagram of the

225 1 preferred system of the present invention?" 2 A. I see that. 3 Q. So the patentee referred to Figure 1 as their 4 preferred system of the present invention, correct? 5 A. Appears so. 6 Q. Okay. We go on to column 5, Figure 9. 7 Figure 9 is a block diagram of an alternative 8 embodiment of the present invention. Do you see that 9 language? 10 A. I do. 11 Q. Okay. So the patentee referred to Figure 1 as 12 the preferred -- I want to make sure I get this right. 13 Preferred system of their present invention is 14 Figure 1, correct? 15 A. Again, I believe that's the case. 16 Q. Okay. In Figure 9, the patentee is referred to 17 is an alternative embodiment of the present invention, 18 correct? 19 A. That's correct. 20 Q. Okay. Looking at Figure 9, what computer 21 provides the advertisement to con -- to the content 22 provider computer 14? 23 A. The advertisement is provided from the 24 advertisement provider computer first to the content 25 provider 14.	227 1 the content provider incorporates the customized 2 advertisement 30 into an electronic page 32?" 3 A. I see that. 4 Q. Okay. So is it fair to say that once the 5 content provider computer 14 receives the customized 6 advertisement 30, it -- the content provider 7 incorporates the customized advertisement 30 into an 8 electronic page 32? 9 A. It does state that it incorporates it into an 10 electronic page 32. 11 Q. Okay. And then if we stay on column 21: 12 "The content provider computer 14" -- I'm at 13 line 40. 14 "The content provider computer 14 then forwards 15 the electronic page 32 combined with the customized 16 advertisement 30 to the consumer computer 12." 17 Do you see that language? 18 A. I do. 19 Q. Okay. Reading from lines 38 through 42, do you 20 have an understanding of how the customized 21 advertisement 32 is sent -- is received by the content 22 provider computer 14 and sent along to the consumer 23 computer 12? 24 A. My understanding from reading this section is 25 that there's a customized advertisement that is
226 1 Q. Okay. Is it fair to say that once the content 2 provider computer 14 receives the advertisement cust -- 3 I would -- I'll use the term customized advertisement 4 30, the content provider combines the advertisement, 5 customized advertisement 30, with the electronic 6 page 32? 7 MR. WOO: Objection. Form. Document speaks for 8 itself. 9 THE DEPONENT: I don't know that that's fair to 10 say that. Let's go back to where you directed me 11 immediately, on the top of column 5. 12 BY MR. SOROCO: 13 Q. Sure. Mm-hmm. 14 A. "Figure 9 is a block diagram of an alternative 15 embodiment of the present invention wherein the 16 customized advertisement is sent through the content 17 provider prior to reaching the consumer computer." 18 Q. Correct. 19 A. So as I discussed when we looked at this, I 20 said, it may very well just be passing right through. 21 Q. Okay. Let's look at column 21, line 38. Let me 22 know when you're there. 23 A. I'm there. 24 Q. Okay. Do you see the language: 25 "Upon receiving the customized advertisement,	228 1 incorporated into content information which is then 2 forwarded to the user computer. 3 Q. Okay. Is it your testimony that when the 4 content provider combines 32, which is the electronic 5 page and customized advertisement in Figure 9, that the 6 integration of those two happens automatically. 7 MR. WOO: Objection. Form. 8 THE DEPONENT: It is incorporated before then 9 being submitted down to the consumer computer. It's 10 part of a process, I suppose it would be automatic in 11 that case. 12 BY MR. SOROCO: 13 Q. Okay. 14 A. I mean, it would be programmed to do so, I 15 suppose. 16 Q. Okay. Where does the integration of the 17 electronic page in the customized advertisement occur? 18 A. In the case of the game taught by Angles, for 19 you to have a video game with billboards that include an 20 advertisement, that has to be incorporated in the video 21 game. 22 Q. Okay. Referring specifically to Figure 9, where 23 is the electronic page and customized advertisement 24 created? 25 A. The electronic page is created on the content

229 1 creator. The customized advertise is passed to the 2 content provider, and the combined data is sent down to 3 the consumer computer. 4 Q. 12, correct? 5 A. Consumer computer 12. Thank you. 6 Q. Can the consumer computer 12 execute the 7 electronic page 32 before the elec -- before the 8 electronic page 32 is sent to the consumer computer 12? 9 A. No. 10 Q. Does the customer computer 12 run the electronic 11 page and customized advertisement locally? 12 A. It does. 13 Q. And -- strike. 14 Going on in claim -- or in column 21, I think 15 this answer is a question I had earlier about game -- 16 the word game inside Angles. But column 21, line 60 -- 17 55 -- line 55, reading: 18 "Thus, in addition to integrating the customized 19 advertisement 30 into an electronic page 32, the content 20 provider computer 14 can integrate the customized 21 advertisements 30 into offerings such as online games, 22 video programming, Internet radio, virtual reality 23 environments, and the like." 24 Do you see that statement? 25 A. I do.	231 1 Do you have an understanding of what the term 2 "redirecting" means as used in claim i[d] -- claim 3 element 1[d]? 4 A. I do. 5 Q. Okay. What -- what is your understanding of the 6 claim term "redirecting"? 7 A. As I explained right here in paragraph 119, it 8 is displaying a different web page, typically due to a 9 hyper -- hyperlink click. 10 Q. Okay. Do you have an understanding of what the 11 term "automatic" as used in claim element i[d] means? 12 A. I understand the term automatically meaning the 13 opposite of manually. 14 Q. Okay. Is there any time component with regard 15 to automatically? 16 MR. WOO: Objection. Form. 17 BY MR. SOROCO: 18 Q. Mr. Crane, do you have any understanding that 19 the term "automatically" implies a time component? 20 A. Something that happens automatically could be 21 related to a timer. I mean, a cuckoo clock cuckoos 22 three times at 3 o'clock. But inherently, the term 23 "automatically," in my opinion, doesn't have anything to 24 do with a particular time. 25 Q. Okay. The -- okay. Hypothetical, if you're
230 1 Q. Okay. Did you have a understanding of how 2 POSITA prior to the priority date would define term 3 "online game" as used here at column 21, line 58? 4 A. An online game is a game with an online 5 component. 6 Q. And when you say an online component, are there 7 local players to that online component? 8 A. In a client server game, the -- what goes on in 9 the client is local, what goes on in the server is an 10 online component, and the two communicate over the 11 Internet. 12 Q. Okay. Thank you. 13 Okay. Let's move on to Romanette v. This is 14 claim element i[d] on page 49, and the claim language 15 is: 16 "Automatically redirecting said user to one of 17 said web pages of said secondary electronic device from 18 said primary electronic device, said redirection being 19 integrated into said game application, and said 20 redirection occurring as part of the user executing said 21 game." 22 Do you see that language? "Game application," 23 excuse me. Do you see that language? 24 A. Yes. 25 Q. Okay. Claim language. Okay.	232 1 looking -- if you would -- do you look at web -- or let 2 me ask you, have you -- do you have an understanding of 3 Facebook or do you -- have you used Facebook? 4 A. I have. 5 Q. Okay. Do you look at it on your phone? 6 A. Typically on my iPad. 7 Q. Okay. Similar application, I think. So if 8 you're looking at your Face -- if you're looking at 9 Facebook, and, you know, as you're scrolling you happen 10 to see an article or an advertisement and you look -- 11 you think it looks interesting, so you stop your scroll 12 for a moment but then move on, is that stopping and 13 looking, would you consider that to be auto redirection? 14 A. Stopping and looking and moving on? 15 Q. Yes. 16 A. No. 17 Q. Okay. Why not? 18 A. What you're looking at is resident, in my case 19 on my iPad. If I want more information, I can certainly 20 manually click on that advertisement and go somewhere 21 else. 22 Q. Okay. Column 21, lines 34 to 37, do you see 23 that language there? 24 A. Yes. It's -- 25 Q. Okay.

233 1 A. -- right -- right above what we discussed 2 earlier. 3 Q. Right. It states that: 4 "Figure 9 shows an alternative embodiment of the 5 present invention wherein the advertisement provider 6 computer 18 sends the customized advertisement 30 to the 7 content provider computer 14." 8 Do you see that language? 9 A. I do. 10 Q. Does that language include the term 11 "redirecting"? 12 A. I don't see the word "redirecting" in that 13 paragraph. 14 Q. Okay. Is there anything in Figure 9 that 15 demonstrates redirection occurring? 16 MR. WOO: Advise the witness to look over as 17 much of the patent and specifications as you need in 18 order to provide your answer. 19 THE DEPONENT: So your question is limited to 20 this block diagram in Figure 9? 21 MR. SOROCO: That's correct. 22 THE DEPONENT: I do not see the term 23 "redirection" used. 24 BY MR. SOROCO: 25 Q. Okay. Is there anything in Figure 9 that would	235 1 additional information about an advertised product or 2 service, the consumer may simply use a mouse to select 3 an embedded hyperlink." 4 That's your -- the quote there. 5 Does Figure 9 indicate that the consumer may 6 simply use a mouse to select an embedded hyperlink in a 7 custom advertisement and be immediately transported to 8 an advertiser's website? And again I'm talking about 9 just the block diagram in Figure 9. 10 MR. WOO: Objection. Form. 11 THE DEPONENT: I would say that the block 12 diagram in Figure 9 does not show what the specification 13 talks about in that section of column 4. 14 BY MR. SOROCO: 15 Q. Okay. Let's look now to Romanette vi, element 16 i[e], executing -- the claim language is: 17 "Executing a user action on said 18 business-related content from said secondary electronic 19 device." 20 Do you see that language, claim language? 21 A. I do. 22 Q. Okay. And then you go on in paragraph 123, 23 stating, "Angles teaches that the advertiser web page 24 accessed by hyperlink from within the game application 25 would itself be equipped with hyperlinks offering
234 1 imply redirection being used? 2 A. At this level of abstraction, I wouldn't think 3 so. 4 Q. Okay. In paragraph 121 on page 49 of your 5 declaration. That's Exhibit 1004. Let me know when you 6 get to that. 7 A. I'm there. 8 Q. Okay. Great. You state: 9 "Specifically, the consumer may simply use a 10 mouse to select an embedded hyperlink in the custom 11 advertisement and be immediately transported to an 12 advertiser's website." 13 And that's not -- I misspoke. That's not your 14 statement. That's the statement of Angles in column 4, 15 lines 11 through 14. 16 Do you see that statement that you put there? 17 A. I see it. I assume that it's an accurate 18 citation to the patent. 19 Q. Okay. Let's look at column 4, lines 11 through 20 14. 21 A. Okay. 22 Q. Okay. Is that -- 11 through 14. So for 23 example, 11 -- I'm going to go up to -- again, my lines 24 are off by two. Go up to 9. 25 "For example, if a consumer wishes to obtain	236 1 additional information, as well as links to other 2 content providers." 3 Do you see that? 4 A. I do. 5 Q. Okay. Where in Figure 9 are hyperlinks, and 6 again the block diagram of Figure 9 are hyperlinks 7 mentioned or shown? 8 A. In the -- 9 MR. WOO: Objection. Form. 10 THE DEPONENT: In the block diagram of Figure 9, 11 I don't see any discussion of hyperlinks. 12 BY MR. SOROCO: 13 Q. Okay. In column 15, lines -- scratch that. 14 Okay. In paragraphs 86 of your declaration, in 15 paragraph 86 of your declaration -- 16 A. So I am currently looking at -- up in the 17 hundreds. 18 Q. Yeah, I know I am taking you back a ways. 19 A. Okay. 20 Q. I think this is where you were generally 21 discussing Angles, and what Angles teaches. 22 A. Okay. 23 Q. So paragraph 86 is -- you state, "Angles further 24 teaches that said billboards can redirect a player to a 25 business's website for more information on the company's

237 1 goods or services, based upon a user's action." 2 What is that -- do you have an understanding of 3 what the user's action there would mean? 4 A. This is back to the simple concept of 5 hyperlinking. 6 Q. Mm-hmm. 7 A. Angles talks about how there can be hyperlinks, 8 and that a user can use a mouse to select an embedded 9 hyperlink. It is quoted directly there. 10 Q. Okay. Let's look at paragraph 121 of your 11 declaration, which is on page -- it is right up a little 12 bit -- 49. 13 A. Okay. 14 Q. I think we are again talking about hyperlinks, 15 and we talked about that paragraph before. But do you 16 have an understanding of what the term hyperlink -- how 17 it's used in that quotation from column 4, lines 11 18 through 14? 19 A. Yeah, Angles is teaching about embedding 20 hyperlinks, places to click into custom advertisement. 21 Q. And then the same thing in paragraph 124, 22 correct, down below where you talk about, "Selecting a 23 hyperlink constitutes executing a user action." 24 Do you have an understanding of what it means to 25 execute a user action by selecting a hyperlink?	239 1 MR. SOROCCO: -- take a ten-minute break to 2 stretch? 3 THE DEPONENT: Knees are getting very painful 4 right now. 5 MR. SOROCCO: I bet. 6 THE VIDEOGRAPHER: Okay. 7 MR. WOO: What's our time on the record? 8 THE VIDEOGRAPHER: 5 hours and 56 minutes. 9 MR. SOROCCO: Okay. 10 THE VIDEOGRAPHER: We are going off the record. 11 The time is 17:18. 12 (A recess transpires.) 13 (Patrick Dunn and Homayoon Rafatijo enter electronically.) 14 THE VIDEOGRAPHER: We are back on the record. 15 The time is 17:37. 16 MR. SOROCCO: Hopefully the knee is holding up, 17 Mr. Crane. All right. So let's -- I want to really 18 quick go back and hit one thing here. 19 MR. WOO: Oh, did you want to go on the record 20 first? 21 MR. SOROCCO: Oh, for the counsel. Oh, yes, 22 going on the record, Counsel for Quantum Imaging, LLC 23 joined at the beginning of the cross examination of 24 Mr. Crane in the 954 IPR proceedings. The individuals 25 are Patrick Dunn, D-u-n-n, and Homayoon -- I'm sorry,
238 1 A. It's you're kind of asking the question 2 backwards, but you execute a user action to click on a 3 hyperlink. 4 Q. Okay. So in all of these examples we just 5 looked about in the hyperlink, it is the user taking the 6 action by clicking on the hyperlink. 7 Is that fair? 8 A. I take issue within all of the things we talked 9 about. 10 Q. Oh? 11 A. Let's just say that, yes, a user takes action 12 and clicks on a hyperlink. 13 Q. Right. In paragraphs 86, 121, and 124 of your 14 declaration that we just looked at, is it my 15 understanding that all -- in all of those paragraphs of 16 your declaration, the user executes -- there -- a 17 user -- a user action is executed by selecting a 18 hyperlink? 19 MR. WOO: Objection. Form. Mischaracterizes 20 the testimony. 21 THE DEPONENT: Generally, those paragraphs are 22 talking about a user action that clicks on a hyperlink. 23 MR. SOROCCO: Okay. Mr. Crane, we have been 24 sitting for a bit. Do you want to -- 25 THE DEPONENT: Sure.	240 1 Homey, Rafatijo, and spelling is on the record. 2 Thank you. I can't see that far away to the 3 computer. 4 BY MR. SOROCCO: 5 Q. All right. When we left we were talking about 6 executing user actions and talking about hyperlinks and 7 the like. Just for a quick moment, let's take a look 8 at -- I want to go back to paragraph 110, if we can, of 9 your declaration. 10 And let's -- it's actually paragraph 109. I'm 11 sorry. I have it written wrong. And the statement that 12 you made, that, "Angles teaches operating a locally 13 executed game application, that is accessible at said 14 primary device in the form of a web browser. 15 Can we turn to the '028 patent, which was 16 Exhibit 101 (sic). 17 MR. WOO: And for the record, it's Exhibit 1001. 18 MR. SOROCCO: I'm sorry. 1001. 19 And let's look at column 1, 60 -- line 64. 20 THE DEPONENT: In the summary of invention, I am 21 there. 22 BY MR. SOROCCO: 23 Q. Okay. And does -- in that -- in the '028 24 patent, at line 64, it states, "In one aspects of the 25 illustrial (sic) -- illustrative embodiment of the

241 1 present invention, a primary electronic device holding a 2 game application is part of a network, along with a 3 secondary electronic device holding business-related 4 content." 5 Do you have any understanding of what the term 6 "holding" means with respect to this disclosure here at 7 column 1 of the '028 patent? 8 A. I would, and I believe a person of ordinary 9 skill in the art would interpret that as being stored on 10 that device. 11 Q. Okay. And if we go on, "The primary electronic 12 device" -- now going up to the top of claim -- or 13 column 2, "The electronic device receives a request from 14 the user to initiate the game application. The game 15 application is initiated and integrates business-related 16 content into the game application during the execution 17 of the game application." 18 Do you see that information -- or that language? 19 A. I do. 20 Q. Would you say based upon that language that -- 21 or do you have an understanding with regard to the word 22 executed -- execution there in line 4? 23 A. Is that the end of the question? 24 Q. Yes. Do you have an understanding? 25 A. Do I have an understanding of what execution is?	243 1 BY MR. SOROCOCCO: 2 Q. And it starts, line 3, Figure 2, "Depicts an 3 alternative environment suitable for practicing the 4 illustrative embodiment of the present invention. User 5 60 accesses the game application on a local electronic 6 device." 7 A. Yeah, and when we discussed that, I mean you 8 start a game that's on your computer. 9 Q. Okay. With regard to column 3, line 44 -- 45, 10 excuse me, do you see the language, "A user 12 accesses 11 the network through an electronic device holding a 12 website -- a web browser"? 13 A. I see that. 14 Q. Is the electronic device local? 15 MR. WOO: Objection. Form. 16 BY MR. SOROCOCCO: 17 Q. Well, let me ask it this way, do you have an 18 understanding of what electronic device 14 is? 19 A. Hmm, this is talking about Figure 1. And what 20 were those line numbers again in column 3? 21 Q. Column 3, line No. 45 through 46. Actually, 45 22 and 46. 23 A. All right. And that paragraph starts, "Figure 1 24 depicts"? 25 Q. That's correct.
242 1 Q. Yes. 2 A. Execution is when the game is running the 3 program. 4 Q. Okay. We will take a look at line -- beginning 5 at 14, the sentence beginning at col- -- line 14 of 6 column 2, "The customized web page at the secondary 7 electronic device is customized with business-related 8 content for use with the game application." 9 Do you see that statement? 10 A. I do. 11 Q. Would you, based upon the disclosure -- that 12 disclosure in lines 14 through 17 of column 2, would you 13 have an opinion as to whether an application is re -- is 14 accessible by the electronic device? 15 MR. WOO: Objection. Form. 16 THE DEPONENT: It's not a difficult question. 17 It's just confusing from the way it was asked, I think. 18 We talked about accessible in a different section of 19 this application, right? 20 MR. SOROCOCCO: Correct. 21 THE DEPONENT: Where was that? 22 MR. SOROCOCCO: I believe it was at top of column 23 2 with regard to fig -- or column 4, excuse me, with 24 regard to column 4. 25 THE DEPONENT: Top of column 4.	244 1 A. So looking at Figure 1, I am looking for this 2 disclosure of No. 14. I don't see a 14 on Figure 1. 3 Q. Okay. I believe if you put your attention down 4 to the lower left corner. 5 A. Ah, there's the 14. 6 Q. Yeah. 7 A. Yes, so that's the electronic device, that's the 8 user's client computer, where the game is executing. 9 Q. Okay. Does the term "local" appear on Figure 1 10 with regard to electronic device 14? 11 A. Figure 1 does not include the word "local." 12 Q. Okay. Let's look at Figure 2. And I am going 13 to direct your attention as well to the top of column 4, 14 Figure 2. 15 A. Okay. 16 Q. Okay. And it states, "Figure 2 depicts an 17 alternative embodiment -- environment" -- excuse me -- 18 "suitable for practicing the illustrative -- illustrative 19 embodiment of the present invention, a user 60 accesses 20 the game, application 64, on a local electronic device 21 62?" 22 Do you see that? 23 A. I do. 24 Q. Okay. Based upon the language I just read to 25 you out of column 4, lines 3 through 6, do you have an

Transcript of David Crane
Conducted on February 26, 2024

62 (245 to 248)

245 1 understanding that electronic device 62 is a local 2 device? 3 A. Yes. 4 Q. And then maybe this helps with regard to Figure 5 1. If we go back to column 3, line 45 and 46, "A user 6 12 accesses -- accesses the network 10 through an 7 electronic device 14, holding a web browser. 8 Do you see that language? 9 A. I do. 10 Q. Okay. Is the word "local" in that sentence? 11 A. The word "local" is not in that sentence. 12 Q. Thank you. Let's go down -- let's go to 13 paragraph 125 of your declaration, Exhibit 1004. 14 And I know -- I believe we have discussed this 15 earlier, but I am not sure we have brought it up with 16 regard to the '028 patent, your analysis of the '028 17 patent. 18 Is the framework that you used disclosed, or at 19 least rendered obvious? Does it have the same 20 definition that you gave those words in the '956 -- in 21 your testimony in the '956 IPR proceeding? 22 A. It does. 23 Q. Okay. Thanks. All right. Let's go to claim 3, 24 which is section B, which is right below that statement 25 I asked. And claim 3 says, "The method of claim 1	247 1 whatever the patent from which claim 3 depends. 2 Do you see that language? 3 A. Yes. 4 Q. And then you go on to say, "For that reason 5 alone, the prior art disclosed or at least rendered 6 obvious to a POSITA the claim -- the dependent claim of 7 that patent. 8 Do you see that sentence? 9 A. Yes. 10 Q. Okay. What is your understanding of the 11 sentence that begins, "For that reason alone, Angles 12 disclosed or at least rendered obvious to a POSITA claim 13 3, here in paragraph 126 of the '028 patent"? 14 A. Well, I am not a lawyer. I am certainly not a 15 patent attorney. And I could be wrong, but when I look 16 at a claim that is a dependent claim, for a dependent 17 claim to be valid, every element of the claim upon which 18 it depends has to be valid, I thought. I could be 19 wrong. Again, I am not a lawyer. 20 So that's what a statement like that meant, is I 21 said, look, just look back at claim 1, in my opinion it 22 is invalid for these -- those reasons. I never stopped 23 there. I go on and say, okay, let's say for whatever 24 this dependent claim is adding, I also look for support 25 in the prior art for that specific language.
246 1 wherein said game application displays branded 2 business-related content to said user." 3 Do you see that language? 4 A. I do. 5 Q. Okay. And we talked before about antecedent 6 basis between "A" and in "the." 7 Do you have an understanding with regard to what 8 said means in patent claims? 9 A. Yes. And it refers to the most recently 10 discussed user in this case, or game application in this 11 case. 12 Q. Okay. So it has the same antecedent effect as 13 the word "the." 14 Is that your understanding? 15 A. Well, more than that this is a dependent claim 16 that relies on claim 1 so I assume it's talking about 17 the game application as described in claim 1, and the 18 user as described in claim 1. 19 Q. Okay. Thank you. 20 In your dependent claims both in the '956, which 21 we have moved on, and then in this '028 -- or '954 IPR 22 proceedings, for the dependent claims, you generally 23 underneath each dependent claim, it says, something, to 24 paraphrase, the prior art disclosed or at least rendered 25 obvious to a POSITA, claim 1 of what the '02- -- or	248 1 Q. Okay. But you use the phrase, "for that reason 2 alone" to indicate that because claim 1 is invalid over 3 the prior art, claim 3 is in this example invalid as 4 well, correct? 5 MR. WOO: Objection. 6 THE DEPONENT: I use -- 7 MR. WOO: Mischaracterizes the testimony. 8 THE DEPONENT: Well, I use the term alone, as I 9 said, because that's the way that I understood the 10 case -- understood it to be, so if claim 1 is invalid or 11 rendered obvious, then the dependent claim has that -- 12 has that strike against it. Let's put it that way. 13 MR. SOROCCO: Okay. Starting the game with one 14 strike against it. 15 THE DEPONENT: Or two. 16 BY MR. SOROCCO: 17 Q. Okay. And we are talking about in claim 3, 18 branded -- "displaying branded business-related content 19 to said user," correct? 20 A. Yes. 21 Q. Okay. Are you aware of where in Angles the term 22 "brand" is used? And this is a yes-or-no answer. 23 MR. WOO: Objection. Form. 24 THE DEPONENT: I don't, as I sit here today, 25 know where in Angles the term "brand" is used.

249 1 BY MR. SOROCOCCO: 2 Q. Okay. And the reason why I asked that question 3 is that, do you reference any place in Angles where the 4 term "brand" is used, or a quote, that the brand is 5 used? The term "brand" is used? 6 A. I don't have any cites to Angles in this 7 section. 8 Q. Okay. So in paragraph 127, you make the 9 comment, "Advertisements are a form of branded content." 10 What is the basis for that statement? 11 A. Entire field of advergaming, which was a decade 12 before this -- this patent application, the persons of 13 ordinary skill in the art that I have worked with in the 14 area of branded advergaming, it's -- it would be 15 considered synonymous. If you said an advertisement -- 16 you know, that you are trying to advertise something, 17 some business content. 18 Q. Okay. And is it your testimony that that would 19 be a -- that your information -- information that you 20 knew, your knowledge? 21 A. I would expect the person of ordinary skill in 22 the art in our case to know that very well. 23 Q. Okay. You then go on to state, "Advertisements 24 are also business-related content intended to promote a 25 company's business."	251 1 BY MR. SOROCOCCO: 2 Q. Okay. Is it impossible to have an advertisement 3 without including brand info? 4 A. It seems like it would be a waste of advertising 5 dollars. I suppose it's possible. 6 Q. Have you ever seen a billboard along the highway 7 with just a picture of a -- let's say a semi-naked 8 individual, without any brand information on it? 9 MR. WOO: Objection. Form 10 THE DEPONENT: I have seen some obscure 11 advertisements. Never with a naked individual. 12 BY MR. SOROCOCCO: 13 Q. Okay. But you have seen pictures of obscure 14 advertisements? 15 A. I have seen obscure advertisement, and sometimes 16 you look at that and try to figure out who the brand is. 17 Q. But just because something is an advertisement 18 doesn't necessarily mean that it's conveying brand 19 information. 20 Would that be a fair statement? 21 A. I would have to say that advertisements are 22 overwhelmingly branded, but there can be some edge cases 23 where they are not. 24 Q. Okay. Thank you. 25 Claim 4, section lowercase c on page 52 of your
250 1 Do you see that statement? 2 A. Yes. 3 Q. Is that your opinion or is that -- do you have a 4 cite? 5 A. No, I am simply defining what an advertisement 6 is and does. 7 Q. Okay. And is that a definition in your 8 knowledge, or one of ordinary skill in the art, a person 9 of ordinary skill in the art? 10 A. That is a definition that a person of ordinary 11 skill in the art would understand. 12 Q. Okay. You then kind of conclude the paragraph 13 with, "Thus, Angles disclosed displaying branded 14 business-related content." 15 Do you see that? 16 "To said users," excuse me. Do you see that 17 statement? 18 A. Yes. 19 Q. Okay. So the ultimate conclusion there that 20 Angles disclosed branded business-related content to 21 said user is based upon your understanding of what a 22 POSITA would understand those terms to be, correct? 23 THE DEPONENT: That's -- 24 MR. WOO: Objection to form. 25 THE DEPONENT: -- correct.	252 1 Exhibit 1004, claim 4, there at the top of the page, 2 "The method of claim 3 wherein said branded 3 business-related content is dynamically updated." 4 Do you see that language? 5 A. I do. 6 Q. Okay. Do you have an understanding of what 7 dynamically updated means? 8 A. I do. 9 Q. What is your understanding of dynamically 10 updated? 11 A. It changes over time. 12 Q. Okay. Can I have you turn to Figure 7 of the -- 13 I think it is Angles. Yeah, of the Angles patent, 14 please. 15 A. I have Figure 7. 16 Q. Okay. Let's -- just because we have -- we had 17 this issue earlier, can I take you to column 4 of the 18 Angles patent? 19 A. All right. I will try to flip back and forth. 20 Q. Sorry. If you see that down there under the 21 brief description of the figures, do you see that Figure 22 1 is a high level block diagram of the preferred system 23 of the present invention language? 24 A. I see that. 25 Q. Okay. And we talked about that earlier with

Transcript of David Crane
Conducted on February 26, 2024

64 (253 to 256)

253 1 some of the other figures, but if you turn the page to 2 the top of column 5, do you see the language regarding 3 Figure 7 is a flow diagram of the preferred process 4 whereby a consumer accesses the content provider? Do 5 you see that language? 6 A. Yes. 7 Q. Do you have an understanding with regard to 8 whether Figure 7 -- whether or not Figure 7 refers to 9 Figure 1? 10 MR. WOO: Advise the witness to read as much of 11 the document you need in order to answer your question. 12 THE DEPONENT: Well, I mean, right off the bat 13 it talks about the preferred process, not the preferred 14 embodiment, so I am not sure what they are talking 15 about. 16 BY MR. SOROCO: 17 Q. Okay. And I -- you used the term "preferred 18 embodiment," but it's the -- the language is preferred 19 system in Figure 1? 20 MR. WOO: Again, mischaracterizes the -- 21 objection. Mischaracterizes the testimony. 22 THE DEPONENT: In the brief description of the 23 figures, Figure 1 is described as a block diagram of the 24 preferred system of the present invention. 25 MR. SOROCO: Okay.	255 1 actually "preferred system" in Figure 1? 2 A. And I corrected that. 3 Q. Okay. 4 A. Yeah. 5 Q. Let's look at Figure 7 then. 6 Oh, okay. Look at the top of column 19 this 7 gives us a little bit more information about Figure 7. 8 If you look at about line 12, the patent states, 9 the operational states, "Which occur during events C 10 through F will now be discussed in detail in Figure 7 -- 11 "in detail," excuse me. "Figure 7 illustrates a flow 12 chart of the operational states which occur when 13 displaying a customized advertisement 30 to a 14 consumer -- to a consumer." 15 The step of showing a customized advertisement 16 30 occurs in Figure 1, does it not? 17 A. There is a customized advertisement 30 18 referenced in Figure 1. 19 Q. Okay. And as referenced in Figure 1, it is the 20 advertisement provider computer sending the customized 21 advertisement 30 to the consumer computer 12, correct? 22 A. It's not all that clear, but that is an 23 assumption. 24 Q. Okay. Figure 7, do you have any -- could you 25 have a general understanding of the contents of Figure
254 1 THE DEPONENT: And in 7 it's talking about a 2 preferred process. 3 MR. SOROCO: And with regard to the objection 4 of the language, I asked the question, my question was: 5 "Do you have an understanding with to regard with Figure 6 7, whether or not Figure 7 refers to Figure 1?" 7 And your testimony, Mr. Crane, was, "Well, I 8 mean, right off the bat, it talks about the preferred 9 process, not the preferred embodiment. And so I am not 10 sure what they are talking about." 11 And my next question was, okay, and I had use 12 the term "preferred embodiment, but it's the language is 13 "preferred system" in Figure 1. 14 BY MR. SOROCO: 15 Q. So my question stands. You used the preferred 16 embodiment language in your answer. However, Figure 1 17 is stated as being the preferred system of the present 18 invention, correct? 19 A. And there is not enough information in the 20 citation at the top of column 5 to determine whether or 21 not they are referring to the preferred system. Later 22 in the patent I am sure they talk more about Figure 7. 23 Q. Okay. I am really asking a simple question. It 24 is just you used the term preferred embodiment with 25 regard to Figure 1 in your answer, and the language is	256 1 7? 2 A. General understanding, sure. 3 Q. Okay. What is your general understanding of the 4 contents of Figure 7? 5 A. This is a flow chart that talks about 6 customizing advertising. To do that it has to know 7 something about the consumer, so it determines whether 8 or not that consumer is registered. You have to 9 register with the provider in order to give them 10 information that they might use as customized 11 advertising. 12 Q. Starting at the top of the flow chart start is 13 indicated as numeral 700, which in process goes -- once 14 it starts, the consumer accesses the communication 15 system as step 702, correct? 16 A. Yes. 17 Q. The consumer accesses a content provider 704. 18 The consumer there is the consumer -- do you have an 19 understanding of who the content provider is in step 20 704? 21 A. The content provider is a server device that is 22 accessible through the communications. 23 Q. Would it be fair to say it's content provider 24 computer 14 of Figure 1? 25 A. It is.

Transcript of David Crane
Conducted on February 26, 2024

65 (257 to 260)

257 1 Q. Okay. And would it be fair to say that the 2 consumer that we are talking about in step 702 and 704 3 onward is consumer computer 12? 4 A. I would say that where they use the term 5 consumer, they are referring to the consumer computer. 6 Q. Okay. Great. In step 706, "The consumer sends 7 advertisement requests to advertisement provider." 8 Do you see that? 9 A. I do. 10 Q. Okay. And in the consume -- in the -- for the 11 step of consumer sends advertisement, is -- would it be 12 fair to say that the consumer computer 12 is sending the 13 advertisement request to the advertisement provider 14 computer 18? 15 A. For Figure 1, I would believe that's the case. 16 Q. Okay. And if I directed your attention to the 17 box, the upper box next to the right of consumer 18 computer 12, that it states "advertisement request 26." 19 Do you see that in Figure 1? 20 A. I need three copies of this opened to three 21 different places. 22 Q. Uh-huh. 23 A. The content provider computer is 14. 24 What was the question? 25 Q. Excuse me. I'm sorry.	259 1 Q. Okay. And it delivers customized advertisement 2 to consumer. And is that customized advertisement shown 3 in Figure 1 as customized advertisement 30? 4 A. Probably. 5 Q. Okay. Why do you say probably? 6 A. It's sending an advertisement. Yeah, it's 7 probably 30 that's being sent. 8 Q. Okay. The fact that it says customized 9 advertisement in step 712, and it says customized 10 advertisement 30 in Figure 1, is there something that 11 would -- is there something in that language that makes 12 you think that they are not the same? 13 A. No, reading 712, if I wanted to see what the 14 customized advertisement was, I would look for it in the 15 figures, and it is certainly in Figure 1. It may be 16 elsewhere. 17 Q. Okay. And in step 714, "The consumer displays 18 combine custom advertisement and electronic page." 19 Do you see that? 20 A. I do. 21 Q. Okay. And is electronic page referred to as 22 electronic page 32 in Figure 1 the same as the 23 electronic page mentioned in step 714? 24 A. It could be, yeah. 25 Q. Okay. And, again, as I asked before, is there a
258 1 So in step 706, it says, "Consumer sends 2 advertisement request." And I am asking if that is 3 shown in Figure 1, if it's fair to say that in Figure 1, 4 that is consumer computer 12, is sending advertisement 5 request 26 to advertisement provider computer 18? 6 A. I believe that is what it is referring to. 7 Q. Okay. In step 708, "Advertisement provider 8 determines whether consumer is a member." 9 Do you see that? 10 A. I do. 11 Q. Step? Okay. 12 And when you have a yes or no, whether or not 13 they are a member and they are directed, if it's a no, 14 to register with the advertisement provider computer. 15 Is that correct? 16 A. That's correct. 17 Q. And would it be fair to say that the 18 advertisement provider is shown in Figure 1 as 19 advertisement provider computer 18? 20 A. I believe so. 21 Q. Okay. And then in step 712, advertisement 22 provider delivers -- and, again, would it be fair to say 23 that the advertisement provider shown in 712 is 24 advertisement provider computer 18 shown in Figure 1? 25 A. Yes.	260 1 reason why you say it could be? 2 A. Yes. So with other embodiments that we have 3 been through, when they are doing a game, you know that 4 you are displaying a game on your local electronic 5 device. And so what you are displaying doesn't 6 necessarily look exactly like what is being sent. 7 Q. Okay. Is there -- I think I asked this question 8 earlier, and maybe not, but what -- is there anything 9 in -- shown in Figure 1 that relates to gaming? 10 A. You have asked that question before, and the 11 word "game" does not show up in Figure 1. 12 Q. Okay. And you used -- so in response to a -- is 13 there -- I asked you why it could be with regard 14 electronic page 32 and electronic page in step 714, 15 being the same. 16 And you said it could be. 17 And you then answered, "Yes. So with other 18 embodiments that we have been through, when they are 19 doing a game, you know, that you are displaying a game 20 on your local electronic device, and that you are -- it 21 doesn't necessarily look exactly like what is being 22 sent." That was your testimony. 23 And so really my question, you don't seem to 24 answer my question there, which is -- was, "Again, is 25 there a reason why you do not believe that the

261 1 electronic page mentioned in step 714 is not referred to 2 as electronic page 32 in Figure 1?" 3 MR. WOO: Objection. Form 4 THE DEPONENT: In this flow chart, the 5 electronic page referred to in 714 is probably the 6 electronic page listed as No. 32 in Figure 1. 7 BY MR. SOROCO: 8 Q. Okay. Bound and determined to qualify that. 9 Okay. And in step 716, 716, it states, "The consumer 10 divides whether to obtain additional advertising 11 information." 12 Do you see that -- 13 A. I do. 14 Q. -- in Figure 7? 15 Who decides to obtain additional advertising 16 information? 17 A. Well, earlier we were talking about consumer 18 meant consumer computer. In this particular case it's 19 the consumer operating the consumer computer that would 20 make that decision. 21 Q. Okay. Could it be the consumer computer 12? 22 A. I mean, I know there is a lot of AI out there 23 now, but computers don't make those decisions. Or they 24 didn't back then. 25 Q. Okay. What does it mean -- or do you have an	263 1 provider. 2 But in the specification, it talks about how the 3 advertisement can be passed through the content provider 4 computer to the consumer computer, so if the only part 5 of your question that you are worried about is direct, 6 it's hard to answer. I mean it's -- 7 Q. Okay. 8 A. It may not be wired but it does have a 9 connection. 10 Q. Okay. Can we agree that Figure 1 shows a -- the 11 figure shows a communication between consumer computer 12 12 and com-- the -- and the advertisement provider 13 computer 18? 14 A. Your question was about Figure 1? 15 Q. Yes. 16 A. Figure 1 shows a direct connection between the 17 consumer computer and the advertisement provider 18 computer. 19 Q. Okay. And is -- would it be fair to 20 characterize -- strike. 21 In Figure 9, does the figure show a similar 22 communication between the consumer computer 12 and the 23 advertisement provider computer 18, as shown in Figure 24 1? 25 MR. WOO: Objection. Form. The document speaks
262 1 understanding of what it means that the consumer decides 2 whether to obtain additional advertisement information? 3 A. Yeah, that's at the heart of Internet 4 advertising. It displays a hyperlink so that you can 5 decide, I want more information. It didn't have to 6 display a hyperlink. It can be that image. You click 7 on that image, and you go there. 8 Q. Okay. But again, it is your testimony, I 9 believe, that it is the consumer, the individual using 10 the consumer computer 12 that is making that decision? 11 MR. WOO: Objection to form. 12 THE DEPONENT: I believe that's what they are 13 saying here. 14 BY MR. SOROCO: 15 Q. Okay. One question with regard to Figure 9. It 16 may be subtle, we'll see. 17 And I think we have talked about this being a 18 bit different than Figure 1, or a different embodiment 19 than Figure 1, where the consumer computer 12 and the 20 advertisement provider computer 18 are not directly 21 communicating with one another. Is that fair? 22 A. We had a long discussion about this. Figure 9 23 shows direct communication between the consumer computer 24 and the content provider and a direct communication 25 between the advertisement provider and the content	264 1 for itself. 2 THE DEPONENT: Figure 9 and its detailed 3 description in the specification shows that there can be 4 a communication between the two, but it's through the 5 content provider. 6 BY MR. SOROCO: 7 Q. Okay. And maybe that's the simplest way to ask 8 the question. In the communication between the consumer 9 computer 12 and the advertisement provider computer 18, 10 as shown in Figure 9, the content provider computer 14 11 is in the middle of the communications? 12 MR. WOO: Objection. Form. 13 THE DEPONENT: That's my understanding. 14 BY MR. SOROCO: 15 Q. Okay. Going back to claim 4, paragraph -- about 16 130, you talked about dynamically updated and what that 17 means. And we talked about -- a little bit before that 18 about branded business content. 19 Let's move on to claim 5, which is on page 53 20 looking at Romanette ii, which is element v[a], for 21 element v[a] of claims -- of the '028 patent, the 22 language is, "Executed game-related user actions in said 23 game application as a result of user choices." 24 Do you see that language? 25 A. I do.

