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

Rosen Technologies, LLC, Plaintiff, v. **Lennox Industries, Inc.,** Defendant.	**CASE NO. 3:22-CV-0732-K** **JURY TRIAL DEMANDED**

JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT

Pursuant to the Court's Amended Scheduling Order (Dkt. No. 29), Rosen Technologies, LLC ("Plaintiff") and Defendant Lennox Industries, Inc. ("Defendant") hereby respectfully submit this Joint Claim Construction Statement. Lennox objects to portions of Plaintiff's evidence that was not previously served on February 2, 2023 as required by the Court's scheduling order. The Joint Claim Construction Statement identifies agreed and disputed constructions for each of the claim terms at issue concerning U.S. Patent Nos. 6,619,555 (the "'555 Patent"), 6,789,739 (the "'739 Patent"), 7,156,318 (the "'318 Patent"), 7,185,825 (the "'825 Patent"), and 7,232,075 (the "'075 Patent").

I. CONSTRUCTION OF CLAIM TERMS ON WHICH THE PARTIES AGREE

The Parties have tentatively agreed to the construction of the following term:

Patent	Term	Claim	Agreed Construction
'318	"is been touched again"	4	"has been touched again"

II. PROPOSED CONSTRUCTION OF EACH DISPUTED CLAIM TERM

The proposed constructions of the Parties are as follows:

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Term	Plaintiffs' Proposed Construction	Plaintiff's Identification of Intrinsic and Extrinsic Evidence	Defendant's Proposed Construction	Defendant's Identification of Intrinsic and Extrinsic Evidence
means coupling said communications interface and said first remote correspondent '555 Patent, Claim 18	Subject to § 112 ¶6 Structure: serial link and/or data link and any equivalents Function: coupling the communications interface and the remote correspondent	'555 Patent at Abstract, Figs 1-4, 7, 2:11-20, 3:26-29, 4:4-21,4:40-59; 5:31-34; 5:41-55; 5:65-6:18; Rebuttal Declaration of John A. Palmer ("Palmer Decl.")	Means plus function limitation Function: coupling said communications interface and said first remote correspondent Structure: Indefinite.	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4 • Col. 3, ll. 27-30: The I/O unit includes a communications interface 14 for coordinating communications between the CPU 9 and a remote correspondent 15. The communications interface 14 may be, for example, a conventional Serial port. • Col. 4, ll. 4-15: At one or more predetermined times of day (and/or on-demand if provided for in the operating program) which have been previously stored in the memory 8 and established by the clock 13, the CPU 9 starts the process shown in FIG. 5 by issuing signals to the I/O unit 10 to cause the communications interface 14 to establish communications, via link 16, with a remote correspondent 15. The remote correspondent 15 has a known data communications "address' and, in the example, is a Source of current information, Such as local weather. Such local current weather information Sources

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				are widely available and are routinely accessed by, for example, using the Internet. • Col. 5, ll. 65-67: While the Internet is not the only facility which the Subject thermostat System may use to communicate with a remote correspondent, it is, at the State-of-the-art the most readily widely available and easily accessible. • Col. 6, ll. 1-11: Thus, FIG. 2 show a typical coupling in which the communications interface 14 sends/receives Serial data to/from an external (to the thermostat system) modem 20 via serial link 16. The modem conventionally interfaces with an Internet Service Provider (ISP) 21 which completes the communications link to the remote correspondent in the well-known manner. The modem 20 may be dial-up, cable, DSL or any other type Suitable for the communications environment in a given installation. • Col. 6, ll. 12-18: At the state-of-the-art and as shown in FIG. 3, a modem 24 for communicating with the ISP 21 may be integrated into the communications interface 14 of the input/output unit 14 to eliminate the need for an external modem. Thus, when communications is established with the remote

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				correspondent 15 according to a Schedule or upon demand, the data transfer takes place via modem 24 and data link 26 as shown. • Ex. B, Shoemake Declaration at ¶¶ 60-85. • Rosen Deposition, pp. 268-269: Q. All right. So the data goes from 5 the communications interface to the modem, and 6 then it says it goes to the ISP, correct? 7 A. Yes. 8 Q. And ISP is an internet service 9 provider, correct? 10 A. Correct. 11 Q. And the paragraph you read 12 explains that the modem interfaces with an 13 internet service provider, correct? 14 A. M'hmm. 15 Q. Yes? You have to say "yes" or 16 "no". 17 A. Yes, sorry. 18 Q. All right. Internet service 19 provider is a business that provides access to the 20 internet, correct? 21 A. Yes. 22 Q. All right. And internet service

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				23 provider may connect to the internet in different 24 ways from one internet service provider to the 25 other, correct? Page 269 1 A. Of course, yes. 2 Q. And the internet service provider 3 decides what equipment they think is the best way 4 to connect to the internet, correct? 5 A. M'hmm, yes. 6 Q. And when you say the internet 7 service provider completes the link in the 8 well-known manner, that manner would depend upon 9 what equipment the internet service provider 10 chooses to use to complete the link, correct? 11 A. Yes. 12 MR. NI: Objection, form. 13 THE WITNESS: Yes.
a sensor input coupled to said temperature sensor for receiving said electrical signal therefrom '555 Patent, Claim 18	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '555 Patent, Palmer Decl.	Means plus function limitation Function: receiving said electrical signal from the sensor Structure: Indefinite.	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4 • Col. 3, ll. 13-18: The processor 1 includes a central processing unit (CPU) 9 in communication with a memory 8 which stores data and program information and also, via an input/output unit

				(I/O unit) 10, an optional touchpad 11 and a liquid crystal display (LCD) 12. The liquid crystal display may optionally be backlit by any suitable means (not shown). • Col. 3, ll. 30-48: Thus, in the usual manner during normal operation, the temperature Sensor 5 sends an electrical signal (e.g., if the Sensor 5 is a simple thermistor, a resistance value; several types of temperature Sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered Set point to determine if control Signals need to be sent to the Space conditioning equipment 3. For example, if the temperature in the conditioned space 4 is found to be too low when operation is in the heating mode, the processor 1 signals the Space conditioning equipment 3 circulate, through ducts 6, 7, air from/to the conditioned space 4 which is heated by the Space conditioning equipment before return to the conditioned space. This heating phase continues until the Sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the Set point Such that the processor 1 sends signal(s) to the Space conditioning equipment 3 to

				cease the heating function, all as very well known in the art. • Ex. C, The IEEE Standard Dictionary of Electrical Terms defines "input" and "output" as follows: **input (1) (data transmission).** (A) The data to be processed. (B) The state or sequence of states occurring on a specified input channel. (C) The device or collective set of devices used for bringing data into another device. (D) A channel for impressing a state on a device or logic element. (E) The process of transferring data from an external storage to an internal storage. 59 **(2) (to a relay) (power switchgear).** A physical quantity or quantities to which the relay is designed to respond. *Notes:* (A) A physical quantity that is not directly related to the prescribed response of a relay, (though necessary, to or in some way affecting the relay operation,) is not considered part of input. (B) Time is not considered a relay input, but it is a factor in performance. 103 **output (1) (electronic digital computer) (data transmission).** (A) Data that have been processed. (B) The state or sequence of states occurring on a specified output channel. (C) The device or collective set of devices used for taking data out of a device. (D) A channel for expressing a state of a device or logic element. (E) The process of transferring data from an internal storage to an external storage device. 59 **(2) (rotating machinery). (A) (generator).** The power (active, reactive, or apparent) supplied from its terminals. **(B) (motor).** The power supplied by its shaft. *See:* **asynchronous machine.** 63 **output, acoustic (telephony).** The sound pressure level developed in an artificial ear, measured in dB referred to an rms sound pressure of 2×10^{-5} newtons per square meter (N/m^2). 122 • Ex. B, Shoemake Declaration at ¶¶ 86-102. • Rosen Deposition p. 129: 3 Q. Okay. Let's go through them one 4 by one. So let's look at the '555 Patent. 5 A. So everything is block diagram. 6 Q. Okay, everything is block 7 diagram. To be clear, you have Exhibit 4 of the 8 '555 Patent in front of you, correct? 9 A. Yes.

				10 Q. And the control input -- sorry, 11 the sensor input and the control output are 12 described at a block diagram level in the '555 13 Patent, correct? 14 A. Sure.
a control output coupled to the space conditioning equipment for issuing control signals thereto '555 Patent, Claim 18	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '555 Patent, Palmer Decl.	Means plus function limitation Function: issuing control signals to the space conditioning equipment. Structure: Indefinite.	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4 • Col. 3, ll. 13-18: The processor 1 includes a central processing unit (CPU) 9 in communication with a memory 8 which stores data and program information and also, via an input/output unit (I/O unit) 10, an optional touchpad 11 and a liquid crystal display (LCD) 12. The liquid crystal display may optionally be backlit by any suitable means (not shown). • Col. 3, ll. 30-48: Thus, in the usual manner during normal operation, the temperature Sensor 5 sends an electrical signal (e.g., if the Sensor 5 is a simple thermistor, a resistance value; several types of temperature Sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered Set point to determine if control Signals need to be sent to the Space conditioning equipment 3. For example, if the

				temperature in the conditioned space 4 is found to be too low when operation is in the heating mode, the processor 1 signals the Space conditioning equipment 3 circulate, through ducts 6, 7, air from/to the conditioned space 4 which is heated by the Space conditioning equipment before return to the conditioned space. This heating phase continues until the Sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the Set point Such that the processor 1 sends signal(s) to the Space conditioning equipment 3 to cease the heating function, all as very well known in the art. • The IEEE Standard Dictionary of Electrical Terms defines "input" and "output" as follows: **input (1) (data transmission).** (A) The data to be processed. (B) The state or sequence of states occurring on a specified input channel. (C) The device or collective set of devices used for bringing data into another device. (D) A channel for impressing a state on a device or logic element. (E) The process of transferring data from an external storage to an internal storage. 59 **(2) (to a relay) (power switchgear).** A physical quantity or quantities to which the relay is designed to respond. *Notes:* (A) A physical quantity that is not directly related to the prescribed response of a relay, (though necessary, to or in some way affecting the relay operation,) is not considered part of input. (B) Time is not considered a relay input, but it is a factor in performance. 103 **output (1) (electronic digital computer) (data transmission).** (A) Data that have been processed. (B) The state or sequence of states occurring on a specified output channel. (C) The device or collective set of devices used for taking data out of a device. (D) A channel for expressing a state of a device or logic element. (E) The process of transferring data from an internal storage to an external storage device. 59 **(2) (rotating machinery). (A) (generator).** The power (active, reactive, or apparent) supplied from its terminals. **(B) (motor).** The power supplied by its shaft. *See:* **asynchronous machine.** 63 **output, acoustic (telephony).** The sound pressure level developed in an artificial ear, measured in dB referred to an rms sound pressure of 2×10^{-5} newtons per square meter (N/m^2). 122

				• Ex. B, Shoemake Declaration at ¶¶ 86-102. • Rosen Deposition p. 129: 3 Q. Okay. Let's go through them one 4 by one. So let's look at the '555 Patent. 5 A. So everything is block diagram. 6 Q. Okay, everything is block 7 diagram. To be clear, you have Exhibit 4 of the 8 '555 Patent in front of you, correct? 9 A. Yes. 10 Q. And the control input -- sorry, 11 the sensor input and the control output are 12 described at a block diagram level in the '555 13 Patent, correct? 14 A. Sure.
a communications interface adapted to establish bi-directional communications between said processor and a remote correspondent which is a source of current information '555 Patent, Claim 18	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '555 Patent, Palmer Decl.	Means plus function limitation Function: establish bi-directional communications between said process and a remote correspondent which is a source of current information Structure: Indefinite	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4 • Col. 2, ll. 11-20: . A communications interface is adapted to establish bi-directional communications (via the Internet or Some other Suitable facility) between the processor and a remote correspondent which is a Source of current information on the predetermined Subject. Periodically, or on demand if provided for, a program Stored in the memory causes the CPU to selectively:

				establish communications with the remote correspondent, read the current information and parse the current information against the Stored key terms. • Col. 3, ll. 27-30: The I/O unit includes a communications interface 14 for coordinating communications between the CPU 9 and a remote correspondent 15. The communications interface 14 may be, for example, a conventional Serial port. • Col. 4, ll. 14-16: At one or more predetermined times of day (and/or on-demand if provided for in the operating program) which have been previously stored in the memory 8 and established by the clock 13, the CPU 9 starts the process shown in FIG. 5 by issuing signals to the I/O unit 10 to cause the communications interface 14 to establish communications, via link 16, with a remote correspondent 15. The remote correspondent 15 has a known data communications "address' and, in the example, is a Source of current information, Such as local weather. Such local current weather information Sources are widely available and are routinely accessed by, for example, using the Internet. • Col. 5, ll. 65-67: While the Internet is not the only facility which the Subject

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				thermostat System may use to communicate with a remote correspondent, it is, at the State-of-the-art the most readily widely available and easily accessible. • Col. 6, ll. 1-11: Thus, FIG. 2 show a typical coupling in which the communications interface 14 sends/receives Serial data to/from an external (to the thermostat system) modem 20 via serial link 16. The modem conventionally interfaces with an Internet Service Provider (ISP) 21 which completes the communications link to the remote correspondent in the well-known manner. The modem 20 may be dial-up, cable, DSL or any other type Suitable for the communications environment in a given installation. • Col. 6, ll. 12-18: At the state-of-the-art and as shown in FIG. 3, a modem 24 for communicating with the ISP 21 may be integrated into the communications interface 14 of the input/output unit 14 to eliminate the need for an external modem. Thus, when communications is established with the remote correspondent 15 according to a Schedule or upon demand, the data transfer takes place via modem 24 and data link 26 as shown.

