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Transmitted herewith for filing is the patent application of:

Inventor(s):

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For Dynamic Value Reporting For Wireless Automated Systems

This application includes:

23 pages of specifications, including 6 pgs. of claims and 1 pg. abstract
1 title page
4 sheets of drawings, X formal/_ informal containing 5 Figures
photographs (design patent application only)

Also enclosed is:

— Declaration and Power of Attorney
— An assignment of the invention to Siemens Building Technologies, Inc..
— A certified copy of a ____ application.
— Information Disclosure Statement pursuant to 37 CFR 1.56.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR UNITED STATES LETTERS PATENT

INVENTORS:	NORMAN R. MCFARLAND 537 N. Walden Drive Palantine, IL. 60067
TITLE:	DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS
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TO WHOM IT MAY CONCE3RN, THE FOLLOWING IS A
SPECIFICATION OF THE AFORESAID INVENTION

DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS

BACKGROUND

[0001] The invention relates to remote monitoring of conditions and more particularly to wirelessly reporting a sensed condition over a wireless communication network.

[0002] Automation systems include one or more distributed components and/or grouping of components that together form an integrated system for automating a process control. The components include controllers, sensors, switches, alarms, actuators, chillers, fans, humidifiers, and/or air handling units configured to automate process control for heating, ventilation, air conditioning (HVAC), environmental air quality, safety and security, fire, hazard prevention, or other processes for a building or facility. The devices may communicate information over a wired network and/or by wirelessly broadcasting information between and among the components.

[0003] The components may detect events, sense conditions, respond to detected events or changes in conditions, and/or control operation of other devices. An event may be detected by a sensor, which communicates related information to a controller. The controller generates control signals, which are communicated to a device for an appropriate responsive action. For example, a temperature sensor wirelessly broadcasts a temperature reading to a controller. The controller reads the information from the sensor and determines whether a responsive control action may be taken. The controller communicates a control signal, as appropriate, to an actuator to control airflow in the room. The controller also may communicate a feedback or status signal to a remote computer.

[0004] Wireless networks are limited by the amount of available bandwidth over which the devices may communicate. The number of devices and amount of information communicated over a wireless system may be constrained by the available bandwidth. Systems having many wireless devices may create a noisy environment in which data can be lost, dropped or not communicated with the

targeted recipient. The continuous monitoring of conditions and broadcast of information consumes large amounts of power, which may shorten a limited-lifetime power source. The continuous stream of information from and to devices uses a great amount of processing power for a controller, and may provide redundant information that may need to be filtered before being processed.

[0005] Accordingly, there is a need for a system for reducing an amount of communication over a wireless automated system using dynamic value reporting.

BRIEF SUMMARY

[0006] The described embodiments include methods, processes, apparatuses, and systems for reporting information over a wireless automation system, and particularly to a wireless building automation system. An automated wireless system using dynamic value reporting provides for a robust process control that minimizes an amount of communications in the wireless network. The amount of wireless traffic in the system may be reduced, and/or the number of devices communicating over a wireless network increased, by minimizing or reducing the amount of information reported by a sensor.

[0007] Conditions are monitored, or sensed, during a variable periodic interval to determine whether a measurement for the condition has changed, is above, and/or below a limit or within or outside a range. The measurement may also be compared to measurements made during prior intervals, and/or statistics determined based on prior readings. A statistical analysis of the measurement may be made, and an appropriate control response determined and executed. The measurement, the change over a prior measurement, and/or the results of a comparison to a limit and/or range may be made according to a second periodic interval. The second periodic interval may coincide with the first periodic interval.

[0008] In an embodiment, a wireless automation device includes a wireless transceiver, such as a RF transceiver, RF transmitter, and/or RF receiver or other device that wirelessly communicates packets of information over a wireless network. A sensor generates a signal based on whether a sensed condition is

within a predetermined range. In the device, a controller polls the sensor at a variable periodic interval to read the signal from the sensor. The sensor may be continuously activated, or may be activated upon a polling by the controller. The controller also controls the transceiver to selectively communicate information associated with the signal from the sensor. The information is transmitted during a variable periodic interval for transmitting the information. The information may be transmitted in response a change in a sensed condition, in response to a sensed condition being outside a predetermined range or limit, and/or in response to an externally received control signal. Transmission of information during an interval may be suspended in response to an externally received control signal. The controller and/or sensor may enter a stand-by or sleep mode during times other than the variable periodic interval.

[0009] The present invention is defined by the following claims. Nothing in this section should be taken as a limitation on those claims. Further aspects and advantages of the invention are discussed below in conjunction with the preferred embodiments and may be later claimed independently or in combination.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The components in the figures are not necessarily to scale, emphasis instead being placed upon illustrating the principles of the invention. Moreover, in the figures, like reference numerals designate corresponding parts throughout the different views.

[0011] Figure 1 is an example of a wireless automated system for building automation.

[0012] Figure 2 is a diagrammatic representation for a sensor device.

[0013] Figure 3 illustrates a timing chart illustrating the polling interval for a sensor configured for dynamic value reporting.

[0014] Figure 4 illustrates a timing chart for the transmission of information for a device configured for dynamic value reporting.

[0015] Figure 5 illustrates sensor device in communication with a controller.

DESCRIPTION OF THE PRESENTLY PREFERRED EMBODIMENTS

[0016] A wireless automation system configured for or using dynamic value reporting communicates data among and between devices related to changes in a value of a monitored condition and/or measured parameter (*e.g.*, a wireless sensor for monitoring environmental temperature). A wireless automation device using dynamic value reporting monitors and wirelessly reports building automation information over a building automation network formed by multiple distributed devices. The distributed devices communicate information between and among the devices from a source device to a destination device.

[0017] A device that uses dynamic value reporting senses, samples and/or measures a condition during a period of a sampling or polling interval. A reading of the condition may be taken to identify an indicator associated with the current or present condition. The indicator of the current or present condition may be read during a current period of the sampling interval. The current reading of the indicator may be stored with prior readings of the indicator in a memory. The current readings and prior readings may be stored in memory in order in which the readings were read, such as in a stack manner. The current reading of the indicator also may be compared to prior readings of the indicator to determine a change. The indicator and /or the change may be compared to a limit or range, such as an absolute limit and/or a range for changes from one or more previous measured values.

[0018] The device wirelessly receives and transmits information over the network. The information may include a current indicator of the condition, a value or status for the condition and/or sensor, and/or the comparison of the indicator to a limit or range, the time or interval sequence number in which an indicator was made, the time or interval sequence in which an indicator is deemed to have changed beyond a limit or outside a range and like information. The information is routed as packets, such as according to a TCP/IP transmission

protocol. The information is communicated to destination device, such as an actuator, and/or a controller that executes a process control such as executing a responsive action, and/or communicating an appropriate control signal. The device may communicate information during a period of a transmission interval. The device may communicate information during a transmission, or communication, interval. The information may be communicated in response to a comparison that identifies a change in the sensed condition, such as a change outside a band limit, or a reading of the indicator beyond a limit. Similarly, a transmission of information may be suspended for periods of a transmission interval for which no change in the indicator has been identified. The device may enter a sleep mode, or go into a standby mode, between periods of the transmission and/or polling interval. The transmission and polling intervals, the limits and ranges may be changed, varied, regulated, adjusted, extended and/or compressed according to the measured values and/or comparison to the limits.

[0019] Figure 1 illustrates a block diagram for an example of a wireless automation system 100 configured for and/or using dynamic value reporting. The illustrated wireless automation system 100 automates a building control process for heating, ventilation, and air conditioning (HVAC) for one or more buildings and/or facilities. In an embodiment, the building automation system may be an APOGEE™ system provided by Siemens Building Technologies, Inc. of Buffalo Grove, Illinois. The wireless automation system 100 using dynamic value reporting may be any of a variety of other automation systems, including air quality systems, industrial control systems, security and loss prevention systems, hazard detection and/or prevention systems, lighting systems, combinations and integrations thereof, and the like.

[0020] The automation system 100 provides process control functionality for one or more building, or facility operations. The automation system 100 includes one or more devices positioned, or distributed, throughout the building. The devices generate and/or receive information related to a specific event, condition, status, acknowledgement, control, combinations thereof and the like. The devices may also respond to control commands and/or execute an instruction

received by or in a signal. The devices may also communicate or route the information between and among components of the system from a source to a destination.

[0021] The automation system 100 shown in Figure 1 is a multi-tier architecture having a high-speed or high bandwidth communications level that includes aggregate collections of sensor and/or actuator data, video or other high bandwidth data or long range communications and a level for point-to-point communication between devices. The devices may be field panels, controllers, sensors, actuators and any other component of an automation system. Control processes are distributed to the field panels, controllers, sensors and actuators as appropriate for the particular operations or functions of the device.

[0022] The devices of the system 100 communicate information, data and commands according to an assigned binding association. That is, devices may be commissioned as an operating pair or group according to a binding association. Even though devices may be commissioned as an operating pair or group, communications between devices may be routed, or hopped, via one or more other devices of the network. That is, the communication of information between and among devices includes transmitting, routing, and/or information hopping using low-power wireless RF communications across a network defined by the devices. Multiple paths from a source to a destination may exist in the network.

[0023] A sensing device monitors a condition and/or status of an event. The sensing device may report appropriate sensor information, such as a current value or indicator of the condition, timing of a reading, prior measurements, status of the sensor and/or a comparison of a measured value to a desired limit, range or a previous measurement. Actuators may process sensor information to determine an appropriate action for the actuator. Controllers monitor the process or action of sensors and actuators, and may override the sensor and/or actuators to alter processing based on a regional or larger area control process.

[0024] The automation system 100 includes a supervisory control system or workstation 102, one or more field panels 106a, 106b, and one or more controllers

108a - 108e. Each controller 108a-108e, for example, corresponds to an associated localized, standard building control subsystem such as a space temperature control, air quality control, lighting control, hazard detection, security, combinations thereof, or the like. The controllers 108a-108e communicate with one or more sensors 109a using two-way wireless communication protocol. The controllers 108a-108e also may communicate information with one or more actuators 109b using two-way wireless communication protocol. For example, sensor 109a and actuator 109b are commissioned to communicate data and/or instructions with the controller 108a. Sensor 109a may also communicate information directly with actuator 109b using two-way wireless communications.

[0025] The controller 108a provides control functionality of each, one, or both of the sensor 109a and the actuator 109b. Controller 108a controls a subsystem based on sensed conditions and desired set point conditions. The controller 108a controls the operation of one or more actuators in response to an event reported by a sensor 109a. The controller 108a may drive the one or more actuator to a desired set point.

[0026] The controller 108a is programmed with the set points and a code setting forth instructions that are executed by the controller for controlling the actuators to drive the sensed condition to be with the set point. For example, the actuator 109b is operatively connected to an air conditioning damper and sensor 109a may be a room temperature sensor that reports information related to a temperature being monitored by the sensor. The sensor may report current temperature or a relative temperature change compared to a prior measurement. If the temperature sensed by the sensor 109a exceeds a threshold, the actuator may respond accordingly to open a damper, allowing air conditioning to flow into a room. The sensor 109a may communicate the sensed condition to the actuator 109b and/or to the controller 108a, which thereafter provides an appropriate control signal to the actuator 109a.

[0027] Sensor, actuator, and set point information may be shared among or common to, controllers 108a-108e, field panels 106a-106b, work station 102, and any other components or elements that may affect control of the building

automation system 100. To facilitate sharing of information, groups of subsystems such as those coupled to controllers 108a and 108b are organized into wireless field (or floor) level networks (“WFLN’s”) and generally interface at least one field panel 106a. Controllers 108c, 108d and 108e along with the field panel 106b also may communicate via a low-level WFLN data network 110b.

[0028] The WFLN data networks 110a 110b are low-level data networks that may use any suitable proprietary or open protocol. The devices forming a WFLN communicate via two-way radio links. Interfaces, routers and bridges are provided for implementing the WFLN 110a and 110b. While shown as a common bus or interconnection structure, the WFLN may include multiple or different communication links between components with some or no redundancy in any of various patterns.

[0029] Any of a wide variety of WFLN architectures may be used. For example, the devices of the WFLN may utilize a wireless MESH technology to form a MESH network. For example, the WFLN configured as a wireless MESH network include multiple nodes that communicate via wireless communication links. The MESH network establishes a grid of nodes that create redundant paths for information flow between and among the nodes. In the MESH network, information may reach a destination either by a direct point-to-point communication or by an indirect communication where the information is routed or hops from node to node, among different paths from a source to the destination. The WFLN may be self-forming and/or self-healing. The WFLN also allows bi-directional routing for command and control information. Additional, different or fewer networks may be provided. For example, a WFLN may be wired, while other networks may be wireless, one or both wireless networks include wired components, or the networks may be distributed among only one, three or more levels.

[0030] The WFLN’s 110a and 110b operate in accordance with distinguishable or the same wireless communications protocols. For example, the WFLN 110a operates pursuant to the 802.15.4 communications protocols, but IEEE 802.11x (e.g., 802.11a 802.11b, 802.11c 802.11g), Wi-Fi, Wi-Max,

Bluetooth, ZigBee, Ethernet, proprietary, standard, now known or later developed wireless communication protocols may be used. The WFLN 110b may operate using the same or different protocol as the protocol employed by WFLN 110a. Any now known or later developed network and transport algorithms may be used. Communication, transport and routing algorithms are provided on the appropriate devices. Any packet size or data format may be used.

[0031] The field panels 106a and 106b coordinate communication of data, information and signals between the controllers 108a-108e and the workstation 102 and network 104. In addition, one or more of the field panels 106a and 106b may control devices such as HVAC actuators 107a and 107b. The field panels 106a and 106b accept modification, changes, alterations, and the like from the user with respect to objects defined by the building automation system 100. The objects are various parameters, control and/or set points, port modifications, terminal definitions, users, date/time data, alarms and/or alarm definitions, modes, and/or programming of the field panel itself, another field panel, and/or any controller in communication with a field panel.

[0032] The field panels 106a and 106b may communicate upstream via a wireless building level network ("WBLN") 112 to the workstation 102. The workstation 102 includes one or more supervisory computers, central control panels or combinations thereof. The workstation 102 provides overall control and monitoring of the building automation system 100 and includes a user interface. The workstation 102 further operates as a building control system data server that exchanges data with one or more components of the building automation system 100. The workstation 102 may also allow access to the building control system data by other applications. The applications are executed on the workstation 102 or other supervisory computers that may be communicatively coupled via a management level network (MLN) 113.

[0033] The workstation provides user access to components of the building automation system 100, such as the field panels 106a and 106b. The workstation 102 accepts modifications, changes, and alterations to the system. For example, a user may use the workstation 102 to reprogram set points for a subsystem via a

user interface. The user interface may be an input device or combination of input devices, such as a keyboard, voice-activated response system, a mouse or similar device. The workstation 102 may affect or change operations of the field panels 106a and 106b, utilize the data and/or instructions from the workstation 102, and/or provide control of connected devices, such as devices 107a and 107b and/or the controllers 108a and 108b. The field panels 106a and 106b therefore accept the modifications, changes, alterations and the like from the user.

[0034] The workstation 102 may process data gathered from the field panels 106a and 106b and including maintain a log of events and conditions. Information and/or data are gathered in connection with the polling, query or otherwise. The workstation 102 maintains a database associated with each field panel 106a and 106b, controllers 108a – 108e, and sensor 109a, actuator 109b, controller 108d and devices 107a and 107b. The database stores or records operational and configuration data.

[0035] The workstation 102 may be communicatively coupled to a web server. For example, the workstation 102 may be coupled to communicate with a web server via the MLN 113 through a network 104 such as an Ethernet network, a LAN, WLAN, or the Internet. The workstation 102 uses the MLN 113 to communicate building control system data to and from other elements on the MLN 113. The MLN 113 is connected to other supervisory computers, servers, or gateways through the network 104. For example, the MLN 113 may be coupled to a web server to communicate with external devices and other network managers. The MLN 113 may be configured to communicate according to known communication protocols such as TCP/IP, BACnet, and/or other communication protocols suitable for sharing large amounts of data.

[0036] Figure 2 illustrate a block diagram of an automation device 207 for a wireless automation system using dynamic value reporting. The automation device 207 provides service functionality. The automation device 207 may be a function-specific device, or configured to provide one or more of a variety of functionalities. In an example, the automation device 207 monitors a condition or parameter and wirelessly reports dynamics in the condition or parameter. The

automation device 207 may be a sensor that monitors a condition and/or event, such as a building environment. The automation device 207 may be installed, positioned, and/or located with, within, on, or around a building, facility, a plant, factory, assembly, edifice, structure, colliery, combinations or portions thereof or other environment having conditions to be monitored.

[0037] The automation device 207 communicates over a network which may include other automation devices, data processors, desktop computers, a mobile computers, a notebook computers, a tablet computers, controllers, personal computers, workstations, mainframe computers, servers, personal digital assistants ("PDA"), personal communications devices such as a cellular telephone, and like devices configured to communicate information over a communication network. The network may be any known or proprietary network of computers, such as a Local Area Network (LAN), a Wireless LAN (WLAN) a Personal Area Network (PAN), Wireless PAN (WPAN) and a Virtual Private Network (VPN), combinations thereof and the like. The automation device 207 may communicate according to any known or proprietary communication protocols such as TCP/IP, BACnet, and/or other communication protocols suitable for sharing large amounts of data. For example, the automation device 207 is a temperature sensor that monitors and reports information related to a temperature in a room or portion thereof. The sensor 207 reports information related to the temperature between and among devices of a building automation system.

[0038] The device 207 includes a processor 214, a transceiver 216, and a sensor 209. Additional, different or fewer components may be provided, such as providing a plurality of different or the same types of sensors. For example, the device may also have a memory 226, a storage device 228, a data input device 230, and a data output 232. A program 234 resides in the memory 226 and includes one or more sequences of executable code or coded instructions. The program 234 may be implemented as computer software, firmware including object and/or source code, hardware, or a combination of software and hardware. The program 234 may be stored on a computer-readable medium, (*e.g.*, storage device 228) installed on, deployed by, resident on, invoked by and/or used by the

processor 214. The program 234 is loaded into the memory 226 from storage device 228. Additionally or alternatively, code may be executed by the controller processor 214 from the storage device 228. The program 234 may be implemented using any known or proprietary software platform or frameworks including basic, visual basic, C, C+, C++, J2EE™, Oracle 9i, XML, API based designs, and like software systems.

