IN THE CIRCUIT COURT OF THE SIXTH JUDICIAL CIRCUIT OF THE STATE FLORIDA, IN AND FOR PASCO COUNTY
CASE NO. CRC14-00216CFAES

STATE OF FLORIDA,

Plaintiff,

vs.

CURTIS J. REEVES,

Defendant.

_____/

PROCEEDINGS:	Excerpt of Testimony of: BRUCE E. KOENIG
DATE:	February 21, 2017
BEFORE:	The Honorable Susan Barthle Circuit Court Judge
PLACE:	Robert D. Sumner Judicial Center 38053 Live Oak Avenue Dade City, Florida 33523
REPORTED BY:	Charlene M. Eannel, RPR Court Reporter

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(Thereupon, the following excerpt was requested to be transcribed from the trial testimony of Bruce E. Koenig.)

VOIR DIRE EXAMINATION

BY MR. MARTIN:

Q. Good morning.

A. Good morning. Nice to see you again.

Q. Nice to see you too, sir.

Do you have your CV in front of you, sir?

A. I have Exhibit 28.

Q. Okay. I appreciate you telling me the exhibit number.

Is that your CV?

A. That's my CV.

Q. There you go.

Page 3 of 9 of your CV, the work experience that you went over?

A. Yes, sir.

Q. Okay. Now, what Mr. Escobar has done is, he's tendered to the Court -- to the Court, you as an expert in audio and video.

Page 3 of 9, and you went through some of these, and I'm going to take them in order, so if you can just follow along with me, I'm going to ask you some questions. And I'm going to not read the whole thing. I'm just going

to get you right to the -- some words that can get you right to the paragraph, but we're going to go in order.

The Linda Tripp telephone recordings, okay?

A. Yes, sir.

Q. Do you see how I'm going to do it? All right. So in that work experience, that was all audio, the telephone recordings.

A. That's correct.

Q. All right. With the Bill Clinton authenticity analysis telephone recordings, that's all audio?

A. Bill Clinton?

Q. The very next one.

A. Oh, I see.

Q. See how I'm going?

A. Oh. It's -- no, it's -- that's the same case with the Linda Tripp.

Q. Oh, I apologize. So it's still audio?

A. Yeah. The Bill Clinton farther down is actually video.

Q. Okay. Well, I haven't gotten that far.

A. You haven't gotten that far, okay.

Q. Okay. So Linda Tripp and Bill Clinton, at this point in time, we're talking about audio?

A. Correct.

Q. Watergate tapes, audio?

A. Absolutely.
Q. Gunshot analysis in the assassination of John F. Kennedy, audio?
A. Audio and video. It's actually film at that point.
Q. All right. And what year was that? I know I was in the fifth grade.
A. I was in the twelfth grade. 1963.
Q. Okay. So that was a TV film. It was film that has to be developed chemically? We're not talking digital or VHS?
A. Oh, no, that's what I said. It was film. It was not TV. It was an individual, Mr. --
Q. Okay.
A. -- who did that.
Q. Then we have undercover informants' recordings in the Archer Midland case. That's audio?
A. Yes, I believe there were -- I'm trying to remember if there was any videos. I know it was probably audio. I believe it was all audio.
Q. I'm just going by my --
A. I know. I had to think for a minute, but I believe everything there was audio.
Q. Now, the murder of Mr. Lloyd, L-L-O-Y-D, that's the first time that I see in here where you say "the video

surveillance analysis," so that was video?

A. Well, that's video but you missed the Reagan attempted assassination, and that definitely was video and audio.

Q. Well, see, therein lies a little bit of problem with your CV. You just say "enhancement."

A. Well, you can enhance video.

Q. I know, but when we're talking about your work experience --

MR. ESCOBAR: Judge, I'm going to object he's being argumentative with the client. I mean, he answered.

MR. MARTIN: May I proceed, Your Honor?

THE COURT: Go ahead.

BY MR. MARTIN:

Q. All right. In your CV, you did not indicate video or audio. So are you telling me now that when we talk about authenticity and enhancement analysis -- I'm sorry.

You talking about Ronald Reagan?

A. Yes. Where it says -- it starts off with, "The Gunshot Analysis of the Assassination of President John F. Kennedy and the Attempted Assassination of Ronald W. Reagan."

Q. Right. And then it goes to the authenticity and

enhancement analysis of undercover informants' recordings, and you told me that was audio.

A. Oh, no, but that's a different case. You have a semicolon there, and then you're talking about the Archer Daniels Midland case.

Q. All right.

A. So the attempted assassination of Reagan was, yeah, everybody saw the video on TV at the time. It definitely was broadcast video and audio.