				• Ex. B, Shoemake Declaration at ¶¶ 103-117. • Rosen Deposition, pp. 268-269: Q. All right. So the data goes from 5 the communications interface to the modem, and 6 then it says it goes to the ISP, correct? 7 A. Yes. 8 Q. And ISP is an internet service 9 provider, correct? 10 A. Correct. 11 Q. And the paragraph you read 12 explains that the modem interfaces with an 13 internet service provider, correct? 14 A. M'hmm. 15 Q. Yes? You have to say "yes" or 16 "no". 17 A. Yes, sorry. 18 Q. All right. Internet service 19 provider is a business that provides access to the 20 internet, correct? 21 A. Yes. 22 Q. All right. And internet service 23 provider may connect to the internet in different 24 ways from one internet service provider to the 25 other, correct? Page 269

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				1 A. Of course, yes. 2 Q. And the internet service provider 3 decides what equipment they think is the best way 4 to connect to the internet, correct? 5 A. M'hmm, yes. 6 Q. And when you say the internet 7 service provider completes the link in the 8 well-known manner, that manner would depend upon 9 what equipment the internet service provider 10 chooses to use to complete the link, correct? 11 A. Yes. 12 MR. NI: Objection, form. 13 THE WITNESS: Yes. • Rosen Deposition, pp. 297-298: 19 Q. What does current information 20 mean? 21 A. Would mean like weather forecast, 22 that's information coming like off the internet, 23 as an example. 24 Q. Okay. How does somebody 25 determine whether information is current or not 75 (Pages 294 - 297) Veritext Legal Solutions 800-336-4000 Page 298

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				1 current? 2 MR. NI: Objection, form. 3 THE WITNESS: Okay, that's a question 4 that's really very broad, because current 5 information doesn't necessarily mean the current 6 weather. It means information that was downloaded 7 as we'll call it foreign information to the 8 thermostat, meaning not related to the operation 9 of the internal mechanism of the thermostat. • Rosen Deposition, pp. 298-99: 11 Q. Okay. So is current information 12 any information then? What does currency have to 13 do with anything is my question? 14 MR. NI: Objection, form. 15 THE WITNESS: Okay, do I have to answer 16 that? 17 MR. NI: Yes, it's a fair question. 18 THE WITNESS: If he says, yes, I'll 19 answer it. I'm trying to save us time, even if it

				20 annoys you, we are going home earlier. Enough 21 quacking around here. You are smiling too much 22 now. 23 Current information is 24 information that you've received off the 25 internet, whether it's old news or new Page 299 1 news, it's current information. But 2 it's diverse in that it doesn't display 3 the actual operation of the thermostat, 4 meaning if you went and pushed the heat 5 up button it wouldn't say heat has been 6 turned up. That's not diverse 7 information any longer. • Rosen Deposition, pp. 300-301: 21 Q. Can you answer the question, 22 which is can reasonable minds differ over what is 23 current information and not current information? 24 A. Reasonable minds will always 25 differ. It's unreasonable and unintelligent minds Page 301

				1 that will just sit back and agree with everything 2 they hear. 3 Q. Okay. Can reasonable minds 4 differ over what it means for information to 5 pertain -- to not pertain to the operation of said 6 thermostat system as stated in claim 18? 7 A. Yes, they could, and for that 8 reason, I would like to step out.
a first remote correspondent which is a source of current information '555 Patent, Claim 18	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '555 Patent, Palmer Decl.	Indefinite	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4, Figure 6, • Abstract: A thermostat system includes a temperature sensor, an LCD for selectively displaying an alphanumeric message and a processor having a memory for storing program and data information. In one embodiment, the data includes a table storing key terms on a predetermined subject. A communications interface connects the processor and a remote correspondent which is a source of current information. Periodically, communications is established with the remote correspondent to read the current information and parse the current information against the stored key terms.

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				If a match is found, the current information is further searched for a value associated with the matched key term in order to display an alphanumeric message which shows a first message component representative of the connotation of the matched key term and a second message component representative of the associated value. In a variant embodiment, the remote correspondent provides a service periodically sending predetermined information for display on the LCD. In another variant embodiment, the thermostat system can use current information received from the first remote correspondent to send directive information to suitably change the temperature (or other parameter) set point at a second remote site. • Col. 2, ll. 8-26: In one embodiment, the data includes a table Storing key terms on a predetermined Subject (e.g., current and predicted weather conditions in a given locale). A communications interface is adapted to establish bi-directional communications (via the Internet or Some other Suitable facility) between the processor and a remote correspondent which is a Source of current information on the predetermined Subject.

				Periodically, or on demand if provided for, a program Stored in the memory causes the CPU to selectively: establish communications with the remote correspondent, read the current information and parse the current information against the Stored key terms. If a match is found, the current information is further Searched for at least one value associated with the matched key term; and if at least one Such value is found, an alphanumeric message is displayed on the LCD to show a first message component representative of the connotation of the matched key term and a Second message component representative of the associated value. • Col. 4, ll. 4-15: At one or more predetermined times of day (and/or on-demand if provided for in the operating program) which have been previously stored in the memory 8 and established by the clock 13, the CPU 9 starts the process shown in FIG. 5 by issuing signals to the I/O unit 10 to cause the communications interface 14 to establish communications, via link 16, with a remote correspondent 15. The remote correspondent 15 has a known data communications “address' and, in the example, is a Source of current

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				information, Such as local weather. Such local current weather information Sources are widely available and are routinely accessed by, for example, using the Internet. • Col. 4., l. 66-Col. 5, l. 17: 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. For example, current Stock quotations for Stock indexes and individual Stocks, mutual funds and the like can be automatically acquired, displayed and periodically updated by Suitably programming the processor 1 with the address of a Site which maintains Such information current along with the desired key terms which may, in this example, be NYSE, etc. stock symbols. Thus, the "value" term would be the current Stock quote. As an example, if the key term "FMAGX" is matched and an associated value of 102.75 is also found, the alphanumeric message "CURRENT OUOTE FOR MAGELLAN: 102.75" is generated and displayed. To closely track one or more Stocks or funds, the remote correspondent can be accessed as often as desired to "refresh' the alphanumeric message showing the current quote. A wide variety of

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				types of information may be programmed, accessed and displayed in a like manner. • Col. 5, ll. 38-56: As previously mentioned, the invention is not limited to use in programmable thermostat at Systems or even to thermostat Systems in which correspondent addresses and key terms have previously been entered into memory 8. Still referring to FIG. 1 and also to FIG. 7, in a variant embodiment of the invention, a thermostat System communicates with a remote correspondent 15 which provides a customized Service to the user of the thermostat System. In this embodiment of the invention, the user is a Subscriber to the customized Service in order to receive known current information on a predetermined Schedule. At predetermined times (or on demand), data communications is established between the processor 1 and the remote correspondent 15 which, in this case, provides the customized Service. The current information is downloaded and displayed. The resulting messages shown and periodically updated on the LCD 12 may be as shown in exemplary FIG. 6 if, for example, Montreal current temperature, daily high and low temperatures and the

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				current quote for Magellan is what the user has Subscribed to receive. • Col. 5, ll. 57-64: When the service is set up, the user and the business which provides the service via the remote correspondent 15 agree as to what current information (typically more than in the example) will be Supplied on an agreed Schedule. Depending upon the Server-client relationship, either the processor 1 or the remote correspondent 15 may institute the current information transfer at the predetermined times or on demand. • Ex. D, *The New Oxford American Dictionary*, 2001 at p. 419. • Ex. B, Shoemake Declaration at ¶¶ 118-132. • Rosen Deposition, pp. 268-269: Q. All right. So the data goes from 5 the communications interface to the modem, and 6 then it says it goes to the ISP, correct? 7 A. Yes. 8 Q. And ISP is an internet service 9 provider, correct? 10 A. Correct. 11 Q. And the paragraph you read

				12 explains that the modem interfaces with an 13 internet service provider, correct? 14 A. M'hmm. 15 Q. Yes? You have to say "yes" or 16 "no". 17 A. Yes, sorry. 18 Q. All right. Internet service 19 provider is a business that provides access to the 20 internet, correct? 21 A. Yes. 22 Q. All right. And internet service 23 provider may connect to the internet in different 24 ways from one internet service provider to the 25 other, correct? Page 269 1 A. Of course, yes. 2 Q. And the internet service provider 3 decides what equipment they think is the best way 4 to connect to the internet, correct? 5 A. M'hmm, yes. 6 Q. And when you say the internet 7 service provider completes the link in the 8 well-known manner, that manner would depend upon 9 what equipment the internet service provider

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				10 chooses to use to complete the link, correct? 11 A. Yes. 12 MR. NI: Objection, form. 13 THE WITNESS: Yes. • Rosen Deposition, pp. 297-298: 19 Q. What does current information 20 mean? 21 A. Would mean like weather forecast, 22 that's information coming like off the internet, 23 as an example. 24 Q. Okay. How does somebody 25 determine whether information is current or not 75 (Pages 294 - 297) Veritext Legal Solutions 800-336-4000 Page 298 1 current? 2 MR. NI: Objection, form. 3 THE WITNESS: Okay, that's a question 4 that's really very broad, because current 5 information doesn't necessarily mean the current 6 weather. It means information that was downloaded 7 as we'll call it foreign information to the 8 thermostat, meaning not related to the operation

				9 of the internal mechanism of the thermostat. • Rosen Deposition, pp. 298-99: 11 Q. Okay. So is current information 12 any information then? What does currency have to 13 do with anything is my question? 14 MR. NI: Objection, form. 15 THE WITNESS: Okay, do I have to answer 16 that? 17 MR. NI: Yes, it's a fair question. 18 THE WITNESS: If he says, yes, I'll 19 answer it. I'm trying to save us time, even if it 20 annoys you, we are going home earlier. Enough 21 quacking around here. You are smiling too much 22 now. 23 Current information is 24 information that you've received off the 25 internet, whether it's old news or new Page 299 1 news, it's current information. But 2 it's diverse in that it doesn't display 3 the actual operation of the thermostat,

				4 meaning if you went and pushed the heat 5 up button it wouldn't say heat has been 6 turned up. That's not diverse 7 information any longer. • Rosen Deposition, pp. 300-301: 21 Q. Can you answer the question, 22 which is can reasonable minds differ over what is 23 current information and not current information? 24 A. Reasonable minds will always 25 differ. It's unreasonable and unintelligent minds Page 301 1 that will just sit back and agree with everything 2 they hear. 3 Q. Okay. Can reasonable minds 4 differ over what it means for information to 5 pertain -- to not pertain to the operation of said 6 thermostat system as stated in claim 18? 7 A. Yes, they could, and for that 8 reason, I would like to step out.
a program stored in said memory for displaying	No Construction Necessary	*See e.g.*, '555 Patent, Palmer Decl.	Means plus function limitation	• Claims of the patent • Figure 5, Figure 6, Figure 7

messages received from said remote correspondent '555 Patent, Claim 18	Plain and Ordinary Meaning		Function: displaying messages received from said remote correspondent Structure: Indefinite.	• Col. 2, ll. 15-27: Periodically, or on demand if provided for, a program Stored in the memory causes the CPU to selectively: establish communications with the remote correspondent, read the current information and parse the current information against the Stored key terms. If a match is found, the current information is further Searched for at least one value associated with the matched key term; and if at least one Such value is found, an alphanumeric message is displayed on the LCD to show a first message component representative of the connotation of the matched key term and a Second message component representative of the associated value. • Col. 2, ll. 28-31: In a variant embodiment, the remote correspondent pro vides a Service Sending, periodically or on demand, predetermined information for display on the LCD. In this variant, there is no parsing against locally Stored key terms. • Col. 4, ll. 16-39: When the current local weather information is transmitted from the remote correspondent 15 via link 16 to the communications interface 14 and thence to the CPU 9, the CPU parses the information against the key

