Phone: 1-800-757-3747 or 1-630-543-3747 | Fax: 1-630-543-0498 | Email: support@dicksondata.com | Website:DicksonDate.com

WiZARD 2

Before You Begin

If you haven't done so, please complete the following checklist before you begin installation of the W2 system:

- Did you receive a W2 Software installation CD with your units?
  - Software CD included with the Receiver (WRxxx). Required for all W2 Wireless Loggers
  - Software CD purchased separately as part number SW501 or SW502. Required for W2 Ethernet Only Systems.
- Verify that the Host (installation) PC meets software requirements
  - *Windows XP Service Pack 3 Professional, Server 2003 R2, 7 Professional (Do not install on a Virtual Machine)
  - 2 GB Ram minimum
  - 2 GHz processor minimum
  - DVD optical drive
  - 2 powered USB ports
  - Optical Mouse with wheel
  - Read/Write access to C drive
  - Confirm that there are no other SQL applications currently running on the same PC.
- Check the following Host PC settings and make necessary adjustments
  - Hibernate/Sleep = Never
  - Set Automatic Updates = Check for updates but let me choose when to install them.
  - If Installing Enterprise or Secure, Firewall = Off (if unable to do this, you may need to make a port exception)
  - If using Windows 7, User Account Controls must be turned off.
- Verify that the Installer has correct permissions:
  1. Is the host PC connected to a network?
     Yes – Continue on to #2 below.
     No – Skip to #3
  2. Is the network Local or Domain?
     Local – Continue on to #3 below.
     Domain – Continue on to #4 below
  3. Does the software installer have full administrative rights on the host PC?
     Yes – Proceed to Software Installation to begin.
     No – Contact IT to have someone with full administrative rights on the host PC install and configure the software.
  4. Does the installer have full administrative rights on the Domain?
     Yes – Proceed to Software Installation to begin.
     No – Contact IT to have someone with full admin rights on the Domain install and configure the system.

Print out a copy of the W2 Installation Guide/Manual included on your W2 Installation CD for steps on installation and device setup.

If installing on a local network, Local Admin Rights on the Host PC are required. If PC is running on a Domain, Domain admin rights will be required for the following:

- Software Installation
- Software Configuration
- Entering Enterprise and Secure Keys

Upgrading?

If installing an upgrade please see "Upgrading from WiZARD2 version 1.0.8.X " later in this manual.

Regarding Installation on a Domain controlled PC:

The software does not install on the domain. The person installing the software requires sufficient access rights to install the software on the local machine, to create groups and users in active directory, and to have higher access rights than any rules enforced by group policy and code access security settings.

Secure upgrade creates groups (WiZARDAdmin, WiZARDUser and WiZARD StandAlone) and one user (WiZARDBrokerDaemon). No files or processes are installed on the domain controller.

Software Installation

1. Insert correct CD or execute the downloaded installation file. If you are installing from CD, select the appropriate installation CD for your Operating System.
   - 32 Bit (For all Windows XP and 7 32 Bit PC's)
   - 64 Bit (For Windows 7 64 Bit PC's)

2. Included on the CD are the following:
   - WiZARD2 Manual .pdf
   - WiZARD2 Checklist .pdf
   - WiZARD2 Installation File
   - WiZARD2 Client View Install File

   Note: Client View is not a full installation. To learn more about client view go to section "Installing the WiZARD2 Viewer (Client View)"

3. Select the appropriate Installation file:
   - DicksonWiZARD2 for Windows XP-2003 Ver x-x-xxxx
   - DicksonWiZARD2 for Windows 7-2008 Ver x-x-xxxx (x32)
   - DicksonWiZARD2 for Windows 7-2008 Ver x-x-xxxx (x64)

4. Click Install on the Dickson WiZARD 2 InstallShield WiZARD. Your InstallShield Wizard may contain more or fewer programs:
   - Windows Installer
   - NET 4.0
   - SQL Server (2005 for Windows XP, 2008 for Windows 7)
   - SQL Management Studio

5. If the following message appears, click Run.

6. InstallShield Wiazard will start. Click Next

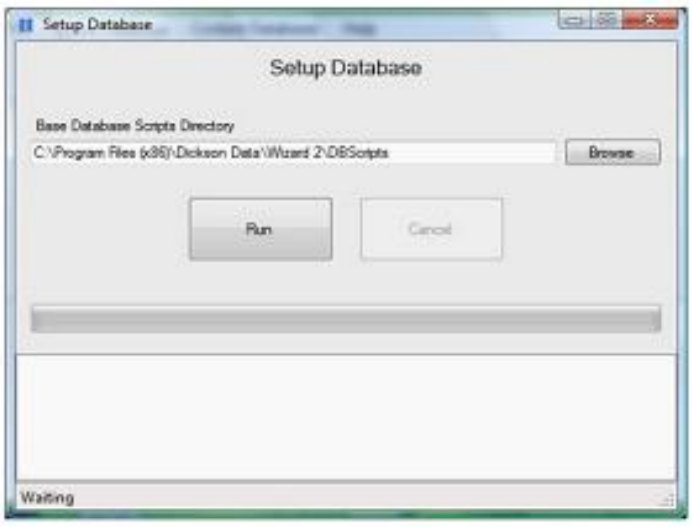
7. Follow all prompts to continue installation. SQL Server will open and close several windows while installing.

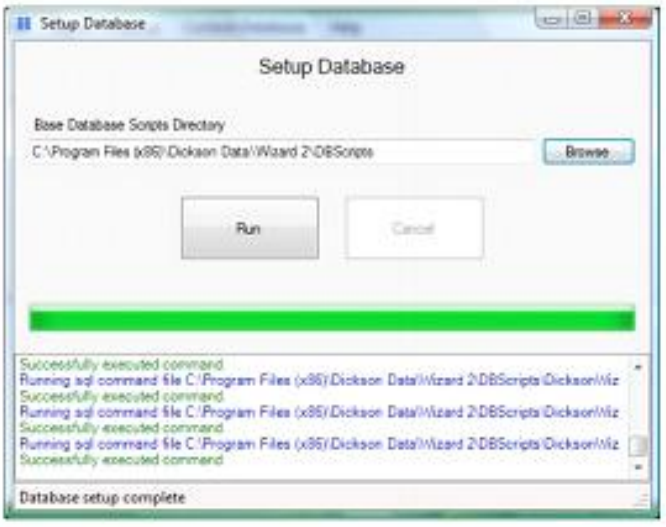
8. Software installation is complete. Continue to Software Configuration to setup software.