[0039] The processor 214 implements a control process for the device 207. The control process may be implemented based on a signal that is read from and/or provided by the sensor 209, such as a measured value of a parameter, an indicator of a sensed condition and/or status of an event. The processor 214 may be may be one or more devices including a general processor, digital signal processor (DSP), control processor unit (CPU), application specific integrated circuit (ASIC), field programmable gate array (FPGA), analog circuit, digital circuit, combinations thereof or other now known or later developed devices for implementing a control process. The processor 214 has a processing power or capability and associated memory corresponding to the needs of one or more of a plurality of different types of sensors 209 and transceiver 216. The processor 214 implements a control process algorithm specific to the sensor 209. Other control processes may be stored but unused due to a specific configuration.

[0040] The processor 214 executes one or more sequences of instructions of the program 234 to process data. Data and/or instructions may be preprogrammed to the device 207 and or provide to the device 207 using the data input device 230. Data and/or instructions may also be received via the transceiver 216. The processor 214 interfaces data input device 230 and/or the transceiver 216 to receive data and instructions. The processor 214 may also interface the storage device 228 for storage and retrieval of data. Data processed by the processor 214 may be stored in and retrieved from in storage device 228, communicated via the transceiver 216, and/or presented via data output device 232. The data output device 232 may be a display, monitor, a printer, a communications port, an array of lights, combinations thereof and the like. For example, the processor may control a light array of the output device 232 to

indicate an operation status, or read data status, a transmit status and the like. The light array may be internal to an enclosure for the device, and/or externally visible.

[0041] The transceiver 216 is a receiver, transmitter, combination receiver/transmitter, wireless communication port, wireless communication device, wireless modem and like device capable of wirelessly receiving, communicating, transmitting, and/or broadcasting information. In an embodiment, the transceiver 216 may receive and transmit control information from other components or devices. The information may be control information to alter the implemented control process.

[0042] The transceiver 216 wirelessly communicates information using one or a combination of one-way and/or two-way wireless communications. The information may be communicated using radio frequency (RF), infra-red (IR), ultra-sound communication, cellular radio-telephone communications, a wireless telephone, a Personal Communication Systems (PCS) and like wireless communication technologies. The transceiver 216 communicate information as packets of information according to one or more communications protocols or standards, including IEEE 802.11(x), 802.16, Wi-Fi, Wi-Max, ZigBee, Bluetooth, Voice Over Internet Protocol (VoIP). The transceiver 216 also or alternatively communicates information and/or packets of information in accordance with known and proprietary network protocols such as TCP/IP, Ethernet and like protocols over a Personal Area Network (PAN), Wireless PAN (WPAN), virtual private network (VPN), Wireless Local Area Network (WLAN) and like networks. The transceiver may also include an interrogator that wirelessly transmits signals to interrogate components of a building automation system. The transceiver also may receive a wirelessly transmitted interrogation signal from one or more other components.

[0043] The sensor 209 may include a device or a collection of devices that sense conditions, parameters and/or events such as an environmental condition in a building. The sensor 209 generates information or data related to the sensed or monitored condition. The information may be provided an output as one or more signals that may be read by the processor 214. The information may be generated

in response to a physical stimulus such as light, sound, pressure, heat, magnetism, motion and/or acceleration. The physical stimulus may be detected as the result of sensing or monitoring the conditions or parameters. The may be provided as an indicator of the sensed condition, parameter or event. In an example, the sensor 209 is configured as any of a temperature sensor, humidity sensor, fire sensor, pressure sensor, smoke sensor, occupancy sensor, air quality sensor, gas sensor, O₂, CO₂ or CO sensor, accelerometer, velocity sensor, combinations thereof, or other now known or later developed sensors. The sensor 209 may be a micro-electro-mechanical sensors ("MEMS") or larger sensors for sensing any condition or parameter.

[0044] The sensor 209 is responsive to the processor 214 and/or logic executed by the processor 214. A signal generated by the sensor 209 may be an indicator of the sensed condition. The signal may be provided to or read by the processor as one or more electrical, electromagnetic, electrochemical, and/or radio frequency signals. The signal may be characterized as an impulse signal, a continuous signal, or discrete time signal. The signal may be an analog or digital signal provided in parallel or serially. The signal carries information or represents a value for a current condition, a past condition, a current change in a condition, a past change in a condition, a comparison of a current condition to a past condition, a comparison of a current condition to a standard, measure, or limit, a comparison of a change in the current condition to a limit, a comparison of the current condition to an extreme limit, a status of the sensor, any combination thereof, and like information that may be provided by sensing a condition or parameter.

[0045] Figure 3 illustrates a chart 300 of signal $V(t)$ generated by the sensor 209 representing an indicator of a sensed condition versus time (t). Although the signal is shown as a continuous curve, the signal $V(t)$ may be discrete, or provided during discrete intervals of time.

[0046] In an embodiment, the processor 214 polls the sensor 209 during a recurring polling period 336. During a polling period 336, any one or each of the processor 214, the sensor 209 and/or the transceiver 216 may be operable. Each period 336 recurs at a variable frequency or interval 338. The interval 338 may be

considered a time beginning at the start of a period 336 and ending at the start of the next consecutive interval 336. A polling period 336 may be a short amount of time relative to the interval 338 or frequency of occurrence of the polling period. For example, a period 336 may extend for several microseconds for an interval 338 of in the range of milliseconds or more, may occur for one or more milliseconds every second or more, a second for every 10 or more seconds or more, or even in the range of minutes every several minutes. The period 336 also may extend for a large or substantial portion of the interval 338. The relationship of the length of a period 336 to the recurrence of an interval 338 or the relationship to the variable interval 338 depends on one or more factors, such as the condition being monitored or sensed, past and current measurements, the control algorithm for the system or device, transmission frequency and strength of the transceiver, response of the sensor, bandwidth, response of a component with which the device 207 is in communication, amount of data to be sensed and/or communicated, power available to the device 207, and any other factors that may contribute to an amount of time and recurrence of the period 336.

[0047] A signal $V(t)$ representing the sensed condition may be generated. The signal $V(t)$ may be a continuous or discrete signal representing a current value for the sensed condition, or the status of the condition, during the current interval 336. During a polling period 336, the processor 214 reads the signal $V(t)$ from the sensor 209, and determines value, or most-current indicator V_i , for the current sensed condition. For example, the processor 214 may poll or sample the signal from the sensor 209 to read the most current indicator of the sensed condition. The indicator V_i may be a value for the signal $V(t)$ at some point in time during the period 336, such as at the beginning of the period 336, the middle of the period 336, or the end of the period 336. The value V_i may also be an average, a mean, a median, or root mean squared (rms) of the signal $V(t)$ over the period 336. The indicator may be stored in memory 226. The memory may also store prior readings $V_{i,j}$, or indicators read during prior periods 336. Associated timing data or an interval sequence may be stored with the indicator V_i to identify a point in time or interval in which the indicator was read.

[0048] Between the intervals 336, the processor 214 may enter a standby or sleep mode, where the processor operates at lower or with very little power consumption. The sensor 209 may also enter a standby or sleep mode between periodic intervals. In the event that the processor 214 is in a sleep mode prior to an polling period 336, the processor 214 will wake up to read or sample the signal $V(t)$ to identify a most current indicator V_i for the sensed condition.

[0049] The value V_i is processed by the processor 214 according to a control algorithm to identify whether the sensed condition has changed. For example, the most current indicator V_i may be compared to one or more indicators read during a prior periods V_{i-j} . Thus, a change in the sensed condition may be identified by comparing indicators V_i and V_{i-j} read during different periods 336. The change or difference may be compared to a limit. For example, an absolute difference D_i between the indicator V_i for the most current period to the indicator V_{i-j} read during a prior period is determined (*e.g.* $|V_i - V_{i-j}|$). The current difference D_i is compared to a difference limit D_l . The current difference may also be compared to a multiple of the difference limit D_l (*e.g.*, $3 \times D_l$) to identify whether an extreme condition may be present, such as a large temperature increase do to a fire. Where the current difference D_i greater than the difference limit D_l (*i.e.*, $D_i > D_l$) the difference between the current value V_i and the value V_{i-j} in the prior interval may be considered outside a control range or band limit.

[0050] Similarly, a negative difference between a most current indicator V_i and a prior indicator period V_{i-j} (*i.e.*, $V_i < V_{i-j}$) may be compared to a lower limit LL, and a positive difference between a most current indicator V_i and a prior indicator V_{i-j} (*i.e.*, $V_i > V_{i-j}$) may be compared to an upper limit UL. An absolute value for the lower limit LL may be the same or different than the absolute value for the upper limit UL. The difference may be compared to the LL and UL, and the absolute difference compared to an absolute difference limit D_l to identify changes in the sensed condition. Where a change has been determined, a flag may be set, and/or stored in memory, identifying a change in the sensed condition has been detected. The most current indicator V_i also or alternatively may be compared to a limit V_{max} and/or V_{min} . The flag may be set if the most current

indicator is determined to be greater than $V_{\max}$ or less than $V_{\min}$. A time or interval identifier associated with when the flag was set may also be identified and stored in memory.

[0051] In an embodiment, the prior interval is a most previous interval where the current indicator V_i is compared to an indicator V_{i-1} read in the most previous period to determine an absolute difference $|V_i - V_{i-1}|$, and/or a difference $V_i - V_{i-1}$. In another embodiment, the current value V_i is compared to a running average or mean V_{avg} of previous values to determine an absolute difference between the current value and the running average.

[0052] The processor 214 controls the transceiver 216 to selectively communicate information during a period of a transmission interval. Figure 4 illustrates a transmission interval for a device configured for dynamic value reporting. For example, a processor 214 may control or trigger the transceiver 214 to communicate information during a transmission period 436. The transceiver may communicate the information during the transmission period in response to a triggering event such a detecting whether a flag. The flag may be set in response to detecting or identifying a change in the sensed condition beyond a limit, outside a range, or a reading of an indicator above an upper limit or below a lower limit, or in response to an external stimulus, such as a control signal received by the sensor. The triggering event additionally or alternatively may be the start of the interval, a determination that the current difference D_i exceeds the difference limit D_l , the current difference D_i exceeds a multiple of the difference limit D_l , the current value V_i exceeds a limit such as $V_{\max}$ and/or $V_{\min}$, combinations thereof, and the like. Similarly, the processor 214 may control the transceiver 216 to suspend the transmission of information, notwithstanding a flag being set identifying a transmission may be pending. The transceiver may also transmit information in response to a number of successive transmission periods in which information was not transmitted. The event also may be an absence of a value for the sensed condition from the sensor 209.

[0053] The transceiver communicates the information as packets of information that are routed over the network. The information may include

routing or carrier information for the communication, such as a destination address, packet size, source address and the like. The information may also include one or more of the triggering event, the most current indicator V_i , one or more prior indicators current value V_{i-1} , V_{i-j} , the current difference D_i , the difference limit D_l , and/or the limits V_{max} and/or V_{min} , timing data, and or number of indicators being transmitted, and/or a packet count. The transceiver 216 may communicate the information during each transmission period 436. Alternatively, the transceiver 216 may be controlled to communicate the information in response to a triggering event such as the flag being set. For example, the information may be communicated only during a transmission period 436 for which a change in the sensed condition has been determined. Similarly, the information may be transmitted only after a predetermined number of indicators V_i have been read, or after a predetermined number of indicators associated with a change over a prior indicator V_i have been read. For example, transceiver 216 may transmit information only during a transmission period in which a current difference D_i exceeds the difference limit D_l , and may not transmit during intervals in which the current difference D_i does not exceed the difference limit D_l . The transceiver 216 also may transmit information in an interval or subsequent interval in which an external control signal is received from another device.

[0054] The information may include multiple indicators such as the most current indicator V_i and one or more indicators V_{i-j} read during one or more prior polling periods 336. A counter may count a number of successive polling periods 336 for which a flag or triggering event has not been set, and thus a transmission of information may not have been made. If the counter exceeds a maximum, the transceiver may communicate information such as a current time during a current or successive transmission period. The counter also or alternatively may counter a number of polling intervals when a change has been detected, such as when a flag has been set. When the count reaches a maximum or a limit. The transceiver may be controlled to suspend the transmission of information transmission period, until the counter reaches a send limit. For example, the send limit may be set at five. During each polling period 336 in which a change in the sensed condition is determined, the indicator V_i is stored and the count incremented. The transmission

of information is suspended during a transmission period 436 until the counter is increment to the send limit (*i.e.*, 5). When the counter reaches the send limit, each of the five stored indicators V_i are communicated. The information may include timing information or date associated with the indicators V_i and the counter information. Similarly, the information may be transmitted, notwithstanding the status of the counter, in response to other stimulus or determinations.

[0055] The most current indicator V_i , prior indicators V_{i-j} , the differences D_i , past differences, the difference limit D_l , and/or the limits $V_{\max}$ and/or $V_{\min}$ may be stored in the storage 228, memory 226, and/or a buffer for the processor. The indicator V_i and limits may be may be stored with associated timing data or information identifying a corresponding time or period in an interval during which the value was or difference was determined. The processor 214 may process consecutive differences D_i and indicators V_i to determine control limits and distribution. For example, an analysis may be performed on the indicators V_i for multiple polling intervals 336. By statistically analyzing consecutive or a series of indicators V_i and differences D_i , an estimate for the quality of the control of the sensed condition may be made. For example, a sequence of zero differences or small differences will be associated with a sensed condition that has little or no change over time. Conversely, a series of large differences will be associated with a sensed condition that has greater change over time.

[0056] The difference limit D_l may vary according to a determination of the change between differences. For example, when the change between differences D_i to D_{i-j} is minimal or below a predetermined threshold, the difference limit D_l may be reduced. By reducing the difference limit D_l , the range in which the value may vary is compressed. With the reduced difference limit D_l , the device 207 may detect smaller changes to provide a more robust control of the sensed condition. When the changes between differences D_i to D_{i-j} is large or above a predetermined threshold, the difference limit may be increased.

[0057] In addition or alternatively, the variable interval 338 may change in response to a determination of the change between differences. For example, when the change between differences D_i to D_{i-j} is minimal or below a

predetermined threshold, the difference limit interval may be extended. That is, the small change between consecutive differences may indicate that the frequency with which sensed condition is monitored may be reduced by extending the interval 338. With the extended interval 338, the device 207 may have a reduced number of communications, and thus energy consumed by and bandwidth used by the device 207 may also be reduced. When the changes between differences D_i to D_{i+j} is large or above a predetermined threshold, the period 338 may be shortened. With the shortened period, the sensor may respond to greater changes in the sensed condition.

[0058] The difference limit D_i and the period 338 may also be adjusted in accordance with state of the control algorithm for the system. For example, in a heating, ventilation, and air conditioning system, a temperature sensor may be controlled to ignore greater temperature fluctuations during a ramp-up condition. That is, there may times when the system may be warming up a room from a low temperature to a higher or warmer temperature. Similarly, the room may be cooled down. During these times, there may be greater changes of the temperature between intervals 336. The device may be controlled to compare a value to a larger difference limit D_i , to only report information after a predetermined number of intervals, or to report after a difference D_i below a threshold is detected, or other condition when it is appropriate for the device to report a condition.

[0059] The difference limit D_i and the period 338 may also be adjusted controlled in accordance a statistical process control algorithm. For example, the difference limit D_i and the period 338 may be controlled according to a Statistical Process Control. The indicators V_i and the differences D_i will vary over time and form. The values V_i and the differences D_i may be plotted as a distribution. The distribution may provide a measure of the dispersion, or spread. For example, a range for the values V_i and the differences D_i (highest to lowest), a mean or average, a mode, and a standard deviation (sigma) may each be determined. The standard deviation may be used to set as an upper limit UL and lower limit LL. A Z-score variable for multiple indicators V_i may be determined and used to identify a tolerance of interval. The statistical analysis may be compared with other

statistics or information for reporting the condition (*e.g.*, time of day, occupancy, alarm, failure status, start up). The difference limit D_i and the period may be varied according to an analysis of the dispersion of the values V_i and the differences D_i . For example, the difference limit D_L may be set to a value associated with three standard deviations from a mean of the differences D_i in either direction of the mean to provide an economical measure of control of the condition, while minimizing a risk of reacting to a false signal. Other variable data or attribute data may be used as well. The values may be plotted on a chart, and listed in a table to provide a visual representation of the control of the condition. Using the Statistical Process Control Cpk values may be determined and compared to requirements for controlling the automated process. A reaction plan may be developed to guide the actions and reactions in the event of an out-of-control or out-of-specification condition. Filters such as Finite Impulse Response (FIR) and Infinite Impulse Response (IIR) filters may be applied to screen the information. Frequency response of the process may be determined, such as by using a Fast Fourier transform of for the sensed values or read indicators. Filtered data may be used as a comparison to the most-current indicator V_i to identify changes and whether to set a flag for transmitting information.

[0060] Figure 5 illustrates an exemplary controller 508 of a building automation system in communication with a device 507. The device 507 is configured for dynamic value reporting as described above with respect to Figures 1-4. The controller 508 includes one or more processors 520 and at least one transceiver 518. The controller may also include a second transceiver 522, where a transceiver 518 is communicates over a WFLN and a second transceiver 522 communicates with one or more devices 407. The transceivers 518 and 522 send and receive information to and from the device 507 on the WFLN. The transceivers 518 and 522 may also send and receive information to and from field panels. The controller 507 may transmit data and information addressed to a specific device 507 according to a binding association. The information may include control instructions, communications settings or other information transmitted from another device 507 or controller. Additional, different or fewer components of the controller 508 may be provided, such as providing a single

transceiver operable to transmit and receive pursuant to one or two different communications protocols.