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				terms Stored in memory 8 to determine if there is a match. This is easily achieved because the source code (e.g., HTML if the communication is via the Internet) of the information will typically also be in ASCII format. If the CPU 9 senses a match, the just-received information is Searched for the presence of at least one "value' associated with the matched key term. If such a value is found and under control of the CPU9, a first alphanumeric message component representative of the connotation of the matched key term and a Second alphanumeric message component representative of the value associated with the key term are displayed on the LCD 12. If no value for the present matched term is found, but more key terms in the present Set are yet to be compared to information just received from the remote correspondent 15, the same process is repeated until all the key terms in the present Set have been parsed and alphanumeric messages, if generated, have been sent to the LCD 12. The immediate Session then ends. • Col. 4, ll. 26-31: If such a value is found and under control of the CPU9, a first alphanumeric message component representative of the connotation of the matched key term and a

				Second alphanumeric message component representative of the value associated with the key term are displayed on the LCD 12. • Col. 4, ll. 53-59: With this coupling established, the CPU may access the memory 8 to read the prestored alphanumeric message component "Current Montreal Temperature:" and then concatenate, as a Second alphanumeric message component, "18 C and then Send the complete message to the LCD 12 which displays: "CURRENTMONTREAL TEMPERATURE: 18° C.'. • Col. 4, ll. 60-65: In a similar manner, if the key term "high" and an associated value are Sensed, the exemplary message "MON TREAL HIGH TODAY: 26 C." may be displayed; and if the key term "low" and an associated value are Sensed, the exemplary message "MONTREAL LOW TODAY: 9 C." may be displayed. • Col. 5, ll. 2-8: For example, current Stock quotations for Stock indexes and individual Stocks, mutual funds and the like can be automatically acquired, displayed and periodically updated by Suitably programming the processor 1 with the address of a Site which maintains Such information current

				along with the desired key terms which may, in this example, be NYSE, etc. stock symbols. • Col. 5, ll. 8-11: Thus, the "value" term would be the current Stock quote. As an example, if the key term "FMAGX" is matched and an associated value of 102.75 is also found, the alphanumeric message "CUR RENT OUOTE FOR MAGELLAN: 102.75" is generated and displayed. • Col. 5, ll. 19-26: Thus, referring to FIG. 6, the current local weather information and the Selected Stock market information can be serially received and processed for display together in a manner which appears to be virtually Simultaneous to a user. AS previously noted, the overall display can be updated throughout the day at various times, as to each remote correspondent accessed, which have previously been entered in the memory 8. • Col. 5, ll. 50-56: e. The current information is downloaded and displayed. The resulting messages shown and periodically updated on the LCD 12 may be as shown in exemplary FIG. 6 if, for example, Montreal current temperature, daily high and low temperatures and the current quote for Magellan is

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				what the user has Subscribed to receive. Ex. B, Shoemake Declaration at ¶¶ 133-155.
which received messages do not pertain to the operation of said thermostat system '555 Patent, Claim 18	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '555 Patent, Palmer Decl.	Indefinite	• Claims of the patent • Incorporated by reference are all citations for "current information" discussed above. • Col. 4, l. 66-5:16: 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. For example, current Stock quotations for Stock indexes and individual Stocks, mutual funds and the like can be automatically acquired, displayed and periodically updated by Suitably programming the processor 1 with the address of a Site which maintains Such information current along with the desired key terms which may, in this example, be NYSE, etc. stock symbols. Thus, the "value" term would be the current Stock quote. As an example, if the key term "FMAGX" is matched and an associated value of 102.75 is also found, the alphanumeric message "CUR RENT OUOTE FOR MAGELLAN: 102.75" is generated and displayed. To closely track one or more Stocks or funds, the remote correspondent can be accessed as often as desired

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				to "refresh' the alphanumeric message showing the current quote. A wide variety of types of information may be programmed, accessed and displayed in a like manner. • Amendment filed 5/6/2003 in App. No. 10/075,886, p. 11: "The present invention operates very differently. The initiative for getting the claimed 'message' as diverse information does not originate with an outside source, i.e., the remote correspondent. The outside source is simply that: viz. a source of diverse information, not a source of control. In Claim 11, the claimed displayed 'message' is obtained from the remote correspondent. The claimed 'message' is not a pre-stored response to be displayed upon receipt of a particular command." • Ex. B, Shoemake Declaration at ¶¶ 156-164. • Rosen Deposition, pp. 300-301: 21 Q. Can you answer the question, 22 which is can reasonable minds differ over what is 23 current information and not current information?

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				24 A. Reasonable minds will always 25 differ. It's unreasonable and unintelligent minds Page 301 1 that will just sit back and agree with everything 2 they hear. 3 Q. Okay. Can reasonable minds 4 differ over what it means for information to 5 pertain -- to not pertain to the operation of said 6 thermostat system as stated in claim 18? 7 A. Yes, they could, and for that 8 reason, I would like to step out. • Rosen Deposition, pp. 308-09: 18 Q. Okay. So claim 18 states at the 19 end of it, "which received messages do not pertain 20 to the operation of said thermostat system," 21 correct? 22 A. Correct. 23 Q. And we read that language 24 earlier, didn't we, sir? 25 A. I don't remember. Page 309 1 Q. Okay. Well, my question to you 2 is is there any objective criteria that you can

				3 think of that allows a person of ordinary skill in 4 the art to figure out whether a message does or 5 does not pertain to the operation of the 6 thermostat system? 7 MR. NI: Objection to form. 8 THE WITNESS: Yes, I think that they 9 could figure that out. 10 BY MR. WILLE: 11 Q. What objective criteria would 12 they use? 13 A. Well, if it doesn't pertain to 14 the operation, then it means it's not technical 15 information, therefore it's not information 16 pertaining to any of the system operation. It's 17 information that is so diverse from that that it 18 must be, as it says here, and I saw examples of 19 weather forecasts, it says Montreal, today's high, 20 and it goes on and talks about other items as 21 well, so I think from this and this, they could 22 figure it out. • Rosen Deposition, pp. 309-310: 23 Q. Okay, well, let me give you an

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				24 example. Suppose the message that's displayed on 25 the thermostat is a news report about rolling 78 (Pages 306 - 309) Veritext Legal Solutions 800-336-4000 Page 310 1 black-outs that are going to happen tomorrow, and 2 that's going to result in the heating and 3 air-conditioning being shut down for the person 4 whose thermostat it is because of the rolling 5 blackout. So does that message pertain to the 6 operation of the thermostat system because the 7 blackouts are going to shut the thermostat down? 8 A. No, it does not, absolutely not. 9 And on top of it, that's what I was implying 10 earlier, is that if you are sending a command from 11 that message to your thermostat, that is still 12 this patent. Because we don't cover the fact that 13 you are commanding the thermostat, but what the 14 coverage is on this is that you have displayed a

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				15 message, displayed it. I'm giving it to you like 16 it is. Take it off your display and just control 17 your thermostat. That's another thing. But the 18 minute you display it, that's this patent because 19 it's not pertaining to the operation, but it is 20 operating the thermostat, and I never wrote 21 anything about operating the thermostat from 22 reading diverse information. 23 Q. Okay. 24 A. More than that, I can't tell you. 25 You will have to figure this out. • Rosen Deposition, p. 311: 7 Do you think reasonable minds could 8 differ as to whether or not the message about a 9 rolling blackout is a message that concerns the 10 operation of the thermostat? 11 A. Yes. • Rosen Deposition, p. 313: 8 Q. Okay. Are you aware of any place 9 in your specification that refers to displaying

				10 all types of information that do not concern 11 operation of the thermostat? 12 A. Offhand I'm not aware of what it 13 says, except that I noticed the temperature in 14 there is giving an example of diverse information.
	'739 Patent			
storage means '739 Patent, Claim 1	"storage" If subject to § 112 ¶6 Structure: memory Function: storing location data	'739 Patent at Abstract, Figs, 1-5, 1:34-36; 2:7-9; 2:16-17; 3:12-14; 3:17-20; 3:54-4:21; 4:40-59; 5:17-26; 5:30-41; 6:51-61; 7:5-8:11; Palmer Decl.	Storage means is a means plus function limitation Function: storing a physical location of the environmental controller Structure: Indefinite	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4 • Col. 3, ll. 13-17: The processor 1 includes a central processing unit (CPU) 9 in communication with a memory 8 which stores data and program information and also, via an input/output unit (I/O unit) 10, an optional touchpad 11 and a liquid crystal display (LCD) 12. • Col. 3, ll. 18-20: The memory 8 may include a read-only part which is factory-programmed and a random-access part which Stores data Subject to change during operation. • Col. 6, ll. 56-61: More generally, this embodiment uses location based interactions between an environmental controller (with one or more parts Such as transmitter means, a display, data Storage means or control means) and a

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				remote device which responds to location data received from the controller. • Col. 7, ll. 26-31: The thermostat uses the local weather data for display, Stores it in storage means, and/or uses it within control means (a response by the environmental controller). The word "local" with reference to weather data is relative to a desired geographic range and/or time into the future. • Col. 6, ll. 51-61: In a Specific example of these additional embodiments, a thermostat Stores data that establishes its physical location for interaction with remote devices located away from that thermostat. Those other devices may be Internet Sites transmitting weather data to the thermostat based on the geographic location of the thermostat. More generally, this embodiment uses location based interactions between an environmental controller (with one or more parts Such as transmitter means, a display, data Storage means or control means) and a remote device which responds to location data received from the controller. • Col. 7, ll. 5-9: In a specific example, transmitter means are a modem with Internet or network connection that receives location data from

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				the environmental controller and transmits the location data to a specific address on the Internet or in the network. • Col. 7, ll. 41-57: This location data in one form can be as simple as a telephone number or portion thereof, a Zip or postal code, longitude and latitude information or other Systems or codes that correspond to location information. If location data is a telephone number, which would be easily input into the environmental controller with even a simple user interface, that telephone number can be "looked up" by a server and correlated to a geographical address. In a preferred form of the location data, a first environmental controller will have location data distinguishing it from all other environmental controllers. The way to distinguish between environmental controllers may be with Specific codes, Such as IP addresses, combined with physical location data which would be used for more than one environmental controller. In, this way, even nearby thermostats can have unique means of receiving geographical information pertaining to its climatic location. • Col. 7, l. 58—Col. 8, l. 11: To date, the prior art contains no environmental controllers that have geographical

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				information, Such as location data in the form of a Zip code or telephone number, Stored in them. Location data may take Several forms as it is originally input into and through a local environmental controller, output to transmitter means, delivered to and processed by a remote device, and retransmitted by that remote device to the environmental controller or other remote device. Whatever its form, location data correlates in Some way to the physical and geographic location of the environmental controller. For example, transmitter means may link the environmental controller to an intervening remote Server which has stored in it a correlation between the specific IP address or other specific identifier and the physical location of that environmental controller. In that case, a Specific IP address or Specific identifier is the functional equivalent of location data and is included in its definition herein. The invention provides for intervening transmission and/or conversion of forms of location data of the environmental controller until the location data reaches a desired remote device. Ex. B, Shoemake Declaration at ¶¶ 169-183.