265 1 Q. Okay. Do you have an understanding of what 2 "user choices" means? 3 A. Inside a game application? Yes. 4 Q. Okay. What is your understanding of what the 5 term user choices means? 6 A. It's -- 7 Q. Within a game -- oh, within a game application. 8 A. Choices made by the user while playing the game. 9 Q. Okay. And what are -- does Angles describe what 10 user choices are? 11 A. Well, Angles refers to one particular user 12 choice, and that is demographic information in order to 13 determine what advertisement might be served to the 14 game. 15 Q. That's a user choice? 16 A. That would be a user choice, sure. 17 Q. Why do you believe that's a user choice? 18 A. It's a choice to give your private information 19 to an advertiser, for one thing. 20 Q. Is that game play -- is that a game-play user 21 choice? 22 MR. WOO: Objection. Form. 23 THE DEPONENT: That one is not likely to be a 24 game-play user choice. 25 ///	267 1 Is that your understanding, Mr. Crane? 2 A. Yes. 3 Q. And, again, said user choices, would it be fair 4 to say is referring to the user choices of claim element 5 v[a]? 6 A. I believe so. 7 Q. Okay. And that -- when they -- we discuss a 8 player profile, it states in the claim that it is based 9 on said user choices made during said game application. 10 Do you see that language? 11 A. I do. 12 Q. Okay. Do you have an understanding of what the 13 term -- claim term "based on" means? 14 A. That means that user choices are a factor in 15 generating a player profile. 16 Q. Okay. Again, I will ask the question what -- do 17 you have an understanding -- you said you had an 18 understanding on what "based on" meant. 19 What is your understanding of the term "based 20 on"? 21 A. That player profile is generated, including 22 factors such as user choices. 23 Q. Okay. In your testimony with regard to element 24 v[a], you used for a car racing theme, things -- user 25 choices being similar to -- or being things like
266 1 BY MR. SOROCO: 2 Q. Okay. If we go up on page 54 at the top, you 3 state that, "For example, in a car racing game the 4 player is making user choices throughout the game, 5 steering, accelerating, braking to the passing to the 6 left or right, choosing to take a pit stop, et cetera. 7 Is that -- do you see that statement? 8 A. I do. 9 Q. Okay. Is that your belief of what user choices 10 would be in a car racing game? 11 A. That is my understanding of what a person of 12 ordinary skill in the art would understand when someone 13 says it is a car racing game. 14 Q. Okay. And are any of those choices dealing with 15 advertisements? 16 A. The description as Angles explains it, it is the 17 ability to put advertisements on billboards, so 18 certainly, if you are driving around, the choices you 19 make on where you are driving will determine what 20 billboards you end up seeing. 21 Q. Okay. In Romanette iii, page 56, element v[b], 22 it is generating a player profile based on said user 23 choices, made during said game application. A player 24 profile has no -- is at A and before it, so that is a 25 new element to the claim, v[b].	268 1 braking, turning left, I think pit stop, accelerating, 2 steering, things of that nature. Is that correct? 3 A. I gave a number of examples similar to that. 4 Q. Okay. Okay. Do you believe -- scratch that. 5 Or strike that. 6 You cite to Angles a little further down in 7 paragraph 1842 that, "Another feature of the invention 8 is directed to monitoring the particular advertisements, 9 which are viewed by particular consumers." 10 Do you believe -- do you have an understanding 11 of what "viewed by particular consumers" means? 12 A. Yes. We are going to monitor the -- what 13 advertisements were viewed by the player as he is 14 playing the game, so each consumer is going to get his 15 own profile that includes what advertisements he has 16 looked at, which is valuable to the advertiser because 17 they can determine who is seeing my ads. 18 Q. Okay. And is "viewed by a particular 19 consumers," do you have an understanding of what that 20 means? 21 A. "Viewed by a consumer," and "by a particular 22 consumer" means that that consumer is identified as one 23 specific person. 24 Q. Okay. Is the viewing of -- by particular 25 consumers, particular advertisements a user choice made

Transcript of David Crane
Conducted on February 26, 2024

68 (269 to 272)

269 1 during game play? 2 MR. WOO: Objection. Form. 3 THE DEPONENT: The viewing of advertisements are 4 based on user choices made during game play. 5 BY MR. SOROCO: 6 Q. Okay. Is -- does Angles disclose monitoring the 7 user choices during game play of a user? 8 MR. WOO: Objection. Form. Advise the witness 9 to read as much of Angles that you need in order to 10 answer the question. 11 THE DEPONENT: Yeah, the citation I have here 12 talks about monitoring which advertisements are viewed. 13 I would have to review all of Angles to determine if 14 there is any disclosure of monitoring the user choices. 15 BY MR. SOROCO: 16 Q. Okay. Let me frame it a different way. 17 The player profile created in Angles, is that a 18 profile based on user chases or -- such as, and your 19 testimony is braking, turning left, or is that a profile 20 based upon advertising choices? 21 MR. WOO: Objection. Form. 22 THE DEPONENT: That profile is monitored based 23 in -- based on game play during game. 24 BY MR. SOROCO: 25 Q. Is it game play or is it watching what	271 1 for intra and intercompany meetings, the extension of 2 the online communities which exist today, virtual 3 concerts, online games, et cetera." 4 And I believe this is being talked about in the 5 sense of using avatars with the present -- with the 6 present invention as disclosed in Robinson. 7 Do you see that language? 8 A. I do. 9 Q. Okay. Do you understand -- have an 10 understanding of what the term "online games" used in 11 line 37 means? 12 A. An online game is a game with an online 13 component. 14 Q. Okay. Is a -- is the online game disclosed in 15 column 9, line 37 of Robinson an application? 16 A. They use the term utility. A utility or 17 application would probably be synonymous here. 18 Q. Okay. You say the word probably, and I know 19 that you were -- you like to be a very precise 20 individual. 21 What do you mean by probably? 22 A. What I mean is an application can be a utility. 23 A utility can be an application. 24 Q. Okay. Let's look at Figure 4 of Robinson. 25 Actually, I am going to switch that. I'm sorry, sir.
270 1 advertisements they look at, the user looks at per 2 Angles? 3 MR. WOO: Objection. Form. 4 THE DEPONENT: I would say it's basically on 5 what advertisements are viewed during the game, and that 6 is based, in part, on user choices made during the game 7 play. 8 BY MR. SOROCO: 9 Q. Okay. Is looking at an advertisement game play? 10 A. If you have to play a game to get to an 11 advertisement, then it is. 12 Q. Is a racing game -- strike that. 13 Let's go ahead just a little bit. 14 Let's look at, again -- or let's look at a new 15 piece of prior art, Robinson, it is ground 2 on page 68 16 of your declaration. I think it's been previously 17 marked by petitioner as 1008. So I am going to hand 18 what's been marked as Exhibit 1008 to you, Mr. Crane. 19 (Referencing Exhibit 1008.) 20 BY MR. SOROCO: 21 Q. Okay. Can I direct your attention to column 9 22 of the Robinson patent. 23 A. Okay. 24 Q. Okay. At about line -- I guess it is 34 in 25 column 9, Robinson states, "Such a utility would allow	272 1 Let's do Figure 9. 2 A. Okay. 3 Q. Okay. Do you see an item called a "persistent 4 client window 912" in the middle of Figure 9? 5 A. I do. 6 Q. Do you have an understanding of what a 7 persistent client window 912 is? 8 A. It's described in detail in this patent. 9 Q. Okay. Do you have a general understanding of 10 what persistent client window 912 means? 11 A. I would hesitate to try to summarize since 12 it's -- there's a lot of detail in this patent about it. 13 Q. Okay. If we look at the bottom of column 12, 14 line 66, Robinson states, "When the computer system 15 detects that the user does not have an application 16 window open that covers the user's viewing of the 17 persistent client window, or that only the users 18 computer desktop is being displayed, it will continue to 19 display advertisements or messages within the persistent 20 client window that are being cycled from his buffer -- 21 buffer." 22 Do you see that language? 23 A. Column 12, 64? 24 Q. 66. 25 A. Column 12, 66. Okay. So it's moving on to the

273 1 other column. 2 Q. That's correct. Top of column 13. 3 A. I see that at the bottom of 12, application 4 window open... 5 Okay. I have read it. 6 Q. Okay. Do you have an understanding of what the 7 language cycled from its buffer or -- means? 8 A. Yeah, that's a pretty common industry concept of 9 if you buffer something and lose your connection or 10 whatever, you can continue to run information from the 11 buffer. 12 Q. Okay. In this paragraph it talks about the 13 persistent client window, if that is covered or is -- 14 cannot be displayed. Or only the user's computer 15 desktop is being displayed. It will then cycle messages 16 or display advertisements within the persistent client 17 window that are cycled from its buffer. 18 Do you see that language? 19 A. I see that. 20 Q. Okay. Do you have an understanding with regard 21 to that language what advert -- what information is 22 being cycled from the buffer? 23 MR. WOO: Objection. Form. Advise the witness 24 to read as much of the document as you need in order to 25 answer the question.	275 1 something covering the persistent client window. 2 Q. Okay. 3 A. And here as well, if it's not being covered by 4 something else, it will cycle advertisements or messages 5 from its buffer and rotate them one after the other. 6 Q. Okay. Let's look at the '028 patent real quick, 7 Exhibit 1001. Let me know when you get there. 8 A. I have got the patent in front of me. 9 Q. Let's look at claim 7, or column 7, excuse me, 10 claim 1? 11 A. Okay. 12 Q. Okay. And if you look at line 24, one of the 13 elements is, "Automatically integrating business-related 14 content from at least one of said web pages of said 15 secondary electronic device into said locally executed 16 game application during execution of said game 17 application." 18 Do you see that language? 19 A. I do. 20 Q. Okay. Do you have an understanding of that 21 language? 22 A. I do. 23 Q. Okay. Can you share that with me? 24 A. Automatically integrating business-related 25 content.
274 1 THE DEPONENT: Advertisements or messages within 2 the persistent client window are being cycled from its 3 buffer. 4 MR. SOROCO: Okay. 5 THE DEPONENT: Advertisements or messages. 6 BY MR. SOROCO: 7 Q. Okay. And if we go down a little bit further in 8 claim 13, line -- and it looks like 23. It's kind of 9 cut off because of the messages there, but do you see 10 the sentence that begins, "In this manner while the user 11 is offline, the present invention will allow for the 12 display of many different advertisements or messages in 13 the persistent client window that are retrieved from its 14 buffer and rotated, one after the other, over a 15 predefined cycling period, as long as the persistent 16 client window can be fully viewed." 17 A. I see that. 18 Q. Okay. Do you have an understanding of what that 19 language means? 20 A. Yeah, like the previous section, which we didn't 21 cover is they do look, and they say if you are using 22 your computer and you have got a window that covers the 23 persistent client window, we don't do this. 24 Q. Okay. 25 A. It is only if we determine that there is not	276 1 Q. Okay. Is the online game in that claim element 2 an application? 3 MR. WOO: Objection. Form. 4 THE DEPONENT: Claim language is, "Locally 5 executed game application," and in the example of a -- 6 an online game, it would be an application, yes. 7 BY MR. SOROCO: 8 Q. Okay. Just going back because your counsel made 9 an objection there. 10 The language is, is that the -- "into said 11 locally executed game application," correct? 12 A. Yes. 13 Q. Okay. And I believe you testified a moment ago 14 that locally executed game application indicated to 15 you -- or what -- 16 Do you have an understanding of that language? 17 A. A locally executed game application is a game 18 application that is running on your computer. 19 Q. Okay. And when you say "your computer," the 20 local device, correct? 21 A. The computer you are sitting at locally, yes. 22 Q. Okay. 23 THE DEPONENT: What is our time? 24 MR. WOO: What's the time? 25 THE VIDEOGRAPHER: 6:57.

277 1 MR. WOO: What's that? 2 THE VIDEOGRAPHER: 6:57. 3 MR. WOO: 6:57. Okay. You have 3 minutes. 4 MR. SOROCO: Okay. 5 BY MR. SOROCO: 6 Q. Okay. A couple last questions here. In the 7 Robinson patent, that's been marked as -- 8 THE REPORTER: 008. 9 MR. SOROCO: Thank you. 10 BY MR. SOROCO: 11 Q. Paragraph -- well, let's look at paragraph 177 12 of your declaration. You made the comment to the extent 13 the preamble of claim 1 is limiting, Robinson teaches 14 this limitation, i.e., the limitation of claim 1 15 Romanette i, element i, the preamble. 16 What is the diff -- do you have an understanding 17 of what e-commerce server means? 18 A. I do. 19 Q. Okay. What does an e-commerce server mean? 20 A. So that's external to this claim. I don't see 21 it here, unless I am missing something. But e-commerce 22 is electronic commerce. 23 Q. Okay. 24 A. It is -- it covers a lot of sins. It's a -- the 25 ability to buy things with real currency, artificial	279 1 MR. WOO: -- counsel, okay? 2 MR. SOROCO: That's -- I understand that you 3 are objecting to any longer than seven hours. I placed 4 my objection on the record, and state that the 5 deposition should go on for as long as it needs to be to 6 go across three different IPR petitions dealing with 7 declarations from a highly technical expert, ranging up 8 to 200 or so paragraphs across the declarations. And I 9 understand that's your -- that's not your position. 10 MR. WOO: Our position is that you have served a 11 set of notices for this witness for all four IPR 12 proceedings. You have -- and we know that one of the 13 IPR proceedings is out, so the other three are the 14 subject of this deposition. 15 You have seven hours is typical, standard 16 procedure and process within a PTAB proceedings related 17 to -- concerning multiple patents that are related, as 18 the case -- you indicated yourself at least the '165 and 19 the '72 -- at least, I'm sorry the '165 and the '941 20 patents have very similar claims, very similar 21 limitations. They are related, and the '028 patent is 22 also in the same family, so these are all related IPR 23 proceedings concerning related patents. And seven hours 24 is adequate time as per standard procedure within these 25 types of proceedings.
278 1 currency, game tokens. Basically, if you are performing 2 commerce, electronically, it's done through a server 3 that's called an e-commerce server. 4 Q. Okay. And do you have an understanding of what 5 the term web page server is? 6 A. A web page server is a server that would serve 7 web pages. 8 Q. Okay. In -- in claim 1, the preamble, it talks 9 about a, "Method of integrating business-related content 10 over computerized network into a primary electronic 11 device that accesses a game application from at least 12 one secondary electronic device that accesses 13 business-related content, the method comprising..." and 14 then it goes on. 15 What is the secondary device? 16 MR. WOO: Objection. Form. 17 THE DEPONENT: I mean, in my understanding of 18 Robinson, you are getting advertisements from an 19 external server, which would be secondary electronic 20 device. 21 MR. SOROCO: Okay. 22 MR. WOO: Time on the record? 23 THE VIDEOGRAPHER: 7:01. 24 MR. WOO: Okay. You are at seven hours -- 25 MR. SOROCO: Okay.	280 1 Also, in a typical litigation, invalidity would 2 concern exactly the same kinds of arguments, but a much 3 broader set of arguments than what's covered in this 4 limited proceeding for the IPRs, which only get into 5 anticipation and obviousness based upon prior art 6 patents and applications, and do not cover the whole 7 wealth of other issues, such as 101 issues 112 issues, 8 claim construction, written in description, enablement, 9 et cetera. 10 So our position is that seven hours is more than 11 adequate, and is proper. The total deposition time for 12 these three IPR proceedings is seven hours. And our 13 position is that that is adequate time, and that is 14 appropriate time, and that is all the time that should 15 be allocated for this particular witness. 16 MR. SOROCO: Okay. To begin with, I will say I 17 disagree with your characterization of the patents. Two 18 of the patents I said, I believe the '941 and the '165 19 are in the same family. The '028 is a completely 20 different patent family with different patent claims, 21 different patent term -- different terms. 22 And I believe you characterized, and I am 23 looking at your testimony -- testimony here, or your 24 comments here regarding that. I disagree with that 25 completely.

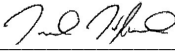
Transcript of David Crane
Conducted on February 26, 2024

71 (281 to 284)

281 1 With regard to earlier in the day, we discussed 2 informally between ourselves that the fact that if this 3 was in litigation, that the total amount of time to take 4 with Mr. Crane's deposition would be 14 hours, based 5 upon the -- the taking the testimony for invalidity 6 non-infringement, and -- and other positions. I 7 understand that you believe that seven hours is enough. 8 I disagree. And based upon the PTAB's position, rules, 9 and precedent, I am not -- I object to the seven hours. 10 It's unfortunate that we are in this place 11 because -- that position, because we had discussed today 12 about seeing where we would end up at seven hours and 13 potentially using a longer period of time, if necessary. 14 It doesn't look like we are going to resolve this in a 15 friendly manner. 16 At this point in time, I am not closing this 17 deposition. I am keeping it open. And Mr. Crane is 18 admonished that because the cross -- cross examination 19 is open that he should have no conversations with 20 counsel regarding his testimony, regarding any of these 21 matters. 22 MR. WOO: So I disagree with your objections and 23 your testimony -- or your comments with respect to my 24 comments. But certainly as I indicated, the 14 hours 25 that would be typical in litigation would cover multiple	283 1 MR. SOROCCO: Okay. Phil, before we start, as I 2 stated, I am not passing the witness. Pursuant to the 3 rules, I think it's consolidated trial practice guide 4 page 130, paragraph 9, "If the objecting witness or 5 party so as demands, a testimony must be suspended for 6 the time necessary to obtain a ruling from the board." 7 We will be going to the board in the morning to 8 obtain additional time to take the cross examination of 9 Mr. Crane. 10 MR. WOO: And I am going to go ahead and take 11 the witness on redirect. 12 MR. SOROCCO: I am not going to allow that to 13 happen. I am going to start asking Mr. Crane questions 14 because it is still my witness. I have not passed the 15 witness. 16 MR. WOO: Your time is over. Seven hours -- you 17 have had -- 18 MR. SOROCCO: I did not pass the witness. 19 MR. WOO: I am going to go ahead take the 20 witness -- 21 MR. SOROCCO: At this time I am objecting -- I 22 am objecting -- objecting. 23 MR. WOO: You can make your objection -- 24 (Simultaneous speakers.) 25 MR. SOROCCO: This testimony --
282 1 issues, invalidity and non-infringement. 2 Non-infringement is not a concern in IPR proceedings, as 3 you full well know, IPR proceedings only cover 4 invalidity. And with -- with respect to a very 5 particular subset of invalidity, only within 102, 103, 6 just based upon patents' infringed publications. 7 And with that, I would like to redirect the 8 witness with respect to his testimony today because the 9 seven hours have been, in our view, concluded. So I 10 propose to redirect the witness at this time about the 11 questions that have been asked in the cross examination. 12 MR. SOROCCO: As I say, I do not pass the 13 witness. 14 MR. WOO: So I -- I will proceed based upon your 15 objections. I will go ahead and proceed with 16 crossing -- redirecting the witness as appropriate for 17 this particular situation, where we are -- 18 MR. SOROCCO: Okay. 19 MR. WOO: Okay. So I would like ten minutes and 20 then we will resume. 21 THE VIDEOGRAPHER: Okay. We are going off the 22 record. The time is 18:47. 23 (A recess transpires.) 24 THE VIDEOGRAPHER: We are back on the record. 25 The time is 19:18.	284 1 MR. WOO: -- off the record -- 2 MR. SOROCCO: -- must be suspended, per the 3 guide, must be suspended. It's not "can be suspended," 4 it's not, "may be suspended." It is must be suspended. 5 And I am not going to allow you to continue to take -- 6 excuse me, to take -- to redirect Mr. Crane at this 7 time. We can go to the board in the morning and get a 8 ruling from the board. And that's what's going to 9 happen this evening. 10 Give me one second. 11 MR. SOROCCO: Mm-hmm. 12 MR. WOO: Maybe you can go to the conference 13 room for a moment. 14 THE DEPONENT: Off the record? 15 MR. WOO: Off the record, please. 16 THE VIDEOGRAPHER: Okay. We are going off the 17 record. The time is 19:20. 18 (A recess transpires.) 19 THE VIDEOGRAPHER: We are back on the record. 20 The time is 19:29. 21 MR. WOO: Patent's counsel is harassing our 22 witness, unduly burdening our witness with unnecessary 23 and undue extended deposition time for the four patents, 24 all of which are related. We will take this up with the 25 board tomorrow, and this deposition continues with a

Transcript of David Crane
Conducted on February 26, 2024

72 (285 to 288)

285 1 redirect, as appropriate. 2 MR. SOROCCO: I am not passing the window -- 3 witness. This deposition is currently at cross 4 examination. I admonished Mr. Crane not to have any 5 conversations about -- with you about his testimony 6 while he is my witness for cross examination purposes. 7 MR. WOO: We will take this up with the board 8 tomorrow. 9 MR. SOROCCO: We will, and I dis -- I just want 10 to say it is unfortunate that your characterization that 11 I have been harassing your witness or oppressing your 12 witness as an unfortunate characterization. I am asking 13 for the time for which we are entitled and/or asking the 14 board for additional time, pursuant to the rules that 15 they have promulgated. 16 MR. WOO: You on your own email actually stated 17 that the witness would be at most for this one day. You 18 served notices all for a single day. The assumption has 19 always that seven -- seven hours per declarant. The 20 seven hours have passed, and your time is over. We will 21 take this up with the board tomorrow. 22 MR. SOROCCO: We will take this up with the 23 board tomorrow. 24 THE VIDEOGRAPHER: Okay. This marks the end of 25 the deposition of David Crane. We are going off the	287 1 REPORTER'S CERTIFICATE 2 3 STATE OF CALIFORNIA) ss. 4 I, DEREK L. HOAGLAND, CSR #13445, State of 5 California, do hereby certify: 6 That DAVID CRANE the witness whose deposition 7 is hereinbefore set forth, was duly sworn by me before 8 the commencement of such deposition and that such 9 deposition was taken before me and is a true record of 10 the testimony given by such witness. 11 I further certify that the adverse party, 12 PETITIONER, was represented by counsel at the deposition. 13 I further certify that the deposition of 14 DAVID CRANE, occurred at the offices of Duane Morris LLP, 15 260 Homer Avenue, on Monday, February 26, 2024, commencing 16 at 9:14 a.m. to 7:30 p.m. 17 I further certify that I am not related to 18 any of the parties to this action by blood or 19 marriage, I am not employed by or an attorney to any 20 of the parties to this action, and that I am in no way 21 interested, financially or otherwise, in the outcome 22 of this matter. 23 24 25
286 1 record at 19:30. 2 (Proceeding adjourns sine die at 7:30 p.m.) 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	288 1 IN WITNESS WHEREOF, I have hereunto set my 2 hand this 27th day of February, 2024. 3 4  5 DEREK L. HOAGLAND, CSR #13445 6 NOTARY PUBLIC IN AND FOR THE 7 CALIFORNIA 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

Transcript of David Crane
Conducted on February 26, 2024

73

A	173:3, 173:4, 235:24 accesses 243:5, 243:10, 244:19, 245:6, 253:4, 256:14, 256:17, 278:11, 278:12 accessible 114:11, 115:13, 130:23, 132:9, 132:11, 132:16, 133:17, 215:9, 215:16, 216:8, 216:14, 217:24, 219:18, 240:13, 242:14, 242:18, 256:22 accessing 221:15 accompanied 147:5 accomplish 180:5 according 66:12, 104:21 account 89:12, 89:18, 90:5, 93:16, 169:4, 169:12 accumulate 195:18 accurate 9:3, 14:6, 45:24, 86:2, 196:7, 234:17 accurately 11:7 achieve 116:6 across 6:14, 6:23, 126:5, 279:6, 279:8 action 4:12, 13:16, 176:19, 235:17, 237:1, 237:3,	237:23, 237:25, 238:2, 238:6, 238:11, 238:17, 238:22, 287:18, 287:20 actions 240:6, 264:22 activate 21:22 activision 25:22, 26:4, 26:6, 26:14 activity 106:11 actual 93:24, 143:20, 203:3 actually 11:23, 26:7, 26:23, 51:11, 57:22, 64:22, 67:3, 78:24, 97:20, 99:25, 100:15, 118:25, 139:3, 143:16, 183:14, 183:19, 198:13, 219:10, 219:25, 221:6, 224:3, 240:10, 243:21, 255:1, 271:25, 285:16 add 15:14, 49:19, 52:1, 196:20 added 15:8, 25:16, 52:3, 101:16 adding 247:24 addition 191:6, 229:18 additional 36:23, 43:22, 47:19, 96:23, 191:13, 235:1, 236:1, 261:10, 261:15, 262:2, 283:8, 285:14	additions 13:17 address 7:15, 223:1, 223:3 addressed 157:18, 193:22, 210:7 adequate 279:24, 280:11, 280:13 adjective 120:19, 120:22, 120:24 adjourns 286:2 adjusting 147:15, 147:16 administered 8:3 admonished 281:18, 285:4 ads 268:17 advanced 24:5 advancement 134:24 adventure 54:7, 54:8, 54:13, 54:22 adverb 120:19 advergame 194:14 advergaming 249:11, 249:14 adverse 287:11 advert 273:21 advertise 211:4, 229:1, 249:16 advertised 235:1 advertisement 202:18, 203:11,
----------	---	---	---

PLANET DEPOS
888.433.3767 | WWW.PLANETDEPOS.COM

Quantum Imaging, LLC
Exhibit 2009
IPR2023-00954
Page 74

Transcript of David Crane
Conducted on February 26, 2024

74

203:14, 205:2, 205:10, 205:12, 205:16, 205:20, 205:25, 206:20, 206:24, 207:4, 207:10, 207:22, 208:12, 209:5, 209:22, 210:20, 211:5, 211:7, 211:20, 211:23, 211:24, 212:2, 212:7, 212:21, 225:21, 225:23, 225:24, 226:2, 226:3, 226:4, 226:5, 226:16, 226:25, 227:2, 227:6, 227:7, 227:16, 227:21, 227:25, 228:5, 228:17, 228:20, 228:23, 229:11, 229:19, 232:10, 232:20, 233:5, 233:6, 234:11, 235:7, 237:20, 249:15, 250:5, 251:2, 251:15, 251:17, 255:13, 255:15, 255:17, 255:20, 255:21, 257:7, 257:11, 257:13, 257:18, 258:2, 258:4, 258:5, 258:7, 258:14, 258:18, 258:19, 258:21, 258:23, 258:24, 259:1, 259:2, 259:3, 259:6, 259:9, 259:10, 259:14, 259:18, 262:2, 262:20, 262:25, 263:3, 263:12, 263:17, 263:23, 264:9, 265:13, 270:9, 270:11	advertisements 202:9, 202:12, 202:14, 212:9, 221:18, 223:9, 229:21, 249:9, 249:23, 251:11, 251:14, 251:21, 266:15, 266:17, 268:8, 268:13, 268:15, 268:25, 269:3, 269:12, 270:1, 270:5, 272:19, 273:16, 274:1, 274:5, 274:12, 275:4, 278:18 advertiser 221:20, 235:23, 265:19, 268:16 advertiser's 234:12, 235:8 advertising 88:19, 202:14, 222:5, 222:9, 222:17, 223:6, 251:4, 256:6, 256:11, 261:10, 261:15, 262:4, 269:20 advise 45:11, 76:11, 108:7, 143:3, 210:4, 221:11, 233:16, 253:10, 269:8, 273:23 affected 86:15 affiliate 17:12, 17:17 afforded 214:24 after 22:14, 25:17, 26:13, 28:6, 34:25, 41:22, 41:23, 58:17, 88:16, 89:18, 99:7, 111:15,	141:12, 141:14, 152:3, 274:14, 275:5 afternoon 118:13 afterward 99:9 again 26:20, 28:16, 32:18, 34:16, 35:8, 45:20, 46:14, 48:25, 57:10, 58:4, 66:7, 67:9, 68:19, 70:10, 70:19, 76:1, 76:15, 79:6, 79:25, 80:16, 82:17, 82:25, 84:2, 95:15, 99:15, 105:1, 109:1, 110:14, 116:11, 125:20, 129:19, 138:2, 140:14, 149:25, 154:3, 159:13, 163:4, 164:14, 173:4, 176:8, 178:3, 178:5, 178:8, 178:9, 179:2, 180:2, 180:7, 189:5, 192:2, 196:11, 200:10, 201:18, 207:24, 208:7, 216:25, 225:15, 234:23, 235:8, 236:6, 237:14, 243:20, 247:19, 253:20, 258:22, 259:25, 260:24, 262:8, 267:3, 267:16, 270:14 against 90:25, 248:12, 248:14 ago 11:12, 34:10,	59:9, 75:17, 90:25, 191:22, 276:13 agree 29:22, 55:18, 77:17, 100:2, 140:1, 140:7, 150:23, 150:25, 161:16, 172:3, 172:7, 263:10 agreed 6:13 ah 48:22, 83:16, 244:5 ahead 97:24, 200:2, 270:13, 282:15, 283:10, 283:19 ai 261:22 air 135:6, 135:25, 146:9 aircraft 168:16 aircrafts 154:16 airplanes 135:12 al 47:24, 48:4, 48:5, 59:3, 202:3, 213:11 alexander 11:3, 11:4, 11:8, 12:4 alien 32:3 all 6:14, 6:22, 6:23, 12:19, 12:20, 17:11, 19:16, 20:9, 26:13, 30:11, 34:23, 37:22, 39:23, 44:7, 56:22, 60:25,
---	--	--	---

PLANET DEPOS
888.433.3767 | WWW.PLANETDEPOS.COM

Quantum Imaging, LLC
Exhibit 2009
IPR2023-00954
Page 75

Transcript of David Crane
Conducted on February 26, 2024

75

61:13, 61:21, 72:6, 74:14, 79:1, 79:5, 80:15, 81:6, 86:17, 88:9, 90:21, 92:4, 93:18, 98:21, 109:3, 111:9, 112:5, 114:16, 118:13, 122:23, 127:1, 145:21, 145:22, 147:18, 147:23, 148:25, 149:10, 151:2, 151:9, 151:16, 151:20, 151:25, 155:21, 158:25, 177:7, 181:1, 183:3, 183:11, 184:11, 186:20, 191:3, 192:6, 193:11, 195:7, 196:7, 197:22, 197:24, 200:9, 203:12, 220:2, 238:4, 238:8, 238:15, 239:17, 240:5, 243:23, 245:23, 252:19, 255:22, 269:13, 279:11, 279:22, 280:14, 284:24, 285:18 alleged 65:22, 66:1, 66:5 allocated 280:15 allow 6:13, 92:14, 219:9, 270:25, 274:11, 283:12, 284:5 allowed 86:5, 94:18, 182:1 almost 53:16, 213:20	alone 247:5, 247:11, 248:2, 248:8 along 11:1, 73:25, 227:22, 241:2, 251:6 already 105:2, 148:19, 155:11 also 3:25, 5:18, 5:25, 6:2, 6:21, 10:25, 11:20, 12:5, 14:20, 25:20, 36:3, 43:20, 43:25, 47:17, 75:18, 75:19, 100:23, 102:16, 107:17, 107:20, 108:9, 123:5, 149:3, 173:16, 190:14, 198:9, 218:8, 247:24, 249:24, 279:22, 280:1 alternative 223:21, 224:10, 225:7, 225:17, 226:14, 233:4, 243:3, 244:17 alternatives 29:23 although 7:13, 28:24, 91:14, 95:17, 105:21, 111:11, 112:6, 143:14, 151:22, 218:19, 218:21 altieri 38:19, 38:21 alto 1:26, 2:28, 3:7, 5:13 always 63:23, 65:9, 73:23, 81:12,	91:4, 135:11, 285:19 amazing 32:13, 32:21 american 151:15, 186:17 among 218:23 amount 19:10, 185:9, 281:3 analogy 200:5, 200:18, 200:25 analysis 12:10, 14:5, 69:9, 69:15, 71:3, 71:7, 71:18, 71:22, 71:23, 71:24, 73:4, 73:15, 76:5, 76:23, 77:1, 84:10, 85:21, 86:2, 86:8, 114:6, 114:25, 117:1, 117:7, 117:11, 122:17, 123:17, 152:3, 155:9, 155:22, 156:10, 158:25, 159:8, 159:10, 179:13, 179:15, 179:18, 183:8, 184:23, 190:4, 213:6, 213:19, 220:3, 220:21, 223:3, 245:16 analyze 48:11, 86:14 analyzed 11:6, 77:20 analyzing 70:23, 71:1, 159:25, 160:1, 221:16 angles 202:2, 202:3,	202:8, 202:22, 202:25, 203:3, 208:7, 213:11, 215:15, 216:24, 217:22, 220:19, 221:1, 222:15, 223:6, 228:18, 229:16, 234:14, 235:23, 236:21, 236:23, 237:7, 237:19, 240:12, 247:11, 248:21, 248:25, 249:3, 249:6, 250:13, 250:20, 252:13, 252:18, 265:9, 265:11, 266:16, 268:6, 269:6, 269:9, 269:13, 269:17, 270:2 animate 197:23 ann 3:22, 6:3 annotated 161:24, 162:1, 162:6, 162:9, 162:12, 175:3, 175:11, 175:25, 180:20 annotation 163:4 another 9:14, 15:13, 23:12, 74:2, 81:8, 89:21, 105:11, 120:3, 121:12, 121:14, 147:12, 149:18, 149:19, 187:18, 196:19, 197:19, 211:14, 262:21, 268:7 answer 8:12, 10:17, 12:3, 15:16, 15:17, 21:9, 27:19, 34:8,
---	---	---	--

Transcript of David Crane
Conducted on February 26, 2024

76

34:16, 34:20, 37:9, 45:13, 56:13, 63:18, 63:20, 69:11, 73:11, 76:13, 108:9, 109:12, 113:15, 116:18, 128:1, 128:11, 129:6, 150:6, 150:10, 150:12, 166:24, 184:8, 201:4, 201:5, 221:13, 229:15, 233:18, 248:22, 253:11, 254:16, 254:25, 260:24, 263:6, 269:10, 273:25 answered 86:11, 148:20, 149:3, 200:13, 260:17 answering 8:9, 8:17, 10:16 answers 72:17 antecedent 161:3, 161:4, 161:18, 177:20, 178:5, 178:9, 246:5, 246:12 anticipated 33:1, 66:7, 161:6 anticipating 74:23 anticipation 71:3, 71:7, 71:12, 71:13, 71:15, 71:18, 71:24, 123:6, 280:5 anybody 94:3, 138:10, 141:11 anyone 92:21	anything 8:2, 10:7, 18:18, 66:4, 90:6, 92:19, 99:7, 115:16, 144:13, 152:19, 152:22, 165:21, 167:2, 170:1, 209:24, 231:23, 233:14, 233:25, 260:8 anyway 195:18 anywhere 146:17 apart 76:21 apologize 39:9, 114:13, 219:25 apparently 190:21 appeal 1:2, 2:2 appear 60:19, 61:5, 61:17, 89:20, 205:8, 208:3, 223:10, 244:9 appearances 3:1 appears 16:18, 33:20, 60:22, 61:10, 84:4, 102:16, 217:11, 225:5 apple 128:19, 129:14, 130:14 applicable 145:21 applicant 44:9, 51:16, 51:25, 59:22, 66:14, 111:15 application 39:12, 39:15, 40:2, 40:12,	40:14, 40:22, 40:23, 41:9, 41:14, 41:25, 63:15, 89:1, 89:5, 95:16, 95:18, 96:23, 108:23, 123:22, 162:13, 162:22, 162:25, 163:1, 164:2, 164:12, 178:14, 178:15, 178:19, 178:21, 178:25, 179:2, 179:21, 179:22, 180:22, 180:23, 180:25, 181:2, 181:3, 181:4, 181:7, 181:8, 181:12, 193:6, 194:7, 194:18, 201:12, 215:9, 215:16, 215:25, 216:5, 216:18, 217:23, 219:17, 219:21, 220:11, 220:12, 223:2, 230:19, 230:22, 232:7, 235:24, 240:13, 241:2, 241:14, 241:15, 241:16, 241:17, 242:8, 242:13, 242:19, 243:5, 244:20, 246:1, 246:10, 246:17, 249:12, 264:23, 265:3, 265:7, 266:23, 267:9, 271:15, 271:17, 271:22, 271:23, 272:15, 273:3, 275:16, 275:17, 276:2, 276:5, 276:6, 276:11, 276:14, 276:17, 276:18, 278:11 applications 162:16, 162:17,	163:5, 163:6, 163:10, 163:17, 163:19, 163:24, 280:6 applied 66:15, 66:18 apply 119:1 appreciable 34:2 appropriate 109:6, 221:17, 280:14, 282:16, 285:1 approve 80:23 approved 93:5 approves 94:17 april 38:9 arbitrary 33:7 archaeological 57:12 architecture 31:3, 104:18, 108:23 archive 11:10, 59:1, 92:1 archives 11:11 area 25:14, 249:14 aren't 82:3, 113:22 arguably 122:15 argument 94:24, 121:3, 121:11 arguments 121:6, 280:2, 280:3 arobl@dunlapcodd- ing 3:23
---	--	---	---

