IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

ROSEN TECHNOLOGIES LLC,	)	Case No. 3:22-cv-00732-K
	)	
Plaintiff,	)	JURY TRIAL DEMANDED
v.	)	
LENNOX INDUSTRIES, INC.,	)	
	)	
Defendant.	)	
	)	

VIDEOTAPED DEPOSITION OF HOWARD ROSEN
DECEMBER 14, 2022, 7:00 a.m.
MONTREAL, QUEBEC, CANADA

REPORTED BY: ANGELA GUNN, CSR

Veritext Legal Solutions
800-336-4000

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Videotaped Deposition of HOWARD ROSEN, the witness herein, held at Sheraton Hotel 555 McMillan Boulevard, Montreal, Quebec, Canada on December 14th, 2022, at 7:00 a.m., pursuant to notice, before Angela Gunn, CSR.

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QUESTIONS WITNESS INSTRUCTED NOT TO ANSWER:

INFORMATION TO BE SUPPLIED:
none

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A P P E A R A N C E S:

FOR THE PLAINTIFFS:
Ni, Wang & Massand, PLLC
8140 Walnut Hill Ln,
Ste 500 Dallas, TX75231
T. 972.331.4602
F. 972.314.0900
BY: Mr. Hao Ni

FOR THE DEFENDANTS:
Baker Botts
2001 Ross Avenue
Suite 900
Dallas, Texas 75201-2980
United States
T. 214.953.6500
F. 214.953.6503
BY: Mr. David G. Wille

Also present: David Oxilia, Videographer

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Montreal, Quebec, Canada
--- Upon commencing at 8:08 a.m. ---
VIDEOGRAPHER: Good morning. We are going on the record at 8:08 a.m. on December 14th, 2022. Please note that the microphones are sensitive and may pick up whispering, private conversations and cellular interference. Please turn off all cell phones or place them away from the microphones as they can interview with the deposition audio. Audio and video recording will continue to take place unless all parties agree to go off the record. This is media unit one of the video recorded deposition of Howard Rosen taken by counsel for defendants in the matter of Rosen Technologies LLC versus Lennox Industries, Inc. found in the United States District Court for the Northern District of Texas, Dallas Division. This is Case No. 3:22-cv-00732. This deposition is being held at Sheraton Montreal Airport located at 55 Boulevard McMillan, Montreal, Quebec, Canada H9P 1B7. My name is David Oxilia from Veritext Legal Solutions. I am the videographer. The court reporter is Angela Gunn, also with Veritext. I'm not authorized to administer an oath, I'm not related to any party in this action, nor am I

financially interested in the outcome. Counsel are now present in the room, and everyone attending remotely will now state their appearance and affiliations for the record. If there are any objections to proceed, please state them at the time of your appearance, beginning with the noticing attorney.
MR. WILLE: David Wille for the defendants.
MR. NI: Hao Ni for the plaintiffs, Rosen Technologies LLC, and for the witness, Howard Rosen.
VIDEOGRAPHER: Thank you. The court reporter will now swear in the witness.
HOWARD ROSEN, after having been duly affirmed/sworn was examined and testified as follows:
VIDEOGRAPHER: Your witness, Counsel.
EXAMINATION
BY MR. WILLE:
Q. Please state your name.
A. Howard Rosen.
Q. Mr. Rosen, you are the inventor listed on the patents asserted in this case, correct?

A. Correct.
Q. And are you the sole inventor of each of the inventions claimed in those five patents?
A. I am.
Q. Do you understand you are under oath today just as you would be in a court of law?
A. Yes.
Q. Have you ever been deposed before?
A. Never.
Q. Have you ever been convicted of a crime?
A. No.
Q. You understand the court reporter can only take down what one of us is saying at a time?
A. Okay.
Q. So please let me finish my question before you begin your answer, and, similarly, I'll try to let you finish your answer before I begin my next question. Can we agree to that?
A. Yes, of course.
Q. And if you don't understand a

question, tell me what you don't understand about it and I'll try to clarify it for you. Otherwise, I'll assume you understood the question. Can we agree on that?
A. Yes.
Q. Are you on any medication today?
A. No.
Q. Any reason you cannot tell the truth today?
A. No.
Q. Okay. What is your home address, sir?
A. 695 Chemin Avila, Piedmont, Quebec, and I have to give you the postal code by looking at it up. It's an address that's just not a common address we use most of the time because we live in the middle of nowhere.
Postal code is Juliette zero Romeo one kilo zero.
Q. Do you have a cell phone?
A. Yes.
Q. What is your cell phone number?
A. It's (514)839-2021.
Q. What did you do to prepare for your deposition?

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MR. NI: Object --
THE WITNESS: Nothing. We just --
MR. NI: I'm sorry, I just wanted to caution the witness that you can tell -- you can put on the record what you did to prepare, who you met with, but not the substance of our conversations in preparation for this deposition.
THE WITNESS: Okay, well, not much really. I just met with my lawyers for the -- well, my lawyers -- I don't really we call them my lawyers, but I'm the witness here, and I met with Hao and Adam Baumbli, and we just prepared, you know, a few things, that's all, just to understand what a deposition is.
BY MR. WILLE:
Q. How long did you meet for?
A. Um, in terms of socializing, we were at a hotel for a whole day, because we stayed over for a night prior just to understand each other and, um, how do I give you a fair number? What do you consider a proper division of time?
Q. You met for a day; is that fair?
A. Yes.
Q. Okay. And did you review any documents when you met with your attorneys?

A. No.
Q. Have you read the five patents that are at issue in this lawsuit recently?
A. No, I think I remember them. I didn't bother reading them and I haven't read them probably in I would say ten years or so, maybe more.
Q. Okay. Sir, did you get a college degree?
A. No.
Q. No. Did you go to college?
A. No.
Q. Did you have some experience with electronics prior to filing these patent applications?
A. My father was a TV technician, and I watched him train when I was very -- at a very young age, and my mind was always set in one specific direction, and so therefore I wasn't very good in school, and I essentially dropped out in my head at about approximately grade eight, but did continue in school until about grade 11.
Q. Okay. And so did you have experience with electronics prior to filing these patent applications?

A. Yes, yes, a tremendous experience.
Q. And what experience in electronics did you have prior to filing these patent applications?
A. Well, after watching my father learn electronics through a mail course by post -- let me think about this for a sec -- it's a long story, and you are trying to condense it, so I have to figure out where all the commas go.
After learning, you know, from his books, I became intimately interested, and from the young age learning to read, I read about all various inventors way back when. Um, that's really about it. The last really book I read, the last real storybook, because I'm just turned off to the world except for the very narrow spectrum of the field of electronics specifically, I read Huckleberry Finn, and I don't think I've read a story since then.
Q. Everything else has been technical that you have read since then --
A. Completely, just data sheets on new parts and nothing else.
Q. How many years of experience with

digital electronic did you have prior to filing these patent applications?
A. From the day it was invented going all the way back, even before TTL, transistor transistor logic.
Q. Would it be fair to say you had more than 15 years of experience with digital electronics?
A. Yes.
Q. Before any of these patents were filed?
A. Oh, yes.
Q. And before these patents were filed, did you have several years of experience working with liquid crystal displays?
A. Yes.
Q. And before these patents were filed, did you have several years of experience working with touchscreens?
A. Yes.
Q. Before these patents were filed, did you have several years of experience working with microprocessors?
A. Yes.
Q. Before these patents were filed,

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did you have several years of experience working with microprocessor systems?
A. What do you mean by -- define systems.
Q. Any system that's controlled by a microprocessor.
A. Yes.
Q. Okay. And before these patents were filed, did you have several years of experience with internet communications?
A. Yes.
Q. Before these patents were filed, did you have several years of experience with wireless communications?
A. Yes.
Q. Before these patents --
A. Should -- may I just interrupt you for a second?
Q. Yes.
A. Um, I wonder, is there any benefit to going into any detail on experience, because I am just wondering if that makes any sense or it doesn't really make a difference?
Q. Please, sir, answer the questions I ask you and I will ask for details as we go

where I would like detail, okay?
A. Okay.
Q. Before these patents were filed, did you have several years of experience working with modems?
A. Yes.
Q. Okay. And before these patents were filed, did you have several years of experience working with real-time clocks?
A. Yes.
Q. Before these patents were filed, did you have several years of experience writing software for microprocessor controlled devices?
A. Yes.
Q. What are some of the microprocessor controlled devices that you had worked on the development of prior to filing these patent applications?
MR. NI: Objection, form.
THE WITNESS: There was an objection.
MR. NI: You may answer the question. It's just to preserve the objection to the form of the question.
THE WITNESS: Okay, well, I played with chips and built lots of things my whole life. I

guess let's just try to go by memory, that's factual, and can give you references. So let's go way back to the Motorola MC14-410, you can write that down, and look at the date of that chip and I invented at that time an auto-dialer that connected to any type of sensor, a sensor being something -- a whole embodiment, such as a thermostat as one example, and if temperature excursions were exceeded in either direction, the auto-dialer, microprocessor would actually dial a pre-programmed number, and it would turn on a tape recorder, a cassette recorder in those days, and I filed a patent on that. So if you looked at the history of the Motorola MC14-410 that will give you at least a mark knowing that I'm knowledgable even way before that period.
BY MR. WILLE:
Q. Okay.
A. I grew up before the LED.
Q. Okay. Can you just briefly list some of the microprocessor devices that you worked on the development of prior to filing these patent applications?
MR. NI: Objection, form. Go ahead, you can answer the question.

THE WITNESS: Okay. Can I tell you what I've worked on prior to filing these particular --
BY MR. WILLE:
Q. Yes, that's the question.
A. I've worked on home satellite receivers, and developed some of those. I'm one of the fathers of the home satellite receiver. A lot of things. A lot of radio-related projects.
Q. Anything else?
A. Well, there's a whole gamut. My whole life consists of, you know, if I'm not sitting here, I'm probably playing with electronics and always have been.
Q. Okay. Let me ask you what is IAED?
A. Um, I have to think of, if that's a company that I own or --
Q. Yes.
A. Okay.
Q. So that's my question. What is IAED?
A. That is a company that exists -- I'm getting on in years, I'm going to be 72. And so IAED is actually a company that holds my patents or held my patents for, you know, various

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inventions for my estate basically. So that is all, you know, for my kids and everybody that sort of moves on ahead of me at a certain point.

Q. Okay. Do you recall assigning the patents that are at issue in this lawsuit from IAED to Rosen Technologies in December of 2021?

A. Yes.

Q. And what is Rosen Technologies?

A. Rosen Technologies is a company that's owned and operated I guess by the people that I am working with.

Q. Okay. Was Rosen Technologies formed to acquire the patents that are at issue in this lawsuit and the others that were --

A. I didn't form Rosen Technologies.

MR. NI: Objection, form.

THE WITNESS: That's not my territory to describe to you. I think maybe you have to ask the lawyers that are involved in this and understand the proper sequence of Rosen Technologies.

BY MR. WILLE:

Q. So Rosen Technologies is not your company; is that right?

A. No, it is not.

Q. Do you have any ownership interest in Rosen Technologies?

A. No.

Q. And you have no knowledge of why Rosen Technologies was formed?

MR. NI: Objection, form.

THE WITNESS: Yeah, I object to anybody insinuating I have no knowledge. Of course I do. How would I have assigned it if I had no knowledge?

BY MR. WILLE:

Q. Okay. So why was Rosen Technologies formed then, sir?

MR. NI: Objection, form.

THE WITNESS: What does that mean objection, form, I shouldn't continue or --

MR. NI: No, you can continue. It's just a preservation of objections. Unless the attorney asks me, I don't go into detail to form objection, but you can still answer the question.

THE WITNESS: Can I go into all of the detail? I know it's a trick question, but I just want to understand that Rosen Technologies involves of course, you know, your group or the group that -- and I can't describe it accurately,

because I don't know the mechanics of Rosen Technologies. This I have to tell you. I don't know it. But Rosen Technologies has the patents, and they have the right of way with them to do what it is that they are going to do.

BY MR. WILLE:

Q. Okay. Do you know if Rosen Technologies makes any products?

A. They don't.

Q. Does Rosen Technologies do any research and development?

MR. NI: Objection, form.

THE WITNESS: Every time I hear that I think am I supposed to not say anything or --

BY MR. WILLE:

Q. Okay, ignore his objections unless he tells you not to answer the question, please. Just answer the question.

A. Okay. Do I know if they build anything? They don't.

Q. Okay. And do you know of any business that Rosen Technologies has other than enforcing your patents?

A. I don't know.

Q. Do you know who any of the owners

of Rosen Technologies are?

A. Implied owners or probably I would think my attorney or the attorney on record, I shouldn't say "my", I guess.

Q. Mr. Hao Ni?

A. I'm not sure. I don't know.

Q. Okay. So you don't know who the owners of Rosen Technologies are --

A. I can't tell you who signed the minute book or who signed -- who is actually a director of Rosen Technologies.

Q. Okay. So you sold a group of patents from IAED Technology to Rosen Technologies in December of 2021. We talked about that a few minutes ago. Do you recall that?

A. Yes.

Q. Do you know what the purchase price was for those patents?

A. Um, offhand, they were -- no, I can't really say that I know. There's just a contractual agreement, you know, between us, and that's it, and I'm just -- I just let them go.

Q. So there was a contractual agreement between IAED Technologies and Rosen Technologies?

A. I don't believe it's through IAED. I think it's IP Val [ph.] that is doing this, but, again, I'm not mechanically inclined. When I say "mechanically", the definition of that word is basically I am not educated on the topography of the company -- of that company. I understand only, you know, what I have on my side of this. So I think that if you want any definitions, you would probably have to ask I would think Hao or Adam Baumbli, and maybe get a more accurate scenario, because I really never asked.

Q. Okay. So all I'm asking you is what the purchase price of the patents was; do you recall that?

A. That's just -- I don't know if that's classified or is that --

MR. NI: You can answer the question.

THE WITNESS: Okay. I think the purchase price is based on the contractual agreement basically.

BY MR. WILLE:

Q. Okay. Do you recall what that price is?

A. Um, no, I don't.

Q. Okay. And is there a contractual agreement between you personally and Rosen Technologies?

A. No, not at all.

Q. Okay. So there's a contractual agreement between IAED Technologies and Rosen Technologies; is that right?

A. Something to that effect. I just don't remember what names appear on any document.

Q. Okay. Counsel, we request production of that contract, any contracts relating to these patents.

A. If I don't know something, I'm just going to tell you I don't know. I don't want to --

Q. That's fine.

A. I don't want to get fussy and you are going to tell me I'm not telling the truth.

Q. Do you have -- all I want, sir, is what you can remember. If you don't remember --

A. Okay.

Q. -- you can just say I don't know or I don't remember. It's fine to answer the question that way.

A. I absorb technical facts when I look at them, but that's it.

Q. Do you have a financial interest in this litigation?

A. Um, in --

MR. NI: Objection, form.

THE WITNESS: In terms of our contractual agreement, there could be some remuneration at the end of everything -- anything.

BY MR. WILLE:

Q. Okay, and do you know what the details of that are?

A. To an extent, yes.

Q. Okay. What do you recall from that?

A. Well, I know there's a percentage. I don't know the exact percentage. I don't remember it.

Q. Okay. So you are entitled to a percentage of any recovery in this litigation; is that your understanding?

A. Well, I'm not. The company AED is, my estate basically.

Q. Okay, thank you. Who is Verdant Environmental Technologies?

A. Verdant is a company that designs and manufactures energy management thermostats.

Q. Okay, and do they have a licence to the patents that are at issue in this lawsuit?

A. Yes.

Q. And is that a royalty-free licence?

A. Yes.

Q. Why is that licence royalty free?

A. Because the company was purchased by a company in Toronto, Ontario.

Q. Okay. So why did they get a royalty free licence, is my question?

A. Because if they are buying a company, they need to have full rights to move forward with any intellectual property that concerns what they bought.

Q. Okay. And is Verdant a company you were involved with?

A. Yes.

Q. What was of your role with Verdant?

A. I was the founder and chief inventor, and I was the father of all of the thoughts in Verdant.

Q. Okay. And does Verdant practice any of the patents that are at issue in this case?
A. No. No, they are using a very basic type of device.
Q. Okay. And were they purchased by Emerson?
A. Yes.
Q. Okay. I am going to hand you what's been marked as Exhibit 10.
--- Exhibit 10: document entitled "Plaintiff's Amended Disclosure of Asserted Claims and Preliminary Infringement Contentions" ---
BY MR. WILLE:
Q. So, sir, Defendant's Exhibit 10 are the plaintiff's Amended Disclosure of Asserted Claims and Preliminary Infringement Contentions in this case. Have you seen this document before?
A. No. I don't read these documents.
Q. Okay.
A. I could look at them all day long, I can't absorb them. They are not within my subject matter.

Q. Okay. If you go to fifth page of the document, it looks like this --
A. Are they numbered?
Q. No. I produced them how we received them.
A. Okay.
Q. But if you go to the fifth page of the document --
A. Is that a back side or forward side?
Q. The back side there.
A. Beginning with documents.
MR. NI: I think it's the fourth page then, the back side.
THE WITNESS: Okay, I've got it.
BY MR. WILLE:
Q. Do you see there's -- yes, sorry, it's the fourth page. Do you see there's a box there that says:
"Documents evidencing conception and reduction to practice of each of claimed invention."
Do you see that?
A. Yes.
Q. Okay. And the statement there it

says:
"At this time, Rosen does not believe it is in the possession of any documents relating to the conception and reduction to practice of each claimed invention. Rosen will perform a reasonable search and produce non-privileged, relevant documents relating to the conception and reduction to practice of each of the claimed inventions."
Did I read that correctly?
A. What does that mean? You read very well.
MR. NI: I just want to clarify the term "Rosen" in this document refers to Rosen Technologies LLC.
THE WITNESS: Okay.
BY MR. WILLE:
Q. First of all, did I read that correctly?
A. I heard words. I have to tell you I'm very ADHD when it comes to focussing on certain things.

Q. Okay.
A. Okay, I'll tune out of Netflix, I fall asleep in front of movies, I can't watch TV. Anything off of a certain subject matter just doesn't work, so you are going to have to really help me with some of these documents.
Q. Okay, did I read that correctly?
A. Your reading was exquisite, but I didn't hear a word.
Q. Okay. Do you know what the term "conception and reduction to practice -- those terms, "conception and reduction to practice" mean when it comes to patent?
A. Conception I guess would mean to create.
Q. To think of the idea?
A. Okay.
Q. And reduction to practice means to build it, so --
A. Okay. And which "Rosen" are you referring to here?
Q. This is referring to Rosen Technologies.
A. Okay.
Q. So my question to you, sir, is

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did you build the thermostats with any of these inventions prior to filing the patent applications?
A. Never.
Q. Okay.
A. So this is me, this Rosen is me?
Q. I'm asking you personally, did you ever build any of the thermostats that are claimed in any of the five patents in this lawsuit?
A. Did I ever build them --
MR. NI: Objection to form.
BY MR. WILLE:
Q. Yes.
A. There was a condition here before. You said without filing the patents.
Q. Before you filed the patent applications --
A. Yeah.
Q. -- there's five patents at issue in this case --
A. You want to know if I built it, I created a prior art before I built them; that's what you are asking?
Q. I'm not asking about prior art.

All I'm asking is did you build a thermostat which included the invention of any of the five patents at issue in this case before you filed the patent applications?
A. No.
Q. Okay. Do you have any evidence showing when you thought of the ideas --
A. I may, but I certainly have to scour for months to try to find any papers or remanents of those days.
Q. Okay. As we sit here today, you are not aware of any written documentation that corroborates when you thought of the ideas claimed in the five patents?
A. At this moment, you are correct. I can't predict the future.
Q. Okay. So, sir, I have put in front of you the five patents, and they are marked Exhibits, Defendant's Exhibits 1 through five.
--- Exhibit 1: Patent No. 6,789,739 ---
--- Exhibit 2: Patent No. 7,232,075 ---
--- Exhibit 3: Patent No. 7,156,318 ---
--- Exhibit 4: Patent No. 6,619,555 ---
--- Exhibit 5: Patent No. 7,185,825 ---

BY MR. WILLE:
Q. So the first one that I have put in front of you is the '739 Patent, which is Exhibit 1.
A. Okay.
Q. Entitled "Thermostat system with location data." Do you see that?
A. I do.
Q. Okay. And I'm going to ask you to flip to claim one of this patent, which is in column eight.
A. Column eight meaning the numbers on top obviously --
Q. Correct.
A. -- column?
I see, okay, it's down at the bottom, yes.
Q. Okay. So with respect to claim one, my question to you is what is new in that claim?
MR. NI: Objection, form.
THE WITNESS: That's a very broad question. Do you have a specific location that you want me to define in this? There are a lot of words here.

BY MR. WILLE:
Q. So I'm asking claim one is one of the claims that are being asserted against my client in this case; do you understand that?
A. Yes.
Q. Okay. And so my question is what is new about claim one? What is new about your invention claimed in claim one of the '739 patent?
MR. NI: Objection, form.
THE WITNESS: Well, I think we would have to dissect it line by line and go through each thing that, you know, would be new, because there's a lot of material here. Do you have a specific location you would like me to define?
BY MR. WILLE:
Q. No, I would just like to know what you think is new about claim one.
MR. NI: Objection, form.
THE WITNESS: Everything. I just can't summarize it all in ten words or less.
BY MR. WILLE:
Q. Okay. Well, tell me what you -- can you tell the jury what was new about the invention that's claimed here in claim one?
MR. NI: Objection, form.

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THE WITNESS: I think, in general, and the broadest way, because it's important you understand that we are not being specific here, so I'll respect that, but I have invented a means of a thermostat having information in it, any type that will be used to indicate the location of that thermostat, so that it can be -- basically the geographical location, and that's a very broad statement for a good reason. That has never existed in any thermostat.

BY MR. WILLE:

Q. Okay. Let's look at Claim 3. So Claim 3 indicates that the location data that's stored could be a local phone number, a local zip code or postal code, local latitude and longitude of the physical location. Do you see that?

A. Yes, I do.

Q. Those are three options?

A. Yes.

Q. Okay. And are those options that had been used in computer systems before to identify the location of a device?

MR. NI: Objection, form.

THE WITNESS: That's a very broad statement. I want to say there are even, you

know, in your car, your refrigerator and everything else, there's a serial number, but there are wheels in every new invention as well, and wheels have existed for, you know, eons, so I think your statement was -- your question was too broad.

BY MR. WILLE:

Q. Well, sir, my question is prior to filing your patent applications and prior art systems, isn't it true that things like the zip code and phone number had been used to indicate the position of electronic devices?

MR. NI: Objection, form.

THE WITNESS: I am going to answer it the same way you are asking it. I think throughout all of time almost every device needs some sort of identification. Every functional device. I'm not talking about a toy. I'm talking about a device. And so whether you have registered a serial number for your TV or you have an electronic serial number in your vehicle, yes, there had been locations in devices and cameras and all new inventions coming out even today. You know, new heart valves give out digital information today about their location in the

human body, and they are addressed accordingly to be adjusted for certain types of pressures they want to achieve.

So, you know, that's a very broad question that you asked but I've employed a means of identifying the location of a thermostat within the thermostat, and the methods are all there. I can't go into any more detail. I haven't read these patents in years.

BY MR. WILLE:

Q. My question, sir, is prior to filing your patent application, were you aware of other electronic devices that stored the zip code or the telephone number associated with the device --

A. Do you mean thermostat devices? No.

Q. Please let me finish my question and listen carefully to my question.

A. I am.

Q. Okay. So prior to filing your patent application, the '739 -- for the 739 patent, were you aware of other electronic devices of any type that stored a zip code or a telephone

number to identify the location of that device?

MR. NI: Objection, form.

THE WITNESS: Again, I think your statement is too general. Can you point out a device and I'll tell you if I was aware of it, because the whole world uses zip codes and telephone numbers and serial numbers, and, you know, even an IP address is a form of that, so everybody used addresses in every new invention practically. Anything with a microprocessor may have had an address because we address ports in a microprocessor. We don't activate a port unless we address it. So therefore we are taking wheels here and trying to tell me that, you know, am I aware of things having wheels that are newly invented? They happen every day.

BY MR. WILLE:

Q. Okay --

A. I think your question is too broad. I can't answer it.

Q. I'm just asking, sir, are you aware of any electronic devices that included location information such as a zip code or telephone prior to filing your patent application?

A. Um, well, let's go to the most

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simple form, because any audience would understand the GPS knows location; how is that?
Q. And those devices existed before you filed your patent application, right?
A. Of course, and again I reiterate in parallel with wheels and their inventions they go into. Wheels existed.
Q. I'm not asking you about wheels, sir. What I am asking you is about electronic devices --
A. I know, but you are generalizing so I'm giving you a general answer. It's going to remain that way, so could we move on.
Q. To be clear, before you filed your patent application, it was known to persons skilled in the art to use a zip code or a telephone number to identify the location of an electronic device, fair?
A. No. not fair.
Q. Why not?
A. Because let's go back to the year 2004. There were a lot of deficits in technology in 2004. We are now 18 years later, and a lot has been learned, and you have to really understand where you were and what you were doing in 2004.

The only devices that knew location information were just simple devices, let's call it that. And we even call any computer chip a simple device, because unless it's developed properly to process the information in a methodical way do you have an invention. Okay, I rest my case. I'm not saying anymore. You can't ask me to, because I can't teach you any more than that.
Q. Sir, I'm asking before you filed your patent application, were there other electronic devices that stored a zip code or a telephone number to identify the location of the electronic device? It's a simple question.
A. I don't know if they stored it, so the answer is no.
Q. You don't know that, okay. Let's look at --
A. It's not that I don't know that. There are many devices that process geographical coordinates and, you know, locate your phone if you get a phone call from an operator, it's because she called you using an address known as a telephone number, which is translated differently in a telephone network than this patent, and used differently. But, yes, I mean the world --

everything has an address.
Q. Okay. So --
A. Okay.
Q. -- maybe I'm not understanding your answer then, sir.
Are you -- is it your testimony that there were electronic devices that existed prior to you filing your patent application that stored a zip code or a telephone number to identify the location of the device?
A. Um, except for a PC perhaps. Maybe if you saved the address on a computer, on a personal computer, I can't think offhand of what else I could elaborate on.
Q. Okay. Let's look at Exhibit 2, which is the '075 Patent.
A. By the way, I prefer to go in order. Are you done with Exhibit 1? Is that off the table?
Q. No, we'll come back to Exhibit 1.
A. Okay, because I think once we focus on something, it would be good to stay there, but...
Q. So Exhibit 1 -- sorry, Exhibit 2 is Patent 7,232,075 entitled, "Thermostat system

with touchscreen with user interfaces or operational algorithms via a remote correspondent."
Do you have Exhibit 2 in front of you, sir?
A. Okay. Yes, I do.
Q. Okay. If you will turn to claim one, column 14, please.
A. Fourteen, okay.
Q. So do you see claim one there?
A. I'm just reading the title. Okay, go ahead.
Q. Do you see claim one in column 14?
A. Yes, I do.
Q. All right. And this claim claims a thermostat that allows functional programming to be transferred from a remote correspondent; is that accurate?
MR. NI: Objection, form.
THE WITNESS: Yes, it's accurate. It reads right, yeah.
BY MR. WILLE:
Q. Okay. And in other words, to not use the exact terms in the claim, what this allows

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someone to do is to change the software in the thermostat; is that right?
MR. NI: Objection, form.
THE WITNESS: It's changing the -- not necessarily. It's broader than that. Um, yes, that could be a way of, you know, doing this, and it could easily mean that, but if you look at the -- I think I used a rather lengthy discussion on what remote correspondents are. So as an example, it could even be talking to a -- something else, you know, another device such as a non-modem.
BY MR. WILLE:
Q. Okay, but is what is -- what you think is new in claim one the ability to change the functional programming of the thermostat over a computer network such as the internet?
MR. NI: Objection, form.
THE WITNESS: Yeah, we are not changing necessarily the functional programming. We are changing the look of a virtual touchscreen, and that's not necessarily the whole scope of this patent. The patent is quite broad. I would have to study it for hours to try to take apart every word with you. I didn't write this. A patent

attorney did under my description of what I needed to encompass.
BY MR. WILLE:
Q. Right. And when the patent attorney filed that application, you signed a declaration under penalty of perjury saying you were the inventer of what is claimed; do you recall that?
A. Absolutely.
Q. Okay. And was your declaration truthful?
A. Yes, definitely.
Q. Okay. So what's new about claim one, sir?
MR. NI: Objection, form.
THE WITNESS: I think you are being rather curt and rude here. I'll tell you that I think you have got to read it all and understand it or ask the attorneys of record here to help you with this. If you want to just pick out one point, I'll do my best to help you.
BY MR. WILLE:
Q. Well --
A. But if you want me to summarize a claim that is literally all of column 14, and

let's see, how far down does this go? Then it goes to other claims. If you want me to summarize all of this, it's not easy in three words. That's probably why they used so many.
Q. I'm asking you to tell the jury, sir, what you think is new about the invention claimed in claim one of the '075 patent; can you do that?
MR. NI: Objection, form.
THE WITNESS: In three words or less, it's a means of changing the look of a thermostat screen, of a virtual screen, so that it could even as, one example of many millions, it could even match the wallpaper in your house.
BY MR. WILLE:
Q. Okay. There's nothing about matching wallpaper in claim one, is there, sir?
A. I don't know. As I said, I haven't read the whole claim and I haven't sat here for hours taking it apart, but I think that it covers all of that, including virtual buttons, um, and the change of those buttons through a remote correspondent.
Q. Okay. You were familiar with modems before you filed your patent application,

correct?
A. Yes.
Q. Modems had been around for decades before you filed your patent application, correct? Sorry, I --
A. Yes.
Q. Yes. There's nothing new about using a modem to communicate with a remote correspondent, correct?
MR. NI: Objection, form.
THE WITNESS: No, it's correct.
BY MR. WILLE:
Q. And that modem could be an internal modem or external modem, correct, those before were both known in the prior art?
A. In this invention?
Q. No, the use of internal or external modems to communicate over the internet, those were both known in the prior art, correct?
A. Of course. But why do you ask me such questions? They are just known that, yes, modems work, and that's what they do. They communicate.
Q. Okay. The next patent that I put in front of you is Exhibit 3, the '318 Patent; do

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you see that?
A. Okay.
Q. And Exhibit 3 is U.S. patent 7,156,318. For the record, do you have Exhibit 3 in front of you, sir?
A. I do.
Q. All right. And Exhibit 3 is entitled, "Programmable thermostat incorporating a liquid crystal display selectively presenting adaptable system menus including changeable interactive virtual buttons." Do you see that?
A. Yes.
Q. Let me ask you to turn the claim one of the '318 Patent.
A. Claim one of the '318 Patent.
Q. Which is in column 13. Okay?
A. Okay.
Q. And what -- can you tell the jury, please, what is new about the invention claimed in claim one of the '318 Patent?
MR. NI: Objection, form.
THE WITNESS: I think I'll just go by the name of the product -- of the invention. So this is about thermostats, and in the days when this was filed, and I believe it was way before

2003.
Q. Okay. To be clear, you never built the thermostat that's claimed in the '318 Patent; is that correct?
MR. NI: Objection, form.
THE WITNESS: Could I answer?
MR. NI: Yes, you can answer.
THE WITNESS: Yes, I did.
BY MR. WILLE:
Q. Oh, you did. When did you build it?
A. I prototyped it around 2002, I would say, in that period.
Q. Okay. Do you still have that prototype in your possession?
A. Probably.
Q. Okay. Now you were aware of thermostats prior to filing your patent application, prior art thermostats that use the touchscreen, correct?
A. Of course, I mean touchscreens existed, sure.
Q. And there were thermostats that used touchscreens prior to filing your patent application, correct?