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a physical location of the environmental controller stored as location data in storage means in the controller '739 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '739 Patent, Palmer Decl.	Storage means is a means plus function limitation Function: storing a physical location of the environmental controller Structure: Indefinite	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4 • Col. 3, ll. 13-17: The processor 1 includes a central processing unit (CPU) 9 in communication with a memory 8 which stores data and program information and also, via an input/output unit (I/O unit) 10, an optional touchpad 11 and a liquid crystal display (LCD) 12. • Col. 3, ll. 18-20: The memory 8 may include a read-only part which is factory-programmed and a random-access part which Stores data Subject to change during operation. • Col. 6, ll. 56-61: More generally, this embodiment uses location based interactions between an environmental controller (with one or more parts Such as transmitter means, a display, data Storage means or control means) and a remote device which responds to location data received from the controller. • Col. 7, ll. 26-31: The thermostat uses the local weather data for display, Stores it in storage means, and/or uses it within control means (a response by the environmental controller). The word "local" with reference to weather data is relative to a desired

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				geographic range and/or time into the future. • Col. 6, ll. 51-61: In a Specific example of these additional embodiments, a thermostat Stores data that establishes its physical location for interaction with remote devices located away from that thermostat. Those other devices may be Internet Sites transmitting weather data to the thermostat based on the geographic location of the thermostat. More generally, this embodiment uses location based interactions between an environmental controller (with one or more parts Such as transmitter means, a display, data Storage means or control means) and a remote device which responds to location data received from the controller. • Col. 7, ll. 5-9: In a specific example, transmitter means are a modem with Internet or network connection that receives location data from the environmental controller and transmits the location data to a specific address on the Internet or in the network. • Col. 7, ll. 41-57: This location data in one form can be as simple as a telephone number or portion thereof, a Zip or postal code, longitude and latitude information or other Systems or codes that correspond to location information. If location data

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				is a telephone number, which would be easily input into the environmental controller with even a simple user interface, that telephone number can be "looked up" by a server and correlated to a geographical address. In a preferred form of the location data, a first environmental controller will have location data distinguishing it from all other environmental controllers. The way to distinguish between environmental controllers may be with Specific codes, Such as IP addresses, combined with physical location data which would be used for more than one environmental controller. In, this way, even nearby thermostats can have unique means of receiving geographical information pertaining to its climatic location. • Col. 7, l. 58—Col. 8, l. 11: 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. Location data may take Several forms as it is originally input into and through a local environmental controller, output to transmitter means, delivered to and processed by a remote device, and retransmitted by that remote device to the environmental

				controller or other remote device. Whatever its form, location data correlates in Some way to the physical and geographic location of the environmental controller. For example, transmitter means may link the environmental controller to an intervening remote Server which has stored in it a correlation between the specific IP address or other specific identifier and the physical location of that environmental controller. In that case, a Specific IP address or Specific identifier is the functional equivalent of location data and is included in its definition herein. The invention provides for intervening transmission and/or conversion of forms of location data of the environmental controller until the location data reaches a desired remote device. Ex. B, Shoemake Declaration at ¶¶ 169-183.
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	No Construction Necessary Plain and Ordinary Meaning	*See e.g.,* '739 Patent specification; Palmer Decl.	Means plus function limitation Function: transmitting location data to a remote device physically remote from the controller so that a location	• Claims of the patent Col. 7, ll. 5-9: In a specific example, transmitter means are a modem with Internet or network connection that receives location data from the environmental controller and transmits the location data to a specific address on the Internet or in the network.

induced at the remote device '739 Patent, Claim 1			response is induced at the remote device Structure: Modem with Internet or Network Connection	
physically remote from the controller '739 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '739 Patent, Palmer Decl.	Indefinite	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4 • Col. 6, ll. 50-61: The invention described above includes additional embodiments. In a Specific example of these additional embodiments, a thermostat Stores data that establishes its physical location for interaction with remote devices located away from that thermostat. Those other devices may be Internet Sites transmitting weather data to the thermostat based on the geographic location of the thermostat. More generally, this embodiment uses location based interactions between an environmental controller (with one or more parts Such as transmitter means, a display, data Storage means or control means) and a remote device which responds to location data received from the controller. • Col. 7, ll. 10-13: Remote devices for the present invention include, as described above, Internet or

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				computer network nodes or other similar devices that receive location data from the transmitter means. Ex. B, Shoemake Declaration at ¶¶ 184-197.
location response is storage of the location data at the remote device and correlation of the physical 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 '739 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '739 Patent, Palmer Decl.	Indefinite	• Claims of the patent • Rosen Depo. P. 248: 1 Q. So my question -- 2 A. Or you are not me. 3 Q. -- is is the storage of the 4 location data at the remote device correlation of 5 the physical location to location response data 6 stored at or available to the remote device or 7 created by processing of location data at the 8 remote device, and then transmitting the response 9 data from the remote device to the controller all 10 steps that are performed by the remote device? 11 A. It's one of the ways that is 12 basically the way it's described, let's say yes 13 for that one, but -- 14 Q. Yes. 15 A. -- Hao knows that I understand 16 the whole thing.
location response is storage of the location data at the remote	No Construction Necessary	*See e.g.*, '739 Patent, Palmer Decl.	Invalid—Does not further limit the independent claim.	• Claims of the patent • Claim 1

device and correlation of the physical to location response data stored at or available to the remote device or created by processing of location data at the remote device '739 Patent, Claim 7	Plain and Ordinary Meaning			• Claim 7
	'318 Patent			
an input/output unit coupled between said processor and said touch screen for carrying out information transfer therebetween '318 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	See e.g., '318 Patent, Palmer Decl.	Indefinite:	• Claims of the patent • Claim 1
a sensor input coupled to each said environmental condition sensors for receiving said electrical	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '318 Patent, Palmer Decl.	Means plus function limitation Function: receiving said electrical signal from each	• Claims of the patent • Figure 1 • Col. 3, ll. 15-28: Briefly, these and other objects of the invention are provided by a programmable thermostat system for control ling space

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signal therefrom '318 Patent, Claim 1			environmental condition sensor Structure: Indefinite.	conditioning equipment and which includes: a transparent touch pad juxtaposed with an LCD (preferably dot matrix) to constitute a touch screen for interactive interface with a user; one or more environmental condition sensors for providing an electrical signal indicative of the one or more sensed environmental conditions of a conditioned space; and a processor including: a central processing unit, a real time clock, a memory coupled to the central processing unit for storing program and data information and an input/output unit coupled between the processor and the touch screen for carrying out information transfer there between. • Col. 5, ll. 63-67: Temperature information from the sensor 5 and output signals to a space conditioning (heating and/or cooling) unit 3 pass through the I/O unit 10 under control of the CPU 9 executing the process control program stored in the memory 8 • Col. 5, l. 67-Col. 6, l. 6: Those skilled in the art will understand that if the correspondents external to the processor 1 communicating with the CPU 9 are all digital in nature (e.g., if the temperature sensor 5 incorporates its own analog-to-digital converter and sends a digital representation of

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				temperature to the processor 1), then the I/O unit 10 may only constitute simple switching circuits. • Col. 6, ll. 11-28: Thus, in the usual manner during normal operation, the temperature sensor 5 sends an electrical signal (e.g., if the sensor 5 is a simple thermistor, a resistance value; several types of temperature sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered set point to determine if control signals need to be sent to the space conditioning equipment 3. For example, if the temperature in the conditioned space 4 is found to be too low when operation is in the heating mode, the processor 1 signals the space conditioning equipment 3 to circulate, through ducts 6, 7, air from/to the conditioned space 4 which is heated by the space conditioning equipment before return to the conditioned space. This heating phase continues until the sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the set point such that the processor 1 sends signal(s) to the space conditioning equipment 3 to cease the heating function, all as very well known in the art.

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				• The IEEE Standard Dictionary of Electrical Terms defines "input" and "output" as follows: **input (1) (data transmission).** (A) The data to be processed. (B) The state or sequence of states occurring on a specified input channel. (C) The device or collective set of devices used for bringing data into another device. (D) A channel for impressing a state on a device or logic element. (E) The process of transferring data from an external storage to an internal storage. 59 **(2) (to a relay) (power switchgear).** A physical quantity or quantities to which the relay is designed to respond. *Notes:* (A) A physical quantity that is not directly related to the prescribed response of a relay, (though necessary, to or in some way affecting the relay operation,) is not considered part of input. (B) Time is not considered a relay input, but it is a factor in performance. 103 **output (1) (electronic digital computer) (data transmission).** (A) Data that have been processed. (B) The state or sequence of states occurring on a specified output channel. (C) The device or collective set of devices used for taking data out of a device. (D) A channel for expressing a state of a device or logic element. (E) The process of transferring data from an internal storage to an external storage device. 59 **(2) (rotating machinery). (A) (generator).** The power (active, reactive, or apparent) supplied from its terminals. **(B) (motor).** The power supplied by its shaft. *See:* **asynchronous machine.** 63 **output, acoustic (telephony).** The sound pressure level developed in an artificial ear, measured in dB referred to an rms sound pressure of 2×10^{-5} newtons per square meter (N/m^2). 122 • Ex. B, Shoemake Declaration at ¶¶ 202-227. • Rosen Deposition, p. 129: 15 Q. All right. And if you would take 16 out Exhibit 3, which is the '318 Patent. 17 A. Okay. 18 Q. You would agree that in Exhibit 3 19 the sensor input and control output are also only 20 described at a block diagram level, correct? 21 A. Exhibit 3. Okay. 22 Q. Is that true? 23 A. Yes.
a control output coupled to the	No Construction Necessary	*See e.g.*, '318 Patent, Palmer Decl.	Means plus function limitation	• Claims of the patent

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space conditioning equipment for issuing control signals thereto '318 Patent, Claim 1	Plain and Ordinary Meaning		Function: issuing control signals to the space conditioning equipment Structure: Indefinite.	• Figure 1 • Col. 3, ll. 15-28: Briefly, these and other objects of the invention are provided by a programmable thermostat system for control ling space conditioning equipment and which includes: a transparent touch pad juxtaposed with an LCD (preferably dot matrix) to constitute a touch screen for interactive interface with a user; one or more environmental condition sensors for providing an electrical signal indicative of the one or more sensed environmental conditions of a conditioned space; and a processor including: a central processing unit, a real time clock, a memory coupled to the central processing unit for storing program and data information and an input/output unit coupled between the processor and the touch screen for carrying out information transfer there between. • Col. 5, l. 67-Col. 6, l. 6: Those skilled in the art will understand that if the correspondents external to the processor 1 communicating with the CPU 9 are all digital in nature (e.g., if the temperature sensor 5 incorporates its own analog-to-digital converter and sends a digital representation of temperature to the processor 1), then the I/O unit 10 may

				only constitute simple switching circuits. • Col. 6, ll. 11-28: Thus, in the usual manner during normal operation, the temperature sensor 5 sends an electrical signal (e.g., if the sensor 5 is a simple thermistor, a resistance value; several types of temperature sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered set point to determine if control signals need to be sent to the space conditioning equipment 3. For example, if the temperature in the conditioned space 4 is found to be too low when operation is in the heating mode, the processor 1 signals the space conditioning equipment 3 to circulate, through ducts 6, 7, air from/to the conditioned space 4 which is heated by the space conditioning equipment before return to the conditioned space. This heating phase continues until the sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the set point such that the processor 1 sends signal(s) to the space conditioning equipment 3 to cease the heating function, all as very well known in the art. • Col. 9, ll. 45-52: In practice, the thermostat manufacturer provides, in the control

				program, control sequences for as many different types of space conditioning components as might be used in widely diverse applications, alone or in combination. During setup, the user of a given installation eliminates those components, and graphics displays related thereto, which are irrelevant to the given installation, thus simplifying later ongoing programming and use of the thermostat. • The IEEE Standard Dictionary of Electrical Terms defines "input" and "output" as follows: **input (1) (data transmission).** (A) The data to be processed. (B) The state or sequence of states occurring on a specified input channel. (C) The device or collective set of devices used for bringing data into another device. (D) A channel for impressing a state on a device or logic element. (E) The process of transferring data from an external storage to an internal storage. 59 **(2) (to a relay) (power switchgear).** A physical quantity or quantities to which the relay is designed to respond. *Notes:* (A) A physical quantity that is not directly related to the prescribed response of a relay, (though necessary, to or in some way affecting the relay operation,) is not considered part of input. (B) Time is not considered a relay input, but it is a factor in performance. 103 **output (1) (electronic digital computer) (data transmission).** (A) Data that have been processed. (B) The state or sequence of states occurring on a specified output channel. (C) The device or collective set of devices used for taking data out of a device. (D) A channel for expressing a state of a device or logic element. (E) The process of transferring data from an internal storage to an external storage device. 59 **(2) (rotating machinery). (A) (generator).** The power (active, reactive, or apparent) supplied from its terminals. **(B) (motor).** The power supplied by its shaft. *See:* **asynchronous machine.** 63 **output, acoustic (telephony).** The sound pressure level developed in an artificial ear, measured in dB referred to an rms sound pressure of 2×10^{-5} newtons per square meter (N/m^2). 122 • Ex. B, Shoemake Declaration at ¶¶ 202-227. • Rosen Deposition, p. 129: 15 Q. All right. And if you would take