Transcript of David Crane
Conducted on February 26, 2024

77

around 21:11, 21:12, 54:17, 54:21, 149:14, 149:15, 161:2, 168:17, 172:16, 183:20, 187:5, 195:21, 197:23, 198:15, 221:19, 266:18 arrive 70:4, 156:18, 157:4, 157:7, 157:12, 157:22 arriving 158:1 arrows 207:8, 207:16, 207:19, 207:20, 208:3, 213:2 art 11:6, 11:18, 46:1, 67:12, 70:4, 70:9, 70:11, 71:4, 72:4, 74:8, 74:13, 74:18, 75:6, 75:11, 76:6, 76:25, 77:21, 78:10, 78:16, 79:11, 79:16, 79:18, 79:20, 80:7, 80:17, 80:18, 82:11, 83:7, 83:21, 85:17, 85:19, 88:14, 89:1, 89:5, 90:3, 90:7, 90:18, 91:16, 95:24, 95:25, 114:21, 120:2, 122:13, 123:22, 125:10, 125:14, 125:18, 125:25, 129:19, 129:22, 133:25, 134:4, 134:7, 134:9, 134:14, 134:18,	139:8, 139:16, 139:25, 141:15, 141:17, 141:19, 153:12, 155:1, 155:20, 156:14, 156:24, 157:7, 157:15, 157:19, 158:2, 159:19, 163:1, 167:19, 176:9, 183:6, 188:19, 189:1, 191:17, 192:2, 201:10, 201:21, 214:14, 217:7, 241:9, 246:24, 247:5, 247:25, 248:3, 249:13, 249:22, 250:8, 250:9, 250:11, 266:12, 270:15, 280:5 article 232:10 artificial 277:25 artisan 89:13, 89:19 ascertained 84:7 aside 87:8, 87:13, 87:17, 147:23 asked 42:6, 45:17, 50:12, 71:13, 71:17, 75:16, 86:5, 86:7, 86:11, 113:13, 122:7, 122:11, 152:11, 200:13, 216:22, 242:17, 245:25, 249:2, 254:4, 259:25, 260:7, 260:10, 260:13, 282:11 asking 8:17, 17:6, 65:15, 65:16,	103:22, 150:22, 150:24, 167:8, 184:21, 238:1, 254:23, 258:2, 283:13, 285:12, 285:13 aspect 75:24 aspects 147:19, 240:24 asserted 156:3, 157:17, 159:10, 162:18 assessing 68:16 associated 10:20 associates 9:13 assume 7:21, 8:13, 13:15, 15:17, 16:5, 34:25, 35:10, 37:17, 38:8, 44:23, 51:8, 53:22, 55:8, 56:13, 56:14, 57:1, 59:2, 59:14, 84:18, 88:7, 88:9, 93:3, 99:16, 102:8, 152:9, 162:5, 173:3, 186:10, 186:24, 190:10, 190:14, 191:23, 192:1, 192:3, 192:5, 234:17, 246:16 assumed 79:12 assuming 34:24, 213:14 assumption 13:18, 35:12, 38:10, 57:10, 57:13, 169:24, 170:2, 191:25,	255:23, 285:18 atari 25:19, 25:20, 25:25, 111:5, 128:19, 128:20 attached 13:20, 50:7 attempt 44:15, 145:14 attempted 45:21, 45:25 attempting 43:13 attention 104:17, 141:15, 141:16, 141:20, 142:8, 244:3, 244:13, 257:16, 270:21 attests 11:13 attorney 39:20, 42:21, 45:7, 45:20, 51:7, 57:11, 64:24, 70:20, 96:2, 118:19, 247:15, 287:19 attorney-client 10:14 attorneys 39:22, 45:21, 95:20 audio 137:21, 138:7, 146:5, 146:18, 147:17, 163:21, 164:20, 180:20 augmented 125:4 august 42:3 author 11:17, 59:2, 92:15 auto 35:18, 232:13 automatic 228:10, 231:11
--	---	---	---

Transcript of David Crane
Conducted on February 26, 2024

78

automatically 220:8, 220:19, 228:6, 230:16, 231:12, 231:15, 231:19, 231:20, 231:23, 275:13, 275:24 automobile 173:17 available 79:2, 93:19, 118:1, 118:8, 151:6 avatars 271:5 avenue 2:27, 3:5, 3:13, 5:12, 287:15 aware 10:10, 15:11, 16:9, 54:1, 55:6, 63:8, 85:24, 112:14, 112:17, 113:14, 120:15, 122:8, 134:9, 134:12, 140:14, 140:17, 141:10, 152:17, 213:17, 248:21 away 175:5, 240:2 awkward 19:8	42:10, 42:25, 44:8, 44:14, 47:13, 51:9, 51:11, 52:14, 57:21, 58:3, 58:8, 59:17, 62:1, 64:10, 64:13, 70:10, 78:12, 90:13, 90:17, 90:22, 93:24, 96:10, 99:13, 113:10, 117:22, 125:15, 127:15, 130:21, 131:17, 140:20, 141:23, 142:12, 144:3, 147:20, 147:24, 149:25, 154:22, 159:13, 161:3, 161:15, 164:22, 168:10, 175:15, 175:21, 176:20, 177:17, 178:9, 180:12, 181:1, 183:19, 189:22, 190:23, 199:23, 206:1, 207:20, 209:8, 209:15, 210:12, 226:10, 236:18, 237:4, 239:14, 239:18, 240:8, 245:5, 247:21, 252:19, 261:24, 264:15, 276:8, 282:24, 284:19	191:3, 194:9, 194:11, 194:12 backward 26:19 backwards 238:2 baldwin 52:19 barbaro 9:22, 9:23, 10:7, 38:19, 38:21, 66:11, 102:20, 115:20, 116:7, 116:15, 116:19 barbaro's 51:10 based 40:9, 59:8, 65:8, 73:18, 75:23, 85:18, 86:19, 90:3, 125:20, 167:24, 170:7, 171:7, 174:11, 176:8, 237:1, 241:20, 242:11, 244:24, 250:21, 266:22, 267:8, 267:13, 267:18, 267:19, 269:4, 269:18, 269:20, 269:22, 269:23, 270:6, 280:5, 281:4, 281:8, 282:6, 282:14 basic 39:25, 123:19 basically 11:13, 18:19, 25:13, 104:14, 146:4, 165:25, 199:15, 200:22, 218:11, 221:19, 270:4, 278:1 basis 15:20, 124:1, 161:18, 178:5,	178:9, 246:6, 249:10 bat 253:12, 254:8 battle 21:18 bear 7:17 became 131:20 because 17:1, 19:14, 24:9, 30:5, 51:1, 57:7, 57:13, 68:9, 75:6, 85:7, 101:16, 101:19, 116:5, 116:8, 120:5, 121:7, 129:8, 132:5, 137:4, 167:18, 181:7, 195:15, 197:15, 205:22, 248:2, 248:9, 251:17, 252:16, 268:16, 274:9, 276:8, 281:11, 281:18, 282:8, 283:14 become 93:11, 134:12 been 7:4, 7:22, 7:25, 9:8, 13:6, 13:13, 14:25, 17:16, 17:18, 17:19, 17:21, 18:2, 19:2, 20:10, 26:5, 26:14, 26:21, 26:25, 32:14, 32:23, 37:1, 38:3, 45:23, 46:9, 46:17, 52:11, 52:24, 54:21, 59:18, 63:7, 64:1, 64:2, 67:13,
B			
b-r-o-c-k-h-a-u-s 5:18 bachelor 88:16 bachelor's 133:9 back 17:2, 17:9, 19:17, 22:4, 23:19, 23:24, 25:25, 34:9, 39:8, 39:22,	back-of-the-napkin 26:24 background 24:4, 42:19, 74:1, 74:25, 75:19, 75:20, 89:8, 89:16, 90:1, 90:4, 99:14, 99:15, 103:2, 123:19, 188:23, 190:11,		

Transcript of David Crane
Conducted on February 26, 2024

79

74:16, 78:4, 78:11, 86:12, 87:19, 90:16, 94:6, 95:24, 111:17, 112:15, 113:20, 114:1, 121:6, 122:11, 125:24, 127:23, 130:5, 142:19, 156:12, 157:18, 168:17, 170:15, 173:6, 175:14, 179:19, 180:3, 180:4, 189:9, 192:9, 199:13, 201:24, 218:25, 219:4, 223:7, 238:23, 260:3, 260:18, 270:16, 270:18, 277:7, 282:9, 282:11, 285:11 before 1:2, 2:2, 2:24, 6:10, 8:17, 9:19, 22:10, 24:7, 28:6, 29:6, 35:13, 42:8, 42:9, 45:12, 75:14, 95:17, 106:20, 114:23, 117:24, 118:22, 134:10, 158:5, 180:9, 221:13, 228:8, 229:7, 237:15, 246:5, 249:12, 259:25, 260:10, 264:17, 266:24, 283:1, 287:7, 287:9 beg 19:4 began 17:2, 24:12 begin 6:10, 12:9, 53:4, 53:5,	190:3, 280:16 beginning 28:3, 63:20, 98:7, 117:1, 171:18, 208:16, 213:7, 222:5, 239:23, 242:4, 242:5 begins 5:3, 16:14, 100:15, 204:17, 247:11, 274:10 behalf 5:22, 16:22, 17:5 behind 94:9 being 9:19, 9:22, 10:8, 19:3, 19:9, 25:24, 35:15, 41:22, 43:12, 56:1, 59:11, 72:19, 74:22, 77:10, 77:20, 78:17, 88:4, 91:4, 104:17, 122:24, 129:24, 130:17, 134:10, 134:15, 135:21, 135:22, 137:6, 137:13, 140:2, 140:8, 140:17, 141:11, 141:14, 141:18, 141:19, 148:23, 154:7, 170:16, 170:19, 171:25, 178:24, 181:2, 193:15, 197:11, 198:13, 199:4, 204:23, 214:7, 221:20, 228:9, 230:18, 234:1, 241:9, 254:17, 259:7, 260:6, 260:15, 260:21, 262:17, 267:25,	271:4, 272:18, 272:20, 273:15, 273:22, 274:2, 275:3 belief 121:11, 152:3, 266:9 below 19:1, 38:13, 39:10, 48:2, 137:5, 164:5, 171:21, 237:22, 245:24 benefit 193:7 best 14:6, 21:18, 47:2, 48:20, 158:18, 175:3 bet 239:5 better 82:8, 158:13 between 9:6, 18:9, 19:11, 25:3, 28:5, 29:15, 33:25, 34:3, 39:9, 44:8, 44:12, 44:14, 46:24, 63:13, 70:12, 76:16, 77:3, 77:20, 78:9, 78:15, 88:4, 102:17, 104:14, 138:2, 154:25, 155:20, 159:18, 169:4, 190:12, 193:19, 203:25, 205:9, 205:11, 205:15, 206:23, 207:3, 207:21, 208:3, 209:11, 212:20, 212:22, 246:6, 262:23, 262:25, 263:11, 263:16, 263:22, 264:4,	264:8, 281:2 bibliography 192:18 bidirectional 205:9, 205:24, 206:19, 206:20, 206:22, 207:2, 207:3, 207:21 billboard 251:6 billboards 154:16, 223:10, 228:19, 236:24, 266:17, 266:20 bills 221:19 biochemistry 133:9 bit 10:6, 23:11, 36:2, 39:10, 44:3, 65:7, 76:21, 118:22, 127:21, 129:1, 138:4, 146:13, 153:19, 162:4, 185:10, 197:6, 220:23, 223:16, 237:12, 238:24, 255:7, 262:18, 264:17, 270:13, 274:7 black 106:6, 106:7, 106:8, 106:12, 106:14, 108:12, 109:12, 109:21, 115:2 blade 200:5 blank 22:15 blanket 165:20, 167:1 block 102:2, 106:21, 135:20, 136:4, 136:5, 139:1,
--	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

80

195:1, 202:10, 204:18, 205:8, 205:23, 207:7, 208:2, 224:25, 225:7, 226:14, 233:20, 235:9, 235:11, 236:6, 236:10, 252:22, 253:23 blocks 206:8 blood 287:18 bmw 35:18 board 1:2, 2:2, 26:8, 283:6, 283:7, 284:7, 284:8, 284:25, 285:7, 285:14, 285:21, 285:23 body 43:20, 152:15, 217:14 booted 26:11 boring 44:9, 49:4 both 5:20, 33:19, 34:14, 84:20, 113:23, 132:6, 153:3, 153:7, 153:9, 153:12, 153:13, 173:20, 246:20 bothersome 178:20 bottle 7:21 bottom 49:20, 49:21, 50:8, 52:6, 56:20, 58:13, 59:25, 60:23, 61:12, 106:20, 107:4, 137:20,	148:2, 153:19, 178:12, 201:7, 210:13, 213:21, 272:13, 273:3 bound 261:8 boundary 163:12, 165:4 box 105:10, 106:6, 106:7, 106:8, 106:12, 106:14, 108:12, 109:12, 109:21, 115:3, 136:5, 137:10, 137:14, 137:15, 137:21, 137:25, 138:3, 138:8, 138:10, 138:13, 138:15, 138:17, 138:22, 163:12, 165:4, 165:6, 221:15, 257:17 boxes 163:15, 193:3, 203:12, 221:14 bracket 101:13, 101:14, 101:15 brackets 100:24, 179:1, 179:3 braking 266:5, 268:1, 269:19 brand 248:22, 248:25, 249:4, 249:5, 251:3, 251:8, 251:16, 251:18 branded 246:1, 248:18, 249:9, 249:14, 250:13, 250:20, 251:22, 252:2, 264:18 break 8:21, 30:24,	64:3, 76:21, 175:15, 189:24, 239:1 breaks 8:23, 64:5 brief 224:21, 252:21, 253:22 briefly 24:3, 25:8, 26:20, 36:15, 54:9 bring 92:14, 141:14, 185:12 brings 181:1 broad 68:19 broader 23:1, 280:3 brockhaus 3:19, 5:18 broke 175:24, 183:3 broken-lined 163:12 brought 10:25, 25:13, 25:15, 141:15, 141:19, 245:15 brown 7:17 browse 197:18 browser 193:4, 194:7, 194:18, 194:22, 196:19, 196:21, 197:17, 197:20, 197:21, 198:1, 198:9, 198:13, 198:15, 198:24, 199:14, 200:11, 201:11, 215:20, 216:17, 217:25, 218:1, 218:5, 218:7, 218:13,	219:14, 219:21, 240:14, 243:12, 245:7 browser-based 194:21, 201:9 bseet 24:20 bucket 63:4 buckets 63:1 buffer 272:20, 272:21, 273:7, 273:9, 273:11, 273:17, 273:22, 274:3, 274:14, 275:5 build 54:19 bullet 144:9 bulleted 102:10 bunch 46:23 burdening 284:22 business 26:6, 26:8, 90:16, 91:3, 109:2, 111:3, 123:23, 124:6, 156:25, 249:17, 249:25, 264:18 business's 236:25 business-related 220:8, 220:20, 235:18, 241:3, 241:15, 242:7, 246:2, 248:18, 249:24, 250:14, 250:20, 252:3, 275:13, 275:24, 278:9, 278:13 busy 141:6 buy 22:19, 141:7,
---	---	---	---

Transcript of David Crane
Conducted on February 26, 2024

81

277:25 bytes 146:14	81:13, 82:12, 83:9, 86:10, 109:14, 110:7, 120:10, 122:1	careful 91:19, 223:8 carefully 196:13 cars 172:15 case 1:16, 1:18, 1:20, 1:22, 2:14, 2:16, 2:18, 2:20, 5:7, 15:13, 19:15, 28:21, 30:8, 55:9, 56:13, 56:14, 66:10, 67:21, 97:16, 114:1, 127:9, 132:12, 134:13, 134:15, 137:23, 139:4, 153:9, 189:11, 206:18, 225:15, 228:11, 228:18, 232:18, 246:10, 246:11, 248:10, 249:22, 257:15, 261:18, 279:18 cases 15:8, 16:19, 16:21, 95:17, 251:22 cash 26:7 categories 217:13 category 22:21 caution 10:13 caveat 164:2, 207:24 cd 144:14, 145:15, 146:1, 146:4 cds 144:21 cellular 105:14	central 28:6, 29:23 century 58:15, 62:3, 62:5 ceo 26:9, 26:10 certain 47:14, 71:17, 184:17, 186:15 certainly 116:7, 120:16, 124:13, 132:19, 172:16, 193:1, 232:19, 247:14, 259:15, 266:18, 281:24 certificate 287:1 certified 2:25 certify 287:5, 287:11, 287:13, 287:17 cetera 97:10, 98:14, 98:16, 99:3, 99:7, 217:14, 266:6, 271:3, 280:9 cgi 218:9, 218:10 challenge 184:13 challenged 213:15 challenger 17:5, 17:8 chance 14:9, 14:10, 124:6 change 15:7, 40:3, 62:16, 82:8, 114:2, 116:1, 146:7, 146:8, 190:12 changed 88:4, 94:2
C c-a-c-h-e 199:4 c-o-o-k-e 59:2 c-r-a-n-e 7:12 cache 199:2, 199:4, 199:8 calculation 26:24 calhoun 58:25 california 1:26, 2:26, 2:28, 3:7, 5:13, 7:18, 7:19, 287:3, 287:5, 288:7 call 22:11, 66:19, 87:14, 92:13, 105:12, 132:1, 147:20, 156:5 called 10:23, 24:20, 25:21, 27:3, 27:5, 38:21, 39:2, 40:14, 41:9, 42:12, 51:3, 51:5, 51:14, 67:20, 91:17, 94:23, 99:14, 116:4, 144:6, 151:14, 193:5, 195:2, 224:3, 272:3, 278:3 calling 38:5, 141:25 callout 93:6 calls 71:25, 78:18,	came 91:25, 117:3, 140:21, 175:15, 194:21 camera 105:10 can't 15:15, 30:18, 45:23, 54:3, 61:23, 69:11, 105:16, 108:14, 110:18, 110:22, 110:23, 110:24, 111:12, 112:8, 159:1, 170:5, 182:8, 199:18, 240:2 cancer 81:19 cannot 9:2, 85:7, 86:13, 109:1, 111:17, 273:14 capability 111:17, 147:18, 197:22 capable 130:14, 130:17, 198:9 capture 11:14 captured 171:15 car 35:19, 170:9, 170:12, 171:24, 172:3, 172:4, 172:5, 172:6, 172:11, 266:3, 266:10, 266:13, 267:24 care 195:16, 195:17 career 142:12		

Transcript of David Crane
Conducted on February 26, 2024

82

changes 88:9, 94:18, 127:5, 203:16, 252:11 changing 94:10, 112:19, 113:1, 113:18, 113:19, 116:3 channel 35:23 character 193:6 characterization 152:4, 280:17, 285:10, 285:12 characterize 44:18, 50:24, 66:21, 66:25, 67:24, 68:4, 263:20 characterized 67:16, 224:7, 280:22 characters 22:16, 22:17 chart 255:12, 256:5, 256:12, 261:4 charts 10:23 chases 269:18 chat 187:5, 187:18, 188:20 chats 188:12 chatter 135:5 check 19:13, 19:14, 152:25 chip 24:13, 25:14 choice 265:12, 265:15, 265:16, 265:17, 265:18, 265:21,	265:24, 268:25 choices 264:23, 265:2, 265:5, 265:8, 265:10, 266:4, 266:9, 266:14, 266:18, 266:23, 267:3, 267:4, 267:9, 267:14, 267:22, 267:25, 269:4, 269:7, 269:14, 269:20, 270:6 choose 101:21, 180:7 choosing 266:6 chosen 26:10 christmas 200:24 chronicle 33:5 chronological 32:11, 32:12, 33:2 citation 48:13, 93:24, 100:19, 100:22, 137:4, 140:8, 140:10, 154:11, 154:20, 201:15, 201:17, 234:18, 254:20, 269:11 citations 93:23, 140:3, 154:13, 154:14, 174:4 cite 11:11, 51:17, 51:21, 94:9, 100:21, 101:1, 101:21, 124:19, 125:11, 171:1, 171:12, 188:23, 195:9, 250:4, 268:6 cited 43:19, 51:14,	51:15, 51:22, 52:8, 52:11, 52:16, 52:24, 52:25, 53:5, 53:8, 56:1, 59:11, 59:14, 100:23, 102:10, 107:1, 171:3, 191:9 cites 249:6 city 3:14 claim 10:23, 74:15, 76:22, 77:10, 78:9, 78:15, 110:18, 154:25, 155:6, 155:12, 155:20, 155:22, 155:23, 159:18, 160:24, 161:3, 161:8, 161:14, 162:24, 165:17, 166:1, 166:22, 167:13, 167:18, 169:17, 174:17, 177:11, 177:23, 178:13, 178:18, 181:10, 182:15, 182:19, 182:25, 183:5, 183:10, 183:14, 183:16, 184:12, 196:19, 213:19, 214:2, 214:15, 215:5, 215:23, 215:24, 215:25, 216:3, 220:4, 220:6, 220:16, 229:14, 230:14, 230:25, 231:2, 231:6, 231:11, 235:16, 235:20, 241:12, 245:23, 245:25, 246:15, 246:16, 246:17, 246:18, 246:23, 246:25,	247:1, 247:6, 247:12, 247:16, 247:17, 247:21, 247:24, 248:2, 248:3, 248:10, 248:11, 248:17, 251:25, 252:1, 252:2, 264:15, 264:19, 266:25, 267:4, 267:8, 267:13, 274:8, 275:9, 275:10, 276:1, 276:4, 277:13, 277:14, 277:20, 278:8, 280:8 claim-by-claim 213:18 claimant 183:9 claimed 63:24, 68:16, 69:25, 70:4, 76:17, 76:19, 77:4, 77:12, 77:19, 77:21, 78:10, 85:1, 114:24, 157:7, 159:5 claims 40:3, 57:14, 63:9, 63:15, 63:16, 63:22, 63:23, 66:12, 69:4, 69:15, 70:12, 76:24, 77:5, 77:13, 77:16, 109:8, 109:21, 122:16, 152:4, 152:21, 152:25, 155:12, 156:3, 157:16, 158:22, 159:10, 161:18, 161:19, 183:2, 183:22, 184:3, 184:4, 184:12, 184:13, 213:7, 213:9,
--	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

83

213:15, 246:8, 246:20, 246:22, 264:21, 279:20, 280:20 clarification 12:5, 161:21 clarify 8:9, 37:20, 117:25, 131:5, 154:9 clean 200:10 clear 85:4, 117:25, 140:19, 198:10, 255:22 click 197:18, 198:17, 231:9, 232:20, 237:20, 238:2, 262:6 clicked 128:23 clicking 219:14, 238:6 clicks 238:12, 238:22 client 19:9, 27:12, 28:23, 29:15, 30:6, 30:7, 30:9, 82:4, 148:7, 148:12, 148:15, 148:18, 148:20, 148:21, 148:22, 148:23, 160:9, 160:10, 160:16, 160:17, 160:21, 161:12, 161:13, 161:15, 174:1, 174:2, 174:9, 174:13, 178:15, 197:11, 197:14, 198:14, 230:8, 230:9, 244:8, 272:4, 272:7, 272:10, 272:17, 272:20,	273:13, 273:16, 274:2, 274:13, 274:16, 274:23, 275:1 client-side 28:22, 30:15 clock 231:21 clocking 186:18 close 196:10 closer 196:10 closing 281:16 cockpit 21:20, 128:24, 167:23, 168:15, 168:20 coddling 3:12, 5:20, 6:4 code 23:7, 30:9, 49:23, 132:2, 132:3, 132:21, 212:3, 212:8, 222:10, 222:17 cog 25:25 col 242:5 collect 173:18 collectively 156:13 collectors 195:15, 195:18 college 25:11 colon 19:25, 63:24 column 39:1, 51:11, 51:12, 52:15, 53:15, 55:3, 55:4, 58:5, 58:7, 58:8,	58:12, 58:13, 60:2, 60:3, 60:15, 61:9, 63:20, 97:20, 97:22, 98:2, 98:11, 98:19, 99:17, 99:18, 99:20, 100:1, 100:9, 101:9, 101:12, 107:25, 146:22, 204:13, 208:8, 210:13, 216:25, 217:2, 218:14, 220:25, 221:22, 222:18, 222:19, 224:17, 225:6, 226:11, 226:21, 227:11, 229:14, 229:16, 230:3, 232:22, 234:14, 234:19, 235:13, 236:13, 237:17, 240:19, 241:7, 241:13, 242:6, 242:12, 242:22, 242:23, 242:24, 242:25, 243:9, 243:20, 243:21, 244:13, 244:25, 245:5, 252:17, 253:2, 254:20, 255:6, 270:21, 270:25, 271:15, 272:13, 272:23, 272:25, 273:1, 273:2, 275:9 columns 39:9 com 3:9, 3:17, 3:20, 3:23, 92:8, 92:10, 93:4, 93:12, 93:14, 93:17, 95:5, 194:3, 195:2, 195:5, 196:9, 263:12	combative 84:6 combination 80:16 combine 70:3, 72:12, 73:4, 73:9, 73:10, 80:1, 80:4, 82:11, 83:19, 84:21, 156:12, 157:3, 259:18 combined 84:4, 155:13, 227:15, 229:2 combines 226:4, 228:4 combining 71:2, 82:23, 83:17, 83:20, 84:19 come 37:6, 41:11, 63:14, 115:11, 214:9 comes 91:14, 100:1, 100:20, 187:21, 187:22 comfortable 68:8 comfortably 37:3 coming 152:14, 201:18 comma 99:9, 158:6 commencement 287:8 commencing 2:26, 287:15 commensurate 84:25 comment 7:20, 34:5, 95:23, 188:15, 249:9, 277:12 commentary 14:5
---	---	---	--

Transcript of David Crane
Conducted on February 26, 2024

84

comments 12:10, 123:12, 280:24, 281:23, 281:24 commerce 277:22, 278:2 commodore 128:20, 130:14, 130:17 common 80:7, 80:11, 80:12, 80:13, 82:18, 82:19, 108:22, 125:15, 218:10, 273:8 commonly 160:9 communicate 137:1, 192:23, 203:13, 208:18, 230:10 communicated 28:5, 29:14, 193:16 communicates 148:16, 203:6, 203:14, 203:21 communicating 30:11, 135:23, 135:24, 197:11, 207:13, 209:13, 262:21 communication 203:13, 203:25, 204:8, 204:19, 204:20, 205:9, 205:11, 205:14, 205:21, 205:23, 205:24, 206:19, 206:21, 206:22, 207:3, 207:13, 208:9, 208:10, 208:24, 209:11, 209:18, 209:20, 211:6, 211:14, 213:2, 256:14, 262:23, 262:24, 263:11, 263:22,	264:4, 264:8 communications 44:8, 44:12, 205:4, 207:21, 208:19, 211:12, 212:20, 212:22, 256:22, 264:11 communicator 203:12 communities 271:2 companies 17:19, 17:21, 26:8, 27:16, 27:19, 111:18 company 16:6, 19:3, 24:9, 25:22, 26:11, 27:5, 27:13, 111:16 company's 236:25, 249:25 compare 46:23, 119:6, 152:22 compared 94:20, 94:21 compatible 117:3 compete 9:3 complaining 82:2 complaint 10:24 complete 13:20, 129:7 completely 127:5, 280:19, 280:25 complicated 95:18 component 28:15, 32:5, 197:10, 230:5, 230:6, 230:7, 230:10, 231:14, 231:19, 271:13	components 62:24 comprising 278:13 computerized 278:10 computers 29:15, 176:24, 212:23, 261:23 con 225:21 concept 35:14, 75:8, 125:3, 133:14, 133:16, 161:18, 237:4, 273:8 concepts 66:21, 133:6, 193:18 concern 111:13, 280:2, 282:2 concerned 187:22 concerning 279:17, 279:23 concerts 271:3 concisely 203:7 conclude 250:12 concluded 282:9 conclusion 41:12, 61:21, 65:11, 65:17, 69:12, 72:1, 73:18, 78:19, 81:14, 82:13, 83:10, 86:11, 86:15, 87:9, 87:15, 109:15, 110:8, 120:11, 122:2, 122:4, 122:7, 250:19 conditions 173:18	conference 284:12 conferences 91:3 configuration 148:7, 148:12, 148:18, 148:21, 148:22 configured 129:4, 130:22, 169:3, 169:11, 169:17 confirm 45:12, 59:13, 59:16, 144:25 confuse 54:12 confusing 242:17 connected 172:25, 193:11, 207:11, 212:13 connecting 175:5 connection 30:18, 175:6, 207:9, 263:9, 263:16, 273:9 consider 66:5, 67:12, 79:18, 83:2, 120:4, 120:5, 124:4, 156:13, 183:5, 232:13 considered 43:16, 43:21, 44:1, 47:17, 56:22, 57:4, 57:15, 60:25, 61:13, 61:20, 61:23, 67:14, 94:8, 163:16, 191:6, 191:10, 249:15 considering 67:12, 183:10 consistent 28:17
--	--	---	---

Transcript of David Crane
Conducted on February 26, 2024

85

console 27:7, 111:5, 126:15, 126:21, 126:23, 127:7, 127:21, 127:25, 128:5, 128:12, 128:19, 128:25, 132:3, 142:16, 144:13, 147:1, 147:7, 147:12, 147:15, 147:16, 147:17, 147:22, 148:2, 149:16, 150:5, 150:20, 151:6, 187:20, 187:23, 187:25, 197:22, 199:14, 199:18, 199:19, 199:20, 200:3, 200:20, 200:24 consoles 27:8, 147:5, 151:3, 151:10, 185:21, 185:22 consolidated 283:3 constitute 14:5 constitutes 237:23 construct 187:4 construction 112:17, 113:1, 113:14, 114:24, 115:7, 116:12, 116:17, 116:22, 116:24, 116:25, 117:2, 117:3, 119:3, 119:5, 179:6, 179:14, 179:17, 179:24, 280:8 constructions 112:18, 113:17, 113:23, 113:24 construed 112:15, 112:23,	178:22, 178:24 consultant 15:23, 133:10 consume 257:10 consumer 142:4, 142:5, 203:9, 203:10, 203:15, 203:18, 203:25, 204:25, 205:7, 205:9, 205:12, 205:18, 206:18, 206:23, 207:3, 207:11, 207:21, 208:10, 208:17, 208:23, 209:1, 209:11, 209:13, 209:15, 210:14, 210:18, 211:6, 211:11, 211:18, 212:9, 212:20, 221:19, 222:10, 222:11, 222:17, 226:17, 227:16, 227:22, 228:9, 229:3, 229:5, 229:6, 229:8, 234:9, 234:25, 235:2, 235:5, 253:4, 255:14, 255:21, 256:7, 256:8, 256:14, 256:17, 256:18, 257:2, 257:3, 257:5, 257:6, 257:11, 257:12, 257:17, 258:1, 258:4, 258:8, 259:2, 259:17, 261:9, 261:17, 261:18, 261:19, 261:21, 262:1, 262:9, 262:10, 262:19, 262:23, 263:4, 263:11, 263:17, 263:22, 264:8, 268:14, 268:21,	268:22 consumer's 222:12 consumers 142:6, 268:9, 268:11, 268:19, 268:25 cont 187:8 contacted 9:5, 9:11, 9:12, 9:19, 9:22 contain 98:3, 162:23, 167:15 contained 144:22, 146:12 containing 143:22 contains 146:5, 193:6, 209:5, 209:21, 212:2 contended 86:13 content 70:11, 103:25, 107:8, 107:18, 107:19, 107:20, 108:12, 108:23, 108:24, 109:3, 114:10, 129:5, 130:23, 133:17, 134:1, 158:8, 164:23, 169:18, 173:2, 187:9, 187:15, 188:3, 188:15, 203:11, 203:15, 203:21, 203:24, 204:12, 205:1, 205:6, 205:15, 206:19, 206:21, 207:12, 207:17, 208:11, 208:18, 208:24, 208:25, 209:13, 209:14, 211:25, 212:1, 212:3,	212:8, 212:13, 212:21, 220:9, 220:20, 221:20, 225:21, 225:24, 226:1, 226:4, 226:16, 227:1, 227:5, 227:6, 227:12, 227:14, 227:21, 228:1, 228:4, 228:25, 229:2, 229:19, 233:7, 235:18, 236:2, 241:4, 241:16, 242:8, 246:2, 248:18, 249:9, 249:17, 249:24, 250:14, 250:20, 252:3, 253:4, 256:17, 256:19, 256:21, 256:23, 257:23, 262:24, 262:25, 263:3, 264:5, 264:10, 264:18, 275:14, 275:25, 278:9, 278:13 contention 86:14 contents 143:24, 152:16, 185:3, 185:6, 255:25, 256:4 context 20:24, 71:5, 110:9, 138:23, 168:2, 173:22 continuation 39:15, 39:18, 39:23, 40:4, 40:6, 52:16 continue 272:18, 273:10, 284:5 continues 40:12, 284:25 contradict 89:20 contribution 20:12
---	--	--	--

Transcript of David Crane
Conducted on February 26, 2024

86

control 21:12, 21:13, 132:13, 135:25, 163:22, 181:11 controlled 164:12 controller 127:4 controllers 126:7, 126:13, 135:6, 147:17 controlling 21:10 controls 21:21 convention 132:4 conventional 129:24, 130:21, 130:25, 131:1, 131:8, 131:10, 131:15, 131:16, 131:22, 131:25, 132:6, 132:14, 132:22, 132:25, 167:22, 167:24, 167:25, 168:7, 168:9, 168:10, 168:11, 168:14, 168:23, 168:24, 169:10 conventions 217:9 conversations 10:19, 11:20, 11:21, 281:19, 285:5 converting 132:3 convey 22:24, 41:8, 43:14 conveying 43:3, 43:5, 251:18 conveys 43:13, 221:9, 221:10	cooke 59:2 cool 7:17, 7:19, 114:22 copies 257:20 copy 13:15, 13:20, 27:24, 48:21, 49:8, 49:10, 192:10 copying 145:20 copyright 145:19 cordless 105:8 corner 49:22, 244:4 corrected 255:2 correctly 28:8, 28:9, 29:19, 49:5, 179:4, 203:19, 206:25 corresponding 222:11 could 7:15, 19:16, 23:10, 23:24, 25:18, 30:2, 30:24, 31:1, 32:22, 49:20, 54:12, 59:16, 71:18, 76:18, 81:8, 83:6, 89:21, 91:13, 99:1, 99:5, 106:9, 111:7, 116:1, 126:19, 127:7, 127:19, 129:7, 131:24, 138:2, 146:14, 146:20, 147:4, 163:16, 163:18, 163:23, 169:25,	170:9, 172:15, 172:25, 177:6, 180:22, 181:7, 185:16, 186:13, 187:18, 189:9, 193:14, 198:24, 199:1, 204:7, 213:8, 224:17, 231:20, 247:15, 247:18, 255:24, 259:24, 260:1, 260:13, 260:16, 261:21 couldn't 24:9, 45:2, 62:14, 151:13 counsel 3:3, 3:11, 5:14, 6:1, 11:21, 23:10, 45:23, 46:8, 51:23, 65:2, 65:17, 123:5, 134:18, 239:21, 239:22, 276:8, 279:1, 281:20, 284:21, 287:12 counter 121:2, 121:11 couple 6:11, 14:15, 23:24, 31:7, 64:25, 125:19, 193:8, 218:17, 277:6 course 15:7, 164:11, 196:6 court 6:7, 7:17, 21:23, 49:10, 112:15, 113:14, 114:2, 116:24, 118:23, 124:5 court's 116:17, 119:3, 119:5 cover 26:19, 274:21,	280:6, 281:25, 282:3 covered 123:9, 273:13, 275:3, 280:3 covering 275:1 covers 18:18, 272:16, 274:22, 277:24 crafting 54:20 crane 1:25, 2:24, 4:3, 4:18, 4:22, 5:4, 6:8, 7:3, 7:9, 7:11, 12:9, 13:14, 18:14, 21:5, 23:24, 48:10, 49:9, 50:12, 64:13, 83:13, 100:6, 103:23, 113:13, 118:1, 118:13, 123:20, 130:12, 168:6, 169:22, 170:24, 175:15, 175:24, 189:25, 214:3, 217:18, 220:4, 231:18, 238:23, 239:17, 239:24, 254:7, 267:1, 270:18, 281:17, 283:9, 283:13, 284:6, 285:4, 285:25, 287:6, 287:14 crane's 32:13, 32:21, 281:4 crash 26:5, 26:6 create 24:10, 120:14, 130:1, 194:12 created 11:19, 20:10, 24:9, 35:6,
--	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

87

51:25, 95:4, 116:20, 175:11, 228:24, 228:25, 269:17 creating 22:22, 131:25, 165:6, 168:18 creation 11:25, 209:18 creative 25:24 creator 229:1 credit 20:5, 20:7, 20:15, 20:16, 21:1, 25:23, 26:1, 94:10, 94:12 crediting 91:20 creep 91:1 cross 239:23, 281:18, 282:11, 283:8, 285:3, 285:6 cross-examination 10:12 cross-examinatio- ns 6:23 crossing 282:16 csr 1:31, 287:4, 288:5 cuckoo 231:21 cuckoos 231:21 curated 196:13 currency 277:25, 278:1 current 87:18, 117:4, 125:5	currently 236:16, 285:3 cust 226:2 custom 223:9, 234:10, 235:7, 237:20, 259:18 customary 18:13, 18:17 customer 221:16, 229:10 customized 202:8, 202:12, 202:14, 202:15, 202:17, 226:3, 226:5, 226:16, 226:25, 227:1, 227:5, 227:7, 227:15, 227:20, 227:25, 228:5, 228:17, 228:23, 229:1, 229:11, 229:18, 229:20, 233:6, 242:6, 242:7, 255:13, 255:15, 255:17, 255:20, 256:10, 259:1, 259:2, 259:3, 259:8, 259:9, 259:14 customizing 202:18, 256:6 cut 274:9 cv 7:20, 15:3, 15:4, 15:6, 15:10, 15:21, 16:15, 26:19, 27:24, 46:13, 46:16 cycle 273:15, 275:4 cycled 272:20, 273:7, 273:17, 273:22, 274:2	cycling 274:15 D d-a-v-i-d 7:11 d-u-n-n 239:25 damage 145:15, 146:20 dark 32:15, 32:22, 32:23 data 39:12, 41:25, 92:12, 116:2, 135:23, 135:24, 136:1, 136:11, 137:15, 144:22, 146:5, 146:6, 146:7, 146:12, 146:13, 146:17, 162:9, 169:15, 170:7, 172:2, 172:21, 172:25, 173:13, 173:14, 173:17, 173:18, 173:20, 173:21, 175:2, 175:8, 175:9, 176:4, 176:7, 176:17, 176:20, 176:22, 176:23, 221:16, 229:2 database 92:12, 92:24, 93:1, 221:16, 222:12 databases 193:9 date 5:8, 32:20, 34:24, 35:6, 38:8, 40:9, 40:22, 89:1, 89:5, 90:13, 91:15, 92:17, 95:13, 95:16,	95:18, 95:21, 119:10, 119:15, 125:2, 128:12, 139:9, 139:17, 157:19, 171:10, 195:9, 199:24, 200:3, 200:6, 200:8, 219:7, 230:2 dated 142:12 dates 35:8, 41:23, 42:9, 91:18, 142:12, 195:12, 195:14, 195:17 david 1:25, 2:24, 4:3, 5:4, 7:3, 7:11, 21:5, 32:13, 32:21, 285:25, 287:6, 287:14 day 127:1, 171:18, 281:1, 285:17, 285:18, 288:2 days 91:3, 91:4, 197:12 deal 91:17 dealing 45:10, 45:18, 67:21, 220:3, 266:14, 279:6 dealt 127:1 decade 25:15, 168:18, 249:11 decades 88:18, 90:17, 168:18 decide 92:17, 262:5 decided 24:10, 123:25
--	--	---	---