2007, because most of my patents were filed, you know, in the at least the early part of that decade. Does it actually show a filing date? Not that I want to be too technical.
BY MR. WILLE:
Q. Yes, sir, September 3rd, 2003.
A. Exactly. So back in those days, because you have to put your head in the right perspective when you ask me these questions, there were no thermostats that had buttons that would be the focal point of what you are looking at and when you touch it the result would be in the same real estate, in the same area. Thermostats and anything else that existed always used glass displays -- I'm not referring to touchscreen -- that were what I call static displays. They turned things -- when you touched them, they would beep for the most part, and they certainly couldn't be virtual. The button wouldn't be touched and allow it to create a fluid feeling to it when you touched it, and it would we'll use the word "morph" into a different type of button or a different object. So this is what makes my thermostat friendlier than any other thermostat back in the years, you know, of approximately

MR. NI: Objection, form.
THE WITNESS: Yes, that part is correct, yes.
BY MR. WILLE:
Q. All right. And you are aware of other thermostats that used virtual buttons shown on the touchscreen, correct?
A. At this late point in time, yes, I see many of them today.
Q. No, I'm asking to be clear, prior to filing --
A. No --
Q. -- the '318 --
A. -- there were no virtual touchscreen thermostats on the market prior to this filing.
Q. Okay, that's your belief?
A. Absolutely.
Q. Okay. But you were aware of other devices prior to filing your patent application that used virtual buttons on a touchscreen, right?
MR. NI: Objection, form.
THE WITNESS: Not necessarily.

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BY MR. WILLE:
Q. Well, you didn't invent touchscreens, did you, sir?
A. Did you ask me if I invented touchscreens?
Q. I just did, yes.
A. No, you did not. I never heard you say you invented touchscreens.
Q. I said you did not invent touchscreens, did you, sir?
A. No, I didn't invent touchscreens.
Q. Touchscreens had been used for many years before your invention --
A. Of course, and so did wheels. Cavemen used wheels. How can we have new patents today based on wheels?
Q. Prior to filing your patent application, other devices used touchscreens with virtual buttons, correct?
MR. NI: Objection, form.
THE WITNESS: No, not necessarily with the virtual buttons. They used touchscreens, but nobody as of that date built a thermostat with virtual buttons.

BY MR. WILLE:
Q. Okay.
A. You need a complete answer with that -- all of those words embedded in it.
Q. Okay. Are you aware of thermostats that had buttons that allowed you to switch between multiple different devices prior to filing your patent application?
A. Multiple different devices?
Q. Yes, such as a heating unit, a cooling unit, an emergency cooling -- sorry, emergency heating unit.
A. Let me think about that. No, not really. There was nothing on the market at that time at all. And, again, if we look at virtual, we jump even ahead of that, because if we think of any devices that used buttons, they always used static buttons, buttons that were laser engraved in the glass and they would I'll call it they would be energized so that they would then show the words of that physically located button.
If you wanted an additional button, after you -- to produce a result and help the user to go through each step, it would never be in the same geographical location. Geographic -- I'm

mixing up the words here. In the physical location on the screen.
Real estate was very important use of it in older devices that used non-virtual screens.
Q. Okay. Devices that didn't use a touchscreen, thermostats that didn't use a touchscreen, are you aware of thermostats that didn't use a touchscreen that had a switch that allowed you to switch between heating, cooling, and emergency heat --
A. Of course --
Q. -- prior to filing your patent application?
A. Absolutely --
Q. So --
A. I didn't invent the thermostat. I invented the virtual touchscreen thermostat. Big difference.
Q. So when you have added the virtual touchscreen to the thermostat, you have replaced an electrical switch that could switch between heating, cooling and emergency heat with a virtual button that switches between heating and cooling and virtual heat; is that correct?
MR. NI: Objection, form.

THE WITNESS: I object too, because you are simplifying a very complex invention. Of course anything has a switch on it, anything, everything. I didn't invent a switch on a thermostat. I invented a virtual touchscreen thermostat. There's a difference there. This is an all-encompassing invention, which uses all kinds of things in it, and they are claimed in here. We didn't include wheels, but maybe we should have just to prove that inventions today have wheels and yet wheels existed. Touchscreens existed, LCDs existed, but what I've done didn't exist, and that's the whole encompassing product. Nobody thought of that.
BY MR. WILLE:
Q. I'm just focussing on just aspect here, sir. Not everything you did. I'm focussing --
A. So you are asking me if a mechanical switch existed that controlled a thermostat that had a screen that might have said on or off or something? Of course that existed.
Q. No. What I'm asking you is when you created your invention, did you basically replace a switch, a mechanical switch that could

switch between heating and cooling and emergency heat with a virtual button that allowed you to switch between heating and cooling and emergency heat?

MR. NI: Objection, form.

THE WITNESS: Um, I didn't replace anything. I created a unit that stood on its own and had its own unique means of switching and displaying as such.

BY MR. WILLE:

Q. Okay.

A. Does that answer your question because I can't do better?

Q. When you are controlling space conditioning equipment you are just turning it on and off, right?

A. Not necessarily.

Q. What are you doing with your thermostat besides turning the heater on and off?

A. You are doing a lot more because you have the ability to. You can morph the buttons to displaying all kinds of things. You could even use simple things such as suddenly there could be a picture of something where the button originally was, or a prompt or something to

allow you to go to the next stage, even if you were someone's grandmother and were not educated in using a thermostat, suddenly you could do that.

Q. My question is simply your thermostat is turning on and off the heater, the air conditioner, et cetera, the way it was turned on and off in the prior art, correct?

A. Yes.

Q. Okay. And the temperature sensor, you didn't invent a new temperature sensor, correct?

A. Correct.

Q. You are just using existing temperature sensors, correct?

A. Of course.

Q. Temperature sensors had been used for decades prior to filing any of these patent applications, correct?

MR. NI: Objection, form.

THE WITNESS: Yes. I think the whole world understands that.

BY MR. WILLE:

Q. And you're aware of prior art thermostats that displayed the word "heat" when the thermostat was in the heating mode, correct?

A. Yes.

Q. And you are aware of prior art thermostats that displayed the word "cool" when the thermostat was in the cooling mode, correct?

A. Of course, that's the term that should be used if the heat or the cool is on. It should say heat or cold.

Q. And heat pumps were not new when you filed your patent applications, correct?

A. Correct.

Q. And when prior art heat pumps were used with prior art thermostats, it was common for the thermostat to display the word "heat" when the heat pump was used in the heating mode, correct?

MR. NI: Objection, form.

THE WITNESS: Yes, that's correct.

BY MR. WILLE:

Q. And it was common for prior art thermostats to display the word "cool" when a heat pump was used in the cooling mode, correct?

A. Yes.

MR. NI: Objection, form.

BY MR. WILLE:

Q. And sometimes you understand that

with a heat pump sometimes you have to use emergency heat; is that right?

A. Yes.

Q. And that happens because sometimes the heat pump can't supply enough heat, right?

A. Yes.

Q. When, for example, if it was particularly cold, very, very cold, you might need to use emergency heat to help the heat pump; is that right?

A. Yes.

MR. NI: Objection to form.

BY MR. WILLE:

Q. And it was common for prior art thermostats to display an indication that the thermostat was controlling emergency heat when it was in that mode, correct?

A. Yes, m'hmm.

Q. Let's look at the '55 patent, which is Exhibit 4 in front of you for the record. It's Patent 6,619,555.

A. Okay, good.

Q. If you look at claim one8 of this patent, please, which is on column eight.

A. Claim one8 on which page?
Q. Column eight.
A. Okay, got it, and which claim number?
Q. Claim one8.
A. Okay.
Q. Please tell the jury what's new about the invention claimed in claim one8?
MR. NI: Objection to form.
THE WITNESS: I have to look at the name again. You are talking about claim one8?
BY MR. WILLE:
Q. Yes.
A. I have to go through all of the letters beside, (a), (b), (c), (d). Makes sense, right? So this is an invention for a thermostat to display, as an example, things like weather forecast, stock market events, food menus. The list is endless.
Q. Okay, so if I understood you correctly, the invention is the ability to display those types of things; weather, stock market and other information --
A. And how do you define those types of things? What is a more operative words to

"those"?
Q. Well, you tell me, sir.
A. Diverse things.
Q. Diverse information such as weather and stock quotes on the screen of a thermostat; is that the invention?
MR. NI: Objection to form.
THE WITNESS: Yes.
BY MR. WILLE:
Q. Okay, now you were certainly aware of devices capable of displaying the weather and stock quotes and other diverse information on the screen when you filed this patent application, correct?
MR. NI: Objection to form.
THE WITNESS: As in our first discussion about wheels, of course I was in -- I knew that a computer could do anything, including that, but that was not a thermostat.
BY MR. WILLE:
Q. Okay. Would it be fair to say that a computer connected to the internet accessing the World Wide Web could do what your invention could do?
MR. NI: Objection to form.

THE WITNESS: It's not the same subject matter.
BY MR. WILLE:
Q. Fair enough. Okay, please try to answer my question.
A. I know, but I want to answer it clearly for the camera, and a computer is not the same subject matter as a thermostat on a wall.
Q. Okay. Let me be clear. Can a computer -- could a computer before you filed -- before you created your invention that's claimed in the '555 Patent, could a computer using a browser connected to the World Wide Web display weather on the screen?
A. It could.
Q. Okay.
A. But I'm trying to rewind back to 2002 of February, beginning of that year, to see just how advanced we weren't. So it's possible. I don't remember back to 2002, but I would imagine anything with a CRT, because that's what we had, you know, and we had LCDs, real crappy ones at that time, you know, could display anything.
Q. Well, sir, you are aware that web browsers become available in the 1990s to access

the internet, correct?
A. I don't remember dates like that. I'm not trying to act arrogant.
Q. Well, certainly before you filed this patent application --
A. Yes, of course --
Q. -- you were aware --
A. -- we had computers, sure.
Q. Let me finish my question before you begin your answer.
A. Okay.
Q. Certainly you were aware before you made your invention claimed in the '555 Patent that there were computers available that could access the World Wide Web using a browser and display things like weather and stuff like that --
A. Yes, of course. I'm not going to make up a story. They existed, but, again, it's different subject matter from thermostats.
Q. Okay. What devices were you aware of besides computers that accessed the internet before you made your invention, and displayed things like weather and stock quotes?
MR. NI: Objection, form.
THE WITNESS: That's a tough question.

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You are asking me literally to remember what existed in 2002 that read information, you know, such as this. And aside from a PC, I really don't know of anything else.
BY MR. WILLE:
Q. Okay, fair enough. Let's move on to Exhibit 5, which is US Patent No. 7,185,825. Sir, do you have Exhibit 5 in front of you?
A. I do.
Q. If you will go and look at claim one, which is in column six and seven. Are you there?
A. I am.
Q. Okay. Please tell the jury what's new about the invention claimed in claim one of the '825 Patent?
MR. NI: Objection, form.
THE WITNESS: So the claim tells us how to back up a clock using memory, specifically non-volatile memory, and, you know, other types of memory as well, which are able to store data during a power failure.
Prior to this invention, many devices used batteries that were primary as backup, meaning they depleted over

time. And when that happened, and there was a power failure, you would see, you know, incorrect information of time, and typically a thermostat could even on a power failure, when that battery was dead, start flashing or indicating that it's starting at the day of the invention was conceived of that, or the creation of that product -- not the invention, but the creation, whereby the thermostat would power up not really knowing what year or date or time it was. And that was a catastrophic thing. Because if you are away, and it's cold outside and going down to minus 30 in the next two weeks here specifically, if your thermostat came back with the wrong period of time, it would certainly make some serious mistakes that could be to the detriment of the safety of a home that's uninhabited. So I used memory to back up the time from the last power down event, so at least the thermostat would still function properly when power was restored.

BY MR. WILLE:
Q. Okay, move to strike the portion of the answer discussing the prior art as non-responsive.
So if I understood you correctly, sir, what's new about the invention claimed in claim one of the '825 Patent is using a non-volatile memory to store the time of the clock right before the power failure and then restoring that time after the power comes back on; is that right?
MR. NI: Objection, form.
THE WITNESS: That's right. When we use the word "non-volatile" it's a very broad word. It's memory that doesn't erase. It remembers over power failure. So --
BY MR. WILLE:
Q. Okay.
A. -- I think to go into any more detail we'll have to --
Q. Let's take it one step at a time. Just so the jury understands this, you're storing in a memory -- things in a memory that's called non-volatile, right?
A. Yes.
Q. And a non-volatile memory is a

memory that keeps the information and even when you turn off the power, right?
A. Yes.
Q. So what you are doing is taking the time -- so let's take a hypothetical. Let's suppose the power failed at 3:00 o'clock and so you wrote the time of 3:00 o'clock into the memory?
A. Yes.
Q. All right. The power now comes back on at 5:00 o'clock, with your invention, the memory, the non-volatile memory will be read, and the term -- the time 3:00 o'clock will be put into the clock upon the restoration of the power at 5:00 o'clock; is that right?
MR. NI: Objection to form.
THE WITNESS: Yes.
BY MR. WILLE:
Q. Okay. You would agree that there were various methods used to try to keep the time accurately in the event of a power failure in thermostats before your invention, correct?
MR. NI: Objection, form.
THE WITNESS: There were various methods.

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BY MR. WILLE:
Q. And one method was to use a battery to keep the real-time clock running during the power failure, right?
A. That's correct.
Q. And instead of a battery, you could use a device called a supercapacitor, correct?
A. Yes.
Q. And a capacitor was something that would hold enough charge, the theory was, to try to keep the clock running during the power failure, correct?
MR. NI: Objection, form.
THE WITNESS: Yes, but that was depleted in about four years. Supercapacitors had very short physical life.
BY MR. WILLE:
Q. Okay, but you agree that there were methods that were known to persons of ordinary skill in the art to try to keep the proper time on the thermostat during a power outage, correct?
MR. NI: Objection, form.
THE WITNESS: I'm going to preface that

by saying I am aware of that, but those were not fail safe, and that's what I have invented, something that is.
BY MR. WILLE:
Q. So we'll come to fail safe in a minute. All I'm trying to establish right now is persons of ordinary skill in the art knew methods before your invention, they were aware of -- persons of ordinary skill in the art were aware of methods to try to keep the proper time on the clock of a thermostat --
A. Of course --
Q. -- in the event of a power outage?
A. Yes.
Q. Okay. So the concept of trying to restore the time after a power outage for a thermostat is not new, correct?
MR. NI: Objection, form.
THE WITNESS: Again, that goes with one comment. It is not new, but nobody has accomplished what I have accomplished where a thermostat will always come back with at least some normality.

BY MR. WILLE:
Q. Okay.
A. So I use the world "always".
Q. So let's talk about your method is to store the time in a non-volatile memory so that the time immediately before the power failure is in the memory, right?
A. Yes, my method is absolute.
Q. So were you aware of devices other than thermostats that used your method --
A. No.
Q. -- to restore time --
A. Sorry, I should let you finish.
Q. Yes, let me finish my question, please.
Were you aware of prior art devices that used your method of storing the time of the real-time clock in a non-volatile memory and then reading that time back into the clock after power was restored?
A. No.
Q. Okay. Now this patent also I'll represent to you in claim four talks about the thermostat having a vacation mode. Do you know what a vacation mode is?

A. Yes.
Q. And there were thermostats that had a vacation mode prior to your invention, correct?
A. Yes, but they meant different things those -- that mode.
Q. Okay. Well, having a vacation mode in a thermostat was not new as at the time you filed your '825 Patent application, correct?
MR. NI: Objection, form.
THE WITNESS: Okay, but what does that have to do with the '825 Patent?
BY MR. WILLE:
Q. There's a claim that refers to the vacation mode, that the thermostat has a vacation mode. If you would like to look at it, it's claim four.
A. Yeah, I would like to see it.
Q. Okay. You see claim four, it says, "the thermostat of claim one which includes a vacation mode of operation." Do you see that?
A. No, I wish I did. Hang on --
Q. Column seven.
A. That will be helpful, "which includes a vacation mode." Okay, so basically

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this claim involves the first claim --
Q. Right.
A. -- which, you know, includes this non-volatile memory.
Q. Right, but my question is focussed simply on vacation mode.
A. Okay.
Q. Quite simply, there were lots of thermostats in the prior art that had a vacation mode of operation, correct?
MR. NI: Objection, form.
THE WITNESS: Um, let's be careful with the word "vacation mode," because I have seen many vacation modes, you know, since this patent was filed, and some of them have -- in fact, they all have modified meanings. They are called vacation mode but they all do different things. Some mean they are not occupied and might drop the temperature, and there are so many different things I could waste the whole day here telling you all of the various vacation modes. So vacation mode is a very fuzzy word.
BY MR. WILLE:
Q. So are you saying vacation mode really doesn't have any particular meaning to a

person of ordinary skill in the art?
MR. NI: Objection, form.
THE WITNESS: It means that the thermostat does something when they go away from the house and they put it in a mode, that's called vacation mode. What that something is could be more than one thing.
BY MR. WILLE:
Q. Okay. So while there may have been various types of vacation modes, you would agree that prior art thermostats had a vacation mode capability before your invention?
A. Sure.
Q. You didn't invent the vacation mode, correct?
A. On one of them I may have, but you are right, this is not necessarily an invention of mine. This is not the -- you are out of topic in terms of the patent. You are looking at a claim which is really relying on the previous one. So without going into any details, because I don't see the importance, we have to understand what the patent means, and we have just gone through that. I think we are done with this.
Q. Okay. So to be clear, by

June 2004, when this patent application was filed, somebody designing a thermostat would know that there is an option to include some type of vacation mode feature in a thermostat, correct?
A. Okay, m'hmm.
Q. You have to answer "yes" or "no".
A. Say that again.
Q. Can you please read back the question.
A. I'm glad you don't remember it.
--- [Reporter read back last question] ---
A. Going back to this, yes, vacation modes existed in thermostats.
BY MR. WILLE:
Q. Okay. So going back to claim one again, the focus of this -- the claim is about resetting the clock to a particular time stored in memory after a power outage, correct?
MR. NI: Objection, form.
THE WITNESS: Yes.
BY MR. WILLE:
Q. And that is something a person would have to do manually if it's not done automatically, correct?
A. Um, yes, I guess the way you have

worded it, yeah.
Q. Okay. And ever since we have had digital clocks -- or, well, put it this way:
Ever since we have had clocks powered by electricity, people have been resetting clocks manually if there was no way to do it electronically and automatically, correct?
MR. NI: Objection to form.
THE WITNESS: I don't know what you are alluding to. What are you trying to get me to say, because if I could understand that, I would be able to maybe clarify this patent a little more for you?
BY MR. WILLE:
Q. It's just a simple question that before your invention, people would reset the clock on the thermostat manually if they didn't have your invention or some other method to automatically reset the clock, right?
A. Before my invention, no thermostat was intrinsically and unconditionally safe to use, okay, in a home after a period of about five to seven years.
Q. Yes, my question is much simpler, sir. My question is simply if you have a clock

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that's electronic and it has no way to automatically reset the time after a power outage, then you would have to reset that clock manually, right?

A. If, as you said, it were not battery backed up to keep running on a battery when there was a power outage, but that battery has a short life. Relative life is very short.

Q. Did you ever have a digital alarm clock in the '70s?

A. Sure.

Q. Okay, and when you had a power outage, it would go off and it would flash 12:00 o'clock and you would have to reset the clock?

A. Exactly, it would flash 12 o'clock, 1999.

Q. Okay. So for decades prior to your invention, if the power went out and there was no way to reset a clock automatically, people would have to do it manually, correct?

A. Yes.

Q. Prior to filing your patent application, had you ever seen a clock that would reset automatically after a power outage in any

device?

A. I don't think so, but I don't think it has anything to do with the meaning of this patent.

Q. Well, you do agree that there were some thermostats prior to filing -- prior to your invention -- strike that.

You do agree that in the prior art there were thermostats that would reset the clock in a thermostat automatically after a power outage by keeping the clock running with a battery backup, right?

A. Yes.

Q. Okay. So prior to your invention, there were --

A. Well, the battery would keep the clock running.

Q. Right.

A. Yes, okay.

Q. So prior to your invention, there were thermostats that addressed the issue of keeping the correct time during a power outage, correct?

A. Provided the battery was still good. This fixes that problem.

Q. And you would agree that somebody designing a thermostat that it's desirable to keep the clock as accurate as possible in the event of a power outage, correct?

A. Yes, that would be the best case, but it's not attainable in thermostats that sit on walls of people that are non-technical or even think about batteries in their devices, let alone batteries in smoke and carbon dioxide and propane detectors.

Q. Okay. At the time you -- before you filed your patent application, you would agree that a person of ordinary skill in the art had various techniques to choose from to make the time as accurate as possible on the thermostat after a power outage, correct?

A. Yes.

Q. Did you do a patent search prior to filing this patent application?

A. Yes. Is there any citing? I don't know, but, yes, we did.

Q. Your attorney did a patent search?

A. Yeah, I also did a patent search and I cited whatever I could, and always do our

best to do that.

Q. Do you still have the results of that patent search somewhere?

A. No, I don't think so. It's just too many years, but I would think that we have included as much as we could in the citings.

Q. Okay. Sorry, did I understand you to say you always tried to do that?

A. M'hmm.

Q. You need to say "yes" or "no".

A. Yes.

Q. And why is that?

A. Because I think it's important to make sure there's no overlap.

Q. Okay. Did you understand as an inventor that you had a duty of disclosure to the patent office?

A. Yes.

Q. What did you understand your duty of disclosure was?

MR. NI: I'll just caution the witness, if your only understanding from this is conversations with your patent attorney --

THE WITNESS: Exactly, I was going there. My only understanding was the discussions

with my patent attorney. Attorneys always led me in the right direction, and they would do most of this work, and I would read it through and that's it. Then it would hopefully go through and be filed.

BY MR. WILLE:

Q. Okay. So did you have an understanding of what your duty of disclosure was?

A. Not more than what we have done.

Q. Okay. What was your understanding of your duty of disclosure?

A. Well --

MR. NI: And, again, I caution if your only understanding of it is what your attorney told you --

THE WITNESS: Correct.

MR. NI: -- I would caution you not to answer that.

THE WITNESS: That's it. It's what my attorney told me, and that's true.

BY MR. WILLE:

Q. Okay. So just to be clear, I don't know if this will be an issue in the case or not, but if it's an issue in the case, we'll take the position he's precluded from testifying about

his understanding of the duty of disclosure.

MR. NI: Yes, that's fine. I don't really -- I mean --

BY MR. WILLE:

Q. If you can take the '825 Patent, Exhibit 5, and turn to column one, please. I am going to ask you around line 29 --

A. Okay.

Q. -- do you see the sentence that begins, "Many modern thermostats...?

A. I do.

Q. All right. And column one starting in line 29, you say, "Many modern thermostats include a real-time clock --

A. I lost you, hang on.

Q. Okay. I'm going to start again. Are you on column one, line 29?

A. Yes.

Q. Okay. So your patent states at column one, line 29:

"Many modern thermostats include a real-time clock, a memory and a data processor to run a process control program stored in the memory to accurately measure the

temperature of a temperature sensor disposed in the conditioned space and to send control signals to the heating and/or cooling equipment to closely control the temperature of the conditioned space."

Did I read that correctly?

A. Yes.

Q. And is that an accurate statement about prior art thermostats?

A. Real-time clock memory, data -- yes, I mean they have to have all of those ingredients to be able to control temperature.

Q. Okay.

A. Because everything is related to the temp -- you have got to -- yeah, for sure.

Q. All right. And if we go to column one, line 60, do you see the sentence that begins, "The operation...?

A. I'm reading.

Q. Do you see that sentence?

A. Okay, oh, yes.

Q. The column one, line 60 of the '825 patent states:

"The operation of programmable

thermostats in the vacation mode is straightforward and well known."

Did I read that correctly?

A. Yes.

Q. All right. And you are talking about prior art thermostats there, correct?

A. Of course.

Q. Okay. And so what you are conveying there is that the operation of prior art programmable thermostats in the vacation mode is well known, right?

A. Yes.

Q. And that's a true statement, correct?

A. Well, the operation of programmable thermostats is well known, yes.

Q. Okay. Now let me ask you about if you go to column two, towards the bottom.

A. Okay.

Q. Line 60 -- let's see, line 63 to 64, do you see the section entitled, "Objects of the Invention?"

A. Yes, okay.

Q. And the first sentence there says:

"It is therefore a broad object of this invention to provide a thermostat which incorporates a fail safe real-time clock."

Did I read that correctly?

A. Yes.

Q. And I believe you referred to fail safe real-time clock in your testimony earlier, correct?

A. I did, yes, in terms of backing up the time, so we understand where to go back to.

Q. And that was the object of your invention, to provide a fail safe real-time clock, correct?

A. Yes.

Q. And earlier we looked at claim one of this patent; do you recall that?

A. Yes, to an extent, but I would have to go back if you need any reference.

Q. My question is just general. After you -- you said you hadn't reviewed the patent in a while, right?

A. M'hmm, long while.

Q. After looking at claim one, is it your recollection that claim one provides a

thermostat which incorporates a fail safe real-time clock?

A. I hope it does, because that's what it's setting out to do. It's supposed to save you from a disaster if the battery dies.

Q. Okay. So my question to you, sir, is how is the clock recited in claim one fail safe? Is that because of the storing in -- of the time in non-volatile memory?

A. Correct.

MR. NI: Objection, form.

BY MR. WILLE:

Q. Is that what makes the clock fail safe?

A. Yes.

Q. Now --

A. You understood it very clearly.

Q. Okay. There's also another claim, claim 11, which is in column eight?

A. Eleven, okay.

Q. And, sir, just to refresh your recollection on this one, if you look at element (D)(5), "D" as in dog and five at the end of the claim.

A. Got it, okay.

Q. It recites:

"A receiver adapted to receive current time and date information from an external source of the current time and date, said receiver being coupled to said real-time clock such that the time and date information thereof is updated from said receiver."

Do you see that?

A. Okay.

Q. Do you see that?

A. Yes, I do.

Q. All right. And that's a different type of -- that's a different method of dealing with the problem of a power outage for the real-time clock, right?

A. I don't know that, because I would have to look at the whole patent to really understand that one part of the patent.

Q. Do you remember an embodiment where you used what's called a WWVB receiver?

A. I know WWVB quite well.

Q. Okay, well, do you recall an embodiment where you used one of those?

A. No, I don't, but it's interesting that I did use that. Are you familiar with WWVB?

Q. I am, and I am going to ask you some questions about it. If you go look at Figure 5, sir.

A. Okay.

Q. Do you see in Figure 5 you are using a WWVB receiver to set the time in the real-time clock?

A. Okay.

Q. And what is a WWVB receiver?

A. It's a subset of WWV, which transmits on two and a half, five, ten, 15, 20, and 25 megahertz on the shortwave bands, but WWVB is the longwave portion which transmits at 60 kilohertz from the National Bureau of Standard in Fort Collins, Colorado, and also in Honolulu in Hawaii on the island of Kauai on the west coast. And so it transmits low frequency signals which tend to propagate specifically all of North America.

Q. Okay.

A. Okay.

Q. So let's make it so that the jury understands this. The United States government,

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the National Bureau of Standards broadcasts a radio signal which includes the correct time, right?