				16 out Exhibit 3, which is the '318 Patent. 17 A. Okay. 18 Q. You would agree that in Exhibit 3 19 the sensor input and control output are also only 20 described at a block diagram level, correct? 21 A. Exhibit 3. Okay. 22 Q. Is that true? 23 A. Yes.
a control program stored in said memory for causing said central processing unit to communicate through said input/output unit to selectively: 1) establish on said liquid crystal display: a) a representation of a first virtual button at a first predetermined position on the liquid crystal display; and b) a first legend indicative of a first control function of said thermostat, which first control	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '318 Patent, Palmer Decl.	Means plus function limitation. Function: causing said central processing unit to communicate through said input/output unit to selectively: 1) establish on said liquid crystal display: a) a representation of a first virtual button at a first predetermined position on the liquid crystal display; and b) a first legend indicative of a first control function of said thermostat, which first control	• Claims of the patent • Figures 6-20 • Col. 1, ll. 25-31: The present invention relates to a programmable thermostat incorporating an interactive liquid crystal display (LCD), and, more particularly, to Such a thermostat in which the LCD selectively presents adaptable menus, including variable representations of virtual buttons, in order to simplify user programming in accordance with a given environmental control system's configuration. • Col. 3, ll. 29-42: A program stored in the memory directs the central processing unit to communicate through the input/output unit to selectively: establish on the LCD a representation of at least one virtual button at a predetermined XY position; read the same XY position on the touch pad to determine if the virtual button has been touched; and if the virtual

function is for controlling a first space conditioning equipment component, which first control function is active when the first legend is viewable; 2) 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; 3) if the first virtual button has been touched: a) determining that the thermostat has been directed to control a second space conditioning equipment component; b) activating a second control function for controlling the second space			function is for controlling a first space conditioning equipment component, which first control function is active when the first legend is viewable; 2) 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; 3) if the first virtual button has been touched: a) determining that the thermostat has been directed to control a second space conditioning equipment component; b) activating a second control function for controlling the second space	button has been touched, perform a predetermined action Such as moving to a different menu and/or changing operating criteria. An alphanumeric message explaining the function of the virtual button is also displayed, and icon indicators may be employed to unmistakably associate a message with a virtual button. Different menus can place the virtual buttons and messages in various positions on the touch screen to facilitate intuitive programming. • Col. 3, ll. 53-62: Thus, an image representative of a first virtual button may be shown on the touch screen display with graphics (alpha numeric characters and/or icons) on or closely associated with the first virtual button. The characters/graphics associated with the first virtual button indicate, for example, a current operating state or condition of the programmable thermostat. A user touching the first virtual button causes the device program to change the operating state or condition, and the graphics on the touch screen display also change to indicate the changed operating State or condition. • Col. 3, l. 63—Col. 4, l. 7: As an example, a first virtual button may be associated with the word “COOL' to indicate to a user that the

conditioning equipment component; and c) displaying on said liquid crystal display a second legend indicative of said second control function of said thermostat, which second control function is for controlling the second space conditioning equipment component, which second control function is active when the second legend is viewable '318 Patent, Claim 1			conditioning equipment component; and c) displaying on said liquid crystal display a second legend indicative of said second control function of said thermostat, which second control function is for controlling the second space conditioning equipment component, which second control function is active when the second legend is viewable. Structure: Indefinite.	programmable thermostat will only operate in an air conditioning mode. In the prior art, touching the first virtual button will shift the programmable thermostat from the air conditioning mode to, for example, a heating mode such that the associated text would change to "HEAT. However, in accordance with the invention, if the user has no heating equipment connected with the programmable thermostat, that fact will have earlier been entered into memory with a menu selection at a different touch screen display during preliminary programming. • Col. 8, ll. 20-50: operation which will be discussed further below. FIGS. 8 to 10 show pictorial 122 in various interactive conditions. FIG. 8 illustrates that virtual button 116 can undergo step 131 in response to a user touch which also causes a change in the operating state of thermostat 110 and a change of the legend associated with virtual button 116 to one of the virtual buttons in column 132. In the example, successive steps 133 to 137 indicate that a user has touched virtual button 116 one or more times to cause the operating state of thermostat 110 and the legend of virtual button 116 to change with respect to those steps as follows: A) at

				step 137, from “automatic' mode to “off” mode (none of the environmental control equipment connected with thermostat 110 will operate, and virtual button 116 shows "OFF"); B) at step 133, from “off” mode to “heat” mode (a heater or a heat pump in heat mode operates to heat the conditioned space, and virtual button 116 shows "HEAT”); C) at step 134, from “heat” mode to “cool” mode (an air conditioner or heat pump operating in the cooling mode operates to cool the conditioned space, and virtual button 116 shows “COOL); D) at step 135, from “cool” mode to “emergency heat' mode (a backup electric heater operates to keep the conditioned space temperature above a lowest set point, and virtual button 116 shows “EMER HEAT); and E) at step 136, from “emergency heat” mode to “automatic' mode (the air conditioner and heater (or heat pump) operates in both the “heat' and “cool” mode, and virtual button 116 shows “AUTO”). • Col. 8, l. 51—Col. 9, l. 3: operation which will be discussed further below. FIGS. 8 to 10 show pictorial 122 in various interactive conditions. FIG. 8 illustrates that virtual button 116 can undergo step 131 in response to a user touch which also

				causes a change in the operating state of thermostat 110 and a change of the legend associated with virtual button 116 to one of the virtual buttons in column 132. In the example, successive steps 133 to 137 indicate that a user has touched virtual button 116 one or more times to cause the operating state of thermostat 110 and the legend of virtual button 116 to change with respect to those steps as follows: A) at step 137, from “automatic' mode to “off” mode (none of the environmental control equipment connected with thermostat 110 will operate, and virtual button 116 shows "OFF"); B) at step 133, from “off” mode to “heat” mode (a heater or a heat pump in heat mode operates to heat the conditioned space, and virtual button 116 shows "HEAT”); C) at step 134, from “heat” mode to “cool” mode (an air conditioner or heat pump operating in the cooling mode operates to cool the conditioned space, and virtual button 116 shows “COOL); D) at step 135, from “cool” mode to “emergency heat' mode (a backup electric heater operates to keep the conditioned space temperature above a lowest set point, and virtual button 116 shows “EMER HEAT); and E) at step 136, from “emergency heat” mode to

				"automatic' mode (the air conditioner and heater (or heat pump) operates in both the "heat' and "cool" mode, and virtual button 116 shows "AUTO"). with virtual button 116, display 121 will disappear and display 118 will reappear. In the "off" mode, both displays 118 and 121 will disappear. Ex. B, Shoemake Declaration at ¶¶ 228-249.
the graphic '318 Patent, Claims 5, 7, 9, 11	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '318 Patent, Palmer Decl.	Indefinite: No antecedent basis.	• Claims of the patent • Claim 5 • Claim 7 • Claim 9 • Claim 11 • Col 3, ll. 53-62: Thus, an image representative of a first virtual button may be shown on the touch screen display with graphics (alpha numeric characters and/or icons) on or closely associated with the first virtual button. The characters/graphics associated with the first virtual button indicate, for example, a current operating state or condition of the programmable thermostat. A user touching the first virtual button causes the device program to change the operating state or condition, and the graphics on the touch screen display also change to indicate the changed operating State or condition.

				• Col. 11, ll. 63-65: Thus, an image representative of a first virtual button may be shown on the touch screen display with graphics (alpha numeric characters and/or icons) on or closely associated with the first virtual button. The characters/graphics associated with the first virtual button indicate, for example, a current operating state or condition of the programmable thermostat. A user touching the first virtual button causes the device program to change the operating state or condition, and the graphics on the touch screen display also change to indicate the changed operating State or condition. • Col. 12, ll. 13-21: The user sees in sub-pictorial 185 a general layout of virtual buttons, text and graphics that can be selected to view as the pictorial of the first level interactive interface. This user selection can be made if the "SET SCREEN" button 145 of pictorial 184 shown in FIG. 19 is not touched for a predetermined period of time (say five seconds). However, the user can select other general layouts of virtual buttons, text and graphics that will thereafter be seen at the first level interactive interface. • Col. 12, ll. 22-27: Thus, referring now to FIG. 20. pictorial 186 contains a sub-

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				pictorial 187 that is an alternate general layout of virtual buttons, text and graphics for the first level interactive interface that can be selected by a user. Sub-pictorial 187 appears if virtual button 145 is touched for a predetermined period of time (say five seconds). • Col. 12, ll. 51-54: FIGS. 19 and 20 represent only two of many possible arrangements of virtual buttons, text and graphics that can be made available for selection by a user for the first level interactive interface. • Col. 12, ll. 56-62: This feature extends the ability of the user to select from one of several arrangements of virtual buttons, text and graphics at any of the levels of interactive or passive (information or graphics only) interface of the thermostat. This feature may be implemented by steps other than touching or refraining from touching the "SET SCREEN" button 145. Ex. B, Shoemake Declaration at ¶¶ 250-255.
	'825 Patent			
means coupling suitable power for energizing said thermostat from said space conditioning	Subject to § 112 ¶6 Structure: a (power) line and any equivalents Function: coupling	'825 Patent at Figs. 1-2, 2:18-22; 5:3-5; 5:43-48; Palmer Decl.	Means plus function limitation Function: coupling suitable power for energizing said thermostat	• Claims of the patent • Col. 5, ll. 3-5 : In accordance with the prior art, power to the processor 1 is conventionally Supplied from the space conditioning

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equipment to said thermostat '825 Patent, Claims 1, 11	suitable power for energizing said thermostat from said space conditioning equipment to said thermostat		from said space conditioning equipment to said thermostat Structure: A power line connected to an isolation diode	equipment 3 via a line 30 through an isolation diode 33. • Col. 5, ll. 43-47: The thermostat, including the real time clock 30, is normally conventionally powered, via line 35 and an isolation diode 36, from the equipment to which the thermostat is connected. However, it is a feature of the invention that no Source of backup power, Such as a battery or Supercap, is required.
real time clock '825 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '825 Patent, Palmer Decl.	An off the shelf real time clock integrated circuit component that does not have a battery or other backup device in case of a power failure	• Claims of the patent • Abstract: Accordingly, the need for providing a backup power source. Such as a battery or a Supercap, is eliminated." • "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." (Col. 1, ll. 7-10) • "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 failure ("outage') until power is restored. However, these

				are not fail safe expedients." (Col. 2, ll. 18-23) • "It is another broad object of this invention to provide a thermostat which does not require a backup source of energy for continuing thermostat status during an outage." (Col. 2, ll. 65-67) • "Thus, the need for backup power, such as a battery or a Supercap, is eliminated." (Col. 3, ll. 30-31) • "It is another broad object of this invention to provide a thermostat which does not require a backup source of energy for continuing thermostat status during an outage." (Col. 3, ll. 54-57) • "In accordance with the prior art, power to the processor 1 is conventionally Supplied from the space conditioning equipment 3 via a line 30 through an isolation diode 33. In the event of a power outage, power is Supplied from a backup battery 31 (or a very high capacity capacitor "super cap 32) to "ride out equipment power failure until power is restored. However, these are not fail safe expedients. Batteries must be changed at intervals (and often are not) to ensure that the thermostat (or at least the clock) will continue to operate during a power failure. Supercaps are susceptible to developing leakage which greatly

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				diminish their charge storing capacity; i.e., they may develop a resistance across the plates Sufficiently low that a charge Stored during normal operation discharges during an outage before power is restored." (Col. 5, ll. 3-17) • "However, it is a feature of the invention that no Source of backup power, Such as a battery or Supercap, is required." (Col. 5, ll. 46-48) • "The clock **13**, in accordance with the present invention includes a real time clock module **30** which is an off-the-shelf integrated circuit component and a small non-volatile random access memory (RAM) **31**, such as a flash RAM or electrically eraseable random access memory (eeprom)." (Col. 5, ll. 24-28) • Rosen Deposition, p. 81, l. 24—p. 82, l. 15 d: Q. And the first sentence there says: "It is therefore a broad object of 2 this invention to provide a 3 thermostat which incorporates a 4 fail safe real-time clock." 5 Did I read that correctly? 6 A. Yes. 7 Q. And I believe you referred to

				8 fail safe real-time clock in your testimony 9 earlier, correct? 10 A. I did, yes, in terms of backing 11 up the time, so we understand where to go back to. 12 Q. And that was the object of your 13 invention, to provide a fail safe real-time clock, 14 correct? 15 A. Yes. • Rosen Deposition, p. 82, l. 24—p. 83, l. 17 24 Q. After looking at claim one, is it 25 your recollection that claim one provides a Page 83 1 thermostat which incorporates a fail safe 2 real-time clock? 3 A. I hope it does, because that's 4 what it's setting out to do. It's supposed to 5 save you from a disaster if the battery dies. 6 Q. Okay. So my question to you, 7 sir, is how is the clock recited in claim one fail 8 safe? Is that because of the storing in -- of the 9 time in non-volatile memory? 10 A. Correct. 11 MR. NI: Objection, form. 12 BY MR. WILLE:

				13 Q. Is that what makes the clock fail 14 safe? 15 A. Yes. 16 Q. Now -- 17 A. You understood it very clearly. • Rosen Deposition, pp. 134-35 18 Q. Right. So to be clear, your 19 invention focussed on a way to set the time on a 20 real-time clock after a power failure without 21 using a battery or a supercapacitor, correct? 22 A. Correct. 23 Q. And in your view there were 24 disadvantages to using a battery or a 25 supercapacitor that we discussed earlier, right? Page 135 1 A. Correct.
a sensor input coupled to said temperature sensor for receiving said electrical signal therefrom '825 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '825 Patent, Palmer Decl.	Means plus function limitation Function: receiving said electrical signals from said temperature sensor Structure: Indefinite	• Claims of the patent • Figure 1 • Col. 1, ll. 29-35: The thermostat, including the real time clock 30, is normally conventionally powered, via line 35 and an isolation diode 36, from the equipment to which the thermostat is connected. However, it is a feature of the invention that no Source of backup power, Such as a battery or Supercap, is required.