Q. All right. Then we have the determination and identification of gunshot sounds on audio and videotapes involving the Branch Davidian Complex, and that was gunshot sounds, it was audio?

A. Yes. The Branch Davidian was probably -- we did more work on the video, but we certainly had audio there, too. They -- the question was, where did the fire start? Did the government somehow do something to start the fires? And basically the FBI had infrared, far infrared sensors above that clearly showed the fires were started in a number of places within the complex prior to the FBI or anybody else moving toward the complex.

Q. Then after that we have voice comparison analysis of audio recordings dealing with the tribunal in Yugoslavia. Audio, correct?

A. They were all audio, correct.

Q. The next one we have is intelligibility determination and transcript preparation. That's all audio?

A. Yeah, that's in the Sabrina Aisenberg kidnapping case, which is, I believe, a local case here in Tampa.

Q. It's all audio, right?

A. Yes, I was doing audio work with the wire taps done by Hillsborough County Sheriff's Department.

Q. And then you were -- then we have a video authenticity analysis involving US Congress, right?

A. That's correct.

Q. What did that involve?

A. That was the one that I had mentioned before where these were videos taken of the president meeting with people that the news media were not there.

Q. All right. And what year was that?

A. I don't know if I can give you an exact year. It would have been the second term of Clinton as president, whenever that was.

Q. Analog video?

A. No, it was digital.

Q. Digital?

A. Uh-huh.

Q. Then after that we have the digital audio recordings by the Ukrainian president. That's audio,

right?

A. Ukrainian president is audio.

Q. The next one is an FBI undercover analog and digital recordings. That's audio?

A. Well, next one here is talking about -- oh that's involving Richard Scrushy?

Q. Right. That's all audio?

A. No. Actually, the main recording involved was analog -- was digital audio and video produced by a Stringer (phonetic) newsgroup who were being sued.

Q. All right. And what were you asked to do that -- in that regards regarding the audio?

A. The federal judge in Philadelphia had ordered the newsgroup that they were not to record Scrushy's grandchildren, okay. They ended up getting a recording, a broadcasting, clearly showing his grandchildren.

Q. All right. So even though it involved a video, your analysis had to do with the audio and whether or not the grandchildren were on it?

A. Well, you really don't hear the grandchildren. It's really more on video. They wanted to -- so we had to look at the video and we did a lot of work there. The audio part, what they wanted to know was could -- where they were located, could they have heard the grandchildren, and that's what the federal judge wanted to

know. We were able to figure that out, in fact, they could.

Q. Then we have the Ku Klux Klan. We have the analysis of gunshot fires.

A. And that's both video and audio.

Q. What year was that?

A. I want to say the late '70s.

Q. That was analog?

A. I -- yeah, pretty involved.

Q. 1970?

A. Yeah. I don't think -- it was professional video. That's -- it was newspeople, but I think it would be analog at that point, yes.

Q. All right. Then we have the authenticity of the analysis of audio microcassette recordings by the Canadian Prime Minister. That's all audio?

A. Yeah, it was just one audio cassette.

Q. Then we have 35 digital audio recordings in the conspiracy and interception, and that's in the Pellicano case. That's all audio.

A. Yeah, the Pellicano case, that's all audio.

Q. All right. Then we have the gunshot examination and the death of Timothy Russell. That's all audio.

A. All recordings were video, but we were mostly --

Q. Your --

A. -- we were mostly interested in the audio, but it's all digital video. That's where it came off of.

Q. I apologize. And that's twice that I've talked over you, so accept my apology.

A. All right.

Q. I won't -- okay.

A. Not a problem. I've been doing the same thing.

Q. And we're still doing it right now, aren't we?

A. Yes.

Q. All right. Let's not do that.

A. Yeah. This was a case that made high publicity. It was car that was shot 139 times. I think it was like last year they -- they tried a police officer on it.

Q. Right.

A. And the car was shot -- I mean, people died obviously, and there was video involved with dashboard cams in the police cars.

Q. All right.

A. So we used the video, obviously, but the gunshot part of it was obviously audio, but the video helped tell us things. We needed to know where the car was located, so the video was crucial in telling us where the microphone was at that's recording the gunshots. So we needed that information to be able to do our analysis. So it was both audio and video.

Q. So the video gave you content to establish where the gunshots came from?

A. It gave us where the microphones were located. I mean, you have two things: Where's the mics, where's the gunshots occurring? Well, if we know where the mics are, that gives us information that helps us -- tells where the gunshots occurred.