Transcript of David Crane
Conducted on February 26, 2024

88

decides 261:15, 262:1 decision 13:3, 90:21, 261:20, 262:10 decisions 10:21, 261:23 declarant 67:3, 285:19 declaration 4:18, 4:22, 11:2, 11:7, 11:9, 11:15, 12:3, 12:10, 13:16, 15:7, 17:10, 34:7, 43:1, 43:16, 43:20, 45:5, 46:25, 64:16, 71:18, 71:20, 84:8, 86:19, 88:15, 88:20, 95:11, 95:22, 96:16, 112:21, 113:16, 114:6, 118:17, 123:2, 124:7, 124:14, 138:10, 147:25, 155:11, 159:14, 161:23, 165:24, 166:10, 171:14, 171:19, 176:1, 182:11, 190:20, 192:7, 193:22, 194:2, 201:7, 202:7, 202:16, 203:2, 203:4, 203:8, 210:8, 213:7, 219:24, 223:5, 234:5, 236:14, 236:15, 237:11, 238:14, 238:16, 240:9, 245:13, 270:16, 277:12 declarations 10:20, 10:25, 11:2, 18:22,	46:10, 46:17, 46:21, 47:3, 48:11, 112:18, 152:15, 279:7, 279:8 deep 32:15, 32:21, 32:23 deere 67:20, 67:21, 67:22, 67:23, 68:5, 68:9, 68:10 defendant 17:6 defending 5:23 define 32:9, 67:10, 70:19, 70:24, 73:17, 84:2, 122:14, 230:2 defined 85:4, 106:8, 138:15 defining 180:15, 250:5 definite 122:5 definition 32:4, 69:21, 72:2, 73:21, 114:5, 115:6, 117:9, 117:10, 122:13, 122:20, 157:22, 157:23, 158:10, 158:18, 158:20, 166:4, 166:11, 214:24, 245:20, 250:7, 250:10 definitions 168:1, 168:7 degree 24:8, 24:11, 24:16, 24:17, 24:25, 25:2 deletions 13:17	delivers 258:22, 259:1 demand 81:2, 81:3, 81:5, 81:6, 81:7, 81:10, 81:11, 81:19, 81:22, 81:25, 82:6, 82:10 demands 283:5 demographic 265:12 demonstrate 137:3 demonstrates 233:15 denominator 108:22 deny 59:14, 59:16 department 141:5 dependent 246:15, 246:20, 246:22, 246:23, 247:6, 247:16, 247:24, 248:11 depends 247:1, 247:18 depicted 209:12 depicts 243:2, 243:24, 244:16 depos 5:11 deposed 7:22 deposition 1:25, 2:24, 5:4, 5:11, 38:22, 190:19, 279:5, 279:14, 280:11, 281:4, 281:17, 284:23, 284:25, 285:3, 285:25, 287:6,	287:8, 287:9, 287:12, 287:13 depth 8:2, 33:20, 34:15 derek 1:30, 2:24, 287:4, 288:5 derision 110:16 describe 83:1, 87:3, 98:10, 109:13, 188:16, 194:6, 203:7, 208:1, 222:16, 265:9 described 98:12, 106:17, 110:11, 114:18, 116:16, 131:22, 204:9, 222:18, 246:17, 246:18, 253:23, 272:8 describes 106:24 describing 42:15, 114:18, 135:19, 137:5, 154:15, 186:21 description 4:9, 4:17, 15:22, 101:20, 107:24, 224:21, 252:21, 253:22, 264:3, 266:16, 280:8 desert 121:18, 121:19 design 19:24, 20:9, 22:6, 22:8, 22:13, 22:14, 22:15, 23:1, 25:19, 25:23, 28:21, 108:17, 108:18, 127:1, 130:6, 136:19, 136:22, 136:23,
--	---	--	---

Transcript of David Crane
Conducted on February 26, 2024

89

137:3, 137:7 designated 190:16 designed 21:5, 109:6, 109:7, 146:25, 150:4, 150:19, 186:14, 196:20, 197:13, 197:18 designer 24:1, 36:3 designers 20:6, 26:1 desktop 105:7, 272:18, 273:15 destination 187:5, 187:7, 187:15, 188:14, 189:6, 189:10 detail 110:11, 255:10, 255:11, 272:8, 272:12 detailed 12:3, 107:24, 221:25, 264:2 details 195:19 detects 272:15 determination 4:11, 86:1, 155:23 determine 69:4, 76:24, 85:8, 95:19, 110:20, 159:9, 208:1, 254:20, 265:13, 266:19, 268:17, 269:13, 274:25 determined 95:4, 261:8 determines 256:7, 258:8 determining 67:14, 68:18,	85:16 develop 17:25, 27:16, 115:25 developed 20:10, 28:4, 28:17, 28:19, 29:2, 29:7, 31:9, 31:19, 32:9, 35:7, 35:20, 35:24, 36:9, 36:17, 36:25, 115:20, 115:21, 131:17, 158:18, 218:25, 219:4 developer 26:22, 26:25, 109:7, 162:22 developing 26:23 development 17:23, 17:24, 25:14, 27:2, 27:11, 81:25 device 80:24, 104:23, 107:9, 107:21, 107:22, 108:14, 109:1, 109:5, 111:9, 111:12, 112:5, 112:6, 112:7, 112:10, 112:12, 114:23, 115:16, 116:3, 116:11, 116:12, 116:15, 116:18, 126:15, 128:6, 128:16, 130:2, 130:8, 132:16, 170:17, 187:9, 193:4, 193:5, 193:8, 214:2, 214:4, 214:5, 214:6, 215:8, 215:10, 215:16, 216:8, 217:24, 219:18, 220:10,	230:17, 230:18, 235:19, 240:14, 241:1, 241:3, 241:10, 241:12, 241:13, 242:7, 242:14, 243:6, 243:11, 243:14, 243:18, 244:7, 244:10, 244:20, 245:1, 245:2, 245:7, 256:21, 260:5, 260:20, 275:15, 276:20, 278:11, 278:12, 278:15, 278:20 devices 105:5, 105:6, 105:17, 105:19, 111:10, 112:6, 114:12, 115:14, 126:5, 128:15, 129:5, 130:24, 132:10, 132:24, 133:18, 169:4, 169:12, 169:20, 169:25, 170:6, 170:18, 170:20, 170:25, 171:2, 171:11, 171:12, 171:16, 173:1, 173:3, 173:4, 173:10, 173:12, 218:22 devry 24:8, 24:15, 25:3 diagram 135:20, 136:4, 136:5, 169:23, 204:18, 205:8, 205:23, 207:7, 208:2, 224:25, 225:7, 226:14, 233:20, 235:9, 235:12, 236:6, 236:10, 252:22, 253:3, 253:23 die 286:2	diff 170:6, 277:16 differ 71:23, 128:21, 128:23 difference 33:25, 34:2, 74:18, 74:20, 74:21, 76:2, 78:14, 102:17, 154:25, 155:19, 159:17 differences 70:12, 77:3, 77:20, 78:9, 78:14, 78:15, 78:16, 126:5, 126:7, 154:25, 155:19, 156:10, 159:18, 159:25, 160:1, 160:2, 169:4, 193:19, 193:21, 193:22 different 22:20, 26:2, 29:22, 31:2, 33:19, 34:14, 63:6, 86:4, 94:16, 113:24, 114:11, 115:13, 119:4, 120:4, 120:6, 128:15, 129:3, 129:5, 129:10, 129:15, 129:25, 130:1, 130:8, 130:24, 131:2, 131:11, 131:21, 132:1, 132:3, 132:8, 132:9, 132:15, 132:16, 132:20, 132:24, 133:1, 133:18, 150:10, 151:1, 151:10, 151:11, 156:6, 168:1, 168:10, 169:12, 169:19, 170:4, 170:6,
---	---	---	--

Transcript of David Crane
Conducted on February 26, 2024

90

170:18, 170:20, 170:23, 170:25, 171:2, 171:11, 171:12, 171:24, 172:1, 172:17, 173:1, 173:10, 173:15, 181:4, 183:17, 185:17, 185:22, 185:25, 186:12, 186:19, 187:24, 193:3, 206:15, 206:17, 217:10, 217:13, 218:12, 231:8, 242:18, 257:21, 262:18, 269:16, 274:12, 279:6, 280:20, 280:21 differentiate 25:3 differently 170:7, 173:15, 206:9 differs 119:19 difficult 90:14, 242:16 dig 57:12 digest 163:2 digital 105:10, 164:23 direct 55:11, 153:14, 203:1, 205:11, 205:14, 205:21, 207:2, 207:9, 244:13, 262:23, 262:24, 263:5, 263:16, 270:21 directed 153:3, 153:14, 226:10, 257:16, 258:13, 268:8 direction 81:8 directly 203:15, 206:23,	207:3, 207:11, 237:9, 262:20 directors 26:9 directs 208:17, 211:5, 211:11, 211:24 dis 285:9 disagree 150:15, 280:17, 280:24, 281:8, 281:22 disagreements 94:25 disclose 109:19, 110:5, 148:11, 155:4, 155:7, 158:22, 159:1, 159:2, 159:5, 159:9, 159:11, 165:16, 166:21, 187:13, 269:6 disclosed 50:15, 80:18, 158:7, 165:12, 165:17, 165:19, 165:21, 166:9, 166:22, 166:25, 167:3, 167:19, 171:16, 182:14, 214:14, 245:18, 246:24, 247:5, 247:12, 250:13, 250:20, 271:6, 271:14 discloses 44:23, 74:14, 96:18, 96:25, 136:18 disclosing 174:13 disclosure 40:9, 44:20, 44:22, 45:1, 50:13, 50:18, 50:22, 50:24,	51:5, 56:7, 59:22, 60:20, 170:18, 175:4, 188:21, 241:6, 242:11, 242:12, 244:2, 269:14 discuss 105:4, 267:7 discussed 64:25, 78:13, 78:17, 88:20, 103:24, 118:25, 133:22, 134:20, 136:6, 154:6, 154:22, 154:23, 155:13, 182:23, 184:11, 194:4, 196:9, 202:16, 214:20, 226:19, 233:1, 243:7, 245:14, 246:10, 255:10, 281:1, 281:11 discusses 116:14, 220:22 discussing 117:8, 130:5, 176:3, 236:21 discussion 50:10, 66:2, 96:9, 113:9, 127:14, 138:22, 167:25, 170:3, 185:1, 212:16, 236:11, 262:22 disk 37:8, 144:11, 144:12, 144:17, 144:19, 144:23 dislike 20:7, 110:17 disneyland 121:21 display 32:17, 104:17, 131:19, 132:21, 132:23, 133:2, 137:21, 138:6,	164:10, 164:16, 167:22, 167:23, 168:14, 168:15, 168:20, 197:23, 262:6, 272:19, 273:16, 274:12 displayed 128:23, 188:2, 189:3, 221:20, 272:18, 273:14, 273:15 displaying 164:11, 231:8, 248:18, 250:13, 255:13, 260:4, 260:5, 260:19 displays 246:1, 259:17, 262:4 distinction 76:16, 167:17 distinctive 217:11 district 116:24 divides 261:10 division 40:14, 40:19, 40:23 divulge 10:14 document 20:23, 44:11, 45:12, 49:4, 51:2, 51:22, 57:19, 57:23, 62:19, 100:3, 100:17, 100:22, 102:22, 107:5, 108:9, 143:2, 143:5, 143:7, 143:9, 150:7, 150:8, 150:9, 162:1, 164:14, 217:10, 217:12, 222:20, 226:7, 253:11, 263:25,
--	---	--	---

Transcript of David Crane
Conducted on February 26, 2024

91

273:24 documenting 160:2 documents 10:18, 10:19, 52:17, 55:23, 60:1, 143:23 doing 17:23, 18:21, 25:24, 26:9, 26:10, 57:11, 116:8, 129:10, 129:24, 131:10, 135:10, 145:15, 146:10, 183:8, 221:15, 260:3, 260:19 dollars 111:19, 116:6, 251:5 done 8:16, 8:17, 25:17, 27:9, 27:11, 36:21, 110:10, 110:18, 110:23, 110:24, 110:25, 111:12, 111:17, 111:23, 112:8, 117:7, 123:1, 147:13, 171:7, 197:10, 219:15, 278:2 doom 131:18 dot 92:8 dotted 163:17 doug 3:15 douglas 5:16 down 28:2, 30:25, 33:12, 36:2, 37:12, 38:13, 39:1, 42:22, 49:21, 52:6,	52:7, 52:19, 53:16, 56:2, 58:11, 59:25, 69:24, 75:22, 82:4, 90:10, 99:25, 114:2, 137:5, 143:20, 144:9, 145:5, 153:18, 156:5, 162:15, 171:21, 173:24, 224:20, 228:9, 229:2, 237:22, 244:3, 245:12, 252:20, 268:6, 274:7 download 198:12, 198:17 downloaded 30:6 dozen 54:12 dozens 20:11, 79:17 dragons 54:25 dramatically 128:21 draw 22:10, 29:6, 61:21, 73:17, 146:9 drawing 164:8, 173:16 drawings 63:9, 63:12, 63:14 drawn 89:7, 89:15, 89:25 dreamcast 111:6, 142:16, 144:10, 144:12, 144:13, 145:6, 145:10, 145:17, 147:1, 147:10, 147:19, 148:2, 148:15, 149:20, 150:3, 150:5,	150:19, 151:2, 151:3, 151:6, 151:14, 151:21, 185:10, 185:11 drew 104:16 drive 81:19, 81:25, 121:20 drives 81:3 driving 21:2, 21:8, 21:9, 21:11, 21:21, 81:5, 121:16, 121:17, 121:18, 172:16, 266:18, 266:19 drop 54:18 drop-down 188:9 dsorocco@dunlapc- odding 3:17 dspace 59:1 duane 2:27, 3:4, 5:22, 9:15, 287:14 due 231:8 duly 6:6, 7:4, 287:7 dungeon 54:16 dungeons 54:25 dungeons-&-drago- ns-type 54:24 dunlap 3:12, 5:20, 6:4 dunn 3:28, 239:13, 239:25 during 28:6, 79:2,	169:11, 188:7, 220:11, 222:1, 223:2, 241:16, 255:9, 266:23, 267:9, 269:1, 269:4, 269:7, 269:23, 270:5, 270:6, 275:16 dynamic 58:24, 62:17 dynamically 252:3, 252:7, 252:9, 264:16 E e-commerce 277:17, 277:19, 277:21, 278:3 each 27:1, 28:4, 32:15, 78:15, 83:6, 83:20, 128:16, 129:11, 130:1, 133:2, 137:1, 149:15, 154:25, 155:12, 155:20, 156:3, 159:18, 172:20, 191:21, 217:10, 218:18, 221:15, 246:23, 268:14 ear 118:3 earlier 7:20, 9:9, 16:14, 36:6, 38:22, 59:23, 78:13, 88:20, 93:20, 124:21, 134:21, 138:15, 154:24, 165:5, 167:24, 171:17, 178:19, 180:18, 182:24, 190:6, 196:9, 197:8, 223:17, 229:15, 233:2, 245:15, 252:17, 252:25,
--	---	---	--

Transcript of David Crane
Conducted on February 26, 2024

92

260:8, 261:17, 281:1 earliest 32:13, 125:2 early 141:23 easier 9:10, 26:18, 80:22 easily 54:12 ebay 11:4 echo 106:1 edge 251:22 education 43:17, 190:11, 191:3, 191:6 educational 24:4, 101:25 effect 246:12 effecting 139:9 effective 119:10, 119:15, 139:17 effort 37:6, 91:18 eight 11:21 either 28:6, 61:3, 165:19, 165:21, 166:25, 167:3, 180:21 elec 229:7 electrical 24:24, 25:1 electronic 24:22, 25:4, 88:17, 105:19, 106:13, 108:25, 111:12, 112:7, 193:3, 193:5,	204:7, 204:11, 209:1, 209:4, 209:15, 209:21, 210:19, 214:2, 214:4, 214:5, 214:6, 215:8, 215:10, 216:8, 219:18, 220:10, 226:5, 227:2, 227:8, 227:10, 227:15, 228:4, 228:17, 228:23, 228:25, 229:7, 229:8, 229:10, 229:19, 230:17, 230:18, 235:18, 241:1, 241:3, 241:11, 241:13, 242:7, 242:14, 243:5, 243:11, 243:14, 243:18, 244:7, 244:10, 244:20, 245:1, 245:7, 259:18, 259:21, 259:22, 259:23, 260:4, 260:14, 260:20, 261:1, 261:2, 261:5, 261:6, 275:15, 277:22, 278:10, 278:12, 278:19 electronically 57:23, 239:13, 278:2 element 74:16, 74:17, 75:14, 75:15, 75:22, 110:18, 155:12, 155:23, 155:24, 159:5, 160:18, 165:18, 165:25, 166:23, 167:13, 167:18, 173:25, 174:16, 177:11, 177:23, 177:25, 178:13, 179:20, 181:10,	181:15, 181:20, 182:16, 183:9, 213:20, 214:16, 215:5, 215:25, 220:4, 220:6, 220:16, 230:14, 231:3, 231:11, 235:15, 247:17, 264:20, 264:21, 266:21, 266:25, 267:4, 267:23, 276:1, 277:15 elements 74:14, 137:12, 155:6, 159:6, 159:9, 183:4, 183:5, 275:13 else 116:8, 232:21, 275:4 elsewhere 85:5, 185:9, 210:7, 259:16 email 285:16 embarrass 49:1 embedded 186:22, 186:24, 197:25, 209:5, 209:22, 210:19, 211:4, 211:5, 211:23, 234:10, 235:3, 235:6, 237:8 embedding 237:19 embodiment 83:3, 193:17, 206:4, 213:1, 223:21, 223:22, 224:4, 224:10, 224:14, 225:8, 225:17, 226:15, 233:4, 240:25, 243:4, 244:17, 244:19, 253:14, 253:18, 254:9,	254:12, 254:16, 254:24, 262:18 embodiments 82:23, 82:24, 83:2, 83:6, 83:17, 83:20, 84:4, 84:19, 136:10, 260:2, 260:18 employed 17:19, 17:22, 287:19 employee 17:12, 17:16, 17:18 enablement 280:8 enabling 181:11 enclose 138:11 end 34:25, 35:1, 36:11, 40:21, 47:14, 48:6, 63:18, 65:23, 70:16, 72:23, 78:23, 79:24, 115:12, 124:25, 133:14, 154:4, 161:11, 182:13, 241:23, 266:20, 281:12, 285:24 endeavor 47:2, 47:9, 87:4 endeavored 69:6, 84:12 endeavoring 84:14 ended 27:12 ending 65:21 ends 66:20, 98:16 engaged 10:8, 141:11,
--	--	--	---

Transcript of David Crane
Conducted on February 26, 2024

93

141:18 engagement 10:9 engine 106:4, 163:21, 163:22, 164:11, 167:21, 180:21 engineering 24:8, 24:11, 24:12, 24:16, 24:17, 24:19, 24:22, 24:24, 25:2, 25:4, 25:5, 43:18, 88:17, 191:8 engineers 24:10 engines 139:9, 139:18, 139:24, 140:2, 140:8 english 157:25 enhancement 134:24 enjoy 142:11 enough 32:25, 61:25, 82:3, 95:18, 122:13, 122:20, 254:19, 281:7 enter 36:20, 239:13 entered 93:2 enters 99:1 entertainment 1:3, 2:3, 3:27, 5:5, 6:1, 27:4, 53:22, 55:4, 101:24, 108:19 entire 26:22, 37:8, 98:4, 100:21, 103:5, 165:3, 249:11	entirely 40:7, 119:23, 170:3, 171:23 entirety 98:6, 148:13 entitle 99:14 entitled 59:21, 120:8, 123:13, 194:9, 285:13 entity 16:3 environment 32:1, 32:6, 32:9, 34:5, 36:18, 38:12, 54:16, 96:21, 97:7, 98:11, 98:13, 99:2, 106:5, 114:12, 119:12, 119:14, 119:18, 120:22, 131:19, 153:22, 167:14, 177:13, 178:4, 178:6, 243:3, 244:17 environments 31:10, 31:20, 31:22, 31:25, 34:1, 36:14, 36:20, 99:23, 100:13, 100:25, 101:3, 101:17, 101:19, 101:23, 102:1, 153:4, 153:15, 229:23 equipped 126:23, 235:25 ernst 133:10 erroneous 48:20, 92:19 error 198:21 errors 14:16, 153:5, 213:15	ers 25:23 escapes 180:11 especially 100:13, 101:3, 144:13 esq 3:8, 3:15, 3:19, 3:22 essence 197:21 establish 211:6, 211:12 establishes 208:23 estimate 16:24, 16:25, 19:12, 19:18, 29:5, 32:22 et 47:24, 48:4, 48:5, 59:3, 97:10, 98:14, 98:16, 99:3, 99:7, 202:3, 213:11, 217:14, 266:6, 271:3, 280:9 europe 149:18, 185:18 european 151:14 evaluate 159:17 evaluated 155:19 even 30:4, 54:4, 75:5, 76:19, 79:10, 126:7, 179:7, 185:5 evening 284:9 events 135:4, 255:9 eventually 14:21	ever 17:16, 17:19, 18:25, 67:13, 67:16, 79:11, 87:25, 95:19, 140:21, 251:6 everquest 53:17, 54:1, 54:3, 54:6, 54:7, 54:9, 54:11, 55:4, 56:3, 56:9, 57:8, 58:8, 59:8 every 27:18, 54:4, 69:14, 79:11, 93:6, 100:21, 133:4, 155:12, 165:25, 166:3, 167:10, 176:17, 177:2, 177:3, 183:9, 247:17 everybody 93:6, 116:8, 135:9 everyone 82:2 everything 18:20, 22:14, 79:13, 79:20, 95:2, 137:14, 162:6, 165:4, 165:17, 166:22, 190:10 ex 223:1 exact 179:10 exactly 43:4, 46:23, 53:16, 117:2, 152:22, 186:9, 200:20, 208:1, 260:6, 260:21, 280:2 examination 4:4, 7:7, 239:23, 281:18,
--	--	---	--

Transcript of David Crane
Conducted on February 26, 2024

94

282:11, 283:8, 285:4, 285:6 examined 7:5 examiner 39:3, 39:4, 39:5, 39:11, 44:9, 51:21, 51:25, 52:3, 52:8, 52:12, 52:24, 53:1, 57:2, 57:14, 59:15, 61:20, 61:22 example 30:2, 30:3, 30:4, 46:1, 74:17, 75:16, 82:1, 85:24, 91:15, 92:16, 95:1, 97:8, 101:4, 102:7, 131:18, 135:22, 161:5, 172:2, 217:11, 218:5, 223:4, 234:23, 234:25, 248:3, 266:3, 276:5 examples 23:2, 29:25, 30:13, 35:2, 121:16, 170:12, 238:4, 268:3 except 56:22, 60:25, 61:13, 119:20 exception 56:20, 101:12 excess 19:15 exclusively 144:11 excruciatingly 146:19 excuse 15:24, 18:4, 31:2, 32:19, 35:7, 40:22,	42:12, 42:18, 53:15, 55:15, 55:16, 57:9, 60:21, 63:7, 67:8, 78:14, 83:19, 88:14, 88:22, 98:7, 99:17, 99:24, 110:4, 110:23, 120:8, 121:5, 129:15, 132:9, 137:12, 138:14, 141:11, 142:1, 145:16, 150:1, 155:5, 155:18, 156:20, 157:12, 167:3, 171:4, 177:24, 181:19, 184:12, 190:19, 203:19, 213:25, 222:16, 230:23, 242:23, 243:10, 244:17, 250:16, 255:11, 257:25, 275:9, 284:6 execute 210:23, 211:25, 218:9, 229:6, 237:25, 238:2 executed 30:7, 128:24, 201:12, 215:8, 215:15, 215:24, 216:6, 216:17, 216:22, 217:23, 220:10, 220:16, 223:2, 238:17, 240:13, 241:22, 264:22, 275:15, 276:5, 276:11, 276:14, 276:17 executes 210:19, 238:16 executing 83:4, 210:24, 211:3, 211:18, 216:4, 216:12, 220:18, 230:20,	235:16, 235:17, 237:23, 240:6, 244:8 execution 220:11, 220:16, 223:1, 223:2, 241:16, 241:22, 241:25, 242:2, 275:16 exemplary 158:7 exhaustive 30:1, 30:19 exhibits 191:15 exist 26:3, 119:20, 153:6, 271:2 existence 167:13 existing 51:17, 99:23, 100:11, 100:23, 101:3, 101:14, 101:15, 101:16 exists 33:21, 212:1 expansion 137:10 expect 15:6, 79:19, 116:7, 151:22, 249:21 experience 36:4, 36:5, 36:9, 36:13, 36:16, 43:19, 73:18, 73:19, 73:20, 73:25, 74:3, 74:7, 74:25, 75:18, 75:20, 75:21, 75:23, 81:22, 81:24, 85:19, 88:18, 88:19, 89:8, 89:16, 90:1, 90:4, 90:23, 92:4,	101:5, 191:8 experienced 34:12, 34:17, 92:3 experiencing 33:17 expert 15:23, 86:5, 118:19, 119:9, 197:4, 279:7 expertise 17:1, 31:10, 31:20 explain 8:1, 24:3, 31:24, 36:15, 54:9, 75:5, 89:21, 108:15, 109:22, 116:7, 124:4, 133:3, 135:18, 146:2, 194:17, 197:6 explained 34:15, 124:13, 231:7 explaining 154:4, 173:19, 194:13 explains 43:4, 112:22, 187:16, 221:15, 266:16 explanations 107:1 explicit 72:13, 72:14, 72:15, 73:5, 73:6, 73:9, 170:17 extended 284:23 extension 271:1 extensive 36:13, 36:15 extent 71:25, 159:25, 277:12
--	--	---	--

Transcript of David Crane
Conducted on February 26, 2024

95

external 43:19, 160:8, 167:23, 168:15, 173:22, 174:8, 191:9, 193:7, 277:20, 278:19 extraordinary 79:15, 88:21 eyes 33:20, 34:14, 122:12, 130:12 F f-o-t-r-a-n 37:15 face 232:8 facebook 232:3, 232:9 fact 56:6, 111:15, 152:17, 161:7, 177:9, 183:2, 259:8, 281:2 factor 74:2, 154:23, 155:2, 155:19, 267:14 factors 66:25, 67:1, 67:8, 67:10, 67:19, 67:20, 67:22, 68:5, 68:9, 68:10, 68:13, 68:17, 68:20, 68:22, 68:25, 69:4, 69:7, 69:14, 75:1, 78:13, 90:21, 154:21, 154:23, 154:24, 155:17, 159:15, 267:22 facts 184:18 fair 8:10, 8:14, 8:15, 8:18, 	10:5, 12:14, 19:5, 19:18, 22:23, 25:7, 27:20, 32:25, 35:10, 37:10, 44:13, 54:23, 61:25, 65:12, 67:23, 68:4, 69:2, 69:19, 89:2, 171:1, 171:6, 177:4, 190:7, 190:8, 191:25, 200:18, 200:25, 208:5, 210:11, 226:1, 226:9, 227:4, 238:7, 251:20, 256:23, 257:1, 257:12, 258:3, 258:17, 258:22, 262:21, 263:19, 267:3 fairly 101:8, 108:1 familiar 54:3, 62:2, 62:4, 62:7, 62:18, 62:21 family 113:21, 279:22, 280:19, 280:20 fan 196:11 fan-supplied 196:4 fandom 195:2, 195:5 fans 195:18 far 69:17, 94:3, 105:6, 130:6, 130:21, 131:17, 158:17, 175:5, 187:21, 240:2 farther 36:2 fast 197:12, 197:15 	favor 17:8 feature 186:22, 268:7 features 169:16 february 1:27, 2:27, 5:8, 287:15, 288:2 feedback 163:22 feel 65:18 feels 42:15 felt 146:20 few 64:5, 75:14, 174:4, 203:12 fewer 74:14 fiction 21:18, 35:16 field 17:1, 24:17, 26:2, 43:17, 51:18, 70:9, 76:19, 119:9, 131:17, 191:7, 249:11 fig 242:23 fight 54:18, 92:16, 196:6 figured 94:6 figures 224:21, 252:21, 253:1, 253:23, 259:15 file 218:7 filed 12:22, 13:16, 27:24, 39:16, 	40:24, 41:19, 41:22, 42:3, 44:4, 46:18, 49:17, 50:6, 56:20, 90:12 filing 4:11, 15:5, 119:10, 119:15, 139:9, 139:17 finally 85:7, 165:1 financially 287:21 find 24:9, 26:24, 90:14, 93:24, 107:3, 119:22, 126:22, 127:7, 163:2, 171:8, 180:19, 182:11, 183:9, 188:22 finding 37:18, 73:9, 94:9 fine 6:25, 50:2, 53:10, 69:19, 73:21, 94:7, 117:17, 118:15, 158:20, 185:8 finish 72:24 finland 187:24 firm 5:21, 9:12, 9:14, 9:15 first 7:4, 9:5, 15:21, 22:4, 31:8, 32:8, 32:20, 35:6, 41:16, 41:19, 42:10, 51:2, 52:16, 53:5, 63:14, 81:2, 87:25, 111:9, 112:5, 125:19,
---	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

96

134:7, 145:11, 156:22, 158:5, 161:8, 164:5, 164:9, 164:15, 172:1, 174:18, 177:12, 177:13, 177:16, 177:18, 177:25, 178:8, 178:9, 178:11, 181:1, 188:18, 192:8, 192:21, 221:6, 225:24, 239:20 first-person 131:19 first-time 161:13 five 28:2, 33:12, 58:12 fixed 188:11 flash 196:18, 196:25, 198:4, 198:5, 198:6, 198:9, 198:11, 198:19, 198:23, 199:13, 201:3 flesh 223:16 flight 20:19, 21:2, 21:4, 21:20, 27:16, 58:14, 58:15, 58:24, 60:6, 62:3, 62:4, 62:5, 62:17, 123:25, 124:2, 124:7, 124:10, 124:14, 125:4, 125:15, 128:16, 128:17, 129:13, 130:13, 130:16, 134:25, 135:9, 135:11, 153:21, 154:4, 154:14, 154:15,	165:7, 168:18, 170:10, 170:16 flip 13:17, 252:19 flow 223:18, 253:3, 255:11, 256:5, 256:12, 261:4 flowchart 221:15, 221:25, 222:22 flying 182:2 folder 49:13 folks 143:24 follow 45:25 followed 196:18 following 43:22, 47:19, 191:13, 219:13, 221:17 follows 7:5 foot-tall 21:19 football 170:13, 171:25, 172:7, 172:8, 172:9, 172:12, 172:15 footnote 124:17, 138:20, 195:1, 195:23 force 163:21 form 46:20, 53:9, 55:7, 63:3, 66:13, 68:1, 68:7, 69:10, 69:16, 72:22, 74:5, 76:11, 77:14, 77:25, 78:18, 79:14,	81:13, 82:12, 84:17, 85:23, 86:10, 87:14, 88:8, 95:8, 100:3, 100:17, 102:22, 105:20, 110:7, 111:1, 115:24, 116:13, 120:11, 120:20, 122:2, 124:11, 125:15, 125:22, 128:8, 131:4, 137:17, 140:4, 150:11, 150:17, 151:4, 155:8, 157:13, 157:24, 158:12, 158:24, 159:7, 159:22, 166:14, 168:3, 169:9, 170:21, 171:5, 182:7, 183:7, 184:15, 186:4, 188:5, 192:25, 200:13, 207:5, 212:24, 215:1, 215:20, 217:24, 219:19, 221:13, 222:21, 223:24, 226:7, 228:7, 231:16, 235:10, 236:9, 238:19, 240:14, 242:15, 243:15, 248:23, 249:9, 250:24, 251:9, 261:3, 262:11, 263:25, 264:12, 265:22, 269:2, 269:8, 269:21, 270:3, 273:23, 276:3, 278:16 format 109:6, 217:9, 217:11, 217:12, 218:10, 219:9 formatted 144:20, 144:23 formed 89:11, 89:18,	89:23, 90:5 forming 43:15, 89:7, 89:15, 89:22, 89:25, 90:13 forms 146:10 forth 39:9, 43:15, 44:8, 44:14, 86:20, 91:9, 191:5, 252:19, 287:7 fortran 37:17, 37:21 forty 88:14 forward 26:19, 58:6, 92:6, 131:20 forwarded 228:2 forwards 227:14 fotran 37:15 found 57:12, 92:12, 92:18, 98:11, 106:23, 107:25, 122:16, 122:19, 171:1 founded 25:22, 26:11, 27:5 founders 20:5 four 10:20, 28:2, 33:12, 40:13, 52:18, 58:12, 69:24, 88:16, 138:11, 153:19, 173:24, 174:18, 279:11, 284:23 fourth 53:6 frame 269:16
--	---	---	--

Transcript of David Crane
Conducted on February 26, 2024

97

framework 214:19, 214:20, 214:23, 245:18 framing 214:12, 214:19 fran 9:22, 9:23, 38:21 frances 38:19, 38:20 francisco 27:14 frank-white 11:10 free 65:18 friendly 281:15 front 40:13, 46:22, 66:1, 84:21, 144:2, 160:24, 185:14, 192:16, 197:16, 216:13, 275:8 full 7:12, 9:13, 13:20, 218:23, 282:3 fully 218:25, 219:4, 274:16 fun 22:18 function 107:12, 107:14, 107:16, 108:12, 109:12, 109:13, 109:19, 167:15 functionality 180:6, 196:21, 198:7, 198:15 functioned 174:22 functions 139:11, 139:19, 140:9, 219:10 further 38:13, 54:19,	58:11, 72:11, 74:13, 92:6, 99:25, 129:1, 145:5, 236:23, 268:6, 274:7, 287:11, 287:13, 287:17 furthermore 211:23 future 104:15 G game's 172:22 game-design 129:9 game-play 265:20, 265:24 game-playing 196:20, 197:21 game-programming 129:9 game-related 264:22 games 17:2, 17:24, 20:1, 20:8, 20:11, 20:13, 20:17, 20:19, 20:20, 21:1, 21:4, 25:19, 26:23, 27:7, 27:8, 27:13, 27:17, 28:4, 28:11, 28:19, 28:20, 28:22, 29:4, 29:10, 29:24, 30:5, 31:9, 31:19, 32:4, 33:2, 35:2, 35:9, 36:17, 36:20, 36:23, 36:24, 37:1, 37:4, 37:7, 55:1, 88:19, 91:18, 101:24, 128:24,	129:16, 133:11, 134:25, 135:21, 136:3, 136:6, 136:7, 136:12, 141:4, 141:7, 156:14, 157:19, 169:19, 169:24, 169:25, 170:10, 170:19, 172:20, 173:1, 173:9, 173:15, 176:19, 195:16, 195:19, 195:20, 197:9, 198:10, 200:24, 201:9, 229:21, 271:3, 271:10 gaming 27:11, 27:12, 28:6, 36:14, 76:19, 125:16, 126:15, 126:21, 126:23, 127:4, 127:7, 127:21, 127:25, 128:5, 128:12, 169:4, 169:12, 194:21, 198:2, 216:17, 216:22, 260:9 gary 16:11 gateway 218:11 gave 23:2, 26:1, 82:9, 111:16, 114:6, 166:4, 214:24, 245:20, 268:3 gd-rom 144:10, 144:17, 144:19, 144:20, 145:2, 145:9, 145:14, 145:25, 146:12 gd-roms 144:24 general 54:10, 63:1,	172:17, 193:25, 196:24, 211:10, 212:16, 219:3, 223:17, 255:25, 256:2, 256:3, 272:9 generalizations 126:25 generally 7:13, 46:25, 54:6, 75:12, 94:2, 94:8, 128:1, 134:23, 137:25, 140:22, 142:10, 155:3, 158:21, 164:17, 167:5, 172:5, 172:8, 178:21, 185:8, 191:17, 191:24, 192:3, 192:16, 192:22, 193:17, 194:8, 196:4, 197:5, 199:20, 200:4, 203:5, 209:19, 209:24, 212:19, 212:25, 219:17, 221:9, 221:10, 236:20, 238:21, 246:22 generated 267:21 generates 106:14 generating 266:22, 267:15 generic 133:24 genesis 111:6 genre 54:14 geographical 182:1 geographically 121:8 getting 96:1, 105:25,
--	--	---	--

Transcript of David Crane
Conducted on February 26, 2024

98

124:18, 190:3, 213:5, 239:3, 278:18 gibberish 187:21 gigabit 144:20 gigabyte 144:21 gist 101:1 give 7:15, 7:24, 20:16, 30:2, 30:18, 33:19, 34:14, 42:20, 43:6, 49:9, 94:10, 94:12, 114:13, 121:13, 151:23, 157:23, 158:19, 170:12, 190:15, 218:5, 256:9, 265:18, 284:10 given 41:5, 52:23, 61:18, 65:2, 69:21, 86:23, 87:23, 88:1, 88:4, 102:7, 102:8, 113:15, 115:5, 116:22, 116:24, 134:14, 134:16, 143:7, 143:9, 168:7, 183:1, 287:10 gives 255:7 giving 20:5, 25:23, 166:11 gloss 40:7 goal 37:19, 48:25 goes 16:15, 74:12, 77:2, 78:2,	83:18, 92:23, 100:16, 129:23, 155:10, 208:22, 211:22, 212:12, 230:8, 230:9, 256:13, 278:14 golf 35:23 gone 91:17, 118:20, 119:3, 184:24 good 6:8, 6:9, 15:14, 18:12, 19:7, 38:10, 74:10, 75:16, 87:21, 94:8, 106:2, 118:13, 118:16 goods 237:1 gotcha 48:22, 153:13 government 136:2 grab 37:25 grail 111:2, 111:22, 115:22, 116:4 grammatically 120:18, 120:25 graphics 160:20, 161:7 great 7:1, 7:15, 8:12, 9:5, 13:5, 14:9, 15:21, 16:12, 17:9, 28:10, 38:25, 60:18, 65:15, 91:17, 153:17, 161:22, 184:24, 185:15, 191:2, 192:6, 192:21, 201:5, 201:22, 202:20, 219:16, 234:8, 257:6	greater 180:11 ground 152:2, 183:22, 213:9, 270:15 groundbreaking 140:20, 187:17 grounds 151:25, 152:1 guard 90:25 guess 20:18, 30:24, 32:15, 41:16, 41:18, 48:20, 69:23, 70:16, 80:21, 83:4, 99:22, 120:22, 123:18, 125:1, 130:11, 148:3, 150:1, 151:18, 160:19, 166:1, 169:7, 180:1, 184:18, 194:7, 198:8, 200:9, 201:8, 270:24 guesses 30:16 gui 160:21, 163:17 guide 283:3, 284:3 guideline 121:8 guidelines 46:1, 86:20, 87:1, 87:4 guidepost 63:21 H h-a-r-r-y 12:4 half 64:3, 175:14 halfway 53:16, 160:6 hand 13:5, 14:19,	37:23, 119:22, 142:19, 191:11, 192:8, 201:23, 270:17, 288:2 handed 190:16 handle 6:22 happen 23:8, 39:24, 111:19, 189:4, 232:9, 283:13, 284:9 happened 195:16 happening 104:13, 106:11, 173:10 happens 22:14, 118:3, 213:4, 228:6, 231:20 happy 43:9, 46:24, 55:20 harassing 284:21, 285:11 hard 37:8, 67:10, 84:2, 133:3, 163:2, 263:6 harder 68:24 hardware 149:19, 185:25 hardware-wise 186:18 harry 11:3, 11:4, 12:4 hasbro 27:3 hat 194:13, 194:17, 197:6 header 152:8, 152:9, 152:15, 152:20,
---	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