A. Yes, but VB is actually a digital signaling that's decoded by a special type of decoder.

Q. Okay, so --

A. My watch receives WWVB.

Q. So you have to have some electronics which can decode that electronic signal to figure out what the correct time is, right?

A. Yes.

Q. And that's been going on for decades, right?

A. Yes.

Q. Since the 1960s, correct?

A. Sure, sure.

Q. All right. So you are using -- in Figure 5 you are using a WWVB receiver to set the time of the real-time clock, correct?

A. Yes.

Q. All right. So does that refresh your recollection that claim 11 is using a -- rather than using a non-volatile memory it's using

a receiver of the correct time so if there's a power outage it can reset the time?

A. No, it's not working that way. WWVB receiver is one example of the operational system, but in fact you'll notice that you go and you set the real-time clock, but what if WWVB isn't there when the power comes back? What do you do? Where do you get the time?

You get the time from the non-volatile memory, and at least you start off at a good point, a safe point where you keep your house safe.

Q. Okay, sir, if you look at claim 11, you will see there's no non-volatile memory as part of claim 11.

A. Okay.

Q. Okay.

A. It doesn't say the word "non-volatile".

Q. Okay. Do you nevertheless consider a thermostat that uses a real-time clock connected to a WWVB receiver as a fail safe real-time clock?

A. No.

MR. NI: Objection, form?

THE WITNESS: No, because I'll give you an example, and I'm going to do that live.

BY MR. WILLE:

Q. You don't have to give an example. Just explain, please, sir.

A. Well, I will. The last time this watch has heard a WWVB signal was on December the 10th at zero six hours -- six minutes after midnight. So there's not always reception of WWVB. It's not a lifesaving technique.

Q. Okay. So do you consider the invention claimed in claim 11 to be inferior to the method claimed in claim one?

MR. NI: Objection, form.

THE WITNESS: Not according to this diagram. I think it's superior. It's definitely the invention, and the fact that the writer wrote memory and he didn't write non-volatile memory is clearly described in Figure 5 as being non-volatile memory.

BY MR. WILLE:

Q. Sorry, I am confused.

A. Sure.

Q. Which invention do you think is superior, the one that uses the non-volatile

memory to store the clock information or the one that uses the WWVB receiver?

MR. NI: Objection, form.

THE WITNESS: The non-volatile memory by far.

BY MR. WILLE:

Q. Okay, thank you. If you will turn to Figure 1, please.

A. Figure 1. Go ahead.

Q. Do you see Figure 1 is labelled "Prior Art"?

A. Okay.

Q. So you understand prior art is something that came before your invention, correct?

A. Yes.

Q. All right. So what prior art are you aware of that includes what is shown there in Figure 1? What thermostat are you aware of that includes what is shown there in Figure 1?

MR. NI: Objection, form.

THE WITNESS: I believe that we are aware of a thermostat that's probably described in a claim somewhere that says "see Figure 1." If you show me the detail, I'll understand why this

is here.
BY MR. WILLE:
Q. Okay. Well, it's indicated that Figure 1 is prior art, and so my question is outside --
A. I'm not saying it's not, but maybe the prior art is described somewhere as per Figure 1, and I would like to know where that is.
Q. So there is a description of Figure 1, sir, but it doesn't say where this came from. That's why I'm asking you. Are you aware of a thermostat that is prior art to your invention that has the elements shown in Figure 1?
A. I am, because what was showing here in the box where the memory is is a battery that backs up that memory, whereas if you want to go back to your original area where it showed memory, it didn't show a battery.
Q. Okay.
A. And I believe from reading the reference to that previous figure that you brought me to, and I forget the number, was it five? That in fact that doesn't have a memory, and that is a non-volatile memory. Just mentioning that.
Q. Okay. So let's continue with

Figure 1 here. So you were not the first one to use a memory in a thermostat, correct?
A. Correct.
Q. Memories had been used in thermostats for many years before you filed your patent application, correct?
MR. NI: Objection, form.
THE WITNESS: Yes, but I didn't use just memories.
BY MR. WILLE:
Q. Understood, sir, but I'm asking you about the prior art figure here in Figure 1 --
A. Why don't we say memories that were non-volatile, okay, were not used in thermostats --
Q. Okay --
A. -- prior to my invention. Memories that were volatile rather, were -- okay, there was a mistake, you could erase all of that.
Memories that were volatile were used in thermostats prior to my invention for the clock means.
Q. Okay. To be clear, sir, you agree that memory, RAM memory and ROM memory had been used in thermostats for many years prior to

your invention, correct?
MR. NI: Objection, form.
THE WITNESS: RAM memory, yes. For what purpose would you define the use of ROM memory?
BY MR. WILLE:
Q. Well, for example, you might have a program stored in the ROM memory, right?
A. Okay.
Q. And that had been used in thermostats prior to your invention, correct?
MR. NI: Objection, form.
THE WITNESS: Yes, of course. If there were -- if there was any type of microprocessor, the processor needs to have an internal system memory, otherwise it doesn't know what it is.
BY MR. WILLE:
Q. Okay.
A. Could be a car, could be a refrigerator, could be a toaster.
Q. And microprocessors had been used in thermostats for many years prior to your invention, correct?
A. Correct.
Q. And what you have labelled CPU9 in Figure 1, that refers to a central processing

unit, correct?
A. Yes.
Q. That could be a microprocessor, correct?
A. Of course.
Q. All right. And there's also something labelled clock; do you see that?
A. Yes.
Q. All right. You didn't invent real-time clocks, correct?
A. Correct.
Q. You could buy a real-time clock chip off the shelf before -- for many years before you created your invention, correct?
A. Yes.
Q. And there is a unit called an input/output unit there; do you see that?
A. Sure.
Q. That is another device that you did not invent, correct?
A. Correct.
Q. A person skilled in the art had used input/output units with microprocessors for many years prior to the filing of your patent application, correct?

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A. I hope so, because a CPU would not work without that.
Q. And one of the things the input/output unit can have is an analogue to digital converter, label 27 there; do you see that?
A. Yes.
Q. And that's another thing that persons of ordinary skill in the art had used in thermostats for many years prior to your invention, correct?
A. Correct.
Q. All right. And do you see the touchscreen that consists of a touch pad and liquid crystal display; do you see that?
A. Yes.
Q. All right. And persons of ordinary skill in the art had used touchscreens prior to your invention in thermostats, correct?
A. Yes.
Q. And --
A. Well, in thermostats prior to my invention, touchscreens, yes. Well, they have used touchscreens as long as touchscreens have existed --

Q. Okay.
A. -- to do many things.
Q. Okay. And then there's a temperature sensor labelled five; do you see that?
A. Um --
Q. On the right-hand side of Figure 1.
A. I see five. It's labelled "thermistor."
Q. It's "S".
A. "S", yes, okay.
Q. "S" for sensor, I believe?
A. Probably. Well, I don't remember. I mean these things are too old.
Q. Okay. You would agree that both digital and analogue temperature sensors had been used in thermostats for many years prior to your invention described in the '825 Patent, correct?
A. Yes.
Q. And similarly thermostats had electronically controlled space conditioning equipment for many years prior to your invention described in the '825 Patent?
A. Can you say that again.
Q. Similarly for many years prior to

your invention described in the '825 Patent, thermostats had electronically controlled space conditioning equipment, correct?
A. Yes.
Q. And space conditioning equipment can refer to a furnace, an air conditioner, a heat pump, an emergency heater or a fan, correct?
A. Correct.
Q. Okay. Now you also show in Figure 1 a battery that has an isolation diode labelled 33; do you see that?
A. Sure.
Q. That's also not something you invented, correct?
A. Correct. This is prior art, and it's a -- yeah, go ahead.
Q. Yes. So having the space conditioning equipment supply power to the thermostat through an isolation diode is something that existed in the prior art, correct?
A. Yes.
Q. And that had been used for many years in the prior art before the filing of your patent application, correct?
A. Okay.

Q. You agree with that?
A. Yes, that there would be an isolation -- isolation diode in series with the battery?
Q. Yes.
A. Yeah, that would make sense.
Q. What's the purpose of the isolation diode 33 as it was used in the prior art?
A. To prevent the battery from charging, because it's a primary battery, it's one that depletes, and it would block the current from charging that battery when the thermostat is properly powered up, and the battery could only discharge in one direction, and that only takes place when there's no power on the -- on the actual bus -- power bus of the CPU circuit.
Q. Okay. To be -- I am going to need to go through each of those components again. I need to ask you more something more about them. I should have asked you the first time. But you don't disclose a new real-time clock chip in this patent application, correct?
A. No, we disclose a use of backing it up so that it comes back to life at a safe

point.
Q. Right, but you didn't invent a new real-time clock chip, correct?
A. Correct.
Q. Okay. And similarly there's no new memory device disclosed in this patent, correct?
A. No, there's no new memory. We use existing components. Obviously we don't invent components. We invent products with components.
Q. And similarly there's no new CPU or microprocessor disclosed in the '825 Patent, correct?
A. Correct.
Q. There's no new isolation diode disclosed in the '825 Patent, correct?
A. Correct.
Q. There's no new space conditioning equipment disclosed in the '825 Patent, correct.
A. Yes, correct.
Q. There's no new temperature sensor disclosed in the '825 Patent, correct?
A. Correct.
Q. There's no new input/output unit

disclosed in the '825 Patent, correct?
A. Correct.
Q. And there's no new touchscreen disclosed in the '825 Patent, correct?
A. Correct.
Q. For all of those components I just asked you about, you were using off-the-shelf components that somebody else invented, true?
A. Sure. Just like everything else in this world. What about the 7,000 patents on Tesla, Tesla vehicles? They use only components off the shelf.
Can I ask a question off the record out of curiousity?
Q. Yeah.
A. You don't have to answer it, but why do you ask all of these questions about components that existed, because we need components to exist in order to invent with?
MR. NI: Well --
BY MR. WILLE:
Q. I am going to answer your question fairly. I'm trying to explore what you contend you invented and what you contend you didn't invent. I'm just trying to establish what

you think is new and what you don't think is new.
A. I see.
Q. Okay. So if we go to column five, line 38 --
A. Okay.
Q. -- do you see the sentence that starts, "As a practical matter...?"
A. Okay, I do.
Q. Okay. So you state:
"As a practical matter, as the state of the art of circuit integration progresses, most or all the components of a programmable thermostat according to the invention may be incorporated as a single configurable and programmable integrated circuit or in a very few chips."
Did I read that correctly?
A. I would have to read it again. But you read it well. I need to read it, because it didn't sink in.
Q. Okay, read it once more, please, to yourself.
A. Yes, okay.

Q. Is what you are trying to convey here is that the functionality of the thermostat can be all combined into one chip or could be in separate chips?
A. Yes.
Q. Okay. And that's something that persons of ordinary skill in the art -- by the time you made your invention described in the '825 Patent, persons of ordinary skill in the art understood that sometimes you took the functions of multiple chips and combined them into a single chip, correct?
A. Correct.
Q. For example, microcontroller chips were available prior to your invention?
A. Correct.
Q. And those could include the CPU, the memory, and a communications interface in the same chip, correct?
A. Yes.
Q. All right. So with respect to your invention, the functionality of your invention, it's not important whether the functions are performed by one chip or by a collection of chips; is that correct?

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A. That is correct.
Q. And that's what you were trying to convey in column five in the sentence we just read, correct?
A. Yes. I think 10:00 o'clock and nobody has said anything. Could I take a quick washroom break?
MR. NI: Yes.
MR. WILLE: This is a good time for a break.
THE WITNESS: Okay, great.
VIDEOGRAPHER: Going off the record at 9:58 a.m.
--- Whereupon recess commenced at 9:58 a.m. ---
--- Upon resuming at 10:12 a.m. ---
VIDEOGRAPHER: Going back on the record at 10:12 a.m.
BY MR. WILLE:
Q. Okay, sir, when we broke we were discussing the '825 Patent. Do you recall that?
A. Yes, I do. Let me just again go through the name and -- that's the clock one, right?
Q. The real-time clock, yes.
A. So, yeah, we're good.

Q. So you still have Exhibit 5 in front of you, correct?
A. Yes.
Q. All right. So one of the devices that we discussed earlier that is in the claim of the '825 Patent is the non-volatile memory. Do you recall that?
A. Yes.
Q. All right. Now you did not invent non-volatile memory, correct?
A. Correct.
Q. Non-volatile memory existed for many years prior to your invention, correct?
A. Yes.
Q. Were you aware of prior art thermostats that used a non-volatile memory for purposes other than storing the time in the clock?
A. I have never taken apart anyone else's thermostat and dissected to see what they were doing, so I don't know how they used non-volatile memory, or if in fact they did, if they were included in the microprocessor, but I have not ever stumbled on anything that when you unplugged it and made sure the battery was depleted that it came back to a normal life and at

least saved a home.
Q. Okay.
A. And didn't go to January 1st, 1999.
Q. Okay. Are you aware of any prior art thermostats that used a non-volatile memory to save things such as the schedule for heating and cooling that somebody had programmed into the thermostat?
MR. NI: Objection, form.
THE WITNESS: I can't even answer that question. No, I'm not aware.
BY MR. WILLE:
Q. Okay. It is true that one purpose of a non-volatile memory is to store things that you want still to be there if the power fails when the power comes back on, correct?
A. Sure.
Q. That's one of the reasons non-volatile memories were created, right?
A. One of them.
Q. And that was known to electrical engineers prior to your invention, correct?
MR. NI: Objection, form.
THE WITNESS: Yes.

BY MR. WILLE:
Q. So setting aside using the non-volatile memory to store time, you would agree that it was within the general knowledge of persons skilled in the art to use a non-volatile memory to store information that they didn't want to be lost in the event of a power outage, correct?
MR. NI: Objection, form.
THE WITNESS: Yes, I -- it's obvious that they would use not NV memory to do many things, but not this thing.
BY MR. WILLE:
Q. Okay. So one of the elements, if you look at claim one, column six, we are in column six, do you see claim one element (B) there, "an interactive interface?"
A. On the '825, right?
Q. Yes.
A. Claim 1(B)?
Q. Yes.
A. Okay.
Q. Do you see claim 1(B) recites, "an interactive interface for a user to enter programming information into said thermostat?"

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A. Okay.
Q. Do you see that?
A. M'hmm.
Q. You need to say "yes" or "no".
A. Yes, I do, sorry.
Q. If you say "m'hmm" or h'mm" the court reporter can't take you down accurately. That's why I keep saying you need to say "yes" or "no".
A. I understand, that's fine.
Q. Okay. So is "interactive interface" a term of art?
A. Is interactive interface a form of art?
Q. A term of art.
A. It definitely is.
Q. So what does it mean?
A. It means an interface that interacts in a very or a potentially friendly way but not necessarily. Interactive could be a very poor quality stupid interface, but it still could be interactive, meaning when you touch something or do something, you have a response.
Q. Do all thermostat designers know what an interactive interface is, do you think?

time this was written, and I can't dissect it more than that because I don't remember the tonal discussion and the intonations that it presented at the time that we used that word to specify something.
Q. Okay. Is an interactive interface a definite structure?
MR. NI: Objection, form.
THE WITNESS: I think to an extent. I mean it has meaning or we wouldn't have used it, so if you want to imagine what it is, then think about the word "interactive" and stick it next to "interface" and think about the options that are available to you the person reading it.
BY MR. WILLE:
Q. Well, so it's not -- look at the language there. It says, "an interactive interface for a user to enter program --
A. I think this is better for our experts to understand.
Q. Well, I'm asking what your understanding is. You are the inventor on this patent, so I'm asking you when you signed your declaration and said this was an invention, I want to know what you understood it to mean, so --

A. Today, yes. But Apple still didn't get it right.
Q. So where would I go to find the definition of the term "interactive interface" as it applies to a thermostat?
A. I don't know. You are asking me to define something I have no idea about in terms of looking for it in other locations or references.
Q. Well, is that a term you came up with "interactive interface"?
A. I would think so, but it's hard to go back that many years. I just look at 2004, and we know that's too many years ago for me to say, yes, I did or didn't. I don't know. I don't remember.
Q. Is interactive interface meant to refer to any device that allows a user to enter programming information into a thermostat?
MR. NI: Objection, form.
THE WITNESS: Not necessarily.
BY MR. WILLE:
Q. Okay. Then what is it supposed to refer to?
A. It's a word that we used at the

A. Why don't you ask me what date and time I signed my application for this, because I don't remember that either.
Q. Okay, well, let me ask you this. Have you ever seen an electronics catalogue with an interactive interface in it?
A. No.
MR. NI: Objection, form.
BY MR. WILLE:
Q. Okay. Have you ever seen a price quote for an interactive interface?
A. No.
Q. Okay. In other words, what I'm getting at is interactive interface is not limited to some particular definite structure, correct?
A. Um --
MR. NI: Objection, form.
THE WITNESS: I object to your question, because there may be a place in here where it's defined in a way that makes sense for the necessity of this invention.
BY MR. WILLE:
Q. Okay. So if it was defined, I wouldn't be asking you this question, I guess. So what I am asking you is is interactive interface

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supposed to be limited to a touchscreen?
A. No, I think if we look at the word, I didn't invent it.
Q. Okay.
A. So "interactive" is an adjective that describes many types of objects.
Q. Okay.
A. Okay.
Q. So this is not limited to any particular definite structure then; is that right?
A. Neither is the word "external" or "source" or "and" for that matter. It's a word used in the patent to describe the object which it does quite well in terms of targeting the invention here.
Q. Okay. So is an interactive interface, as stated in the claim, just something for a user to enter programming information into the thermostat?
MR. NI: Object to form.
THE WITNESS: I have to find out what that means one day.
Ask me that question one more time.

BY MR. WILLE:
Q. Yes. So is interactive interface simply meant to refer to a device that allows the user to enter programming information into the thermostat?
A. Not necessarily.
Q. Well, what is it meant to refer to then?
A. To use, to do many things, to program, you know, to engage, to set a status. I mean there are just so many different things that you would do with the beauty of an interactive interface.
Q. Okay, fair enough, but the only function recited for the interactive interface in claim one is for a user to enter programming information into said thermostat, right?
A. I think in this case, we are referring to entering the time, and --
Q. Actually not, because the time is --
A. Where's the area again that we are reading? I don't want to guess.
Q. 1(B); do you see that?
A. I'm drifting here. Claim 1(B),

okay, so we are here. There has to be an interface, and in our case it's interactive.
Q. Right. And all I'm getting at is what the claim says is the purpose of that interface is for a user to enter programming information into said thermostat. Do you see that?
A. Okay. And so?
Q. Okay. And so an interactive interface is not something that's defined in a textbook somewhere; is that right?
A. I don't know that.
MR. NI: Objection, form.
THE WITNESS: That's a very broad question.
BY MR. WILLE:
Q. As we sit here today, you are not aware of a definition of "interactive interface" in a dictionary or a textbook for electronics, are you?
A. I can't answer that because if I went on an AI website which has read every single book in the world, okay, I'm sure you would find somewhere an interactive interface, so, in this case, we used the word to describe the input means

to the thermostat.
Q. Okay.
A. So as an example, it's used that way in this claim.
Q. Right. And so it's not -- it could be any input means, it's not limited to any particular structure, correct?
A. Yes, like wheels, everything's interactive. If you create something you get a reaction, and then that reaction can be very descriptive in terms of -- I don't want to go off topic and get away from the '825 Patent.
Q. You kind of are going off topic.
A. I don't know what you are alluding to either.
Q. Let me ask a question a slightly different way --
A. Tell me what you are looking for specifically. I'll answer.
Q. It's very simple. I'm asking you is this limited to a particular electronic structure or could it be any interactive interface?
A. Well, it depends how it describes an interactive interface. Does it say it has a

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touchscreen? What is the interaction caused by in here? What does it say it is?
Q. Yes --
A. I'm going by the face value of this document, and if you show me where it shows specifically what the operable is, then I will understand clearly the meaning of your question, because you'll be pertaining to that action that's described somewhere here, but I don't know where it is offhand. I haven't seen this in years.
Q. Okay. As we sit here today, are you aware of a particular structure that the term "interactive interface" is meant to refer to?
A. After -- what's the date of this patent? I'll tell you when I last read it. So it must have been read in full probably prior to 2004, so I'm not aware of anything in that much detail at this time.
Q. Okay.
A. Okay, I'm sorry.
Q. Okay. Earlier I asked you some questions about an isolation diode; do you recall that?
A. Yes.
Q. Would you know if you looked at

an isolation diode if you looked at a schematic, would you know -- could you tell if something was used as an isolation diode?
A. Usually, yes.
Q. Let me hand you what's been marked as defendant's Exhibit 7, which is US Patent No. 4,799,176.
--- Exhibit 7: US Patent No. 4,799,176 ---
BY MR. WILLE:
Q. If you look at Figure 2.
A. Figure 2.
Q. And if you look smack in the middle of Figure 2, you will see a diode labelled "142" next to a battery.
A. Okay.
Q. Do you see that?
A. Yeah, I see it.
Q. And if you would like to look at that diode is discussed at column six, line 49.
A. Column six, line 49?
Q. Yes.
A. I find this is very far off topic of what the meaning is of a non-volatile clock. I don't even know why we are here. What is it again? Where would I find it?

Q. Column six, line 49.
A. I would have to start looking through this whole thing. Do you want me to do that? I need to look at 138 --
Q. Let me ask you to look at 54, column six, line 54.
A. Column six, line 54.
Q. Of the column six, line 54 of the text.
A. Okay.
Q. It says:
"A battery 140, such as a 9-volt transistor battery is connected at its negative terminal to the regulator input terminal 112 via a blocking diode 142 with its positive terminal connected to ground."
Did I read that correctly?
A. You did, but now I want to review it here. So I don't know what you are getting at but I'll look at it for a sec.
Q. My question is is this describing -- is 142 an isolation diode?
MR. NI: Objection, form.

THE WITNESS: Does it say the voltage of battery 140?
BY MR. WILLE:
Q. It said 9 volts. It says it could be a 9-volt battery.
A. Does it say the value of resistor 148?
Q. No.
A. So from what I could see here, it looks like when the voltage goes to a different level, it turns this battery on. Where's the minus 30 volts coming from?
Q. Well, this is a thermostat, so minus 30 volts typically comes from the furnace, correct?
A. Well, no, it probably comes from rectify 24 volts AC to come as high as 30 volts.
Q. Okay, sorry, but ultimately the power comes from the furnace in a thermostat, correct?
A. Well, it comes from the furnace room. There's a transformer maybe at the furnace, a central transformer in many cases.
Q. Yes. In prior art thermostats, power came from the furnace, not from the

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thermostat itself, correct?
A. Yes, power rarely comes from a thermostat. It comes from the actual system quite often, but I don't know what this has anything to do with --
Q. When you say "the actual system," you mean the heating and air-conditioning system, correct?
A. Yes.
Q. Okay.
A. I don't understand where you are going with this diode.
Q. I'm asking if that diode 142 there appears to you to be an isolation diode --
A. Well, we don't call it isolation. If anything, it's just to create no effect on charging that primary battery. Do you know what a primary battery is?
Q. Right. Let me ask you it this way. If we look at Figure 1 --
A. Do you understand the difference between a secondary and a primary --
Q. Sir, I'm asking the questions. Please just answer my questions, okay. You can depose me a different day.

If you look at Figure 1 of your patent, you show an isolation diode in your patent, correct?
A. Yes.
Q. All right. Is the diode in Patent 4,799,176, based upon your quick review of the schematic and the passage we just read in the specification, performing the same function as the isolation diode 33 shown in Figure 1 of your patent?
A. I don't know.
Q. Okay. So earlier when you said you thought you could tell if something was an isolation diode looking at a schematic, you were wrong about that?
A. I could if you had a few hours. I didn't draw this schematic. If you want me to tell you what the triac does in there, or anything else, I would have to study it to see what port switches. I would have to see what biasing on that diode, okay, creates a condition and what's going on. But you are giving me something and asking me to describe detail of some frivolous circuit that has nothing to do with what we are doing.

Q. Okay, let's go back to Figure 1 of the '825 Patent. So you see one thing in Figure 1 is the input/output unit, correct?
A. Let me get to that one. Okay, Figure 1 is the input/output?
Q. Yes. Do you see the input/output unit shown in Figure 1?
A. Yes.
Q. What is an input/output unit?
A. It's obviously described as a module here. I mean it's a box, and it has a various I see A to D converters, which are 27. I'm not reading the description, but I would think that would go to various sensors, et cetera. A to D's have very broad use. Of course it's reading -- it could be reading the touch pad, because touch pads can be analogue devices, not necessarily though.
Q. Okay. Is the input/output unit as shown here, it's separate from the microprocessor, correct?
A. Um, it's showing it in terms of how it works. It doesn't necessarily mean it's not integrated in the CPU. Today it would be obviously because we are today, okay. So what is

your question?
Q. Sorry, when you say it's showing it as to how it works, are you saying this is a functional diagram?
A. It's a diagram to explain the various aspects of the device of the operative, and again we know that in the future from when this was written, or at that time in fact it could have even been integrated into the microprocessor.
Q. Okay.
A. Because CPUs have IO. This is what makes up a computer, is if it has IO and memory, then it has to be a computer.
Q. Is the input/output unit limited to a particular structure?
A. Not necessarily. When you buy a microprocessor, it has to have IO, and memory and a CPU, and it needs a clock of some sort, whether it's a real-time clock or a clock, to just clock each cycle so that it executes an instruction, or in the case of nVidia, four instructions in one clock cycle.
Q. Let's go back to the WWVB receiver.
A. Sure.

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Q. Did you ever build a thermostat with a WWVB receiver?
A. No, but I use WWVB for a lot of things, including calibration.
Q. Okay. And you can buy an off-the-shelf chip to use as a WWVB receiver, correct?
A. Easily. It's in my watch.
Q. Are you aware of any prior art thermostats that use WWVB receivers?
A. No, I'm not, and they are not reliable. I wouldn't ever use a WWVB receiver in something that you needed it to come back, unless you lived in Colorado right next to Fort Collins.
Q. If you turn to column six of the '825 Patent.
A. Okay.
Q. If you look at line 33 to 49.
A. Okay.
Q. Do you see where it says:
"It should be noted that precision time (from, for example, the National Institute of Standards and Technology) is also available on the Internet such that it is

contemplated that source 50 can receive its time signals via that medium."
Did I read it correctly?
A. Sure.
Q. Having a source of time available on the internet, that is not something you invented, correct?
A. Correct.
Q. That was available -- a source of accurate time was available on the internet for many years prior to your filing your patent application, correct?
A. Yes.
Q. And are you aware of devices that use the time available on the internet to set a real-time clock in the device?
A. Sure.
Q. Were you aware of devices prior to your invention that used the internet to set the time on a clock?
A. Yes.
Q. What devices are those?
A. Computers primarily.
Q. Okay. Computers that are

connected to the internet?
A. Yes. I'm not understanding your question is related -- is this all related to the '825 Patent, this discussion?
Q. Yes.
A. I don't know why we are dwelling on this for such a long period when the object of the invention has virtually nothing to do with all of the peripheral elements, but in fact describes how we write into a memory chip and we preserve the time indefinitely until the end of time literally.
Q. Okay, let's go to claim one of the '825 Patent again, please.
A. Okay.
Q. So claim one of the '825 Patent recites a sensor input --
A. Claim one of the 825. Hang on. Sorry about that. What's the column on it?
Q. Column seven.
A. Okay.
Q. Do you see where it says, "a sensor input coupled to said temperature sensor for receiving said electrical signal therefrom?"
A. Give me a number. In column

seven, I see --
Q. (D)(3)(a).
A. Sensor input coupled to said temperature sensor, that's correct, for receiving said electrical signal therefrom and a controlled signal. Okay, go ahead.
Q. Okay. So the input, the sensor input performs the function of receiving an electrical signal from the temperature sensor according to claim one, correct?
A. Yes.
Q. And there is no discussion of the structural details regarding the input, correct --
MR. NI: Objection.
BY MR. WILLE:
Q. -- in the specification?
A. There's no discussion regarding -- I find it getting warm in this room, do you notice that? It's not what it was when we walked in.
Q. Yes, it was too cold, and so people asked for the temperature to be turned up, so --
A. I see.
Q. -- that's why it's getting

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warmer.
A. I would say it's over 71 right now.
Q. Back to my question. My question is does the specification of the '825 Patent discuss any structural details of the input?
A. Um, I don't know. You are asking me to --
Q. Well --
A. Did we review the specification? I don't think so.
Q. For example, look at Figure 1.
A. Okay.
Q. You agree there's no structural details of the input shown in Figure 1, correct?
A. When you say "structural details," be more specific, please.
Q. Is there any circuitry disclosed for performing the function of the control input?
A. No, because --
Q. The sensor input, sorry.
A. Why should there be? That's beyond a component level. That's an integrated level on a chip, so there's no reason to describe anything more than a block. Just as when we

describe a microprocessor, we don't draw up the schematic of it.
Q. Okay. And similarly you would agree that there's no circuitry described in the specification for the control output, correct?
A. Yes, correct.
Q. So if --
A. But let me just add this. We do have the module, I'll call it a module because it's within a rectangle and it's described well in terms of English simple language, and there's an IO, an input/output unit, and that IO goes to the conditioned space. You see the temperature sensor, okay. You also see the ability to switch the space conditioning equipment, because you send messages to it in one way or another, whether it's a relay or a serial message, it's still controlling the space condition equipment -- conditioning equipment. So you really see every element in here, but you have got to be able to understand this.
Q. Right, so but my particular question is whether there's any particular structure disclosed for the sensor input?
A. When you say "structure", could

you define that word.
Q. You don't have a circuit that shows how the sensor input works; isn't that right?
A. You are still not deeply embedded into this question. You have a -- you don't have any circuit here, you have block diagrams, and you understand that we -- I hope -- are you an electrical engineer?
Q. I happen to be, sir, yes.
A. Okay, I think that's very important, and --
Q. Let me rephrase the question. Would it be fair to say that the sensor input and the control output are only described at a block diagram level?
A. Correct.
Q. That's all I was getting at.
A. Well, that's great. We just saved another half an hour.
Q. Okay. And that's true of all of the five patents we have looked at today that refer to the sensor input and control output, correct?
MR. NI: Objection, form.