Q. But as far as working with the video, there was nothing that you had to do with the video content itself, what you see moving. You were more concerned with the audio on the videotape, your analysis was of the audio?

A. The gunshot part, as far as the audio, we had to look at that, but we needed the video to tell us where the cars were.

Q. I understand that.

A. And without that, we would have had trouble doing the exam. So the video became -- in fact, it was a big, you know, a big thing to figure out where -- where was this car parked when these recordings occurred? So it really involved a lot of involvement with the video itself. And that video was digital.

Q. The traffic control recordings, that was all audio?

A. Yes, audio. Air traffic control recordings would be audio.

Q. The Sikorsky helicopter crash, that was audio? System sounds of the Sikorsky helicopter crash review --

A. Yes.

Q. -- that was all audio?

A. Yes.

Q. When you were with the FBI, beginning in the late '70s, basically your task was in the audio portion of that lab; was it not?

A. Yes. The -- first off, we weren't getting in -- in the early -- in the '70s virtually any video at all, so it was really -- it was into the '80s before we started really getting much video.

Q. So all your early training was in audio?

A. That's -- that's correct. Because, like I said, we just didn't have much video.

Q. You went through the clients that since you have left the FBI that you have done work with, and those state agencies and public agencies.

The great majority of the work for those people are in the field of audio forensics; is it not?

A. No. Actually, we now have more video work coming in, I believe, than we have audio.

Q. If you go to page 4 of 9 of your CV, I'm going to go through the ones that Mr. Escobar mentioned. Forensic Authentication of Digital Audio.

Again, we're talking about you went to a course involving audio, correct? In Denver, Colorado?

MR. ESCOBAR: Judge, I'm going to object. The one that I said was Forensic Authentication of Digital Images in Denver, Colorado.

MR. MARTIN: And I'm talking about the one right before it, which is also Denver, Colorado.

MR. ESCOBAR: I didn't speak on that one.

BY MR. MARTIN:

Q. The one right before the one Mr. Escobar talked about, all right?

A. Yes.

Q. Forensic Authentication of Digital Audio, Denver, Colorado.

What year was that?

A. I want to say we went maybe four years ago. I don't have an exact "off the top of my head" date.

Q. The Image and Video Processing Using MATLAB.

What year was that?

A. That would be probably when they started really coming out with that, so it was probably a while ago. I would say more than ten years ago.

Q. Well, this is 2017. 2007? Before or after the Trade Center? Give me something. I mean...

A. Just off the top of my head it was when they

first came out with it. It was early. The program continues to evolve. So this was when, the early days they started coming out with it, we had an interest in that, they presented it. So I would guess, ten years ago or so, but I can't give you an exact date.

Q. All right. So you went to that one ten years ago?

A. Approximately, yes.

Q. All right. And like you said, things evolved, right?

A. Well, it gives you the basics, and obviously the program becomes more sophisticated.

Q. The Imaging Processing and Analysis in Bellingham, Washington, I guess.

What year was what?

A. That's probably at least ten years ago.

Q. Video Analyst System Training in Huntsville, Alabama.

When was that?

A. I would say about ten years ago.

Q. Video Capture, Enhancement and Analysis in Indianapolis, Indiana.

How long -- when was that?

A. Seven or eight years ago, I'm just guessing.

Q. Back ten or more years ago at the MATLAB, what

was the nonlinear software that was being used ten years ago?

A. Oh, there was lots of them. It's not just one. But certainly Adobe Premier and things like that were being used.

Q. Okay. Any others, other than Adobe Premier that you can think of?

A. I think that there was just so many and a lot of them obviously didn't make it, so they didn't work, but I -- if we don't -- most of us use one set of programs. I mean, there's lots of good ones out there, but you don't use five of them. You just find the one you like and you stay with it.

Q. All right. So you were trained on Adobe Premier?

A. Yeah, we -- we use Premier -- Adobe Premier more than anything.

Q. More than anything?

A. Yes.

Q. And Adobe Photoshop.

A. Oh, we definitely use Photoshop, yes.

Q. All right. Those are kind of the standard in the industry. Most forensic examiners use those?

A. Photoshop, yes, I think everybody uses that. The nonlinear audio video editors, there's three or four

or more good ones out there, and it's just whatever the person likes or has a preference or you've got trained on. They're all good. They all can do the work.

Q. They all can do the work, it's just your preference?

A. Yes.

Q. Okay. The Professional Association is the Acoustical Society of America -- and I'm going to use the term as a vanity society, and that would be, in my terms, the one that you'd pay your dues and you get the magazine, you get to read stuff. As opposed to one that you're invited to, maybe even have to take a test, or have to have some type of review by the members and you're invited to belong to.