[0061] The processor 520 may be an application specific integrated circuit, general processor, digital signal processor, control processor, field programmable gate array, analog circuit, digital circuit, combinations thereof or other now known or later developed device for monitoring, controlling and/or routing. The processor 520 may be a 16, 32 or 64 bit processor operable to route or perform aggregate processing on multiple packets or a packet from multiple data sources. The controller 508 may be configured to interface with the device 507. The controller 508 receives information communicated from the device 507. The controller 508 processes the information according to a control algorithm for the system and for the device 507. The controller 508 may be configured to communicate instructions to the device 507. For example, when a sequence of differences does not change or varies relatively little, the controller 508 may instruct or reprogram the device 507 to a smaller difference limit D_i . Similarly, the controller 508 may instruct the device to increase the difference limit D_i to ignore the difference limit D_i , to increase and/or decrease the polling interval 338 and/or the transmission interval 336.

[0062] The controller 508 may also communicate a report instruction to the device 507. In response to a report instruction, the device 507 may wake up from a sleep mode, and sense and report a current indicator V_i or other requested information. The controller 508 may also synchronize the timing of the polling periods 336 and/or transmission periods 436. For example, the controller may communicate synchronization or timing information to the device 507. By communicating the synchronization or timing information, the device 507 and the controller will have synchronized intervals for report and receiving information. The controller 508 may also be configured or programmed to communicate information with other devices in response to the information received from device 507.

[0063] The description and illustrations are by way of example only. While the invention has been described above by reference to various

embodiments, it should be understood that many changes and modifications can be made without departing from the scope of the invention. Many more embodiments and implementations are possible within the scope of this invention and will be apparent to those of ordinary skill in the art. For example, the various embodiments have a wide variety of applications including integrated building control systems, environmental control, security detection, communications, industrial control, power distribution, and hazard reporting. The wireless device may be synchronized with other devices. The wireless device may be used with integrated systems where, for example, an environmental control system may be integrated with a fire detection and prevention system.

[0064] It is intended that the appended claims cover such changes and modifications that fall within the spirit, scope and equivalents of the invention. The invention is not to be restricted except in light as necessitated by the accompanying claims and their equivalents. Therefore, the invention is not limited to the specific details, representative embodiments, and illustrated examples in this description.

WE CLAIM:

1. A wireless automation device, comprising:

a transceiver operable to wirelessly communicate packets of information over a wireless network;

a sensor operable to generate a indicator for a sensed condition; and

a controller configured to poll the sensor at a polling interval to read the indicator during a current period of the polling interval and to selectively operate the transceiver to communicate information associated reading of the indicator.
2. The wireless automation device of claim 1 further comprising a memory, the controller storing a reading of the indicator during the current period in the memory.
3. The wireless automation device of claim 2 where the memory stores at least one prior reading of the indicator, the prior reading of the indicator made during a prior period of the polling interval.
4. The wireless automation device of claim 2 where the transceiver is configured to transmit a most recent reading of the indicator stored in the memory at a transmission interval.
5. The wireless automation device of claim 4 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a change in the sensed condition.
6. The wireless automation device of claim 5 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory according to whether a change in the sensed condition is outside a predetermined range.

7. The wireless automation device of claim 6 where a transmission of the most recent reading of the indicator stored in the memory during a period of the transmission interval is suspended in response to detecting a change in the sensed condition within the predetermined range.
8. The wireless automation device of claim 7 where the transceiver transmits a still-alive current data after a predetermined maximum number of successive periods in which the most recent reading of the indicator stored in the memory during a period of the transmission interval is suspended.
9. The wireless automation device of claim 7 where an upper limit and a lower limit of the predetermined range may be varied.
10. The wireless automation device of claim 9 where the upper limit and lower limit may be varied according to an analysis of the most current reading of the indicator and the at least one prior reading of the indicator.
11. The wireless automation device of claim 4 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a sensed condition beyond a band limit.
12. The wireless automation device of claim 11 where an upper band limit and a lower band limit may be varied.
13. The wireless automation device of claim 11 where the upper band limit and lower band limit may be varied according to an analysis of the most current reading of the indicator and the at least one prior reading of the indicator.
14. The wireless automation device of claim 4 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory in response to an externally-received transmission control signal received over the wireless network.

15. The wireless automation device of claim 4 where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory at the transmission interval.
16. The wireless automation device of claim 15 where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory in response to detecting a change in the sensed condition.
17. The wireless automation device of claim 4 where the transmission interval is variable.
18. The wireless automation device of claim 17, where the polling interval is variable.
19. The wireless automation device of claim 18, where the transmission interval and the polling interval vary according to a statistical analysis of the most current reading of the indicator and the at least one prior reading of the indicator.
20. The wireless automation device of claim 4 where the memory stores timing data associated with the most recent reading and the at least one prior reading of the indicator.
21. The wireless automation device of claim 3 where the transceiver is configured to transmit the timing data.
22. The wireless automation device of claim 4 comprising a counter associated with a number of prior readings stored in memory and not yet transmitted.
23. The wireless automation device of claim 22 where the most recent reading of the indicator and the at least one prior reading of the indicator are transmitted in response the counter reaching a maximum count.
24. The wireless automation device of claim 1, where the sensor is configured to sense an environmental condition.

25. The wireless automation device of claim 24, where the communication network comprises automation devices configured as a distributed building automation system.
26. The wireless automation device of claim 4 where the controller is configured to poll the sensor during a period of the transmission interval to read the indicator during a current period of the transmission interval.
27. The wireless automation device of claim 26 where the controller is configured to operate the transceiver to communicate information associated reading of the indicator during the current period of the transmission interval.
28. A wireless automation system, comprising:
- a plurality of automation devices forming a wireless communication network for wirelessly routing information as packets of information from a source automation device to a destination automation device, at least one of the plurality of automation devices selectively communicating information associated with a sensed condition during a variable periodic transmission interval; and
 - a controller communicatively coupled with the wireless communication network to receive packets of information from a plurality of the automation devices, the controller being configured to control an automation process in response to receiving the information associated with the sensed condition from the at least one of the plurality of automation devices.
29. The wireless automation system of claim 28, where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting a change in the sensed condition outside a variable range.
30. The wireless automation system of claim 28, where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting the sensed condition beyond a variable limit.

31. The wireless automation system of claim 28, where the controller communicates a command to the at least one device over the wireless communications network when information associated with the sensed condition is not received by the controller during multiple consecutive periodic intervals exceeding a predetermined interval limit.

32. The wireless automation system of claim 28, where the plurality of automation devices comprise building automation devices.

33. The wireless automation system of claim 32, where the plurality of automation devices comprise building automation devices configured to automate control of heating, ventilation and air conditioning systems.

34. A method for wirelessly reporting an event in an automation system, the method comprising:

sampling the event during a periodic sampling interval;

comparing the sampled event to a variable event range; and

transmitting discrete packets of control information over a wireless network defined by a plurality of distributed automation devices in response to a comparison of the sampled event to the variable event range outside of the event range, the control signal being transmitted during a periodic transmission interval.

35. The method for wirelessly reporting an event of claim 34, further comprising compressing the variable event range in response to multiple sampling intervals in which the sampled event is within the variable event range.

36. The method for wirelessly reporting an event of claim 35, further comprising widening the event range in response to multiple consecutive sampling intervals in which the sampled event is inside the variable event range.

37. The method for wirelessly reporting an event of claim 34, further comprising compressing the sampling interval in response to multiple sampling intervals in which the sampled event is within the variable event range.

38. The method for wirelessly reporting an event of claim 37, further comprising widening the sampling interval in response to multiple consecutive sampling intervals in which the sampled event is inside the variable event range.

ABSTRACT OF THE DISCLOSURE

A wireless automation device monitors a condition and wirelessly reports an event over an automation network in response to detecting a change in the condition. The condition is sampled at a variable periodic interval, and the event reported during intervals when a change in the condition is determined. The change may be determined according to detecting a value for the condition outside a variable range. The change may also be determined according to detecting differences in the value from values detected in prior intervals. The range and the periodic interval may vary according to an analysis of multiple samples of the condition.

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 Page 1 of 4

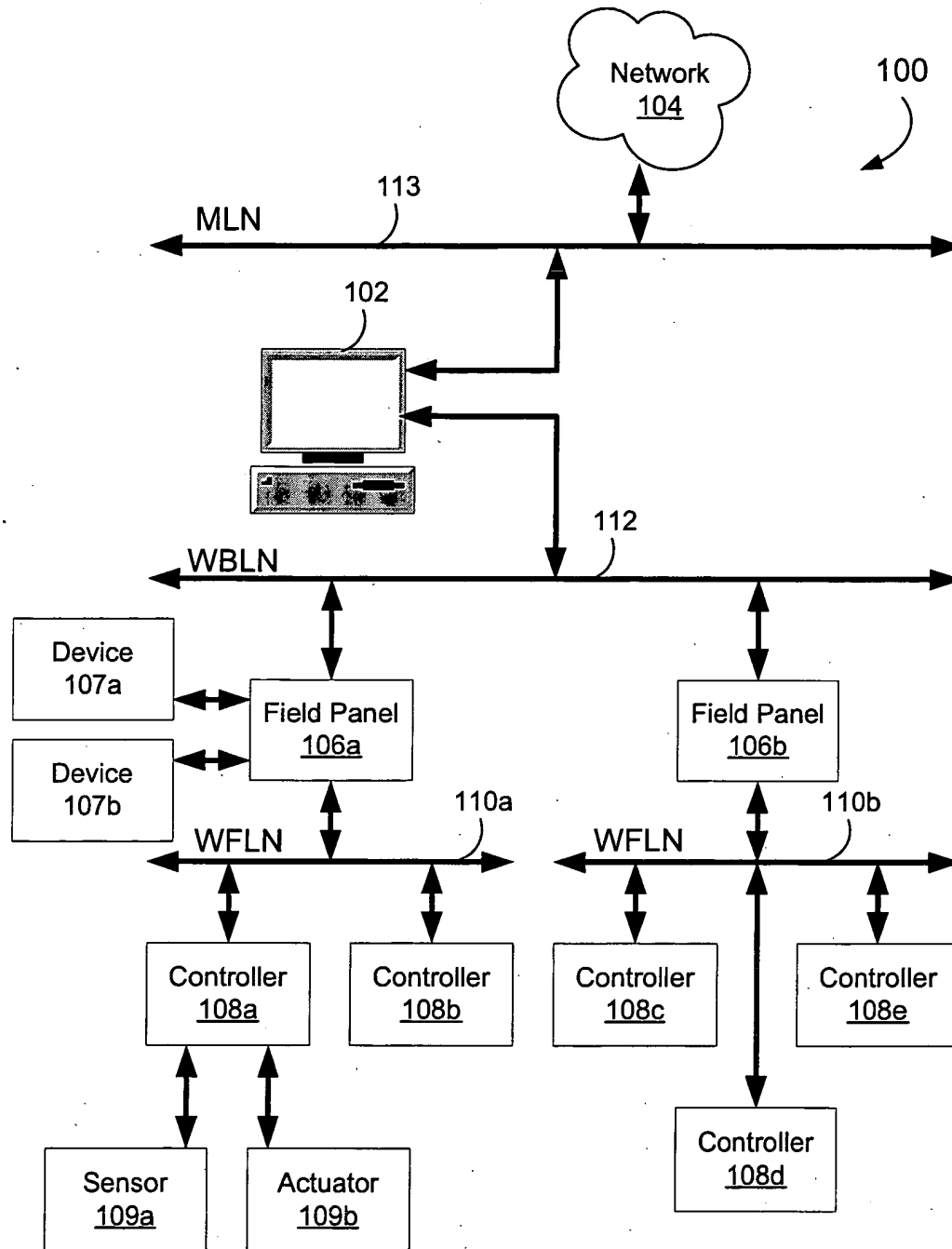


Figure 1

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Page 2 of 4

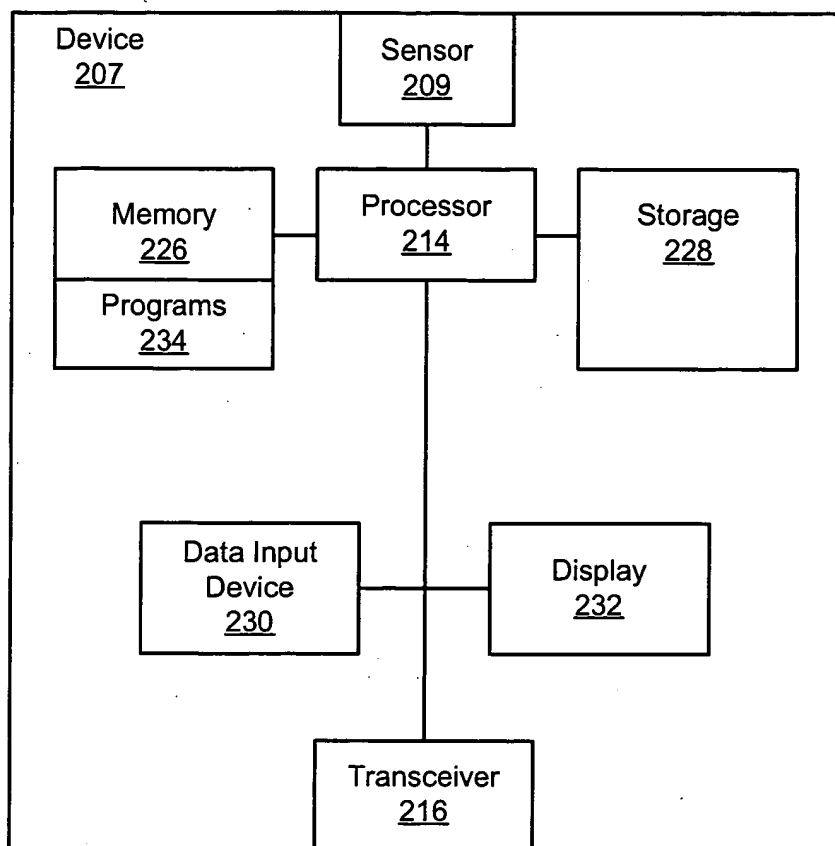


Figure 2

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Page 3 of 4

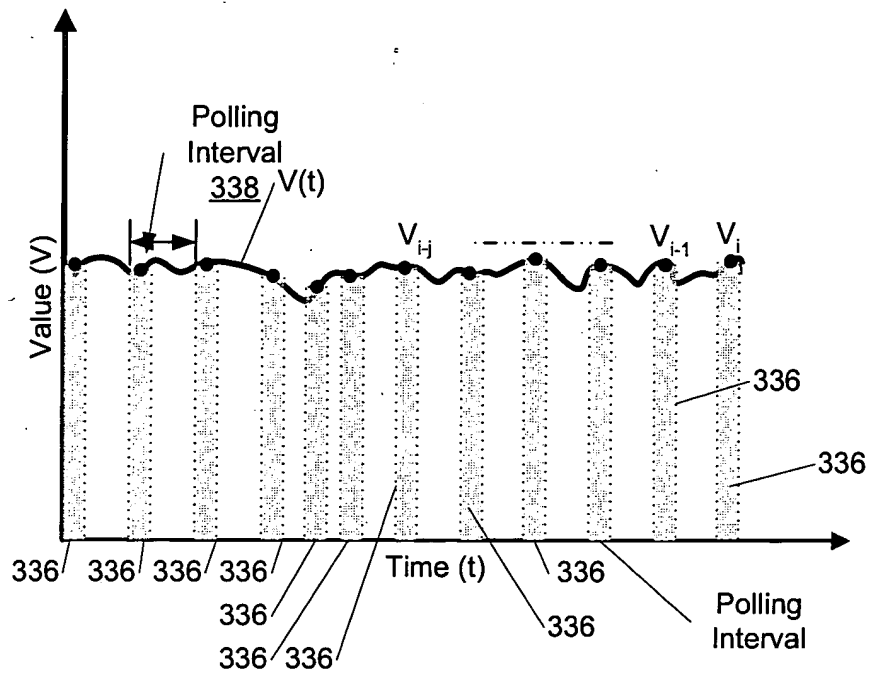


Figure 3

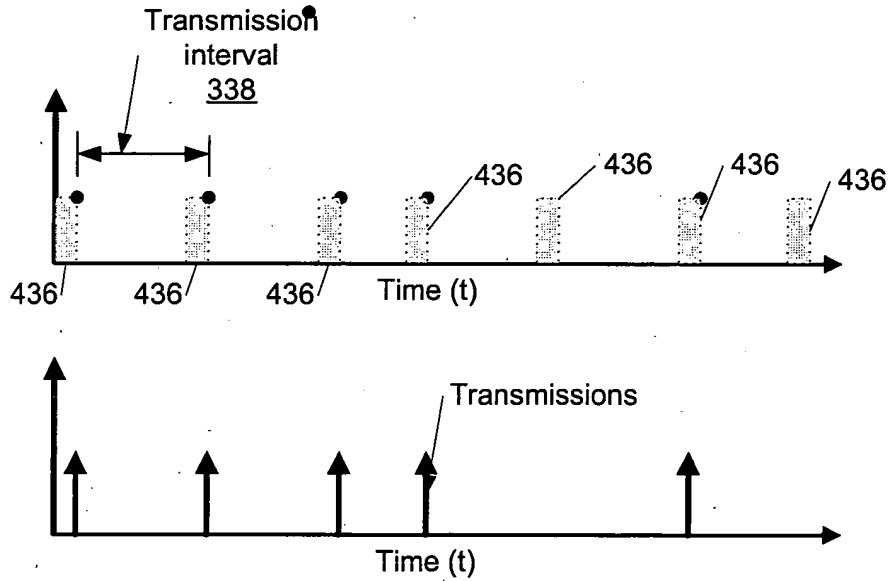


Figure 4

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Page 4 of 4

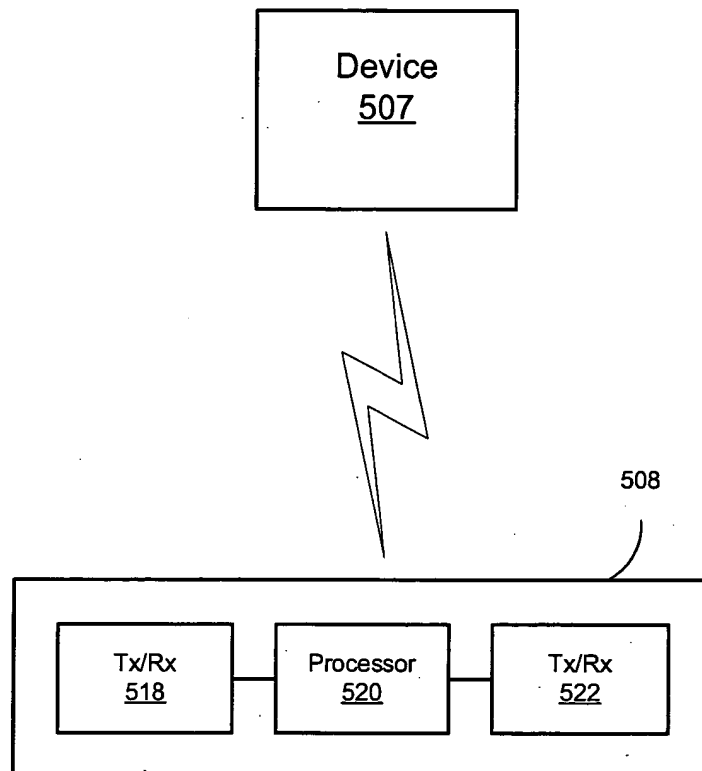


Figure 5

1 28 34

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875 Effective December 8, 2004