THE WITNESS: I don't remember that.
BY MR. WILLE:
Q. Okay. Let's go through them one by one. So let's look at the '555 Patent.
A. So everything is block diagram.
Q. Okay, everything is block diagram. To be clear, you have Exhibit 4 of the '555 Patent in front of you, correct?
A. Yes.
Q. And the control input -- sorry, the sensor input and the control output are described at a block diagram level in the '555 Patent, correct?
A. Sure.
Q. All right. And if you would take out Exhibit 3, which is the '318 Patent.
A. Okay.
Q. You would agree that in Exhibit 3 the sensor input and control output are also only described at a block diagram level, correct?
A. Exhibit 3. Okay.
Q. Is that true?
A. Yes.
Q. All right. If you take out Exhibit 2, please, the '075 Patent.

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A. Can I ask you are you able to understand my block diagrams?
Q. Yes, yes.
A. Okay, so I'm trying to understand what you are getting at therefore. If you understand it and I understand it, then it must be very crystal clear.
Q. So you have the '075 patent in front of you, sir?
A. Yes, sure.
Q. And in the '075 Patent the sensor input and control input are only described at a block diagram level, correct?
A. Yes, correct.
Q. The final one is Exhibit 1, the '739 Patent. Do you have Exhibit 1 in front of you?
A. I do.
Q. And in the '739 Patent, the sensor input and control output are only described at the block diagram level, correct?
A. Yes.
Q. If we could go back to Exhibit 5, which is the '825 Patent, please.
A. Okay.

Q. So returning to claim one, the control output --
A. Okay.
Q. -- when it says, "a control output coupled to the space conditioning equipment for issuing control signals thereto," do you see that? First of all, do you see that?
A. No, but I heard what you said.
Q. Well, okay, so claim one, element (D)(3)(b) refers to, "a control output coupled to the space conditioning equipment for issuing control signals thereto."
Correct?
A. Yes.
Q. All right. So space conditioning equipment, that's like a furnace or an air-conditioner, correct?
A. M'hmm.
Q. Yes?
A. Yes, that's right.
Q. All right. And issuing control signals thereto, that's turning the furnace on so heat comes out of it and then turning it off when the temperature is hot enough, correct?
A. Yes, and as you are saying it,

I'm following you on the block.
Q. Okay.
A. Okay.
Q. All right, and, similarly, that could be turning the air-conditioning on so cold air comes out, and then when it's cold enough, it turns the air-conditioning off, correct?
A. Correct. I mean there are many things that could be done with a block like this that tell you that it's a thermostat system.
Q. Right. And thermostats have been controlling furnaces and air-conditioning equipment electronically for many years prior to your invention, correct?
A. Yes. I'm sure we both understand I didn't invent the thermostat per se. There's a specific invention described here.
Q. Okay, let's go to column one, please.
A. Column one, okay.
Q. Column one, line seven through ten, do you see the, "Field of the Invention" there?
A. I do.
Q. And it says:

"This invention relates to the art of thermostats and, more particularly, to a programmable thermostat incorporating a fail safe real-time clock and which does not require battery or other backup device in case of a power failure."
Did I read that correctly?
A. You did.
Q. All right. And that statement refers to other backup devices; do you see that?
A. Where's that? I see, hang on. Does not require battery --
Q. Or other backup device?
A. -- in case of a power failure, correct.
Q. All right. So another type of backup device that we discussed earlier would be a supercapacitor, correct?
A. Yes.
Q. Are there any others besides a battery or supercapacitor that you are aware of that have been used in thermostats?
A. No.
Q. Okay. So this is the first

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statement in the text of your patent in the specification, correct?
A. Okay, yes.
Q. And that makes clear that your invention is focussed on a fail safe real-time clock, correct?
A. Yes.
Q. As we discussed earlier.
Your goal was to make the clock fail safe in the event of a power failure, correct?
A. Correct. In the event of a power failure, let me elaborate a little --
Q. Well --
A. -- whereby the battery or the backup capacitor -- supercapacitor has failed or is not existent any longer, because when it fails it's no longer existent.
Q. Right. So to be clear, your invention focussed on a way to set the time on a real-time clock after a power failure without using a battery or a supercapacitor, correct?
A. Correct.
Q. And in your view there were disadvantages to using a battery or a supercapacitor that we discussed earlier, right?

A. Correct.
Q. If we go to column two --
A. Okay.
Q. -- you say on line 18, you see the paragraph that begins, "Most commonly..."
A. Yes.
Q. Okay. You say:
"Most commonly power to a programmable thermostat is supplied from the controlled space conditioning equipment, and either a battery or very high capacity capacitor provides backup power to ride out equipment power failure until power is restored." [as read]
Did I read that correctly?
A. I'll have to read it again. I want to tell you I find it's getting too hot in here and I can't work in this. I'm sorry, if you find this cold, maybe it's your Texas blood.
Q. It's not me.
VIDEOGRAPHER: Sir, your microphone went off with your jacket.
THE WITNESS: Maybe it's good thing. I'm talking about the temperature in here --

MR. WILLE: At a break, we'll adjust the temperature.
THE WITNESS: Do you not find it too warm, no matter where you are from?
MR. WILLE: I don't.
COURT REPORTER: You can just turn it down.
THE WITNESS: It must be 75. I like warm, but that's too warm.
BY MR. WILLE:
Q. Okay. So referring again to column two, it says:
"Most commonly, power to a programmable thermostat is supplied from the controlled space conditioning equipment, and either a battery or very high capacity capacitor ('super cap') provides backup power to 'ride out' equipment power failures ('outage') until power is restored."
Did I read that correctly?
A. Yes.
Q. All right. And that's referring to prior art thermostats, correct?

A. Correct.
Q. All right. And that says, "Most commonly, power to a thermostat is supplied from the controlled space conditioning equipment," correct?
A. Yes, it makes sense.
Q. In other words, in the prior art it is quite common to supply power from either the furnace or the air-conditioner, correct?
A. Well, the power transformer is too big to fit into anything. It's the size of a thermostat.
Q. So there's -- there is a transformer at the furnace or the air-conditioner that supplies the power to the thermostat, correct?
A. Correct.
Q. Okay. Now continuing, it says, "However, these are not fail safe expedients," and it goes on to explain batteries have to be changed and super caps fail; do you see that?
A. No, but it's true.
Q. Well, look at the language there.
A. Okay.
Q. Do you see where it says,

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"However these are not fail safe expedients --
A. A battery of very high -- supercapacitor, okay. "However, these are not fail safe expedients." Yes, okay.
Q. When it says, "However, these are not fail safe expedients," that's referring to the use of batteries or supercapacitors to keep backup power for a clock, right?
A. Correct, yes.
Q. And then the patent goes on to discuss the disadvantages of batteries and supercapacitors, correct?
A. I would hope so.
Q. Okay. So your invention focuses on making the real-time clock fail safe without the use of the batteries and supercapacitors, correct?
MR. NI: Objection, form.
THE WITNESS: Or as it describes, when a supercapacitor or battery fails and nobody realizes they don't have this safety, you know, ripcord any longer in their thermostat.
BY MR. WILLE:
Q. In fact don't you describe a feature of your invention is that no source of

backup power is required?
A. Correct. Perhaps I do and I should.
Q. Okay. So your invention eliminates the need for backup power sources, correct?
A. At least this backup power source if it's non-volatile memory.
Q. Okay.
A. The one you described.
Q. Let's go back to column two for a second.
A. Okay.
Q. Line ten.
A. Go ahead.
Q. It says:
"Some programmable thermostats incorporating a vacation mode of operation also provide for storing the date and even the time of day that the occupants of the conditioned space will return such that operation of the space conditioning equipment may automatically earlier be returned

to a normal mode of operation in anticipation of the return of the occupants, thus ensuring a comfortable temperature in the conditioned space at that time."
Do you see that?
A. Yes.
Q. And that's referring to prior art thermostats, correct?
A. Let me just check that. Okay.
Q. What prior art thermostat are you aware of that worked in the manner in the passage we just read?
A. Well, I would have to look at the whole encompassing background of the invention to understand how this paragraph relates to either the prior art or the current invention, because I'm -- as I mentioned, I may be deficient in understanding this. And if we read it in a non-linear format, it becomes incoherent as to what came first.
Q. So it's a simple question, sir. What prior art thermostats are you aware of that would adjust the time based upon the time somebody was expected to be home from their vacation?

A. Our product did that.
Q. You are describing the prior art here in this passage --
A. Well, maybe it was a prior art. I don't know. If it says it's a prior art, then it may have been a prior relevant.
Q. Okay, are you aware of a prior art thermostat as we sit here today that works as described in the passage we just read?
A. That remembers the date and everything?
Q. Yes, that remembers the date and time somebody is coming home --
A. I'm not aware. I don't know. I don't know the answer.
Q. All right, thank you. If you would pick up Exhibit 3, please, the '318 Patent.
A. '318 Patent?
Q. Yes. Did your patent attorney do a patent search before filing this patent application?
A. In theory. I would have to look at it and see what he cited and then see if any of this jogs my memory. He has references cited so we have to say yes.

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Q. Was it your practice to do a prior art search before you filed any patent application?
A. More often than not. I don't remember the past. It's too many years ago.
Q. Okay. Have you done any searching in your personal documents to see whether or not you have prior art searches related to any of these patents?
A. Um, I don't think I would, to give you a straight honest answer.
Q. Okay.
A. But certainly there will be a time, if I could just find it, when I could start looking at tonnes of stuff that could represent the artifacts of this old company.
Q. Have you done a search to determine whether you have any evidence of the time that you first thought of the ideas that are described --
A. I have not yet.
Q. -- in any of these patent applications?
A. No. I've tried with various simple things, but anything more than simple in my

definition is very complex and very time consuming.
Q. Okay. Let's look at the '318 Patent, column two, line seven.
A. Okay, so we are flipping back to a new horizon, right?
Q. Yes, we are looking at the '318 Patent?
A. Okay. May I ask why we flip, rather than just work in serial?
Q. No, you can't. I ask the questions, sir. Please just answer my questions. You are wasting our time when you ask me questions.
A. Well, I just think this format is more of a waste of time.
Q. Well, sir, this is the format that the court set up, so unfortunately I have to follow the format that the court set up, so --
A. Well, I appreciate your --
Q. -- and I'm limited in my time and I'm going to ask for more time if you continue to interrupt my examination by asking me questions. I've tried to be courteous when you ask me questions. I've even answered some of your

question, but I would ask you to stop asking me questions --
A. I'll do my best.
Q. -- you are wasting my time.
A. It's just that I thought that would be the most logical way, and I have never been through this, and I don't know your methodology. I'm trying to understand it.
Q. Okay. So if you look at column two, line seven of the '318 Patent, do you see the sentence that starts, "In some modern thermostats...?"
A. Column seven? Okay. Do you mean the -- you mean column seven, okay.
MR. NI: It's column two, line seven.
THE WITNESS: It's column two, line seven?
BY MR. WILLE:
Q. Column two, line seven.
A. Thank you. Okay, so let me just put a mark in. Let me look at the topic of this patent again, because now I have got to erase batteries and backup and memory from my mind. Okay, go ahead, please.
Q. Okay. If you look at column two,

line seven, it says:
"In some modern thermostats, virtual buttons are presented on the LCD itself which is juxtaposed with a touch pad to effect an interactive touchscreen."
Did I read that correctly?
A. You did.
Q. So you were saying there that there are other thermostats that included virtual buttons on a touchscreen, correct?
A. Yes, okay.
Q. What prior art thermostats were you aware of prior to filing this patent application that included virtual buttons?
A. None.
Q. Okay. Well, why did you say in your patent in some modern thermostats, virtual buttons are presented on the LCD itself?
A. Well, again, let me just see what they say. [reading to self]. What's the date of the first patent that I have on touchscreen?
Q. Sorry, I don't know the answer to that question.
A. I'll take a look. This is the

1 background of the invention, and we are referring
2 to the invention, and when we say "in some modern
3 thermostats," I'm not sure if this just referring
4 to our thermostats and the previous filing dates
5 of them. Sorry, that's what I see.
6 Q. Okay. So were you aware of prior
7 art thermostats at the time you filed the '318
8 Patent that included virtual buttons?
9 A. Only mine.
10 Q. Okay.
11 A. And, again --
12 Q. Did you later become aware that
13 there existed thermostats prior to yours that
14 included virtual buttons?
15 A. Virtual being dot matrix buttons?
16 Q. Any virtual button.
17 A. A virtual button is one that
18 would typically be dot matrix, because it would be
19 virtual, which means it could morph into different
20 shapes, sizes or objects, okay, and, no, I was not
21 aware of that.
22 Q. Okay.
23 A. Because it didn't exist.
24 Q. Let's go to column two, line 40,
25 please.

1 A. If you could just for a second, I
2 want to look up a word, okay; do you mind?
3 Q. Yeah, I do. I would like to move
4 on. There's no pending question so there's no
5 need to look up a word.
6 A. Okay.
7 Q. So column two, line 40 states:
8 "Displayed information for a
9 programmable thermostat generally
10 includes such things as
11 environmental conditions, heating
12 and/or cooling equipment operation
13 or non-operation, operational modes
14 of the thermostat and the like."
15 Did I read that correctly?
16 A. I have to read it again. I'm
17 sorry, I'm just not digesting it any longer. It's
18 column number 37?
19 Q. Column two, line 40.
20 A. Column two, line 40, okay.
21 Generally includes such things as environmental
22 conditions, heating and/or cooling equipment
23 [reading to self] -- such things environmental
24 conditions. Heating or cooling equipment
25 operation. [reading to self].

1 I'm having a hard time understanding
2 this. Again, I'm not wired to read these patents
3 in the way that you do.
4 Q. Yes. Is the statement at lines
5 40 to 44 true?
6 A. I don't know. It's sort of going
7 in my eyes, but it's not registering.
8 Q. Well, let's try it this way, sir.
9 You were aware of thermostats prior to your
10 invention that displayed the word "cool" when the
11 thermostat was in the cooling mode, right?
12 A. That's correct.
13 Q. And you were aware of thermostats
14 prior to filing your patent application, prior to
15 your invention, that displayed the word "heat"
16 when the thermostat was in the heating mode,
17 correct?
18 A. That's correct.
19 Q. All right, fair enough. Let's go
20 to column three, please.
21 A. Okay.
22 Q. Bottom of column three, line 66,
23 do you see the sentence that begins, "In the prior
24 art...?"
25 A. Okay, I see it now, yes.

1 Q. It says:
2 "In the prior art, touching the
3 first virtual button will shift the
4 programmable thermostat from the
5 air-conditioning mode to, for
6 example, a heating method such that
7 the associated text would change to
8 'heat'."
9 Did I read that correctly?
10 A. You did.
11 Q. And so that is describing a prior
12 art thermostat where you press a virtual button
13 that shifts --
14 A. Does it --
15 Q. -- the thermostat from
16 air-conditioning to heating mode, correct?
17 A. Okay.
18 Q. Yes?
19 A. Yes, but it says "shift" and I'm
20 not sure what the word "shift" could mean, because
21 in --
22 Q. Well --
23 A. In a true virtual button, you
24 don't shift things necessarily, virtual being
25 totally portable and transportable. Um, you may

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shift, but you would also morph, and that's a better word, because you have dots to play with, not characters. Whereas with a fixed button, you would shift something. It's very different.

Q. My question to you, sir, is do you know what prior art thermostat is being referred to in the sentence that I just read?

A. No, I don't know which one.

Q. Okay.

A. But --

Q. Let me ask you to turn to column six, lines 34 to 42.

A. Okay.

Q. Column six, lines 34 to 42 says:

"It may be noted that integrated circuit chips including all the processor components with all the necessary interface conditioning circuits are available off the shelf and are under constant refinement for increased power."

A. Okay.

Q.

"The subject invention only requires the capabilities of a

processor such as the processor 1, and off-the-shelf integrated circuit processor chips may be used to advantage in the subject thermostat system."

Did I read that correctly?

A. Pretty well.

Q. All right, and what you meant by that, if we look at Figure 1, okay, so if we look at Figure 1 of the '318 Patent, it should be the second page of the document.

A. Okay.

Q. Or the third page actually.

A. I got it.

Q. Do you see Figure 1?

A. Yes.

Q. All right. So what you meant by the passage we just read was that any of the components shown there in Figure 1 can be purchased off the shelf, correct?

A. Correct.

Q. All right. And I guess we could go through every component one by one again like we did with the other patent, but would you agree that the '318 Patent does not disclose any new

component as shown in Figure 1(a)? Like all of the components are old is my point?

MR. NI: Objection, form.

THE WITNESS: I don't quite understand. You are wanting me to put --

BY MR. WILLE:

Q. I will tell you what, we are going to need to go through it one by one. In the '318 Patent you did not invent a new memory, correct?

A. Correct.

Q. You did not invent a new real-time clock, correct?

A. Correct.

Q. You did not invent a new CPU, correct?

A. Correct.

Q. You did not invent a new input/output unit, correct?

A. I didn't invent any of the components used to fabricate this product.

Q. Okay. In the '318 Patent you did not invent any new components -- there's a number of components shown in the Figure 1 of the '318 Patent, correct?

A. Okay.

Q. True?

A. Say that again.

Q. There are a number of components illustrated in Figure 1 of the '318 Patent, correct?

A. There are a number of components --

Q. Forget it, we are going to do it my way. Sir, you did not invent a new touchscreen in the '318 Patent, correct?

A. Correct.

Q. You did not invent a new temperature sensor in the '318 Patent, correct?

A. Correct.

Q. You did not invent new spacing conditioning equipment in the '318 Patent, correct?

A. Yes, correct.

Q. You did not invent a new A to D converter in the '318 Patent, correct?

A. Correct.

Q. You did not invent a new input/output unit in the '318 Patent, correct?

A. Correct.

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Q. Okay. And all of the hardware components that we just discussed in Figure 1 of the '318 Patent had been used in thermostats prior to your invention, correct?
A. Um, I'm not so sure of that, because this is virtual touchscreen coupled with -- yeah, it's virtual touchscreen coupled with dot matrix. It's very different. Virtual touchscreen is a real -- that's how we use analogue input. It's an analogue device, a cheap touchscreen which your devices that existed before this were just --
Q. Okay.
A. -- located parts of a piece of glass and you had to touch any area in that location to cause an effect, not just one specific per portion, whereas when you get to virtual products you can program the -- call it pixels, even though we are talking about a touchscreen, you can program the most minute point on that screen, and you could expect something only in one location to get a result.
Q. Sir, you didn't invention a new touchscreen in the '318 Patent, correct?
A. No, but then you said used in

prior products. I don't think anybody used resistive or capacitive touchscreens back then.
Q. Okay, so --
A. Not in thermostats.
Q. So memories were used in thermostats for years prior to your invention, correct?
A. M'hmm.
Q. "yes" or "no"?
A. Yes.
Q. CPUs such as microprocessors were used in thermostats for many years prior to your invention?
A. Yes.
Q. I'll tell you what, let's make it simple, because instead of doing this for all of the patents, you would agree that memories were used in thermostats prior to your invention for any of the five patents, correct?
A. Yes.
Q. And you would agree that real-time clocks were used in thermostats for many years prior to your invention for any of the five patents, correct?
A. Yes, yes.

Q. You would agree that CPUs such as microprocessors were used in thermostats prior to your invention of any of these patents, correct?
A. Yes.
Q. And you would agree that input/output units were used in thermostats prior to your invention of any of these patents, correct?
A. That was -- what was the last one, that what?
Q. Prior to your invention in any of these patents, correct --
A. No, but before that? What was the last component?
Q. Input/output units.
A. Yes.
Q. Okay. You would agree that temperature sensors, be they analogue or digital, were used in thermostats for many years prior to your invention in any of these patents, correct?
A. Yes.
Q. And you would agree that for many years prior to the any of your invention in any of these patents control outputs were used to control space conditioning equipment, correct?

A. Sure.
Q. Okay. And going back to the passage that we read before we had this long discussion about Figure 1, when you refer to off-the-shelf components, that's referring to a component that a person of ordinary skill in the art can purchase on the open market, correct?
A. Correct.
Q. In other words, it's not a specially designed part, it's a part that anybody can buy?
A. Yes, as is in most inventions in this world.
Q. Okay. And the touchscreen that you used in your invention is something that you could purchase off the shelf at the time you made your invention, correct?
A. Well, sort of off the shelf. They are custom made, but the method is of the touchscreen, they all work in a similar fashion when they are not icon-based touchscreens.
Q. Okay. So to be clear, you didn't invent a new type of touch pad, correct?
A. Correct.
Q. And you didn't invent a new type

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of liquid crystal display, correct?
A. No, but I used touch pads in LCDs which were pretty well state of the art at that time, and they were not being used by other people in this application.
Q. Okay. You did not invent a touchscreen that consists of a touch pad juxtaposed with a liquid crystal display, correct?
MR. NI: Objection, form.
THE WITNESS: Yeah, in a thermostat? I think I was first on the market.
BY MR. WILLE:
Q. No, just in general. You agree that touch pads --
A. Existed over other products?
Q. Let me finish my question, please, sir. You would agree that before your invention in any of these patents there were touchscreens that existed that a person of ordinary skill in the art could purchase which consisted of a touch pad over a liquid crystal display, correct?
A. Correct.
Q. Now if we go to claim one --
A. Of '318?

Q. Yes, of '318, and element (D).
A. Claim one, okay, of '318?
Q. It recites:
"A control program stored in said memory for causing said central processing unit to communicate through said input/output unit to selectively..."
And then there's series of --
A. I'm sorry, you are ahead of me. What column is this?
Q. Column 13.
A. Okay. Sorry, continue.
Q. You see in column 13, element (D), which refers to a control program stored in said memory?
A. Yes.
Q. All right. And it has to cause the CPU to communicate through the IO unit to do certain things; do you see that?
A. Okay, yes.
Q. And one of the things that it is supposed to do is label number two; do you see that?
A. Yes.

Q. And that says the control program can:
"Read the position on the touch pad juxtaposed with said first predetermined position on said liquid crystal display to determine if the representation of said first virtual button has been touched."
Did I read that correctly?
A. You did.
Q. All right. And did touchscreens that had that capability exist before you created your invention?
A. I didn't invent the touchscreen.
Q. Right.
A. Okay. This is only a counterpart of what the invention contains.
Q. Right.
A. So let everybody be clear about that.
Q. Right. And all I'm trying to establish is you agree there were touchscreens that existed that were known to persons of ordinary skill in the art that allowed a control program to read a position on the touch pad --

A. Yes.
Q. -- juxtapose what the first predetermined position on the liquid crystal display to determine if the representation of the first virtual button has been touched?
A. Yes.
Q. There was nothing new about touch pads with that capability when you filed your patent application, correct?
MR. NI: Objection, form.
THE WITNESS: That's very general. You want me to say yes to something that really includes some state of the art stuff.
BY MR. WILLE:
Q. Well, I'm asking whether it was known to persons of ordinary skill in the art that there were touch pads in existence that had the capability of having a control program read the position on the touch pad juxtaposed with the first predetermined position on the liquid crystal display --
A. There were --
Q. -- to determine if the representation of the first virtual button had been touched?

A. There were virtual touch pads that could perform that task, because that's the component I used to create virtuality in a touchscreen display of a thermostat.
Q. Okay. And you bought that touch pad from somebody else, correct?
A. Yes.
Q. You didn't create it yourself, correct?
A. Correct.
Q. It was something available for persons of ordinary skill in the art to purchase, correct?
A. Yes.
Q. And a touch pad determines if a button has been touched by sensing a change in capacitance, correct?
A. Um, does it say specifically that?
Q. Well, it doesn't say that in the claim. I'm asking you if that's -- is that a way that a touch pad determines --
A. It's only one way. It's not necessarily the best way.
Q. Okay. But to determine if

A. As I just mentioned, you have two layers of a clear, in some cases it's a type of mylar, and the layers are sputtered. Do you know anything about sputtering?
Q. Yes.
A. Okay, so the metal films are sputtered, and they are one layer is X and one is Y, and when you touch it at any point, it's contiguous, okay, there's no gaps, you have resistance one and resistance two, or X and Y are the resistances. You have two values, and that gives the analogue to digital input a specific coordinate.
Q. And it's sensing a change in resistance, correct?
A. Yes.
Q. All right. And --
A. That's just one instance. Yes, you can use a touchscreen today that's capacitive. You could use any touchscreen that could give you a specific point resolution to create virtuality in a thermostat to give you not only better control, but better information when you touch something. This is the improvement in my invention.

something has been touched, it senses if there is a change in capacitance, correct?
A. No, not always true.
Q. Well, have you ever heard of a capacitive touch pad?
A. Yes.
Q. Is that what you used?
A. No.
Q. What did you use?
A. Well, if you don't know, why ask me? You should be asking me questions based on the patents.
Q. What did you use?
A. I used a resistive membrane touch pad.
Q. Okay.
A. Which has sputtered metal of .05 microns so that you see right through the film. This gives you a perfectly analogue and linear curve across the whole area of the touchscreen, okay, and you have an XY axis, and you could read R1 and R2, and you could understand the coordinates.
Q. So how does a resistive touchscreen work?

Q. Okay.
A. While you are on hold for a second, may I ask something? Is there a chance that food has arrived, because I'm starting to need a break?
MR. WILLE: Why don't you check on that.
MR. NI: It hasn't.
BY MR. WILLE:
Q. We'll continue and he can let you know.
A. Okay.
Q. Okay. So going back to claim one of the 8318 Patent, do you see there it refers to a processor?
A. (C), right?
Q. Right.
A. Okay.
Q. And you see the processor includes a central processing unit, a real-time clock, a memory, an input/output unit, which includes a sensor input and a control output; do you see that?
A. Yes.
Q. All of those components are components that were used in prior art

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thermostats, correct?
A. Yes. And you understand why we are describing that?
Q. Yes, I understand --
A. I mean everybody does that in the technical description of going into a new invention of what you are inventing and what exists, and there's additions to this that create the invention. You know that better than I do.
Q. Move to strike the rest of the answer as non-responsive, sir.
So I can have a clear answer here, you agree that all of the elements in (C) for the processor are elements that were in prior art thermostats, correct?
A. All of the elements in (C)?
Q. In (C).
A. I would have to check every element, and let me just see where we are going with this. Okay, it's part of a claim, so it's section (C). Yes, it's correct.
Q. So you agree that all of the elements in section (C) were included in prior art thermostats?
A. This is a thermostat. Yes.

A. It said touchscreen. These are the ingredients of the product and what makes up a thermostat that has this invention, so, yes, this is all, you know, part of a touchscreen thermostat in our claim of what we are using.
Q. Okay --
A. Whether or not this is a prior part of the art, I don't know that.
Q. Well, you are aware of prior art thermostats that had an input/output unit that had both a sensor input and a control output, correct?
A. But not a touchscreen.
Q. Okay, we'll come to that.
A. Okay. And certainly elaborating even more, definitely not a virtual display with touchscreen.
Q. Okay. I just want to make it clear you were aware of prior art thermostats that had an input/output unit that had a sensor input to receive input from a temperature sensor and a control output --
A. Yes.
Q. -- to control space conditioning equipment, correct?
A. For sure.

Q. Okay, thank you. And I may have already asked you this, but there's no new real-time clock in the '318 application either, correct?
A. There's no new -- no, of course not.
Q. You are just using an off-the-shelf real-time clock, correct?
A. Yes.
Q. And one of the elements in (C) the input/output unit includes a sensor input that receives the input from the temperature sensor and the control output that controls the basic conditioning equipment; do you see that?
A. You are in you said (C)?
Q. Yes.
A. (C) of section?
Q. Claim one, (C)(4).
A. Claim one (C)(4), yes, correct.
Q. Okay. There was nothing new about having an input/output unit that had a sensor input coupled to a temperature sensor --
A. Well --
Q. -- and a control output for controlling space conditioning equipment, correct?

Q. Okay. And there are -- you are aware of prior art thermostats that had a control program that controlled the functions of the thermostat, correct?
A. Sure.
Q. That's why you use a microprocessor, right --
A. Today, yes.
Q. -- to use -- well, in the prior art, people used a microprocessor that they would write a program for to control the thermostat, correct?
A. And the part we used a thermal spring with a mercury switch really.
Q. Okay. You were aware of prior art thermostats that used a microprocessor programmed using a control program to control the thermostat, correct?
A. Yes.
Q. Okay, so now sometime in 2005, can you remember back to 2005?
A. No, I just remember the first patents being around 2002, so...
Q. Okay. Well, let me try to refresh your recollection. In early 2005 you

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became aware of a prior art system called the Cardio system, correct?
MR. NI: Objection to form.
THE WITNESS: Okay, yes.
BY MR. WILLE:
Q. Do you recall the Cardio system?
A. Was it in 2005? Is it cited in my patents?
Q. Well, sir, I'll represent to you that it was 2005, but the year's not important.
Do you recall becoming aware during the prosecution of some of your patents of the Cardio system?
A. I'm not sure, because I don't recall. It's too far, too long ago.
Q. Okay. Do you recall learning about a thermostat that had a touchscreen that was sold in the United States between 1996 and 2000?
A. Was it a thermostat hung on a wall and --
Q. Yeah, a thermostat, yeah.
A. No, I don't recall anything like that.
Q. You don't recall that. Let me hand you what's been marked as Exhibit 6.