Do you see the difference?

A. Acoustical Society is probably the most prestigious audio society there is.

Q. It -- it may be.

A. It's all PhD types --

Q. How did you get to be a member?

A. -- a lot of PhDs.

Q. How did you get to be a member? Did you just pay your dues or did --

A. Oh, you have to apply. Two members have to do it. Almost all the professional societies are that way.

Q. All right. That's what I'm getting at.
A. Yep.
Q. The Audio Engineering Society?
A. You need references to get in.
Q. International Association of Identification?
A. Yes. You need, again, to have references.
Q. All right. Well, to be a member of Rotary, you have to have references, but you're a member and you pay your dues.

So just having references, so do you have to have a test? Do you have to have specific years? What is it that gets you in other than just paying your dues?

A. I don't know any professional society that you give a test to get in.
Q. I'm just asking.
A. Well, they -- no, they look at your education and experience. Like -- like the Audio Engineering Society, if I remember right, if you had not had at least five years professional experience, you couldn't be a full member. You'd be a lower-level position.
Q. And do you have to do anything in those memberships in order to maintain the membership after you're in, other than pay the dues?
A. Yeah. I mean, it's -- it's meant for the professionals in the field to get together and look at

published papers and have conferences.

Q. Networking?

A. Well, we don't look at that. We don't get work out of these professional societies.

Q. Well, networking in that you get to know other people so if you've got a problem, I can call Bill and maybe he knows it. That kind of networking so you have --

A. Absolutely. Yeah. I mean, it's there. They -- they have standards for getting in. Some, like the Institute of Electrical and Electronic Engineers, it's the next one down, they're probably the toughest.

You know, even with my education, they said, Well, you really aren't an electrical engineer. So they had to make a decision if I met standards to get in, and I did. But in other words, they will restrict membership.

You know, if you're a lawyer and you want to join the IEEE, you may be able to join it, but you wouldn't be a member. You'd be a lower-level thing. Some of the societies have lawyers in it because they work in a field, a patent field or something, and it's worthwhile to be involved, but the main -- you know, the main direction of that society is people that are electrical engineers.

Q. For the networking process?

A. Well, I think it's more than networking. I mean, they all publish great papers and things like that,

so sometimes it's just learning. You might not even be talking to people, but you read the papers.

IEEE probably issues, geez, conservatively, a hundred papers a month. The Acoustical Society is one that does something in that range every month, too. So these are big research driven professional societies.

Q. And the papers that are published, if you're a member, you can publish in that society, right?

A. Oh, you -- I publish in societies I'm not even a member of.

Q. Sure.

A. So you don't have to be a member to publish a paper.

Q. All right. So in these particular societies, it's helpful to be a member, but you don't have to be a member. Here's my paper, let's put it in.

A. Oh, you've got to go through the whole peer-review process. It's -- lots of papers are rejected.

Q. You began in the FBI in -- in the late '70s and you left after spending eight years at the laboratory.

A. Actually, I started as an FBI agent in 1970. I came into the lab in 1974.

Q. Did I say the late '70s? I'm sorry.

A. Yeah. '74. And then I retired at the end of 1995.

Q. Okay. So from '74 to '95 while you were at the FBI lab, the great bulk of your work was all audio?

A. I wouldn't put the word "all" in there. Obviously, more of my work by far was audio, I agree with that statement, but it wasn't all that I did.

Q. In fact, that's kind of your specialty, isn't it, audio?

A. Well, again, when I started, video really didn't exist in the forensic world, so it wasn't like there was a choice.

Q. All right.

MR. MARTIN: I have no further questions.

THE COURT: Thank you, Mr. Martin.

MR. MARTIN: Your Honor, I do not accept him as an expert as far as video. I don't think a sufficient predicate has been laid under any standard. His whole expertise is audio since 1974. And that's my objection, and then it's your discretion, Judge.

THE COURT: All right. As I indicated about these particular witnesses, I'll reserve although -- well --

MR. ESCOBAR: Judge, I know you're going to be reserving on the issue of admissibility, but I would ask the Court to make a ruling, at this point in

time, concerning your finding of him being an expert in audio and video analysis, especially since he's been qualified over 360 times by Courts throughout the nation.

MR. MARTIN: Well, you know, there was never any indication what he was qualified in. And so to say he's been an expert 360 times just doesn't get it.

And if I -- the Court's well aware we have a -- if we were in front of a jury, we wouldn't be doing this. The Court would -- we would just be moving on and -- and that's what I'm suggesting to the Court.