99

160:20, 185:1, 185:4, 213:9, 213:12, 213:16, 217:14 headers 184:25 headphones 145:15, 146:21 headquarters 18:3, 18:10 heard 9:18, 9:21, 41:11, 63:7, 67:13, 67:16, 94:18, 177:1, 177:5 heart 262:3 held 17:6 help 28:24, 90:20, 174:5 helps 195:8, 245:4 henry 11:8 here 5:3, 26:18, 27:14, 29:7, 30:19, 36:10, 41:23, 42:23, 48:14, 52:2, 70:23, 71:1, 78:17, 83:14, 100:24, 102:11, 108:20, 111:11, 112:6, 115:11, 124:3, 124:8, 124:24, 138:9, 144:3, 151:13, 152:20, 159:1, 161:1, 162:15, 168:13, 170:4, 178:23, 180:15, 194:13, 206:1, 210:6, 210:9, 214:12, 223:4,	223:8, 230:3, 231:7, 239:18, 241:6, 247:13, 248:24, 262:13, 269:11, 271:17, 275:3, 277:6, 277:21, 280:23, 280:24 here's 223:4 hereby 287:5 herein 89:11, 89:17, 89:22 hereinbefore 287:7 hereunto 288:1 hesitate 32:14, 272:11 hi 187:20 high 19:16, 24:5, 24:7, 252:22 high-level 108:11, 135:20, 224:25 higher 16:25 highly 279:7 highway 251:6 hindsight 85:8, 85:20, 85:25, 86:7, 86:9, 86:13 hired 17:3, 19:3, 134:10, 140:17, 141:12, 141:14, 141:18 history 25:8, 25:9, 26:17, 27:23, 43:22, 44:3,	44:6, 44:7, 47:18, 49:4, 49:8, 49:17, 55:12, 55:22, 56:8, 57:17, 58:17, 59:12, 59:17, 60:7, 62:7, 191:12 hit 20:14, 66:6, 239:18 hmm 218:16, 243:19 hoagland 1:30, 2:25, 287:4, 288:5 hold 29:4, 119:24 holding 239:16, 241:1, 241:3, 241:6, 243:11, 245:7 holds 29:7 holy 111:2, 111:22, 115:22, 116:4 homayoon 3:29, 239:13, 239:25 home 145:17 homer 2:27, 3:5, 5:12, 287:15 homey 240:1 honeywell 24:9 hook 200:21 hopefully 239:16 hospital 97:10, 121:9 hosted 198:13 hot 141:8	hour 64:2, 175:14 hours 11:21, 14:15, 19:12, 19:16, 27:1, 36:19, 79:16, 90:22, 118:2, 118:4, 118:10, 239:8, 278:24, 279:3, 279:15, 279:23, 280:10, 280:12, 281:4, 281:7, 281:9, 281:12, 281:24, 282:9, 283:16, 285:19, 285:20 however 89:11, 89:18, 89:23, 155:16, 172:1, 179:5, 179:12, 254:16 html 217:9, 217:11, 217:17, 218:1, 218:6, 218:8, 218:9, 218:10, 218:12, 218:13, 219:8, 219:9, 219:14, 219:18, 219:20 human 21:19 hundreds 20:11, 36:19, 111:18, 116:5, 236:17 hyper 231:9 hyperlink 231:9, 234:10, 235:3, 235:6, 235:24, 237:9, 237:16, 237:23, 237:25, 238:3, 238:5, 238:6, 238:12, 238:18, 238:22, 262:4,
--	---	--	--

PLANET DEPOS
888.433.3767 | WWW.PLANETDEPOS.COM

Quantum Imaging, LLC
Exhibit 2009
IPR2023-00954
Page 100

262:6 hyperlinking 237:5 hyperlinks 197:19, 219:14, 235:25, 236:5, 236:6, 236:11, 237:7, 237:14, 237:20, 240:6 hypothetical 81:18, 82:9, 125:25, 147:21, 157:14, 231:25 hypothetically 121:13 hypotheticals 86:6	130:16, 160:18, 165:17, 166:22, 215:4, 264:20 iii 266:21 illustrates 255:11 illustrative 240:25, 243:4, 244:18 illustrial 240:25, 244:18 image 33:19, 262:6, 262:7 imagery 128:23 images 34:14 imagine 19:19 imaging 1:9, 2:9, 3:28, 3:29, 5:6, 5:17, 5:19, 6:5, 9:7, 9:18, 18:9, 19:11, 106:4, 106:5, 167:14, 239:22 immediately 226:11, 234:11, 235:7 implement 119:11, 139:10, 139:18, 140:9 implemented 136:18, 137:6 implies 203:14, 231:19 imply 110:15, 234:1 important 20:4, 73:23 impossible 251:2 imprecise 127:22 improper 69:9, 85:22,	86:9 improve 70:21, 70:23, 80:23 in-house 6:1 inc 15:24, 16:2, 16:3 include 10:20, 19:25, 29:10, 30:5, 68:20, 75:19, 75:20, 98:6, 98:21, 99:5, 100:11, 102:16, 112:22, 138:14, 138:17, 193:3, 228:19, 233:10, 244:11 included 11:22, 16:13, 30:14, 101:11, 102:2, 102:3, 111:19, 124:8, 160:10, 160:17, 169:3, 174:9 includes 7:12, 18:18, 28:22, 96:22, 103:24, 138:16, 195:24, 203:8, 208:10, 268:15 including 70:1, 74:16, 96:20, 125:6, 126:6, 138:16, 148:4, 251:3, 267:21 incorporated 228:1, 228:8, 228:20 incorporates 227:1, 227:7, 227:9 incorrectly 97:18 increase 99:24	increasingly 101:23 indeed 213:14 indefinite 121:22, 121:24, 121:25, 122:4, 122:9, 122:15, 122:17, 123:2 indefiniteness 123:9, 123:13, 123:14 independent 215:25 india 106:1 indicate 6:2, 52:10, 52:22, 56:19, 63:22, 100:24, 106:11, 125:12, 136:9, 235:5, 248:2 indicated 41:21, 52:15, 59:18, 60:2, 63:23, 111:25, 143:17, 162:12, 256:13, 276:14, 279:18, 281:24 indicates 205:23, 209:25 indicating 154:11 indication 55:5 indicia 84:24, 85:3 indirect 205:22 individual 251:8, 251:11, 262:9, 271:20 individually 183:9, 191:22, 193:24 individuals 239:24
I			
i-n-d-i-c-i-a 84:24 i4 220:2 id 99:16 idea 33:18, 34:13, 35:15, 38:23, 58:1, 93:13, 223:6 identical 46:24 identification 50:9 identified 11:5, 82:6, 148:6, 161:4, 204:2, 268:22 identifies 217:12 identify 50:21, 134:15, 217:13 identifying 91:18, 155:18 ii 128:19, 129:14, 130:13, 130:14,			

Transcript of David Crane
Conducted on February 26, 2024

101

industry 24:2, 24:12, 91:16, 92:21, 106:6, 111:14, 116:4, 273:8 infer 73:8 inference 72:21 inferred 72:13, 72:17, 73:7, 73:14, 73:16, 73:17, 74:4 info 222:3, 251:3 inform 84:10, 95:20 informally 281:2 informed 45:23, 86:12, 95:24, 114:8, 115:6, 121:6, 134:17, 134:20 infringed 282:6 inherently 231:22 initial 30:8, 51:24, 167:11 initials 16:10 initiate 215:8, 241:14 initiated 241:15 innovate 82:3 innovation 81:3, 81:5, 81:19 input 219:9 inputs 106:8, 106:10, 106:14	inside 106:9, 106:12, 137:14, 137:15, 137:24, 138:2, 138:8, 150:1, 162:23, 162:24, 162:25, 163:3, 164:25, 181:3, 197:11, 229:16, 265:3 insignificant 75:25 install 198:22 installed 198:19, 198:24, 199:1, 199:8, 200:12, 200:15, 201:3 instance 171:24 instances 106:24 instead 27:7, 69:25, 156:6, 218:9 institute 24:8 institution 10:21, 13:2 institutional 59:1 instruct 45:21 instructed 115:8, 116:25, 119:1, 159:16 instruction 211:17 instructions 211:13 insubstantial 74:18, 74:20, 74:21, 75:2, 75:11, 75:15, 76:2 insult 136:20	integrate 223:9, 229:20 integrated 153:23, 230:19 integrates 241:15 integrating 96:19, 125:5, 220:8, 220:20, 229:18, 275:13, 275:24, 278:9 integration 223:12, 228:6, 228:16 intellivision 111:5 intended 33:8, 144:11, 249:24 intentionally 23:23, 87:16 interact 22:17 interaction 91:2 interactive 1:3, 2:3, 3:27, 5:5, 5:23, 6:1, 38:12, 96:22, 97:7, 98:11, 104:18, 104:22, 153:3, 153:15, 153:22, 158:8, 203:8, 204:18, 204:20, 204:22, 208:8, 208:10, 218:22, 218:24, 223:10, 223:13 intercommunicati- on 207:9 intercompany 271:1 interconnections 206:14, 206:16 interconnects 193:2, 206:9 interest 101:24	interested 179:10, 195:13, 287:21 interesting 24:14, 172:14, 232:11 interface 138:1, 160:21, 161:7, 164:6, 164:7, 164:9, 164:15, 164:19, 177:13, 178:8, 178:10, 178:11, 181:12, 181:18, 181:21, 181:22, 181:24, 181:25, 182:3, 182:4, 182:5, 218:11 interfaced 215:10 internal 167:22, 168:15, 168:20 international 63:13, 134:5, 152:5 internet 11:10, 11:11, 11:13, 27:7, 27:8, 27:9, 30:18, 58:19, 92:1, 100:14, 101:4, 175:6, 176:9, 197:12, 197:15, 211:15, 218:19, 218:21, 229:22, 230:11, 262:3 interpret 42:14, 67:10, 108:13, 109:3, 120:6, 130:22, 169:18, 241:9 interpretation 107:11, 107:14, 107:16, 115:8, 115:10, 118:23, 187:14
--	---	---	---

Transcript of David Crane
Conducted on February 26, 2024

102

interpreted 114:9, 146:13, 173:2, 187:8, 188:14, 189:2, 189:6 interpreter 109:2 interpreting 133:16, 134:1 interprets 107:8, 114:10 intra 271:1 introduction 143:21 introductory 143:22 invalid 17:6, 247:22, 248:2, 248:3, 248:10 invalidity 17:1, 17:3, 17:4, 280:1, 281:5, 282:1, 282:4, 282:5 invent 80:24 invented 115:20, 116:15 invention 65:22, 66:1, 66:5, 70:21, 75:5, 75:7, 75:24, 83:3, 83:4, 85:8, 99:15, 102:21, 103:3, 103:4, 103:14, 103:19, 104:21, 105:2, 135:11, 225:1, 225:4, 225:8, 225:13, 225:17, 226:15, 233:5, 240:20, 241:1, 243:4, 244:19, 252:23, 253:24, 254:18, 268:7,	271:6, 274:11 inventive 66:4, 75:8, 75:10, 84:2, 84:3, 84:5 inventiveness 83:22, 83:24, 83:25, 84:20 inventor 10:2, 38:15, 38:18, 38:22, 42:15, 44:14, 51:23, 66:12, 66:19, 83:1, 135:15 inventor's 38:15, 52:20 inventors 10:4 involved 20:11, 37:1, 113:20 involves 71:16 ipad 232:6, 232:19 ipr 1:16, 1:18, 1:20, 1:22, 2:14, 2:16, 2:18, 2:20, 4:18, 4:19, 4:20, 4:22, 5:7, 6:14, 6:18, 6:19, 6:23, 9:14, 10:8, 12:6, 12:7, 12:11, 12:22, 13:10, 13:21, 14:21, 15:2, 18:8, 27:25, 37:25, 43:1, 44:4, 46:10, 46:18, 48:19, 49:23, 55:14, 55:16, 64:17, 118:17, 123:6, 123:9, 134:10,	141:11, 141:12, 141:14, 141:18, 189:16, 190:5, 190:7, 190:13, 190:20, 192:4, 194:4, 214:13, 214:20, 214:25, 239:24, 245:21, 246:21, 279:6, 279:11, 279:13, 279:22, 280:12, 282:2, 282:3 iprs 9:6, 19:10, 140:18, 280:4 isix 27:3 isolate 68:25 issuance 38:9 issue 22:25, 123:9, 200:7, 210:7, 238:8, 252:17 issued 38:7, 41:17, 44:16, 66:8, 134:6, 192:10 issues 17:3, 17:5, 26:2, 30:15, 214:9, 280:7, 282:1 item 204:2, 272:3 items 47:14, 67:24, 68:5, 90:19, 90:20, 138:11, 138:16, 163:11, 163:14, 163:23 itself 33:18, 34:13, 91:10, 100:4, 100:18, 102:23, 107:6, 108:9, 142:11, 222:21,	226:8, 235:25, 264:1 iv 173:24, 220:3, 222:25 ix 194:10, 216:16 J james 3:27, 5:25, 11:22 japan 149:17, 185:17, 185:18, 187:19, 188:20 japanese 151:13, 151:23, 185:17, 186:16, 187:20, 187:22, 187:23, 188:21 jim 5:25 job 15:22, 141:6 john 67:21 joined 239:23 jonathan 39:6, 57:2 joseph 59:2 joy 126:15, 128:6, 138:7 joystick 137:21 judge 45:23 jump 183:20 jumping 39:8, 142:11 june 14:1, 114:6, 114:7, 199:25, 200:7
---	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

103

K	8:24, 9:13, 16:23, 19:13, 20:4, 24:14, 25:6, 32:3, 35:8, 35:19, 35:24, 41:20, 42:14, 42:21, 47:2, 48:15, 48:18, 50:17, 54:5, 57:1, 57:11, 63:16, 65:9, 67:16, 68:9, 69:20, 73:12, 75:17, 79:13, 79:20, 81:15, 87:17, 90:18, 90:19, 90:22, 90:24, 94:2, 94:3, 94:17, 95:4, 95:7, 95:15, 97:3, 103:1, 103:7, 103:12, 103:18, 105:11, 108:20, 113:24, 116:5, 117:1, 117:2, 121:21, 123:6, 124:7, 125:14, 129:20, 129:22, 135:14, 135:15, 136:1, 136:15, 144:17, 146:13, 151:9, 151:22, 151:24, 156:7, 171:7, 183:4, 188:22, 189:12, 194:14, 195:9, 196:3, 219:13, 226:9, 226:22, 232:9, 234:5, 236:18, 245:14, 248:25, 249:16, 249:22, 256:6, 260:3, 260:19, 261:22, 271:18, 275:7, 279:12, 282:3	knowledge 14:7, 43:17, 62:22, 70:2, 73:22, 73:23, 74:3, 74:7, 74:25, 75:21, 79:1, 79:4, 79:12, 152:7, 155:13, 156:7, 156:14, 157:3, 157:6, 174:12, 176:8, 182:15, 183:23, 184:5, 184:10, 191:6, 191:7, 211:11, 213:11, 214:15, 249:20, 250:8 known 20:5, 21:18, 75:6, 90:17, 123:23, 124:5, 125:7, 125:8, 125:9, 125:12, 125:17, 125:23, 125:24, 129:19, 133:18, 133:25, 139:8, 139:16, 139:22, 139:23, 139:24, 154:5, 154:6, 154:7, 154:12, 180:3, 180:4, 194:15, 201:10, 217:7 knows 135:10, 188:1 kxt 9:12, 9:13, 9:19, 9:22, 15:8	languages 24:7, 37:13 laptop 105:13 large 28:23 largely 186:6, 195:15 last 13:23, 14:9, 14:10, 17:13, 21:8, 36:1, 41:4, 43:25, 53:2, 56:17, 58:23, 59:25, 60:15, 61:8, 65:20, 65:21, 67:24, 74:11, 74:12, 78:23, 82:16, 82:20, 89:14, 125:1, 129:18, 139:5, 139:6, 139:7, 141:20, 141:22, 148:3, 171:19, 174:4, 201:8, 277:6 later 30:10, 157:5, 171:15, 202:16, 214:10, 254:21 latest 141:7 lauguico 3:26, 5:10 launched 194:22 laundry 109:7 law 5:21, 9:12, 9:14, 15:8, 44:25, 45:10, 45:18, 45:19, 45:22, 45:24, 47:1, 71:11, 71:15, 79:6, 86:23, 87:18,
kanji 151:23 keep 20:8, 29:17, 195:11 keeping 15:14, 195:14, 281:17 ken 3:26, 5:10 key 108:14 keyboard 126:14, 126:20, 126:23, 127:2, 127:20, 127:24, 137:22, 138:7 killed 49:7 kilohertz 146:5, 146:6 kind 16:15, 22:21, 28:1, 29:6, 35:16, 36:11, 51:8, 65:6, 92:16, 111:2, 117:12, 124:4, 135:10, 146:20, 165:20, 167:1, 170:4, 194:13, 195:20, 238:1, 250:12, 274:8 kinds 280:2 kitchen 16:10, 16:11 knee 8:22, 239:16 knees 190:1, 239:3 knew 9:21, 9:25, 156:24, 249:20 know 8:1, 8:9, 8:21,	knowing 125:13		
	L		
	l-u-c-l-i-n 53:18 lab 25:25 labeled 136:5, 193:11, 201:24, 203:18 lacking 109:22		

Transcript of David Crane
Conducted on February 26, 2024

104

88:3, 88:9, 97:3, 118:21, 120:15, 121:25, 122:10, 191:23 laws 145:21 lawyer 45:2, 45:25, 71:10, 79:7, 82:25, 247:14, 247:19 lawyers 40:8, 143:24 layer 114:9, 163:3, 178:23, 178:25, 179:2, 179:3 layers 162:23 layman 47:10, 51:7, 71:10 layman's 39:19, 39:25 layout 108:17, 108:18 lead 36:3, 81:8 leads 81:10, 81:11 leap 83:22, 83:24, 83:25, 84:20, 194:21 learn 14:21, 25:18 learned 10:7 least 10:8, 12:6, 22:8, 53:11, 98:12, 106:24, 113:21, 114:5, 165:12, 166:9, 168:7, 168:18, 178:14, 178:25, 181:11, 182:14, 184:17, 214:14,	220:9, 245:19, 246:24, 247:5, 247:12, 275:14, 278:11, 279:18, 279:19 leave 26:4, 83:23 left 24:7, 26:12, 32:7, 42:11, 144:3, 176:3, 240:5, 244:4, 266:6, 268:1, 269:19 left-hand 39:10, 40:11, 49:22, 51:10, 52:15, 55:15, 144:5, 145:5, 162:15 legal 65:8, 65:10, 65:16, 69:12, 69:21, 72:1, 72:7, 78:18, 81:13, 82:12, 83:9, 84:14, 85:5, 86:10, 87:6, 87:9, 87:12, 87:15, 95:15, 97:3, 109:14, 110:7, 118:19, 120:10, 122:1, 122:4, 122:7, 123:11, 154:22, 183:1 legally 87:17 leong 3:27, 5:25, 11:22 less 20:12, 33:18, 34:13 letter 48:4, 48:5, 106:1, 181:16, 181:17	level 70:12, 88:13, 88:22, 88:25, 129:9, 192:2, 234:2, 252:22 lexicographer 120:9, 120:12 library 164:23 licensed 145:17 likely 145:4, 146:2, 265:23 limitation 223:3, 277:14 limitations 167:15, 279:21 limited 123:6, 233:19, 280:4 limiting 277:13 line 22:10, 29:6, 82:4, 100:16, 115:12, 163:17, 178:3, 204:14, 204:17, 208:8, 208:16, 216:25, 217:2, 221:24, 224:22, 226:21, 227:13, 229:16, 229:17, 230:3, 240:19, 240:24, 241:22, 242:4, 242:5, 243:2, 243:9, 243:20, 243:21, 245:5, 255:8, 270:24, 271:11, 271:15, 272:14, 274:8, 275:12 lined 56:22, 57:9, 60:25, 61:4, 61:13, 61:16, 61:19	lines 28:2, 33:12, 37:12, 97:22, 98:2, 98:4, 98:7, 98:19, 99:18, 100:1, 100:9, 101:10, 153:19, 204:8, 212:15, 218:14, 220:25, 221:2, 222:18, 222:19, 227:19, 232:22, 234:15, 234:19, 234:23, 236:13, 237:17, 242:12, 244:25 link 198:22, 205:15, 207:2, 208:24, 209:19, 211:6, 211:12 linking 80:6 links 209:20, 236:1 list 19:23, 20:8, 20:12, 30:19, 37:3, 37:6, 46:18, 47:15, 48:3, 51:24, 102:10, 109:7 listed 20:17, 30:3, 32:11, 36:24, 37:14, 38:16, 39:11, 46:12, 47:15, 47:20, 48:18, 60:14, 62:8, 62:9, 92:15, 111:11, 112:6, 261:6 listing 62:11 lists 19:25, 49:22 literature 56:3
--	--	---	--

Transcript of David Crane
Conducted on February 26, 2024

105

litigation 280:1, 281:3, 281:25 little 8:23, 10:6, 23:11, 27:4, 36:2, 38:13, 39:10, 44:2, 59:7, 65:7, 72:11, 76:21, 78:13, 86:4, 92:6, 118:22, 129:1, 138:4, 141:1, 141:9, 146:8, 153:18, 162:3, 183:15, 185:10, 197:6, 206:9, 220:23, 223:16, 237:11, 255:7, 264:17, 268:6, 270:13, 274:7 live 7:17, 176:19 llc 1:3, 1:9, 2:3, 2:9, 5:5, 5:6, 5:17, 5:19, 5:23, 6:1, 6:5, 9:18, 239:22 llp 2:27, 3:4, 287:14 load 197:16 local 216:5, 219:10, 230:7, 230:9, 243:5, 243:14, 244:9, 244:11, 244:20, 245:1, 245:10, 245:11, 260:4, 260:20, 276:20 localized 149:16 locally 201:12, 215:8,	215:15, 215:24, 216:6, 216:13, 216:17, 216:21, 217:22, 217:23, 220:10, 223:2, 229:11, 240:12, 275:15, 276:4, 276:11, 276:14, 276:17, 276:21 located 11:4 location 182:2 locked 114:1 log 148:17 logic 139:11, 139:19, 140:9, 165:2, 174:1, 197:23, 219:13 login 93:16 long 11:12, 44:10, 49:4, 64:1, 262:22, 274:15, 279:5 longer 11:12, 63:20, 64:4, 279:3, 281:13 look 10:3, 22:16, 26:18, 27:18, 27:21, 31:6, 32:24, 45:5, 45:11, 49:21, 52:5, 53:11, 55:13, 55:23, 56:15, 59:18, 61:6, 62:10, 64:15, 70:20, 72:20, 90:17, 91:24, 91:25, 93:23, 98:1, 98:15, 99:14,	104:5, 114:8, 115:10, 117:6, 122:11, 124:25, 128:17, 136:14, 151:25, 152:21, 156:3, 161:11, 162:3, 174:15, 186:17, 188:24, 192:8, 198:15, 202:20, 203:1, 204:11, 204:13, 205:25, 206:10, 206:11, 207:18, 208:6, 208:8, 209:10, 210:4, 210:13, 215:4, 216:24, 216:25, 218:14, 219:7, 219:23, 220:25, 223:15, 226:21, 232:1, 232:5, 232:10, 233:16, 234:19, 235:15, 237:10, 240:7, 240:19, 242:4, 244:12, 247:15, 247:21, 247:24, 251:16, 255:5, 255:6, 255:8, 259:14, 260:6, 260:21, 270:1, 270:14, 271:24, 272:13, 274:21, 275:6, 275:9, 275:12, 277:11, 281:14 looked 14:12, 60:20, 62:14, 62:15, 94:5, 155:22, 159:23, 171:18, 179:7, 190:9, 226:19, 238:5, 238:14, 268:16 looking 14:14, 27:23, 33:22, 37:8, 53:4, 53:14,	55:3, 55:21, 57:10, 65:10, 70:11, 71:3, 72:3, 89:14, 91:11, 91:15, 98:9, 104:16, 137:8, 144:5, 149:2, 158:21, 160:18, 171:10, 171:14, 171:21, 181:9, 188:22, 193:25, 201:6, 206:5, 208:2, 220:2, 225:20, 232:1, 232:8, 232:13, 232:14, 232:18, 236:16, 244:1, 264:20, 270:9, 280:23 looks 15:3, 22:16, 38:5, 38:14, 50:18, 54:22, 56:17, 57:23, 60:5, 60:7, 60:17, 65:21, 76:16, 105:7, 105:9, 105:13, 105:22, 143:6, 144:2, 163:11, 192:15, 204:2, 232:11, 270:1, 274:8 lose 273:9 lot 19:15, 21:3, 21:4, 26:7, 27:9, 36:21, 49:7, 54:21, 94:23, 94:24, 113:24, 120:16, 141:9, 151:11, 195:11, 197:16, 206:8, 212:18, 219:8, 219:15, 261:22, 272:12, 277:24
---	--	---	--

Transcript of David Crane
Conducted on February 26, 2024

106

lots 197:13 loud 146:19 love 195:18 lower 19:4, 49:22, 244:4 lowercase 251:25 luclin 53:18, 54:2, 54:5, 56:4, 56:9, 57:8, 58:9 lunch 118:14, 118:22 M m 192:8 m-a-n-u-a-l 48:5 m-a-r-c 5:18 m-e-c-h 21:24 m-o-b-y-g-a-m-e-s 92:8 machine 151:14 machines 128:21 macromedia 194:22, 196:18 made 19:13, 34:4, 37:6, 55:6, 57:2, 100:21, 107:20, 111:3, 111:14, 111:15, 112:24, 117:8, 129:8, 133:11, 144:23, 155:23, 194:20, 197:21, 240:12, 265:8, 266:23, 267:9, 268:25, 269:4,	270:6, 276:8, 277:12 magic 106:9, 108:11, 109:11, 110:17 magical 109:21, 202:13 magically 108:25, 110:15 main 164:22 mainframe 37:13 major 194:21 make 12:4, 13:18, 13:19, 20:22, 22:18, 24:11, 35:12, 49:1, 57:13, 62:24, 63:11, 69:24, 71:13, 72:6, 72:21, 74:24, 81:7, 82:8, 86:1, 90:21, 94:18, 95:23, 96:16, 111:7, 111:19, 132:23, 137:5, 141:13, 143:24, 160:6, 163:9, 164:3, 164:19, 165:20, 167:2, 183:20, 184:8, 184:19, 196:6, 201:7, 207:6, 225:12, 249:8, 261:20, 261:23, 266:19, 283:23 makes 23:7, 30:16, 75:2, 175:1, 198:9, 205:8, 259:11 making 27:7, 27:8, 75:4, 76:16,	118:8, 132:1, 132:16, 132:20, 134:2, 141:4, 220:1, 262:10, 266:4 man 38:23, 48:3, 158:16 managed 29:16, 115:25 manager 93:2, 164:12, 164:13, 164:25 manipulate 108:13, 116:2, 129:4 manipulated 107:9, 107:17, 107:18, 107:19, 109:4, 114:11, 115:13, 169:18, 173:2, 187:8, 188:15, 189:2, 189:7 manipulating 133:17, 134:1, 170:7 manipulation 187:14 manner 158:9, 274:10, 281:15 manual 4:21, 11:5, 11:17, 11:25, 48:4, 48:5, 48:6, 48:9, 48:12, 53:23, 55:5, 56:9, 92:15, 93:7, 95:1, 140:15, 140:21, 142:1, 142:2, 142:3, 142:4, 142:5, 143:10, 143:11, 143:14, 143:17, 143:20, 147:5, 148:6, 148:13,	149:3, 149:23, 150:15, 150:16, 183:18, 183:23, 184:3, 184:10, 185:11, 186:21, 187:13, 187:23, 188:16, 188:19, 189:2 manually 231:13, 232:20 manuals 140:22, 142:8, 142:13, 148:11 manufacturer 24:13 many 19:11, 30:15, 31:9, 31:19, 32:4, 36:17, 36:18, 37:1, 55:1, 62:4, 83:1, 126:5, 133:11, 133:12, 176:17, 176:24, 179:19, 187:17, 218:12, 274:12 marc 3:19, 5:18, 49:13, 166:19 march 39:16, 40:24, 41:22, 42:8, 42:9, 90:12, 90:24, 125:3, 128:13 maritime 173:17 mark 50:1, 50:4, 50:6 marked 4:9, 13:6, 13:8, 13:9, 13:14, 14:20, 15:1, 37:24, 38:3, 50:9, 52:11, 122:24, 142:20, 191:12,
---	--	--	--

Transcript of David Crane
Conducted on February 26, 2024

107

191:16, 192:9, 201:24, 270:17, 270:18, 277:7 market 81:1, 81:3, 81:4, 81:6, 81:7, 81:10, 81:11, 81:19, 81:22, 81:25, 82:6, 117:4 marketplace 82:10 markets 16:3 marking 217:9 markman 113:25, 179:7 marks 19:3, 285:24 marriage 287:19 materials 43:19, 43:23, 47:19, 125:7, 191:9, 191:14 math 119:20 matipulate 130:23 matter 5:4, 6:15, 68:17, 69:25, 70:4, 76:10, 76:17, 76:18, 77:4, 77:19, 77:21, 78:3, 78:10, 78:11, 85:1, 156:18, 157:4, 157:7, 157:18, 158:1, 158:2, 167:12, 287:22 matters 76:3, 281:21 maybe 9:9, 9:10, 11:21, 16:25,	19:5, 50:1, 105:9, 164:3, 176:5, 245:4, 260:8, 264:7, 284:12 mbrockhaus@dunla- pcodding 3:20 mean 18:16, 20:2, 21:9, 22:12, 23:5, 23:23, 29:1, 41:14, 65:8, 67:1, 71:1, 71:5, 71:9, 72:14, 80:12, 83:8, 83:24, 84:6, 88:22, 89:24, 90:2, 92:3, 94:5, 94:8, 100:19, 104:6, 106:7, 111:10, 111:11, 112:5, 112:7, 113:19, 113:20, 123:15, 129:7, 132:11, 136:20, 136:25, 142:5, 146:8, 148:21, 153:7, 156:22, 157:11, 186:9, 186:14, 197:8, 197:17, 199:20, 200:1, 206:17, 207:10, 207:17, 207:24, 210:23, 211:1, 211:12, 214:4, 228:14, 231:21, 237:3, 243:7, 251:18, 253:12, 254:8, 261:22, 261:25, 263:6, 271:21, 271:22, 277:19, 278:17 meaning 16:8, 71:12, 137:15, 153:8,	167:5, 179:25, 231:12 means 28:11, 30:23, 31:2, 31:22, 39:18, 40:19, 51:15, 56:25, 74:20, 76:10, 80:13, 81:5, 82:24, 83:12, 84:1, 85:12, 97:2, 97:4, 108:24, 121:25, 122:4, 132:12, 146:18, 153:16, 161:12, 186:24, 196:2, 199:8, 202:12, 211:13, 211:17, 214:2, 219:5, 220:16, 231:2, 231:11, 237:24, 241:6, 246:8, 252:7, 262:1, 264:17, 265:2, 265:5, 267:13, 267:14, 268:11, 268:20, 268:22, 271:11, 272:10, 273:7, 274:19, 277:17 meant 33:14, 37:21, 45:3, 73:16, 146:12, 205:17, 247:20, 261:18, 267:18 mech 21:3, 21:15, 21:16, 21:17, 21:24 mechanical 35:15 mechanisms 21:13 media 5:3, 92:11 medical 108:19	medium 203:13, 205:23, 207:13, 208:19, 211:14 meet 24:1, 149:9 meetings 271:1 megabit 144:21 megabytes 144:22 member 212:3, 212:8, 222:10, 222:17, 258:8, 258:13 memories 91:1, 91:7 memory 41:10, 91:5, 179:18, 210:5 mental 19:13 mention 15:22, 75:6 mentioned 16:14, 17:11, 21:8, 40:4, 59:23, 123:13, 168:25, 176:5, 187:16, 205:3, 209:9, 217:21, 236:7, 259:23, 261:1 mentioning 219:8 menu 188:9 menus 126:9 merely 180:4 message 198:21 messages 126:9, 272:19, 273:15, 274:1, 274:5, 274:9,
--	---	--	---

PLANET DEPOS
888.433.3767 | WWW.PLANETDEPOS.COM

Quantum Imaging, LLC
Exhibit 2009
IPR2023-00954
Page 108

Transcript of David Crane
Conducted on February 26, 2024

108

274:12, 275:4 messmore 39:6, 57:2 met 38:24, 167:18 method 33:17, 34:12, 34:17, 129:24, 131:1, 131:10, 131:22, 131:25, 132:4, 168:12, 219:20, 245:25, 252:2, 278:9, 278:13 methodology 169:7 microprocessor 25:16 microsoft 58:14, 58:18, 60:5, 60:7, 62:2, 62:4, 154:14 microsoft's 62:8 middle 7:12, 60:11, 70:15, 193:1, 217:4, 264:11, 272:4 might 25:16, 51:17, 52:1, 68:10, 70:21, 81:21, 82:14, 91:23, 93:6, 93:22, 97:8, 109:8, 120:2, 120:3, 121:12, 121:14, 121:15, 121:18, 121:19, 121:20, 126:16, 126:22, 126:24, 127:7, 152:17, 153:6, 162:23, 170:15, 173:18, 176:18, 194:14, 218:8, 256:10, 265:13	military 35:14, 106:2 million 146:14 millions 111:18, 116:6 mind 91:14, 152:14 minus 146:14 minute 191:11, 206:1 minutes 117:14, 118:10, 176:17, 189:15, 239:8, 277:3, 282:19 mis 133:10 mischaracterize 88:23, 224:1 mischaracterizes 67:2, 112:2, 115:23, 155:25, 166:5, 166:13, 168:3, 223:23, 238:19, 248:7, 253:20, 253:21 missed 37:18 missing 74:16, 74:17, 75:14, 75:15, 75:22, 98:25, 99:8, 165:21, 167:2, 209:17, 277:21 misspoke 200:6, 205:17, 234:13 misstated 207:7 mistestify 11:1 misused 136:24 mm-hmm 25:12, 79:8,	93:8, 94:4, 99:4, 99:10, 124:20, 135:1, 135:7, 146:11, 157:1, 162:20, 195:25, 205:19, 217:5, 226:13, 237:6, 284:11 mo 79:25 mobile 27:11, 126:15, 128:6 moby 92:7 mobygames 91:17, 91:25, 92:7, 92:10, 92:22, 92:24, 93:4, 93:12, 93:14, 93:17, 94:16, 94:21, 95:5, 194:3, 196:9, 196:12 model 222:9 modeling 58:24, 62:18 modification 128:9 modifications 129:8 modified 92:18 modifies 121:1 modifying 120:21 module 106:5, 107:8, 160:21, 162:10, 163:17, 164:3, 164:23, 165:2, 167:14, 167:19, 169:16, 169:17, 174:1, 174:19, 174:22, 181:2, 181:5, 181:7,	222:6, 222:17 modules 139:10, 139:18, 140:2, 140:8, 162:23, 163:8 moment 34:10, 96:6, 127:11, 147:24, 179:24, 191:22, 193:25, 203:17, 208:6, 219:23, 223:15, 232:12, 240:7, 276:13, 284:13 monday 1:27, 2:26, 287:15 money 81:7 monitor 5:9, 105:8, 105:11, 105:13, 268:12 monitored 269:22 monitoring 268:8, 269:6, 269:12, 269:14 months 171:15, 179:19 more 8:23, 20:9, 21:2, 22:8, 31:1, 31:2, 33:17, 34:12, 44:24, 68:22, 79:16, 82:5, 82:6, 88:21, 88:25, 89:4, 90:3, 107:24, 138:4, 141:3, 144:22, 177:8, 185:3, 186:15, 196:15, 197:15, 219:8, 219:15, 232:19, 236:25, 246:15, 254:22, 255:7, 262:5,
---	--	--	--