A. Sure.
--- Exhibit 6: Statutory Disclaimer mailed in February of 2005 ---
BY MR. WILLE:
Q. For the record, Exhibit 6 is a --
A. If it wasn't --
Q. -- a Statutory Disclaimer which was mailed in February of 2005.
A. What does that mean?
Q. Again, sir, I am asking the questions today. Do you have Exhibit 6 in front of you, sir?
A. Yes, go ahead.
Q. So Exhibit 6 is titled on the front page, do you see where it says, "Transmittal Letter, Statutory Disclaimer?"
A. Okay, yes.
Q. And do you see where it is dated February 22, 2005, in the certificate of mailing in the box?
A. Okay, I see issued 2004, but...
Q. Do you see where it says, date of mailing, February 22, 2005?
MR. NI: It's on the first page.
THE WITNESS: Okay, I know what this is,

I think.
BY MR. WILLE:
Q. When you say --
A. Is this my patent that says disclaimer?
Q. Yes, I believe so.
A. Okay, that's correct.
Q. Do you see it lists, "Inventor, Howard Rosen" in the upper left-hand corner of the first page?
A. I've seen a lot of stuff right now, and it's not good. And I don't mean the paper, I mean the way I feel.
Q. Okay. So if you would flip a few pages into the exhibit, you will see --
A. And that's my health I'm talking about, not the way this is making me feel. I need to eat something with carbohydrates and sugar and I think we should shut down and go get it. Okay, are we clear?
Q. Do we need to take a break?
A. Yes, we need to take a break.
Q. Let's go off the record.
VIDEOGRAPHER: Going off the record at 11:34 a.m.

--- Whereupon recess commenced at 11:34 a.m. ---
--- Upon resuming at 11:49 a.m. ---
VIDEOGRAPHER: Going back be on the record at 11:49 a.m.
BY MR. WILLE:
Q. Okay, Mr. Rosen, when we broke we were discussing Exhibit 6, the Statutory Disclaimer with the attachments. If you will go forward a few pages, you will find a document entitled "Statutory Disclaimer and Declaration of Howard Rosen."
A. If I keep going this way. So where am I going from page 1? I'm actually on real page no. 1.
Q. It's about eight pages in.
MR. NI: I think you passed it, Howard.
THE WITNESS: I'm going to page 8. Eight pieces of paper in?
BY MR. WILLE:
Q. No, it's four pieces of paper. It's double sided, so...
A. I think differently. Okay, so what is it that you would like me to look at?
Q. You see where it says, "Statutory Disclaimer and Declaration of Howard Rosen?"

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A. Yes.
Q. That's you, right?
A. Yes.
Q. And if you look at the next page, is that your signature?
A. Yes.
Q. Dated February 21st, 2005?
A. Yeah. I remember this whole thing.
Q. So you signed this document on February 21st, 2005?
A. Yes.
Q. All right. Does this refresh your recollection that sometime in 2005 you became aware of a prior art system called the Cardio system?
A. Correct, now I do.
Q. How did you come to learn about the Cardio system?
A. Okay, this was through Honeywell.
Q. So Honeywell told you about the Cardio system?
A. Yes, they told me about it, and I examined it, and it's essentially an icon non-virtual touchscreen. It does not display

any -- and I've used one, I've actually touched this unit, and I've seen videos of it, and you could see them too. And so it is very simple, rudimentary and does not include anything regarding virtual touchscreen. And so the patent that I give up is just a touchscreen patent that was literally too broad.
Q. Okay. Did you -- let's move to strike that answer as non-responsive.
Did you become aware of the Cardio system in 2005, sir?
A. I must have if this is the date. I mean if you asked me blindly what the date is, I can only read it off the document to tell you yes or no.
Q. Okay. And Honeywell told you about the Cardio system, correct?
A. M'hmm.
Q. Yes?
A. Yes.
Q. And what you discovered when you researched the Cardio system is that it was sold in the United States between 1996 and 2000, correct?
A. Yes.

Q. And you did your own research regarding the Cardio system after Honeywell told you about it, correct?
A. Yes, and I did look at this manual, because I'm just looking at it now, and it brings back all the memories, so, yes.
Q. Did you obtain an actual physical Cardio system device?
A. I saw the actual system working.
Q. Okay. Where did you see the actual system working?
A. I think in Montreal.
Q. And was it one that you acquired or did you go see one at somebody's house?
A. I went to see one, and I forget where it was, but it might have been something to do with -- I wouldn't call it home automation, but somebody that carried building controls.
Q. Okay.
A. Okay, and so this -- when I realized this existed, I discussed it with Honeywell, and in order to keep out of as much trouble as possible because I didn't have the money to start fighting something like this, nor did I see a similarity in the virtual touchscreen,

okay, I decided the best thing to do was to disclaim it, and I discussed it with Honeywell --
MR. NI: I just wanted to caution you if any of your testimony is based on your discussion with your patent attorney, to not disclose that, but go ahead.
THE WITNESS: Oh, okay, well, anyway, I guess I shouldn't disclose that information any farther than that. Um, but then after studying all of this, plus any other documents, they are all included in the cite in the prior arts of other patents that don't include this -- this type of method.
BY MR. WILLE:
Q. Do you have a physical Cardio device in your possession today?
A. I don't.
Q. Okay. Did you ever have a physical Cardio device in your possession?
A. Not in my possession.
Q. Okay. So sometime in 2005, early 2005, before you signed your Declaration, you went and saw --
A. Yes. Somehow I got to see one and I don't remember the exact source. It's too

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long ago, but I did get to see one and went through it, and it's just all, you know, like when you touch something, the screen will -- you know, it just -- it's just static characters, it's not more than that. It's not at all the description of the virtual touchscreen.

Q. Move to strike the answer as non-responsive, sir. Just try to answer the question I ask you instead of adding a speech on to the end, please.

So the question I asked you was sometime in early 2005 did you see the Cardio system operate?

A. Yes.

Q. And when you saw the Cardio system operate, you drew certain conclusions about it; is that correct?

A. Yes, of course.

Q. And one of the conclusions you drew about it was that it anticipated the claims of your '069 Patent, correct?

MR. NI: Objection. Again, the basis of what you believe is anticipation, I think coming to a legal argument here, is if your understanding of that is based on your discussions with your

patent attorney, I would instruct you not to answer. Now if you have some other understanding on your own, you can answer that.

THE WITNESS: I won't answer that then. Let's not go there. I think this is too complicated --

MR. WILLE: Are you sure you want to take that position, Counsel? Have you read the Declaration?

MR. NI: No, I'm saying everything he hears, he can testify to the --

MR. WILLE: If you are going to instruct him on that, I'm going to argue it's a privilege waiver for whatever he talks about in his Declaration. So if you want to take that position, it's up to you. I'm just forewarning you.

MR. NI: I think the question is, look, if he's going to testify to stuff that's not here in his Declaration, okay, so he's fine to testify about everything in his Declaration, all right, but if you are asking him stuff that's outside of the Declaration that he discussed with his attorney, I think there's --

MR. WILLE: I'm not asking about

discussions with his attorney. I'm asking whether he made a conclusion.

MR. NI: Yes, so the Declaration is fair game.

BY MR. WILLE:

Q. Okay. So, sir, did you also talk to people at the company that produced the Cardio system?

A. No where were they located?

Q. In Canada.

A. Then maybe I did. That's why I'm asking.

Q. Domotique Sécant is the company. Does that refresh your --

A. That really does, and that's where I saw it, okay. So Domotique -- because it's called Cardio, I didn't realize it was Domotique, so I was confused seeing Cardio. Now you are helping me out. So obviously that was the name of the product from Domotique, and they are or were a Montreal company, and they made this product, and I went there, and I remember meeting the owner and going through the whole product.

Q. Okay. And you have attached to your Declaration a copy of the Cardio manual,

correct?

A. Yes, I guess.

Q. Well, look at paragraph 3 of your Declaration.

A. Okay, I didn't put this Declaration together. The patent attorney I worked with I guess must have.

Q. Look at paragraph 3 of your Declaration, sir.

A. Okay, no, you'll find an attachment to it. I would think that probably that was done by Bracken from what I see here.

Q. Sir, look at paragraph 3 of your Declaration, please.

A. Paragraph 3. It's on page what?

Q. The Declaration, sir, your Declaration that you signed that we were just referring to earlier, that you signed in February of 2005?

MR. NI: If you go by paper, it's the fourth page.

THE WITNESS: Okay, thanks? That makes it much easier, thank you. So the fourth page, is it after where it says "David T. Bracken?"

BY MR. WILLE:
Q. It's the document entitled "Statutory Disclaimer and Declaration of Howard Rosen." Do you see that?
A. Yes, I see it.
Q. That is a statement you signed under oath in 2005, correct?
A. I don't recall it was under oath or what it was. This is in 2000 and -- it says issued November 30, 2004.
Q. Okay. Let's look at paragraph 7 of your Declaration.
A. Okay, but, yes, so my signature is there which means I signed it.
Q. You signed it in February 2005, correct?
A. Correct.
Q. And it says in paragraph 7:
"All the above statements were made of my own knowledge are true and that all statements made on information and belief are believed to be true --
A. Correct.
Q.

"... and with knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under section 1001 of Title 18 of the United States Code, and such willful false statements may jeopardize the validity of the application or any patent issuing thereon."
Do you see that?
A. Yes.
Q. Does that refresh your recollection that you signed this Declaration --
A. I told you I see my signature, so I know I signed it for sure.
Q. And you signed it under oath --
A. But if you listen to what I did explain to you why I signed it is because it was clear to me that that patent was too broad.
Q. Sir, did you sign your Declaration under oath?
A. Not that I know of. I don't think so.
Q. Okay. So do you think there's

something false in this Declaration?
A. The fact that Bracken wrote that I signed under oath, perhaps. I don't know what oath means, because I was in Canada when I signed this. I didn't fly to his office in California.
Q. As we sit here today, do you know anything in this Declaration that's untrue?
A. No.
Q. So if you look at paragraph 3 of your Declaration, you say:
"Attached to this declaration is a true copy of a document titled 'Cardio manual', it has been proven to me as having been produced and publicly distributed since 1995 by Domotique Sécant Inc. in the United States and other countries. The 'Cardio manual' has been proven to me to have been available to the public since 1995."
Did I read that correctly?
A. You did, but I've just explained the story to you, that this doesn't tell the story of virtual touchscreen --
Q. Sir, that's not my question.

Just answer the questions you are asked, please. Your counsel will have a chance to ask you questions later.
You agree that the Cardio manual -- first of all, is that a true statement in paragraph 3 of your Declaration?
A. [reading to self] that the Cardio manual has been proven to me to be available to the public since 1995.
Q. Yes, so the manual that's attached to your Declaration --
A. Yes.
Q. -- was available to the public since 1995, correct?
A. Okay, yeah.
Q. That's true?
A. Also Cardio, I don't think it's even a thermostat. I think it's a controller --
Q. Sir, again, please just answer my question. My question was very simple.
Was the Cardio manual available to the public in the United States since 1995?
A. It must have been if this is the research here.
Q. Okay. Now paragraph 4 you say:

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"The following has been proven to me as true and accurate: Domotique Sécant Inc. has openly distributed and sold its Cardio product in the United States from early 1996 to 2000 and in other countries since 1995."

Did I read that correctly?

A. Yes.

Q. So you agree that the Cardio product was sold in the United States between 1996 and 2000, correct?

A. Yes.

Q. And that makes it prior art to all of the five patents that we are talking about in this case, correct?

A. It depends how you define prior art because I'm not familiar with your terminology.

Q. All I mean is it was sold in the United States more than a year before you filed any of these five patent applications, correct?

A. Yes, but this doesn't have coverage on those.

Q. Okay. And it says, "The 'Cardio'

product has always had the functionality of a thermostat as described in the 'Cardio manual'."

Is that a true statement?

A. Yes, it has the functionality of a thermostat, that's correct.

Q. And the next thing you state is:

"The interface of the 'Cardio' product has always included a tactile surface integrated with a liquid crystal display to constitute what we call in the industry a touch panel or a touchscreen."

Did I read that correctly?

A. Correct.

Q. And that's a true statement, correct?

A. Yes.

Q. The next thing you say about the Cardio system in your Declaration is that:

"The user can thus control the temperature of his home while various significant sectors of the associated the touch panel have text or pictograms." [sic]

Did I read that correctly?

A. Let me read this. [reading to self]. Yes, that's true.

Q. Okay. And the next statement says:

"The touch panel has representations of buttons that when touched by a user result in an input to a control program that a particular button has been touched."

Did I read that correctly?

A. Yes.

Q. And that is a true statement about the Cardio system, correct?

A. Yes, correct.

Q. It says:

"The LCD in the 'Cardio' product has always been formed with a dot matrix screen that allows extensive flexibility of the display of text and pictograms."

Did I read that correctly?

A. Well, you are reading it correctly, but it's not the same methodology when

analyzed against my screen.

Q. Move to strike the rest the answer as non-responsive.

Sir, my question was simply did I read that sentence correctly?

A. You read the sentence correctly.

Q. Okay. And is the sentence a true statement about the Cardio product?

A. It's not perfectly accurate.

Q. Okay. The next sentence says:

"In addition, the 'Cardio' product has since 1995 has had both a temperature sensor and the touch panel interface in the same housing."

Did I read that correctly?

A. Um, I don't think that's correct.

Q. You don't think that statement is correct?

A. No, I don't think the temperature sensor was in the Cardio device.

Q. Okay. The next sentence says:

"The combination of a temperature sensor and the touch panel interface in the same housing is

typical of a thermostat."
Did I read that correctly?
A. The combination -- well, it would have been if the first sentence were correct, which I don't think it is.
Q. Well, you agree that the combination of a temperature sensor and the touch panel interface in the same housing is typical of a thermostat, correct?
A. Oh, yes, but I don't --
Q. The next sentence says:
"Therefore, there is no doubt that the 'Cardio' product was openly advertised, distributed and used since 1995 as a thermostat."
Did I read that correctly?
A. I don't think so. I'm not even sure why Bracken wrote this and how this all happened, but I believe that if we find a Cardio, we'll find that it's different in its operation than what this describes.
Q. Sir, did I read the statement correctly? Move to strike the answer as non-responsive.
My question to you sir, was, "Therefore

there is no doubt that the 'Cardio' product was openly advertised, distributed and used since 1995 as a thermostat."
Did I read that correctly?
A. Yes.
Q. And is that a true statement in your Declaration?
A. How do you mean that, do I believe it's true?
Q. Yes.
A. I believe parts of it are inaccurate.
Q. You believe that the Cardio product was not openly advertised, distributed and used since 1995 as a thermostat?
A. No, no, that I believe, yes.
Q. So that statement is true?
A. Yes.
Q. Okay, next statement, U.S. patent --
A. Which number, if you could state numbers.
Q. Paragraph 5.
A. Okay.
Q. So in paragraph 5, you state:

"US Patent No. 6,824,069 describes and claims a programmable device with the functionality of a thermostat and uses a touch panel as its user interface."
Did I read that correctly?
A. Yes.
Q.
"The use and knowledge of the 'Cardio' product has been known to the public in the United States since 1995."
Did I read that correctly?
A. Yes.
Q. And you believe that to be a true statement, correct?
A. Yes.
Q. You say:
"I have personally inspected a 'Cardio' product which has been shown to me to have been essentially unchanged since 1995."
Did I read that correctly?
A. Correct.
Q. Ant that that's a true statement,

correct?
A. Yes.
Q. And it says:
"All features of the device as described and claimed in US Patent No. 6,824,069 were disclosed to the public at least in the United States by the public use and knowledge of the 'Cardio' product since 1995."
Did I read that correctly?
A. Yes.
Q. And is that a true statement?
A. Yes. Well, is it a true statement? Yes, in terms of dates, correct.
Q. Okay. And you state:
"The claims of US Patent No. 6,824,069 are anticipated and made obvious by the disclosure and use of the 'Cardio' product and its 'Cardio manual' proven to me to have had an effective publication and public use date since 1995."
Did I read that correctly?
A. Yes.

Q. And that is a true statement as well, correct?
A. Yes.
Q. And it says:
"Since 1995, the broad idea of a device having a thermostat function and using a touch panel or touchscreen for a user interface is anticipated and made obvious by the disclosure and use of the 'Cardio' product and its 'Cardio manual'."
A. It's correct. It's the "broad" that makes it correct.
Q. Okay. And that is a true statement as well, correct?
A. Yes.
Q. All right. Now did you authorize your attorney to file this Disclaimer?
A. I don't recall.
Q. Okay. So also attached to this Disclaimer is a Declaration of John François Boileau or Boileau; do you see that?
A. Yeah.
Q. It comes right after yours?
A. I remember the name and he's the

owner of the company.
Q. He was the owner of Domotique Sécant?
A. Yes.
Q. All right. And did you talk to him?
A. Yes.
Q. Did you read his Declaration?
A. No, I don't think I ever saw this. I don't think so.
Q. Okay. You don't recall reading his Declaration?
A. No.
Q. All right. If we go to the second page of the exhibit --
A. Do you mind if I just finish reading this for a second, please?
Q. Sure, go ahead.
A. Thank you.
MR. NI: David, do you want to finish this line of questioning first? I think the food is here for Mr. Rosen.
MR. WILLE: Just a couple of minutes.
MR. NI: That's fine.
THE WITNESS: Okay, I've read it,

thanks.
BY MR. WILLE:
Q. Okay, so having read Mr. Boileau's Declaration, do you recall reading this at the time in 2005?
A. No, I don't.
Q. Okay. So do you have any idea whether what Mr. Boileau says is true or not?
A. When I -- what I remember of the '069 patent, which is the one disclaimed, is that it's correct for the '069 Patent, but it's totally incorrect, and as a result when I examined it closely, I then added this to the citings on the touchscreen thermostat that we previously reviewed.
Q. Okay.
A. They are different.
Q. Let's go off the record and let's take a break for lunch.
MR. NI: Okay.
VIDEOGRAPHER: Going off the record at 12:12 p.m.
--- Whereupon recess commenced at 12:12 p.m. ---
--- Upon resuming at 12:34 p.m. ---
VIDEOGRAPHER: Going back on the record

at 12:35 p.m.
BY MR. WILLE:
Q. Mr. Rosen, when we broke, we were discussing the Cardio system; do you recall that?
A. Yes.
Q. All right. And your disclaimer of the '069 Patent. Do you recall that the '318 Patent originally claimed priority to the '069 Patent?
A. I don't.
Q. Okay. Let me hand you what's been marked Exhibit 8, which is dated February 4th, 2005, and it is a Preliminary Amendment in Application Serial No. 10/654,235.
--- Exhibit 8: Preliminary Amendment in Application Serial No. 10/654,235. ---
BY MR. WILLE:
Q. Just to make this easy, Mr. Rosen, if you look at the '318 Patent instead of the exhibit I just gave you, if you look at the '318 Patent in the cover?
A. '318, okay.
Q. Do you see where it says, "Application No. 10/654,235?

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A. I see that.
Q. Exhibit 8, the defendant's Exhibit 8, Preliminary Amendment I just gave you, you will see it has the same Serial No. 10/654,235 in the upper left-hand corner --
A. Exhibit 8?
Q. Yes, the document I just gave you. Do you see it has the same serial number in the upper left-hand corner?
A. Yes, okay.
Q. Okay. So now if you turn the page to the second page, it's numbered page 2 at the bottom, if you look where it's numbered page 2 at the bottom, because the cover page is actually just a mailing certificate. So if you look at page 2 of the Preliminary Amendment, do you see where it crossed out some language?
A. I see like XXXX.
Q. Yes, you see there's some language crossed out there. And if you flip to the next page --
A. Let me just read this. Okay, so I go to the next page, yes.
Q. If you go to the next page, do you see the paragraph, that begins, "All the

claims of...," in the middle of the page?
A. On page 3?
Q. Yes.
A. You mean number three?
Q. Yes. Do you see the paragraph that begins, "All the claims of...?"
A. Yes, okay.
Q. It says:
"All of the claims of US Patent No. 6,824,069 are being disclaimed by the applicant for the entire term of that patent. Applicant seeks to sever all connection between US Patent No. 6,824,069 in the present application."
Did I read that correctly?
A. Yes.
Q. Okay. And the paragraph above that says:
"Applicant hereby disclaims for the present application the benefit of the earlier filing date of Serial No. 10/060768 --
A. Which is that?
Q. Which is the '069 Patent.

A. Okay.
Q. If you go back to the Disclaimer, Exhibit 6, that we discussed before lunch, discussing the Cardio system --
A. Okay.
Q. -- if you look in the upper left-hand corner of the first page, you will see that same Serial No. 10/060768; do you see that?
A. Okay, yes.
Q. Okay. So does that refresh your recollection that the '318 Patent originally claimed priority to the '069 patent?
A. The '318 Patent, no, it doesn't.
Q. Okay.
A. So what does this mean in terms of --
Q. Well --
A. Does that mean it just shifts the date of the '318?
Q. Well, you originally claimed priority to the '069 Patent. Here you are withdrawing the claim of priority to the '069 Patent. Do you recall doing that?
A. No.
Q. Okay. So this is something you

don't remember from 2005?
A. No.
Q. You agree that there's no explanation here in the Preliminary Amendment, Exhibit 8, as to why the claims are being disclaimed, it only just says that the claims are being disclaimed, right?
A. Yes, there's quite a bit here that I don't quite understand, but that's another story for another time.
Q. Okay, but you do agree there's no explanation of why the claims are being disclaimed in the Preliminary Amendment to Exhibit 8, right?
A. Um, I don't remember or am I aware of these documents.
Q. Let's look at Exhibit 8 again. Remember we read the paragraph a second ago, "All the claims of US Patent No. 6,824,069 are being disclaimed by the applicant for the entire term of that patent."
A. Okay.
Q. "Applicant seeks to sever all connection between the U.S. Patent No. 6,824,069 and the present application."
Do you see that?

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A. That's in the Exhibit 8, right?
Q. Exhibit 8, page 3.
A. Okay, so he's basically cut the date, so now the date changes on the patent; is that what you are --
Q. What -- please, look at the paragraph that I'm asking you about.
A. Okay, go ahead.
Q. We are not going to talk about the legal significance. Go to page 3, please. You are on page 2.
A. Okay.
Q. Okay. So you see the paragraph that says:
"All the claims of US Patent No. 6,824,069 are being disclaimed."
Right?
A. Okay.
Q. You see that?
A. Yes.
Q. And there's no explanation given in the Preliminary Amendment, Exhibit 8, as to why all of the claims are being disclaimed, is there?
A. No.

Q. Okay. So let's go back to the Disclaimer, which is Exhibit 6. Do you recall reviewing the Disclaimer before it was filed?
A. No.
Q. Okay. So if we -- if you flip the page over, so we are now on page 1 of the disclaimer, second page of the exhibit, but first page of the disclaimer, it says:
"The inventor and owner of US Patent No. 6,824,069, Howard B. Rosen, submits herewith a Statutory Disclaimer disclaiming all claims of the above patent and dedicating the entire term of the subject patent to the public."
Do you see that?
A. I see it, yes.
Q. Okay. So you did approve the filing of this document, correct?
A. I'm not a hundred percent sure. I'm actually awe strucken by what it says.
Q. Well, you signed the Declaration, right?
A. And Bracken quit right after this was done, and sent a box of paper to me.

Q. Okay. You signed the Declaration, right?
A. It appears that way.
Q. All right. And you did do an investigation of the Cardio system, correct?
A. Yes, this is true.
Q. And did you understand that your patent attorney had asked the patent office to consider the evidence you submitted in Honeywell's -- one of Honeywell's patent applications?
A. When -- no, I didn't -- what do you mean by that? I don't understand.
Q. Well, let's -- you have Exhibit 6 in front of you. Go to page 1 of the Statutory Disclaimer, which was page 2 of the exhibit, okay?
A. Okay.
Q. No, page 1.
A. Okay.
Q. The very last sentence at the bottom of the page says:
"Because the reference leading Mr. Rosen to disclaim his patent is also a reference to Honeywell Application Serial No. 10/453,027,

Mr. Rosen requests that a copy of the documents filed herewith be delivered to the examiner and other PTO personnel considering the substance of Honeywell Application Serial No. 10/453,027."
Do you see that?
A. Yeah, I do.
Q. Okay. So does that refresh your recollection that you knew that your Disclaimer was being provided to an examiner of a Honeywell patent application as well?
A. No.
Q. You don't remember that?
A. I don't remember it.
Q. Okay. So the statement on page 1 of the Statement Supplementing Statutory Disclaimer says:
"The reason for entering this Disclaimer is that newly-discovered prior art, discussed in detail below, appears to fully anticipate the invention disclosed and claimed in the subject patent."
Do you see that?

A. What page?
Q. Page 1. We are still on page 1. I haven't left page 1.
A. Of Exhibit 8?
Q. Of Exhibit 6, page 1 of Exhibit 6.
A. Okay.
Q. Page 1 of the Statutory Statement Supplementing Statutory Disclaimer. You are not on that page.
A. So it would be eight?
Q. Exhibit 6, right there now.
A. On this page?
Q. In your left hand. That's page 1.
A. Okay.
Q. Stick with that document, please. Do not change -- flip the page until I tell you to, please.
A. Okay.
Q. So it says in the start of the second paragraph:
"The reason for entering this Disclaimer is that newly-discovered prior art, discussed in detail

below, appears to fully anticipate the invention disclosed and claimed in the subject patent."
Do you see that?
A. Yes.
Q. All right. And there's discussion about the Cardio system. And further down in the paragraph, it says, "Accordingly, it was deemed ethically necessary to enter the Disclaimer."
Do you see that?
A. Yes.
Q. Do you agree with that statement?
A. I'm honestly not sure.
Q. Okay. Why not?
A. Because I have never seen the descriptiveness of David Bracken's work. Um, I think I even found something here which -- first of all, I don't see any description -- any signature of mine in this section whatsoever, Exhibit 6. Is there one?
Q. I don't know that -- I don't believe there's a signature of yours to this document. I'm just asking you do you agree with your patent attorney that it was ethically

necessary to submit this Disclaimer?
A. I had -- after discussion, I felt that this '069 patent was similar enough to Cardio, so that I wanted to just not pay the fee and let it expire. And the fact that he did this really surprises me, although we saw my signature on at least one of these, I believe, it was somewhere. It's right here. But what I do see is if you look at any other page here, you will not see the AED Electronics insignia on the top produced by the fax machine. You only see it on this page, like it's the signatory page. Howard, sign this and this will get rid of all of these debates that you are having, and everything will be good, but the rest I didn't see, and that's why it's not faxed back.
Q. Okay. Well, do you agree that it was ethically necessary to enter the Disclaimer based upon your investigation of the Cardio system?
A. With regard to the '069, yes.
Q. Yes, because you felt that the --
A. Yes.
Q. You felt it was ethically necessary to do a Disclaimer, because you felt the

Cardio --
A. Yes, it did have a touchscreen, but --
Q. Let me finish my question, please.
A. I didn't know patent law.
Q. Let me finish my question, okay, sir.
A. Okay.
Q. You keep interrupting my question. Please stop doing that.
You agree that it was ethically necessary to disclaim the '069 Patent because the Cardio patent anticipated the claims of the '069 Patent, correct?
A. Yes.
Q. All right. Now do you think that the examiner of the '318 Patent should have been told about your Declaration and the Statutory Statement Supplementing the Statutory Disclaimer?
MR. NI: Objection, form.
THE WITNESS: I don't know the answer to that. I don't know if he was literally. I know that in the end, after going through all of the documents, I felt that it was not similar to the

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'318 Patent -- yes, to the '318 Patent.
BY MR. WILLE:
Q. And why was that, sir?
A. Because it doesn't meet the descriptions of all of the embodiments at all.
Q. Okay, well --
A. The product does not.
Q. -- it does use virtual buttons, correct?
A. No.
Q. It doesn't?
A. No, not at all. They were just statically put on there and they would light up grey or black if they were on or off.
Q. Okay. Sir, let's flip forward to page 4 of the statement in Exhibit 6.
A. Okay. Exhibit 6, okay. So what page is that?
Q. Page 4. It says page 4 at the bottom.
A. Okay.
Q. Okay, are you there? There's a picture of the Cardio screen at the top.
A. Okay.
Q. And right below the picture of

the Cardio screen, it says:
"The framed portion of the above page is a pictorial shown on a dot-matrix liquid crystal display incorporating a touch sensitive layer."
Did I read that correctly?
A. Yes.
Q. All right. And you were suggesting that it wasn't a dot-matrix liquid display but it had fixed buttons; is that right?
A. No, no, I was never suggesting that it was not dot matrix. It's not implemented in a way that a dot-matrix display could have been implemented. It was implemented the same way as an icon-based display, and you had little check boxes. In fact I see them here --
Q. Yes --
A. -- because this is all back to me, and when there's a checkmark that's black, the fan is on but it's just sitting there, and it's on, and the check box goes black.
When you go to heating, the heating goes black and the cooling, the little square that you see on the bottom left goes white. That is not at

all in the descriptions or embodiments of the '318 Patent, and absolutely I felt correct in --
Q. Do you agree it's a dot-matrix display?
A. Yes.
Q. The Cardio system had a dot-matrix display?
A. It may be. It probably is because he used a computer.
Q. And the buttons changed from screen to screen, didn't they, sir?
A. They only changed -- they didn't change from thermostat, no. It was absolutely not virtual. The only thing you could do with this screen is change it to stereo player or TV control.
Q. So your testimony is that it was absolutely not virtual?
A. Absolutely not. It was static screens.
Q. Really?
A. That's my testimony --
Q. Really?
A. Yes.
Q. So two lines down, when your

patent attorney says, "It is clear that the 'Cardio manual/Secant Home Automation Inc.' describes a programmable thermostat with a touchscreen interface whose pictorial includes representations of virtual buttons," then was your patent attorney lying to the Patent Office, sir?
A. Um, I would like to hold this off for another day, because there is something very involved in this whole part --
Q. Sir, your deposition is today. Answer my question. Was your patent attorney lying to the Patent Office when he represented --
A. Yes.
Q. -- "It is clear that the Cardio manual/Sécant Home Automation describes --
A. He was.
Q. -- a programmable thermostat --
A. He absolutely was, because he quit a day later. He was coerced to do it by somebody that was his client, and he thought that there was a conflict when he was threatened to be sued by a billionaire who owns another company in California.
Q. Let me finish my question.
A. I believe he took care of these

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papers in a way that protected him, but not me, and didn't do the right thing, because I had explained the whole thing to him properly, because I saw this Sécant display.