Application or Docket Number

114 02743

APPLICATION AS FILED - PART I

(Column 1)

(Column 2)

SMALL ENTITY

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FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
SEARCH FEE (37 CFR 1.16(h), (i), or (m))	N/A	N/A
EXAMINATION FEE (37 CFR 1.16(q), (p), or (u))	N/A	N/A
TOTAL CLAIMS (37 CFR 1.16(i))	38 minus 20 =	18
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	0
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))		

RATE (\$)	FEE (\$)
N/A	150.00
N/A	\$250
N/A	\$100
X\$ 25 =	
X100 =	
+180=	
TOTAL	

RATE (\$)	FEE (\$)
N/A	300.00
N/A	\$500
N/A	\$200
X\$50 =	900
X200 =	
+360=	
TOTAL	1900

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED - PART II

(Column 1)

(Column 2)

(Column 3)

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AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(i))	Minus	**	=
	Independent (37 CFR 1.16(h))	Minus	***	=
	Application Size Fee (37 CFR 1.16(s))			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			

RATE (\$)	ADDITIONAL FEE (\$)
X\$ 25 =	
X100 =	
+180=	
TOTAL ADD'L FEE	

RATE (\$)	ADDITIONAL FEE (\$)
X\$50 =	
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TOTAL ADD'L FEE	

(Column 1)

(Column 2)

(Column 3)

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AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total (37 CFR 1.16(i))	Minus	**	=
	Independent (37 CFR 1.16(h))	Minus	***	=
	Application Size Fee (37 CFR 1.16(s))			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			

RATE (\$)	ADDITIONAL FEE (\$)
X\$ 25 =	
X100 =	
+180=	
TOTAL ADD'L FEE	

RATE (\$)	ADDITIONAL FEE (\$)
X\$50 =	
X200 =	
+360=	
TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

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04/14/2006 MGE BREM1 00000096 192179 11402743

01 FC:1011	300.00 DA
02 FC:1111	500.00 DA
03 FC:1311	200.00 DA
04 FC:1202	900.00 DA

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Sir:

Transmitted herewith for filing is the patent application of:

Inventor(s):

Norman R. McFarland

For Dynamic Value Reporting For Wireless Automated Systems

This application includes:

23 pages of specifications, including 6 pgs. of claims and 1 pg. abstract
1 title page
4 sheets of drawings, X formal/_ informal containing 5 Figures
photographs (design patent application only)

Also enclosed is:

— Declaration and Power of Attorney
— An assignment of the invention to Siemens Building Technologies, Inc..
— A certified copy of a ___ application.
— Information Disclosure Statement pursuant to 37 CFR 1.56.

The filing fee has been calculated as shown below:

FOR:	(Col. 1) NO. FILED	(Col. 2) NO. EXTRA	OTHER THAN A SMALL ENTITY RATE FEE
BASIC FEE	XXXXXXXXXX	XXXXXXXXXX	\$ 300.00
SEARCH FEE	XXXXXXXXXX	XXXXXXXXXX	\$ 500.00
EXAMINATION FEE	XXXXXXXXXX	XXXXXXXXXX	\$ 200.00
TOTAL CLAIMS	38 - 20 =	x \$ 50.00 =	\$ 900.00
INDEP CLAIMS	3 - 3 =	x \$ 200.00 =	\$
* MULTIPLE DEPENDENT CLAIM PRESENTED +\$ 360.00 =			\$
TOTAL			\$1,900.00

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- X Any patent application processing fees under 37 CFR 1.17.
- X Any filing fees under 37 CFR 1.16 for presentation of extra claims.

Dated: 12.Apr.2006

Michael J. Wallace Jr.



Siemens Corporation
Customer No. 28524
Tel. +1 (732) 321 3008

Registration No.: 44,486

ND



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US

28524
 SIEMENS CORPORATION
 INTELLECTUAL PROPERTY DEPARTMENT
 170 WOOD AVENUE SOUTH
 ISELIN, NJ 08830

CONFIRMATION NO. 8027

FORMALITIES
 LETTER

Date Mailed: 05/09/2006

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

*Filing Date Granted***Items Required To Avoid Abandonment:**

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing. *A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$130** for a Large Entity

- **\$130** Surcharge.

Replies should be mailed to: Mail Stop Missing Parts

Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

A copy of this notice MUST be returned with the reply.



Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 3 - OFFICE COPY



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 United States Patent and Trademark Office
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APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US

CONFIRMATION NO. 8027

FORMALITIES
 LETTER

28524
 SIEMENS CORPORATION
 INTELLECTUAL PROPERTY DEPARTMENT
 170 WOOD AVENUE SOUTH
 ISELIN, NJ 08830

Date Mailed: 05/09/2006

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

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Total additional fee(s) required for this application is **\$130** for a Large Entity

- \$130** Surcharge.

Replies should be mailed to: Mail Stop Missing Parts

Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

*A copy of this notice **MUST** be returned with the reply.*

Office of Initial Patent Examination (571) 272-4000, or 1-800-PTO-9199, or 1-800-972-6382
PART 2 - COPY TO BE RETURNED WITH RESPONSE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Applicant: McFarland

Serial No.: 11/402,743

Filed: 04.12.06

Title: Dynamic Value Reporting For Wireless Automated Systems

Docket No.: 2006P07559US

Examiner: Unknown

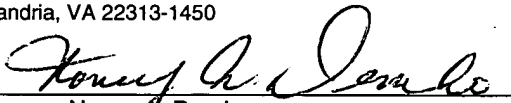
Group Art Unit: Unknown

22. May.2006



CERTIFICATE OF MAILING

I hereby certify that correspondence is being deposited on 22.May.2006 with the U.S. Postal Service with sufficient postage as first class mail on the below-indicated date in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450


Nancy A. Demko

Attention: Application Branch
Manager

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION --
FILING DATE GRANTED

Mail Stop Missing Parts
Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

Sir:

This is a response to the Notice to File Missing Parts of Application having a mailing date of May 9, 2006, and for which a period for response of two (2) months from the mailing date of said Notice is set to expire July 9, 2006.

Enclosed is a Declaration by the present Inventor. Also enclosed is a copy of the Notice to File Missing Parts of Application.

Please charge Deposit Account No. 19-2179 for the surcharge of \$130.00 in accordance with 37 CFR 1.16(f). Issuance of a formal Filing Receipt is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jee 2ll", is positioned above the printed name.

Michael J. Wallace Jr.
Reg. No.: 44,486

Customer No. 28524
Siemens Corporation
Tel.: +1 (732) 321 3008

ND



**DECLARATION FOR PATENT APPLICATION, POWER OF
ATTORNEY & DESIGNATION OF CORRESPONDENCE ADDRESS**

As below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor of the subject matter which is claimed
and for which a patent is sought on the invention entitled:

Dynamic Value Reporting For Wireless Automated Systems

the specification of which (check one)

☐ is attached hereto, and

☒ was filed on 04.12.06 as Application Serial No. 11/402,743.

I hereby state that I have reviewed and understand the contents of the above-identified
specification including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of
this application in accordance with 37 CFR §1.56(a).

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS (6 MONTHS FOR
DESIGN) PRIOR TO THIS APPLICATION AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. §
119(a)-(d)**

I hereby claim foreign priority benefits under 35 USC §119 of any foreign application(s)
for patent or inventor's certificate listed below and have also identified below any foreign
application for patent or inventor's certificate having a filing date before that of the application
on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
Number	Country	Filing Date	Yes	No

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)
(35 U.S.C. § 119(e))**

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

Provisional Application Number	Filing Date

**CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)
UNDER 35 U.S.C. 120**

I hereby claim the benefits under 35 USC §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 USC §112, I acknowledge the duty to disclose material information as defined in 37 CFR §1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Appl. No.	Filing Date	Patented, Pending, Abandoned

Power of Attorney:

I hereby appoint practitioners associated with customer number **28524** to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Send Correspondence to:

**Customer No. 28524
Siemens Corporation**

Direct inquiries to:
Elsa Keller, Legal Administrator
Tel. 732-321-3026
Fax 732-321-3014

I hereby declare that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under 18 USC §1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Full Name of First Inventor:	
Norman R. McFarland	
Inventor's Signature	Date: 5/16/06
Residence: Palantine, IL, UNITED STATES OF AMERICA	
Citizenship: US	
Post Office Address: 537 N. Walden Drive, Palantine, IL 60067, UNITED STATES OF AMERICA	



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APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US

CONFIRMATION NO. 8027

28524
SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ08830

Title: Dynamic value reporting for wireless automated systems

Publication No. US-2007-0242688-A1

Publication Date: 10/18/2007

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publicly available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Pre-Grant Publication Division, 703-605-4283

Notice of References Cited	Application/Control No. 11/402,743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.	
	Examiner PHUOC DOAN	Art Unit 2617	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0174070	09-2003	Garrod et al.	340/870.07
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Index of Claims</i> 	Application/Control No. 11402743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.
	Examiner PHUOC DOAN	Art Unit 2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant			☐ CPA			☐ T.D.			☐ R.1.47		
CLAIM		DATE									
Final	Original	06/04/2009									
	1	✓									
	2	✓									
	3	✓									
	4	✓									
	5	✓									
	6	✓									
	7	✓									
	8	✓									
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	31	✓									
	32	✓									
	33	✓									
	34	✓									
	35	✓									
	36	✓									

<i>Index of Claims</i> 	Application/Control No. 11402743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.
	Examiner PHUOC DOAN	Art Unit 2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant	☐ CPA	☐ T.D.	☐ R.1.47
--	------------------------------	-------------------------------	---------------------------------

CLAIM		DATE								
Final	Original	06/04/2009								
	37	✓								
	38	✓								

Search Notes 	Application/Control No. 11402743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.
	Examiner PHUOC DOAN	Art Unit 2617

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Attached Search History	06/04/09	PHD

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

--	--



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BIB DATA SHEET

CONFIRMATION NO. 8027

SERIAL NUMBER 11/402,743	FILING or 371(c) DATE 04/12/2006 RULE	CLASS 235	GROUP ART UNIT 2617	ATTORNEY DOCKET NO. 2006P07559US		
APPLICANTS Norman R. McFarland, Palantine, IL; ** CONTINUING DATA ***** ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 05/08/2006						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and Acknowledged <u>/PHUOC HUU DOAN/</u> Examiner's Signature		☐ Met after Allowance PHD Initials	STATE OR COUNTRY IL	SHEETS DRAWINGS 4	TOTAL CLAIMS 38	INDEPENDENT CLAIMS 3
ADDRESS SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830 UNITED STATES						
TITLE Dynamic value reporting for wireless automated systems						
FILING FEE RECEIVED 2030	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		☐ All Fees			
			☐ 1.16 Fees (Filing)			
			☐ 1.17 Fees (Processing Ext. of time)			
			☐ 1.18 Fees (Issue)			
			☐ Other _____			
			☐ Credit			

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	((pol\$5 adj interval) same indicat\$6 same sensor) and wireless	US-PGPUB; USPAT	OR	ON	2009/06/04 10:36
S2	6	((pol\$5 adj interval) same indicat\$6 same period) and wireless and sensor	US-PGPUB; USPAT	OR	ON	2009/06/04 10:38
S3	22	((pol\$5 adj interval) same period) and wireless and sensor	US-PGPUB; USPAT	OR	ON	2009/06/04 10:56
S4	1	10/523695	US-PGPUB; USPAT	OR	ON	2009/06/04 11:00
S5	1	"20010029532"	US-PGPUB; USPAT	OR	ON	2009/06/04 11:02
S6	1	"20030174070"	US-PGPUB; USPAT	OR	ON	2009/06/04 11:28
S7	1	"20030174070" and period	US-PGPUB; USPAT	OR	ON	2009/06/04 11:28
S8	1	"20030174070" and sensor	US-PGPUB; USPAT	OR	ON	2009/06/04 11:28
S9	1	"20030174070" and indicat\$4	US-PGPUB; USPAT	OR	ON	2009/06/04 11:28
S10	1	"20030174070" and interval	US-PGPUB; USPAT	OR	ON	2009/06/04 11:29
S11	1	"20030174070" and range	US-PGPUB; USPAT	OR	ON	2009/06/04 11:30
S12	217626	"340"/\$ "ccls."	US-PGPUB; USPAT	OR	ON	2009/06/04 11:33
S13	6	S12 and S3	US-PGPUB; USPAT	OR	ON	2009/06/04 11:33

S14	158174	"455"/\$ "ccls."	US- PGPUB; USPAT	OR	ON	2009/06/04 11:33
S15	6	S14 and S3	US- PGPUB; USPAT	OR	ON	2009/06/04 11:33

6/4/2009 3:49:39 PM

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US	8027

28524 7590 06/08/2009
SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

DOAN, PHUOC HUU

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
-----------	---------------

06/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 11/402,743	Applicant(s) MCFARLAND, NORMAN R.	
	Examiner PHUOC DOAN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) | 5) ☐ Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) ☐ Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **1-38** are rejected under 35 U.S.C. 102(b) as being anticipated by **Garrod (US Pub No: 2003/0174070)**.

As to claim 1, Garrod discloses a wireless automation device (Fig. 1 with description), comprising: a transceiver operable to wirelessly communicate packets of information over a wireless network (par [31-32] “**the remote device 32 routes and manages data transmission between the instruments and the central computer 30 communicated by TCP/IP and wireless network such as a CDMA protocol**”); a sensor operable to generate a indicator for a sensed condition (par [28-29] “**a connection of the remote device to capacitive proximity sensors**”); and a controller configured to poll the sensor at a polling interval to read the indicator during a current period of the polling interval and to selectively operate the transceiver to communicate information associated reading of the indicator

(par [51, 53, 57, 60]).

As to claim 2, Garrod further discloses the wireless automation device of claim 1 further comprising a memory, the controller storing a reading of the indicator during the current period in the memory (par [29]).

As to claim 3, Garrod further discloses where the memory stores at least one prior reading of the indicator, the prior reading of the indicator made during a prior period of the polling interval (par [51, 57]).

As to claim 4, Garrod further discloses where the transceiver is configured to transmit a most recent reading of the indicator stored in the memory at a transmission interval (par [29]).

As to claim 5, Garrod further discloses where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a change in the sensed condition (par [28-29]).

As to claim 6, Garrod further discloses where the transceiver is configured

to transmit the most recent reading of the indicator stored in the memory according to whether a change in the sensed condition is outside a predetermined range (par [28-29]).

As to claim 7, Garrod further discloses where a transmission of the most recent reading of the indicator stored in the memory during a period of the transmission interval is suspended in response to detecting a change in the sensed condition within the predetermined range (par [23, 28-29]).

As to claim 8, Garrod further discloses where the transceiver transmits a still-alive current data after a predetermined maximum number of successive periods in which the most recent reading of the indicator stored in the memory during a period of the transmission interval is suspended (par [28-29]).

As to claim 9, Garrod further discloses where an upper limit and a lower limit of the predetermined range may be varied (par [23-24]).

As to claim 10, Garrod further discloses where the upper limit and lower limit may be varied according to an analysis of the most current reading of

the indicator and the at least one prior reading of the indicator (par [52-53]).

As to claim 11, Garrod further discloses where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a sensed condition beyond a band limit (par [43-44]).

As to claim 12, Garrod further discloses where an upper band limit and a lower band limit may be varied (par [52-53]).

As to claim 13, Garrod further discloses where the upper band limit and lower band limit may be varied according to an analysis of the most current reading of the indicator and the at least one prior reading of the indicator (par [52-53]).

As to claim 14, Garrod further discloses where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory in response to an externally-received transmission control signal received over the wireless network (par [24-25]).

As to claim 15, Garrod further discloses where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory at the transmission interval (par [52-53]).

As to claim 16, Garrod further discloses where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory in response to detecting a change in the sensed condition (par [28-29]).

As to claim 17, Garrod further discloses where the transmission interval is variable (par [43]).

As to claim 18, Garrod further discloses where the polling interval is variable (par [43]).

As to claim 19, Garrod further discloses where the transmission interval and the polling interval vary according to a statistical analysis of the most current reading of the indicator and the at least one prior reading of the indicator (par [43, 46]).

As to claim 20, Garrod further discloses where the memory stores timing

data associated with the most recent reading and the at least one prior reading of the indicator (par [52-54]).

As to claim 21, Garrod further discloses where the transceiver is configured to transmit the timing data (par [51]).

As to claim 22, Garrod further discloses comprising a counter associated with a number of prior readings stored in memory and not yet transmitted (par [28]).