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				• Col. 2, ll. 37-46: Temperature information from the sensor 5 and output signals to a space conditioning (heating and/or cooling) unit 3 pass through the I/O unit 10 under control of the CPU 9. Those skilled in the art will understand that if the correspondents external to the processor 1 communicating with the CPU 9 are all digital in nature (e.g., if the temperature sensor 5 incorporates its own analog-to-digital converter and sends a digital representation of temperature to the processor 1), then the I/O unit 10 may only constitute simple switching circuits. • Col. 3, l. 54-Col. 4, l. 4: FIG. 1 is a block diagram of an exemplary space conditioning system incorporating a thermostat with backup power, in case of an outage, Supplied from a battery or Supercap in accordance with the prior art; FIG. 2 is a block diagram of a portion of the processor component of the thermostat particularly showing aspects of the thermostat clock and its Support circuitry in a first exemplary embodiment of the invention; FIG. 3 is a process flow chart illustrating a part of the thermostat control program by which an updating operation is carried out according to the practice of the invention; FIG. 4 is a process flow chart showing a

				part of the control program restart when power has just been restored after an outage according to the invention; and FIG. 5 is a block diagram of a portion of the processor component of the thermostat particularly showing aspects of the real time clock and its support circuitry in a second exemplary embodiment of the invention. • Col. 4, ll. 21-26: The processor 1 includes a central processing unit (CPU) 9 in communication with a memory 8 for storing data and program information and also, via an input/output unit (I/O unit) 10, a touch pad 11 and a liquid crystal display (LCD) 12 which constitute the touch screen 2. • Col. 4, ll. 32-36: An analog to-digital converter 27 (which may not be required in all systems) serves to convert any analog information received by the I/O unit 10 to digital information which is suitable for use by the CPU 9. • Col. 4, ll. 37-46: Temperature information from the sensor 5 and output signals to a space conditioning (heating and/or cooling) unit 3 pass through the I/O unit 10 under control of the CPU 9. Those skilled in the art will understand that if the correspondents external to the processor 1 communicating with the CPU 9 are all digital in nature (e.g.,

				if the temperature sensor 5 incorporates its own analog-to-digital converter and sends a digital representation of temperature to the processor 1), then the I/O unit 10 may only constitute simple switching circuits. • Col. 4, ll. 47-65: Thus, in the usual manner during normal operation, the temperature sensor 5 sends an electrical signal (e.g., if the sensor 5 is a simple thermistor, a resistance value; several types of temperature sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered set point to determine if control signals need to be sent to the space conditioning equipment 3. For example, if the temperature in the conditioned space 4 is found to be too low when operation is in the heating mode, the processor 1 signals the space conditioning equipment 3 to circulate, through ducts 6, 7, air from/to the conditioned space 4 which is heated by the space conditioning equipment before return to the conditioned space. This heating phase continues until the sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the current set point such that the processor 1 sends signal(s) to the space

				conditioning equipment 3 to cease the heating function, all as very well known in the art. • The IEEE Standard Dictionary of Electrical Terms defines "input" and "output" as follows: **input (1) (data transmission).** (A) The data to be processed. (B) The state or sequence of states occurring on a specified input channel. (C) The device or collective set of devices used for bringing data into another device. (D) A channel for impressing a state on a device or logic element. (E) The process of transferring data from an external storage to an internal storage. 59 **(2) (to a relay) (power switchgear).** A physical quantity or quantities to which the relay is designed to respond. *Notes:* (A) A physical quantity that is not directly related to the prescribed response of a relay, (though necessary, to or in some way affecting the relay operation,) is not considered part of input. (B) Time is not considered a relay input, but it is a factor in performance. 103 **output (1) (electronic digital computer) (data transmission).** (A) Data that have been processed. (B) The state or sequence of states occurring on a specified output channel. (C) The device or collective set of devices used for taking data out of a device. (D) A channel for expressing a state of a device or logic element. (E) The process of transferring data from an internal storage to an external storage device. 59 **(2) (rotating machinery). (A) (generator).** The power (active, reactive, or apparent) supplied from its terminals. **(B) (motor).** The power supplied by its shaft. *See:* **asynchronous machine.** 63 **output, acoustic (telephony).** The sound pressure level developed in an artificial ear, measured in dB referred to an rms sound pressure of 2×10^{-5} newtons per square meter (N/m^2). 122 • Ex. B, Shoemake Declaration at ¶¶ 260-278. • Rosen Deposition, p. 126, l. 15-128 l. 1: Q. You agree there's no structural 15 details of the input shown in Figure 1, correct? 16 A. When you say "structural 17 details," be more specific, please. 18 Q. Is there any circuitry disclosed

				19 for performing the function of the control input? 20 A. No, because -- 21 Q. The sensor input, sorry. 22 A. Why should there be? That's 23 beyond a component level. That's an integrated 24 level on a chip, so there's no reason to describe 25 anything more than a block. Just as when we Page 127 1 describe a microprocessor, we don't draw up the 2 schematic of it. 3 Q. Okay. And similarly you would 4 agree that there's no circuitry described in the 5 specification for the control output, correct? 6 A. Yes, correct. 7 Q. So if -- 8 A. But let me just add this. We do 9 have the module, I'll call it a module because 10 it's within a rectangle and it's described well in 11 terms of English simple language, and there's an 12 IO, an input/output unit, and that IO goes to the 13 conditioned space. You see the temperature 14 sensor, okay. You also see the ability to switch

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				15 the space conditioning equipment, because you send 16 messages to it in one way or another, whether it's 17 a relay or a serial message, it's still 18 controlling the space condition equipment -- 19 conditioning equipment. So you really see every 20 element in here, but you have got to be able to 21 understand this. 22 Q. Right, so but my particular 23 question is whether there's any particular 24 structure disclosed for the sensor input? 25 A. When you say "structure", could Page 128 1 you define that word. • Rosen Deposition, p. 128: 13 Q. Let me rephrase the question. 14 Would it be fair to say that the sensor input and 15 the control output are only described at a block 16 diagram level? 17 A. Correct.
a control output coupled to the space conditioning equipment for issuing	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '825 Patent, Palmer Decl.	Means plus function limitation Function: issuing control signals to the	• Claims of the patent • Figure 1 • Col. 2, ll. 37-46: Temperature information from the sensor 5 and output

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control signals thereto '825 Patent, Claim 1			space conditioning equipment Structure: Indefinite	signals to a space conditioning (heating and/or cooling) unit 3 pass through the I/O unit 10 under control of the CPU 9. Those skilled in the art will understand that if the correspondents external to the processor 1 communicating with the CPU 9 are all digital in nature (e.g., if the temperature sensor 5 incorporates its own analog-to-digital converter and sends a digital representation of temperature to the processor 1), then the I/O unit 10 may only constitute simple switching circuits. • Col. 3, l. 54-Col. 4, l. 4: FIG. 1 is a block diagram of an exemplary space conditioning system incorporating a thermostat with backup power, in case of an outage, Supplied from a battery or Supercap in accordance with the prior art; FIG. 2 is a block diagram of a portion of the processor component of the thermostat particularly showing aspects of the thermostat clock and its Support circuitry in a first exemplary embodiment of the invention; FIG. 3 is a process flow chart illustrating a part of the thermostat control program by which an updating operation is carried out according to the practice of the invention; FIG. 4 is a process flow chart showing a part of the control program restart when power has just been restored after an outage

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				according to the invention; and FIG. 5 is a block diagram of a portion of the processor component of the thermostat particularly showing aspects of the real time clock and its support circuitry in a second exemplary embodiment of the invention. • Col. 4, ll. 21-26: The processor 1 includes a central processing unit (CPU) 9 in communication with a memory 8 for storing data and program information and also, via an input/output unit (I/O unit) 10, a touch pad 11 and a liquid crystal display (LCD) 12 which constitute the touch screen 2. • Col. 4, ll. 32-36: An analog to-digital converter 27 (which may not be required in all systems) serves to convert any analog information received by the I/O unit 10 to digital information which is suitable for use by the CPU 9. • Col. 4, ll. 37-46: Temperature information from the sensor 5 and output signals to a space conditioning (heating and/or cooling) unit 3 pass through the I/O unit 10 under control of the CPU 9. Those skilled in the art will understand that if the correspondents external to the processor 1 communicating with the CPU 9 are all digital in nature (e.g., if the temperature sensor 5 incorporates its own analog-to-digital converter and sends

				a digital representation of temperature to the processor 1), then the I/O unit 10 may only constitute simple switching circuits. • Col. 4, ll. 47-65: Thus, in the usual manner during normal operation, the temperature sensor 5 sends an electrical signal (e.g., if the sensor 5 is a simple thermistor, a resistance value; several types of temperature sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered set point to determine if control signals need to be sent to the space conditioning equipment 3. For example, if the temperature in the conditioned space 4 is found to be too low when operation is in the heating mode, the processor 1 signals the space conditioning equipment 3 to circulate, through ducts 6, 7, air from/to the conditioned space 4 which is heated by the space conditioning equipment before return to the conditioned space. This heating phase continues until the sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the current set point such that the processor 1 sends signal(s) to the space conditioning equipment 3 to cease the heating function, all as very well known in the art.

				• The IEEE Standard Dictionary of Electrical Terms defines "input" and "output" as follows: **input (1) (data transmission).** (A) The data to be processed. (B) The state or sequence of states occurring on a specified input channel. (C) The device or collective set of devices used for bringing data into another device. (D) A channel for impressing a state on a device or logic element. (E) The process of transferring data from an external storage to an internal storage. 59 **(2) (to a relay) (power switchgear).** A physical quantity or quantities to which the relay is designed to respond. *Notes:* (A) A physical quantity that is not directly related to the prescribed response of a relay, (though necessary, to or in some way affecting the relay operation,) is not considered part of input. (B) Time is not considered a relay input, but it is a factor in performance. 103 **output (1) (electronic digital computer) (data transmission).** (A) Data that have been processed. (B) The state or sequence of states occurring on a specified output channel. (C) The device or collective set of devices used for taking data out of a device. (D) A channel for expressing a state of a device or logic element. (E) The process of transferring data from an internal storage to an external storage device. 59 **(2) (rotating machinery). (A) (generator).** The power (active, reactive, or apparent) supplied from its terminals. **(B) (motor).** The power supplied by its shaft. *See:* **asynchronous machine.** 63 **output, acoustic (telephony).** The sound pressure level developed in an artificial ear, measured in dB referred to an rms sound pressure of 2×10^{-5} newtons per square meter (N/m^2). 122 • Ex. B, Shoemake Declaration at ¶¶ 260-278. • Rosen Deposition, p. 128: 13 Q. Let me rephrase the question. 14 Would it be fair to say that the sensor input and 15 the control output are only described at a block 16 diagram level? 17 A. Correct.
	'075 Patent			
means coupling said communications interface and said first remote correspondent	Subject to § 112 ¶6 Structure: serial link and/or data link and any equivalents	'075 Patent at Abstract, Figs 1-4, 1:12-15; 3:14-20; 4:4-8; 4:59-62; 6:12-17; 6:59-7:8; 8:53-9:5; 9:49-	Means plus function limitation Function: coupling said communication	• Claims of the patent • Col. 6, ll. 13-17: The I/O unit includes a communications interface 14 for coordinating communications between the CPU 9 and a remote

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'075 Patent, Claim 1	Function: coupling the communications interface and the first remote correspondent	56; Palmer Decl.	s interface and said remote correspondent Structure: Indefinite.	correspondent 15. The communications interface 14 may be, for example, a conventional serial port. • Col. 6, ll. 59-65: At one or more predetermined times of day (and/or on-demand if provided for in the operating program) which have been previously stored in the memory 8 and established by the clock 13, the CPU9 starts the process shown in FIG. 5 by issuing signals to the I/O unit 10 to cause the communications interface 14 to establish communications, via link 16, with a remote correspondent 15. • Col. 6, l. 65-Col. 7, l. 3: The remote correspondent 15 has a known data communications "address' and, in the example, is a source of current information, such as local weather. Such local current weather information sources are widely available and are routinely accessed by, for example, using the Internet. • Col. 8, ll. 53-65: While the Internet is not the only facility which the Subject thermostat system may use to communicate with a remote correspondent, it is, at the state-of-the-art the most readily widely available and easily accessible. Thus, FIG. 2 show a typical coupling in which the communications interface 14 sends/receives serial data to/from an external

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				(to the thermostat system) modem 20 via serial link 16. The modem conventionally interfaces with an Internet Service Provider (ISP) 21 which completes the communications link to the remote correspondent in the well-known manner. The modem 20 may be dial-up, cable, DSL or any other type Suitable for the communications environment in a given installation. • Col. 8, l. 66—Col. 9, l. 5: At the state-of-the-art and as shown in FIG. 3, a modem 24 for communicating with the ISP 21 may be integrated into the communications interface 14 of the input/output unit 14 to eliminate the need for an external modem. Thus, when communications is established with the remote correspondent 15 according to a schedule or upon demand, the data transfer takes place via modem 24 and data link 26 as shown. • Ex. B, Shoemake Declaration at ¶¶ 283-299. • Rosen Deposition, pp. 268-269: Q. All right. So the data goes from 5 the communications interface to the modem, and 6 then it says it goes to the ISP, correct? 7 A. Yes.