I don't think there has to be a finding by the Court, you are an expert, and that's not what we would do in front of a jury.

THE COURT: And that's absolutely correct. I know you both have been around a long time, but we no longer do that in front of a jury. I'll either accept him to testify about what he's testifying about or not, if we were in front of a jury.

Quite frankly, you know, I -- I indicated I reserve as to admissibility on any of the -- was this one that was challenged?

MR. ESCOBAR: Your Honor, this one was not one that was challenged.

THE COURT: I would hope not. This one -- well,

he can testify.

MR. ESCOBAR: Thank you, Your Honor.

THE WITNESS: Thank you, Your Honor.

BY MR. ESCOBAR:

Q. Mr. Koenig, when were you retained to do work on this case?

A. In late June of 2014.

Q. And who were you retained by?

A. Your office.

Q. Now, what were you asked to do in this particular case, Mr. Koenig?

A. I think to look at the videos to see if we could enhance it. It was involved to run tests at the theater to see if we could identify certain light events that were there, to be able to slow down or speed up the video, pull off individual images or frames as part of the video.

Q. What's that called?

A. What is what called?

Q. The individual frames?

A. It's called a frame.

Q. Is there a word called a "bitmap"?

A. Oh, bitmap is a file. So we pull the image off. You just have to save it in some file. Bitmap is one of those formats. It's B-I-T-M-A-P. Or you could save it as JPEG. Now that compresses it, so we don't use it, but you

could make it -- there's other ones, TIFF, T-I-F-F, that are uncompressed. So it is just a way of making a copy of it into a file.

Q. Now, this was surveillance footage that we had asked you to look at, correct?

A. Correct.

Q. And this was surveillance footage from the Cobb Theater here in -- in this county?

A. That's correct.

Q. Now, tell the Court how a surveillance system works.

A. Okay. Most surveillance systems are relatively pretty basic. You have a camera which has a sensor. The sensor is, we call it a mosaic. It has little -- little areas that determine how much what -- how much light, how light it is, and what the color is in this thing.

So most standard definition, not high definition, cameras have 640 across by 480 pixels, okay? That doesn't mean they're going to use all those pixels, but that's how much usually the camera captures. Okay.

So the camera captures it. It goes back, cables back to a -- we call them digital video recorders, DVR, like you might have at home that records television programs, okay, the same thing. It's got a hard drive in it to do it.

So the cameras feed into this and they record it and they add whatever system's recording it. They record it and make a file, and that file is on a hard drive. It is almost always in what we call a proprietary format. In other words, we just took the raw image or the raw file, put it in a standard computer, media, info, nothing will play it. So usually you have to have a player or you have to use a program to convert it to something that will play.

The other thing that's common, that's certainly in this one, they -- it's affected by motion sensors. In other words, if I -- the prosecution is sitting there and they don't move very much at all. A video camera with a motion sensor on there, it may not record anything, it just stops recording. They do that to save space. Okay.

The other thing they do -- the next thing they do is, even though we've got this 640 by 480, which is like what an old television used to be, okay, they decide, oh, that takes up a lot of space. So why don't we use just one-fourth of it.

So in this case, for instance, it's 320 by 240, which further lowers the quality. And to make it even worse, they compress it. "Compression" means they throw away information that they have that affects details. So things that don't have -- that white wall wouldn't be

affected much, but your name here on the front would be. So they throw it away.

So you end up with this thing that -- anytime there's not much motion it stops recording. It threw away three quarters of the data that came through the camera. And then it further compressed it to make it smaller so they could put more information on the hard drive, which further reduced the quality.

So most surveillance systems, this one's pretty common, that's kind of the procedure.

Q. Tell the Court why it is that these systems want to put more in the system.

A. Well, I think it's just a matter that until recent times where, you know, you could buy a 4 terabyte hard drive for $100 now or something. Hard drive space was expensive, and a lot of the companies -- first off, they put the system in and it's been in there for six years or seven years or whatever, so it's an old technology hard drive, so it used to be expensive.

But we found that even in the newer systems they tend to still do that, because they said, Oh, we can store five months of data. Where, you know, if they need to do that, that's fine, but they lower the quality to have that happen. So that's the big problem with surveillance videos.

Q. Now, there are -- it records during motion activation.

A. Correct.

Q. Is there some sort of sensor that determines how much motion is needed in order for the recording to take place?

A. It depends on the system itself. In other words, you have the view here. If -- the sensor can be set to just look at certain areas, or it can be made to look at the whole screen, so you often have that option. And sometimes they do have controls that allow you to know how sensitive it is.