As to claim 23, Garrod further discloses where the most recent reading of the indicator and the at least one prior reading of the indicator are transmitted in response the counter reaching a maximum count (par [51-53]).

As to claim 24, Garrod further discloses where the sensor is configured to sense an environmental condition (par [46]).

As to claim 25, Garrod further discloses where the communication network comprises automation devices configured as a distributed building automation system (par [63] “**the central computer can as a distributed**

building automation system”).

As to claim 26, Garrod further discloses where the controller is configured to poll the sensor during a period of the transmission interval to read the indicator during a current period of the transmission interval (par [51-53]).

As to claim 27, Garrod further discloses where the controller is configured to operate the transceiver to communicate information associated reading of the indicator during the current period of the transmission interval (par [51-53]).

As to claim 28, Garrod discloses a wireless automation system (Fig. 1 with description), comprising: a plurality of automation devices forming a wireless communication network for wirelessly routing information as packets of information from a source automation device to a destination automation device (par [31-32] **“the remote device 32 routers and manages data transmission packet between the instruments and the central computer 30 communicated by TCP/IP and wireless network such as a CDMA protocol”**, at least one of the plurality of automation devices selectively communicating information associated with a sensed

condition during a variable periodic transmission interval (par [51-53]); and a controller communicatively coupled with the wireless communication network to receive packets of information from a plurality of the automation devices (par [30, 32] **“for example: IP destination address appended to the data packets corresponding to the central computer address on the network shows in Fig. 3 is particularly adapted for CDPD type wireless data transmission”**, the controller being configured to control an automation process in response to receiving the information associated with the sensed condition from the at least one of the plurality of automation devices (par [51, 53, 57, 60]).

As to claim 29, Garrod further discloses where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting a change in the sensed condition outside a variable range (par [23, 52-53]).

As to claim 30, Garrod further discloses where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting the sensed condition beyond a variable limit (par [23, 52-53]).

As to claim 31, Garrod further discloses where the controller communicates a command to the at least one device over the wireless communications network when information associated with the sensed condition is not received by the controller during multiple consecutive periodic intervals exceeding a predetermined interval limit (par [51-53]).

As to claim 32, claimed is rejected for the same reason as set forth in claim 25.

As to claim 33, Garrod further discloses that where the plurality of automation devices comprise building automation devices configured to automate control of heating, ventilation and air conditioning systems (par [27-28]).

As to claim 34, claimed is rejected for the same reason as set forth in claim 28.

As to claim 35, Garrod further discloses that further comprising compressing the variable event range in response to multiple sampling

intervals in which the sampled event is within the variable event range (par [52-53]).

As to claim 36, Garrod further discloses that further comprising widening the event range in response to multiple consecutive sampling intervals in which the sampled event is inside the variable event range (par [52-53]).

As to claim 37, Garrod further discloses that further comprising compressing the sampling interval in response to multiple sampling intervals in which the sampled event is within the variable event range (par [52-53]).

As to claim 38, Garrod further discloses that further comprising widening the sampling interval in response to multiple consecutive sampling intervals in which the sampled event is inside the variable event range (par [52-53]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on 10:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUOC DOAN/
06/04/09

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: NORMAN R. MCFARLAND

Appl. No.: 11/402,743

Title: DYNAMIC VALUE REPORTING FOR
WIRELESS AUTOMATED SYSTEMS

Filed: APRIL 12, 2006

Docket No.: 2006P07559US
(12468-00111)

Conf. No.: 8027

Art Unit: 2617

Examiner: DOAN, PHUOC HUU

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. §1.111

Sir:

In response to the Office Action dated June 8, 2009, please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 9 of this paper.

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A wireless automation device, comprising:
a transceiver operable to wirelessly communicate packets of information over a wireless network;
a sensor operable to generate a indicator for a sensed condition; ~~and~~
a controller configured to poll the sensor at a polling interval to read the indicator during a current period of the polling interval and to selectively operate the transceiver to communicate information associated reading of the indicator; and
a memory, the controller storing a reading of the indicator during the current period in the memory, where the memory stores at least one prior reading of the indicator, the prior reading of the indicator made during a prior period of the polling interval.
2. (Canceled).
3. (Canceled).
4. (Currently Amended) The wireless automation device of claim ~~2~~1 where the transceiver is configured to transmit a most recent reading of the indicator stored in the memory at a transmission interval.
5. (Original) The wireless automation device of claim 4 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a change in the sensed condition.

6. (Original) The wireless automation device of claim 5 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory according to whether a change in the sensed condition is outside a predetermined range.
7. (Original) The wireless automation device of claim 6 where a transmission of the most recent reading of the indicator stored in the memory during a period of the transmission interval is suspended in response to detecting a change in the sensed condition within the predetermined range.
8. (Original) The wireless automation device of claim 7 where the transceiver transmits a still-alive current data after a predetermined maximum number of successive periods in which the most recent reading of the indicator stored in the memory during a period of the transmission interval is suspended.
9. (Original) The wireless automation device of claim 7 where an upper limit and a lower limit of the predetermined range may be varied.
10. (Original) The wireless automation device of claim 9 where the upper limit and lower limit may be varied according to an analysis of the most current reading of the indicator and the at least one prior reading of the indicator.
11. (Original) The wireless automation device of claim 4 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a sensed condition beyond a band limit.
12. (Original) The wireless automation device of claim 11 where an upper band limit and a lower band limit may be varied.

13. (Original) The wireless automation device of claim 11 where the upper band limit and lower band limit may be varied according to an analysis of the most current reading of the indicator and the at least one prior reading of the indicator.
14. (Original) The wireless automation device of claim 4 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory in response to an externally-received transmission control signal received over the wireless network.
15. (Original) The wireless automation device of claim 4 where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory at the transmission interval.
16. (Original) The wireless automation device of claim 15 where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory in response to detecting a change in the sensed condition.
17. (Original) The wireless automation device of claim 4 where the transmission interval is variable.
18. (Original) The wireless automation device of claim 17, where the polling interval is variable.
19. (Original) The wireless automation device of claim 18, where the transmission interval and the polling interval vary according to a statistical analysis of the most current reading of the indicator and the at least one prior reading of the indicator.

20. (Original) The wireless automation device of claim 4 where the memory stores timing data associated with the most recent reading and the at least one prior reading of the indicator.
21. (Currently Amended) The wireless automation device of claim ~~3~~1 where the transceiver is configured to transmit the timing data.
22. (Original) The wireless automation device of claim 4 comprising a counter associated with a number of prior readings stored in memory and not yet transmitted.
23. (Original) The wireless automation device of claim 22 where the most recent reading of the indicator and the at least one prior reading of the indicator are transmitted in response the counter reaching a maximum count.
24. (Original) The wireless automation device of claim 1, where the sensor is configured to sense an environmental condition.
25. (Original) The wireless automation device of claim 24, where the communication network comprises automation devices configured as a distributed building automation system.
26. (Original) The wireless automation device of claim 4 where the controller is configured to poll the sensor during a period of the transmission interval to read the indicator during a current period of the transmission interval.
27. (Original) The wireless automation device of claim 26 where the controller is configured to operate the transceiver to communicate information associated reading of the indicator during the current period of the transmission interval.

28. (Currently Amended) A wireless automation system, comprising:
a plurality of automation devices forming a wireless communication network for wirelessly routing information as packets of information from a source automation device to a destination automation device, at least one of the plurality of automation devices selectively communicating information associated with a sensed condition during a variable periodic transmission interval, where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting a change in the sensed condition outside a variable range; and
a controller communicatively coupled with the wireless communication network to receive packets of information from a plurality of the automation devices, the controller being configured to control an automation process in response to receiving the information associated with the sensed condition from the at least one of the plurality of automation devices.
29. (Canceled).
30. (Original) The wireless automation system of claim 28, where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting the sensed condition beyond a variable limit.
31. (Original) The wireless automation system of claim 28, where the controller communicates a command to the at least one device over the wireless communications network when information associated with the sensed condition is not received by the controller during multiple consecutive periodic intervals exceeding a predetermined interval limit.

32. (Original) The wireless automation system of claim 28, where the plurality of automation devices comprise building automation devices.
33. (Original) The wireless automation system of claim 32, where the plurality of automation devices comprise building automation devices configured to automate control of heating, ventilation and air conditioning systems.
34. (Original) A method for wirelessly reporting an event in an automation system, the method comprising:
sampling the event during a periodic sampling interval;
comparing the sampled event to a variable event range; and
transmitting discrete packets of control information over a wireless network
defined by a plurality of distributed automation devices in response to a comparison of the sampled event to the variable event range outside of the event range, the control signal being transmitted during a periodic transmission interval.
35. (Original) The method for wirelessly reporting an event of claim 34, further comprising compressing the variable event range in response to multiple sampling intervals in which the sampled event is within the variable event range.
36. (Original) The method for wirelessly reporting an event of claim 35, further comprising widening the event range in response to multiple consecutive sampling intervals in which the sampled event is inside the variable event range.
37. (Original) The method for wirelessly reporting an event of claim 34, further comprising compressing the sampling interval in response to multiple sampling intervals in which the sampled event is within the variable event range.

38. (Original) The method for wirelessly reporting an event of claim 37, further comprising widening the sampling interval in response to multiple consecutive sampling intervals in which the sampled event is inside the variable event range.

REMARKS

This paper is submitted in response to the pending Office Action mailed on June 8, 2009. Because this Response is accompanied by a Petition for a one month Extension of Time, authorization to charge the \$130.00 fee set forth under 37 C.F.R. §1.17(a)(1), a certificate of electronic submission in compliance with 37 C.F.R. §1.8 on or before the shortened period for reply set to expire on **October 8, 2009**, this Response is timely filed.

I. STATUS OF THE CLAIMS

Prior to this Response, claims 1 to 38 were pending and at issue. By this Response, claims 1, 4, 21 and 28 have been amended, claims 2, 3 and 29 have been canceled without disclaimer, and no new claims have been added. Thus, claims 1, 4 to 28, and 30 to 38 are pending and at issue.

While Applicants believe that no additional fees are due in connection with this application, Applicants direct the Office to charge **Deposit Account No. 23-1925 (12468-00111)** for any fees deemed owed during the pendency of this application, excluding the issue fee.

II. CLAIM REJECTIONS

The Office Action rejects claims 1 to 38 under 35 U.S.C. §102 as anticipated by U.S. Patent Application Publication No. 2003/0174070 to Garrod ("*Garrod*").

Applicant respectfully traverses the rejection of claims 1 to 38 as anticipate by the disclosure of *Garrod*. In particular, Applicant submits that *Garrod* does not disclose each and every element recited by the claims at issue. For example, amended independent claim 1 recites, in relevant part, a wireless automation device that includes a memory, a controller storing a reading of an indicator during a current period in the memory, where the memory stores at least one prior reading of the indicator, the prior reading of the indicator made during a prior period of the polling interval.

Garrod, contrary to the characterization relied upon in the pending Office Action, does not disclose storing at least one prior readings of an indicator in a wireless automation device. *Garrod* at paragraph **[0051]** simply discloses:

[0051] Polling groups are organized groupings of Modbus stations that will be read at a user defined polling interval. Each polling group can have a different polling interval. In one particular example, to define a polling group at the WOPC, each polling group is given a name. Next, the polling group is configured to poll or transmit requests to the remote devices on an interval (referred to as "interval polling") or on a schedule (referred to as "schedule polling"). In interval polling, the server will transmit requests to or poll the remote device at a fixed interval. Interval polling involves a set time delay between polls of the device. After polling the remote device for some or all Modbus stations associated with the remote device and/or in a polling group, polling will be inactive for some specified period before polling the remote device again. In schedule polling, the server polls the remote device at a selected discrete time synchronized with the top of the hour.

Moreover, *Garrod* at paragraph **[0057]** discloses:

[0057] The WOPC further includes, in one example, a remote device tree window. The remote device tree window is hierarchal. The top level of the remote device tree window is the remote device, i.e., the MODBUS master. Two special OPC read only tags are available; message retry probability and average message time. The second level are stations each containing a unique address, i.e., Modbus slaves. In addition, the remote device itself can also assume a slave address. Two special OPC read/write tags are available: "in-service" (if true all poll groups shall update) and "force update" (write a 1 to tag and all tags shall update immediately). Both tags provide flexibility for SCADA software to control which remote devices are in service and to force tag updates on remote devices. The third level includes the poll groups. Four special OPC tags are available: corn status (indicates polling, waiting, simulation, error, or stopped), poll interval (allows SCADA software to directly control update interval), average poll time (average amount of time required to update all measurements), and force update (updates all tags in a poll group). The third level has the ability to contain one or more poll groups under the same station. In some instances, a poll group is capable of being polled only one time. This can be used to initialize constant data or data that could be updated using the force update tag.

Neither paragraph **[0051]** nor paragraph **[0057]** discloses or suggests a controller storing a reading of an indicator during a current period in the memory, where the memory stores at least one prior reading of the indicator, the prior reading of the

indicator made during a prior period of the polling interval. Paragraph **[0051]** simply discloses polling groups at defined interval while paragraph **[0057]** discloses a hierarchal tree structure that utilizes tags. Because these paragraphs fail to disclose each and every element recited by independent claim 1, Applicant submits that independent claim 1 is not anticipated as alleged by the Office Action.

Applicant respectfully traverses the rejection of claims 1 to 38 as anticipate by the disclosure of *Garrod*. Independent claim 28 recites, in relevant part, wireless automation system including a plurality of automation devices forming a wireless communication network for wirelessly routing information as packets of information from a source automation device to a destination automation device, at least one of the plurality of automation devices selectively communicating information associated with a sensed condition during a variable periodic transmission interval, where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting a change in the sensed condition outside a variable range.

Garrod, contrary to the characterization relied upon in the pending Office Action, does not disclose selectively communicating information associated with a sensed condition during a variable periodic transmission interval, where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting a change in the sensed condition outside a variable range. *Garrod* at paragraph **[0023]** discloses a monitoring and control device with wireless communication capabilities; while at paragraphs **[0052]** and **[0053]** *Garrod* discusses configurable tags and polling of a poll group based on data tags contained therein. Because none of the relied upon paragraphs discloses a variable range much less selectively communicating information based on the variable range, Applicant submits that independent claim 28 is not anticipated as alleged by the Office Action.

Independent claim 34 recites a method for wirelessly reporting an event in an automation system that includes transmitting discrete packets of control information over a wireless network defined by a plurality of distributed automation devices in response to a comparison of the sampled event to the variable event range outside

of the event range. As previously discussed, *Garrod* at paragraph [0023] discloses a monitoring and control device with wireless communication capabilities; and *Garrod* at paragraphs [0052] and [0053] discusses configurable tags and polling of a poll group based on data tags contained therein. Because none of the relied upon paragraphs discloses a variable event range much less transmitting discrete packets of control information over a wireless network defined by a plurality of distributed automation devices in response to a comparison of the sampled event to the variable event range outside of the event range, Applicant submits that independent claim 34 is not anticipated as alleged by the Office Action.

III. CONCLUSION

For the foregoing reasons, Applicant respectfully requests withdrawal of the pending rejections and submits that the above-identified patent application is now in condition for allowance and earnestly solicits reconsideration of same. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting prosecution of this application.

Respectfully submitted,
BRINKS HOFER GILSON & LIONE

Dated: **September 9, 2009**

BY: /Matthew T. Ridsdale/
Matthew T. Ridsdale
Reg. No. 56,832
Cust. No. **28524**
Direct: (312) 245-5311
mridsdale@brinkshofer.com

Electronic Patent Application Fee Transmittal

Application Number:	11402743			
Filing Date:	12-Apr-2006			
Title of Invention:	Dynamic value reporting for wireless automated systems			
First Named Inventor/Applicant Name:	Norman R. McFarland			
Filer:	Matthew T Ridsdale/LAURA MARKHAM			
Attorney Docket Number:	2006P07559US			
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 1 month with \$0 paid	1251	1	130	130

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				130

Electronic Acknowledgement Receipt

EFS ID:	6038931
Application Number:	11402743
International Application Number:	
Confirmation Number:	8027
Title of Invention:	Dynamic value reporting for wireless automated systems
First Named Inventor/Applicant Name:	Norman R. McFarland
Customer Number:	28524
Filer:	Matthew T Ridsdale/Magdalena Pieczonka
Filer Authorized By:	Matthew T Ridsdale
Attorney Docket Number:	2006P07559US
Receipt Date:	09-SEP-2009
Filing Date:	12-APR-2006
Time Stamp:	16:33:58
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 130
RAM confirmation Number	2739
Deposit Account	231925
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	12468-00111_Transmittal.pdf	84564	no	1
			d6de445b24a1affe6b9596cfff57f6f5b2f1b628		
Warnings:					
Information:					
2	Extension of Time	12468-00111_EOT.pdf	67975	no	1
			f078518796a383a0a6685a9a63bb3c5a2d6d3e00		
Warnings:					
Information:					
3		12468-00111_Response.pdf	108692	yes	12
			84b05eb48b9d1c1346e7fe349a251df15b2f740e		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment/Req. Reconsideration-After Non-Final Reject		1	1	
	Claims		2	8	
	Applicant Arguments/Remarks Made in an Amendment		9	12	
Warnings:					
Information:					
4	Fee Worksheet (PTO-875)	fee-info.pdf	30143	no	2
			7793c6f3cdf70a233451c90655992609b423a050		
Warnings:					
Information:					
Total Files Size (in bytes):			291374		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8
I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: September 9, 2009 Name: Matthew T. Ridsdale Signature: /Matthew T. Ridsdale/

BRINKS
HOFER
GILSON
& LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): NORMAN R. MCFARLAND

Appl. No.: 11/402,743

Title: DYNAMIC VALUE REPORTING FOR
WIRELESS AUTOMATED SYSTEMS

Filed: APRIL 12, 2006

Docket No.: 2006P07559US

Conf. No.: 8027

Art Unit: 2617

Examiner: DOAN, PHUOC HUU

TRANSMITTAL

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Transmittal; Petition for Extension of Time; and Response.