Transcript of David Crane
Conducted on February 26, 2024

109

280:10	movie	N	8:23, 15:12,
moreover	22:22	naked	15:15, 20:22,
169:15, 171:23	moving	251:11	20:23, 23:12,
morning	232:14, 272:25	name	45:12, 64:3,
6:8, 6:9, 7:21,	msi	7:10, 7:11,	72:13, 72:14,
283:7, 284:7	133:10	7:12, 9:13,	73:5, 73:6,
morris	mtv	38:11, 38:15,	76:12, 92:4,
2:27, 3:4,	27:12	38:23, 52:20,	103:15, 108:8,
5:22, 9:15,	much	57:1, 151:9,	143:4, 152:17,
287:14	14:13, 19:11,	151:12, 151:16,	173:23, 197:24,
most	23:21, 26:22,	151:20	209:10, 210:4,
70:24, 71:1,	45:12, 49:6,	named	233:17, 253:11,
108:22, 146:2,	64:12, 76:12,	111:15	257:20, 269:9,
197:14, 246:9,	80:20, 80:21,	names	273:24
285:17	108:8, 142:8,	10:4, 151:11	needed
mostly	143:4, 186:17,	narrower	70:21, 169:5
16:4	206:14, 221:12,	138:5	needs
motivated	233:17, 253:10,	nathaniel	172:22, 199:20,
156:12, 156:22	269:9, 273:24,	11:9	279:5
motivation	280:2	national	neither
70:3, 70:15,	multimedia	24:13, 25:10,	167:2
70:18, 70:19,	196:20	25:18	network
70:22, 70:24,	multiplayer	nature	149:4, 193:2,
72:12, 73:4,	82:2	6:16, 18:23,	193:11, 193:12,
73:6, 73:8,	multiplayers	191:4, 268:2	215:11, 241:2,
73:9, 80:1,	30:11	nd	243:11, 245:6,
80:3, 80:5,	multiple	40:24, 41:22,	278:10
80:6, 82:10,	54:14, 70:1,	42:8, 42:9,	never
156:19	83:2, 84:4,	90:12, 90:24,	17:18, 92:18,
mouse	136:10, 165:25,	125:3	92:21, 133:6,
126:14, 126:20,	166:2, 168:9,	nearly	177:5, 247:22,
126:24, 127:2,	169:4, 171:15,	90:25	251:11
127:21, 127:24,	172:25, 173:3,	necessarily	new
234:10, 235:2,	173:4, 279:17,	30:1, 32:2,	15:8, 54:19,
235:6, 237:8	281:25	37:2, 41:15,	266:25, 270:14
move	museum	44:18, 45:3,	next
32:6, 37:23,	97:9, 98:14,	50:21, 68:20,	58:9, 66:7,
54:17, 58:5,	121:9	72:18, 73:20,	74:23, 80:20,
117:13, 134:4,	must	110:11, 172:13,	80:21, 89:6,
139:13, 140:13,	23:25, 70:2,	189:4, 189:12,	89:17, 106:19,
158:4, 160:4,	84:25, 149:24,	196:3, 251:18,	107:2, 126:13,
182:25, 183:14,	150:2, 283:5,	260:6, 260:21	128:18, 129:12,
183:15, 197:19,	284:2, 284:3,	necessary	146:7, 147:21,
197:22, 213:6,	284:4	43:10, 110:5,	147:22, 161:6,
213:18, 230:13,	muted	146:1, 281:13,	178:3, 189:16,
232:12, 264:19	102:4	283:6	208:15, 254:11,
moved	myself	need	257:17
246:21	48:14	8:1, 8:21,	nice
			20:16, 35:19,

111:7, 118:14, 189:24 nickelodeon 27:13 nine 11:21 ninety 35:11 nit-pick 79:22 noise 146:19, 146:20 noisy 146:19 nomenclature 51:13 non 211:25 non-infringement 281:6, 282:1, 282:2 non-patentability 152:1 none 20:25, 22:24 nonobvious 84:25 nonpatent 55:23, 56:3, 59:25 nontechnical 133:4 normally 33:21 notary 288:6 notation 56:21, 57:3 note 19:13, 27:22, 88:20, 97:7, 102:7, 106:4, 146:25, 194:2, 195:23 notebook 213:5 noted 15:12, 216:16	nothing 33:10, 40:3, 91:14, 159:4, 200:22, 202:13 notice 14:16, 52:17, 145:19 noticed 138:20 notices 118:2, 279:11, 285:18 notifications 176:16 noun 120:19, 121:1 npl 56:2, 57:7 npl2 60:1, 60:5, 61:3, 61:18 npl3 60:1, 60:6, 61:4 npl4 60:12, 60:14, 61:6, 61:8, 61:16, 61:18 nps 59:1 npsnet 58:23, 60:10, 62:17, 62:21 number 5:7, 7:22, 10:18, 12:7, 16:19, 19:25, 26:1, 40:14, 41:6, 41:23, 49:11, 53:7, 55:18, 56:1, 56:3, 78:13, 121:16, 126:24, 186:15, 193:2, 193:7, 212:8, 268:3 numbered 68:6	numbers 49:18, 49:19, 49:21, 49:25, 50:7, 55:14, 57:24, 58:1, 143:15, 143:16, 243:20 numeral 194:10, 256:13 O o 181:16, 181:17 o'clock 231:22 oath 8:3, 8:6 object 65:17, 281:9 object-oriented 136:19, 136:21, 136:23, 137:3, 137:6 objecting 279:3, 283:4, 283:21, 283:22 objection 46:20, 53:9, 55:7, 63:3, 66:13, 67:2, 68:1, 68:7, 69:10, 69:16, 71:25, 72:6, 72:22, 74:5, 76:11, 77:14, 77:25, 78:18, 79:14, 81:13, 82:12, 83:9, 84:17, 85:23, 86:10, 87:14, 88:6, 95:6, 95:8, 100:3, 100:17, 102:22, 105:20, 107:5, 108:7, 109:14, 110:7, 111:1, 112:2, 115:23, 116:13, 120:10,	120:20, 122:1, 122:18, 122:25, 124:11, 125:22, 128:8, 131:4, 137:17, 140:4, 150:11, 150:17, 151:4, 155:8, 155:25, 157:13, 157:24, 158:12, 158:24, 159:7, 159:22, 166:5, 166:13, 168:3, 169:9, 170:21, 171:5, 182:7, 183:7, 184:15, 186:4, 188:5, 192:25, 200:13, 207:5, 212:24, 215:1, 219:19, 222:20, 223:23, 226:7, 228:7, 231:16, 235:10, 236:9, 238:19, 242:15, 243:15, 248:5, 248:23, 250:24, 251:9, 253:21, 254:3, 261:3, 262:11, 263:25, 264:12, 265:22, 269:2, 269:8, 269:21, 270:3, 273:23, 276:3, 276:9, 278:16, 279:4, 283:23 objections 281:22, 282:15 objective 84:24, 85:3 objects 109:4, 109:5, 136:25, 167:22, 167:23, 168:14, 168:15, 168:19, 168:20 obscure 251:10, 251:13, 251:15
---	---	---	---

Transcript of David Crane
Conducted on February 26, 2024

111

obtain 175:8, 234:25, 261:10, 261:15, 262:2, 283:6, 283:8 obvious 30:5, 70:1, 72:3, 74:15, 74:16, 74:22, 74:24, 76:22, 76:25, 78:4, 78:9, 78:11, 80:16, 80:19, 80:25, 81:12, 85:8, 123:7, 148:17, 152:5, 155:14, 155:24, 156:7, 158:2, 165:13, 165:20, 165:22, 166:10, 167:1, 167:4, 182:15, 183:6, 183:10, 183:23, 184:3, 184:13, 213:10, 214:15, 245:19, 246:25, 247:6, 247:12, 248:11 obviously 100:20, 111:10, 111:12, 112:7, 192:17, 193:21, 214:5 obviousness 67:15, 68:16, 68:17, 68:18, 69:4, 71:22, 71:23, 154:23, 155:17, 159:14, 159:17, 280:5 occasionally 17:23 occur 130:7, 222:1, 228:17, 255:9, 255:12 occurred 187:15, 188:17,	287:14 occurring 223:12, 230:20, 233:15 occurs 222:22, 255:16 october 200:7 offer 118:20 offering 235:25 offerings 229:21 offhand 35:9, 48:17, 182:8 office 1:1, 2:1, 5:7, 39:24, 41:6, 44:15, 51:13, 55:6, 55:24, 56:11, 57:25 offices 287:14 offline 274:11 often 8:23, 11:11, 63:8, 67:19, 81:3, 136:24, 197:16 oh 26:14, 26:18, 31:12, 31:13, 31:14, 37:16, 42:4, 49:12, 53:2, 58:5, 58:25, 62:2, 64:23, 72:23, 73:2, 82:1, 99:24, 104:5, 121:16, 143:19, 153:11, 170:14, 200:2, 216:22, 238:10, 239:19, 239:21, 255:6, 265:7	oklahoma 3:14 old 91:4 once 19:5, 141:7, 152:11, 197:19, 198:16, 208:23, 226:1, 227:4, 256:13 online 5:25, 6:3, 11:5, 11:17, 12:1, 21:4, 27:11, 28:4, 28:5, 28:11, 28:14, 28:22, 29:4, 29:24, 30:5, 30:22, 31:1, 48:13, 53:22, 54:7, 54:8, 54:13, 54:22, 55:4, 140:15, 140:20, 140:25, 141:9, 141:21, 141:23, 141:24, 142:2, 142:15, 146:24, 147:4, 147:11, 149:9, 150:19, 187:17, 197:8, 197:9, 197:10, 198:2, 229:21, 230:3, 230:4, 230:6, 230:7, 230:10, 271:2, 271:3, 271:10, 271:12, 271:14, 276:1, 276:6 only 37:3, 46:21, 51:23, 61:21, 74:18, 98:24, 107:14, 123:6, 124:3, 144:21, 144:24, 145:9, 145:18, 146:8, 146:25, 150:4,	167:13, 173:11, 176:12, 176:22, 182:5, 200:11, 200:14, 201:3, 208:2, 219:13, 263:4, 272:17, 273:14, 274:25, 280:4, 282:3, 282:5 onward 210:13, 257:3 open 94:19, 196:15, 272:16, 273:4, 281:17, 281:19 opened 51:1, 257:20 operate 147:7 operated 148:6, 148:23, 196:25, 197:3, 197:7 operates 106:14, 198:6 operating 126:8, 144:6, 203:10, 215:15, 217:22, 217:23, 240:12, 261:19 operation 208:17, 212:19 operational 222:1, 255:9, 255:12 opinion 66:4, 76:2, 85:21, 86:8, 89:7, 89:22, 89:25, 112:10, 114:23, 119:10, 119:24, 121:22, 125:13, 125:17, 125:21, 129:19, 129:21, 138:3, 152:10, 157:17, 160:14, 160:15, 162:21, 184:7,
---	--	---	---

Transcript of David Crane
Conducted on February 26, 2024

112

184:11, 184:22, 184:23, 192:7, 201:19, 201:20, 231:23, 242:13, 247:21, 250:3 opinions 14:4, 14:6, 43:15, 86:19, 89:11, 89:15, 89:17, 89:22, 90:5, 90:13, 91:8, 117:8, 118:20, 190:4, 191:18 opportunity 11:23 opposed 25:24, 196:14 opposite 159:24, 186:10, 186:13, 231:13 oppressing 285:11 order 6:21, 20:23, 32:12, 33:2, 33:5, 33:6, 33:7, 33:8, 35:4, 82:5, 108:8, 108:12, 113:25, 117:4, 128:25, 130:7, 143:4, 150:3, 175:8, 179:7, 213:5, 221:13, 233:18, 253:11, 256:9, 265:12, 269:9, 273:24 ordinarily 83:21, 84:19 ordinary 18:13, 18:16, 70:13, 71:4, 72:4, 74:7, 75:10, 76:6, 79:10, 79:18, 79:19, 82:18, 82:19, 85:17,	85:18, 88:13, 88:22, 88:25, 89:4, 89:12, 89:19, 90:3, 90:7, 90:18, 114:21, 120:2, 122:12, 123:22, 125:9, 125:14, 125:18, 125:25, 129:21, 133:25, 139:25, 148:14, 156:23, 157:15, 157:25, 163:1, 176:9, 179:25, 183:6, 188:19, 188:25, 201:20, 241:8, 249:13, 249:21, 250:8, 250:9, 250:10, 266:12 original 10:24, 11:16 originally 199:2 originating 189:10, 189:11 oscar 142:1 other 20:11, 26:7, 30:13, 37:6, 46:9, 47:3, 48:22, 54:18, 68:10, 68:24, 75:1, 80:6, 83:7, 83:20, 100:25, 103:24, 111:10, 119:22, 136:3, 136:6, 136:12, 137:1, 144:13, 145:14, 146:1, 147:5, 147:7, 161:2, 166:10, 169:24, 169:25, 170:10, 170:19, 172:20, 173:9, 173:12, 176:15, 184:25,	191:9, 195:7, 203:12, 218:22, 221:12, 236:1, 253:1, 260:2, 260:17, 273:1, 274:14, 275:5, 279:13, 280:7, 281:6 others 20:16, 30:20, 30:21, 54:13 otherwise 287:21 ourselves 281:2 out 21:17, 21:22, 22:18, 24:5, 25:11, 26:8, 26:11, 26:24, 32:7, 35:16, 37:20, 42:2, 42:7, 65:18, 85:25, 87:5, 91:24, 91:25, 101:6, 108:5, 126:4, 126:24, 128:22, 132:7, 139:22, 140:21, 141:6, 156:6, 156:9, 167:16, 179:5, 183:4, 187:21, 187:22, 191:11, 195:9, 199:2, 201:18, 202:7, 211:13, 211:20, 213:4, 213:5, 223:16, 244:25, 251:16, 261:22, 279:13 outcome 287:21 outlines 29:22 output 186:15, 219:9 outputs 106:9, 106:10,	106:15 outside 110:9, 114:23, 122:18, 122:25, 137:16, 137:22, 138:3, 138:8, 168:19 over 14:10, 15:8, 23:23, 27:1, 27:9, 40:7, 45:12, 70:1, 74:18, 76:25, 92:17, 92:18, 112:19, 113:1, 113:2, 113:18, 113:19, 114:2, 132:3, 144:2, 149:10, 152:5, 155:24, 183:23, 196:6, 203:13, 211:14, 213:10, 230:10, 233:16, 248:2, 252:11, 274:14, 278:10, 283:16, 285:20 overall 204:21, 204:22, 205:5 overlap 132:19 oversimplificati- on 34:19, 34:20 overview 134:4 overwhelmingly 28:20, 30:6, 251:22 own 52:1, 94:5, 94:11, 111:16, 120:8, 120:14, 268:15, 285:16 owner 1:11, 2:11, 3:11, 5:17, 5:20, 6:4,
--	---	--	---

Transcript of David Crane
Conducted on February 26, 2024

113

10:22, 12:24, 16:22	paraphrase 81:2, 114:19, 214:13, 246:24	parties 113:23, 287:18, 287:20	paula 142:1
P			pay 82:7, 142:8
p-a-t-r-i-c-k 7:13	paraphrasing 73:7, 114:17, 209:17	parts 101:1, 166:10, 183:11, 186:2, 186:5, 186:11	pc 5:20, 111:4, 126:14, 126:20, 127:2, 127:8, 127:20, 127:24, 128:11
p-i-s-a-n-i-c-h 47:25, 134:7	parent 41:9, 41:13	party 283:5, 287:11	pedantic 29:1, 29:5, 32:18
p-o-r-t 132:2	parlance 210:24	pass 282:12, 283:18	peer 62:16, 92:14, 93:11, 93:14, 94:2, 94:14, 94:15, 94:16, 95:4, 196:8
pad 126:15, 128:6	part 18:3, 18:5, 32:16, 39:23, 40:5, 40:6, 70:24, 71:1, 74:11, 78:24, 82:16, 85:21, 109:12, 139:6, 156:22, 164:22, 166:15, 169:24, 187:3, 228:10, 230:20, 241:2, 263:4, 270:6	passage 101:11	pen 23:11, 23:12
pages 16:16, 23:24, 46:12, 53:12, 60:18, 63:11, 115:11, 143:14, 143:22, 155:10, 174:4, 198:16, 220:9, 230:17, 275:14, 278:7	partial 19:23	passages 76:13	penalty 8:6
painful 239:3	partially 158:14	passed 229:1, 263:3, 283:14, 285:20	people 20:7, 22:18, 54:19, 79:17, 90:19, 91:20, 93:5, 93:22, 94:7, 94:18, 116:5, 120:3, 120:6, 120:16, 125:16, 131:20, 149:9, 149:13, 151:6, 195:7, 195:11
pal 149:17	particular 24:17, 30:8, 44:24, 62:13, 70:17, 76:18, 83:3, 91:8, 91:11, 92:15, 95:13, 97:9, 98:13, 122:8, 122:9, 123:24, 153:9, 156:5, 195:16, 202:18, 206:18, 212:13, 231:24, 261:18, 265:11, 268:8, 268:9, 268:11, 268:18, 268:21, 268:24, 268:25, 280:15, 282:5, 282:17	past 11:24, 14:12, 19:2, 32:15, 32:22, 32:23, 104:14, 122:11	percent 20:9, 21:1, 22:8, 28:18, 29:3, 29:5, 37:2, 158:17
palo 1:26, 2:28, 3:7, 5:13		paste 48:21	percentage 16:21, 16:23, 28:24
paper 22:15, 57:12, 95:1		patent's 284:21	perform 107:14, 109:19, 159:21, 219:10
para 66:24		patentee 120:8, 225:3, 225:11, 225:16	performed 77:1, 156:2,
paragraphs 45:9, 45:17, 45:18, 46:3, 46:6, 46:9, 46:17, 46:23, 47:3, 47:7, 65:1, 65:2, 79:23, 84:8, 86:22, 87:7, 87:13, 88:4, 191:24, 236:14, 238:13, 238:15, 238:21, 279:8		patenting 42:23	
paralegal 49:19	particularly 195:6	patents 10:2, 41:21, 51:17, 63:8, 123:8, 279:17, 279:20, 279:23, 280:6, 280:17, 280:18, 282:6, 284:23	
		patrick 3:28, 7:13, 239:13, 239:25	
		pattern 135:4	

Transcript of David Crane
Conducted on February 26, 2024

114

197:11 performing 210:24, 211:1, 278:1 performs 107:11, 107:15, 108:11 perhaps 35:11, 59:23, 68:12, 91:1 period 15:18, 26:22, 79:3, 98:16, 274:15, 281:13 perjury 8:6 persistent 272:3, 272:7, 272:10, 272:17, 272:19, 273:13, 273:16, 274:2, 274:13, 274:15, 274:23, 275:1 person 38:24, 71:3, 72:3, 74:7, 75:10, 75:23, 76:6, 79:10, 79:15, 79:19, 85:16, 85:17, 85:18, 88:21, 88:25, 89:4, 90:6, 90:18, 114:20, 120:1, 121:12, 121:14, 121:18, 121:19, 121:20, 122:12, 123:21, 125:9, 125:14, 125:18, 125:25, 129:21, 133:4, 133:24, 139:24, 148:14, 149:15, 156:23, 157:14, 163:1, 176:9, 188:19, 188:20, 188:25, 201:20, 241:8, 249:21, 250:8,	250:10, 266:11, 268:23 person's 75:20, 75:21 personal 21:1, 62:22, 81:22 personally 92:19 persons 79:18, 249:12 pertaining 121:9, 123:2 pertains 108:22 petition 4:20, 12:21, 15:5, 27:25, 37:24 petitioner 1:5, 2:5, 3:3, 5:22, 9:6, 12:6, 13:6, 270:17, 287:12 petitioner's 190:16, 191:15 petitioners 14:20, 44:4, 142:20, 192:9 petitions 10:21, 18:8, 279:6 phantasy 11:5, 11:17, 11:25, 48:13, 140:15, 140:19, 140:25, 141:9, 141:21, 141:22, 141:24, 142:2, 142:15, 146:24, 147:4, 147:11, 150:18, 187:17 phil 283:1 philip 5:21 phillip 3:8	phone 10:19, 105:8, 232:5 phones 105:14 photocopy 143:13 phrase 22:13, 35:1, 63:24, 65:20, 70:14, 99:21, 106:7, 109:11, 131:9, 157:22, 157:23, 188:10, 248:1 phrases 102:25 phrasing 182:24 physics 21:12 pick 54:17 picture 251:7 pictured 128:18, 137:4 pictures 105:22, 146:9, 251:13 piece 57:12, 74:13, 91:15, 94:25, 95:1, 134:7, 134:14, 270:15 pieces 11:6, 11:18 pioneer 24:2 pioneered 26:1 pisanich 47:24, 134:6, 134:17, 134:23, 134:24, 135:15, 135:18, 136:6, 136:18, 136:24, 137:5, 137:24,	152:6, 153:8, 153:14, 153:19, 155:4, 155:7, 155:9, 155:13, 155:24, 156:4, 156:13, 157:6, 157:11, 158:7, 158:21, 159:5, 159:9, 165:12, 165:17, 166:22, 167:21, 169:15, 170:5, 170:18, 171:2, 171:16, 171:22, 172:24, 173:8, 173:9, 173:19, 174:2, 174:12, 174:23, 174:25, 175:4, 176:6, 181:25, 182:6, 182:14 pit 266:6, 268:1 place 5:12, 22:10, 48:22, 100:20, 109:5, 135:11, 135:12, 156:5, 188:18, 249:3, 281:10 placed 279:3 places 168:2, 237:20, 257:21 plain 157:25, 179:25 plan 111:20 planet 5:11 plant 32:3 platform 104:19, 104:22 platforms 129:3, 129:25, 131:2, 131:11 play 28:7, 29:15,
---	---	---	--

Transcript of David Crane
Conducted on February 26, 2024

115

31:3, 34:5, 54:10, 82:7, 111:4, 118:3, 126:25, 127:4, 127:7, 128:25, 130:13, 132:12, 140:23, 142:6, 145:14, 145:17, 146:18, 147:22, 149:13, 149:24, 150:3, 171:23, 173:10, 173:11, 188:7, 198:12, 198:17, 198:24, 199:1, 199:18, 199:21, 200:11, 200:16, 201:2, 265:20, 269:1, 269:4, 269:7, 269:23, 269:25, 270:7, 270:9, 270:10 played 22:2, 54:4, 54:14, 125:16, 130:17, 141:1, 141:9, 141:21, 141:22, 146:4, 147:5, 147:12, 148:15, 160:10, 169:25, 170:19, 171:25 player 32:17, 33:17, 34:12, 34:17, 135:22, 138:13, 138:17, 144:14, 145:15, 146:4, 148:24, 163:22, 164:7, 171:23, 172:1, 182:1, 188:6, 188:9, 189:10, 200:10, 201:2, 236:24, 266:4, 266:22, 266:23, 267:8, 267:15, 267:21, 268:13, 269:17	player's 148:11, 149:23, 201:11 players 54:14, 82:3, 82:5, 82:6, 146:1, 230:7 playing 128:16, 128:18, 141:2, 145:25, 149:15, 149:16, 170:3, 172:15, 173:1, 187:19, 198:9, 198:14, 198:19, 201:9, 265:8, 268:14 please 5:14, 7:16, 8:9, 8:24, 25:9, 42:2, 43:6, 89:21, 100:7, 146:25, 180:10, 193:14, 199:13, 217:1, 252:14, 284:15 pleasure 23:25 plenty 175:4 plug 200:20 plug-in 194:22, 196:19, 197:25 plug-ins 197:20 plus 146:14 point 19:2, 20:4, 37:20, 42:2, 65:3, 65:18, 87:5, 87:22, 114:3, 119:5, 144:9, 156:9, 167:16, 179:5, 199:9, 281:16 pointed 85:25, 137:2	pointing 42:7, 156:6, 207:8 points 195:9 pops 167:10 port 132:2, 132:4, 132:20, 134:2, 169:11 ported 147:20 porting 132:2, 132:17, 168:11, 169:6 portion 98:24, 98:25, 148:3, 217:10, 217:12 portions 143:17, 217:10 posit 12:3 posita 70:2, 70:3, 74:17, 79:1, 79:13, 80:7, 82:21, 109:24, 110:4, 110:10, 118:24, 119:10, 119:15, 129:20, 152:7, 153:21, 154:7, 155:14, 156:7, 156:12, 160:7, 160:15, 174:7, 174:12, 180:4, 182:15, 183:24, 184:5, 184:11, 201:10, 213:11, 214:15, 216:16, 230:2, 246:25, 247:6, 247:12, 250:22 position 19:8, 279:9, 279:10, 280:10, 280:13, 281:8,	281:11 positions 281:6 possibilities 218:24 possible 88:3, 126:19, 127:6, 127:8, 127:19, 128:2, 128:3, 172:16, 188:11, 251:5 potentially 48:23, 48:24, 281:13 power 126:7 powerful 197:15 practice 283:3 practicing 243:3, 244:18 preamble 161:14, 161:16, 213:20, 214:2, 277:13, 277:15, 278:8 precautions 144:7 precedent 281:9 precise 271:19 predecessor 9:15 predefined 274:15 predetermined 188:4, 188:7 prediction 30:16 preferences 222:11 preferred 204:18, 208:8, 209:4, 223:22, 224:2, 224:4, 224:8, 224:10,
--	---	---	--

PLANET DEPOS
888.433.3767 | WWW.PLANETDEPOS.COM

Transcript of David Crane
Conducted on February 26, 2024

116

224:13, 225:1, 225:4, 225:12, 225:13, 252:22, 253:3, 253:13, 253:17, 253:18, 253:24, 254:2, 254:8, 254:9, 254:12, 254:13, 254:15, 254:17, 254:21, 254:24, 255:1 preliminaries 7:25 preliminary 10:22, 12:25 prepare 10:11 preprogrammed 139:18, 140:2, 140:8 present 3:25, 26:23, 100:13, 101:4, 104:14, 116:2, 225:1, 225:4, 225:8, 225:13, 225:17, 226:15, 233:5, 241:1, 243:4, 244:19, 252:23, 253:24, 254:17, 271:5, 271:6, 274:11 presentation 6:22 presented 135:21, 135:22 presumably 52:13, 53:21, 77:7, 77:8, 77:21, 169:19, 169:21, 170:25, 171:4, 175:6, 203:10 presume 52:25, 81:21, 84:15 presumed 66:3, 66:8,	66:9, 106:13, 171:11 presuming 77:16, 171:4 presumption 79:10, 105:3, 170:2 pretty 26:22, 108:14, 138:23, 273:8 previous 105:13, 134:13, 274:20 previously 13:6, 13:8, 13:9, 14:20, 15:1, 37:23, 142:20, 169:8, 176:5, 180:16, 191:12, 191:16, 192:9, 201:24, 270:16 primarily 132:23 primary 39:3, 39:4, 39:5, 39:11, 57:2, 91:2, 162:13, 162:25, 169:23, 176:14, 178:15, 178:18, 179:2, 179:21, 181:3, 181:8, 193:5, 214:1, 214:4, 214:9, 215:7, 215:9, 215:16, 216:8, 217:24, 230:18, 240:14, 241:1, 241:11, 278:10 principals 16:11 principles 25:23, 43:18, 191:8 print 53:10, 123:8 prior 9:22, 11:6,	11:18, 15:17, 18:3, 18:5, 29:2, 46:1, 67:12, 70:3, 70:11, 74:13, 74:18, 76:25, 77:21, 78:10, 78:16, 80:7, 80:17, 80:18, 82:11, 83:7, 83:21, 91:15, 95:24, 95:25, 99:5, 113:13, 125:2, 129:6, 134:4, 134:7, 134:9, 134:14, 134:17, 135:10, 139:8, 139:16, 140:16, 140:17, 141:10, 141:15, 141:17, 141:18, 141:19, 141:24, 153:12, 155:1, 155:20, 155:25, 158:2, 159:19, 167:19, 178:6, 182:19, 191:17, 198:19, 199:9, 199:23, 214:14, 223:23, 223:25, 226:17, 230:2, 246:24, 247:5, 247:25, 248:3, 270:15, 280:5 priority 40:9, 95:12, 128:12, 199:24, 200:3, 200:6, 230:2 private 265:18 privilege 10:14 privileged 11:20 probably 18:5, 30:5, 37:8, 53:17,	54:25, 62:10, 74:23, 87:3, 105:14, 113:21, 119:7, 130:11, 143:13, 143:20, 172:13, 172:14, 173:6, 177:7, 179:25, 204:24, 211:15, 259:4, 259:5, 259:7, 261:5, 271:17, 271:18, 271:21 problem 23:15, 92:22, 127:1 problems 70:10 procedure 279:16, 279:24 procedures 133:5 proceed 46:11, 282:14, 282:15 proceeding 13:21, 13:22, 190:12, 245:21, 280:4, 286:2 proceedings 6:14, 6:18, 6:19, 6:23, 13:10, 46:10, 46:12, 46:18, 123:6, 123:10, 239:24, 246:22, 279:12, 279:13, 279:16, 279:23, 279:25, 280:12, 282:2, 282:3 proceeds 222:6 process 90:14, 156:2, 222:1, 228:10, 253:3, 253:13, 254:2, 254:9, 256:13, 279:16 processed 187:25
--	---	---	---

Transcript of David Crane
Conducted on February 26, 2024

117

processing 126:7 producer 144:24 product 10:16, 17:25, 81:10, 81:12, 235:1 products 27:19, 81:7 professional 89:8, 89:16, 90:1, 90:4 professor 194:13, 194:17, 197:6 profile 222:12, 266:22, 266:24, 267:8, 267:15, 267:21, 268:15, 269:17, 269:18, 269:19, 269:22 profiles 193:6 program 129:4, 130:7, 133:7, 180:5, 196:21, 197:10, 201:11, 210:25, 211:1, 211:2, 220:18, 242:3 programmed 37:14, 147:9, 228:14 programmer 36:3, 177:3 programmers 176:25 programming 19:24, 20:9, 22:6, 22:9, 23:4, 23:5, 23:6, 23:7, 24:6, 28:21, 88:18, 130:6, 136:25, 147:15, 229:22	programs 128:20 prohibition 145:25 promote 249:24 promulgated 285:15 proof 92:14 prop 87:21 proper 91:20, 280:11 propose 282:10 proposition 87:12 propositions 87:7 proprietary 145:2, 145:3 prosecution 43:22, 44:3, 44:5, 44:7, 45:4, 47:18, 49:3, 49:8, 49:17, 55:12, 55:22, 56:8, 57:17, 59:11, 59:17, 191:11 prospective 89:12 prototype 54:25 provenance 11:13, 195:20 provide 9:2, 20:24, 86:19, 108:8, 122:3, 140:10, 171:12, 172:21, 233:18 provided 12:5, 43:12, 46:8, 46:10, 47:1, 47:7, 51:23, 100:19,	101:5, 118:23, 136:1, 141:17, 223:7, 225:23 provider 203:11, 203:16, 203:22, 203:24, 203:25, 204:1, 204:12, 205:1, 205:2, 205:6, 205:10, 205:12, 205:15, 205:16, 205:20, 206:19, 206:21, 206:24, 207:12, 207:17, 207:22, 208:11, 208:12, 208:18, 208:24, 208:25, 209:14, 211:7, 211:20, 211:24, 211:25, 212:1, 212:2, 212:3, 212:7, 212:8, 212:13, 212:21, 212:22, 225:22, 225:24, 225:25, 226:2, 226:4, 226:17, 227:1, 227:5, 227:6, 227:12, 227:14, 227:22, 228:4, 229:2, 229:20, 233:5, 233:7, 253:4, 255:20, 256:9, 256:17, 256:19, 256:21, 256:23, 257:7, 257:13, 257:23, 258:5, 258:7, 258:14, 258:18, 258:19, 258:22, 258:23, 258:24, 262:20, 262:24, 262:25, 263:1, 263:3, 263:12, 263:17, 263:23, 264:5, 264:9, 264:10 providers 236:2	provides 225:21 providing 43:8, 51:20, 160:20, 173:25, 177:11, 178:14 ps 48:3 pso 4:21, 48:4, 48:6, 48:9, 140:13, 140:14, 141:25, 142:2, 143:10, 143:11, 148:6, 148:11, 149:3, 149:4, 149:14, 149:23, 150:3, 183:17, 183:23, 184:2, 184:10, 186:21, 187:13, 188:16, 189:2 ptab 5:6, 10:21, 13:2, 279:16 ptab's 281:8 pto 38:14 public 288:6 publication 123:8, 134:5, 152:6 publications 19:22, 53:12, 282:6 publicly 93:19 publish 27:9, 129:3, 129:25 published 11:19, 19:23, 53:22, 91:19 publishing 26:2, 27:4, 131:2, 131:10,
--	--	--	--

Transcript of David Crane
Conducted on February 26, 2024

118

165:2, 165:9, 173:25 pull 213:4 pulling 97:21 purchasing 146:24 purely 121:10 purported 104:21, 105:1 purpose 30:7, 199:15 purposes 101:25, 108:20, 285:6 pursuant 283:2, 285:14 push 176:16 put 6:11, 19:8, 57:25, 92:17, 100:23, 102:8, 127:3, 143:24, 147:23, 163:11, 178:5, 179:1, 199:19, 200:22, 234:16, 244:3, 248:12, 266:17 putting 22:20, 101:13, 111:25, 194:13, 197:20 pwwoo@duanemorris 3:9 Q q-u-a-t-e-r-n-i-- o-n-s 58:25 qie 105:25, 106:5, 106:17, 106:25, 107:1, 107:3, 107:8, 107:24, 108:6, 108:11,	110:10, 110:16, 111:14, 112:14, 112:22, 113:15, 114:9, 114:17, 114:18, 114:19, 116:16, 118:23, 118:24, 133:22, 162:9, 169:16, 174:19, 174:22 qualified 24:10 qualify 17:25, 261:8 quantum 1:9, 2:9, 3:28, 3:29, 5:5, 5:17, 5:19, 6:5, 9:7, 9:18, 18:9, 19:11, 106:4, 106:5, 111:16, 167:14, 239:22 quater 58:24 quaternions 58:25 queries 135:2 question 8:12, 8:13, 8:17, 10:17, 21:14, 27:19, 30:25, 31:17, 32:19, 33:1, 34:8, 37:9, 42:6, 45:14, 45:19, 56:12, 65:16, 65:19, 66:7, 72:17, 72:24, 73:3, 73:11, 74:23, 75:17, 76:13, 77:17, 78:21, 86:5, 87:21, 100:5, 101:8, 103:16, 104:4, 116:18, 127:6, 127:19, 127:21, 127:23, 128:4,	129:12, 130:11, 131:6, 131:24, 136:20, 138:4, 149:3, 150:25, 161:6, 163:5, 166:7, 166:16, 166:23, 167:10, 170:23, 176:6, 181:6, 184:9, 188:15, 189:9, 199:17, 224:8, 229:15, 233:19, 238:1, 241:23, 242:16, 249:2, 253:11, 254:4, 254:11, 254:15, 254:23, 257:24, 260:7, 260:10, 260:23, 260:24, 262:15, 263:5, 263:14, 264:8, 267:16, 269:10, 273:25 questions 6:15, 8:8, 31:7, 65:6, 72:7, 75:17, 277:6, 282:11, 283:13 quick 31:7, 140:13, 239:18, 240:7, 275:6 quicker 183:15 quickly 59:7, 224:17 quiet 106:1 quotation 237:17 quote 12:13, 48:6, 96:19, 97:8, 97:13, 98:3, 98:4, 98:8, 98:15, 98:21, 98:23, 98:25,	99:1, 99:22, 99:24, 100:1, 100:11, 100:12, 100:15, 101:6, 101:9, 101:11, 101:17, 102:3, 102:8, 106:21, 107:4, 107:7, 107:15, 108:1, 108:4, 108:6, 108:10, 139:1, 141:25, 148:4, 177:5, 195:1, 202:10, 223:8, 235:4, 249:4 quoted 98:24, 237:9 R r-o-b-l 6:3 racing 136:7, 170:9, 170:12, 171:24, 172:3, 172:4, 172:5, 172:6, 172:11, 173:16, 266:3, 266:10, 266:13, 267:24, 270:12 radio 229:22 rafatijo 3:29, 239:13, 240:1 ran 51:2 randomly 51:1 range 125:5, 153:23, 172:22, 218:23 ranging 279:7 rapidly 146:7 rare 195:16
--	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

119

rate 18:13, 18:20, 18:21, 18:25, 19:1, 146:6 rates 19:3, 19:4 rather 50:4, 171:3, 189:10, 203:4 razor 200:5 rd 190:25 re-ask 166:7 re-cross 6:24 reach 211:13 reaching 211:20, 226:17 read 20:22, 28:8, 28:9, 29:19, 43:6, 43:9, 43:14, 43:25, 44:10, 76:12, 79:11, 80:12, 97:4, 99:6, 103:5, 108:4, 108:7, 140:21, 140:22, 150:8, 150:9, 150:14, 180:13, 207:25, 221:11, 244:24, 253:10, 269:9, 273:5, 273:24 reader 74:22, 74:24, 124:6 reading 7:20, 34:9, 42:22, 114:21, 116:14, 150:6, 157:15, 178:13, 227:19, 227:24, 229:17, 259:13 ready 117:12	real 32:2, 92:13, 103:9, 103:13, 103:19, 103:23, 103:25, 104:8, 113:2, 119:19, 135:4, 135:5, 140:13, 173:17, 177:17, 177:18, 275:6, 277:25 real-time 96:20, 102:13, 102:15, 102:18, 104:2, 104:10, 104:13, 135:12, 174:19, 174:24, 175:1, 176:7, 176:19, 176:22, 176:23, 177:12, 177:16, 177:18, 178:1 real-world 101:5, 102:16, 102:18, 102:20, 103:24, 104:3, 104:6, 104:7, 125:6, 135:2, 135:3, 135:5, 136:11, 153:23 reality 33:16, 34:11, 36:21, 125:3, 125:4, 229:22 really 15:15, 34:3, 52:7, 129:10, 165:3, 184:18, 239:17, 254:23, 260:23 realm 33:13, 35:1, 35:3, 36:21 reason 9:2, 24:21, 50:25, 57:5, 65:25, 70:2, 70:14, 70:17, 80:1, 80:3,	87:3, 103:22, 123:24, 146:2, 167:8, 180:9, 247:4, 247:11, 248:1, 249:2, 260:1, 260:25 reasons 186:18, 247:22 recall 9:8, 9:11, 19:6, 33:10, 35:21, 35:25, 36:10, 69:17, 87:24, 123:1, 156:4, 171:15, 193:19 recalling 49:5 receipt 187:14 receive 173:21, 176:18, 187:24, 188:20 received 66:15, 66:18, 160:8, 174:8, 187:8, 188:14, 189:6, 227:21 receives 114:10, 205:6, 210:18, 226:2, 227:5, 241:13 receiving 215:7, 226:25 recently 8:22, 246:9 recess 23:18, 64:9, 117:21, 175:20, 189:21, 239:12, 282:23, 284:18 recipient 187:10, 187:24, 189:3, 189:4, 189:13 recitation 86:23 recognize 13:13, 14:25,	38:3, 56:15, 66:3, 119:11, 143:2, 214:19 recognized 153:21, 201:10, 201:21, 216:17 recollection 36:8, 91:12, 91:23, 102:24, 179:6, 196:12, 206:6, 206:7 record 6:12, 7:10, 23:11, 23:13, 23:16, 23:20, 43:6, 43:7, 43:14, 50:10, 64:6, 64:7, 64:10, 96:5, 96:7, 96:9, 96:10, 108:5, 113:4, 113:7, 113:9, 113:10, 117:16, 117:20, 117:23, 117:24, 118:9, 123:5, 127:10, 127:12, 127:14, 127:15, 143:18, 155:11, 175:17, 175:19, 175:21, 180:12, 189:15, 189:19, 189:22, 239:7, 239:10, 239:14, 239:19, 239:22, 240:1, 240:17, 278:22, 279:4, 282:22, 282:24, 284:1, 284:14, 284:15, 284:17, 284:19, 286:1, 287:9 records 19:14, 193:7 recruited 25:11 red 162:6, 215:20
--	--	--	---