Most of them don't want to set it too sensitive because then, you know, dust in the room or something will start it, or the air conditioner starts running, you know, even though there's nobody there, it starts running. So they usually set it at some middle level, but it depends on the system.

You'd have to be there. If you have the system that is recorded at the time and you have that, you could take that, then, and look at how they set the settings, and it would tell you all of those things.

Q. Now, how do we tell when we're looking back at this video that this system has made, how do we tell what's being recorded in real time and what's not being

recorded in real time?

A. I guess I don't understand your question.

Q. Well, when you're looking at the video, is there -- is there something within the system that will tell you when that video was actually recording?

A. Oh, yes. In other words, the -- this system, like a lot of them, embeds the time. So we can -- each video is set up separate images, approximately about 30 usually, at a full speed, 30 pictures per second. It looks at it and puts a time and date on each one of those images.

And you can make it so even though it reduces the quality of the video to do it, you can actually put it on within the image itself. The program will do that. At a loss of quality doing that, you know, that's the problem there, but it will actually put it on there.

So, yeah, you can tell -- so if you go along and it says that it's 8:31 and zero seconds, the next one is 8:35 and zero seconds, it meant it didn't record for four minutes.

Q. Do any of these systems duplicate images in the process?

A. Oh, the original system does not, usually. In other words, it would be a waste of time if you're trying save space to record something that you're going to throw

away. So basically the system, if you pull it out, depending on the system, it will say, oh, there's nothing there for four minutes. It just takes the last image and just continues that until you get a new image. Even though nothing is happening and nothing's recorded, it just stabilizes it.

Q. So that only happens when you are -- and correct me if I'm wrong or I may not use the right technical term -- whenever you're extracting that video from the DVR, from the hard drive to another process; is that correct? That's duplication?

A. Oh, yes. For them to add that, it's got to make a new file, which hopefully is a file you can play on a regular computer, that's often what it is. And many of these systems will, in fact, most of them will add that thing that it's not recording, it just stays stable.

Q. So if you're looking at the film once it's been extracted --

A. It's not a film.

Q. Excuse me, a digital image.

A. Yes.

Q. Once you've extracted that and you're looking at it on your computer, if you were not careful, you would think that those images that are being duplicated were actual recorded images.

A. Yes. Especially, if you have a fairly static scene and not much was happening, yeah.

Q. So what do you have to do in order to be very careful when you're viewing video that's been extracted from the hard drive of the DVR to make sure that that doesn't happen.

A. Well, you have to -- you have to make sure you're pulling off unique frames, not duplicate frames. You know, this is there. And then you have a period, there's nothing there for X amount of time, you can't say anything about it. Nothing was ever recorded. It's not in the system, it's not there.

Q. So at the very least, what you're telling me is that there is a process where you can tell, as an expert, what was being recorded and what are duplicate images?

A. Usually. I mean, in this case, yes, but, you know, some systems are a little more complicated than that.

Q. Now, before I get too far afield, which I normally try not to -- to do, I am going to show you --

MR. ESCOBAR: Your Honor, just so that -- we -- we have some stipulations and I'm going to be calling out the stipulations as we -- I just wanted to make sure I didn't interrupt. No apologies necessary. I just want to make sure that you finish what you were

doing.

Exhibit No. 38 that we're going to be presenting now to Mr. Koenig, is an imaged hard drive that Detective Aaron Smith from the Pasco County Sheriff's Office imaged from the original Cobb Theater hard drive. He gave this particular exhibit to our office, and we, in turn, turned it over to Mr. Koenig.

We have stipulated to that in a written document that this Court has signed. I just wanted to preface that so that the Court knew what we were doing.

THE COURT: That's fine.

BY MR. ESCOBAR:

Q. Now Mr. Koenig --

MR. ESCOBAR: May I approach?

THE COURT: You may.

BY MR. ESCOBAR:

Q. Mr. Koenig, I'm going to show you what's been marked as Defense Exhibit No. 38; is that correct?

A. Yes, sir.

Q. And ask you if you recognize that particular exhibit?

A. Yes. This is a Seagate 2 terabyte expansion desktop drive -- hard drive.

Q. And from whom did you receive that?

A. Your office.
Q. Okay. And was that told to you as being the hard drive that Detective Aaron Smith had imaged or cloned, whatever word is best suited for that, from the original Cobb Theater hard drive that he had obtained?
A. That's our understanding, yes.
Q. Okay.
MR. ESCOBAR: May I approach, Your Honor?
THE COURT: You may.
BY MR. ESCOBAR:
Q. Mr. Koenig, I'm going to show you what's been marked as Defense Exhibit No. 15.
MR. ESCOBAR: Your Honor, just so that the Court knows, this is going to be the process for the next few exhibits.
THE COURT: Okay.
BY MR. ESCOBAR:
Q. Do you recognize Exhibit No. 15?
A. This is a copy made in our lab of Exhibit 38.
Q. So is that a correct true copy of Exhibit No. 38 that you all made? You imaged, cloned Exhibit 38 to be Exhibit 15?
A. Correct.
Q. Okay.
MR. ESCOBAR: Your Honor, we would, at this