Fee calculation:

- ☒ No additional fee is required.
- ☐ Small Entity.
- ☒ An extension fee in an amount of \$130.00 for a 1-month extension of time under 37 CFR § 1.136(a).
- ☐ A petition or processing fee in an amount of \$_____ under 37 CFR § 1.17(_____).
- ☐ An additional filing fee has been calculated as shown below:

					Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus			x \$26=			x \$52=	
Indep.		Minus			x 110=			x \$220=	
First Presentation of Multiple Dep. Claim					+\$195=			+ \$390=	
					Total	\$		Total	\$

Fee payment:

- ☒ Please charge Deposit Account No. 23-1925 in the amount of \$130.00.
- ☐ Payment by credit card in the amount of \$_____ (Form PTO-2038 is attached).
- ☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

September 9, 2009
Date

/Matthew T. Ridsdale/
Matthew T. Ridsdale (Reg. No. 56,832)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: NORMAN R. MCFARLAND

Appl. No.: 11/402,743

Title: DYNAMIC VALUE REPORTING FOR
WIRELESS AUTOMATED SYSTEMS

Filed: APRIL 12, 2006

Docket No.: 2006P07559US
(12468-00111)

Conf. No.: 8027

Art Unit: 2617

Examiner: DOAN, PHUOC HUU

PETITION AND FEE FOR EXTENSION OF TIME (37 CFR § 1.136(a))

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a petition for an extension of the time to respond to the Office Action dated June 8, 2009 for a period of 1 month(s).

Applicant is: ☐ small entity (per 37 CFR 1.27) ☒ other than small entity

	<u>Extension Months</u>	<u>Other Than Small Entity</u>	<u>Small Entity</u>
☒	One Month	\$130.00	\$65.00

Payment Method:

- ☒ The Commissioner is hereby authorized to charge \$130.00 to cover the fees listed above to Deposit Account No. 23-1925.
- ☒ The Commissioner is hereby authorized to charge any deficiencies in fees or credit overpayment to Deposit Account No. 23-1925.

Respectfully submitted,

Dated: September 9, 2009

/Matthew T. Ridsdale/
Matthew T. Ridsdale, Reg. No. 56,832
Attorney for Applicant(s)

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(312) 321-4200



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US	8027

28524 7590 11/13/2009
SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

DOAN, PHUOC HUU

ART UNIT	PAPER NUMBER
----------	--------------

2617

MAIL DATE	DELIVERY MODE
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11/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 11/402,743	Applicant(s) MCFARLAND, NORMAN R.	
	Examiner PHUOC DOAN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-28 and 30-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,11-28 and 30-38 is/are rejected.
- 7) ☒ Claim(s) 7-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☐ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) | 5) ☐ Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1, 4-28, and 30-38 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-28, and 30-38 are rejected under 35 U.S.C. 102(b) as being anticipated by **Garrod (US Pub No: 2003/0174070)**.

As to claim 1, Garrod discloses a wireless automation device (Fig. 1 with description), comprising: a transceiver operable to wirelessly communicate packets of information over a wireless network (par [31-32] “**the remote device 32 routes and manages data transmission between the instruments and the central computer 30 communicated by TCP/IP and wireless network used of the CDMA protocol**”); a sensor operable to generate a indicator for a sensed condition (par [28-29] “**a connection of the**

remote device to capacitive proximity sensors”); and a controller configured to poll the sensor at a polling interval to read the indicator during a current period of the polling interval and to selectively operate the transceiver to communicate information associated reading of the indicator (par [51, 53, 57, 60]); and a memory (Fig. 3, item 50), the controller storing a reading of the indicator during the current period in the memory (par [29]), where the memory stores at least one prior reading of the indicator, the prior reading of the indicator made during a prior period of the polling interval (par [51, 57]).

As to claim 4, Garrod further discloses where the transceiver is configured to transmit a most recent reading of the indicator stored in the memory at a transmission interval (par [29]).

As to claim 5, Garrod further discloses where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a change in the sensed condition (par [28-29]).

As to claim 6, Garrod further discloses where the transceiver is configured

to transmit the most recent reading of the indicator stored in the memory according to whether a change in the sensed condition is outside a predetermined range (par [28-29]).

As to claim 11, Garrod further discloses where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a sensed condition beyond a band limit (par [43-44]).

As to claim 12, Garrod further discloses where an upper band limit and a lower band limit may be varied (par [52-53]).

As to claim 13, Garrod further discloses where the upper band limit and lower band limit may be varied according to an analysis of the most current reading of the indicator and the at least one prior reading of the indicator (par [52-53]).

As to claim 14, Garrod further discloses where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory in response to an externally-received transmission control signal received over

the wireless network (par [24-25]).

As to claim 15, Garrod further discloses where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory at the transmission interval (par [52-53]).

As to claim 16, Garrod further discloses where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory in response to detecting a change in the sensed condition (par [28-29]).

As to claim 17, Garrod further discloses where the transmission interval is variable (par [43]).

As to claim 18, Garrod further discloses where the polling interval is variable (par [43]).

As to claim 19, Garrod further discloses where the transmission interval and the polling interval vary according to a statistical analysis of the most current reading of the indicator and the at least one prior reading of the indicator (par [43, 46]).

As to claim 20, Garrod further discloses where the memory stores timing data associated with the most recent reading and the at least one prior reading of the indicator (par [52-54]).

As to claim 21, Garrod further discloses where the transceiver is configured to transmit the timing data (par [51]).

As to claim 22, Garrod further discloses comprising a counter associated with a number of prior readings stored in memory and not yet transmitted (par [28]).

As to claim 23, Garrod further discloses where the most recent reading of the indicator and the at least one prior reading of the indicator are transmitted in response the counter reaching a maximum count (par [51-53]).

As to claim 24, Garrod further discloses where the sensor is configured to sense an environmental condition (par [46]).

As to claim 25, Garrod further discloses where the communication network

comprises automation devices configured as a distributed building automation system (par [63] **“the central computer can as a distributed building automation system”**).

As to claim 26, Garrod further discloses where the controller is configured to poll the sensor during a period of the transmission interval to read the indicator during a current period of the transmission interval (par [51-53]).

As to claim 27, Garrod further discloses where the controller is configured to operate the transceiver to communicate information associated reading of the indicator during the current period of the transmission interval (par [51-53]).

As to claim 28, Garrod discloses a wireless automation system (Fig. 1 with description), comprising: a plurality of automation devices forming a wireless communication network for wirelessly routing information as packets of information from a source automation device to a destination automation device (par [31-32] **“the remote device 32 routers and manages data transmission packet between the instruments and the central computer 30 communicated by TCP/IP and wireless network**

used of the CDMA protocol”, at least one of the plurality of automation devices selectively communicating information associated with a sensed condition during a variable periodic transmission interval (par [51-53]), where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting a change in the sensed condition outside a variable range (par [23, 52-53]); and a controller communicatively coupled with the wireless communication network to receive packets of information from a plurality of the automation devices (par [30, 32] **“for example: IP destination address appended to the data packets corresponding to the central computer address on the network shows in Fig. 3 is particularly adapted for CDPD type wireless data transmission”**, the controller being configured to control an automation process in response to receiving the information associated with the sensed condition from the at least one of the plurality of automation devices (par [51, 53, 57, 60]).

As to claim 30, Garrod further discloses where the at least one automation device selectively communicates information associated with a sensed condition in response to detecting the sensed condition beyond a variable limit (par [23, 52-53]).

As to claim 31, Garrod further discloses where the controller communicates a command to the at least one device over the wireless communications network when information associated with the sensed condition is not received by the controller during multiple consecutive periodic intervals exceeding a predetermined interval limit (par [51-53]).

As to claim 32, claimed is rejected for the same reason as set forth in claim 25.

As to claim 33, Garrod further discloses that where the plurality of automation devices comprise building automation devices configured to automate control of heating, ventilation and air conditioning systems (par [27-28]).

As to claim 34, claimed is rejected for the same reason as set forth in claim 28.

As to claim 35, Garrod further discloses that further comprising compressing the variable event range in response to multiple sampling

intervals in which the sampled event is within the variable event range (par [52-53]).

As to claim 36, Garrod further discloses that further comprising widening the event range in response to multiple consecutive sampling intervals in which the sampled event is inside the variable event range (par [52-53]).

As to claim 37, Garrod further discloses that further comprising compressing the sampling interval in response to multiple sampling intervals in which the sampled event is within the variable event range (par [52-53]).

As to claim 38, Garrod further discloses that further comprising widening the sampling interval in response to multiple consecutive sampling intervals in which the sampled event is inside the variable event range (par [52-53]).

Allowable Subject Matter

Claims **7-10** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on 10:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 11/402,743
Art Unit: 2617

Page 12

/PHUOC DOAN/
Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617

<i>Index of Claims</i> 	Application/Control No. 11402743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.
	Examiner PHUOC DOAN	Art Unit 2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant				☐ CPA		☐ T.D.		☐ R.1.47	
CLAIM		DATE							
Final	Original	06/04/2009	11/03/2009						
	1	✓	✓						
	2	✓	✓						
	3	✓	✓						
	4	✓	✓						
	5	✓	✓						
	6	✓	✓						
	7	✓	O						
	8	✓	O						
	9	✓	O						
	10	✓	O						
	11	✓	✓						
	12	✓	✓						
	13	✓	✓						
	14	✓	✓						
	15	✓	✓						
	16	✓	✓						
	17	✓	✓						
	18	✓	✓						
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	20	✓	✓						
	21	✓	✓						
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	25	✓	✓						
	26	✓	✓						
	27	✓	✓						
	28	✓	✓						
	29	✓	✓						
	30	✓	✓						
	31	✓	✓						
	32	✓	✓						
	33	✓	✓						
	34	✓	✓						
	35	✓	✓						
	36	✓	✓						

<i>Index of Claims</i> 	Application/Control No. 11402743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.
	Examiner PHUOC DOAN	Art Unit 2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant	☐ CPA	☐ T.D.	☐ R.1.47
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CLAIM		DATE							
Final	Original	06/04/2009	11/03/2009						
	37	✓	✓						
	38	✓	✓						

Search Notes 	Application/Control No. 11402743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.
	Examiner PHUOC DOAN	Art Unit 2617

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Attached Search History	06/04/09	PHD
Updated Search	11/3/2009	PHD

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	1
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Complete if Known

Application Number	11/402,743
Filing Date	04.12.06
First Named Inventor	Norman R. McFarland
Art Unit	2617
Examiner Name	Doan, Phuoc Huu
Attorney Docket Number	2006P07559 US

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:	11402743			
Filing Date:	12-Apr-2006			
Title of Invention:	Dynamic value reporting for wireless automated systems			
First Named Inventor/Applicant Name:	Norman R. McFarland			
Filer:	Michael J. Wallace/Jessica Thomas			
Attorney Docket Number:	2006P07559US			
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Late filing fee for oath or declaration	1051	1	130	130
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				130

Electronic Acknowledgement Receipt

EFS ID:	6506992
Application Number:	11402743
International Application Number:	
Confirmation Number:	8027
Title of Invention:	Dynamic value reporting for wireless automated systems
First Named Inventor/Applicant Name:	Norman R. McFarland
Customer Number:	28524
Filer:	Michael J. Wallace/Jessica Thomas
Filer Authorized By:	Michael J. Wallace
Attorney Docket Number:	2006P07559US
Receipt Date:	23-NOV-2009
Filing Date:	12-APR-2006
Time Stamp:	15:22:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 130
RAM confirmation Number	1905
Deposit Account	192179
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Transmittal Letter	IDSletter.pdf	133464 f15c74a5d53b4f1667c73c13fd9551011421f25d	no	4
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Filed (SB/08)	IDS.pdf	55594 642abe4e4b6cb837b9fb3c21e552e88736fd081a	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Fee Worksheet (PTO-875)	fee-info.pdf	30018 158cf1109566d0435ec9bc8f93abc579a2fb c70c	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			219076		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

App. No. : 11/402,743
First Named Inventor : Norman R. McFarland
Filed : April 12, 2006
TC/A.U. : To Be Determined
Examiner : To Be Determined
Docket No. : 2006P07559 US
Confirmation No. : 8027
Title : Dynamic Value Reporting For Wireless Automated Systems
Customer No. : 28524

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicants submit herewith patents, publications or other information (attached hereto and listed on the attached Form) of which they are aware, which they believe are relevant and may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR §1.56. The order of listing of the references on the attached form and appendix hereto is without regard for relative relevance to the present invention.

This Information Disclosure Statement:

- (a) ☐ accompanies the new patent application submitted herewith. 37 CFR §1.97(a).
- (b) ☐ is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR §1.491.
- (c) ☐ as far as is known to the undersigned, is filed before the mailing date of a first office action on the merits.
- d) ☐ is filed after the first office action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a notice of allowance, whichever occurs first, and is accompanied

by either the fee set forth in 37 CFR §1.17(p) or a certification as specified in 37 CFR §1.97(e), as checked below.

- (e) ☒ is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and is accompanied by the fee set forth in 37 CFR §1.17(p) and a certification as specified in 37 CFR §1.97(e), as checked below. **This document is to be considered as a petition requesting consideration of the Information Disclosure Statement.**

The undersigned certifies that:

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
- ☐ Those patent(s) or publication(s) which are marked with an asterisk (*) in the attached form are not supplied because they were previously cited by or submitted to the Office in a prior application Serial No. _____, filed _____ and relied upon in this application for an earlier filing date under 35 U.S.C. 120.

A concise explanation of relevance[†] of the items listed on the attached form:

- ☒ is not required.
- ☐ is given for each listed item in an appendix to this communication.
- ☐ appears in the body of the application.
- ☐ is given for non-English language listed item(s) and appears in an appendix to this communication
- ☐ is in the form of an English language copy of a Search Report (copy attached) from a foreign patent office, issued in a counterpart application which refers to the relevant portions of the references.

[†] A "concise explanation of the relevance" of the submitted references "may be nothing more than identification of the particular figure or paragraph of the patent or publication which has some relation to the claimed invention," MPEP §609.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR §1.56, this statement does not constitute an admission that any patent, publication or other information referred to therein is "prior art" or material to this invention.

In accordance with 37 CFR §1.97, the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR §1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR §1.98 and MPEP §609. The Examiner is requested to fully consider each of these references and acknowledge such consideration by appropriately initialing the attached form and returning a copy to the address below. In addition, the Examiner is requested to conduct a thorough independent search in order to bring the best references available forward in this application.

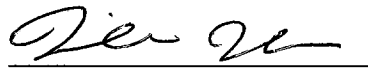
The fee required for this Information Disclosure Statement is calculated below:

Fee under 37 CFR §1.17(p)	(\$180)	\$ 0
TOTAL		\$ 180

- ☐ A check for the above-required fees is enclosed.
- ☒ Please charge any and all fees required to process this information disclosure statement to my **Deposit Account No. 19-2179**. A duplicate copy of this authorization is enclosed.
- ☒ The commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to my **Deposit Account No. 19-2179**. A duplicate copy of this authorization is enclosed.

Respectfully submitted,

November 23, 2009



Michael J. Wallace
Registration No. 44,486

Customer Number 28524
Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830
(770) 751-2351

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: NORMAN R. MCFARLAND

Appl. No.: 11/402,743

Title: DYNAMIC VALUE REPORTING FOR
WIRELESS AUTOMATED SYSTEMS

Filed: APRIL 12, 2006

Docket No.: 2006P07559US
(12468-00111)

Conf. No.: 8027

Art Unit: 2617

Examiner: DOAN, PHUOC HUU

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. §1.116

Sir:

In response to the Office Action dated November 13, 2009, please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 9 of this paper.

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A wireless automation device, comprising:
 - a transceiver operable to wirelessly communicate packets of information over a wireless network;
 - a sensor operable to generate a indicator for a sensed condition;
 - a controller configured to poll the sensor at a polling interval to read the indicator during a current period of the polling interval and to selectively operate the transceiver to communicate information associated reading of the indicator; and
 - a memory, the controller storing a reading of the indicator during the current period in the memory, where the memory stores at least one prior reading of the indicator, the prior reading of the indicator made during a prior period of the polling interval.

wherein the transceiver is configured to transmit a most recent reading of the indicator stored in the memory during a period of a transmission interval in response to detecting a change in the sensed condition outside a predetermined range and wherein transmission of the most recent reading of the indicator stored in the memory during the period of the transmission interval is suspended in response to detecting a change in the sensed condition within the predetermined range.

Claims 2 to 7 (Canceled).

8. (Currently Amended) The wireless automation device of claim [[7]]1 where the transceiver transmits a still-alive current data after a predetermined maximum number of successive periods in which the most recent reading of the indicator stored in the memory during a period of the transmission interval is suspended.
9. (Currently Amended) The wireless automation device of claim [[7]]1 where an upper limit and a lower limit of the predetermined range may be varied.
10. (Original) The wireless automation device of claim 9 where the upper limit and lower limit may be varied according to an analysis of the most current reading of the indicator and the at least one prior reading of the indicator.
11. (Currently Amended) The wireless automation device of claim [[4]]1 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory during a period of the transmission interval in response to detecting a sensed condition beyond a band limit.
12. (Original) The wireless automation device of claim 11 where an upper band limit and a lower band limit may be varied.
13. (Original) The wireless automation device of claim 11 where the upper band limit and lower band limit may be varied according to an analysis of the most current reading of the indicator and the at least one prior reading of the indicator.
14. (Currently Amended) The wireless automation device of claim [[4]]1 where the transceiver is configured to transmit the most recent reading of the indicator stored in the memory in response to an externally-received transmission control signal received over the wireless network.