				8 Q. And ISP is an internet service 9 provider, correct? 10 A. Correct. 11 Q. And the paragraph you read 12 explains that the modem interfaces with an 13 internet service provider, correct? 14 A. M'hmm. 15 Q. Yes? You have to say "yes" or 16 "no". 17 A. Yes, sorry. 18 Q. All right. Internet service 19 provider is a business that provides access to the 20 internet, correct? 21 A. Yes. 22 Q. All right. And internet service 23 provider may connect to the internet in different 24 ways from one internet service provider to the 25 other, correct? Page 269 1 A. Of course, yes. 2 Q. And the internet service provider 3 decides what equipment they think is the best way 4 to connect to the internet, correct? 5 A. M'hmm, yes. 6 Q. And when you say the internet 7 service provider completes the link in the

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				8 well-known manner, that manner would depend upon 9 what equipment the internet service provider 10 chooses to use to complete the link, correct? 11 A. Yes. 12 MR. NI: Objection, form. 13 THE WITNESS: Yes.
means for controlling space conditioning equipment '075 Patent, Claim 4	Subject to § 112 ¶6 Structure: virtual buttons operating with control programs including as described in 11:7-13:62 and any equivalents Function: controlling space conditioning equipment	'075 Patent at Abstract, Figs. 9-12; 2:50-53; 3:27-31; 3:41-50; 3:56-4:3; 4:12-21; 4:37-52; 9:31-48; 10:13-33; 11:7-13:62; Palmer Decl.	Means plus function limitation Function: controlling space conditioning equipment Structure: Indefinite	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4, • Col. 5, ll. 30-35: FIG. 9 is an exemplary pictorial of a first interactive interface display on the touch screen of the devices of FIGS. 1 through 4 having a control program adapted only to control space conditioning equipment for cooling and activation of a fan of an air handler. • Col. 6, ll. 19-37: Thus, in the usual manner during normal operation, the temperature sensor 5 sends an electrical signal (e.g., if the sensor 5 is a simple thermistor, a resistance value; several types of temperature sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered set point to determine if control signals need to be sent to the space conditioning

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				equipment 3. For example, if the temperature in the conditioned space 4 is found to be too low when operation is in the heating mode, the processor 1 signals the space conditioning equipment 3 circulate, through ducts 6, 7, air from/to the conditioned space 4 which is heated by the space conditioning equipment before return to the conditioned space. This heating phase continues until the sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the set point such that the processor 1 sends signal(s) to the space conditioning equipment 3 to cease the heating function, all as very well known in the art. In a cooling mode, a counterpart procedure is followed. • Col. 10, ll. 17-24: This heating phase continues until the sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the set point such that the processor 1 sends signal(s) to the space conditioning equipment 3 to cease the heating function, all as very well known in the art. In a cooling mode, a counterpart procedure is followed. • Col. 10, ll. 50-51: (f) operational algorithms for control of existing or newly

				installed space conditioning equipment; • Col. 11, ll. 12-16: text 123 are shown with associated setpoints 116 and 124. The control program has been changed to enable operation of simple to complex control of space conditioning equipment for heating the conditioned space • Col. 11, ll. 19-22: text 123 are shown with associated setpoints 116 and 124. The control program has been changed to enable operation of simple to complex control of space conditioning equipment for heating the conditioned space • Col. 12, ll. 19-27: In practice, the thermostat manufacturer provides, in the control program, control sequences for as many different types of space conditioning components as might be used in widely diverse applications, alone or in combination. During setup, the user of a given installation eliminates those components, and graphics displays related thereto, which are irrelevant to the given installation, thus simplifying later ongoing programming and use of the thermostat. • Col. 13, ll. 38-41: The control program stored in memory contains routines adapted to cause effective

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				operation of any combination of the designated equipment.
a sensor input coupled to said temperature sensor for receiving said electrical signal therefrom '075 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '825 Patent, Palmer Decl.	Means plus function limitation Function: receiving electrical signals from the temperature sensor Structure: Indefinite.	• Claims of the patent • Col. 6, ll. 18-26: Thus, in the usual manner during normal operation, the temperature sensor 5 sends an electrical signal (e.g., if the sensor 5 is a simple thermistor, a resistance value; several types of temperature sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered set point to determine if control signals need to be sent to the space conditioning equipment 3. • The IEEE Standard Dictionary of Electrical Terms defines "input" and "output" as follows: **input (1) (data transmission).** (A) The data to be processed. (B) The state or sequence of states occurring on a specified input channel. (C) The device or collective set of devices used for bringing data into another device. (D) A channel for impressing a state on a device or logic element. (E) The process of transferring data from an external storage to an internal storage. 59 **(2) (to a relay) (power switchgear).** A physical quantity or quantities to which the relay is designed to respond. *Notes:* (A) A physical quantity that is not directly related to the prescribed response of a relay, (though necessary, to or in some way affecting the relay operation,) is not considered part of input. (B) Time is not considered a relay input, but it is a factor in performance. 103

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				output (1) (electronic digital computer) (data transmission). (A) Data that have been processed. (B) The state or sequence of states occurring on a specified output channel. (C) The device or collective set of devices used for taking data out of a device. (D) A channel for expressing a state of a device or logic element. (E) The process of transferring data from an internal storage to an external storage device. 59 **(2) (rotating machinery). (A) (generator).** The power (active, reactive, or apparent) supplied from its terminals. **(B) (motor).** The power supplied by its shaft. *See:* **asynchronous machine.** 63 **output, acoustic (telephony).** The sound pressure level developed in an artificial ear, measured in dB referred to an rms sound pressure of 2×10^{-5} newtons per square meter (N/m^2). 122 • Ex. B, Shoemake Declaration at ¶¶ 86-102, 300. • Rosen Deposition, p. 130 8 Q. So you have the '075 patent in 9 front of you, sir? 10 A. Yes, sure. 11 Q. And in the '075 Patent the sensor 12 input and control input are only described at a 13 block diagram level, correct? 14 A. Yes, correct.
a control output coupled to the space conditioning equipment for issuing control signals thereto '075 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '825 Patent, Palmer Decl.	Means plus function limitation Function: issuing control signals to the space conditioning equipment Structure: Indefinite.	• Claims of the patent • Figure 1, Figure 2, Figure 3, Figure 4 • Col. 6, ll. 18-36: Thus, in the usual manner during normal operation, the temperature sensor 5 sends an electrical signal (e.g., if the sensor 5 is a simple thermistor, a resistance value; several types of temperature sensors are widely used) representative of the temperature within the conditioned space 4 which the processor can compare against a previously entered set point to determine if

				control signals need to be sent to the space conditioning equipment 3. For example, if the temperature in the conditioned space 4 is found to be too low when operation is in the heating mode, the processor 1 signals the space conditioning equipment 3 circulate, through ducts 6, 7, air from/to the conditioned space 4 which is heated by the space conditioning equipment before return to the conditioned space. This heating phase continues until the sensor 5 indicates that the space is now too hot (or approaching too hot) with reference to the set point such that the processor 1 sends signal(s) to the space conditioning equipment 3 to cease the heating function, all as very well known in the art. • The IEEE Standard Dictionary of Electrical Terms defines "input" and "output" as follows: **input (1) (data transmission).** (A) The data to be processed. (B) The state or sequence of states occurring on a specified input channel. (C) The device or collective set of devices used for bringing data into another device. (D) A channel for impressing a state on a device or logic element. (E) The process of transferring data from an external storage to an internal storage. 59 **(2) (to a relay) (power switchgear).** A physical quantity or quantities to which the relay is designed to respond. *Notes:* (A) A physical quantity that is not directly related to the prescribed response of a relay, (though necessary, to or in some way affecting the relay operation,) is not considered part of input. (B) Time is not considered a relay input, but it is a factor in performance. 103

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				output (1) (electronic digital computer) (data transmission). (A) Data that have been processed. (B) The state or sequence of states occurring on a specified output channel. (C) The device or collective set of devices used for taking data out of a device. (D) A channel for expressing a state of a device or logic element. (E) The process of transferring data from an internal storage to an external storage device. 59 **(2) (rotating machinery). (A) (generator).** The power (active, reactive, or apparent) supplied from its terminals. **(B) (motor).** The power supplied by its shaft. *See:* **asynchronous machine.** 63 **output, acoustic (telephony).** The sound pressure level developed in an artificial ear, measured in dB referred to an rms sound pressure of 2×10^{-5} newtons per square meter (N/m^2). 122 • Ex. B, Shoemake Declaration at ¶¶ 86-102, 300. • Rosen Deposition, p. 130 8 Q. So you have the '075 patent in 9 front of you, sir? 10 A. Yes, sure. 11 Q. And in the '075 Patent the sensor 12 input and control input are only described at a 13 block diagram level, correct? 14 A. Yes, correct.
functional programming '075 Patent, Claim 1	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '825 Patent, Palmer Decl.	Discrete executable code that changes a previously existing function or virtual button or adds a new function or virtual button and does not include data-only transfers.	• Claims of the patent • Functional programming transferred to the thermostat according to the invention does not include data-only transfers. (Col. 11, ll. 4-6) • The remote correspondent is a source of functional programming which in part changes or adds to one or more previous functions of the control program or representations of virtual buttons on the display. (Col. 4, ll. 8-11)

a control program stored in said memory for causing said central processing unit to selectively: 1) establish on said liquid crystal display one or more representations of buttons at a separated and predetermined positions; 2) read the position on the touch pad juxtaposed with said predetermined position to determine if said representation of a button has been touched; and 3) if said a representation of a button has been touched, processing this information to establish a condition incorporated into the operation of said thermostat system; 4)	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '825 Patent, Palmer Decl.	Means plus function limitation Function: causing said central processing unit to selectively: 1) establish on said liquid crystal display one or more representations of buttons at a separated and predetermined positions; 2) read the position on the touch pad juxtaposed with said predetermined position to determine if said representation of a button has been touched; and 3) if said a representation of a button has been touched, processing this information to establish a condition incorporated into the operation of said thermostat system;	• Claims of the patent • Figure 5, Figure 6, Figure 7, Figure 8, Figure 9, Figure 10, Figure 11 • Col. 3, ll. 6-10: There is a need for a programmable thermostat whose user interface can be easily changed after installation to accommodate equipment or control options not anticipated at installation or to change the user interface to a form not possible with a control program originally installed with the thermostat. • Col. 3, ll. 40-45: The present invention allows a user to obtain and select from multiple user interfaces and/or control functions associated with them which were not part of a control program at an original installation of their programmable thermostat. • Col. 3 ll. 56-65: A control program Stored in the memory directs the central processing unit to communicate through the input/output unit to selectively: establish on the liquid crystal display a representation of at least one button at a predetermined XY position; read the same XY position on the touch pad to determine if the "button' has been touched; and if the button has been touched, perform a predetermined action Such as moving to a