Software Configuration

1. Once WiZARD2 software has been successfully installed, the PC rebooted and you have logged back in as administrator (Domain Admin if necessary) you must Configure your database.
   - Go to the Start menu, select All Programs, select the Dickson Data folder and click Database Config.

2. Click Setup Database, Click Run and close the window when Database setup complete is displayed.



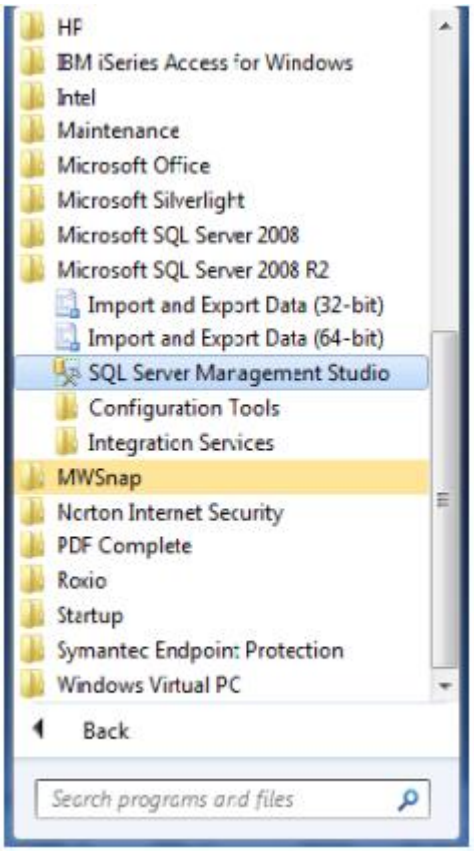


NOTE: If there is an error message during Database Setup, the program may not have installed properly.

Please do the following:

1. Close the Setup Database Window
2. Go to Start (windows icon in lower left corner of display), Control Panel, Uninstall a Program, and click on “Dickson WiZARD 2 x86” or “Dickson WiZARD 2 x 64” and uninstall the program.
3. Once complete, re-insert the installation CD into the Drive and being installation again.

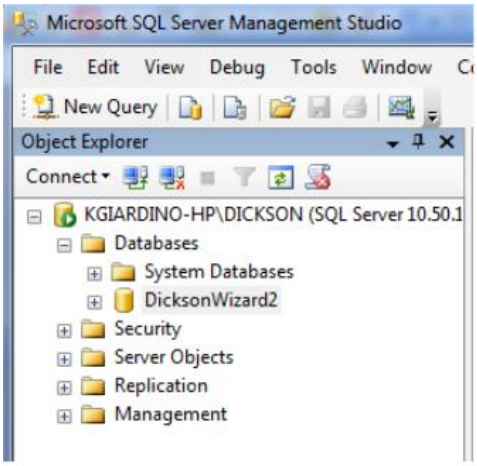
3. If installing version 1.3.4547 or below: please follow these steps to improve SQL database performance, otherwise skip to the next step.
    - Go to Start, select All Programs, Microsoft SQL Server 2008 R2 (Windows 7) or Microsoft SQL Server 2005 (Windows XP), SQL Server Management Studio

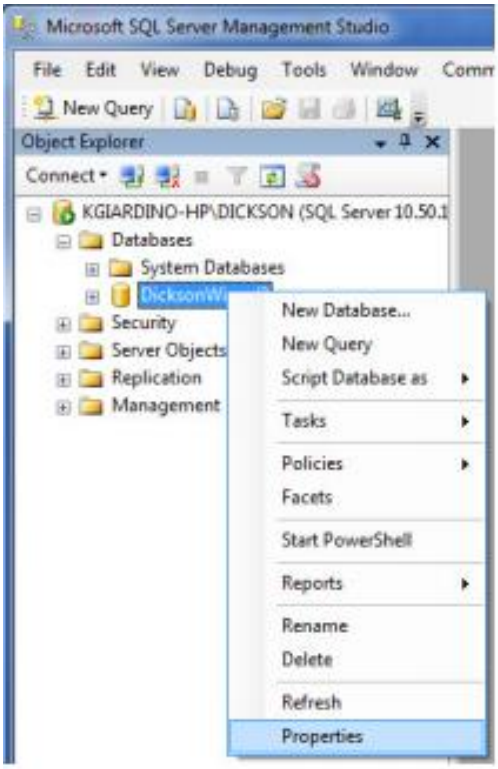


- The following window will open. Click Connect.

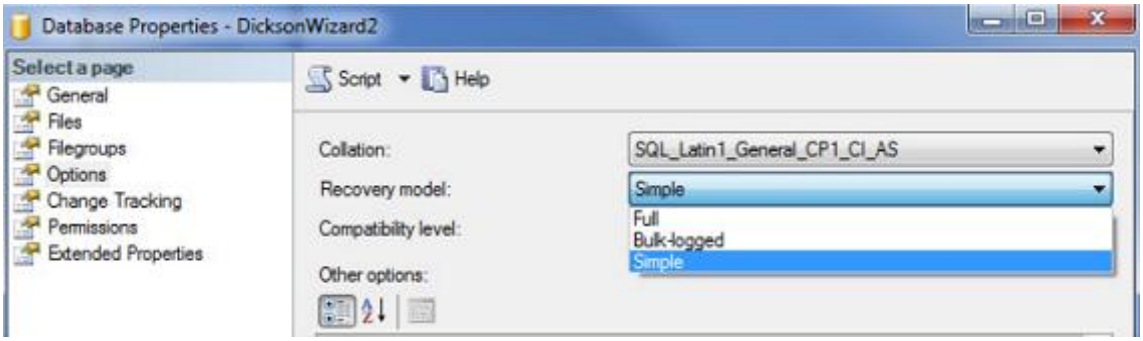
Note: If the Server name is blank, type in the PC name followed by \DICKSON.

- Right click on DicksonWizard2 and select Properties





- In the Properties window click on Options and set Recovery Model = Simple.



- Click OK. The window will close.
- Close SQL Server Management Studio

4. Now that the database has been created, the service must be started. Go to Start, select All Programs, Startup and double-click WiZARD 2 Service Monitor.

5. Click Start Service and minimize the window once the **INFO: Service running** message appears

Note: If you do not see the WiZARD Broker Service Monitor window open, look in the lower right corner of your display in the Windows services icons. If the red PC icon is there, double click on it to open the above window.