point in time, move Exhibit No. 15 into evidence. It's been stipulated to by the Government, and I can approach the clerk, and I'm handing the clerk Exhibit No. 15 -- Defense Exhibit No. 15.

THE COURT: Okay. It's now going to be numbered No. 8, as I indicated they come in. They're numbered sequentially as they come in. So that will be entered Exhibit No. 8.

MR. ESCOBAR: Your Honor, so I could get this out of the way, I might as well do it now.

THE COURT: Counsel, we have another request for copies of exhibits being entered into evidence. My response is going to be that it can be made -- request for copies can be made to the attorney who has that ability, and that's not going to interrupt our proceedings here today. Fair enough?

MR. ESCOBAR: Your Honor, Exhibit No. 39, again, has been stipulated to between the Government and the Defense. Exhibit No. 39 it is a clone image of the Cobb Theater hard drives that my expert, Adam Sharp from E-Hounds, did in 2015.

I'm going to now tender that, too. If I can approach the witness?

THE COURT: You may.

BY MR. ESCOBAR:

Q. Mr. Koenig, will you look at Exhibit No. 39 and tell me if you recognize that particular exhibit?

A. I do.

Q. And what is that an exhibit of?

A. This is a Seagate 4 terabyte backup plus hard drive that we received from a company called E -- capital E dash H, and then hounds, O-U-N-D-S, Data Recovery out of Clearwater, Florida, on August 25th of 2015.

Q. And were you told that that was the hard drive that Mr. Sharp had actually copied from the original Cobb Theater hard drives?

A. That was our understanding, yes.

Q. Okay.

MR. ESCOBAR: May I approach, Your Honor?

THE COURT: You may.

BY MR. ESCOBAR:

Q. I'm going to show you now what's been marked as Defense Exhibit No. 23, and ask you to take a look at Exhibit No. 23 and see if you recognize that exhibit?

A. Yes. That's a copy we made of your Exhibit No. 39 in our lab.

Q. And is that a true and correct copy, cloned image of Exhibit No. 39?

A. Yeah. It's a forensic clone or image, yes.

MR. ESCOBAR: Your Honor, we, at this point in time, would move, and it's been stipulated to between the Government and the Defense, we would move into evidence Exhibit No. 23 -- Defense Exhibit No. 23.

THE COURT: Which will now be 9 to be admitted.

BY MR. ESCOBAR:

Q. I want to take you through the process of what you did with reference to Exhibit No. 23. Let me have that -- and I guess it's Exhibit 9 that's been admitted into evidence. If I can just hand that and I will make sure that it is 9. I'm going to give that back to you as admitted Exhibit No. 9.

Did you work off the original cloned hard drive that Mr. Sharp had done for us in 2015 or did you work off Exhibit No. 9 that has now been introduced into evidence?

A. We started working on the Exhibit 8 that we received, and we told your office we really want an exact copy of the original hard drive from the theater, the hard drives plural.

So we -- we started working on that -- on No. 8, but then once we got No. 9, we stopped doing anything with 8 and only used 9.

Q. Let's talk a little about 8, if I can.

MR. ESCOBAR: If I may approach the clerk again?

BY MR. ESCOBAR:

Q. In looking at Exhibit No. 8, which is the copy of the hard drive that Detective Aaron Smith had copied for the Defense, why was it that we wanted to get our own hard drive clone done in this matter?

A. Because it's actually a re-encoded copy. It's not the original.

Q. And so explain to the Court what that means by a re-encoded copy, not the original.

A. As I've mentioned before, they use these specialized programs in there. So to be able to play it back --

Q. Are those the proprietary --

A. The proprietary.

Q. -- that are in the DVR itself?

A. Correct. They -- you can't just play them on a regular computer. So I don't think the detective was wrong at all in making a copy that was playable; however, from a forensic prospective of getting the best quality, getting all the data correct, we need to go back to look at the original.

The detective in the police department would just not have that capability. If they had it, they wouldn't even be able to do anything about it. So we needed that to do our analysis of that original. And

there are differences between 8 and 9, you know.