Transcript of David Crane
Conducted on February 26, 2024

120

redirect 6:24, 236:24, 282:7, 282:10, 283:11, 284:6, 285:1 redirecting 230:16, 231:2, 231:6, 233:11, 233:12, 282:16 redirection 230:18, 230:20, 232:13, 233:15, 233:23, 234:1 refamiliarize 143:4 refer 12:13, 49:20, 65:22, 68:5, 68:12, 70:9, 77:13, 77:16, 131:11, 131:13, 131:15, 137:12, 162:17, 163:6, 163:10, 164:9, 164:24, 175:10, 191:16, 202:21, 203:3 reference 12:6, 50:4, 52:24, 53:16, 53:19, 55:6, 56:4, 56:7, 58:9, 58:14, 58:23, 60:14, 60:15, 61:8, 61:11, 70:3, 83:7, 83:21, 85:18, 94:9, 94:11, 95:25, 97:14, 97:22, 99:17, 99:20, 100:9, 134:9, 140:16, 141:24, 183:4, 184:12, 194:2, 214:14, 249:3 referenced 4:17, 53:23,	60:1, 92:7, 98:22, 153:8, 184:3, 255:18, 255:19 references 51:14, 51:15, 51:22, 52:2, 52:16, 52:19, 53:4, 53:5, 53:8, 53:12, 55:16, 56:1, 56:22, 57:3, 58:12, 59:10, 60:2, 60:25, 61:13, 61:20, 61:22, 70:1, 70:4, 70:8, 70:20, 70:22, 71:2, 71:5, 79:2, 79:5, 80:7, 80:17, 80:18, 82:11, 95:25, 153:3, 153:7, 153:9, 153:14, 191:17 referencing 12:11, 13:11, 14:23, 38:1, 57:8, 142:24, 190:17, 192:12, 201:25, 270:19 referred 63:8, 67:19, 68:15, 111:22, 115:2, 131:1, 136:3, 137:13, 160:9, 210:9, 224:12, 224:13, 225:3, 225:11, 225:16, 259:21, 261:1, 261:5 referring 21:24, 36:5, 74:6, 82:20, 93:25, 99:16, 100:25, 101:20, 102:10, 108:21, 125:24, 133:22,	137:9, 139:1, 139:3, 157:16, 161:3, 163:14, 163:19, 164:6, 164:15, 164:19, 174:16, 174:21, 177:17, 177:20, 178:9, 180:2, 205:4, 228:22, 254:21, 257:5, 258:6, 267:4 refers 12:15, 59:22, 67:21, 156:23, 161:13, 161:15, 163:17, 164:10, 204:21, 246:9, 253:8, 254:6, 265:11 reflect 90:13, 91:23 refresh 41:9, 91:7, 179:18 refreshed 91:4, 91:11, 92:4 refuse 164:10 regard 17:22, 18:7, 48:19, 59:10, 91:8, 94:14, 118:24, 128:11, 190:5, 194:4, 216:2, 220:16, 231:14, 241:21, 242:23, 242:24, 243:9, 244:10, 245:4, 245:16, 246:7, 253:7, 254:3, 254:5, 254:25, 260:13, 262:15, 267:23, 273:20, 281:1 regarding 4:12, 126:13, 253:2, 280:24,	281:20 regardless 200:3 region 149:16 regional 185:22 regions 149:17, 151:7, 151:10, 185:17 register 256:9, 258:14 registered 256:8 registration 221:16, 222:12 regular 15:20 regularity 15:19 relate 6:15 related 39:12, 40:12, 40:21, 41:25, 44:15, 72:7, 81:16, 83:6, 83:18, 83:20, 191:14, 221:12, 231:21, 279:16, 279:17, 279:21, 279:22, 279:23, 284:24, 287:17 relates 155:10, 260:9 relating 123:20, 158:22 released 147:6 relevant 43:17, 79:2, 79:5, 134:15, 191:7 relied 43:16, 172:21, 191:17 relies 86:8, 246:16
---	---	--	---

Transcript of David Crane
Conducted on February 26, 2024

121

reluctant 210:8 rely 39:22, 93:23, 94:1 remember 103:9, 103:10, 141:2, 141:3, 155:1, 166:17, 193:17 remote 135:24 render 74:15, 168:19 rendered 155:14, 158:2, 165:12, 165:19, 165:22, 166:10, 167:1, 167:4, 182:14, 214:14, 245:19, 246:24, 247:5, 247:12, 248:11 rendering 126:6, 128:22, 130:22, 130:25, 131:8, 131:15, 131:16, 132:5, 132:14, 132:22, 133:1, 133:4, 147:18, 163:21, 164:11, 167:21, 169:3, 169:10 renders 184:3, 184:11 renowned 92:20 rental 145:20 repeat 38:24, 45:14, 65:6, 165:25, 166:2, 166:3, 180:10 repetitive 44:10 rephrase 46:15, 57:22,	65:19, 68:2, 73:2, 100:5, 109:17, 140:6, 155:5, 181:19 replacement 8:22 report 4:11, 134:8 reported 1:30 reporter 2:25, 6:7, 21:23, 22:2, 49:10, 49:11, 49:15, 110:1, 113:3, 142:22, 161:21, 277:8 reporter's 287:1 repository 59:1 represent 5:15, 38:20, 49:17 representation 45:24, 108:17, 108:18, 174:11 representative 105:18 represented 138:5, 165:5, 287:12 representing 5:11, 5:23, 6:4 represents 74:17, 87:18 reproduced 104:19, 138:6 reproduction 145:20 reprogrammed 139:10 request 172:2, 173:13, 174:18, 175:9, 176:11, 176:20, 177:25, 205:25, 209:5, 209:22,	210:20, 211:5, 211:23, 215:7, 241:13, 257:13, 257:18, 258:2, 258:5 requesting 176:7, 176:21 requests 174:24, 175:1, 176:4, 257:7 require 83:22, 84:20, 133:1 required 31:9, 31:19, 51:17, 51:21, 139:10, 139:19, 140:9 requires 167:13 research 18:19, 18:22 resident 232:18 resides 201:11 resolution 126:6, 147:16 resolve 94:24, 281:14 resources 92:5 respect 59:11, 123:8, 124:16, 180:18, 241:6, 281:23, 282:4, 282:8 respected 91:16 respondent 5:17, 5:19, 6:5, 9:6 response 12:25, 260:12 responses 10:22 responsible 19:24, 20:3,	22:5, 22:7, 28:21, 37:2 rest 20:23, 72:16 result 187:25, 264:23 resume 282:20 retail 108:19 retrieve 58:19 retrieved 274:13 revered 116:19 review 10:3, 12:19, 12:21, 57:17, 57:19, 62:16, 76:12, 92:16, 94:3, 102:25, 103:15, 113:25, 183:2, 269:13 reviewed 10:2, 10:18, 10:20, 10:23, 10:25, 12:24, 13:2, 43:21, 44:1, 47:15, 47:16, 47:17, 57:22, 62:6, 191:9 reviewer 93:11, 93:14 reviewers 92:14, 93:5, 94:14, 94:15, 94:16, 95:4, 196:8, 196:11 reviewing 46:1, 48:19, 103:12, 103:17, 103:18 revise 45:18 rewrite 147:14
--	--	---	--

Transcript of David Crane
Conducted on February 26, 2024

122

rewritten 147:19 rich 109:3 rides 21:19 ridiculous 111:9, 112:1, 112:5, 112:9 right 12:19, 15:9, 17:11, 25:10, 26:13, 32:7, 34:23, 37:22, 50:16, 55:19, 77:3, 80:15, 86:17, 101:6, 101:22, 106:20, 114:16, 115:11, 118:13, 138:9, 145:20, 146:23, 147:23, 148:25, 149:21, 151:25, 164:18, 181:23, 186:20, 192:6, 200:9, 204:10, 207:18, 213:22, 216:13, 220:2, 223:4, 225:12, 226:20, 231:7, 233:1, 233:3, 237:11, 238:13, 239:4, 239:17, 240:5, 242:19, 243:23, 245:23, 245:24, 252:19, 253:12, 254:8, 257:17, 266:6 right-hand 39:2, 42:11, 51:12, 52:6, 53:14, 53:15, 55:3, 58:5, 58:7, 58:11, 58:13, 60:3, 60:15, 61:9, 143:25, 146:23, 150:2	road 36:4, 36:9 robinson 4:25, 270:15, 270:22, 270:25, 271:6, 271:15, 271:24, 272:14, 277:7, 277:13, 278:18 robl 3:22, 6:3 robot 21:19 role 124:4 role-playing 149:5 roll 130:12 rom 144:21 roman 177:25 romanette 160:18, 165:17, 166:22, 173:24, 174:16, 177:10, 177:24, 178:12, 181:10, 194:10, 213:19, 215:4, 220:2, 220:3, 222:25, 230:13, 235:15, 264:20, 266:21, 277:15 room 19:9, 284:13 rotate 275:5 rotated 274:14 rough 34:10 roughly 22:10 rpg 149:4 rule 172:17	rules 281:8, 283:3, 285:14 ruling 283:6, 284:8 run 28:23, 30:9, 126:19, 127:20, 127:25, 128:6, 130:7, 229:10, 273:10 running 128:20, 130:14, 211:2, 220:18, 242:2, 276:18 runs 129:13 S s 25:16 said 12:25, 13:3, 14:10, 24:16, 31:13, 37:1, 42:21, 42:22, 43:13, 45:2, 45:17, 47:9, 49:4, 50:21, 51:1, 59:16, 75:18, 75:20, 77:15, 88:23, 92:20, 92:23, 97:7, 101:19, 103:16, 104:20, 105:22, 116:11, 121:10, 130:6, 141:10, 142:7, 150:14, 168:21, 168:23, 169:14, 173:1, 173:4, 174:21, 176:8, 177:1, 180:9, 180:18, 187:20, 191:2, 191:22, 197:9, 199:12, 206:5, 215:7, 215:9, 215:10, 215:16, 216:8, 217:21, 217:24, 220:9, 220:10, 220:11, 224:2, 224:7, 224:8, 226:20, 230:16, 230:17, 230:18, 230:19, 230:20, 235:17, 235:18, 236:24, 240:13, 246:1, 246:2, 246:8, 247:21, 248:9, 248:19, 249:15, 250:16, 250:21, 252:2, 260:16, 264:22, 266:22, 266:23, 267:3, 267:9, 267:17, 275:14, 275:15, 275:16, 276:10, 280:18 sakuta 11:15, 11:16, 11:24 same 6:15, 21:14, 35:22, 37:11, 40:1, 40:2, 60:1, 60:5, 60:7, 60:14, 60:19, 60:22, 61:8, 70:9, 72:18, 78:16, 87:3, 128:4, 129:25, 131:9, 131:13, 133:5, 133:6, 133:7, 133:8, 134:22, 135:12, 136:12, 157:4, 160:1, 166:4, 166:11, 172:2, 172:11, 173:14, 173:16, 180:6, 180:9, 180:15, 186:3, 186:6, 186:9, 186:17, 190:14, 191:24, 192:3,
--	--	---

Transcript of David Crane
Conducted on February 26, 2024

123

192:15, 192:17, 193:18, 193:23, 194:3, 198:4, 198:5, 198:7, 201:4, 201:5, 206:8, 207:12, 214:24, 216:9, 216:10, 237:21, 245:19, 246:12, 259:12, 259:22, 260:15, 279:22, 280:2, 280:19 sample 146:6, 146:15 san 27:14 save 167:9 saw 84:18 saying 20:2, 23:1, 44:17, 71:10, 91:24, 93:22, 101:2, 108:6, 114:20, 116:15, 153:13, 158:17, 165:16, 166:21, 179:17, 180:14, 216:11, 216:12, 262:13 says 21:5, 22:5, 28:3, 43:14, 61:22, 107:15, 115:16, 145:13, 146:23, 156:17, 158:6, 161:12, 170:5, 177:21, 180:2, 183:21, 188:19, 208:16, 212:6, 217:6, 224:24, 245:25, 246:23, 258:1, 259:8, 259:9, 266:13 sc 128:20	scan 143:6 scanned 146:5 scenarios 126:22, 128:2 schematic 104:17 school 24:5, 24:7, 24:10, 25:11, 97:10, 121:9 science 21:18, 35:16, 88:16, 133:9 scientific 43:18, 191:7 scope 70:11, 84:25, 122:18, 122:25 scratch 42:6, 236:13, 268:4 screen 32:7, 33:22, 105:8, 105:15, 126:6, 126:16, 128:7, 147:16 screenshots 93:9 script 211:25, 212:1 scroll 232:11 scrolling 232:9 sea 173:18 search 52:1 second 39:1, 40:10, 53:6, 56:2, 96:17, 115:12, 143:12, 144:9, 149:25, 153:1, 155:1, 155:18, 158:6, 159:17,	164:18, 171:23, 181:12, 181:17, 181:20, 181:22, 181:23, 181:25, 182:3, 182:4, 182:5, 193:17, 206:4, 284:10 secondary 162:16, 162:17, 162:25, 163:4, 163:6, 163:10, 163:16, 163:19, 163:23, 164:2, 178:14, 178:25, 179:21, 180:22, 180:24, 181:2, 181:6, 181:12, 193:4, 193:8, 214:9, 220:10, 230:17, 235:18, 241:3, 242:6, 275:15, 278:12, 278:15, 278:19 section 19:20, 19:21, 42:11, 45:22, 51:13, 65:21, 87:18, 99:15, 99:25, 103:1, 103:2, 112:22, 123:18, 124:2, 144:6, 145:6, 152:2, 152:8, 152:20, 160:20, 182:25, 183:17, 188:24, 194:6, 194:8, 194:10, 194:16, 213:9, 213:22, 213:23, 216:16, 220:21, 222:25, 224:21, 227:24, 235:13, 242:18, 245:24, 249:7, 251:25, 274:20 sections 67:4, 73:13, 192:17, 221:12	seeing 103:9, 103:10, 137:25, 266:20, 268:17, 281:12 seem 23:11, 260:23 seems 65:16, 75:10, 110:15, 251:4 seen 50:20, 54:4, 54:5, 80:22, 80:25, 120:16, 128:22, 134:13, 151:11, 152:11, 175:3, 177:7, 251:6, 251:10, 251:13, 251:15 sees 75:23 sega 111:6, 142:15, 144:10, 144:11, 144:23, 144:24, 145:2, 145:3, 145:6, 145:9, 145:17, 147:9, 147:13, 147:14, 148:2, 148:15, 149:20, 150:3, 150:18, 151:2, 151:5, 151:16, 151:18 select 54:18, 182:1, 186:22, 187:7, 187:20, 188:3, 188:9, 188:13, 189:5, 221:17, 234:10, 235:2, 235:6, 237:8 selected 188:6 selecting 188:11, 237:22, 237:25, 238:17 semi-naked 251:7
---	---	---	---

Transcript of David Crane
Conducted on February 26, 2024

124

semiconductor 24:13, 25:10 seminar 123:11 send 176:17, 176:19, 221:18 sending 174:18, 177:25, 255:20, 257:12, 258:4, 259:6 sends 209:14, 233:6, 257:6, 257:11, 258:1 sense 80:7, 80:11, 80:12, 80:14, 82:18, 82:19, 164:3, 271:5 sent 174:23, 187:4, 226:16, 227:21, 227:22, 229:2, 229:8, 259:7, 260:6, 260:22 sentence 17:13, 22:4, 28:3, 29:9, 29:11, 31:8, 43:25, 70:15, 70:16, 72:16, 73:8, 74:12, 75:13, 78:23, 78:24, 80:20, 80:21, 81:2, 82:20, 88:23, 89:6, 89:9, 89:17, 96:17, 98:6, 98:19, 98:22, 98:24, 101:22, 125:1, 126:13, 129:18, 133:21, 139:5, 139:6, 139:7, 139:12, 139:20, 145:11, 149:11, 153:1, 153:16,	156:22, 168:22, 169:22, 187:11, 201:8, 201:17, 217:4, 217:6, 222:3, 242:5, 245:10, 245:11, 247:8, 247:11, 274:10 sentences 69:24, 89:14, 89:20, 89:21, 90:2, 187:4 separate 214:5 separately 199:22, 200:5 series 65:5 serve 158:8, 278:6 served 104:22, 118:2, 169:19, 265:13, 279:10, 285:18 server 27:12, 28:6, 28:24, 29:14, 29:16, 29:17, 30:7, 30:16, 82:4, 135:2, 135:23, 135:24, 136:11, 137:15, 148:7, 148:12, 148:16, 148:17, 148:18, 148:21, 148:22, 160:8, 160:9, 160:11, 160:16, 160:17, 162:9, 169:15, 169:17, 172:21, 172:24, 172:25, 173:1, 173:16, 173:20, 173:21, 174:1, 174:9, 174:22, 174:23, 175:1, 175:8, 175:9, 176:4, 176:10, 176:11,	176:13, 197:12, 218:11, 230:8, 230:9, 256:21, 277:17, 277:19, 278:2, 278:3, 278:5, 278:6, 278:19 servers 29:23, 135:24, 136:2, 136:25, 175:5, 193:8, 218:25 serves 201:12 service 15:23, 16:2, 16:3, 235:2 services 15:23, 16:4, 237:1 serving 30:8, 202:8, 202:11, 219:21 set 29:24, 43:15, 86:20, 87:7, 87:13, 87:16, 91:8, 108:19, 176:16, 188:11, 189:15, 200:21, 217:9, 279:11, 280:3, 287:7, 288:1 sets 191:5 seven 118:1, 118:3, 278:24, 279:3, 279:15, 279:23, 280:10, 280:12, 281:7, 281:9, 281:12, 282:9, 283:16, 285:19, 285:20 several 106:23, 171:14 severely 109:22	sgk 15:23, 16:2, 16:3, 16:8 shadows 53:17, 54:2, 54:5, 56:3, 56:9, 57:8, 58:8 share 218:23, 275:23 sheet 55:25 sheridan 3:13 shockwave 194:22, 195:6, 196:18, 197:3, 197:7, 197:20, 198:7, 198:8, 198:10, 198:19, 198:23, 199:1, 199:12, 200:11, 200:14 shooter 131:19 short 59:9, 63:18, 73:21, 164:19 shortcut 55:18 shortcuts 22:24 shortened 101:13 shorter 7:24 shorthand 2:25, 12:18, 41:2, 48:6, 67:22, 68:5, 190:6 shorthanded 47:24 shorthanding 55:21, 68:24 should 6:2, 64:4, 70:9, 70:16, 116:19, 127:23,
---	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

125

137:24, 148:3, 152:11, 162:5, 166:1, 169:7, 173:6, 198:6, 198:8, 198:10, 214:23, 279:5, 280:14, 281:19 shouldn't 206:5 show 34:7, 93:7, 93:9, 138:6, 207:16, 211:25, 235:12, 260:11, 263:21 showed 52:23, 56:17, 112:18, 113:16 showing 135:19, 171:12, 192:24, 207:20, 255:15 shown 105:5, 105:17, 136:4, 136:19, 163:15, 204:19, 205:15, 206:23, 207:15, 208:9, 212:1, 212:3, 212:18, 213:1, 222:2, 236:7, 258:3, 258:18, 258:23, 258:24, 259:2, 260:9, 263:23, 264:10 shows 135:21, 148:16, 209:20, 233:4, 262:23, 263:10, 263:11, 263:16, 264:3 sic 11:8, 62:23, 139:2, 240:16, 240:25 side 28:24, 39:2, 39:10, 40:12,	42:11, 52:6, 53:15, 55:15, 143:25, 144:6, 145:5, 146:23, 150:2, 162:16 sign 14:1 signage 125:6 signature 13:23, 190:23, 190:24 signature-mig2k 288:3 signed 190:25 significance 41:5, 95:14, 160:25 significant 56:1, 75:24, 94:13, 108:1 signing 15:7 signs 223:9 similar 21:20, 21:21, 44:17, 54:13, 54:23, 56:17, 70:9, 119:7, 158:9, 192:18, 196:8, 232:7, 263:21, 267:25, 268:3, 279:20 similarities 159:24, 160:1 similarly 198:7, 199:16 simple 101:9, 150:25, 163:9, 237:4, 254:23 simplest 30:4, 32:4, 264:7 simply 87:19, 106:5,	109:20, 167:18, 189:9, 234:9, 235:2, 235:6, 250:5 simulated 153:22 simulating 32:6 simulation 32:1, 35:18, 58:24, 62:17, 135:5 simulations 21:16, 21:17 simulator 20:19, 21:5, 21:20, 21:21, 27:17, 58:14, 58:18, 60:6, 60:7, 62:3, 62:8, 123:25, 124:2, 124:7, 124:10, 124:14, 125:15, 128:16, 128:17, 129:13, 130:13, 130:16, 134:25, 135:9, 135:11, 153:22, 154:14, 165:7, 168:19, 170:10, 170:16 simulators 21:2, 21:3, 21:8, 21:9, 62:5, 125:4, 154:5, 154:15 simultaneous 283:24 simultaneously 173:11 since 7:25, 10:8, 45:25, 54:21, 57:1, 62:15, 68:15, 87:25, 100:25, 113:21, 175:15, 272:11 sine 286:2	single 33:22, 83:7, 83:21, 285:18 sins 277:24 sir 89:21, 124:17, 126:10, 146:11, 271:25 sit 36:10, 108:20, 151:12, 170:4, 210:6, 248:24 site 92:11, 92:13, 195:2 sitting 159:1, 216:4, 216:13, 238:24, 276:21 situation 121:13, 168:13, 282:17 six 33:12, 52:18 six-digit 49:23 six-level 104:18 size 126:6 skill 70:13, 71:4, 72:4, 74:7, 75:11, 76:6, 79:10, 79:16, 79:18, 79:19, 82:18, 82:19, 85:17, 85:18, 88:13, 88:25, 89:4, 90:3, 90:7, 90:18, 114:21, 120:2, 122:12, 123:22, 125:10, 125:14, 125:18, 125:25, 129:22, 133:25, 139:25, 148:14,
---	--	---	--

Transcript of David Crane
Conducted on February 26, 2024

126

156:24, 157:15, 163:1, 176:9, 183:6, 188:19, 189:1, 192:2, 201:21, 241:9, 249:13, 249:21, 250:8, 250:9, 250:11, 266:12 skilled 89:12, 89:19 skip 23:23 skyworks 27:6, 195:8 slight 12:5 slightly 16:25 slow 30:18 small 52:7 social 92:11, 92:13 soft 128:5 software 28:22, 96:23, 104:18, 104:22, 114:9, 126:20, 127:20, 127:23, 127:25, 128:5, 128:22, 129:13, 129:14, 129:16, 130:13, 130:16, 146:25, 147:4, 150:4, 150:19, 162:23, 163:3, 163:8, 178:23, 178:25, 179:1, 179:3, 180:5, 181:5, 185:23, 186:25, 187:3, 199:21, 200:4 sold 151:10, 199:21, 200:4 solve 70:9	some 10:19, 10:25, 11:11, 18:1, 19:2, 32:3, 48:22, 51:8, 54:16, 54:19, 57:11, 65:3, 65:8, 70:2, 70:21, 86:5, 94:6, 95:17, 95:22, 96:23, 106:11, 108:11, 110:16, 121:7, 126:24, 143:17, 154:15, 167:9, 181:5, 184:25, 185:1, 193:18, 199:9, 209:17, 249:17, 251:10, 251:22, 253:1 somebody 102:4, 195:9 somehow 108:24 someone 9:25, 80:23, 86:13, 97:4, 121:14, 187:19, 266:12 something 8:24, 21:17, 39:2, 50:22, 59:13, 72:17, 75:2, 75:3, 75:6, 75:10, 75:11, 80:13, 80:25, 87:4, 95:16, 109:1, 110:10, 114:22, 121:1, 127:3, 134:1, 157:12, 177:2, 200:19, 210:23, 211:18, 217:2, 231:20, 246:23, 249:16, 251:17, 256:7, 259:10, 259:11, 273:9, 275:1,	275:4, 277:21 sometime 9:8, 35:11 sometimes 88:12, 94:6, 151:23, 251:15 somewhat 195:22 somewhere 199:3, 232:20 son 200:23 sony 1:3, 2:3, 3:27, 5:5, 5:22, 6:1, 9:7, 12:22, 17:12, 17:13, 17:16, 17:18, 17:20, 17:22, 17:25, 18:1, 18:9, 19:11, 50:6, 53:22, 55:4 sony's 4:20, 18:3, 18:10, 37:24 sophia 142:1 sorry 23:14, 26:14, 31:12, 31:14, 51:11, 69:20, 73:2, 83:15, 139:14, 142:23, 181:17, 182:18, 182:20, 183:19, 205:17, 206:2, 210:14, 216:22, 217:5, 218:17, 221:7, 239:25, 240:11, 240:18, 252:20, 257:25, 271:25, 279:19 sort 54:16, 93:9, 123:21, 135:8, 154:16, 181:5 sorts 30:12	sounds 18:12, 44:17, 50:16 source 30:9 sources 173:22 spans 20:18 speak 11:23, 12:20, 17:4, 91:3 speakers 145:16, 283:24 speaks 100:3, 100:17, 102:22, 107:5, 108:9, 222:20, 226:7, 263:25 specially 144:20, 144:22 specific 35:8, 49:20, 71:12, 158:16, 172:22, 192:18, 247:25, 268:23 specifically 91:19, 123:7, 147:9, 151:12, 156:5, 157:16, 170:5, 174:3, 188:23, 194:16, 228:22, 234:9 specification 40:1, 40:2, 42:16, 63:9, 63:15, 106:17, 113:21, 121:7, 122:14, 122:21, 207:25, 208:7, 209:10, 210:3, 210:5, 212:15, 213:1, 219:6, 235:12, 263:2, 264:3 specifications 83:1, 120:16, 233:17
---	--	---	--

Transcript of David Crane
Conducted on February 26, 2024

127

specificity 71:17	standing 34:17, 72:6	86:18, 102:6, 106:3, 107:23, 115:6, 129:2, 136:17, 142:14, 148:5, 149:24, 153:1, 153:20, 156:11, 156:14, 157:6, 157:18, 165:11, 167:11, 167:20, 187:6, 196:17, 196:19, 216:15, 222:5, 222:6, 222:9, 227:9, 234:8, 236:23, 249:23, 266:3, 279:4, 287:3, 287:4	201:15, 222:7, 222:23, 229:24, 234:14, 234:16, 240:11, 242:9, 245:24, 247:20, 249:10, 250:1, 250:17, 251:20, 266:7
specified 24:19	stands 33:16, 34:11, 56:2, 91:10, 132:2, 218:10, 254:15	stated 100:24, 119:8, 166:18, 170:25, 174:3, 206:3, 254:17, 283:2, 285:16	statements 66:24
spell 7:9	staples 144:2	statement 13:19, 31:18, 44:21, 44:22, 45:1, 47:16, 50:13, 50:14, 50:22, 50:24, 51:6, 56:7, 59:22, 60:20, 69:24, 75:4, 89:2, 96:17, 98:8, 125:13, 133:24, 137:18, 137:20, 140:11, 142:10, 142:17, 144:15, 147:2, 148:10, 150:14, 150:15, 156:15, 156:23, 157:9, 158:5, 160:6, 160:12, 165:20, 165:24, 167:1, 167:6, 171:7, 174:14, 177:4, 184:14, 188:13, 201:7, 201:13,	states 1:1, 2:1, 5:6, 40:22, 78:8, 144:9, 145:8, 152:2, 173:13, 221:24, 222:1, 233:3, 240:24, 244:16, 255:8, 255:9, 255:12, 257:18, 261:9, 267:8, 270:25, 272:14
spelled 199:4	star 11:5, 11:25, 48:13, 52:7, 52:11, 52:20, 52:22, 58:9, 140:15, 140:20, 140:25, 141:9, 141:21, 141:22, 141:24, 142:2, 142:15, 146:24, 147:4, 147:11, 150:18, 187:17		static 92:11
spelling 21:25, 240:1	start 68:23, 91:13, 99:1, 118:18, 127:3, 141:25, 149:2, 192:6, 213:8, 221:3, 221:24, 222:5, 243:8, 256:12, 283:1, 283:13		stating 165:19, 166:25, 235:23
spend 143:3	started 24:15, 25:10, 117:25, 139:22, 168:21, 197:20		statistics 29:18
spending 111:18, 116:5	starting 64:16, 64:19, 64:22, 123:18, 180:3, 213:19, 248:13, 256:12		statutorily 66:9
spent 14:14, 19:10, 19:12, 19:15, 36:18	starts 126:4, 202:7, 243:2, 243:23, 256:14		statutory 105:2
spin-off 27:3	state 2:26, 5:14, 7:9, 19:22, 30:11, 45:6, 64:24, 73:5,		stay 227:11
spoke 174:6			stayed 26:3
spoken 91:21			staying 203:17
sponsored 154:16			steering 266:5, 268:2
sponsors 103:25			step 159:21, 255:15, 256:15, 256:19, 257:2, 257:6, 257:11, 258:1, 258:7, 258:11, 258:21, 259:9,
sponsorship 125:6			
sports 35:22			
sprite 147:17, 186:14			
sprites 186:15, 186:16, 197:22			
squeaky 7:21			
ss 287:3			
standard 24:24, 25:1, 71:16, 131:20, 135:9, 196:21, 279:15, 279:24			
standards 72:7, 73:15			

Transcript of David Crane
Conducted on February 26, 2024

128

259:17, 259:23, 260:14, 261:1, 261:9 stick 138:7 sticking 19:7 sticklers 91:22 still 26:23, 83:15, 283:14 stipulations 6:11 stop 43:24, 232:11, 266:6, 268:1 stopped 247:22 stopping 232:12, 232:14 storage 164:25 store 97:10, 121:9, 173:18 stored 222:11, 241:9 stories 91:4 storing 222:16 story 22:21 straighten 190:1 stretch 189:24, 239:2 strike 33:24, 34:24, 41:3, 42:18, 46:11, 53:3, 57:6, 58:5, 62:24, 67:18, 71:13, 79:23, 81:10, 83:19, 89:23, 98:20, 104:4, 112:24,	121:5, 134:3, 141:13, 145:23, 154:10, 156:10, 206:2, 216:23, 219:25, 229:13, 248:12, 248:14, 263:20, 268:5, 270:12 strongly 20:6 struck 57:8, 57:14 studied 125:16 stuff 36:22 subject 6:15, 68:16, 69:25, 70:4, 76:9, 76:17, 76:18, 77:4, 77:19, 77:21, 78:3, 78:10, 78:11, 85:1, 156:18, 157:4, 157:7, 157:18, 158:1, 158:2, 184:25, 279:14 subjective 119:23, 119:25, 120:5, 121:10 subjectivity 121:4 submitted 55:24, 56:10, 228:9 subset 282:5 subsidiaries 17:20 subsidiary 17:13 substantial 75:3, 75:7, 75:9 substantially 158:8, 158:11, 158:13, 158:19,	180:6, 180:8, 180:14, 180:15 subtitle 151:12 subtle 262:16 suggest 137:24 suggestion 80:1, 80:3 suggests 99:22, 100:10, 121:7, 170:4 suitable 243:3, 244:18 suite 2:28, 3:6, 5:12 suits 35:15 sum 183:11 summarize 26:21, 44:13, 59:6, 108:5, 108:10, 272:11 summarizing 26:20, 27:23, 129:6 summary 42:24, 102:21, 103:3, 103:4, 103:14, 103:19, 108:11, 108:16, 240:20 summation 152:10 supplement 51:8 supplemental 50:21, 50:23, 50:25, 51:3, 51:5, 59:21, 59:23, 60:19 supply 82:10 support 82:5, 88:19, 247:24	supported 140:2 supports 170:1, 213:2 suppose 17:25, 82:1, 186:13, 228:10, 228:15, 251:5 supposed 110:20, 188:1 sure 10:15, 15:13, 15:15, 20:22, 23:13, 25:1, 25:10, 34:2, 44:18, 45:15, 48:12, 48:13, 49:1, 50:20, 65:17, 72:8, 73:11, 113:6, 137:23, 138:23, 151:19, 165:20, 166:18, 167:2, 175:7, 175:16, 177:22, 179:23, 184:8, 184:19, 196:7, 207:6, 207:15, 210:7, 225:12, 226:13, 238:25, 245:15, 253:14, 254:10, 254:22, 256:2, 265:16 surrounding 76:13 susan 16:10 suspended 283:5, 284:2, 284:3, 284:4 switch 271:25 sworn 6:6, 7:4, 287:7 synchronized 29:15 synchronizing 30:10
---	--	--	---

Transcript of David Crane
Conducted on February 26, 2024

129

synonymous 249:15, 271:17 synopsis 42:15, 42:24, 43:7 system 25:20, 96:21, 96:22, 106:13, 126:8, 136:18, 137:21, 138:7, 139:1, 139:3, 144:12, 145:10, 145:18, 147:17, 147:18, 160:9, 160:16, 160:21, 161:12, 161:13, 161:15, 164:13, 164:20, 167:14, 169:17, 173:11, 174:2, 174:13, 178:15, 186:14, 187:7, 188:13, 189:5, 203:8, 204:19, 204:20, 204:22, 205:5, 208:9, 208:10, 209:25, 225:1, 225:4, 225:13, 252:22, 253:19, 253:24, 254:13, 254:17, 254:21, 255:1, 256:15, 272:14 systems 125:4, 126:8, 151:1, 158:7, 174:1	take 20:7, 20:15, 21:1, 37:7, 64:5, 90:5, 108:12, 109:3, 135:9, 192:8, 204:13, 216:24, 238:8, 239:1, 240:7, 242:4, 252:17, 266:6, 281:3, 283:8, 283:10, 283:19, 284:5, 284:6, 284:24, 285:7, 285:21, 285:22 taken 2:24, 99:11, 287:9 takes 238:11 taking 5:12, 8:23, 89:12, 89:18, 148:13, 236:18, 238:5, 281:5 talk 37:12, 81:1, 153:18, 154:13, 174:5, 175:6, 186:21, 194:21, 202:17, 217:20, 218:11, 220:23, 237:22, 254:22 talked 11:24, 49:3, 92:1, 105:2, 117:13, 118:22, 148:1, 185:5, 185:10, 197:8, 214:12, 237:15, 238:8, 242:18, 246:5, 252:25, 262:17, 264:16, 264:17, 271:4 talking 27:22, 28:19, 28:20, 69:1, 75:13, 79:25,	80:17, 83:17, 88:16, 97:20, 97:21, 102:2, 121:3, 130:9, 132:22, 138:21, 138:23, 153:10, 168:11, 170:15, 175:25, 179:12, 183:17, 235:8, 237:14, 238:22, 240:5, 240:6, 243:19, 246:16, 248:17, 253:14, 254:1, 254:10, 257:2, 261:17 talks 80:15, 82:22, 204:25, 209:19, 235:13, 237:7, 253:13, 254:8, 256:5, 263:2, 269:12, 273:12, 278:8 task 30:8 tasks 30:10, 197:16 taught 142:6, 154:5, 167:21, 169:15, 169:16, 172:24, 173:7, 174:23, 181:25, 182:6, 228:18 teach 174:2, 174:25, 176:7, 220:19 teaches 134:23, 134:24, 202:8, 215:15, 217:22, 223:6, 235:23, 236:21, 236:24, 240:12, 277:13 teaching 79:25, 80:3, 171:2, 237:19 teachings 156:13, 189:1	tech 21:18 technical 142:2, 147:18, 279:7 technique 80:23 techniques 133:6 technologies 25:17, 27:6, 195:8 technology 20:10, 24:8, 24:19, 24:20, 24:22, 25:4, 25:14, 54:21, 88:17, 130:22, 130:25, 131:8, 131:15, 131:16, 131:21, 131:24, 132:5, 132:14, 132:22, 133:1, 133:5, 167:22, 167:24, 168:1, 168:8, 168:10, 168:14, 168:17, 168:23, 168:24, 169:3, 169:6, 169:11 television 105:8, 105:12, 200:21 tell 45:3, 61:23, 91:3, 92:21, 105:16, 109:9, 110:19, 151:13, 159:1, 192:22 telling 111:20 tempted 94:6 ten 189:15, 282:19 ten-minute 239:1 tend 17:2, 19:4,
T table 16:14, 143:24, 152:16, 185:3, 185:5 tablet 105:9 tagged 217:6 tags 217:12, 219:9			

Transcript of David Crane
Conducted on February 26, 2024

130

92:19 tenet 120:15 tennis 32:14, 32:21 terms 6:15, 34:3, 65:8, 68:24, 84:16, 103:10, 120:14, 122:19, 123:2, 131:13, 157:25, 162:24, 209:17, 250:22, 280:21 terrain 21:11, 125:6, 135:3 terrible 185:8 test 67:14, 67:20, 67:23, 210:5 testers 141:5, 141:6 testified 7:5, 22:6, 32:21, 67:3, 86:21, 93:20, 95:3, 124:21, 124:23, 165:5, 166:12, 166:16, 169:8, 170:8, 171:17, 176:21, 178:19, 185:16, 223:17, 223:20, 224:9, 276:13 testifies 11:18 testifying 8:5, 18:21 testimony 6:14, 9:3, 28:17, 29:2, 34:4, 34:9, 47:6, 50:14, 59:9, 59:24, 65:1, 67:3, 84:9, 84:12,	90:10, 110:23, 112:3, 112:4, 112:8, 112:25, 113:13, 115:19, 115:24, 154:24, 155:21, 156:1, 159:4, 159:8, 159:20, 159:23, 166:6, 166:14, 168:4, 179:4, 180:12, 180:21, 184:2, 185:21, 190:4, 205:4, 206:4, 207:1, 214:23, 223:24, 223:25, 228:3, 238:20, 245:21, 248:7, 249:18, 253:21, 254:7, 260:22, 262:8, 267:23, 269:19, 280:23, 281:5, 281:20, 281:23, 282:8, 283:5, 283:25, 285:5, 287:10 testing 25:13, 141:6 text 189:2, 217:13, 217:14 th 38:9, 39:16, 58:20, 200:7, 288:2 thank 6:20, 7:1, 8:20, 9:1, 12:2, 12:18, 16:12, 20:14, 21:7, 22:1, 23:21, 27:15, 29:8, 31:5, 37:18, 37:21, 39:7, 42:7, 48:25, 49:15, 53:2, 55:2, 55:20, 57:16, 57:20,	63:25, 64:12, 76:8, 99:12, 114:4, 118:11, 123:11, 123:12, 138:12, 146:24, 154:21, 166:19, 172:18, 183:12, 202:24, 219:16, 222:25, 223:14, 229:5, 230:12, 240:2, 245:12, 246:19, 251:24, 277:9 thanks 245:23 theirs 25:17 thematic 38:12, 96:20, 98:13, 99:2, 114:12, 119:22, 119:24, 120:3, 120:18, 165:2, 167:24, 173:25, 177:13, 178:4, 178:6 theme 34:6, 35:18, 35:22, 121:12, 121:14, 121:18, 121:20, 172:4, 172:6, 172:8, 172:10, 172:11, 172:12, 267:24 themed 121:8 themes 121:7, 172:17 themselves 5:14, 65:6 therefore 110:18, 110:20 thing 35:22, 75:9, 93:10, 103:5, 109:21, 111:7, 111:13, 116:17, 124:3, 131:13,	135:8, 154:17, 216:9, 216:11, 237:21, 239:18, 265:19 things 6:16, 11:12, 18:22, 20:7, 23:8, 27:1, 30:12, 39:24, 52:11, 54:17, 54:18, 59:14, 72:3, 91:5, 94:6, 109:8, 120:4, 135:13, 141:3, 154:21, 163:7, 188:17, 191:3, 195:12, 195:14, 197:23, 197:24, 203:9, 212:18, 218:12, 238:8, 267:24, 267:25, 268:2, 277:25 think 8:22, 14:10, 14:18, 17:19, 18:5, 18:11, 19:20, 20:14, 21:15, 22:6, 32:20, 35:12, 35:13, 37:24, 38:21, 44:11, 49:21, 69:12, 71:6, 71:19, 72:16, 74:11, 74:21, 85:5, 86:4, 86:21, 88:2, 90:9, 93:18, 94:7, 95:22, 101:8, 109:11, 110:12, 110:14, 111:16, 113:22, 118:3, 122:20, 124:21, 130:6, 134:6, 136:9, 137:16, 140:15, 140:21, 142:7, 144:10,
--	--	---	---