If an error message appears “Application did not open in a timely fashion” go to the technical support section at the end of this manual for instructions on “Wizard Broker Service Monitor will not run”.

6. If upgrading to Enterprise or Secure, continue to the next page, otherwise go to the WiZARD2 Manual for instructions on Adding WiZARD2 devices.

Enterprise Software (Email/Text Message Notifications)

Note: if installing on a Domain upgrade must be performed under Domain Admin login

Activating your Enterprise Level Software

1. Administrator login required (local); Domain admin login required (domain)
2. Start the WiZARD2 application by double clicking on the WiZARD2 Icon
3. From the top menu, go to Help / Upgrade to Enterprise or Secure
4. Enter the Enterprise Key located on your installation CD envelope
5. Once the key is accepted:
   - Close the application
   - Open the Broker Service via the icon and stop then start the service
   - Reopen the application.
6. Email/text is now enabled. Go to the email/text section in the WiZARD2 Manual to configure and add email/text addresses.

Secure Software

Note: if installing on a Domain upgrade must be performed under Domain Admin login

Activating your Secure SoftwareY

1. Administrator login required (local); Domain admin login required (domain)
2. Start the WiZARD2 application by double clicking on the WiZARD2 Icon
3. From the top menu, go to Help / Upgrade to Enterprise or Secure
4. A window will open asking for the Product Key located on your installation CD envelope. Select the appropriate key for you network configuration: Local or Domain (Local Secure will not function properly on a Domain and Domain will not install on a Local Network)
5. Once the key is accepted the software will install configuration settings per the PC/Network settings.
6. Once download is complete click continue to start the Secure Configuration process.

Secure Software Configuration

Local Network Setup:

- Each user who is authorized to manage the WiZARD2 system should be added to group WiZARDUser on the Host PC.
- Any user who is authorized to view and export WiZARD2 data only should have the Client View software installed on their PC and should be added to the WiZARDUser group on the host PC. See Client View install below.
- Any user who is authorized to access the database will need to be added to the WiZARDAdmin group also.

Domain Network Setup:

- Each user who is authorized to manage the WiZARD2 system should be added to the WiZARDUsers group in the Domain.
- Any user who is authorized to view and export WiZARD2 data only should have the Client View software installed on their PC and should be added to the WiZARDUser group. See Client View install below.
- Any user who is authorized to access the database will need to be added to the WiZARDAdmin group also.

Setting Up Your System

NOTE: W2 Software must be fully installed and configured before adding devices.

Adding a Receiver

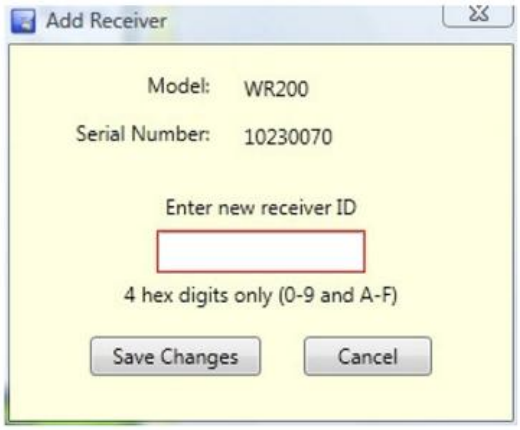
- Double-click the WiZARD2 Icon to open the application

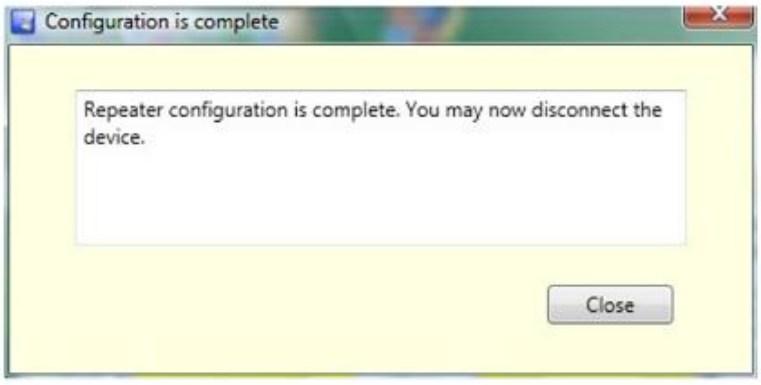
- Connect the AC adapter to the Receiver (WR200 or WR400) and plug into a standard electrical outlet. Press the power switch to power on the Receiver. The LED will blink red/green/blue once.

- Connect one of the USB cables to your PC and then to the receiver.

  NOTE: Do not use USB cables longer than 6 ft. If a USB cable is lost or damaged, contact Dickson for a replacement.

- The Add Receiver window will open. Enter the last 4 digits of Receiver's serial number as the ID.



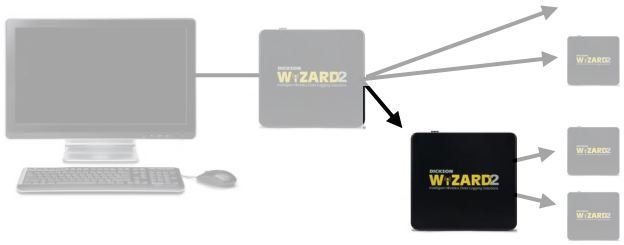


  Note: 0000 and FFFF are not valid IDs. Do not start an ID with lead zeros (eg. 0001).

- Click Save Changes.
- A window will appear confirming that Receiver Configuration is Complete. Click Close
- At the lower left hand corner of the WiZARD2 software screen. You will see the following status:
  - Connection to Broker: Connected | Connection to Receiver: Connected
- The service is running and the Receiver is recognized by the service.

Setup and installation of the software and Receiver is complete. Keep the receiver connected. Continue to "Adding Repeaters" if you have purchased any Repeaters, otherwise skip to "Adding Loggers" to setup Loggers.