Q. Let me ask my question, sir. You didn't let me finish my question.

A. You want me to answer yes or no, so why don't we just take it off the record, if you feel more comfortable, and leave it between the attorneys that are representing this case.

Q. Sir, my question is --

A. I don't wish to comment on it anymore, because I understand what you need to do. I understand your agenda. You are doing nothing wrong according to your client, but I don't want to go through this because I feel there's a moral problem in Bracken.

Q. Okay. Bracken is your attorney?

A. Is not.

Q. He was your attorney?

A. Until three weeks later when he showed up -- when a pile of paper showed up at my door.

Q. He was your attorney when this Disclaimer was filed, correct?

A. Yes.

Q. And you said he had a moral problem. What was his moral problem?

A. He never showed me -- well, this I knew about, but the -- all the write-ups that he did, I do not recall seeing it, and the fact that he quit a few weeks later makes me wonder what this is.

Q. Okay. My question to you, sir, was was your attorney lying to the Patent Office when he said, "It is clear that the Cardio manual/Sécant Home Automation Inc. describes a programmable thermostat with a touchscreen interface whose pictorial includes representations of virtual buttons?"

A. Either he lied, that's a very strong word, or let's just say he made a gross error, because I could hopefully get my hands on one of those and prove him wrong in his description that I never saw.

Q. Okay. Let's flip the page to page 5, sir.

A. Okay.

Q. All right. And I think if I understood your previous testimony, you were

saying that on the thermostat the buttons were static and didn't change, correct?

A. They only changed from one mode to the next.

Q. Okay, well, if you look at the bottom of page 5, you see there is a screen for doing the schedule for the thermostat, correct?

A. Yes, but it's not virtual according to the description of the '318. I am saying this firmly, and I will pass it over to the lawyers at this point.

Q. Okay.

A. Okay.

Q. Your attorney goes on to say:

"Pressing the virtual representation of a button titled 'others' in the frame pictorial in the top part of page 7 causes that pictorial to change to the framed pictorial shown in the bottom part of page 7. It is clear that the Cardio product has had since 1995 the capability of substantially changing the display, including the location, legends and associated

functions of virtual buttons --

A. I will say --

Q. -- on a touchscreen."

Did I read that correctly?

A. You did. I will say two things for the record and then I'm shutting up on this.

Q. I'll move to strike as non-responsive. You answered my question yes, and that was the only question I asked you.

The next question I am going to ask you is whether or not it would be possible to get the screen that's at the bottom of page 5 and the screen that's at the top of page 5 if you weren't using a dot-matrix display?

A. Um, no.

Q. No. Because the buttons are different, right, and they are in different places, right?

A. Correct.

Q. All right.

A. But that's not describing the '318 Patent. That's what you need to know.

Q. Do you still have any notes related to your investigation of the Cardio system?

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A. Not that I know of.
Q. Do you have contact information for the witness that also signed a Declaration from the company?
A. It's too many years ago. I would have to backtrack and see if he's even alive.
Q. Okay. Do you have any other documents related to your investigation of the Cardio system?
A. No.
Q. Now going back to page 4 of the -- page 4 of Exhibit 6, the statutory -- the Statement Supplementing Statutory Disclaimer. Do you see on that page there's a screenshot of the thermostat screen from the Cardio system?
A. From page 4?
Q. Yes.
A. Okay.
Q. Do you see the button labelled "mode" there?
A. Yes.
Q. And it's -- there's a label attached to that that says, "heating/cooling mode," do you see that?
A. Correct, and I can tell you what

it does if you will allow me to.
Q. Okay. Well, what it does is when you press that button it switches the thermostat from heating mode to cooling mode or vice versa, correct?
A. Yes. But how does it display it?
Q. And when it's in the heating mode, it checks the box labelled "heating", correct?
A. Correct.
Q. And when it's in cooling mode it checks the box labelled "cooling", right?
A. Correct. So it's like fixed real estate.
Q. Okay.
A. It's not a virtual mode at all, even though he's done it on dots, it does not fall into play with the '318, and I think you ought to look at that when you get back.
Q. So there's button on a touchscreen -- you agree that the Cardio system had a button on the touchscreen that when you pressed that button it changed the thermostat from a heating mode to a cooling mode, right?
A. Yes.

Q. Or from cooling mode to a heating mode, correct?
A. Well, yeah.
Q. And it could do that with a heat pump too as well, right?
A. Well, it's a thermostat, so it will do a -- it's a controller, it's not necessarily a thermostat, because the temperature sensor is not in that product. I would be very surprised if it was.
Q. Okay. Let's go back to Exhibit 1, please, the '739 Patent?
A. The way I'm looking at it is not the way you are looking at it, that's for sure.
Q. Do you have the '739 Patent in front of you?
A. Sure.
Q. Okay. Let's go to the '739 Patent. Let's go to column three, please.
A. Okay.
Q. And line 54. Do you see line 54?
A. Yeah, I do.
Q. Okay. And line 54 says:
"It may be noted that the integrated circuit chips including

all of the processor components with all of the necessary interface conditioning circuits are available off the shelf and are under constant refinement for increased power."
Did I read that correctly?
A. You did.
Q. All right. That's a similar statement as we saw in the other patent, correct?
A. Okay.
Q. True?
A. Yeah, I just want to see the name of this again.
Q. This is the one about using location data.
A. Okay, keep going, let's go.
Q. So it is true that the invention in the '739 Patent, all the hardware components are available off the shelf, correct?
A. Correct.
Q. And all had been used in thermostats before, correct?
A. Correct.
Q. They had been used for several

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years prior to your invention, correct?
A. The components?
Q. Yes, the components.
A. Yes, of course they have existed.
Q. All right. Let's go to column four, lines 13 to 15.
A. Okay.
Q. And you recall earlier when we discussed the '739 Patent, weather information was an example of information you could get in response to the thermostat providing its location?
MR. NI: Objection, form.
THE WITNESS: Yes.
BY MR. WILLE:
Q. Okay. So, for example, if you had the zip code in the thermostat that could be sent to a website that had weather, it would send the weather back for that zip code and display it on the screen of the thermostat, correct?
A. Correct.
Q. All right. Now what you say here in column four, lines 13 to 15 is:
"Such local weather information sources are widely available and are routinely accessed by, for

example, using the internet." [as read]
Did I read that correctly?
A. Yes.
Q. All right. So you agree that prior to your invention, there were internet websites that allowed you to type in your zip code and get the website for your zip code, correct?
A. Okay, yes.
MR. NI: Objection, form.
BY MR. WILLE:
Q. Did you ever use the weather.com website in the 1990s?
A. In the '90s?
Q. Yes.
A. Perhaps, if I had a computer, which I probably did, yes.
Q. Okay. And there were other websites available in the '90s for weather such as Weather Underground, correct?
A. Sure.
Q. And you could enter your zip code in and it would give you the local weather, correct?
A. Correct.

Q. All right. So as part of your invention, you didn't create a new website that had weather information, correct?
A. Correct, and we didn't read websites.
Q. There were websites available that had weather information, correct?
A. Yes, there were, sure.
Q. Okay. Now if you go to the column four, line 66, do you see the sentence that starts, "While an obvious application...?
A. Yes, sure.
Q. So you said:
"While an obvious application for using the invention is acquiring and displaying current weather information, other types of current information may be obtained and displayed in a like manner."
Did I read that correctly?
A. M'hmm.
Q. Yes?
A. Yes.
Q. Why is acquiring and displaying current weather information an obvious application

for using the invention, as you state here?
A. Quote that again. Types of current information -- I don't say it's obvious. What do you --
Q. You say, "While -- let's read it again. You say:
"While an obvious application for using the invention as acquiring and displaying current weather information...
Right, that's what you say?
A. Could you show me that second, what line number?
Q. Column four, line 66.
A. Column four? I thought we were at five. Line 66?
Q. Yes.
A. [Reading to self].
Q. That is what you say, right?
A. Okay, acquiring, yeah.
Q. Okay. So my question to you is why is it an obvious application for using the invention to acquire and display current weather information?
MR. NI: Objection, form.

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THE WITNESS: Um, I would have to read way above it to really give you an opinion.
BY MR. WILLE:
Q. Well, is the reason because once you have the location information stored in the thermostat that it's an obvious application of using that location information as to get the weather?
A. I don't know. I would have to read the whole thing to dissect it. You are looking at something more recently than I have. The last time I looked at this was maybe 15 years ago, maybe 16 years ago.
Q. Okay. So you didn't read any of the patents in preparation for your deposition today?
A. No, I didn't.
Q. Okay. And you met with your attorney for eight hours and you didn't discuss any content of the patents; is that right?
MR. NI: Objection to the extent our conversations about the patents or anything like that, I mean, again, don't speak about what we actually discussed about the patents.
THE WITNESS: Okay.

BY MR. WILLE:
Q. I'm not asking about what you discussed. I'm just asking if you reviewed any language in any of the patents? That's a subject matter question.
MR. NI: You can answer "yes" or "no".
THE WITNESS: No, we didn't pull out these patents and go over anything.
BY MR. WILLE:
Q. Okay. Let's go to column seven, please. Column seven, line 20, you say:
"In the above specific example, location data of a thermostat is transmitted from transmission means (a modem) through the internet to a website maintained to have access to weather or climate information (the remote device). The weather website (the remote device) receives the location data and associates it with local weather data for the thermostat location, which is then transmitted to the thermostat through the modem (a response of the remote device)."

Did I read that correctly?
A. Yes.
Q. All right. And the description of what the remote device does there --
A. I just want to see what this is under. Yeah, I think you are getting too technical for me, because we are not talking about electronics now. We are talking about associating this sentence with another to understand if this is the preferred invention, or this is just in one other instance, you could do it this way. You could look at a web page, but there are other ways of looking through the internet at a remote correspondent, and I'm not about to give you a professional opinion because I'm not a professional.
Q. I move to strike the answer as non-responsive.
Sir, my first question was did I read that correctly?
A. Maybe not.
Q. All right. Let me read it again.
A. You are reading it perfect as per the words.
Q. Okay.

A. But you may not be understanding what you are reading, unless you read the whole complete thing, and associated the sentence properly in the document. So I would need a lawyer to answer this. I can't say that you are reading it correctly in the sense of the meaning. I don't know if we both get it.
Q. So you need a lawyer to explain your patent; is that what you are saying, sir?
A. I think so.
Q. Let me ask you this --
A. Listen, I'm retired. I'm going to be 72, and if you think I remember what I had for breakfast yesterday, you are wrong. I have high blood pressure, and that's it, go easy, because I can't describe this in any other way and I can't associate these sentences.
Q. Okay. This is meant to be a pretty easy question, sir --
A. I know it's easy for you, but I don't want to go there, not because I'm offended, but because I can't start getting into it. The only thing I can say is if you read words, yes, the words -- I'll tell the camera now, the words that are on this patent are the words on this

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patent. Do they make sense in the logical order that I'm being told? I don't know that. You can strike it from the records if you want, but I can't answer your question, so try not to milk a tree, because you are not going to get anything out of it. I can't help you. Does that make sense?

Q. Yes.

A. Thank you.

Q. Now see if you can answer my question. This says:

"The weather website (the remote device) receives the location data and associates it with local weather data for the thermostat location, which is then transmitted to the thermostat through the modem."

Do you see that?

A. If I understand what you are reading, but I --

Q. Okay.

A. -- believe that that's only one example of many that are contained in there.

Q. Right. Here's my question to

you, sir. It is true that those websites that existed like weather.com that we existed -- that existed as of the time of your invention would receive the zip code from your computer, they would associate that with local weather data and send the local weather data back to your computer based upon the zip code that you provided, right?

A. But that's not the claim.

Q. I realize it's not the claim --

A. So why are we bothering?

Q. Because details are important around the invention.

A. I can't -- please understand, is it David? I've forgotten your name.

Q. Yeah.

MR. NI: Yes.

THE WITNESS: David, I am sorry, but I cannot associate all of the sentences together to give you an accurate recollection of what's really contained in there to be meaningful. So why would I be forced to answer something that I'm incapable of? I'm not doing it to take a downhill side position on this. I am just telling you the truth. If you want me to lie, I'll make up stories, but I'll just hang myself. I don't know

the answer.

BY MR. WILLE:

Q. So, Counsel, you need to control your witness. He's given speeches repeatedly. It's totally improper and he's wasting my time.

A. But you need to understand me as you interview me, please. I am telling you everything that I am capable of. My limitations are what I'm not capable of, and I'm expressing that.

MR. NI: Okay, so I'll just say this. Mr. Rosen, if you don't understand the question, I guess you can ask Mr. Wille to ask it again.

BY MR. WILLE:

Q. Yes. Otherwise please try to answer the question to the best of your ability, and if you don't know, you didn't know.

So my question is very simple, which is the websites that were available in the prior art for weather, those websites would take the zip code that you sent to them, get the local weather data for that zip code and send it back to your computer, correct?

A. I'm seeing words like one form. Yes, that could be one way of doing it.

Q. Okay. Did you do a prior art search before filing this patent application?

A. Absolutely.

Q. And do you think you still have the results of that patent search?

A. No. Um, if I do, as I say, it would take a lot of scouring to find anything.

Q. Let's go the column seven, please, line 58.

A. Okay.

Q. You say:

"To date, the prior art contains no environmental controllers that have geographical information, such as location data in the form of a zip code or telephone number stored in them."

Did I read that correctly?

A. Correct.

Q. Did you do a search before making that statement?

A. Yes. Are you going to read the next sentence? It looks very good to me.

Q. I'm just asking about this sentence for now. Do you still believe that that

is a true statement?
A. As of today?
Q. Yes.
A. Well, we are now in year 2022. Do you mean --
Q. No --
A. -- prior to 2022?
Q. The statement talks about prior art --
A. Yes, I believe that, 2022.
Q. So as we sit here today, you are not aware of any prior art environmental controllers that have geographical information such as a zip code or a telephone number stored in them; is that right?
MR. NI: Objection, form.
THE WITNESS: You are waiting for my answer?
MR. WILLE: Yes.
MR. NI: Yes.
THE WITNESS: When I heard that I thought maybe -- no, I was never aware of anything, and I am not aware.
BY MR. WILLE:
Q. Okay. Prior to filing the

application that led to the '739 Patent, were you aware of any environmental controllers that were connected to the internet?
A. No.
Q. Prior to your invention -- well, let me refer you to column eight, your invention claim one of the '739.
A. Okay, that's column eight?
Q. Yes, that's column eight.
A. Okay.
Q. You see where it says, "A transmitter means connected to the controller adapted to transmit location data to a remote device physically remote from the controller...?"
A. Yes.
Q. Prior to filing your patent application, prior to your invention that's described here in the '739 Patent, were you aware of any prior art thermostats that included a transmitter means such as described here?
A. This is not referring to the thermostat. You see, my read on this may be incorrect or it may be correct and yours may be wrong. The controller I would imagine is the thermostat.

Q. Okay, well --
A. So then there's a transmitter means connected to the controller, okay, adapted to transmit location data, okay, to a remote device physically remote from the controller. So that location response is induced at the remote device.
Q. Okay, let me ask the question this way. Prior to your invention --
A. I'm not sure which is which.
Q. Okay.
A. We need some definition here from someone else.
Q. Okay. Prior to your invention that's described in the '739 Patent --
A. Yes.
Q. -- were you aware of any environmental controller that was connected to a transmitter?
A. No.
Q. Now environmental controllers obviously were around for decades prior to your invention, correct?
A. Yes.
Q. All right. And your patent talks

about a physical location in the environmental controller stored in storage means. What is a storage means?
A. Again, I don't know, because you are going into something that I haven't heard in 15 years.
Q. Okay.
A. So without reading the whole thing, and sitting in a room quietly and studying it, I can't tell you if the storage means is a means at the far end, the server, or if the means is in the thermostat.
Q. Well, it says it's in the controller. It says it's in the environmental controller. That's what the claim says.
A. Well, if it says that, I could only go on what it says on the words you are giving me, but I don't want to say anything that could be wrong, because making mistakes could be detrimental, so I like to speak when I'm sure.
Q. Okay. So you are not sure what the storage means is --
A. Not unless I sat there tonight and went through the whole thing, which I promise you I am not doing tonight.

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Q. Okay. It's fair to say that your invention does not disclose any new method of storing data, correct?
A. Correct.
Q. All right. And your application does not disclose any kind of transmitter, correct?
A. Yes, correct.
Q. You didn't invent any new kind of transmitter, did you?
A. No, no.
Q. And your invention refers to a remote correspondent. Your claim refers to a remote correspondent?
A. Yes.
Q. Actually it refers to a remote device here.
A. I thought you said remote correspondent.
Q. I misspoke. This claim uses the term "remote device."
A. Okay, this is a claim we are on right now?
Q. Yes. I'm looking at claim one of the '739 Patent.

A. No, but certainly we trigger a response in some way to encourage a remote correspondent, which I know is either a server or removable memory, to send us back data which could be the weather forecast.
Q. Okay, but you didn't invent a new server, correct?
A. Correct.
Q. You are using an off-the-shelf server, correct?
A. Yes, we are using data that is supplied to us when it detects a request to send that data.
Q. Okay. And --
A. It doesn't mean necessarily send the data. It doesn't mean necessarily here's my address, send the data. It's possible that it already knows the address of that controller. It's a very broad patent.
Q. Move to strike the rest of the answer as non-responsive. Sir, my question was very simple and that is --
A. I think you need one word answers, because anything I say doesn't go anywhere.

A. All right.
Q. All right. So did you invent any new kind of remote device with your invention?
A. I would have to see -- what is a remote device?
Q. That's the device that gets the location information and sends back the location data to the environmental controller.
A. So it's the thermostat?
Q. The remote device? No, the environmental controller -- what you have claimed is an environmental controller here. Okay, so the environmental controller is -- you recite:
"A transmitter means connected to the controller adapted to transmit location data to a remote device physically remote from the controller."
So did you invent a new remote device physically remote from the controller?
A. I'm thinking that maybe -- and I don't know -- the remote device might be the server. I don't know what it means.
Q. So it could be the server. Did you invent a new server?

Q. Did you invent any new kind of server?
A. No.
Q. Okay, thank you. Now you also did not invent any new method of communicating data, correct?
A. Correct. You are getting one word answers from now on. It will help accelerate, you'll get to the airport and then we'll figure it out.
Q. In connection with the '739 Patent, you did not invent any new type of memory device, correct?
A. Correct.
Q. And this patent also talks about modems. We discussed modems earlier, correct?
A. Yes, okay.
Q. You did not invent any new type of modem in connection with the '739 Patent --
A. No.
Q. -- correct?
A. Correct.
Q. You are using off-the-shelf modems, correct?
A. Well, indirectly correct. We

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built the modems, but the chipsets exist to be able to design them.

Q. Okay, and a modem was a conventional way of communicating with the internet at the time you filed the patent --

A. Still is.

Q. -- correct?

A. Still is. Your house uses them even if you have fibre.

Q. And you are using a modem in a conventional manner, correct?

A. Depends what you -- how you define a conventional manner.

Q. Well, you are using the modem to communicate with the internet just like you would use any other modem to communicate with the internet, correct?

A. Yes.

Q. Now I want to ask you about element (C) in claim one.

A. Of Exhibit 1?

Q. Of Exhibit -- of the '739 Patent.

A. '739, yeah.

Q. Which is Exhibit 3, isn't it?

A. '739 says --

Q. Sorry, Exhibit 1. It's Exhibit 1., so, yes --

A. It's okay.

Q. -- claim one of Exhibit 1, the '739 patent; are you there?

A. Maybe we'll both quit at the same time.

Q. Are you on column eight?

A. Column -- give me the column eight? Yes, I am.

Q. Okay. And do you see that the -- let's first look at (B). You see (B)?

A. M'hmm.

Q. And (B) says that:

"The transmitter means connected to the controller adapted to transmit location data to a remote device physically remote from the controller, so that a location response is induced at the remote device."

Do you see that?

A. Yes. So the remote device must be the server, I would think.

Q. Okay. So then we -- when we go

to (C), it says:

"Location response is storage of the location data at the remote device and correlation to the physical location to location response data stored at or available to the remote device or created by processing of location data at the remote device, whereafter location response data is transmitted from the remote device to the controller."

Do you see that?

A. Yes. Do you want comments?

Q. Well, my first question is, do you see that?

A. Yes.

Q. All right. And are those actions, storage of the location data at the remote device, correlation of the location to a response data, and transmitting location response data from the remote device to the controller, are those all steps performed by the server, the remote device?

A. Does it only have to be a "no" or

"yes"?

Q. You can answer the question however you want to answer it.

A. Okay. How -- please pay attention to this.

MR. NI: Okay.

THE WITNESS: So whenever you send anything to any microprocessor, whether it's at the remote correspondent's end or at the end which is the thermostat end, if I send something to you and you are a computer and you are going to respond, I have to say something to you, which your ears hear, and you have to store it for at least a period until you complete the command. So if I say 1(A) to you, and that tells you that you have got to spit out the weather to me, okay, how did you get the weather forecast? Or if I spit out my location to you, even momentarily, you have to store the location to be able to act on it. So any way you cut it, you are storing the location in at least both sides momentarily, if not totally always.

BY MR. WILLE:

Q. Okay.

A. Okay. So this is more broad than

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you probably read through --
Q. Well, that would be true, for example, if you were using a laptop computer to communicate with a weather website, you would have to store the location, the zip code temporarily at the computer, send it to the weather.com server that would store the zip code there, and then return the weather to the computer, right?
A. Not necessarily. You could just send a serial number or anything to trigger a message to your screen that relates to your geographical information and then ask yourself, well, if my thermostat didn't have the geographical information, who has it?
Q. Okay, let's go back to my question, so my question is in the context of claim one --
A. Okay.
Q. -- is the storage of the location data at the remote device correlation of the physical location to location response data stored at or available to the remote device, or created at the remote device, and then transmitting from the remote device to the controller all steps that are performed by the remote device?

A. They are actually performed by -- I'm just going to say yes, because in any instance all conditions are similar enough that this describes them, because whenever you involve any type of communications, I don't mean just modem, I mean if you have an I-squared C-bus on a circuit board, okay. You have got to originate something to get a response somewhere else. And the only way you could do that is by saying who you are, and that somehow somebody knows who you are or they wouldn't give you the right information. So now you have to fill in the blanks.
Q. Okay. So the answer to my question with that additional explanation is, yes, correct?
A. I forgot the question.
Q. The question was --
A. I like you smiling for a change.
Q. The question was -- and, see, it would help if you just listen to the question and answer the question I asked --
A. It's very hard though.
Q. I understand. So my --
A. You don't because I'm not you, I'm seeing you don't understand.

Q. So my question --
A. Or you are not me.
Q. -- is is the storage of the location data at the remote device correlation of the physical location to location response data stored at or available to the remote device or created by processing of location data at the remote device, and then transmitting the response data from the remote device to the controller all steps that are performed by the remote device?
A. It's one of the ways that is basically the way it's described, let's say yes for that one, but --
Q. Yes.
A. -- Hao knows that I understand the whole thing.
Q. So earlier we discussed prior art systems that you could use with a computer, where you could type in your zip code and you could get back the weather for your zip code; do you recall that?
A. Okay, yes.
Q. All right. So if you were using weather.com in the 1990s with a laptop computer, and you typed in your zip code, you agree that the

weather.com remote device, the website, the weather.com website would store that location, correlate it to the weather data for your zip code and send that zip code back -- sorry, that weather data back for your zip code to the computer, correct?
A. Yes.
Q. So those -- those would be the same steps that would be performed by the remote device at least in the prior art, correct?
A. Yes.
MR. NI: Objection, form.
BY MR. WILLE:
Q. Now if -- so one of the things your invention does is automates that process, because the person no longer has to type in their zip code to weather.com or some other website, the thermostat automatically sends the location and gets the weather back periodically, correct?
MR. NI: Objection, form.
THE WITNESS: Um, yes, a response is generated in the thermostat, in the server. Not in the thermostat, in the server. Which causes the server to send specific information to a thermostat, because of who that thermostat is.

BY MR. WILLE:
Q. Okay.
A. And who has to do with where he is.
Q. Okay. So the difference between your invention and using a laptop computer in the 1990s is with your invention it automates it so that I don't have to type the zip code into the computer every time I want the weather, right?
MR. NI: Objection, form.
THE WITNESS: No, not necessarily.
BY MR. WILLE:
Q. Okay, why not? What's wrong with my proposition?
A. Um, I think that maybe Hao would have to get into this with you, I think it's probably healthier, but I think that the way it's described here you are only giving one way of the multiple ways that I'm describing in a way that you could have the weather information in the thermostat but you could also have it in the server. Not the weather, sorry, the address location.
Q. Okay, well --
A. You could have it either way.

Q. I understand that, but I'm focussed on claim one, sir, so let me help you out here --
A. Like we are not inventing the modem. Let me just go beyond that and try to get this to a head --
Q. Well, there's no pending question right now so let me ask you a question --
A. Go ahead.
Q. -- first. Do you see element 1(A) there?
A. Yes.
Q. It says:
"A physical location and the environmental controller stored as location data in storage means in the controller."
Do you see that?
A. Yes, but what is the definition of "location data"? Have you looked that up?
Q. Okay, well, you give an example --
A. I give many.
Q. You give examples of what it can be, for example, claim three. If you flip over to

see claim three, location data could be, "a local telephone number or a portion thereof, a local zip or postal code and local latitude and longitude of the physical location of the controller or systems correlated thereto."
Do you see that?
A. So we are giving some loose examples; am I correct or not?
Q. Yes, let me ask my question a different way then.
One example of an implementation of claim one is the thermostat stores location information and automatically goes and gets the weather for you without you having to tell the thermostat to do that, correct?
A. Correct.
Q. All right. And so that is one difference from having a laptop accessing weather.com in that your invention automates what I might otherwise do manually with my computer, correct?
A. It could even be an IP address.
Q. Correct?
A. That is meaningful.
Q. IP address could be used for

location data?
A. Sure, as long as it's coordinated by a memory somewhere.
Q. Okay, but so do you agree that a difference between one example of your invention is that the thermostat automatically goes and gets the weather instead of me having to manually type location information such as a zip code into the weather.com website?
A. Yes.
MR. NI: Objection, form.
THE WITNESS: Okay, the thermostat automatically receives the weather. So it's a little confusing, but I think you might realize that it's such a bi-directional thing that the response that's triggered could almost be any type of response, and the memory that exists could be memory at either side. Because of the nature of the way microprocessors work, memory has to be available at both ends for this whole thing to work.
BY MR. WILLE:
Q. Moving --
A. Even if some of it is not permanent memory, and notice we don't necessarily

use that word, it triggers a response. I better stop though because I'm going too deep into this. This should be in court, not in a boardroom like this, I think, but if I could help you to make this a shorter case I would, but I think this is the wrong time.

Q. Move to strike the rest of the answer as non-responsive.

Okay, so if we look at claim one, it refers to a remote device, physically remote from the controller; do you see that?

A. Claim one?

Q. Yes, claim one --

A. Okay.

Q. -- element (B).

A. Yes.

Q. Talks about a remote device physically remote from the controller; do you see that?

A. Transmitter means, you mean?

Q. Yes. It refers to -- it's transmitting location data to a remote device physically remote from the controller; do you see that?

A. Yes.

Q. What does it mean for something to be physically remote from the controller?

MR. NI: Objection to form.

THE WITNESS: Um, I would say that it being what it is, it could be the server.

BY MR. WILLE:

Q. So I guess my question is how remote does something have to be to be physically remote?

A. It's not part of the thermostat, is remote.

Q. Okay. So as long as it's not part of the thermostat --

[overtalking]

A. -- thermostat is connected to a remote device, it's connected to a server, which when it receives an address or an IP address, it says, oh, this box is registered with this IP address, and he's in Timbuktu. Do you have Timbuktu in Texas or did I imagine everyone knows that?

Q. I think it's in Africa.

MR. NI: Yeah.

THE WITNESS: So basically you have a way to understand this. I hope I made that clear.