establish communications between said processor and a first remote correspondent from which is transferred to said memory one or more modules of functional programming; and 5) operate said transferred functional programming to change or add to representations on the touch screen, where said changes or additions of representation on the touch screen were not available to the control program before their transfer to the memory '075 Patent, Claim 1			4) establish communications between said processor and a first remote correspondent from which is transferred to said memory one or more modules of functional programming; and 5) operate said transferred functional programming to change or add to representations on the touch screen, where said changes or additions of representation on the touch screen were not available to the control program before their transfer to the memory; Structure: Indefinite.	different menu or changing operating criteria. • Col. 4, ll. 4-11: In addition, a thermostat system according to the invention includes: a communications interface is adapted to establish bi-directional communications (via the Internet or some other suitable facility) between the processor and a remote correspondent. The remote correspondent is a source of functional programming which in part changes or adds to one or more previous functions of the control program or representations of virtual buttons on the display. • Col. 4, ll. 31-36: Even though such functions were not part of the control program at an original installation of the thermostat, the user may initiate bi-directional communication with a remote correspondent and download functional programming to implement these new functions. Such communications may be established with removable media, infrared link, etc. • Col. 4, ll. 52-58: Even though the preceding were not functions of the control program at an original installation of the thermostat, the user may initiate communication with a remote correspondent and download functional programming to accomplish

				these changes. The remote correspondent may originate transfer functional programming to the invention thermostat. • Col. 4, ll. 59-64: Periodically, or on demand if provided for, the control program stored in the memory causes the CPU to selectively: establish communications with the remote correspondent, copy functional programming, store the functional programming and adapt the control program to incorporate the functional programming. • Col. 6, ll. 14-16: The I/O unit includes a communications interface 14 for coordinating communications between the CPU 9 and a remote correspondent 15. The communications interface 14 may be, for example, a conventional serial port. • Col. 6, l. 59-Col. 7, l. 3: At one or more predetermined times of day (and/or on-demand if provided for in the operating program) which have been previously stored in the memory 8 and established by the clock 13, the CPU9 starts the process shown in FIG. 5 by issuing signals to the I/O unit 10 to cause the communications interface 14 to establish communications, via link 16, with a remote correspondent 15. The remote

				correspondent 15 has a known data communications "address' and, in the example, is a source of current information, such as local weather. Such local current weather information sources are widely available and are routinely accessed by, for example, using the Internet. • Col. 7, ll. 4-51: When the current local weather information is transmitted from the remote correspondent 15 via link 16 to the communications interface 14 and thence to the CPU 9, the CPU parses the information against the key terms stored in memory 8 to determine if there is a match. This is easily achieved because the source code of the information will typically also be in ASCII format. If the CPU9 senses a match, the just-received information is searched for the presence of at least one "value' associated with the matched key term. If such a value is found and under control of the CPU9, a first alphanumeric message component representative of the connotation of the matched key term and a second alphanumeric message component representative of the value associated with the key term are displayed on the LCD 12. If no value for the present matched term is found, but more key terms in the present set are yet to be compared to

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				information just received from the remote correspondent 15, the same process is repeated until all the key terms in the present set have been parsed and alphanumeric messages, if generated, have been sent to the LCD 12. The immediate session then ends. As an example, assume that Montreal weather is of interest to an occupant of a conditioned space in the Montreal area which uses the Subject thermostat system and that "temperature", "high" and "low" are the key terms for the subject of local weather stored in the memory 8. Periodically, as determined by times stored in the memory 8, the CPU9 issues signals to access the remote correspondent 15 (a site providing local Montreal weather in the example) and download the current weather information as a data stream. If the CPU finds, by examining and processing the data stream, that the term "temperature' has been received, it looks for the next characters in the data stream which can be a value associated with "temperature': e.g., it may quickly find "+18°C.". With this coupling established, the CPU may access the memory 8 to read the prestored alphanumeric message component "Current Montreal Temperature:" and then concatenate, as a second

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				alphanumeric message com ponent, "18 C and then send the complete message to the LCD 12 which displays: "CURRENT MONTREAL TEM PERATURE: 18° C. In a similar manner, if the key term "high" and an associated value are sensed, the exemplary message "MON TREAL HIGH TODAY: 26 C." may be displayed; and if the key term "low" and an associated value are sensed, the exemplary message "MONTREAL LOW TODAY: 9 C." may be displayed. • Col. 8, ll. 4-13: It will be understood that the processor 1 can communicate successively or at different times with different remote correspondents. Thus, referring to FIG. 6, the current local weather information and the selected Stock market information can be serially received and processed for display together in a manner which appears to be virtually simultaneous to a user. As previously noted, the overall display can be updated throughout the day at various times, as to each remote correspondent accessed, which have previously been entered in the memory 8. • Col. 8, ll. 53-65: While the Internet is not the only facility which the Subject thermostat system may use to communicate with a remote

				correspondent, it is, at the state-of-the-art the most readily widely available and easily accessible. Thus, FIG. 2 show a typical coupling in which the communications interface 14 sends/receives serial data to/from an external (to the thermostat system) modem 20 via serial link 16. The modem conventionally interfaces with an Internet Service Provider (ISP) 21 which completes the communications link to the remote correspondent in the well-known manner. The modem 20 may be dial-up, cable, DSL or any other type Suitable for the communications environment in a given installation. • Col. 9, ll. 2-5: Thus, when communications is established with the remote correspondent 15 according to a schedule or upon demand, the data transfer takes place via modem 24 and data link 26 as shown. • Col. 9, ll. 49-65: At the election of a user locally at touch pad 11 as provided for by the control program or via other communication with a remote correspondent Such as with removable media, infrared link, by personal computer to an Internet website permitting such action, etc., the CPU 9 at step 101 shown in FIG. 5 communicates signals to the I/O unit 10 to facilitate the

				communications interface 14 to establish communications, via link 16, with a remote correspondent 15. The initiation and maintenance of these communications may occur in reverse of these steps. The remote correspondent 15 has a known data communications "address' and, in the example, is a source of functional programming. At step 102, a user is shown functional programming available for transfer to the programmable thermostat system and a user selects at least one of Such functional programming selections. • Col. 9, l. 65-Col. 10, l. 2: At step 105, the selected functional programming is transferred and becomes part of the control program. At step 106, the selected functional programming cause a change in the touch pad 11 and/or LCD 12 as appropriate for the current screen display requirements. • Col. 10, ll. 3-12: FIGS. 9 to 11 show pictorial representations of the touch pad 11 and LCD of FIG. 1 in various interactive conditions. FIG. 9 is a representation of a thermostat system at step 100 of FIG. 8 with a current set of functional programming modules in a control program. FIGS. 10 and 11 are representations of a thermostat system at step 106

				of FIG.8 with a newly obtained set of several functional programming modules incorporated in the control program causing changes and additions to be indicated on touch pad 11 and LCD 12. • Col. 12, ll. 19-27: In practice, the thermostat manufacturer provides, in the control program, control sequences for as many different types of space conditioning components as might be used in widely diverse applications, alone or in combination. During setup, the user of a given installation eliminates those components, and graphics displays related thereto, which are irrelevant to the given installation, thus simplifying later ongoing programming and use of the thermostat. • Col. 13, ll. 38-41: The control program stored in memory contains routines adapted to cause effective operation of any combination of the designated equipment. • Col. 13, ll. 48-62: Col. 12, ll. 19-27: In practice, the thermostat manufacturer provides, in the control program, control sequences for as many different types of space conditioning components as might be used in widely diverse applications, alone or in combination. During setup, the user of a given installation

				eliminates those components, and graphics displays related thereto, which are irrelevant to the given installation, thus simplifying later ongoing programming and use of the thermostat. • Ex. B, Shoemake Declaration at ¶¶ 301-328. • Rosen Deposition, pp. 268-269: Q. All right. So the data goes from 5 the communications interface to the modem, and 6 then it says it goes to the ISP, correct? 7 A. Yes. 8 Q. And ISP is an internet service 9 provider, correct? 10 A. Correct. 11 Q. And the paragraph you read 12 explains that the modem interfaces with an 13 internet service provider, correct? 14 A. M'hmm. 15 Q. Yes? You have to say "yes" or 16 "no". 17 A. Yes, sorry. 18 Q. All right. Internet service 19 provider is a business that provides access to the 20 internet, correct? 21 A. Yes. 22 Q. All right. And internet service

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				23 provider may connect to the internet in different 24 ways from one internet service provider to the 25 other, correct? Page 269 1 A. Of course, yes. 2 Q. And the internet service provider 3 decides what equipment they think is the best way 4 to connect to the internet, correct? 5 A. M'hmm, yes. 6 Q. And when you say the internet 7 service provider completes the link in the 8 well-known manner, that manner would depend upon 9 what equipment the internet service provider 10 chooses to use to complete the link, correct? 11 A. Yes. 12 MR. NI: Objection, form. 13 THE WITNESS: Yes. • Rosen Deposition, p. 277: 11 Q. Right. And my point is that you 12 don't describe the low level process to get the 13 functional programming from the remote 14 correspondent to the thermostat and change the

				15 functional programming at the thermostat, correct? 16 MR. NI: Objection, form. 17 THE WITNESS: We don't describe the 18 specific process because of the broadness that we 19 are trying to keep within the patent.
in which said communications interface is coupled to an external modem '075 Patent, Claim 3	No Construction Necessary Plain and Ordinary Meaning	*See e.g.*, '825 Patent, Palmer Decl.	Indefinite.	• Claims of the patent • Figure 2 • Abstract: A thermostat system includes a temperature sensor, an LCD for selectively displaying alphanumeric and graphic devices on a touchscreen with virtual buttons, a processor having a memory for storing program and data information, and means for establishing communication with a remote correspondent. • Col. 3, ll. 45-56: A programmable thermostat system for controlling space conditioning equipment according to the invention includes: a transparent touch pad juxtaposed over a liquid crystal display to constitute a touch screen for interactive interface with a user; a temperature sensor for providing an electrical signal indicative of the temperature of a conditioned space; and a processor including: a central processing unit; a real time clock; a memory coupled to

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				the central processing unit for storing program and data information; and an input/ output unit coupled between the processor and said touch screen for carrying out information transfer therebetween. • Col. 4, ll. 4-8: In addition, a thermostat system according to the invention includes: a communications interface is adapted to establish bi-directional communications (via the Internet or some other suitable facility) between the processor and a remote correspondent. • Col. 5, ll. 59-67: Referring first to FIG. 1, a thermostat system includes a processor 1 and a temperature sensor 5 which is disposed in a conditioned space 4. The processor 1 and the sensor 5 may be situated in a common housing (not shown) or separated, all as very well known in the art. The modem 20 may be dial-up, cable, DSL or any other type Suitable for the communications environment in a given installation. • Col. 8, ll. 56-59: . Thus, FIG. 2 show a typical coupling in which the communications interface 14 sends/receives serial data to/from an external (to the thermostat system) modem 20 via serial link 16.

				• Col. 8, l. 66-Col. 9, l. 2: At the state-of-the-art and as shown in FIG. 3, a modem 24 for communicating with the ISP 21 may be integrated US 7,232,075 B1 into the communications interface 14 of the input/output unit 14 to eliminate the need for an external modem. Ex. B, Shoemake Declaration at ¶¶ 329-332.

III. LENGTH OF TIME NECESSARY FOR CLAIM CONSTRUCTION HEARING

The Parties anticipate the length of time necessary for the claim construction hearing to be approximately two hours.

IV. PARTIES' STATEMENT ON TESTIFYING WITNESSES

The Parties do not anticipate presenting testifying witnesses at the claim construction hearing.

V. PROPOSED ORDER OF TERMS

The Parties propose arguing the terms in the order presented in this document.

VI. OTHER ISSUES TO ADDRESS

Defendant's Objection to Plaintiff's Expert Testimony: In a number of places in the joint claim construction chart, Plaintiffs list as evidence "Palmer Decl." Presumably, this is some sort of expert declaration. Defendant says "presumably" because as of 4:00 p.m. on February 23, this declaration has not been served on Defendants. The Court's Scheduling Order §10(b) specified that parties shall "identify any extrinsic evidence that supports their proposed claim constructions" by February 2, 2023. On that date, Defendants served a detailed expert declaration

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containing the expert testimony upon which Defendants intend to rely. Expert testimony, of course, is extrinsic evidence.

Defendants object to Plaintiff's attempts to add expert testimony weeks after the deadline to do so. The Court's schedule contemplated a simultaneous exchange and provided a time period in which to conduct discovery based upon the exchange. It is unfair to Defendants for Plaintiffs to serve a declaration at some point that will give Defendants 3 weeks less (if it were served today) to review and conduct discovery about. Furthermore, it is unfair to Defendants for Plaintiffs to prepare a declaration while having access to all of Defendant's expert opinions when Defendants were not afforded the same opportunity. Thus, the Court should strike the declaration and not consider it for purposes of deciding the claim construction issues in this case.

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Dated: February 23, 2023

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CERTIFICATE OF SERVICE

I hereby certify that on the 23rd day of February, 2023, I served the foregoing on counsel of record for Defendant via the Court's ECF system.

/s/ Neal Massand
Neal Massand

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