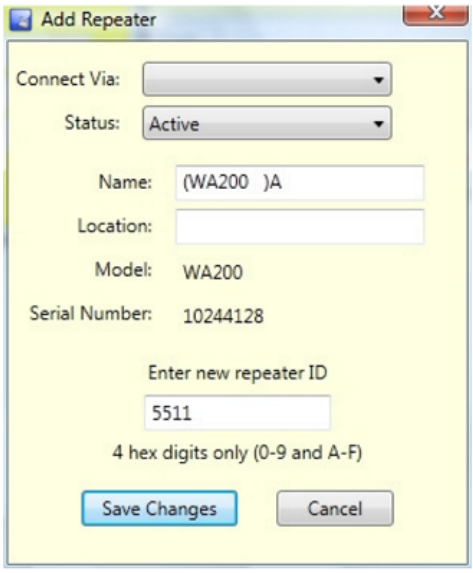
Adding Repeaters (Optional)



- Connect the AC adapter to the Repeater and then plug into a standard electrical outlet. Press the power button to turn on. The LED will blink red/green/blue once to indicate power on.

- Leaving the receiver plugged into the computer, connect the repeater to the computer via the unused USB cable.

- Add Repeater" window will open.



Complete the following fields

Connect Via: Select the Receiver or an installed Repeater

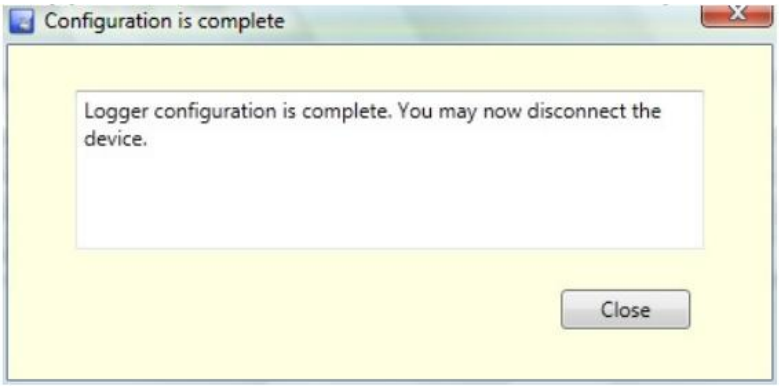
Status: Active

Name: Alpha/numeric 15 characters or less

Location: Alpha/numeric 20 characters or less

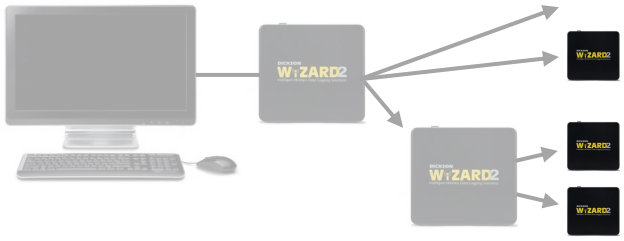
Repeater ID: Any ID. Must be 4 characters using 0-9 and A-F. Note: 0000 and FFFF are not valid ID's, and we do not recommend starting an ID with lead zeros (eg. 0001).

- Repeater “Configuration is complete” window will open. Disconnect USB from Repeater. Wait for window to close before connecting USB to another device.



Proceed to “Adding Loggers”

Adding Loggers: W2 Wireless and Ethernet Loggers



Logger Models

W2 Wireless Loggers:

- Requires a Receiver (WR2xx) for wireless transmission of data to the PC.
- All Loggers can run on battery power. The WT320 and WH345 average 5 months at a 5 minute sample interval in ambient temperatures with no audible alarms. All other Logger models average 6 months under the same conditions. When possible it is recommended that you use AC power where available. The loggers will automatically switch to battery power if AC is lost.

W2 Ethernet Loggers:

- Require an Ethernet connection and AC power for transmission of data to the PC.
- Receiver is not required, but can be added to a W2 system running standard wireless loggers and a receiver.
- If operating several subnets on your network, confirm with IT that the logger subnet can communicate with the Host PC subnet. If necessary both the Host PC and the logger can be assigned fixed IP addresses. This is strongly recommended. Ex: Must be able to ping the Host PC IP Address from the Logger IP Address.
- AC power is required for operation. Can power off Battery while begin configured
- Depending on your logger model, you may receive an AC Adapter or additional equipment such as a probe. For remote probe models, please make sure to connect the probe to the logger before setup.
- Defaults to port 31415 using TCP.

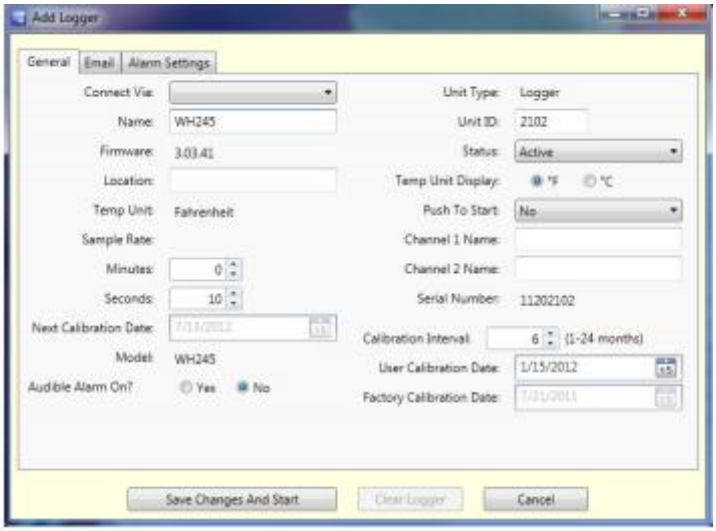
1. Make sure the probe or pod is firmly connected to the logger and that the batteries are inserted in the battery compartment. Press the power button. LED will blink red/green/blue quickly 1 time and the display segments will show to indicate power on.

2. Leaving the receiver plugged into the computer, connect the logger to the computer via the unused USB cable.

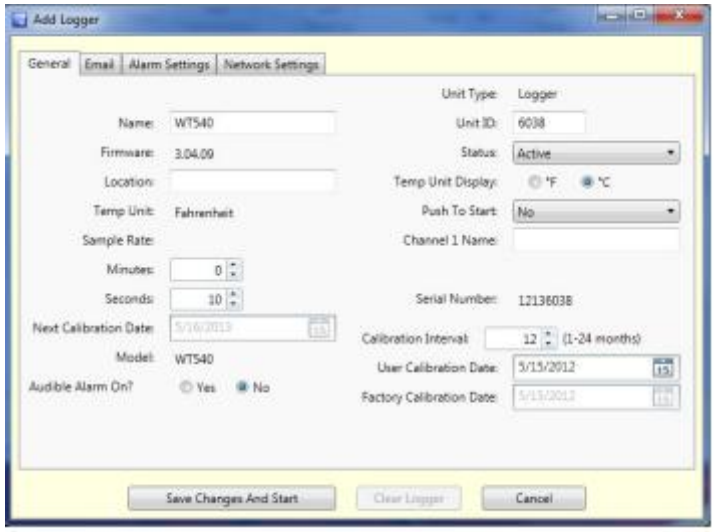
3. The **Add Loggers** Window will open

General Tab

Add Wireless Loggers



Add Ethernet Loggers



Complete the following fields:

- **Connect Via:** Select the Receiver or an installed Repeater (Not required for Ethernet Loggers)
- **Name:** Alpha/numeric 15 characters or less
- **Unit ID:** Any ID. Must be 4 characters using 0-9 and A-F. NOTE: 0000 and FFFF are not valid IDs, and we do not recommend starting an ID with lead zeros (eg. 0001).
- **Status:** Active
- **Location:** Alpha/numeric 20 characters or less
- **Temp Unit Display:** If logger includes a display, current temperature readings can be set to display as F or C. This setting is separate from the Options/Settings F/C settings.
- **Push to Start:** No. Set to Yes ONLY if logger should not start logging until the Push to Start button on the logger is pressed
- **Sample Rate:** User selectable up to 1 hour starting at 10 seconds in 10 second intervals

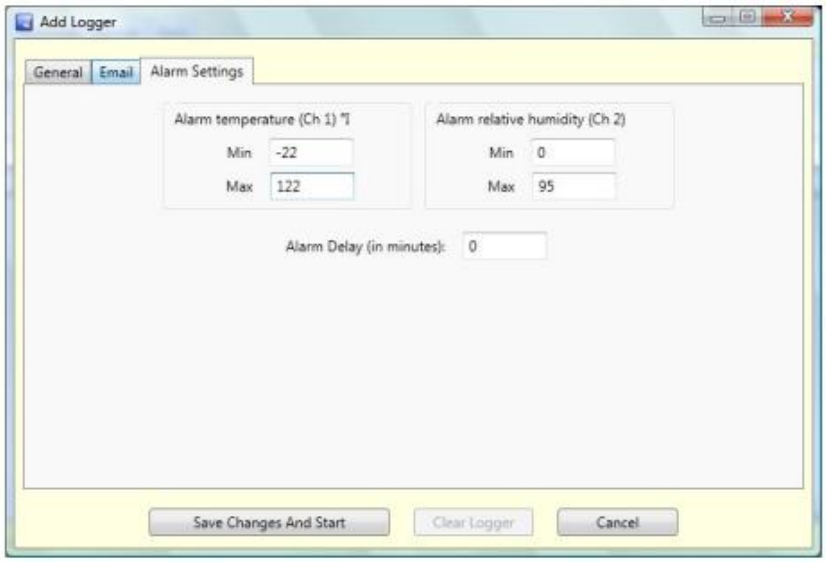
NOTE: Sample Rates of 10 and 20 seconds may result in some lost data if the logger looses communications. Frequent hopping between Sample Rates of 10 or 20 seconds and longer rates may result in future readings.

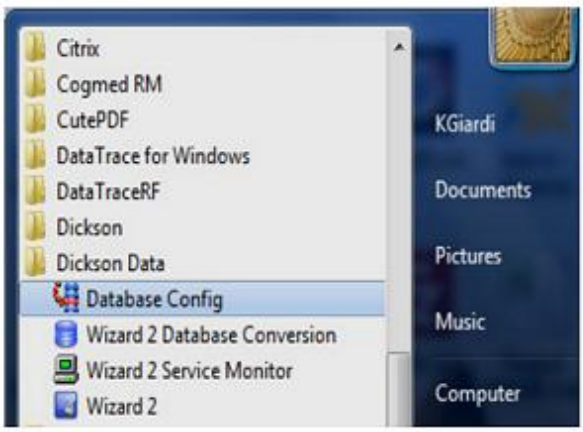
- **Channel 1 Name & Channel 2 Name:** Alpha/numeric 23 characters
- **Calibration Interval:** User selectable up to 24 months
- **Audible Alarm On?**: Remote Probe Wireless and Ethernet Loggers feature an audible alarm that can be turned on or off. If running a Wireless logger on battery power it is recommended that Audible Alarm be turned off to conserve battery life.

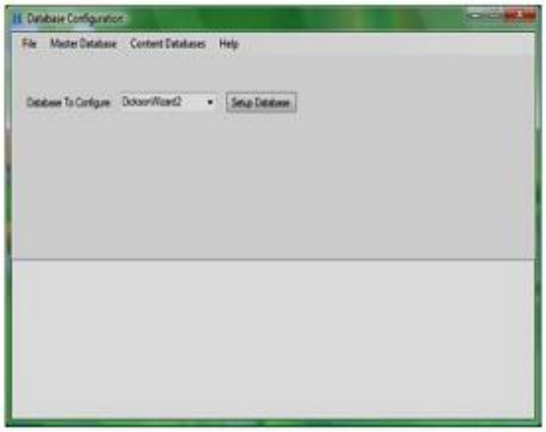
Email Tab

Enabled for WiZARD2 Enterprise and Secure version only. Feature may not be enabled. If you are running Enterprise or Secure version, see page 224 for setup instructions. To upgrade to Enterprise or Secure, contact Dickson Customer Service to purchase.

Alarm Settings Tab





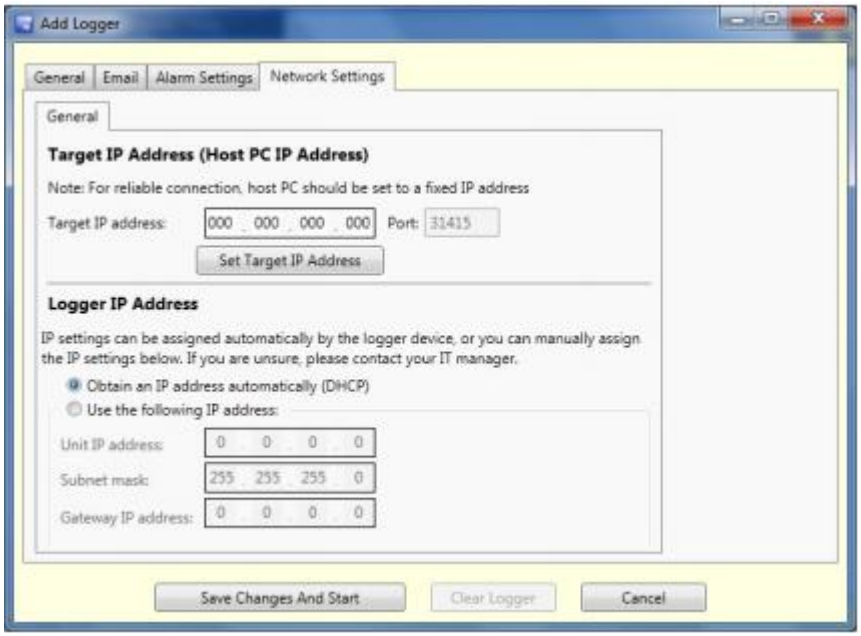


Complete the following fields:

- **Alarm Min & Max:** Set Minimum and Maximum alarm thresholds
- **Alarm Delay:** Up to 999 minutes
- **Note:** In order to guarantee that a new reading is received before the alarm delay period is up, set the alarm delay to Sample Rate + 5 minutes.