BY MR. WILLE:

Q. Well, is there some definition of physically remote that all persons of skill in the art agree on to your knowledge?

A. No. No, I think it's just remote and we understand that, and when we look at any thermostat that does such a thing, it talks to something that's physically remote.

Q. Okay. So could it be -- could physically remote be sitting on the wall right next to the thermostat as long as it doesn't have --

A. I would say that that is possible.

Q. Okay.

A. As long as it's remote and not necessarily part of the thermostat, then perhaps it is, perhaps it becomes a -- you know, an extension to the server to bring the signal into your house like a wifi router, whatever.

Q. Okay.

A. It's written in a way that it should be considered very broad. I know that you need to narrow it down. It's the best I could do to help you.

Q. You indicated earlier that you were not aware of any thermostat that was connectible to the internet prior to your invention, correct?

A. That's correct.

Q. Would you agree that once you decide to connect a thermostat to the internet, that getting the weather and getting stock quotes are obvious applications for a thermostat?

MR. NI: Objection to form.

THE WITNESS: I would object too, because being an inventor, I always find that people say to me, oh, that sounds easy, but you know what, they didn't think of it five years ago or ten years ago, or 15 years ago. And so it's easy when you live in it, and you see electric cars flying by and you see touchscreens with computers, but if you put your head back there and try to develop amnesia for at least a few seconds, you realize that that stuff didn't exist.

BY MR. WILLE:

Q. Right, but what you said didn't exist was connecting the thermostat to the internet, right?

A. What I said didn't exist, I'm

1 talking about only thermostats.
2 Q. Right. You are not aware of a
3 thermostat that you could connect to the internet
4 prior to your invention, correct?
5 A. Correct.
6 Q. All right. And so what I'm
7 asking you is once you decide to connect the
8 thermostat to the internet, so you have made that
9 decision, oh, I'm going to connect this thermostat
10 to the internet, isn't an obvious thing to do once
11 you have made that decision is get the weather or
12 get stock quotes?
13 MR. NI: Objection, form.
14 THE WITNESS: Um, I did not see anything
15 else connected to the internet in the thermostat
16 market.
17 BY MR. WILLE:
18 Q. Yes. Listen carefully to
19 question because I understand that. So my
20 question is once you decide to connect the
21 thermostat to the internet, isn't one obvious
22 thing to do is retrieve the weather for the
23 location that the thermostat is at?
24 MR. NI: Objection, form.
25 THE WITNESS: If it were, why didn't it

1 exist before me? It's so easy to ask those
2 questions. Hindsight is 2020 and we need to
3 understand that.
4 BY MR. WILLE:
5 Q. I think the answer to your own
6 question may be because you are saying nobody had
7 thought to connect a thermostat to the internet.
8 Okay, so my question is presuming you
9 think that, presuming somebody thinks of
10 connecting a thermostat to the internet, isn't
11 getting the weather for the location of the
12 thermostat an obvious thing to do with the
13 thermostat once you have decided to connect it to
14 the internet?
15 MR. NI: Objection, form.
16 THE WITNESS: It appears not.
17 BY MR. WILLE:
18 Q. Okay, well, you could potentially
19 get any information on the internet once you have
20 decided to connect the thermostat to the internet,
21 correct?
22 A. How about all of the patents on
23 colour televisions and how you make colours and
24 how you see an image? So if you saw something
25 with a screen on it years ago, how do people get

1 patents on TV screens today? Yet they do, because
2 they improve things, and so this patent is an
3 improvement and it teaches something about
4 thermostats. I can't -- sorry, I dropped my pen.
5 I can't elaborate beyond that.
6 Q. Move to strike the answer as
7 non-responsive. Sir, my question is once you
8 decide to connect a thermostat to the internet,
9 isn't an obvious thing to do is get --
10 A. No.
11 Q. -- the weather for the
12 location in which --
13 MR. NI: Objection, form.
14 THE WITNESS: For sure not, because why
15 did I think of it first? Absolutely not. Why did
16 it take so many years of thermostat screens being
17 on people's walls for me to finally come up with
18 that invention? Think of it that way.
19 BY MR. WILLE:
20 Q. Okay, let's go to the '075
21 patent, which is Exhibit 2. Do you have the '075
22 patent in front of you?
23 A. I do, and I don't remember it,
24 and I am going to have to familiarize myself with
25 it. Would you like me to read the whole thing to

1 myself because I'm going to have to. Otherwise
2 I'm just going to guess, and it's not a good
3 thing.
4 Q. The '075 patent is changing the
5 function of the --
6 A. I know, but there's a lot of
7 detail in here which is very meaningful, because I
8 know what I created.
9 Q. Okay. Well, let's go off the
10 record and let Mr. Rosen read the patent, please.
11 VIDEOGRAPHER: Going off the record at
12 1:42 p.m.
13 --- Whereupon recess commenced at 1:42 p.m. ---
14 --- Upon resuming at 1:48 p.m. ---
15 VIDEOGRAPHER: Going on the record at
16 1:48 p.m.
17 BY MR. WILLE:
18 Q. Have you had a chance to review
19 the '075 Patent at the break, sir?
20 A. Up until the claims.
21 Q. Okay. Let's turn to column six,
22 please, line 41.
23 A. Okay.
24 Q. And you state:
25 "It may be noted that the

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integrated circuit chips including all the processor components with all the necessary interface conditioning circuits are available off the shelf and are under constant refinement for increased power. The subject invention only requires the capabilities of such a processor and off-the-shelf integrated circuit processor chips may be used to advantage in the subject thermostat system."

Did I read that correctly?

A. Yes.

Q. And that's a similar statement to the one we read earlier in the other patents, correct?

A. Correct.

Q. All right. So for the '075 Patent you were again using off-the-shelf components, correct?

A. Yes.

Q. All right. So, for example, if we look at Figure 1 in the '075 Patent, you don't disclose a new type of memory, correct?

A. Of course not.

Q. You are using memory that's been used for years that you can acquire off the shelf, correct?

A. Yes.

Q. And similarly you don't disclose any new real-time clock in the '075 Patent, correct?

A. Correct.

Q. And you don't disclose any new CPU or microprocessor in the '075 Patent, correct?

A. Correct.

Q. You don't disclose any new space conditioning equipment in the '075 Patent, correct?

A. Correct.

Q. You don't disclose any new input/output unit in the '075 Patent, correct?

A. Correct, yes.

Q. You don't disclose any new type of communications interface in the '075 Patent, correct?

A. Yes.

Q. You don't disclose any new type of touchscreen in the '075 Patent, correct?

A. Yes.

Q. And you don't disclose any new type of temperature sensor in the '075 Patent, correct?

A. Yes.

Q. All right. So would it be fair to say that all of the hardware components that are disclosed in the patent are off-the-shelf components that were available in the prior art?

A. Yes.

Q. And are you using any of those components in a strange way or using them as the way they are intended to be used?

MR. NI: Objection, form.

BY MR. WILLE:

Q. Let me clarify that question.

A. Yes.

Q. All right. So you know you can use a screwdriver to screw in a screw. Okay, well, an intended purpose of a screwdriver is not to use it as a hammer, but sometimes you use it as a hammer because you can't find a hammer?

A. I thought you would say that.

Q. Right. Okay, so that's really my question. In your invention in the '075 Patent,

the off-the-shelf components you are using, you are using them as they were intended to be used, correct?

A. Correct.

Q. All right. Now in the '075 Patent, column eight, lines 53 to 65, you are talking about connecting the system to the internet there; do you see that?

A. M'hmm, I see, "While the internet...," so...

Q. Why don't you read that paragraph to yourself, because then I'm going to ask you some questions about it.

A. I've gone down to the end of that paragraph.

Q. So you have read the passage at column eight, line 53 to 65 in the '075 Patent?

A. Yes.

Q. All right. And so to get from the thermostat to the remote device, the first thing that happens is data travels over a serial link 16; is that correct?

A. It says that. I would have to look at the diagram, but it sounds good.

Q. Okay. You can look at the

diagram if you would like. This is talking about Figure 2.
A. Okay, I'm here.
Q. Does Figure 2 help?
A. It will have to. Let's just see what they say. You could follow it through, it's all there, so I'm assuming the description is accurate.
Q. So the first thing that happens is a communications interface sends data serially to a modem, correct?
A. Okay.
Q. Is that true?
A. Um, appears to be. I see ISP.
Q. Well, so you see -- do you see the modem label 20 in Figure 2?
A. Yes, it says "M", yeah.
Q. And you understand that to be the modem, right? If you want to go back to --
A. No, it's correct.
Q. -- the passage we were looking at, you can.
A. Yeah, well, there's always a modem everywhere you go.
Q. Column eight refers to the modem

20, you see that, the passage you just read in column eight?
A. Yes.
Q. All right. So the data goes over a serial link to a modem, correct?
A. M'hmm.
Q. And a modem is a physical device, correct?
A. Yes.
Q. And it's a device that's in the prior art, correct?
A. M'hmm.
Q. Yes?
A. It's in the prior art?
Q. Yes. You just said "m'hmm". You need to answer "yes" or "no."
A. Okay, the device in the prior art? Which art?
Q. A modem. Modems were available in the prior art, correct?
A. Oh, for sure, they were available to the world for years.
Q. And you didn't invent any new type of modem, correct?
A. No.

Q. All right. And you didn't invite any new type of communications interface, correct?
A. Correct.
Q. All right. So the data goes from the communications interface to the modem, and then it says it goes to the ISP, correct?
A. Yes.
Q. And ISP is an internet service provider, correct?
A. Correct.
Q. And the paragraph you read explains that the modem interfaces with an internet service provider, correct?
A. M'hmm.
Q. Yes? You have to say "yes" or "no".
A. Yes, sorry.
Q. All right. Internet service provider is a business that provides access to the internet, correct?
A. Yes.
Q. All right. And internet service provider may connect to the internet in different ways from one internet service provider to the other, correct?

A. Of course, yes.
Q. And the internet service provider decides what equipment they think is the best way to connect to the internet, correct?
A. M'hmm, yes.
Q. And when you say the internet service provider completes the link in the well-known manner, that manner would depend upon what equipment the internet service provider chooses to use to complete the link, correct?
A. Yes.
MR. NI: Objection, form.
THE WITNESS: Yes.
BY MR. WILLE:
Q. Okay. So if we go to claim one --
A. If I find claim one.
Q. Column 14.
A. Okay.
Q. So this has very similar language to one of the patents we discussed earlier, so do you see where 14(d) it -- sorry, in column 14 you see in claim element 1(D) that calls for a control program stored in said memory for causing said central processing unit to selectively perform

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certain functions there?
A. Okay.
Q. You see that?
A. I see (A). Is it (A) you are referring to?
Q. (D).
A. (D), okay. Okay, go ahead.
Q. So you see where it says, "a control program stored in said memory for causing the central processing unit to selectively...?"
A. All right, yes.
Q. All right. One of the functions that it performs is function no. 2 there, "read the position on the touch pad juxtaposed with said predetermined position to determine if said representation of a button has been touched."
Did I read that correctly?
A. Yes.
Q. And do you recognize that language as similar to the language about the control program in another patent we discussed?
MR. NI: Objection, form.
THE WITNESS: Um, [reading to self]. I don't quite remember the wording verbatim, but it shouldn't make a difference once we go through all

of the claims and we understand how it reads through to the final result.
BY MR. WILLE:
Q. Okay. You did not invent a new touch pad juxtaposed -- sorry --
A. Of course --
Q. You did not invent a new touch pad, correct?
A. No, this is just the ingredients. That's what we are describing here.
Q. Right. So you agree that it was within the knowledge of a person of ordinary skill in the art to used a touch pad where the control program determined -- read the position on the touch pad juxtaposed with a predetermined position to determine if a representation of a button has been touched, right?
A. Do I agree that someone else could have invented this; is that what you are saying?
Q. No, I'm asking if you agree if it was known to persons of skill in the art that you could have a touch pad or you could have a control program read a position on the touch pad, juxtapose --

A. Yes, because this is the ingredients of what makes up this device.
Q. Right. Sir, you need to let me finish my question, first of all. You keep stepping on me.
A. Okay.
Q. Let me finish my question. My question is is it in the general knowledge of a person of ordinary skill in the art before your invention that you could use a control program to read the position on a touch pad juxtaposed with a predetermined position to determine if a representation of a button had been touched?
A. Yes.
Q. Okay, that's something that had been done in the prior art, correct?
A. Correct.
Q. All right, thank you. If you look at the element (C) there, there's a processor with various components; do you see that?
A. Just -- sorry, okay, please go ahead.
Q. Yes, do you see the components of the processor there?
A. Which number?

Q. (C), 1(C).
A. Okay.
Q. So claim one lists the following components of a processor: A central processing unit, a real-time clock, a memory, and an input/output unit including a sensor input, a control output and a communications interface. Do you see that?
A. Yes.
Q. Okay. And is it true that you were aware of prior art thermostats that had all of those hardware components that are listed in element 1(C)?
A. I don't remember.
Q. Okay.
A. That -- I can't remember back that far, that's for sure.
Q. Okay. Well, it is true that prior art thermostats for many years before your invention used a central processing unit such as a microprocessor, correct?
A. Correct.
Q. And it is true that thermostats for many years prior to your invention used a real-time clock, correct?

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A. Correct.
Q. And it is true that thermostats for many years prior to your invention used a memory coupled to the central processing unit for storing program and data information, correct?
A. Correct.
Q. And it is true that for many years prior to your invention prior art thermostats used an input/output unit, correct?
A. Between the CPU and the outside world or the relays? Yes.
Q. Okay. So it is true that for many years prior to your invention, prior art thermostats used included a sensor input coupled to a temperature sensor for receiving an electrical signal therefrom, correct?
A. Correct.
Q. And it is true that for many years prior to your invention, thermostats had a control output coupled to the space conditioning equipment for issuing control signals thereto, correct?
A. Correct.
Q. Okay. It is also true that for many years prior art thermostats had some type of

control program, correct?
A. Yes.
Q. That would be the software that's used --
A. To run the thermostat.
Q. To run the thermostat, correct?
A. Correct.
Q. Did you do a prior art search before filing the '075 Patent?
A. I don't remember, but let's look and see what's on here. Well, there are references cited, so I would have to say yes, obviously, but more than that, I can't remember.
Q. Okay. Now are you familiar with the term "firmware"?
A. Sure.
Q. And firmware is software that controls an electronic device like a thermostat, right?
A. Yes.
MR. NI: Objection --
BY MR. WILLE:
Q. It's another word for the software used to control a device like a thermostat, right?

A. Yes.
Q. All right. Were you familiar with electronic devices prior to your invention claimed in the '075 Patent that allowed firmware to be updated by communicating over the internet?
A. I don't remember when I first became aware of that.
Q. Okay.
A. I don't even remember what generation computers were on at that time.
Q. Well, your '075 Patent does not describe any software method for doing the actual updating of the functional programming of the thermostat, does it?
A. Again, I'm not sure.
Q. Okay. Well, go ahead and take a look.
A. Well, in this fast world I'm not going to be able to brush through this to really understand. When you say a method --
Q. You basically just say in the patent that the software -- the functional programming gets downloaded to the thermostat, and it can change how the thermostat operates, but you don't really say how that happens, true?

MR. NI: Objection, form.
THE WITNESS: I'm checking that now. I never got to the claim, so I don't know. We don't describe per se going down to almost the last claims, we don't describe a protocol per se, but we describe something very unique in a thermostat where you could even choose the types of buttons you want from the screen and change the graphic user interface.
BY MR. WILLE:
Q. Right. And my point is that you don't describe the low level process to get the functional programming from the remote correspondent to the thermostat and change the functional programming at the thermostat, correct?
MR. NI: Objection, form.
THE WITNESS: We don't describe the specific process because of the broadness that we are trying to keep within the patent.
BY MR. WILLE:
Q. Well, and because it was known in the prior art that you could download software from a remote site to a device to change the firmware in the device, correct?
MR. NI: Objection, form.

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THE WITNESS: I'm not sure that I know that for a fact, and I don't know that people were at that time -- and I remember being excited about changing the graphic user interface on the thermostat. And these were at those times very simple dot matrix screens. Things have gotten a lot better. So I don't recall seeing anybody changing GUI's, graphic user interfaces, by remote control and giving the customer the option to do that. Now another thing --

BY MR. WILLE:

Q. And you agree, you haven't provided the information needed to technologically accomplish that in the '075 Patent, right?

A. Sure we have. We describe it deeply enough that anybody in the art could look at this and say, hey, I am going to do that, and they could go and start writing it tonight.

Q. Okay. So you download the new software to the thermostat. How does the thermostat know what to do then?

A. The method that we have. We have a few methods, but one of them is that you push a button which means you request changes, but there's something else I want to --

Q. No, no, no, sir, not so simple. My question is how does the thermostat know to change the software it has and put in the new software? You don't describe a process for doing that, do you?

A. We say that you push a button and there's a certain button that you would push --

Q. So, sir --

A. -- to trigger that.

Q. Sorry, you weren't finished with your answer.

A. It's okay. I think you got it. There's a button that you push to trigger that, so it is written in such a way that this is what I'm getting out of it, but I can't interpret it deeper than that. I really need more time to study this. What I might say here is -- I just need to look for other things that -- we used the word "remote correspondent" here.

Q. Yes.

A. Do we define "remote correspondent"?

Q. Sir, you are now way off the question, so let's move on here.

So if I filed a patent application on a

time machine and said you press a button, you do time travel, do you think that's a patent the patent office should issue?

A. That's a little too broad, I would say. This is not --

Q. Because you are required to provide enough information so that somebody come make and use your invention; you understand that, right?

A. Yes, but there is enough information here, and that's where we seem to differ. We don't agree with each other but it's obvious why not.

Q. You haven't provided -- you are saying nobody had ever downloaded firmware before over the internet, right? Is that your position?

A. I'm saying that nobody ever built a thermostat where you could change the graphic user interface.

Q. That was not my question.

A. Don't change the wording in my mouth, because that's what I'm saying. Your question is different than what you are expecting from me to say.

Q. Yes --

A. I will not change from what I've just said -- hear me out -- and I maintain the fact that we are changing the graphic user interface and even the way buttons are configured, okay, on a thermostat screen so we can -- and I would have to read this even more deeply, because I haven't read into this enough to know that it says certain things that I believe it also includes in here.

Q. Sir, my question is are you aware of any device that existed before you filed your '075 Patent application where you could download software that would change the way the device operated in any respect?

A. Back then, I'm not aware, because I don't remember.

Q. Okay. And you haven't provided a method by which the thermostat knows how to change from the old software to the new software --

A. But --

Q. -- in your patent application, correct?

A. -- I will say this: If I said to you as an engineer, let's invent a thermostat that we could change the buttons so that it's -- it

1 looks better on the wall, it has nicer colours,
2 and it includes only the relevant buttons to my
3 very simple heating system. Let's do that. And
4 you say, okay, let's do it. And now you are an
5 engineer and I guarantee you could hit the
6 keyboard running. Nobody did that before me. And
7 so I maintain my argument that this is unique.
8 Q. Okay. So just so the record is
9 clear, you are not aware of a single prior art
10 device of any kind where you could download
11 firmware that would change the functionality of
12 the device after you purchased it?
13 MR. NI: Objection, form.
14 THE WITNESS: Let's go back to
15 graphic --
16 BY MR. WILLE:
17 Q. Don't change my question. Answer
18 my question, sir.
19 A. No, because you are saying change
20 the whole device. I'm changing the GUI, that's
21 what I'm doing.
22 Q. Sir, sir, answer my question.
23 Are you aware of any prior art device that allowed
24 you to download software from the internet to
25 change the functionality of the device after you

1 bought it that existed prior to filing the '075
2 Patent application?
3 A. Back in 2005? I don't remember.
4 Q. Okay. Are you aware of any
5 device that allowed you to change the graphical
6 user interface by downloading software from the
7 internet to that device that had been in the prior
8 art prior to the filing of your '075 Patent?
9 A. No way.
10 Q. Okay. Let's go to Exhibit 4,
11 please, the '555 Patent. Actually, sorry, one
12 more. I need to ask you about one more thing.
13 Let me hand you what's been marked as
14 Exhibit 11, which is US Patent 7,050,026.
15 --- Exhibit 11: US Patent 7,050,026 ---
16 THE WITNESS: Didn't you give us this
17 one?
18 BY MR. WILLE:
19 Q. No, this is a new one.
20 A. Is this one being asserted?
21 Q. No.
22 A. Okay.
23 Q. So you recognize Exhibit 11, sir?
24 A. Um, yes.
25 Q. Okay, and Exhibit 11 you are

1 listed as the inventor on this patent, correct?
2 A. Correct.
3 Q. And this patent concerns reverse
4 images in a dot matrix LCD, correct?
5 A. Yes.
6 Q. All right. This patent is not
7 about downloading functional programming to the
8 thermostat to change the buttons on the display,
9 correct?
10 A. Okay.
11 Q. Do you agree with that?
12 A. Yes, it's not.
13 Q. Okay, thanks. That was my only
14 question on that one.
15 Next we are going back to Exhibit 4, the
16 '555 Patent.
17 A. Actually I have an objection
18 here. I would like to read this through to really
19 give you a true yes.
20 Q. Okay, let's go off the record?
21 VIDEOGRAPHER: Going off the record at
22 2:15 p.m.
23 --- Whereupon recess commenced at 2:15 p.m. ---
24 --- Upon resuming at 2:19 p.m. ---
25 VIDEOGRAPHER: Going back on the record

1 at 2:19 p.m.
2 BY MR. WILLE:
3 Q. Mr. Rosen, while we were off the
4 record, did you have a chance to review
5 Exhibit 11, the '026 Patent?
6 A. I did. I didn't really go
7 through the claims, but at least I understand a
8 good part of it now. It's been about twenty
9 years.
10 Q. Okay. And do you agree that the
11 '026 Patent does not discuss transferring one or
12 more modules of functional programming from a
13 remote correspondent to the thermostat?
14 A. I haven't seen any.
15 Q. Okay. And do you agree that
16 there's no disclosure in the '026 Patent about
17 using transferred functional programming to change
18 or add to representations on the touchscreen?
19 A. Again, I haven't seen any in the
20 period I had here --
21 Q. Okay.
22 A. -- to do that.
23 Q. Okay, thank you. Let's go to
24 Exhibit 4, please, the '555 Patent.
25 A. So we are off this one?

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Q. Yes. That's all I needed to ask you about that one. The '555 Patent, Exhibit 4.
A. Okay.
Q. So this is the patent about displaying messages from a remote correspondent; do you recall that?
A. Okay, so we are back at diverse information on the '555?
Q. Yes. This one is just a little different because it doesn't require the location. Do you recall that?
A. Okay, yeah, I do.
Q. All right. So let's start with column three, please. So column three, lines 54 to 57 --
A. Okay.
Q. -- state:
"It may be noted that integrated circuit chips including all of the processor components with all of the necessary interface conditioning circuits are available off the shelf and are under constant refinement for increased power. The subject invention only

requires the capabilities of such a processor, and off-the-shelf integrated circuit processor chips may be used to advantage in the subject thermostat system."
Did I read that correctly?
A. It sounds like it, but what line are you on again?
Q. Again, it's line 54 to 57, column three.
A. Okay, you read from number five; is that where you read from?
Q. I read from column three, lines 54 to 57.
A. Okay. Okay, go ahead.
Q. Okay, so did I read that correctly?
A. Sure.
Q. And that's a true statement, correct?
A. Yes.
Q. Okay, so the '555 Patent again is using off-the-shelf components, correct?
A. Yes.
Q. All right. And if -- just

referring to Figure 1, once again, you did not invent a new type of memory for the '555 Patent, correct?
A. Correct.
Q. You are using memory as it was intended to be used in the prior art, correct?
A. Correct.
Q. And you did not invent any type of real-time clock in connection with the '555 Patent, correct?
A. Correct.
Q. You are using a real-time clock as it was intended to be used in the prior art, correct.
A. Right.
Q. You did not invent any new type of CPU or microprocessor in connection with the '555 Patent, correct?
A. Correct.
Q. You are using a CPU or microprocessor as it was intended to be used in the prior art, correct?
A. Yes.
Q. You did not invent any new space conditioning equipment in connection with the '555

Patent, correct?
A. Correct.
Q. Nor did you invent any new type of control output to control the space conditioning equipment in connection with the '5555 Patent?
A. Correct.
Q. Excuse me '555 Patent, correct?
A. Yes.
Q. So you are controlling the space conditioning equipment as it was controlled in the prior art, correct?
A. Yes.
Q. You did not invent any new type of temperature sensor in connection with the '555 Patent, correct?
A. No. Correct, yes.
Q. Nor did you invent any new type of sensor input to receive input from a temperature sensor, correct?
A. Correct.
Q. You are using temperature sensors as they had been used in the prior art, correct?
A. Correct.
Q. And you are using the control

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inputs as they had been used in the prior art, correct?
A. Correct.
Q. You did not invent any new type of touchscreen in connection with the '555 Patent, correct?
A. Correct.
Q. And you did not invent any new type of input/output unit in connection with the '555 Patent, correct?
A. Correct.
Q. You are using the touchscreens as they were used in the prior art, correct?
A. Correct.
Q. You are using input/output units as they were used in the prior art in connection with the '555 Patent, correct?
A. Correct.
Q. You did not invent any new type of communications interface in connection with the '555 Patent, correct?
A. Correct.
Q. You are using communications interface in the '555 Patent as it was used in the prior art, correct?

A. Correct.
Q. And you did not invent any new type of data protocol to be used for communication with a remote correspondent, correct?
A. Correct.
Q. You were using standard methods of communicating over the internet with the '555 Patent, correct?
A. Correct, well am I? Yes, I am, correct.
Q. And you didn't invent any new type of modem in connection with the '555 Patent, correct?
A. Correct.
Q. You are using modem as it was intended to be used in the prior art, correct?
A. Correct.
Q. All right. Did you do a prior art search before filing the '555 Patent?
A. Yes.
Q. And do you still have the results of that patent search?
A. It's accessible on-line, I believe.
Q. Okay. Let me ask you to

briefly -- when you say it's accessible on-line, is that because you think anything that you discovered as a result of a prior art search would have been submitted to the Patent Office?
A. Anything that I looked at there were no similarities, but I seem to remember history to an extent only.
Q. Okay.
A. So, I'm sorry, I can't elaborate. I'm just trying to jog my head here.
Q. If you could go back to the Exhibit 10, please, which is right here in front of you, I believe.
A. Okay.
Q. Do you have Exhibit 10 in front of you, which are the plaintiff's Amended Infringement Contentions?
A. I'm in Disclosure of Asserted Claims --
Q. And I've actually tabbed a page for you, and that page that I've tabbed is page 17 --
A. Okay.
Q. -- of the contentions regarding the '555 Patent.

A. Okay.
Q. And do you see there that there's a box talking about the information, the messages that are displayed on the accused thermostat?
A. The accused instrumentalities; is that --
Q. You see that?
A. Instruments, yeah.
Q. So one of the statements made there is that the thermostats also display weather data on the LCD touchscreen; do you see that?
A. [reading to self]. Is this regarding the Lennox thermostats?
Q. Yes.
A. Okay, so they also display weather information.
Q. They displayed weather data according to this allegation; do you see that?
A. Yes, okay.
Q. And you see the claim element that's listed next to there?
A. Do I look just inside this area?
Q. No, on the left-hand side there's a box with the claim element there. It says, "a program stored in said memory for displaying

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messages received from said first remote correspondent." Do you see that?
A. Yes.
Q. Then it says, "which received messages do not pertain to the operation of said thermostat system on said liquid crystal display?"
A. Okay.
Q. So do you understand that your patent requires the messages that are displayed to not pertain to the operation of the thermostat system?
A. Yes, that's diverse information.
Q. Okay.
A. Such as the weather forecast, that's diverse based on the definition.
Q. Okay. So you agree that weather information is information which does not pertain to the operation of the thermostat?
A. Yes.
Q. Okay. Now --
A. In other words, there's a clearer definition of that, if I could elaborate.
Q. I'm going to come back to that actually. For now, all I wanted to confirm, you agree that weather information is information that

does not pertain to the operation of the thermostat, correct?
A. In the reverse way that you are thinking.
Q. Okay.
A. There's a little touch there that you may not realize.
Q. Okay. Well, sir, do you agree or not --
A. I don't know what that means.
Q. Is --
A. I don't know what you are saying specifically means, because I'm being very specific and methodical about the meaning.
Q. Okay. So your claim, sir, claim 18 of the '555 Patent requires that the received messages do not pertain to the operation of said thermostat system?
A. It doesn't mean it does not create differences in the operation of the thermostat system.
Q. Okay.
A. And that's what I want to make clear.
Q. Very simple question, sir. Is

weather data data that does or does not pertain to the operation of the thermostat system?
A. What do you mean by the word "pertain"?
Q. It's your patent, sir. What did you mean by the word "pertain" in claim 18?
MR. NI: Objection, form.
THE WITNESS: So let's look at claim 18 specifically.
BY MR. WILLE:
Q. Columns eight and nine.
A. Okay. Getting giddy. If we could shortcut this and -- well, I understand what it means to not pertain to the operation of the thermostat.
Q. Okay. So based upon your understanding, is weather data data that does or does not pertain to the operation of the thermostat?
A. Based on the way it's written, and everything else that I know about the history of the patent, which I have, okay, it doesn't pertain to the thermostat including it influencing the thermostat.
Q. Okay, thank you. So now I have

another question for you about the information. The claim 18 calls for a communications interface, this is 18(C)(4)(c), it calls for, "a communications interface adapted to establish bi-directional communications --
A. I can't follow you here. It's 18 and it's "C" like Charlie?
Q. (C)(4)(c).
A. Okay, I'm there.
Q. Okay, it says:
"A communications interface adapted to establish bi-directional communications between said processor and a first remote correspondent which is a source of current information."
Do you see that?
A. Yes.
Q. What does current information mean?
A. Would mean like weather forecast, that's information coming like off the internet, as an example.
Q. Okay. How does somebody determine whether information is current or not

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current?
MR. NI: Objection, form.
THE WITNESS: Okay, that's a question that's really very broad, because current information doesn't necessarily mean the current weather. It means information that was downloaded as we'll call it foreign information to the thermostat, meaning not related to the operation of the internal mechanism of the thermostat.
BY MR. WILLE:
Q. Okay. So is current information any information then? What does currency have to do with anything is my question?
MR. NI: Objection, form.
THE WITNESS: Okay, do I have to answer that?
MR. NI: Yes, it's a fair question.
THE WITNESS: If he says, yes, I'll answer it. I'm trying to save us time, even if it annoys you, we are going home earlier. Enough quacking around here. You are smiling too much now.
Current information is information that you've received off the internet, whether it's old news or new

news, it's current information. But it's diverse in that it doesn't display the actual operation of the thermostat, meaning if you went and pushed the heat up button it wouldn't say heat has been turned up. That's not diverse information any longer.
BY MR. WILLE:
Q. Okay. Is current information a term of art that is understood by persons of ordinary skill in the art of thermostat design?
A. Can I step out for a second? Can we step out? Am I allowed to --
Q. Please answer my question.
A. Okay, but to answer it in the most accurate and succinct way, I would like some advice, because I'm alone satellite here.
Q. So you are not allowed to get advice while you are answering my questions, so --
A. Okay, what is your question?
Q. -- unless it relates to privilege. My question is --
A. Can I step out after this?
Q. Yes.
A. Okay.