15. (Currently Amended) The wireless automation device of claim [[4]]1 where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory at the transmission interval.
16. (Original) The wireless automation device of claim 15 where the transceiver is configured to transmit the at least one prior reading of the indicator stored in memory in response to detecting a change in the sensed condition.
17. (Currently Amended) The wireless automation device of claim [[4]]1 where the transmission interval is variable.
18. (Original) The wireless automation device of claim 17, where the polling interval is variable.
19. (Original) The wireless automation device of claim 18, where the transmission interval and the polling interval vary according to a statistical analysis of the most current reading of the indicator and the at least one prior reading of the indicator.
20. (Currently Amended) The wireless automation device of claim [[4]]1 where the memory stores timing data associated with the most recent reading and the at least one prior reading of the indicator.
21. (Previously Presented) The wireless automation device of claim 1 where the transceiver is configured to transmit the timing data.
22. (Currently Amended) The wireless automation device of claim [[4]]1 comprising a counter associated with a number of prior readings stored in memory and not yet transmitted.

23. (Original) The wireless automation device of claim 22 where the most recent reading of the indicator and the at least one prior reading of the indicator are transmitted in response the counter reaching a maximum count.
24. (Original) The wireless automation device of claim 1, where the sensor is configured to sense an environmental condition.
25. (Original) The wireless automation device of claim 24, where the communication network comprises automation devices configured as a distributed building automation system.
26. (Currently Amended) The wireless automation device of claim [[4]]1 where the controller is configured to poll the sensor during a period of the transmission interval to read the indicator during a current period of the transmission interval.
27. (Original) The wireless automation device of claim 26 where the controller is configured to operate the transceiver to communicate information associated reading of the indicator during the current period of the transmission interval.

Claims 28 to 38 (Canceled).

REMARKS

This paper is submitted in response to the pending Office Action mailed on November 13, 2009. Because this Response is submitted with a certificate of electronic filing in compliance with 37 C.F.R. §1.8 on or before the shortened period for reply set to expire on **February 13, 2009**, this Response is timely filed. Moreover, because this Response is submitted within two (2) months of the mailing date, Applicants respectfully request issuance of an Advisory Action prior to the expiration of the shortened statutory period for reply.

I. STATUS OF THE CLAIMS

Prior to this Response, claims 1, 4 to 28 and 30 to 38 were pending and at issue. By this Response, claims 1, 8, 9, 11, 14, 15, 17, 20, 22 and 26 have been amended, claims 4 to 7 and 28 to 38 have been canceled without disclaimer, and no new claims have been added. Claims 7 to 10 have been indicated to contain allowable subject matter. Amended independent claim 1 has been revised to include the subject matter from canceled claims 4 to 7 and claims 8, 9, 11, 14, 15, 17, 20, 22 and 26 have been amended to insure correct dependency therewith. Thus, claims 1 and 8 to 27 are pending and at issue.

While Applicants believe that no additional fees are due in connection with this application, Applicants direct the Office to charge **Deposit Account No. 23-1925 (12468-00111)** for any fees deemed owed during the pendency of this application, excluding the issue fee.

II. CLAIM REJECTIONS

The Office Action rejects claims 1, 4 to 28 and 30 to 38 under 35 U.S.C. §102 as anticipated by U.S. Patent Application Publication No. 2003/0174070 to Garrod ("*Garrod*"). Applicant respectfully traverses the rejection of claims 1, 4 to 28 and 30 to 38 in light of the amendments to independent claim 1 to include the subject matter from canceled claims 4 to 7. In light of these amendments, Applicant submits that the pending rejections have been rendered moot.

III. CONCLUSION

For the foregoing reasons, Applicant respectfully requests withdrawal of the pending rejections and submits that the above-identified patent application is now in condition for allowance and earnestly solicits reconsideration of same. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting prosecution of this application.

Respectfully submitted,

January 27, 2010



Michael Wallace
Reg. No. 44,486
Attorney for Applicants
Tel.: (770) 751-2351

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

Electronic Acknowledgement Receipt

EFS ID:	6892878
Application Number:	11402743
International Application Number:	
Confirmation Number:	8027
Title of Invention:	Dynamic value reporting for wireless automated systems
First Named Inventor/Applicant Name:	Norman R. McFarland
Customer Number:	28524
Filer:	Michael J. Wallace/Jessica Thomas
Filer Authorized By:	Michael J. Wallace
Attorney Docket Number:	2006P07559US
Receipt Date:	27-JAN-2010
Filing Date:	12-APR-2006
Time Stamp:	16:10:26
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment After Final	AmendmentAfterFinal.pdf	216669 abcfb1aab70427cd5832dcd9f3f255f06f42a9df	no	7

Warnings:

Information:

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 11/402,743		Filing Date 04/12/2006		☐ To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)		SMALL ENTITY ☐		OR		OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)				
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A		N/A					
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A		N/A					
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A		N/A					
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$	=	OR	X \$	=			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=		X \$	=			
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL				
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT	01/27/2010	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)		
	Total (37 CFR 1.16(i))	* 21	Minus	** 38	= 0	X \$	=	OR	X \$52=	0
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0	X \$	=	OR	X \$220=	0
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0
AMENDMENT	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$	=	OR	X \$	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$	=	OR	X \$	=
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

Legal Instrument Examiner:
/MARQUITA D. JONES/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

28524 7590 02/22/2010

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

DOAN, PHUOC HUU

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 02/22/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/402,743

04/12/2006

Norman R. McFarland

2006P07559US

8027

TITLE OF INVENTION: DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/24/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

28524 7590 02/22/2010

SIEMENS CORPORATION
 INTELLECTUAL PROPERTY DEPARTMENT
 170 WOOD AVENUE SOUTH
 ISELIN, NJ 08830

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US	8027

TITLE OF INVENTION: DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/24/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
DOAN, PHUOC HUU	2617	370-455000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/402,743

04/12/2006

Norman R. McFarland

2006P07559US

8027

28524

7590

02/22/2010

EXAMINER

DOAN, PHUOC HUU

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 02/22/2010

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 726 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 726 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/402,743	MCFARLAND, NORMAN R.	
	Examiner	Art Unit	
	PHUOC DOAN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/27/2010.
2. ☒ The allowed claim(s) is/are 1 and 4-28.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. ☐ Notice of Informal Patent Application 6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. ☐ Examiner's Amendment/Comment 8. ☒ Examiner's Statement of Reasons for Allowance 9. ☐ Other _____. |
|--|--|

DETAILED ACTION

Allowable Subject Matter

1. Claims 1, 8-27 are allowed and have been renumbered as 1-21, respectively.

The following is an examiner's statement of reasons for allowance: As the Applicant stated on remarks, page 6 of the amendment filed on 01/27/2010.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on 10:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUOC DOAN/
Examiner, Art Unit 2617

/LESTER KINCAID/
Supervisory Patent Examiner, Art Unit 2617

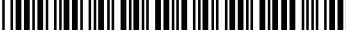
EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L12	1	((automation near3 device) and (wireless same indicator)).clm.	US-PGPUB	OR	ON	2010/01/31 16:38
L13	3	((((pol\$5 adj interval) same period) and wireless).clm.	US-PGPUB	OR	ON	2010/01/31 16:38
L14	2	((((pol\$5 adj interval) same period) and sensor).clm.	US-PGPUB	OR	ON	2010/01/31 16:38
L15	18	((((pol\$5 adj interval) same period) and interval).clm.	US-PGPUB	OR	ON	2010/01/31 16:39
L16	1	((((pol\$5 adj interval) same period) and packet).clm.	US-PGPUB	OR	ON	2010/01/31 16:39
L17	7	((((pol\$5 adj interval) same period) and selec \$6).clm.	US-PGPUB	OR	ON	2010/01/31 16:39
L18	2	((((pol\$5 adj interval) same period) and transceiver).clm.	US-PGPUB	OR	ON	2010/01/31 16:40
L19	3	((((pol\$5 adj interval) same period same wireless)).clm.	US-PGPUB	OR	ON	2010/01/31 16:41
L20	2	((((pol\$5 adj interval) same period) same sensor).clm.	US-PGPUB	OR	ON	2010/01/31 16:41

L21	18	((((pol\$5 adj interval) same period) same interval).clm.	US-PGPUB	OR	ON	2010/01/31 16:41
L22	1	((((pol\$5 adj interval) same period) same packet).clm.	US-PGPUB	OR	ON	2010/01/31 16:41
L23	4	((((pol\$5 adj interval) same period) same selec \$6).clm.	US-PGPUB	OR	ON	2010/01/31 16:42
L24	1	((((pol\$5 adj interval) same period) same transceiver).clm.	US-PGPUB	OR	ON	2010/01/31 16:42

1/31/2010 4:43:21 PM

**C:\ Documents and Settings\ pdoan\ My Documents\ EAST\ Workspaces\ 11402743.
wsp**

<i>Issue Classification</i> 	Application/Control No. 11402743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.
	Examiner PHUOC DOAN	Art Unit 2617

[illegible][illegible]

/PHUOC DOAN/ Examiner.Art Unit 2617		01/31/2010	Total Claims Allowed:	
(Assistant Examiner)		(Date)	21	
/LESTER KINCAID/ Supervisory Patent Examiner.Art Unit 2617		02/16/2010	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)		(Date)	1	1

Search Notes 	Application/Control No. 11402743	Applicant(s)/Patent Under Reexamination MCFARLAND, NORMAN R.
	Examiner PHUOC DOAN	Art Unit 2617

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Attached Search History	06/04/09	PHD
Updated Search	11/3/2009	PHD
Attached Updated Search History	1/31/2010	PHD

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
	See Attached Interferences Search History	1/31/2010	PHD

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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1

of

1

Complete if Known

Application Number

11/402,743

Filing Date

04.12.06

First Named Inventor

Norman R. McFarland

Art Unit

2617

Examiner Name

Doan, Phuoc Huu

Attorney Docket Number

2006P07559 US

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner
Signature

/Phuoc Doan/

Date
Considered

01/31/2010

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	611	370/316.ccls.	US-PGPUB; USPAT	OR	ON	2010/01/31 16:13
L2	1057	370/445.ccls.	US-PGPUB; USPAT	OR	ON	2010/01/31 16:14
L3	1312	455/73.ccls.	US-PGPUB; USPAT	OR	ON	2010/01/31 16:14
L4	38	(automation near3 device) and (wireless same indicator)	US-PGPUB; USPAT	OR	ON	2010/01/31 16:15
L5	0	1 and 4	US-PGPUB; USPAT	OR	ON	2010/01/31 16:15
L6	1	2 and 4	US-PGPUB; USPAT	OR	ON	2010/01/31 16:15
L7	1	3 and 4	US-PGPUB; USPAT	OR	ON	2010/01/31 16:15
L8	142	((pol\$5 adj interval) same period) and wireless	US-PGPUB; USPAT	OR	ON	2010/01/31 16:15
L9	0	1 and 8	US-PGPUB; USPAT	OR	ON	2010/01/31 16:16
L10	2	2 and 8	US-PGPUB; USPAT	OR	ON	2010/01/31 16:16
L11	3	3 and 8	US-PGPUB; USPAT	OR	ON	2010/01/31 16:16
S1	2	((pol\$5 adj interval) same indicat\$6 same sensor) and wireless	US-PGPUB; USPAT	OR	ON	2009/06/04 10:36
S2	6	((pol\$5 adj interval) same indicat\$6 same period) and wireless and sensor	US-PGPUB; USPAT	OR	ON	2009/06/04 10:38

S3	22	((pol\$5 adj interval) same period) and wireless and sensor	US-PGPUB; USPAT	OR	ON	2009/06/04 10:56
S4	1	10/523695	US-PGPUB; USPAT	OR	ON	2009/06/04 11:00
S5	1	"20010029532"	US-PGPUB; USPAT	OR	ON	2009/06/04 11:02
S6	1	"20030174070"	US-PGPUB; USPAT	OR	ON	2009/06/04 11:28
S7	1	"20030174070" and period	US-PGPUB; USPAT	OR	ON	2009/06/04 11:28
S8	1	"20030174070" and sensor	US-PGPUB; USPAT	OR	ON	2009/06/04 11:28
S9	1	"20030174070" and indicat\$4	US-PGPUB; USPAT	OR	ON	2009/06/04 11:28
S10	1	"20030174070" and interval	US-PGPUB; USPAT	OR	ON	2009/06/04 11:29
S11	1	"20030174070" and range	US-PGPUB; USPAT	OR	ON	2009/06/04 11:30
S12	217626	"340"/\$ "ccls."	US-PGPUB; USPAT	OR	ON	2009/06/04 11:33
S13	6	S12 and S3	US-PGPUB; USPAT	OR	ON	2009/06/04 11:33
S14	158174	"455"/\$ "ccls."	US-PGPUB; USPAT	OR	ON	2009/06/04 11:33
S15	6	S14 and S3	US-PGPUB; USPAT	OR	ON	2009/06/04 11:33
S16	36	(automation near3 device) and (wireless same indicator)	US-PGPUB; USPAT	OR	ON	2009/11/03 11:57

1/31/2010 4:35:06 PM

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: NORMAN R. MCFARLAND

Appl. No.: 11/402,743

Title: DYNAMIC VALUE REPORTING FOR
WIRELESS AUTOMATED SYSTEMS

Filed: APRIL 12, 2006

Docket No.: 2006P07559US
(12468-00111)

Conf. No.: 8027

Art Unit: 2617

Examiner: DOAN, PHUOC HUU

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE UNDER 37 C.F.R. §1.116

Sir:

In response to the Office Action dated November 13, 2009, please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 9 of this paper.

PLEASE ENTER
/PHD/

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

28524 7590 02/22/2010

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Susan Henderson	(Depositor's name)
/Susan Henderson/	(Signature)
May 20, 2010	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/402,743	04/12/2006	Norman R. McFarland	2006P07559US	8027
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TITLE OF INVENTION: DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/24/2010
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EXAMINER	ART UNIT	CLASS-SUBCLASS
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DOAN, PHUOC HUU	2617	370-455000
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1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number** is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Thomas J. Burton

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Siemens Industry, Inc.

Alpharetta, Georgia

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☒ Issue Fee
- ☒ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 19-2179 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature Thomas J. Burton

Date May 20, 2010

Typed or printed name Thomas J. Burton

Registration No. 47,464

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Electronic Patent Application Fee Transmittal

Application Number:	11402743			
Filing Date:	12-Apr-2006			
Title of Invention:	DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS			
First Named Inventor/Applicant Name:	Norman R. McFarland			
Filer:	Thomas Joseph Burton/Susan Henderson			
Attorney Docket Number:	2006P07559US			
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl issue fee	1501	1	1510	1510
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1810

Electronic Acknowledgement Receipt

EFS ID:	7656423
Application Number:	11402743
International Application Number:	
Confirmation Number:	8027
Title of Invention:	DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS
First Named Inventor/Applicant Name:	Norman R. McFarland
Customer Number:	28524
Filer:	Thomas Joseph Burton/Susan Henderson
Filer Authorized By:	Thomas Joseph Burton
Attorney Docket Number:	2006P07559US
Receipt Date:	20-MAY-2010
Filing Date:	12-APR-2006
Time Stamp:	18:20:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 1810
RAM confirmation Number	4786
Deposit Account	192179
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	2006P07559USissuefee.pdf	67338 fee9983710e0dd308be89683ff1c87759ffc79b	no	1
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	32190 7dba90b68ed54d9f62aec2119057f8b64370c1f	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			99528		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/402,743	06/29/2010	7746887	2006P07559US	8027

28524 7590 06/09/2010

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 1112 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Norman R. McFarland, Palantine, IL;

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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

☒ Practitioners associated with Customer Number: 146691

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number

Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

☒ The address associated with Customer Number: 146691

OR

Firm or individual name		
Address		
City	State	Zip
Country		
Telephone		Email

Assignee name and address:
CF Magnus LLC
1345 Avenue of the Americas
New York, NY 10105**A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of the practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.****SIGNATURE of Assignee of Record**

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee.

Signature	Date
Name	1/25/18
Telephone	
Title	

This collection of information is required by 37 CFR 1.31, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public, which is to update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 18 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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STATEMENT UNDER 37 CFR 3.73(c)Applicant/Patent Owner: CF MAGNUS LLCApplication No./Patent No.: 7,746,887 Filed/Issue Date: 06-29-2010Titled: DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMSCF MAGNUS LLC, a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose one of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is _____. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose one of options A or B below):

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: MC FARLAND, MORMAN R. To: SIEMENS BUILDING TECHNOLOGIES, INC.The document was recorded in the United States Patent and Trademark Office at
Reel 017925, Frame 0435, or for which a copy thereof is attached.2. From: SIEMENS BUILDING TECHNOLOGIES, INC. To: SIEMENS INDUSTRY, INC.The document was recorded in the United States Patent and Trademark Office at
Reel 024054, Frame 0938, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: SIEMENS INDUSTRY, INC. To: SCUR-ALPHA 990 GMBH, TO BECOME MARATHON IP GMBH

The document was recorded in the United States Patent and Trademark Office at
Reel 040014, Frame 0112, or for which a copy thereof is attached.

4. From: SCUR-ALPHA 990 GMBH, TO BECOME MARATHON IP GMBH To: MARATHON IP GMBH

The document was recorded in the United States Patent and Trademark Office at
Reel 040367, Frame 0059, or for which a copy thereof is attached.

5. From: MARATHON IP GMBH To: MAGNUS IP GMBH

The document was recorded in the United States Patent and Trademark Office at
Reel 040014, Frame 0311, or for which a copy thereof is attached.