Do you want me to --

Q. I want you to tell the Court what those differences were that caused us to go out there and now retain Mr. Sharp and have a cloned image of the Cobb Theater hard drives.

A. Let me explain what re-encoding means. It means that basically it keeps the general same format, but it can change things and make it so that it works in a regular system. That's what happened here.

And so they kind of kept it in the same format, but by doing that, it meant you re-encoded it, which meant you compressed it again. Every time you compress it, you lower the quality.

If you took a JPEG image out of a camera and made another JPEG, you're going to lower the quality. It's just how it works. So 9 is of slightly better quality, even though they aren't very good quality, than 8. So right off the bat, that's a difference right there.

Q. Okay.

A. It's -- it's a little better quality.

Q. What other differences?

A. Okay. The times -- the times, like I told you, are embedded within the -- what we call the metadata of the file. It says, okay, here's the video information and

here's the time and date that matches that particular frame or image in the video. Okay?

We discovered that when you make this conversion, the program changes the time slightly. Not a lot, it's like probably around twenty thousandths of a second, but to us we see it. I mean, I don't think it's critical to this case particularly, but it changes it and does it.

Third, it puts a time code right in the image itself. We don't really like that because what if there's something in that part of image you want to see. Yeah, so we really don't like it to be in there if we have a choice.

The other problem that Counsel mentioned is that it adds duplicate frames. So in other words, if there's an area where it's not recording, it just takes the last picture, it just keeps that picture there until it records another picture.

So they're the four main things. There's some other minor changes but they're the four things that change by going that process.

Q. Okay. And so we got you a virgin hard drive for you to work on, and you made a copy of that particular hard drive, Q6. Just so that the Court knows that a lot of these are going to be in Q form.

So that particular exhibit now that we are working off of is Q6?

A. Correct.

Q. And so, did you work off that particular exhibit when you were doing your work, that means the exact cloned copy, or did you work still on the original hard drive that was provided to you by Adam Sharp and E-Hounds?

A. I don't think we worked on the original at all. I mean, once you make an exact copy and prove it's an exact copy, what difference does it make?

Q. Okay.

A. But we probably -- we usually just don't touch the original then. We make our copy and work off of it and that's where we go.

Q. And so that would be the exhibit that is in front of you, Q6?

A. Correct.

Q. Okay.

MR. ESCOBAR: Now, Your Honor, can we approach?

THE COURT: Yes.

MR. ESCOBAR: It's just that this is probably a very good time to break, if we're going to break for lunch, because we're going to be getting into the, you know, some of the video production that I would rather not break up.

THE COURT: Any objection to that?

MR. MARTIN: No.

THE COURT: It seems like an appropriate time if we are going to get into the video. Without further ado --

MR. ESCOBAR: There's going to be some testimony, but we're getting very close.

THE COURT: All right. Well, we don't have to go through all the identification all over again, right?

MR. ESCOBAR: Right.

THE COURT: Then, how long does Counsel wish for lunch?

MR. ESCOBAR: Judge, if we could have an hour, an hour 15 minutes.

THE COURT: All right. That will put us, say, 1:15 you want to come back?

MR. ESCOBAR: Judge, and another request. Mr. Reeves obviously is here. He has to have some lunch. Is it appropriate, with the Court's approval, for him to be able it go to lunch with his family, if necessary?

THE COURT: Certainly.

MR. ESCOBAR: Okay. I know that his wife is here. He will not have conversations about what's

happening in here with his wife.

THE COURT: Correct.

MR. ESCOBAR: Is there any prohibitions with him having lunch with his wife?

THE COURT: No. Just, you know, obviously don't discuss what is going on in the courtroom just as you wouldn't want any other witness. She is a witness, supposed to testify today, correct?

All right. That's the only prohibition. Obviously, I'm sure you've got her depo, so I'm a little safeguarded here, but I have no qualms otherwise.

MR. ESCOBAR: Thank you, Your Honor.

THE COURT: Thank you. We will be in recess until 1:15.

(Thereupon, the requested excerpt of testimony to be transcribed was concluded.)

CERTIFICATE OF REPORTER

STATE OF FLORIDA)

COUNTY OF PINELLAS)

I, CHARLENE M. EANNEL, RPR, certify that I was authorized to and did stenographically report the foregoing proceedings; and that the transcript is a true record of the proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties hereto, nor am I a relative or employee of such attorney or counsel, nor do I have any interest in the outcome or events of this action.

DATED this 21st day of February, 2017.

/S Charlene M. Eannel

CHARLENE M. EANNEL, RPR