Q. Is current information, is that a term that is a term of art to persons of skill in the art of designing thermostats, persons of ordinary skill in the art?
A. It's a term that explains a type of information. It's a form of English language that talks about diverse information, but I think if we read through all of the claims, we clarify it in other ways.
Q. Okay. Do you think reasonable minds can differ as to what information is current information and what information is not current information?
A. Well, we give examples in the abstract of weather and other things perhaps, but I can elaborate from that of course, which isn't on the paper maybe. Stock market, if you had a favourite stock or something, you could probably put it in, and then they would have to know your geographical location in some way.
Q. Can you answer the question, which is can reasonable minds differ over what is current information and not current information?
A. Reasonable minds will always differ. It's unreasonable and unintelligent minds

that will just sit back and agree with everything they hear.
Q. Okay. Can reasonable minds differ over what it means for information to pertain -- to not pertain to the operation of said thermostat system as stated in claim 18?
A. Yes, they could, and for that reason, I would like to step out.
Q. Well, is there a definition anywhere where a person of ordinary skill in the art can figure out whether a particular piece of information does or does not pertain to the operation of the thermostat?
A. Can I ask a question to my lawyer for a second?
Q. No, you can answer my question.
MR. NI: Can we take a short break?
MR. WILLE: We can take a break.
VIDEOGRAPHER: Going off the record at 2:36.
--- Whereupon recess commenced at 2:36 p.m. ---
--- Upon resuming at 2:43 p.m. ---
VIDEOGRAPHER: Going back be on the record at 2:43 p.m.

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BY MR. WILLE:
Q. So we were discussing the '555 Patent. Do you recall that, sir, when we broke?
A. Yes.
Q. Okay. So my question is this: How is a person reading -- a person skilled in the art reading your patent supposed to know what messages do and do not pertain to the operation of the thermostat?
A. Okay, well it says diverse information, and I would say that there was a definition in here, and I think you might have mentioned it, although that seems like it was a long time ago, before I left here a minute ago. And diverse information are things that are not related to the operation of the actual thermostat.
Q. Where does it say that?
A. We have to look.
Q. I think you will be looking for a long time, because I don't think it says that. Is there any definition in your patent as to what information does or does not pertain to the operation of the thermostat?
A. Um, I don't know.
Q. Can you give me any objective

criteria that a person of ordinary skill in the art would use to determine whether something does or does not pertain to the operation of the thermostat?
A. Sure, if you pushed the button and the message said thermostat has increased temperature above normal.
Q. Okay.
A. That's related to the operation of a product.
Q. Okay, that's an example you gave, so but my question is is there some objective criteria so that any message that's received can be categorized either as pertaining to or not pertaining to the operation of the thermostat?
A. Say that again. I'm being disturbed by all the -- it seems to be coming from that room.
Q. Is there any objective criteria by which a person of ordinary skill in the art can determine whether any piece of information qualifies or does not qualify as information that pertains or does not pertain to the operation of the thermostat?
A. I don't know how it's spelled out

in here, so that's what I would need to find out.
Q. Right.
A. If you have a word search engine on your computer and look up "diverse", and see how many instances come up, and maybe we can find it much more quickly than if I try to read this on a --
Q. Well, sir, my question is not about diverse information. My question is about information that pertains or does not pertain to the operation of the thermostat as stated in claim 18. You understand that?
A. Claim 18.
Q. Claim 18 at the top of column nine indicates that "the received messages do not pertain to the operation of said thermostat system." Do you see that?
A. I'm looking for it.
Q. Top of column nine. We read it earlier.
A. Top of column nine?
Q. Yes, top of column nine. This is your patent, right, sir?
A. This was last looked at probably, you know, when it was filed in 2002.

Q. Okay, and that's your fault, isn't it, sir, that you didn't look at it in preparation for your deposition?
MR. NI: Objection, form.
THE WITNESS: I didn't know that that should be my fault. I didn't know that I needed to even look at that.
BY MR. WILLE:
Q. Sir, you have a financial interest in the outcome of this litigation, correct?
A. Yes.
Q. And you understand that the plaintiffs are seeking substantial money damages from my client, correct?
MR. NI: Objection, form. And to the extent that anything you have said --
THE WITNESS: I'm not sure.
MR. NI: -- anyone told you through attorneys, I would instruct you not to understand it. If you have any other understanding --
THE WITNESS: Yeah, I don't think I ever discussed that.
BY MR. WILLE:
Q. Okay, I think you testified about

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it earlier today. You had an agreement where you have an interest --
A. Yes, but I don't really know most of their activity.
Q. Okay. So --
A. The objective is to keep me out of harm's way at my age. That's my objective.
Q. And you met with your attorneys for an entire day in preparation for this deposition, correct?
A. The only preparation that we did, and I don't mind sharing it --
MR. NI: Hold on.
THE WITNESS: -- is what is a deposition?
BY MR. WILLE:
Q. Sir, did you meet with your attorneys for a day in preparation for this deposition?
A. Yes.
Q. Okay. And despite meeting with your attorneys for a day, you did not read any one of the five patents that are --
A. I did not.
Q. -- asserted in this case?

goes to column nine, doesn't it, sir?
A. Okay, you want --
Q. Will you please answer a question, sir.
A. I would love to but I've got to get the column nine, and I don't see what you are asking in column nine. Do you think I'm playing games?
Q. You seem to be, sir.
A. Well, I'm not.
Q. Well, look at the top of column nine.
A. And you are being very rude.
Q. Do you see at the top of column nine the end of claim 18?
A. Okay, if that is the end of claim 18, I'll check that. Got it.
Q. Okay. So claim 18 states at the end of it, "which received messages do not pertain to the operation of said thermostat system," correct?
A. Correct.
Q. And we read that language earlier, didn't we, sir?
A. I don't remember.

A. I did not.
Q. Thank you. If you go to claim 18 of the '555 Patent at the top of column nine --
A. Listen, I'm here in person. That's an amazing thing. How I made it here in 72 years, I'm not sure, but I think we are lucky that I'm at least here.
Q. Please look at column nine, please.
A. Okay.
Q. Claim nine says the "received messages do not pertain to the operation of said thermostat system." Do you see that?
A. No, I don't. Claim -- column nine, you said --
Q. Column nine, claim 18 -- strike that --
A. I see --
Q. Sir, do you see in column nine where claim 18 recites that the "received messages do not pertain to the operation of said thermostat system?"
A. Column -- claim 18 is in column eight.
Q. It starts in column eight and it

Q. Okay. Well, my question to you is is there any objective criteria that you can think of that allows a person of ordinary skill in the art to figure out whether a message does or does not pertain to the operation of the thermostat system?
MR. NI: Objection to form.
THE WITNESS: Yes, I think that they could figure that out.
BY MR. WILLE:
Q. What objective criteria would they use?
A. Well, if it doesn't pertain to the operation, then it means it's not technical information, therefore it's not information pertaining to any of the system operation. It's information that is so diverse from that that it must be, as it says here, and I saw examples of weather forecasts, it says Montreal, today's high, and it goes on and talks about other items as well, so I think from this and this, they could figure it out.
Q. Okay, well, let me give you an example. Suppose the message that's displayed on the thermostat is a news report about rolling

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black-outs that are going to happen tomorrow, and that's going to result in the heating and air-conditioning being shut down for the person whose thermostat it is because of the rolling blackout. So does that message pertain to the operation of the thermostat system because the blackouts are going to shut the thermostat down?

A. No, it does not, absolutely not. And on top of it, that's what I was implying earlier, is that if you are sending a command from that message to your thermostat, that is still this patent. Because we don't cover the fact that you are commanding the thermostat, but what the coverage is on this is that you have displayed a message, displayed it. I'm giving it to you like it is. Take it off your display and just control your thermostat. That's another thing. But the minute you display it, that's this patent because it's not pertaining to the operation, but it is operating the thermostat, and I never wrote anything about operating the thermostat from reading diverse information.

Q. Okay.

A. More than that, I can't tell you. You will have to figure this out.

Q. So do you think reasonable minds could differ over whether the message about the blackout --

A. If --

Q. -- is -- let me finish my question.

Do you think reasonable minds could differ as to whether or not the message about a rolling blackout is a message that concerns the operation of the thermostat?

A. Yes.

Q. Okay. Now suppose that the owner of the thermostat doesn't respond well to stress and always turns the thermostat down when getting stressed, and the message is a news report that causes stress to the owner of the thermostat.

A. Okay.

Q. Is that a message that pertains to the operation of the thermostat because the news report will cause the person to turn their thermostat down?

MR. NI: Objection, form.

THE WITNESS: No, it's -- that's really -- no, it's well defined. It really is a black and white thing.

BY MR. WILLE:

Q. Okay. Do you think reasonable minds could differ as to whether that message is a message that pertains to the operation of the thermostat, the one about that caused the owner stress?

MR. NI: Objection, form.

THE WITNESS: Correct, I believe that reasonable minds will say this is not an operation of the thermostat that caused this.

BY MR. WILLE:

Q. Okay.

A. It's not saying that it influences the user to create an operation to the thermostat. It's not the way it's written. It's the way you are saying it to just try to show me some ambiguous information, so I would like to remove this topic from the discussion at a very early point because we are talking about frivolous things.

Q. Okay. So there's stock quotations is one thing that your patent talks about can be displayed on the screen, right?

A. Yes, and you could -- I could, you can't, display any information that's --

that's diverse from the actual working of the thermostat. If it causes somebody to turn the heat down because they just got a heart attack, then that happens, but that has nothing to do with working the thermostat. I didn't say as long as it doesn't influence somebody to go and turn heat down. That's silly.

Q. Okay. Are you aware of any place in your specification that refers to displaying all types of information that do not concern operation of the thermostat?

A. Offhand I'm not aware of what it says, except that I noticed the temperature in there is giving an example of diverse information.

Q. Okay. Are you aware of any statement other than claim 18 which talks about displaying information that does not concern operation of a thermostat?

A. Am I aware of any other information?

Q. Are you aware of any other statement in the patent that talks about displaying it --

A. I think I read something in there.

Q. Let me complete my question, sir.
A. I'm sorry.
Q. Are you aware of any other statement in the patent that says anything about displaying all types of information that did not pertain to the operation of the thermostat other than claim 18?
A. I am not sure. I think there might be some.
Q. Okay. But you can't point to one as we sit here today?
A. I can't point to it.
Q. Okay. Now prior to filing your patent application in 2002, did you ever use a laptop computer to connect to a World Wide Website?
A. Yes.
Q. Okay. And most often when you connected to a World Wide Website you were displaying information that didn't have to do with the operation of the computer, correct?
A. Correct.
Q. If you visited a weather website when you were using a computer, that was information --

the thermostat, correct?
MR. NI: Objection, form.
THE WITNESS: I am automating information -- well, I'm displaying information on the screen that we are, you know, requesting basically.
BY MR. WILLE:
Q. Okay. And if the -- the thermostat is requesting, correct?
A. Yes.
Q. Okay. And that's automating a process that I could do on my computer if I just requested the same information by typing the request into a web browser and accessing the website and getting the information, right.
MR. NI: Objection, form --
THE WITNESS: Well, this is more -- it's something more informative, I would think, but it's also something that occurs automatically, and it happens on a thermostat lo and behold, which is really a terrific thing to happen in this world.
BY MR. WILLE:
Q. Right. So, again, I think you agree then that your invention automates the process of getting the information that I might

A. So what do you consider like operation of the computer?
Q. Would you please let me finish my question before you begin your answer.
A. I'm sorry.
Q. Okay. So if you were using a computer to access a weather website and you displayed the weather from that website on the screen, that would be information that didn't pertain to the operation of the computer, correct?
A. You understand that well.
Q. Is the answer to my question "yes"?
A. Yes.
Q. Okay. So if I wanted to get -- again, this is the information that you are displaying here, you are automating the process of displaying information on the screen of the thermostat, correct?
MR. NI: Objection, form.
THE WITNESS: Hit me with that one more time. I'm sorry.
BY MR. WILLE:
Q. Yes, you are automating here the process of displaying information on the screen of

perform manually using a computer with a web browser, correct?
MR. NI: Objection, form.
THE WITNESS: Well, that's not the invention. The invention is that I put that on a thermostat screen because nobody's ever done it before.
BY MR. WILLE:
Q. Okay. Nobody has ever done what before?
A. Placed -- I'm going to use the same term, because we already defined it -- diverse information on a thermostat screen.
Q. Okay. So information received from the internet though, or some other remote correspondent, correct?
A. Yes, correct.
Q. Okay. And that's an automated process, correct?
A. Yes.
Q. All right. And one -- I could -- some of the information that falls within the scope of claim 18 that you are displaying on the screen, information that doesn't have to do with the operation of the thermostat, is information I

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could obtain from the internet using a computer prior to your invention, correct?
MR. NI: Objection, form.
THE WITNESS: I didn't quite get that. That dining is really disturbing me. I'm trying to figure out what's going on behind me.
MR. WILLE: Please read back the question.
[Reporter read back last question]
THE WITNESS: Yes, that's basically correct.
BY MR. WILLE:
Q. Okay.
A. Not necessarily though.
Q. Okay, so --
A. It can be reformatted by any device such as my thermostat.
Q. Okay.
A. I think we explained some of that in there, that we parse it in some -- in one instance we actually look at the data and we fill in a message that exists within the thermostat. There's somewhere in the description that gives that as an example three.
Q. Okay, move to strike the last

part of the answer as non-responsive.
Sir, would you agree that your invention automates the process of obtaining information from the internet and displaying it on the screen and that some of the information that you can display with your invention is information I could have obtained using a computer and a web browser entering manually --
A. Yes.
Q. -- going to that website prior to your invention?
A. Yes.
MR. NI: Objection, form.
BY MR. WILLE:
Q. Okay, now with respect to claim 18 then, displaying information that does not have to do with the operation of the thermostat, claim 18 is essentially directed to displaying content from the internet or some other remote correspondent on the screen of the thermostat, correct?
A. Correct.
MR. NI: Objection, form.
BY MR. WILLE:
Q. Okay. And once a person has

decided to connect a thermostat to the internet, wouldn't you agree after you have made that decision, that it's obvious to display information that you find on the internet on the screen?
MR. NI: Objection, form.
THE WITNESS: In the sense that if you had the weather on the screen, could I answer this in a sentence?
BY MR. WILLE:
Q. Yes, of course.
A. Then you would most likely find the same weather forecast since it's current most likely on the screen or on the internet.
Q. Okay. So once you have decided to connect a thermostat to the internet, would you agree that it's obvious to display information you obtained from the internet on the screen of the thermostat?
A. There's no way --
MR. NI: Objection, form.
THE WITNESS: -- I could say that because if you put your head space back to 2002, which I'm holding up here, then you didn't think of it back then, because nobody did, except for me. And if you look at when the first instance of

that came out, it was after that period.
BY MR. WILLE:
Q. Okay. Is it your testimony that you are not aware as we sit here today of any thermostat that was capable of displaying information received from a remote correspondent prior to the invention claimed in the '555 Patent?
MR. NI: Objection, form.
THE WITNESS: Correct.
BY MR. WILLE:
Q. So you are not aware of any prior art that discloses displaying information not about the operation of the thermostat that's received from a remote correspondent on the screen of the thermostat, true?
A. Correct.
Q. Okay.
A. We were quite backward in 2002.
Q. So earlier we discussed various types of space conditioning equipment; do you recall that?
A. Sure.
Q. Okay. So a furnace is space conditioning equipment, right?
A. Sure.

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Q. A heat pump is space conditioning equipment, correct?
A. M'hmm.
Q. Yes?
A. Yes.
Q. You have to say "yes" or "no." An air-conditioning unit is space conditioning equipment, correct?
A. Yes.
Q. A fan is space conditioning equipment, correct?
A. Correct.
Q. A heat -- an emergency heater for use with a heat pump is space conditioning equipment, correct?
A. Yes.
Q. What other space conditioning is there other than those five things that I listed?
A. I don't think you have missed very much. I can't think of anything. Basically heat and cool in summary.
Q. Okay.
A. And fan, obviously fan control. Humidity control.
Q. Okay. So let's go back to

claim 18, again, but this time in column eight.
A. Claim 18 on '075?
Q. I've asked you something similar to this before, but I'm going to be specific on this one here.
A. Okay.
Q. So claim 18 recites an IO -- input/output unit including a sensor input, a control output and a communications interface; do you see that?
A. I know it goes right at the end. Okay, so we are on claim 18 of the '075 patent; is that right?
Q. Claim 18 of the '555 Patent.
A. Oh, sorry about that.
Q. The same one we have been discussing.
A. Go ahead.
Q. Exhibit 4.
A. Sorry.
Q. Exhibit 4.
A. I see Exhibit 4. I'm looking for figure. Okay, this is your Exhibit 4 and it's claim 18, and please go ahead.
Q. Okay. So claim 18 Exhibit 4

recites an input/output unit that includes a sensor input, a control output and a communications interface; do you see that?
A. Which 18, what (a), (b), (c), (d)?
Q. (C)(4).
A. Okay. Yes, okay.
Q. Okay. So that's a single integrated circuit that performs those three functions, correct?
A. Not necessarily.
Q. Okay. It could be one integrated circuit or it could be several, correct?
A. It could be discrete too. It could be anything. It could be vacuum tubes.
Q. So A person of the ordinary skill in the art would have known, it's in the general knowledge of a person of ordinary skill in the art that an input/output unit could be one chip or a collection of chips, correct?
A. Sure.
Q. And that was known prior to your invention, correct?
A. Sure, yes.
Q. Have any of the patents at issue

in this case been licensed to a third party to your knowledge?
A. Um, definitely it's carried through to Emerson. That's it.
Q. Okay, so they were licensed the Emerson. What about I understand that recently was a settlement with Resideo. Are you familiar with that settlement?
A. No, no.
Q. Okay. So the only licence as we sit here today that you are familiar with is the licence to Verdant and therefore to Emerson, who acquired Verdant?
A. Correct.
Q. Do you still have a copy of the licence to Verdant?
A. The licence to Verdant?
Q. Yes.
A. Do you mean the licence to Emerson?
Q. Either one.
A. It's all part of the SPA, but that's highly, highly NDA'd through Fulcrum Capital who I sold the company to, and the reason for it, and I'll tell you straight off the bat,

it's obvious that a capital management company doesn't want to know -- want people to know how deep their pockets are.

Q. Okay. So you have a -- you are saying you still have in your possession a written contract which includes a licence to Emerson for one or more of these patents?

A. No. I have a written contract that includes the patent licensing, et cetera, to Fulcrum Capital Management in Toronto, Ontario.

Q. Okay.

A. And there's an NDA that follows that whole SPA and they are not a public company, and if you look it up, there will be no mention of money or anything else in that transaction.

Q. Okay. So you understand we have -- do you understand we have a protective order in this case?

A. No.

Q. Okay. So I'll just represent to you we have a protective order in this case that allows us to keep documents like that attorneys eyes only so that only attorneys can see them during discovery?

A. I wouldn't be able to move on

that. If you found other ways to get it, that's fine, but I know what I signed and it was a conditional thing, and for me to go against an agreement with a third party, I think would be illegal.

Q. Okay, so you can discuss this with your counsel later, but just to be clear, you do have in your possession a copy of the license agreement which licences one or more of the patents-in-suit to a third party; is that right?

A. Yes.

Q. And who is the third party again?

A. Um, it should be -- well, in this case, it should -- I'm just trying think who it is. I don't remember. It's either Verdant or Fulcrum.

Q. Okay. Earlier I asked you some questions about conception, about thinking of the ideas that are in these five patents. Do you recall those questions?

A. Um, give me a rough --

Q. Well, do you have any written documents and do you have any documents of any kind in your possession which evidences when you thought of any of the inventions claimed in any of

the five patents?

A. This is what I don't know.

Q. Okay.

A. Okay. I am hoping, or wishing that I could find something, because it would make my life easier. It doesn't mean I will, and I don't want to put anything in your head like veiled threats because they are not. But I haven't scoured all of the corners and nooks that junk might be lying around that might contain something.

Q. Okay. I am not going to ask you any more questions about conception until you find, if you find those documents, if counsel will stipulate that we can reopen the deposition if that happens?

MR. NI: Yes, we can agree to that.

BY MR. WILLE:

Q. Okay, thank you.

A. After hearing that, I don't think I'll find them.

Q. Okay, sometimes things create strange incentives. Okay, a couple more questions.

Are you aware of any royalties that were

paid for any of the patents that are at issue that I've asked you about today?

A. Royalties, how do you mean that?

Q. Any royalties paid for the licensing of the patents.

A. No, no royalties.

Q. Okay. Are you aware of any royalties paid for any other patents related to thermostats that you would consider comparable to the ones that are at issue in this lawsuit?

MR. NI: Objection, form.

THE WITNESS: Yeah, the only thing that I could say is that -- and I'm being honest, so that's why I'm saying this, but I also have to be careful to protect the innocent, and that would be the people I sold the company to, but when I sold the company, I means it is part of the sale of the company is to give them some value and it's that license agreement. It's just part of the package.

BY MR. WILLE:

Q. But when you licensed your patents to -- when you sold your company, you didn't receive a royalty stream?

A. No, there was no specific number that came to me for all of these patents.

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Q. Okay. They just got a free licence when they bought the company, correct?
MR. NI: Objection, form.
THE WITNESS: Makes sense, but it was a stipulation. It was part of making this deal work.
BY MR. WILLE:
Q. And you are not currently working for a company that makes thermostats, correct?
A. I was working for myself. I am a hundred percent of Verdant and then I sold the company.
Q. No, today. As of today, you are not working for a company that makes thermostats, correct?
A. I'm unemployed. I just got a patent on a cure for certain types of metastatic tumours, so I'm slightly off topic.
Q. Okay. You are not receiving any royalties today for the use of any of the patents at issue in this lawsuit, correct?
A. No, no, and maybe you are trying to establish a value. That would be a positive thing, but I doubt you are doing that, because why would you?

Q. You are not aware of Rosen Technologies currently making any thermostats or selling any thermostats, correct?
A. No.
Q. Which of the patents that are at issue in this case were included in the thermostats that your company sold?
A. Um, all of them I would say.
Q. All of them?
A. Every one, yes.
Q. Okay.
A. Plus anything else that had to do with thermostats.
Q. Did you sell anything else besides thermostats in that company?
A. No. We only manufactured thermostats.
Q. Okay.
A. Of all kinds.
Q. Do you recall approximately what your profit margins were on your thermostat?
A. Do you want me to run Lennox? I'll take them off the ground. Could I -- should I go into that?
MR. NI: You can answer the question,

yes.
THE WITNESS: The EBIT, things like that, you think it's called for? How do you want to know profits? You would like to know everything, I know, but how --
BY MR. WILLE:
Q. I would like to know whatever you recall from the profits that you made on any thermostats that you sold that incorporated the patents-in-suit.
A. I would say about 80 percent.
Q. Okay. How many thermostats did you sell?
A. Gazillions.
Q. When you say 80 percent, is that gross margin?
A. Yes, it's EBIT.
Q. Do you still have a record of what -- of how many thermostats you sold?
A. I don't -- I don't. No, I'm not sure.
Q. Can you quantify it any more than that?
A. I don't know if I'm supposed to or should or how does this help you, or like it

would take a lot of work to do that, but -- and could we go off record for a second; is that possible?
Q. Just answer my question. Do you have any idea approximately how many thermostats your company sold that incorporated the inventions at issue in this case?
A. Okay, um, they haven't carried over to touchscreen since I sold the company. You have to know that. They do have the rights to those patents, they are licensed. But if you want to know how many thermostats anyway, I could throw a number at you, but I'm not sure --
Q. I am asking you your best knowledge as you sit here today, do you have some idea of the magnitude of the amount of thermostats that you sold that include the inventions claimed in the five patents we have discussed today?
A. Okay, so we have to look at touchscreen only. I don't right now.
Q. And what was the brand name of the thermostat that you sold?
A. Various. Tow The line; does that ring a bell?
Q. Go on. What else?

A. That's Carrier. I can't remember all of them, but certainly there was LG, General Electric, just small guys I dealt with. I never worked with the big guys.

Q. Do you have any samples in your possession of any of the thermostats that you sold?

A. Sure.

Q. Okay. We would request production of samples and or the ability to inspect the samples at counsel's office.

Any other trademarks that you sold, your thermostats that include the inventions claimed in any of the five patents we discussed today?

A. Sure. I am interested if I may ask why?

Q. You may not ask why. Please answer my question.

A. Okay, I'll have to look for samples. I'll look around.

Q. Okay. My question is what other trademarks were these --

A. Oh --

Q. -- thermostats that embody one or more of the inventions claimed in the five patents

we have discussed today?

A. Well, we know it was Carrier, Tow the Line, and LG. There were other mundane names less effective in the market, and I'm just trying to think who they were, and I can't remember. I would have to go look at documents to figure that out.

Q. Okay. Did you make other thermostats besides the ones that included the claimed invention?

A. We made our own in line -- our own product, which was Climate Touch.

Q. And that did not have a touchscreen?

A. No, it was Climate Touch was a touchscreen. We even trademarked the name.

Q. Yes. No, my question is did your company make any thermostats that did not include the inventions that we have been discussing today?

A. Yes, they made box thermostats as they call them, for hotels.

Q. Okay. And did those compete with the touchscreen thermostats?

A. No. not at all.

Q. Okay. Did you make any

thermostats that competed with the touchscreen thermostats that did not have a touchscreen?

A. No.

Q. Okay. You know, subject to further questions on newly produced documents and the conception and reduction to practice topics, which we don't have documents for to discuss, I don't have any further questions at this time.

MR. NI: I don't have any questions either.

THE WITNESS: You guys are going to make your plane.

MR. WILLE: Could we go off the record.

VIDEOGRAPHER: This completes the deposition of Howard Rosen. We are going off the record at 3:18 p.m.

--- Whereupon deposition concluded at 3:18 p.m. ---

ACKNOWLEDGEMENT OF DEPONENT

I, HOWARD ROSEN, do hereby acknowledge that I have read and examined the foregoing testimony, and the same is a true, correct and complete transcription of the testimony given by me, and any corrections appear on the attached errata sheet signed by me.

_____ _____

(DATE) (SIGNATURE)

C E R T I F I C A T E

I, ANGELA GUNN, CSR, do hereby certify that the witness was first duly sworn/affirmed by me and that I was authorized to and did report said proceedings.

I further certify that the foregoing transcript is a true and correct record of the proceedings;

That said proceedings were taken by me stenographically and thereafter reduced to typewriting under my supervision; that reading and signing was requested; and that I am neither attorney nor counsel for, nor related to or employed by, any of the parties to the action in which this deposition was taken; and that I have no interest, financial or otherwise, in this case.

IN WITNESS WHEREOF, I have hereunto set my hand this 29th day of December, 2022.

Angela Gunn, CSR
Chartered Shorthand Reporter (Ontario)

Rosen Technologies, LLC v. Lennox Industries, Inc.
Howard Rosen Job No. 5585608

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Howard Rosen Date

hni@nilawfirm.com

December 29, 2022

Rosen Technologies, LLC v. Lennox Industries, Inc.
DEPOSITION OF: Howard Rosen 5585608

The above-referenced witness transcript is available for read and sign.

Within the applicable timeframe, the witness should read the testimony to verify its accuracy. If there are any changes, the witness should note those on the attached Errata Sheet.

The witness should sign and notarize the attached Errata pages and return to Veritext at errata-tx@veritext.com.

According to applicable rules or agreements, if the witness fails to do so within the time allotted, a certified copy of the transcript may be used as if signed.

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

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

(A) to review the transcript or recording; and

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

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

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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