Network Settings Tab

Only for W2 Ethernet loggers (WT6xx / WH6xx and WT5xx / WH5xx)



Complete the following fields:

- **Target IP Address (Host PC IP Address):** This is the IP address for the Host PC. To set, click on “Set Target IP Address”. A window will appear with available IP addresses for the PC. Select an IP address and click OK.

  Note: If more than 1 IP address appears, you may have the host PC connected wirelessly and via Ethernet to the network. Remove USB from logger, turn off the Wireless connection and reconnect the logger via USB. Only one IP address should display under Set Target IP address.

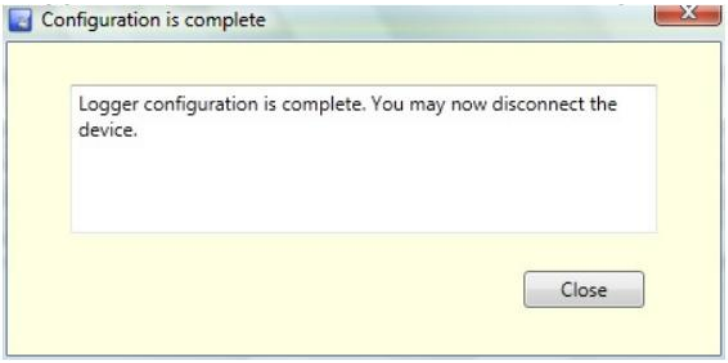
  If the Target IP Address (Host PC IP Address) changes, the loggers must be brought back to the host PC, connected via USB and modified to save the new Target IP Address. See Technical Support in this manual for steps on changing a logger Target IP Address. Do not turn the logger off. The logger will send saved data once new host IP address is assigned. A Static Target IP address is preferable.

- **Logger IP Address:** Unless instructed otherwise by your IT department, select “Obtain an IP address automatically (DHCP)”. When the logger is connected to the Ethernet, it will automatically obtain an IP address and send a packet to the Host PC identifying itself.

NOTE: If operating several subnets on your network, confirm with your IT department that the subnet your logger is on can communicate with the subnet of the Host PC. If necessary, both the Host PC and the logger can be assigned static IP addresses.

4. Click on **Save Changes and Start** to add

5. Logger Configuration Completed window will open. Disconnect USB from Logger. Wait for the ‘Add Logger’ window to close before connecting USB to another device.



Once the logger has been configured and removed from the USB:
Wireless loggers will begin transmitting within 5 minutes.

Ethernet Loggers:
- Take the logger to its target location and connect the RJ45 and AC adapter.
- **"Strt"** will appear on the display to indicate that the logger is loading the program. It will take approximately 2-4 minutes for the logger to send the first transmission.

Wireless Loggers:
- They will begin logging and transmitting as soon as they are configured.
- See Determining Proper Logger/Repeater Placement

Ethernet Loggers:
- Loss of AC power will cause the Ethernet logger to stop transmitting, however they will continue to save data via battery backup and send the saved data once power is restored.
- If a logger cannot connect to the target IP (host PC is offline) for an extended amount of time (more than one day), it is recommended that the RJ45 connection be removed from the logger until the host PC is back online.

Important:
- Keep the logger(s) at the PC until all other Repeaters and Loggers have been installed.
- Now that the software and devices have been fully installed, the application does not need to be up and running in order for the data to be saved to the database. Just open the application and check to make sure the Broker and Receiver are connected (look for the broker's status in the lower left of the WiZARD2's software window. Close the application when viewing data is not required.
- If the PC prompts you to reboot the PC at any time once a device is added, respond "No".
- Once all devices have been added, make sure loggers are communicating properly before moving. This can be confirmed by looking at the 'Logger' tab and ensuring all loggers have a time stamp in the 'Last Transmission' field.
- When moving loggers and repeaters, do not turn them off. Allow AC units to run on battery power while in transition.
- Turning the loggers off will cause them to lose time. All saved data will be invalid. If a logger is turned off, Clear it via the Edit window to reset the clock.

Determining Proper Logger/Repeater Placement

Now that the Loggers and Repeaters are setup, let them run at the PC for a while before moving them. Make sure that all of the loggers are communicating.

Comparing the Time of Last Transmission and Time of Last Reading:
- If the Sample rate is 2.5 minutes or less, the gap between the Transmission time and Reading time should not be greater than 5 minutes.
- For sample rates greater than 2.5 minutes, take 2x sample rate to determine the possible time gap between the Transmission and Reading times.
- Remember: The loggers save every data point up to 32,000 samples so even if there are missed transmissions, the data will eventually be sent.

Now that you are ready to move the Loggers and Repeaters to their locations, there is a quick and easy way to test the signal strength without using the Signal Sensor:

- Pressing down on the Push to Start button on the logger will force the logger to transmit. If the logger is getting through to the Receiver the LED will blink BLUE. If the logger cannot reach the Receiver the LED will blink BLUE & RED
- If the Logger connects via the Receiver, simply walk the logger to its target location and press and hold the Push to Start button and watch the LED. If there are several BLUE/RED flashes, the location is bad and the signal cannot get through. Try moving the logger around while holding down the Push to Start button looking for a BLUE flash.
- If the Logger connects via a Repeater, take the Repeater and Logger to the Repeater location and press and hold the Push to Start button on the logger. A BLUE flash indicates that the Repeater location is good. Move the logger to its location and repeat the test.
- If the Logger connects via a Repeater connected to a Repeater etc. Take the Logger and all Repeaters in the chain to the first Repeater location and press the Push to Start button while watching the LED blink. Repeat this for each Repeater using the logger LED to verify placement.