6. From: MAGNUS IP GMBH To: CF MAGNUS LLC

The document was recorded in the United States Patent and Trademark Office at
Reel 044766, Frame 0979, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Eric Scheuerlein/

2018-02-21

Signature

Date

Eric Scheuerlein

61234

Printed or Typed Name

Title or Registration Number

Electronic Acknowledgement Receipt

EFS ID:	31841641
Application Number:	11402743
International Application Number:	
Confirmation Number:	8027
Title of Invention:	DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS
First Named Inventor/Applicant Name:	Norman R. McFarland
Customer Number:	28524
Filer:	Eric Roy Scheuerlein
Filer Authorized By:	
Attorney Docket Number:	2006P07559US
Receipt Date:	21-FEB-2018
Filing Date:	12-APR-2006
Time Stamp:	02:23:29
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	Magnus_GPOA.PDF	285116	no	1
			1eb65c19d19ca31be26113cdec0123083269478e		

Warnings:

Information:					
2	Assignee showing of ownership per 37 CFR 3.73	20180221_MAGNP001_Statement37CFR.pdf	91353	no	2
			5d7f7931258ebd40b7ead2dd4ba9be951d5275cc		
Warnings:					
Information:					
Total Files Size (in bytes):			376469		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US

CONFIRMATION NO. 8027

POWER OF ATTORNEY NOTICE

28524
SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
3501 Quadrangle Blvd Ste 230
Orlando, FL 32817



Date Mailed: 02/28/2018

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 02/21/2018.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/zretta/



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US

146691
Daylight Law, P.C.
626 Jefferson Avenue
Suite 7
Redwood City, CA 94063

CONFIRMATION NO. 8027
POA ACCEPTANCE LETTER



Date Mailed: 02/28/2018

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 02/21/2018.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/zretta/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:

Norman McFarland

Patent No.: 7,746,887

Appl. No.: 11/402,743

Issue Date: June 29, 2010

Filing Date: April 12, 2006

Examiner: PHUOC HUU DOAN

Art Unit: 2617

Conf. No.: 8027

Title: **DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS**

***REQUEST FOR EXPEDITED ISSUANCE OF CERTIFICATE OF CORRECTION
UNDER 37 C.F.R § 1.322 DUE TO OFFICE MISTAKE***

Commissioner for Patents

Office of Data Management Attention: Certificates of Correction Branch

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Commissioner:

It is hereby requested that the Office expedite issuance of a Certificate of Correction under 37 C.F.R. § 1.322 for the above-captioned United States Patent. This Certificate of Correction is requested by Patentee's Assignee due to one or more mistakes made by the Office which appear in the printed patent. The correction of these errors does not introduce new matter.

Specifically, the printed patent contains the following errors for which a Certificate of Correction is respectfully requested:

Claim 1, Col. 15, Line 3: change "chance" to –change--.

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REMARKS

The above-noted correction does not involve such changes in the patent as would constitute new matter or require reexamination.

The printed patent fails to include the correct text in Claim 1, Col. 15, Line 3 that

was allowed by the Examiner during examination. In particular, the Applicant's Response Under 37 C.F.R. §1.116 filed on January 27, 2010, contained the correct word "change" in the amendment to Claim 1. The amendment was entered and a Notice of Allowance was mailed on February 22, 2010. However, in the resulting issued patent, the incorrect word "chance" was printed instead.

In accordance with M.P.E.P. §1480.01, copies of Applicant's Response Under 37 C.F.R. §1.116, the Notice of Allowance, and the printed patent supporting the instant expedited request for correction are attached.

The above-noted corrections do not involve such changes in the patent as would constitute new matter or would require reexamination. It is respectfully submitted that none of the errors occurred through the fault of the Applicant. The Commissioner is hereby petitioned under 37 C.F.R. § 1.322 to correct such errors.

A completed Form PTO/SB/44 accompanies this request, with the above-noted corrections printed thereon. No fee is required. Accordingly, a Certificate of Correction is believed proper and expedited issuance thereof is respectfully requested.

Please charge any deficiency in fees or credit any overpayment in connection with this matter to deposit Account No. 22-0585. Any questions regarding this matter should be directed to the below signing attorney at the address and phone numbers below.

Respectfully submitted,

VORYS, SATER, SEYMOUR and PEASE LLP

/Khaled Shami/

Khaled Shami

Attorney for Assignee Ollnova Technologies Ltd.

Registration No.: 38,745

Customer No.: 151145

Date: December 27, 2021

VORYS, SATER, SEYMOUR and PEASE LLP

1909 K Street, NW

9th Floor

Washington, DC 20006-1152

Tel: (202) 467-8843

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,746,887

APPLICATION NO.: 11/402,743

ISSUE DATE : June 29, 2010

INVENTOR(S) : Norman McFarland

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Col. 15, Claim 1, Line 3,
change "chance" to --change--.

MAILING ADDRESS OF SENDER (Please do not use Customer Number below):

Vorys, Sater, Seymour and Pease LLP
1909 K Street NW | Suite 900
Washington, DC 20006-1152

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	44609118
Application Number:	11402743
International Application Number:	
Confirmation Number:	8027
Title of Invention:	DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS
First Named Inventor/Applicant Name:	Norman R. McFarland
Customer Number:	146691
Filer:	Khaled Shami/Yayoi Bourne
Filer Authorized By:	Khaled Shami
Attorney Docket Number:	2006P07559US
Receipt Date:	27-DEC-2021
Filing Date:	12-APR-2006
Time Stamp:	08:27:48
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	Request_for_Certificate_of_Correction_050675-000002_7746887.pdf	323809 961bf971d39d7187c2b3eb8da9064f2c4fb4c314	no	3

Warnings:

Information:					
2	Request for Certificate of Correction	COC_sb0044_7746887.pdf	174754	no	2
			3c249bb8b8f10e12679e0ac49f88e8285cdf421		
Warnings:					
Information:					
Total Files Size (in bytes):			498563		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,746,887 B2
APPLICATION NO. : 11/402743
DATED : June 29, 2010
INVENTOR(S) : Norman McFarland

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

In Column 15, Claim 1, Line 3:
Change "chance" to --change--.

Signed and Sealed this
Eighth Day of February, 2022



Drew Hirshfeld
*Performing the Functions and Duties of the
Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:

Norman R. MCFARLAND

Patent No.: 7,746,887

Examiner: DOAN, Phuoc Huu

Appl. No.: 11/402,743

Art Unit: 2617

Issue Date: June 29, 2010

Conf. No.: 8027

Filing Date: April 12, 2006

Title: DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS

***REQUEST FOR ISSUANCE OF CERTIFICATE OF CORRECTION
UNDER 37 C.F.R § 1.323***

Commissioner for Patents

Office of Data Management Attention: Certificates of Correction Branch

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Commissioner:

It is hereby requested that the Office issue a Certificate of Correction under 37 C.F.R. § 1.323 for the above-captioned United States Patent. This Certificate of Correction is requested by Patentee's Assignee due to a mistake in which the words "with the" were inadvertently omitted from claims 1 and 21.

Specifically, the printed patent should be corrected as follows:

Claim 1, Col. 14, Lines 56-57: change "associated reading of the indicator" to —associated with the reading of the indicator—; and

Claim 21, Col. 16, Line 35: change "associated reading of the indicator" to —associated with the reading of the indicator—.

REMARKS

The Commissioner is hereby respectfully petitioned under 37 C.F.R. § 1.323 to correct the above-noted mistake, which is typographical in nature and is of minor character, and does not constitute new matter or require reexamination. The requested

change does not materially affect the scope or meaning of the patent.

A completed Form PTO/SB/44 accompanies this request, with the above-noted corrections printed thereon, and the fee pursuant to § 1.20(a) is submitted herewith. Accordingly, a Certificate of Correction is believed proper and issuance thereof is respectfully requested.

Please charge any deficiency in fees or credit any overpayment in connection with this matter to deposit Account No. 22-0585. Any questions regarding this matter should be directed to the undersigned attorney at the address and phone numbers below.

Respectfully submitted,

VORYS, SATER, SEYMOUR and PEASE LLP

/Khaled Shami/
Khaled Shami
Registration No: 38,745
Customer No.: 151145

Date: February 16, 2022

VORYS, SATER, SEYMOUR and PEASE LLP
1909 K Street, NW
9th Floor
Washington, DC 20006-1152
Tel: (202) 467-8860

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,746,887

APPLICATION NO.: 11/402,743

ISSUE DATE : June 29, 2010

INVENTOR(S) : Norman R. McFarland

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 1, Col. 14, Lines 56-57: change "associated reading of the indicator" to
—associated with the reading of the indicator—; and

Claim 21, Col. 16, Line 35: change "associated reading of the indicator" to
—associated with the reading of the indicator—.

MAILING ADDRESS OF SENDER (Please do not use Customer Number below):

Vorys, Sater, Seymour and Pease LLP
1909 K Street NW | Suite 900
Washington, DC 20006-1152

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,746,887

APPLICATION NO.: 11/402,743

ISSUE DATE : June 29, 2010

INVENTOR(S) : Norman R. McFarland

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claim 1, Col. 14, Lines 56-57: change "associated reading of the indicator" to
—associated with the reading of the indicator—; and

Claim 21, Col. 16, Line 35: change "associated reading of the indicator" to
—associated with the reading of the indicator—.

MAILING ADDRESS OF SENDER (Please do not use Customer Number below):

Vorys, Sater, Seymour and Pease LLP
1909 K Street NW | Suite 900
Washington, DC 20006-1152

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal				
Application Number:		11402743		
Filing Date:		12-Apr-2006		
Title of Invention:		DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS		
First Named Inventor/Applicant Name:		Norman R. McFarland		
Filer:		Khaled Shami/Yayoi Bourne		
Attorney Docket Number:		2006P07559US		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
CERTIFICATE OF CORRECTION	1811	1	160	160

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				160

Electronic Acknowledgement Receipt

EFS ID:	45007749
Application Number:	11402743
International Application Number:	
Confirmation Number:	8027
Title of Invention:	DYNAMIC VALUE REPORTING FOR WIRELESS AUTOMATED SYSTEMS
First Named Inventor/Applicant Name:	Norman R. McFarland
Customer Number:	146691
Filer:	Khaled Shami/Yayoi Bourne
Filer Authorized By:	Khaled Shami
Attorney Docket Number:	2006P07559US
Receipt Date:	16-FEB-2022
Filing Date:	12-APR-2006
Time Stamp:	11:22:22
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$ 160
RAM confirmation Number	E20222FB23261389
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	Request_for_Certificate_of_Correction_050675-000002_7746887.pdf	797305 df2af5e9cf1036781fcc42ac53007a1a4d7869e5	no	3
Warnings:					
Information:					
2	Request for Certificate of Correction	050675-000002_COC_sb0044.pdf	1467178 dc92448441b0ed58edb0405211c6187e6190e95d	no	2
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	38320 2b7dce832640d91df0a78faa59040624d978ac7a	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			2302803		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US	8027
146691	7590	03/04/2022	EXAMINER	
Daylight Law, P.C. 3790 El Camino Real Unit #531 Palo Alto, CA 94306			DOAN, PHUOC HUU	
			ART UNIT	PAPER NUMBER
			2617	
			NOTIFICATION DATE	DELIVERY MODE
			03/04/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

diane@daylightlaw.com
eofficeaction@apcoll.com
eric@daylightlaw.com



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Commissioner for Patents
United States Patent and Trademark Office
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Patent No.: 7746887
Issue Date: 06/29/2010
Appl. No.: 11/402,743
Filed: 04/12/2006

PART (A) RESPONSE FOR CERTIFICATES OF CORRECTION

This is a decision on the Certificate of Correction request filed 27 December 2021.

The request for issuance of Certificate of Correction for the above-identified correction(s) under the provisions of 37 CFR 1.322 and/or 1.323 is hereby:

(Check one)

☒ Approved ☐ Approved in Part ☐ Denied

Comments: _____

PART (B) PETITION UNDER 37 CFR 1.324 OR 37 CFR 1.48

☐ This is a decision on the petition filed _____ to correct inventorship under 37 CFR 1.324.

☐ This is a decision on the request under 37 CFR 1.48, petition filed _____. In view of the fact that the patent has already issued, the request under 37 CFR 1.48 has been treated as a petition to correct inventorship under 37 CFR 1.324.

The petition is hereby: ☐ Granted ☐ Dismissed

Comment: _____

The patented filed is being forwarded to Certificate of Corrections Branch for issuance of a certificate naming only the actual inventor or inventors.

/LESTER G KINCAID/
Supervisory Patent Examiner, Art Unit 2646
Technology Center 2600
Phone: (571)272-7922

Certificates of Correction Branch email: CustomerServiceCoC@uspto.gov CoC Central Phone Number: (703) 756-1814



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UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/402,743	04/12/2006	Norman R. McFarland	2006P07559US	8027
146691	7590	03/07/2022		
Daylight Law, P.C. 3790 El Camino Real Unit #531 Palo Alto, CA 94306			EXAMINER DOAN, PHUOC HUU	
			ART UNIT	PAPER NUMBER
			2617	
			NOTIFICATION DATE	DELIVERY MODE
			03/07/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

diane@daylightlaw.com
eofficeaction@apcoll.com
eric@daylightlaw.com



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Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

Patent No.: 7746887
Issue Date: 06/29/2010
Appl. No.: 11/402,743
Filed: 04/12/2006

PART (A) RESPONSE FOR CERTIFICATES OF CORRECTION

This is a decision on the Certificate of Correction request filed 16 February 2022.

The request for issuance of Certificate of Correction for the above-identified correction(s) under the provisions of 37 CFR 1.322 and/or 1.323 is hereby:

(Check one)

☒ Approved ☐ Approved in Part ☐ Denied

Comments: _____

PART (B) PETITION UNDER 37 CFR 1.324 OR 37 CFR 1.48

☐ This is a decision on the petition filed _____ to correct inventorship under 37 CFR 1.324.

☐ This is a decision on the request under 37 CFR 1.48, petition filed _____. In view of the fact that the patent has already issued, the request under 37 CFR 1.48 has been treated as a petition to correct inventorship under 37 CFR 1.324.

The petition is hereby: ☐ Granted ☐ Dismissed

Comment: _____

The patented filed is being forwarded to Certificate of Corrections Branch for issuance of a certificate naming only the actual inventor or inventors.

/LESTER G KINCAID/
Supervisory Patent Examiner, Art Unit 2646
Technology Center 2600
Phone: (571)272-7922

Certificates of Correction Branch email: CustomerServiceCoC@uspto.gov CoC Central Phone Number: (703) 756-1814

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been
 filed in the U.S. District Court Eastern District of Texas` on the following

☐ Trademarks or ☒ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:22-cv-00072	DATE FILED 3/8/2022	U.S. DISTRICT COURT Eastern District of Texas`
PLAINTIFF OLLNOVA TECHNOLOGIES LTD.,		DEFENDANT ECOBEE, INC.,
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,224,282	7/17/2012	OLLNOVA TECHNOLOGIES LTD.
2 7,746,887	6/29/2010	OLLNOVA TECHNOLOGIES LTD.
3 7,860,495	12/28/2010	OLLNOVA TECHNOLOGIES LTD.
4 8,264,371	9/11/2012	OLLNOVA TECHNOLOGIES LTD.
5	Format m/d/yyyy	

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
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IPR2023-00626 Page 00174

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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been
filed in the U.S. District Court Western District of Texas on the following

☐ Trademarks or ☒ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 6:22-cv-00246	DATE FILED 3/8/2022	U.S. DISTRICT COURT Western District of Texas
PLAINTIFF OLLNOVA TECHNOLOGIES LTD.,		DEFENDANT GOOGLE LLC,
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,224,282	7/17/2012	OLLNOVA TECHNOLOGIES LTD.
2 7,746,887	6/29/2010	OLLNOVA TECHNOLOGIES LTD.
3 7,860,495	12/28/2010	OLLNOVA TECHNOLOGIES LTD.
4 8,264,371	9/11/2012	OLLNOVA TECHNOLOGIES LTD.
5 9,030,315	5/12/2015	OLLNOVA TECHNOLOGIES LTD.

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,746,887 B2
APPLICATION NO. : 11/402743
DATED : June 29, 2010
INVENTOR(S) : McFarland

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

Claim 1, Column 14, Lines 56-57: change “associated reading of the indicator” to —associated with the reading of the indicator—; and

Claim 21, Column 16, Line 35: change “associated reading of the indicator” to —associated with the reading of the indicator—.

Signed and Sealed this
Twenty-second Day of March, 2022



Drew Hirshfeld
*Performing the Functions and Duties of the
Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office*

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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been
filed in the U.S. District Court Western District of Texas on the following

☐ Trademarks or ☒ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 6:22-cv-00358	DATE FILED 4/5/2022	U.S. DISTRICT COURT Western District of Texas
PLAINTIFF OLLNOVA TECHNOLOGIES LTD.,		DEFENDANT EMERSON ELECTRIC CO. and VERDANT ENVIRONMENTAL TECHNOLOGIES INC.,
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,224,282	7/17/2012	OLLNOVA TECHNOLOGIES LTD.
2 7,746,887	6/29/2010	OLLNOVA TECHNOLOGIES LTD.
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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DECISION/JUDGEMENT

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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been
 filed in the U.S. District Court Western District of Texas on the following

☐ Trademarks or ☒ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 6:22-cv-00390	DATE FILED 4/15/2022	U.S. DISTRICT COURT Western District of Texas
PLAINTIFF OLLNOVA TECHNOLOGIES LTD.,		DEFENDANT RESIDEO TECHNOLOGIES, INC.,
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,224,282	7/17/2012	OLLNOVA TECHNOLOGIES LTD.
2 7,746,887	6/29/2010	OLLNOVA TECHNOLOGIES LTD.
3 7,860,495	12/28/2010	OLLNOVA TECHNOLOGIES LTD.
4 8,264,371	9/11/2012	OLLNOVA TECHNOLOGIES LTD.
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
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TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Western District of Texas on the following

☐ Trademarks or ☒ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

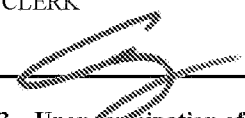
DOCKET NO. 6:22-cv-00390	DATE FILED 4/15/2022	U.S. DISTRICT COURT Western District of Texas
PLAINTIFF OLLNOVA TECHNOLOGIES LTD.,		DEFENDANT RESIDEO TECHNOLOGIES, INC.,
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,224,282	7/17/2012	OLLNOVA TECHNOLOGIES LTD.
2 7,746,887	6/29/2010	OLLNOVA TECHNOLOGIES LTD.
3 7,860,495	12/28/2010	OLLNOVA TECHNOLOGIES LTD.
4 8,264,371	9/11/2012	OLLNOVA TECHNOLOGIES LTD.
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT 10/24/2022 Doc #14 ORDER GRANTING [13] Motion to Dismiss.

CLERK PHILIP J. DEVLIN	(BY) DEPUTY CLERK 	DATE 10/24/2022
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