Transcript of David Crane
Conducted on February 26, 2024

131

144:25, 152:14, 158:20, 170:9, 175:24, 176:3, 177:1, 184:24, 185:3, 185:17, 185:18, 186:20, 189:14, 194:8, 203:7, 207:8, 209:9, 212:15, 214:6, 214:10, 219:14, 221:1, 224:2, 224:3, 224:5, 224:12, 229:14, 232:7, 232:11, 234:2, 236:20, 237:14, 242:17, 252:13, 259:12, 260:7, 262:17, 268:1, 270:16, 283:3 thinking 30:17, 120:1, 186:14, 206:13 third 11:15, 53:6, 149:25 third-party 26:2 thought 86:2, 205:3, 247:18 thousands 36:19, 90:22 three 24:6, 28:2, 29:22, 29:25, 30:23, 33:12, 37:12, 40:13, 52:18, 55:17, 58:12, 59:10, 59:25, 66:21, 67:10, 67:24, 68:13, 68:20, 68:25, 69:23, 88:16, 188:17, 212:23, 221:14, 231:22, 257:20, 279:6, 279:13,	280:12 three-dimensional 32:2, 32:16 through 8:1, 11:4, 13:17, 25:9, 37:8, 44:2, 45:9, 45:17, 46:4, 46:7, 46:13, 46:17, 56:23, 57:9, 57:14, 59:8, 61:1, 61:4, 61:14, 61:16, 61:19, 62:16, 65:1, 84:8, 86:22, 86:23, 87:7, 87:13, 90:11, 97:22, 98:2, 98:20, 99:18, 99:23, 100:1, 100:9, 101:10, 118:20, 121:17, 122:12, 152:4, 154:3, 156:3, 162:3, 165:23, 181:12, 184:18, 184:19, 184:24, 188:24, 191:3, 191:24, 193:24, 204:4, 204:5, 205:22, 207:11, 207:13, 207:16, 217:1, 217:2, 217:3, 218:14, 218:20, 226:16, 226:20, 227:19, 234:15, 234:19, 234:22, 237:18, 242:12, 243:11, 243:21, 244:25, 245:6, 255:10, 256:22, 260:3, 260:18, 263:3, 264:4, 278:2 throughout 266:4	tied 30:17 timer 231:21 times 7:22, 64:25, 80:6, 91:6, 113:22, 113:23, 165:25, 166:2, 166:9, 168:9, 195:16, 231:22 title 38:14, 217:13 titles 19:23 toaster 111:11, 112:7 today 5:10, 7:25, 9:3, 10:12, 18:21, 26:25, 36:10, 88:5, 108:20, 118:2, 151:13, 159:1, 170:5, 248:24, 271:2, 281:11, 282:8 today's 5:8 together 218:22 tokens 278:1 told 63:7, 67:13, 87:19, 114:8 tomorrow 284:25, 285:8, 285:21, 285:23 took 98:23, 135:11, 155:11 top 40:11, 42:22, 51:12, 104:20, 135:17, 137:8, 142:14, 146:22, 160:19, 161:22,	165:1, 180:1, 226:11, 241:12, 242:22, 242:25, 244:13, 252:1, 253:2, 254:20, 255:6, 256:12, 266:2, 273:2 total 280:11, 281:3 touch 126:16, 128:6 towards 70:16, 115:12 trace 39:22 track 21:11, 29:17, 129:14, 195:11, 195:14, 212:8 trade 58:1 trademark 1:1, 2:1, 4:13, 5:7, 55:24, 56:10 traffic 135:4, 135:6, 135:25, 164:12, 173:17 train 35:18 transfers 208:25, 218:8 translate 110:15, 111:8, 114:22 translated 152:16, 187:9 translating 108:25 translator 115:2, 115:21, 116:1 transmit 108:13 transmitted 173:22 transpires 23:18, 64:9,
---	--	---	---

Transcript of David Crane
Conducted on February 26, 2024

132

117:21, 175:20, 189:21, 239:12, 282:23, 284:18 transported 234:11, 235:7 transposed 104:3 travel 18:19 treated 25:24, 27:6, 163:2 treatise 123:21, 124:1 treatment 81:20 trees 49:7 trial 1:2, 2:2, 283:3 trouble 116:8 trs 129:15, 130:18 true 13:15, 29:4, 29:7, 45:24, 49:6, 98:18, 100:15, 137:18, 137:20, 142:10, 165:23, 168:6, 174:14, 179:14, 184:19, 186:10, 186:13, 287:9 truevr 33:13, 33:15, 34:1, 35:1, 35:2, 35:3, 35:7, 35:19, 35:24, 36:5, 36:24 trumps 95:1 trust 90:21 truthful 9:3, 14:6 try 63:6, 80:16,	80:19, 80:25, 81:18, 87:4, 95:19, 251:16, 252:19, 272:11 trying 68:23, 75:5, 76:7, 80:22, 80:24, 81:6, 104:2, 110:17, 111:19, 116:6, 116:18, 132:7, 132:20, 136:9, 179:5, 195:11, 249:16 turn 57:21, 60:18, 118:16, 143:12, 148:25, 159:13, 193:14, 202:25, 213:8, 224:17, 240:15, 252:12, 253:1 turned 199:13 turning 192:21, 268:1, 269:19 turns 221:19 tv 105:11 tweak 127:2 twenty 84:7, 128:13, 206:1 two 16:11, 25:17, 25:21, 28:2, 30:23, 31:2, 33:12, 34:3, 37:12, 40:13, 44:12, 46:24, 52:18, 58:12, 69:23, 75:17, 81:15, 88:15, 89:14, 89:20, 90:2, 102:24,	106:24, 107:1, 115:11, 117:13, 120:3, 120:4, 143:22, 168:7, 208:3, 208:4, 228:6, 230:10, 234:24, 248:15, 264:4, 280:17 two-and-a-half 16:16, 53:12 two-thirds 224:20 type 52:7, 63:21, 92:10, 106:11, 116:12, 128:4, 131:21, 132:16, 172:2, 172:20, 173:13, 173:14, 188:10 types 102:7, 114:11, 115:14, 128:15, 130:24, 132:8, 132:9, 133:18, 279:25 typical 21:25, 127:8, 143:23, 145:19, 279:15, 280:1, 281:25 typically 33:19, 34:14, 63:11, 124:23, 148:22, 161:8, 197:10, 197:18, 202:17, 214:6, 231:8, 232:6 typo 37:18, 37:20, 138:21 typographical 14:16, 153:5 typos 152:12 U uh-huh 257:22	ultimate 250:19 unable 110:20 unauthorized 145:20 unclear 224:12 under 8:6, 19:21, 50:17, 52:17, 85:11, 123:7, 156:7, 194:10, 252:20 underneath 246:23 understand 8:3, 8:5, 8:8, 10:1, 12:14, 12:15, 12:22, 21:15, 28:1, 39:17, 41:13, 41:15, 44:7, 47:1, 47:2, 47:10, 56:6, 56:12, 61:19, 65:8, 66:8, 66:10, 69:3, 71:4, 72:12, 73:16, 74:13, 75:12, 76:22, 79:9, 80:13, 81:22, 85:17, 104:2, 109:24, 110:4, 112:19, 113:18, 114:4, 116:23, 118:7, 118:24, 119:4, 119:11, 120:2, 120:7, 120:24, 123:12, 135:18, 136:24, 148:20, 155:16, 156:21, 161:17, 179:4, 179:12, 189:1, 192:23, 204:23, 206:11, 206:25, 224:15, 231:12,
--	---	--	--

Transcript of David Crane
Conducted on February 26, 2024

133

250:11, 250:22, 266:12, 271:9, 279:2, 279:9, 281:7 understood 8:13, 49:2, 90:8, 110:10, 112:22, 112:23, 123:14, 159:16, 160:7, 160:16, 174:7, 223:21, 224:9, 248:9, 248:10 undertook 76:23 undue 284:23 unduly 284:22 unfortunate 281:10, 285:10, 285:12 unfortunately 49:7, 88:12 unhappy 200:23 united 1:1, 2:1, 5:6 universal 115:1, 115:20, 116:1 unless 50:21, 163:2, 164:3, 277:21 unlike 206:21 unmodified 127:8 unnecessary 284:22 unpatentability 123:17 unrelated 132:5, 132:6 unreliable 124:22 until 8:16, 15:15,	17:2, 26:3, 121:20, 199:18, 200:22 unwieldy 100:22 update 15:18 updated 15:15, 87:25, 252:3, 252:7, 252:10, 264:16 updates 15:10 upper 257:17 url 58:19, 62:9, 195:23, 211:15 use 6:13, 7:13, 21:23, 22:12, 30:22, 31:1, 33:12, 34:1, 36:18, 41:2, 62:15, 65:20, 65:25, 67:22, 68:4, 69:3, 69:7, 69:14, 70:14, 70:21, 73:12, 80:25, 82:16, 84:13, 84:14, 85:6, 85:8, 86:13, 87:1, 87:4, 92:5, 93:21, 93:22, 95:12, 96:25, 99:21, 102:20, 107:17, 112:9, 114:12, 115:7, 115:9, 116:17, 116:25, 120:17, 123:25, 124:23, 131:9, 131:24, 132:6, 144:11, 144:12, 145:6, 146:25, 150:4, 150:19, 151:12, 156:20,	157:21, 160:21, 161:12, 162:21, 169:21, 176:24, 180:7, 183:2, 190:6, 196:3, 198:15, 214:12, 218:6, 218:8, 218:24, 222:16, 222:17, 226:3, 234:9, 235:2, 235:6, 237:8, 242:8, 248:1, 248:6, 248:8, 254:11, 256:10, 257:4, 271:16 user 99:1, 101:5, 160:20, 161:7, 164:5, 164:7, 164:9, 164:15, 164:18, 165:10, 177:13, 178:8, 178:10, 178:11, 181:11, 181:12, 181:15, 181:18, 181:20, 181:22, 181:23, 182:3, 182:4, 182:5, 193:4, 202:19, 215:10, 228:2, 230:16, 230:20, 235:17, 237:8, 237:23, 237:25, 238:2, 238:5, 238:11, 238:16, 238:17, 238:22, 240:6, 241:14, 243:4, 243:10, 244:19, 245:5, 246:2, 246:10, 246:18, 248:19, 250:21, 264:22, 264:23, 265:2, 265:5, 265:8, 265:10, 265:11, 265:15, 265:16, 265:17, 265:20, 265:24, 266:4,	266:9, 266:22, 267:3, 267:4, 267:9, 267:14, 267:22, 267:24, 268:25, 269:4, 269:7, 269:14, 269:18, 270:1, 270:6, 272:15, 274:10 user's 237:1, 237:3, 244:8, 272:16, 273:14 users 93:4, 101:24, 218:23, 250:16, 272:17 uses 32:16, 38:14, 40:1, 133:5, 160:24, 161:3, 206:8, 212:7, 218:1, 222:10, 224:6 using 21:12, 28:16, 40:1, 58:24, 67:11, 96:21, 97:17, 124:1, 126:20, 127:20, 136:19, 137:6, 149:13, 158:10, 162:18, 167:25, 171:3, 179:6, 194:7, 194:17, 195:6, 218:9, 218:12, 218:13, 219:18, 223:6, 262:9, 271:5, 274:21, 281:13 usual 134:22 usually 54:14, 63:14, 161:4, 199:22 utility 270:25, 271:16, 271:22, 271:23
---	---	---	---

Transcript of David Crane
Conducted on February 26, 2024

134

utilized 126:8	187:5, 208:19 viacom 27:13 video 5:9, 5:11, 17:2, 24:1, 25:19, 25:20, 26:5, 26:21, 27:13, 90:16, 91:2, 109:2, 111:3, 119:9, 119:18, 123:23, 124:5, 131:17, 144:12, 145:6, 145:10, 145:17, 146:9, 156:14, 156:24, 157:19, 165:7, 176:18, 228:19, 228:20, 229:22 videographer 3:26, 5:3, 5:10, 23:16, 23:19, 26:15, 64:7, 64:10, 96:7, 96:10, 113:7, 113:10, 117:19, 117:22, 118:10, 127:12, 127:15, 175:18, 175:21, 189:19, 189:22, 239:6, 239:8, 239:10, 239:14, 276:25, 277:2, 278:23, 282:21, 282:24, 284:16, 284:19, 285:24 videotaped 1:25, 2:24, 5:4 view 21:20, 21:22, 132:13, 152:6, 182:15, 183:23, 184:5, 184:10, 213:11, 214:15, 282:9 viewed 212:9, 268:9,	268:11, 268:13, 268:18, 268:21, 269:12, 270:5, 274:16 viewing 268:24, 269:3, 272:16 vii 174:16, 177:24 violate 145:21 virtual 33:16, 34:11, 36:21, 38:12, 96:20, 97:7, 99:11, 99:23, 100:13, 100:24, 101:3, 101:17, 101:19, 101:23, 102:1, 114:12, 119:11, 119:14, 119:19, 125:3, 153:22, 167:23, 177:12, 178:3, 178:6, 229:22, 271:2 visited 18:2, 18:9, 199:8 visual 98:10 voice 5:14 vr 33:16, 33:19, 34:11, 34:14, 34:16, 34:21, 36:4, 36:5, 36:9, 36:14, 37:7 vs 1:7, 2:7	walking 90:11 want 6:11, 19:8, 22:18, 46:22, 49:16, 50:1, 64:15, 65:9, 82:7, 86:14, 117:14, 120:17, 130:12, 147:21, 147:22, 176:10, 177:2, 179:1, 180:12, 184:18, 185:12, 195:9, 198:11, 200:9, 225:12, 232:19, 238:24, 239:17, 239:19, 240:8, 262:5, 285:9 wanted 49:1, 103:1, 111:4, 115:18, 117:25, 147:11, 154:9, 259:13 warnings 143:23, 144:5 warrior 35:10, 35:13 warriors 35:14 waste 251:4 watched 141:9 watching 141:3, 269:25 wave 146:10 way 18:1, 19:17, 33:20, 33:23, 44:11, 44:18, 63:6, 67:17, 67:25, 83:3, 91:8, 91:11, 132:15, 154:22, 157:21, 159:2, 161:2, 170:23,
v 161:3 valid 66:3, 66:9, 247:17, 247:18 validity 105:3 valuable 141:4, 268:16 variables 30:10 varies 63:13 variety 149:9, 180:5 various 186:18, 203:9 vcs 25:20 vehicle 21:10, 21:13 version 7:25, 16:15, 54:4, 129:11, 130:1, 133:2, 147:20, 149:16, 149:17, 149:18, 149:19, 151:5, 186:16, 186:17 versions 132:1, 132:21, 149:20, 151:2 versus 5:5, 25:4, 34:1, 34:5, 73:9, 75:2 vessel 200:19 vi 235:15 via 11:22, 109:5, 174:19, 177:13, 178:8, 178:11,			
	W		
	wait 8:16, 210:15 waiting 72:24, 200:19		

Transcript of David Crane
Conducted on February 26, 2024

135

176:12, 176:14, 176:22, 177:2, 178:22, 207:12, 218:11, 224:20, 242:17, 243:17, 248:9, 248:12, 264:7, 269:16, 287:20 ways 94:24, 120:6, 176:15, 176:24, 176:25, 177:3, 177:5, 180:5, 187:18, 236:18 we'll 10:5, 26:13, 44:19, 58:8, 105:12, 141:25, 160:4, 175:7, 262:16 we're 6:22, 7:24, 23:16, 42:23, 68:25, 70:11, 75:13, 79:25, 81:6, 105:25, 113:7, 117:13, 117:19, 130:9, 133:8, 137:25, 147:24, 175:18, 177:17, 180:2, 183:16, 183:17, 189:19, 189:22, 203:2 we've 12:20, 64:2, 64:25, 118:20, 118:22, 130:5, 170:15, 184:11, 197:8 wealth 280:7 weapons 54:18, 54:20 wear 35:16 weather 35:23, 135:3,	135:13, 136:1, 172:2 weathered 26:6 web 174:20, 193:4, 194:7, 194:18, 196:21, 197:17, 197:18, 197:21, 197:25, 198:11, 198:12, 198:25, 199:14, 215:20, 216:17, 217:24, 218:1, 218:5, 218:7, 218:13, 218:19, 218:21, 219:14, 219:21, 220:9, 230:17, 231:8, 232:1, 235:23, 240:14, 242:6, 243:12, 245:7, 275:14, 278:5, 278:6, 278:7 web-browser-based 198:2 website 91:16, 92:7, 92:10, 93:2, 97:9, 98:14, 195:4, 199:9, 234:12, 235:8, 236:25, 243:12 websites 11:14, 104:1 week 11:24, 14:12, 141:7, 171:19 welcome 64:12 well-known 125:20 went 25:19, 44:2, 59:8, 91:5, 113:17, 154:3, 169:2 weren't 142:13	whatever 20:23, 25:15, 32:3, 111:6, 120:17, 151:24, 176:17, 247:1, 247:23, 273:10 wheel 25:25 whenever 62:14 whereby 253:4 wherein 226:15, 233:5, 246:1, 252:2 whereof 288:1 whereupon 6:6 whether 45:23, 56:12, 75:15, 76:24, 86:1, 87:17, 98:13, 99:2, 103:13, 155:23, 183:5, 185:1, 224:12, 242:13, 253:8, 254:6, 254:20, 256:7, 258:8, 258:12, 261:10, 262:2 whiteboard 105:9, 105:22 whole 20:22, 22:25, 76:10, 76:17, 76:18, 78:3, 78:11, 105:19, 105:21, 130:9, 164:13, 183:3, 183:5, 183:10, 280:6 wide 125:5, 153:23 widely 218:22 wiki 195:24, 196:2	wikipedia 58:18, 60:8, 62:8, 62:10, 62:15, 93:21, 94:5, 94:11, 94:15, 94:17, 124:19, 124:21, 196:10, 196:14 window 21:22, 128:22, 272:4, 272:7, 272:10, 272:16, 272:17, 272:20, 273:4, 273:13, 273:17, 274:2, 274:13, 274:16, 274:22, 274:23, 275:1, 285:2 wired 263:8 wishes 234:25 withdraw 78:20 within 16:13, 114:12, 138:16, 161:18, 163:7, 164:3, 165:4, 171:2, 177:12, 178:3, 178:15, 178:18, 178:20, 179:2, 179:21, 181:2, 181:7, 187:2, 235:24, 238:8, 265:7, 272:19, 273:16, 274:1, 279:16, 279:24, 282:5 without 57:24, 67:11, 84:2, 84:5, 103:12, 103:16, 103:18, 105:8, 105:15, 111:20, 128:9, 198:25, 206:5, 218:12, 218:13, 251:3,
--	---	--	---

Transcript of David Crane
Conducted on February 26, 2024

136

251:8 witness 4:2, 5:24, 10:13, 20:21, 45:11, 76:11, 108:7, 118:1, 143:3, 210:4, 221:11, 224:13, 233:16, 253:10, 269:8, 273:23, 279:11, 280:15, 282:8, 282:10, 282:13, 282:16, 283:2, 283:4, 283:11, 283:14, 283:15, 283:18, 283:20, 284:22, 285:3, 285:6, 285:11, 285:12, 285:17, 287:6, 287:10, 288:1 wo 134:5, 152:6 woman 38:24 wonderful 12:2 wonky 69:8 word 21:23, 24:21, 67:9, 71:10, 85:6, 87:1, 100:11, 121:23, 123:13, 123:14, 146:7, 156:20, 169:21, 180:7, 180:11, 186:22, 187:7, 188:3, 188:13, 189:5, 195:24, 196:2, 210:9, 229:16, 233:12, 241:21, 244:11, 245:10, 245:11, 246:13, 260:11, 271:18 words 72:18, 75:14,	125:19, 245:20 work 10:16, 18:3, 18:5, 25:8, 25:9, 25:24, 26:17, 27:23, 29:3, 90:19, 108:25, 129:5, 132:23, 140:20, 147:21 worked 16:18, 16:22, 17:22, 18:8, 27:3, 79:16, 133:9, 249:13 working 9:14, 18:1, 23:12, 24:12, 26:25, 36:19, 195:7 works 26:19, 45:22, 178:23, 198:3 world 21:12, 22:15, 22:22, 23:6, 30:11, 32:2, 32:16, 92:13, 99:11, 103:10, 103:13, 103:19, 103:23, 103:25, 104:8, 119:19, 149:10, 149:14, 149:15, 164:25, 187:5 world-renowned 24:1 worldwide 174:20, 218:19, 218:21 worried 263:5 worries 37:19 worth 11:22 wouldn't 50:20, 52:10,	68:8, 75:7, 92:13, 110:1, 111:6, 171:6, 234:2 wowee 114:22 write 46:3, 67:4, 73:13, 76:15, 84:3, 84:9 writing 18:19, 18:22, 22:21, 23:7, 129:10, 133:12, 184:17 written 75:22, 79:12, 94:25, 126:20, 127:20, 127:24, 128:5, 133:5, 139:10, 139:18, 140:9, 158:17, 219:6, 240:11, 280:8 wrong 42:6, 53:18, 71:19, 152:18, 152:19, 152:23, 177:6, 185:4, 217:6, 240:11, 247:15, 247:19 wrote 46:6 X x3 35:18 xbox 127:3 xi 178:12 xml 218:9 xvi 181:10 Y yeah 18:5, 20:4,	30:18, 32:15, 58:2, 63:23, 67:9, 71:11, 75:16, 79:6, 81:6, 81:15, 91:23, 92:3, 94:7, 94:13, 97:15, 99:18, 100:22, 114:19, 117:15, 117:24, 122:3, 133:3, 140:6, 143:19, 144:1, 151:19, 152:24, 165:3, 165:6, 166:18, 171:14, 181:17, 182:8, 188:23, 193:21, 195:22, 197:8, 199:20, 201:1, 204:6, 204:24, 206:13, 207:18, 207:24, 209:17, 210:6, 236:18, 237:19, 243:7, 244:6, 252:13, 255:4, 259:6, 259:24, 262:3, 269:11, 273:8, 274:20 year 95:17 years 25:17, 25:21, 90:25 yep 136:16 yes-or-no 248:22 yoshihiro 11:16 young 133:10 yourself 88:24, 143:4, 279:18 Z zero 15:1, 57:18
---	---	--	---

Transcript of David Crane
Conducted on February 26, 2024

137

zeros 55:17, 80:21	240:23, 241:7, 245:16, 246:21, 247:13, 264:21, 275:6, 279:21, 280:19	49:14, 49:18, 50:1, 50:7, 50:8, 50:9, 55:11, 57:18, 59:18, 191:13	149:2, 176:9, 176:10, 240:16, 280:7
zones 108:18, 108:19, 108:21			1011 12:6
zoom 10:19, 11:22, 11:23	06 64:11 073,967 40:15	1004 4:18, 4:22, 13:7, 13:10, 13:11, 13:14, 13:21, 13:24, 14:5, 14:11, 14:17, 17:10, 19:22, 20:19, 23:25, 27:22, 37:12, 42:25, 45:6, 47:14, 64:15, 88:15, 91:9, 91:10, 95:12, 117:9, 118:17, 147:25, 149:1, 160:5, 161:23, 176:1, 179:13, 190:16, 190:17, 202:7, 213:8, 234:5, 245:13, 252:1	102 123:7, 282:5 103 123:7, 282:5 105 16:13 106 213:23, 213:25 107 138:22, 139:1, 139:2, 139:3 108 135:23, 142:20, 142:22, 162:9, 169:16, 174:22, 175:1, 176:4, 214:11, 214:17 109 215:14, 216:15, 217:21, 240:10 11 58:20, 64:11, 78:24, 96:8, 96:11, 234:15, 234:19, 234:22, 234:23, 237:17 110 240:8 112 135:21, 136:12, 137:9, 137:10, 137:11, 137:13, 137:16, 137:22, 138:2, 138:16, 138:22, 138:24, 139:3, 162:12, 165:3, 165:5, 169:23, 170:10, 170:16, 170:19, 171:25, 172:20, 173:19, 280:7 116 136:12, 170:11,
\$			
\$500 18:13	1 66:21 10 40:24, 64:8, 137:15, 139:2, 193:12, 204:2, 204:5, 204:20, 205:4, 208:10, 245:6 10,255,724 1:19, 2:17 10,846,941 1:21, 2:19, 39:16 10,991,165 1:23, 2:21, 12:12, 12:16 100 19:15 1001 4:20, 4:23, 37:24, 38:1, 38:4, 40:11, 44:2, 47:18, 51:9, 57:21, 58:3, 60:6, 62:1, 62:23, 90:9, 96:15, 97:16, 97:17, 98:1, 99:16, 105:6, 191:10, 192:10, 192:12, 240:17, 240:18, 275:7 1003 4:11, 44:3, 47:19, 49:12,		
.			
.3 216:16 .8600 3:16			
0			
000 55:16 0000 55:16 008 277:8 00954 1:16, 2:14, 5:7, 190:5 00959 1:18, 2:16, 5:7 00995 1:20, 2:18 00996 1:22, 2:20, 5:8, 12:7, 12:11 01 278:23 02 175:19, 246:25 02062436 134:5, 152:6 028 4:23, 190:7, 191:10, 191:18, 191:19, 192:10, 192:18, 199:24, 215:5, 240:15,			

Transcript of David Crane
Conducted on February 26, 2024

138

170:15, 170:19, 171:24, 172:1, 172:21, 173:9, 173:20 117 13:24 118 153:18 119 156:11, 157:5, 231:7 12 40:15, 82:22, 113:8, 113:11, 117:13, 117:20, 152:4, 183:22, 203:18, 204:1, 205:1, 205:7, 205:12, 205:18, 207:4, 207:22, 208:11, 208:18, 208:23, 209:1, 209:12, 209:13, 209:15, 210:14, 210:18, 211:6, 211:12, 212:9, 212:20, 227:16, 227:23, 229:4, 229:5, 229:6, 229:8, 229:10, 243:10, 245:6, 255:8, 255:21, 257:3, 257:12, 257:18, 258:4, 261:21, 262:10, 262:19, 263:12, 263:22, 264:9, 272:13, 272:23, 272:25, 273:3 120 135:22, 138:1, 138:2, 138:13, 138:17, 158:5 121 234:4, 237:10, 238:13 123 160:5, 174:6,	235:22 124 237:21, 238:13 125 165:11, 245:13 126 167:11, 247:13 127 249:8 128 167:20, 168:25 129 168:21 13 4:18, 117:23, 127:13, 127:16, 218:20, 273:2, 274:8 130 169:14, 171:10, 264:16, 283:4 131 172:19 13445 1:31, 287:4, 288:5 135 152:4 1357 183:22 14 2:26, 4:19, 5:1, 5:9, 133:12, 203:22, 204:1, 205:1, 208:11, 208:19, 208:25, 209:14, 212:14, 212:21, 225:22, 225:25, 226:2, 227:5, 227:12, 227:14, 227:22, 229:20, 233:7, 234:15, 234:20, 234:22, 237:18, 242:5, 242:12, 243:18, 244:2, 244:5, 244:10, 245:7,	256:24, 257:23, 264:10, 281:4, 281:24, 287:16 140 174:15, 174:21 142 4:21 149 180:2 15 88:15, 95:11, 107:25, 175:19, 175:22, 177:3, 177:5, 177:7, 189:20, 189:23, 236:13 155 55:17, 55:21, 55:25 16 20:18, 22:5, 28:18, 39:15, 62:23, 102:6, 146:13, 200:7 162 181:9 164 182:13, 182:21, 182:22 165 12:13, 38:5, 38:7, 43:21, 44:1, 47:17, 49:9, 51:10, 56:8, 58:4, 59:12, 60:3, 60:16, 61:9, 63:2, 63:17, 66:12, 69:5, 69:15, 76:24, 77:5, 89:1, 89:5, 90:11, 96:14, 98:2, 99:17, 99:21, 100:10, 101:18, 102:15, 106:24, 119:15, 121:7, 125:2, 139:9,	139:17, 152:5, 153:13, 155:6, 157:4, 157:8, 157:15, 158:8, 158:22, 159:6, 174:17, 184:4, 192:19, 279:18, 279:19, 280:18 17 31:6, 31:13, 104:20, 106:20, 107:4, 153:2, 218:14, 239:11, 239:15, 242:12 177 277:11 18 27:21, 28:1, 29:4, 169:16, 205:2, 205:13, 205:20, 207:4, 207:22, 208:12, 211:7, 211:24, 212:2, 212:7, 212:22, 233:6, 239:11, 257:14, 258:5, 258:19, 258:24, 262:20, 263:13, 263:23, 264:9, 282:22, 282:25 181 219:24 1842 268:7 19 31:6, 31:15, 33:9, 36:25, 218:15, 218:20, 255:6, 282:25, 284:17, 284:20, 286:1 190 4:22 192 4:23 1977 26:22
---	---	--	---

Transcript of David Crane
Conducted on February 26, 2024

139

1980 54:21, 130:21, 131:18 1984 129:14, 130:14, 130:17 1987 26:3, 26:4, 26:5, 129:15, 130:18 1994 59:1 1995 27:5, 194:23, 195:7 1998 35:11 1999 52:19 1a 172:21, 172:25, 183:4 1b 183:4 1c 183:4 2 2 66:22 20 37:11, 55:25, 90:25, 190:25, 193:8, 204:4, 204:5, 208:19, 220:25, 221:22, 222:18, 222:19, 284:17 200 19:16, 279:8 2000 35:10, 35:11, 35:13, 35:14, 141:23, 154:14 2001 53:23, 55:5 2002 111:4, 200:7	2004 40:24, 41:22, 41:24, 42:8, 42:9, 58:14, 60:6, 62:3, 62:14, 90:12, 90:24, 125:3, 128:13 201 4:24 2011 42:5 2013 199:25, 200:7 202 2:28, 3:6, 5:12 2020 39:16, 55:14, 58:20 2021 38:9 2022 9:9, 113:21 2023 1:16, 1:18, 1:20, 1:22, 2:14, 2:16, 2:18, 2:20, 5:7, 9:9, 12:7, 12:11, 14:2, 49:23, 55:16, 113:21, 114:7, 190:5, 190:25 2024 1:27, 2:27, 5:8, 287:15, 288:2 21 55:25, 113:8, 175:22, 226:21, 227:11, 229:14, 229:16, 230:3, 232:22 2163 223:8 22 40:24, 41:22, 42:8, 42:9,	90:12, 90:24, 113:11, 125:3, 222:10 23 152:4, 183:22, 190:25, 274:8 238 186:21 24 43:1, 43:3, 43:4, 43:7, 43:12, 47:13, 64:19, 118:16, 191:4, 194:10, 275:12 25 45:7, 64:16, 64:22, 98:7, 114:15 26 1:27, 2:27, 5:8, 45:9, 45:17, 46:4, 46:6, 46:17, 65:1, 65:20, 65:22, 65:23, 84:8, 86:22, 87:7, 87:13, 97:22, 98:2, 98:4, 98:5, 98:7, 98:19, 123:18, 152:5, 183:22, 191:24, 193:8, 194:2, 209:5, 209:22, 257:18, 258:5, 287:15 260 2:27, 3:5, 5:12, 287:15 2600 25:21 27 38:9, 39:16, 66:20, 68:6, 68:13, 68:18, 69:8, 70:10, 78:12, 97:22,	98:2, 98:5, 155:17, 159:13, 288:2 270 4:25 2702 7:17 28 69:20, 74:11, 117:20, 194:6, 194:11 29 76:10, 76:12, 78:17, 78:23, 98:20, 201:6, 202:6, 284:20 2d 32:4 3 3 66:22 30 79:24, 117:13, 226:4, 226:5, 227:2, 227:6, 227:7, 227:16, 229:19, 229:21, 233:6, 255:13, 255:16, 255:17, 255:21, 259:3, 259:7, 259:10, 286:1, 286:2, 287:16 31 80:15, 124:16, 154:3, 203:2 32 81:1, 82:16, 126:3, 193:8, 204:7, 204:12, 209:1, 209:4, 209:15, 209:21, 210:19, 226:6, 227:2, 227:8, 227:10, 227:15, 227:21, 228:4, 229:7, 229:8,
--	---	---	--

Transcript of David Crane
Conducted on February 26, 2024

140

229:19, 259:22, 260:14, 261:2, 261:6 320 180:21 332 137:21, 138:7, 164:16 336 137:21, 138:7, 164:20 34 232:22, 270:24 340 137:22, 138:7 344 137:22, 138:7 35 82:22, 83:15, 99:18, 99:20, 99:23, 100:9, 100:23, 101:10, 101:12, 135:17 37 51:2, 60:18, 61:18, 117:23, 232:22, 239:15, 271:11, 271:15 377 41:2 38 4:20, 61:6, 61:12, 61:19, 84:23, 136:14, 136:16, 226:21, 227:19 39 23:17, 45:9, 45:17, 46:4, 46:7, 46:17, 65:1, 84:8, 85:7, 86:23, 87:7, 87:13, 137:9, 138:6, 138:25, 191:24 3d 21:22, 31:10, 31:20, 31:22,	31:25, 32:1, 32:6, 32:8, 34:1, 35:23, 36:13, 36:18, 36:20, 37:7, 99:11, 128:22, 131:19 3rd 114:6 4 40 23:20, 86:17, 87:2, 139:14, 140:16, 227:13 405.607 3:16 41 59:19, 60:21, 142:14, 148:1 42 60:11, 60:21, 64:8, 189:20, 227:19 43 63:20, 213:9 44 88:14, 100:1, 100:16, 146:5, 146:6, 148:25, 213:21, 243:9 45 95:12, 220:25, 221:3, 221:5, 221:24, 222:19, 243:9, 243:21, 245:5 46 96:16, 243:21, 243:22, 245:5 47 97:6, 98:3, 98:9, 98:16, 98:21, 204:14, 204:17, 208:8, 220:3, 220:5, 223:1, 282:22 48 99:13, 99:18,	99:20, 99:23, 100:1, 100:10, 100:16, 100:23, 101:10, 101:12, 221:1, 221:3, 221:4 49 102:9, 118:10, 230:14, 234:4, 237:12 4th 14:1, 42:3, 114:7, 199:25, 200:7 5 5,877,757 52:18 5,933,811 47:23, 202:2, 202:21, 213:10 50 4:11, 102:6, 102:13, 102:14, 127:13, 221:3, 224:22 50,000 79:16 51 103:23, 127:16, 222:19 52 104:16, 221:3, 251:25 53 96:8, 96:11, 104:20, 106:3, 208:16, 264:19 54 107:23, 152:2, 266:2 55 229:17 56 51:13, 52:15, 160:5, 189:23, 239:8, 266:21 57 160:20, 276:25,	277:2, 277:3 58 230:3 59 161:22, 165:11, 180:20 6 6 276:25, 277:2, 277:3 60 21:19, 39:11, 217:2, 229:16, 240:19, 243:5, 244:19 609 3:13 61 118:16, 118:18, 169:14, 171:22 62 172:19, 217:8, 222:9, 222:17, 244:21, 245:1 64 128:20, 130:14, 130:17, 217:1, 217:4, 240:19, 240:24, 244:20, 272:23 640 144:21 65 114:16, 114:17, 174:15, 177:24 66 114:8, 114:15, 114:16, 115:7, 116:23, 133:23, 217:1, 217:3, 272:14, 272:24, 272:25 67 119:8, 175:3, 175:10, 176:1 68 121:2, 270:15
--	--	--	---

Transcript of David Crane
Conducted on February 26, 2024

141

69 177:10, 178:12, 180:3 7 7 278:23, 286:2, 287:16 7,168,051 48:3, 48:15 7,373,377 40:25, 41:4 70 25:16, 180:1, 194:20, 194:24 700 256:13 702 256:15, 257:2 704 256:17, 256:20, 257:2 706 257:6, 258:1 708 258:7 71 196:17 712 222:1, 222:5, 258:21, 258:23, 259:9, 259:13 714 259:17, 259:23, 260:14, 261:1, 261:5 716 261:9 72 38:14, 201:6, 201:8, 279:19 73 181:9 73102 3:14 74 39:2, 182:13 75 88:17, 202:6	75,000 27:1 78 203:1 8 8,458,028 1:17, 2:15, 190:6 80 124:25, 129:15, 130:18, 153:24, 154:2, 154:11, 154:18, 154:20 800 222:6, 222:9, 222:23 805,415 40:24 81 125:19, 154:7 811 4:24 82 126:3, 129:2, 129:18, 131:3, 131:12, 131:23, 132:18 833,127 39:15 84 130:20, 131:1, 131:9, 131:14, 132:8, 132:15, 132:23, 132:25, 133:15 86 236:14, 236:15, 236:23, 238:13 9 9 2:26, 5:1, 5:9, 23:17, 23:20, 287:16 900995 5:8 91 183:19, 184:13	912 272:4, 272:7, 272:10 93 183:16 94 136:14, 136:16, 190:24 941 279:19, 280:18 94301 2:28, 3:7 95 20:8, 21:1, 22:8, 28:18, 29:3, 29:5, 37:2, 139:5, 139:14, 158:17, 186:20 954 4:22, 190:7, 190:13, 190:20, 239:24, 246:21 956 192:4, 194:4, 214:12, 214:20, 214:25, 245:20, 245:21, 246:20 97 56:15 98 142:14, 148:1 99 14:21, 35:11, 56:3, 57:7 996 4:18, 4:19, 4:20, 13:21, 14:21, 15:1, 37:25, 43:1, 44:4, 48:19, 49:23, 55:16, 64:17, 118:17, 142:21, 190:12	
---	--	---	--