Placement Tips:

- When placing the WiZARD2 devices note that the antenna signal radiates from the front and back of each device. If a Logger or Repeater is mounted on an I-Beam or other heavy metal object the signal will not go through. The metal will affectively ground the signal. Try mounting the logger/repeater perpendicular to the beam.
- Try to place the Loggers, Repeaters and Receiver facing toward each other to maximize signal distance.
- The signal does not try to work around obstacles. Mounting the devices as high as possible will eliminate many physical barriers and improve distance.
- The logger must be cleared wirelessly or via USB if it is turned off for any reason.

Display Operation

- **Update**: Current, Min and Max readings every 30 seconds.
- **Scroll**: Will switch between CH1 and CH2 every 3 seconds.
- **Battery**: Lower right hand battery level indicator will indicate when the battery is full and low.
- **Three segments displayed** = Battery Full
- **One segment displayed** = Battery Low
- **Clear Min/Max**: Min/Max is cleared in the W2 software by pressing the Clear Min/Max button in the logger table. To clear Min/Max on the logger, locate the pinhole under the battery door between the programming headers (underneath the serial number label). Using a paperclip or pin press this button for three seconds.
- **PROB**: Logger will display PROB when the probe had been unplugged from the logger or is damaged. Plug the probe back in, or if the probe is hard wired to the logger, contact Customer Service for an RA.

Power Operation

- **Receiver:** Receiver requires AC power for normal operation. To power on, press the power button on the top of the logger. Batteries protect the Receiver from abnormal shutdown. If power is lost to the host PC or the Receiver, the lack of acknowledgement from the Receiver will cause the loggers to begin flagging unsent readings until power is restored and the Wizard2 Service Broker is up and running on the host PC.
- **Repeater:** Requires AC power for normal operation. To power on, press the power button on the top of the logger. Batteries allow the Repeater to continue operation till AC power is restored. Battery life depends on how frequently the Repeater communicated with via the Receive and Loggers. Battery life can last anywhere from 5 days to a couple hours. If a Repeater looses all power, loggers will begin flagging unsent readings until power is restored.
- **Logger:** Allow for AC power with battery backup or battery only power. To power on, press the power button on the top of the logger. Pod models can operate for up to 5 months at a 5 minute sample rate at ambient temperatures. All other logger models can operate for up to 6 months at a 5 minute sample rate at ambient temperatures. Frequent audible alarms will drain the batteries more quickly. It is strongly recommended that AC power be used when audible alarms are on. If a logger looses all power, the logger must be cleared via the Edit Logger option once power is restored in order to set the correct time and date.

Replacing Device Batteries

Either AA Alkaline or Lithium batteries are compatible. Will not recharge batteries when logger is running on AC. Lithium batteries should increase battery life by 1.5x over standard alkaline batteries.

- **Receiver:** Unplug the Receiver from USB and turn off via the On/Off button. Slide off the battery door on the back of the unit and replace with 4 AA batteries. Replace the battery door. Press the power button to turn on. Reconnect USB cable. Receiver will reconnect with W2 client.
- **Repeater:** Turn off the Repeater via the On/Off button. Slide off the battery door on the back of the unit and replace with 4 AA batteries. Replace the battery door. Press the power button to turn on.
- **Logger:** Turn the logger off via the On/Off button. Slide off the battery door on the back of the unit and replace with 4 AA batteries. Replace the battery door. Press the power button to turn on.

IMPORTANT: The logger must now be cleared. Either bring the logger back to the host PC and clear it via USB or go to the host PC, right click on the logger, selected Edit and click on Clear logger.

This will reset the time/date stamp in the logger to the correct time. Even if replacing batteries took only a minute, the time date stamp may be corrupted by turning the logger off.

Configuring Email and Text Message Notifications

NOTE: Some antivirus software may prevent email/text from being sent via port 25. You may need to manually open up port 25 in your antivirus software.

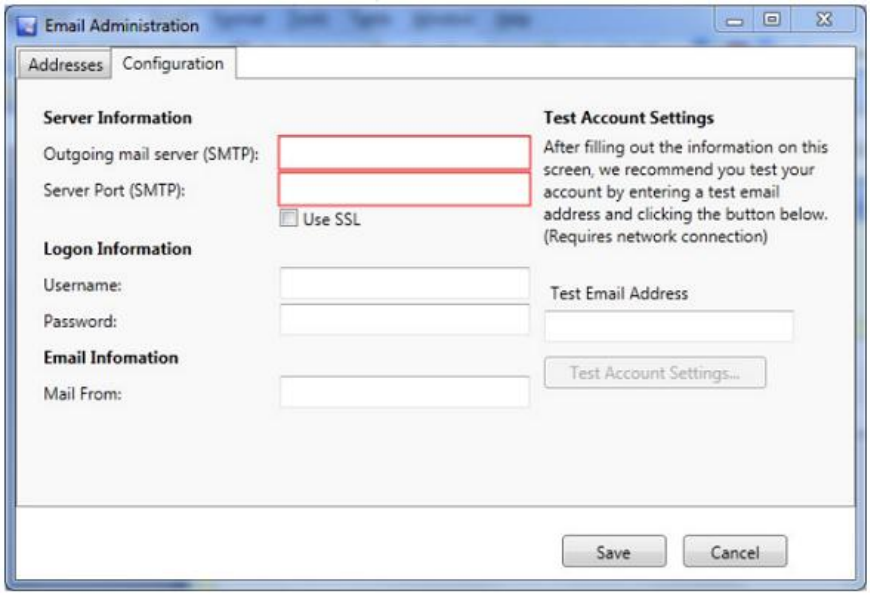
Notification of alarm conditions can be sent automatically to up to 6 different email/text accounts for each logger. Addresses can be assigned to multiple loggers. For the following conditions:

- Alarm Max
- Alarm Min
- Low Battery
- Calibration Due
- Lost Communications

Please contact your IT Manager to determine if you have your own SMTP server. If so, they will assign you the correct SMTP server address, port and other required configuration settings. If you are using an external email server, you must contact your service provider for the correct SMTP server address, port and configuration settings.

1. Configuring your Email/Text settings:

- Go to Options/Email Addresses and click on the Configuration tab



Server Information

- Outgoing Mail Server (SMTP): SMTP server IP address or DNS name
- Server Port (SMTP): Port address for SMTP server.
  If SMTPS is required and checking the Use SSL box does not issue a test email try port 465 ; If using IMAP use port 587.
- Use SSL: Security Credentials Required (will require login information)

Login Information

- Username: If credentials are required, this is the username to use to log in.
- Password: If credentials are required, enter password

Email Information:

- Email address of text name used to populate the from field in the alarm emails that are sent – user customizable.

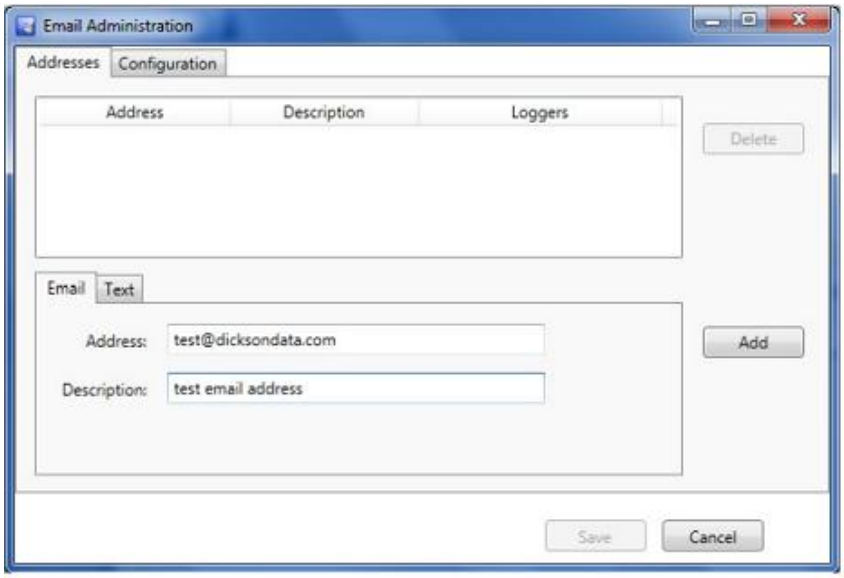
Test Email Address:

Enter an email address to which you want to send an alarm notification.

- Test Account Settings will enable. Click Test Account Settings to send a test email. You will be notified if the email was sent successfully.
- Test more than one email address to ensure that emails are getting through to multiple locations.
- If test fails, go to the Troubleshooting section in this manual for steps to resolve error message.

Once complete, click Save and Reboot the PC. You can now enter your email/text address.

2. Click on the Addresses tab to enter email/text addresses



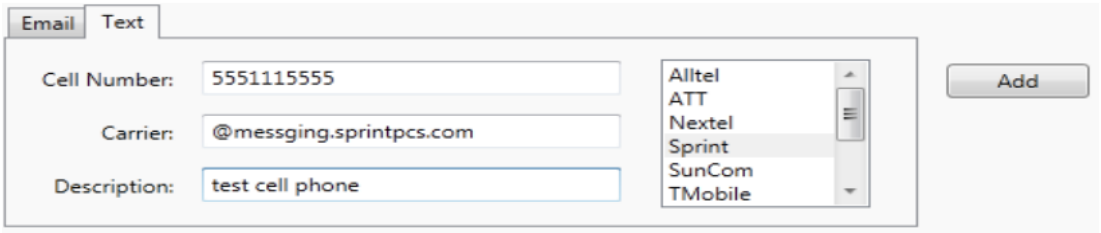
Select the tab Email or Text depending on the type of address you are entering.

Email Tab

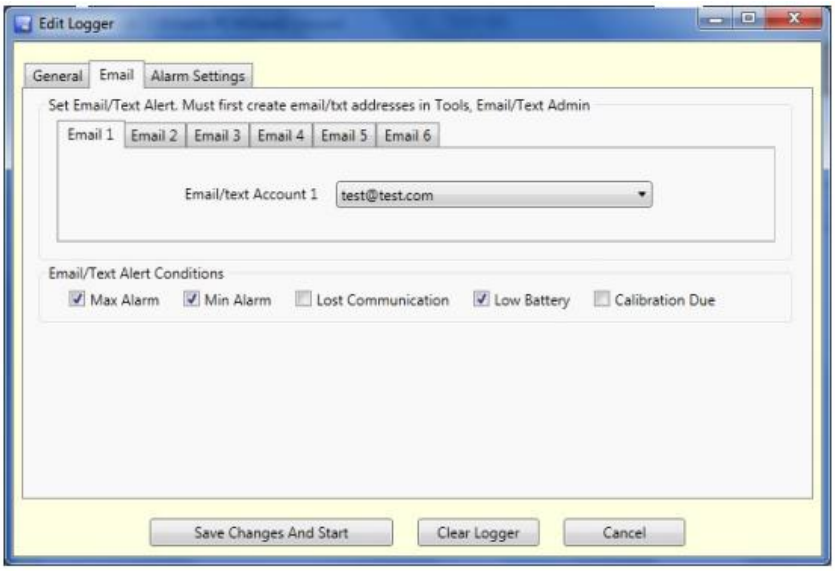
- Enter the full address as shown above
- Enter a description for the address
- Click Add
- The address will be added to the list box above

Text Tab

- Enter the cell phone number (no –, / or .'s)
- Select a carrier from the list to the right. If your carrier is not listed, check your phone or contact your carrier for the proper configuration values (typically the part after the "@" symbol).
- Enter a description for the address
- Click Add
- The address will be address to the list box above
- Enter all email/text address that you plan to assign to each logger



3. Assign email/text addresses to each logger:



From the main Loggers tab right click on a logger to open the edit window.

Select the Email tab:

- All entered email addresses will appear in the Email/text Account 1 box.
- Select an address then click on Email 2 to select a second address - you can assign up to 6 emails, etc. per logger
- The Email/Text Alert Conditions boxes must be checked in order to receive notification of that particular alarm condition. The Conditions apply to all email/text addresses selected for that logger.
- Click on Save Changes and Start to save

Editing Logger/Repeater Settings

Once the system has been setup existing Loggers & Repeaters can be modified. All fields can be modified except for Unit ID. There are two options for changing Logger/Repeater setup:

Making Changes Wirelessly

- Logger must be actively communicating – no lost communication errors and time of last transmission should have been updated within the past 7 minutes. If the logger is not communicating change via USB connection.
- How to Edit:
    - From the Logger tab (Loggers only), Structure tab or Devices tab right click on the Logger/Repeater and select edit to open Edit Logger window.
    - Modify field setting. More than one field can be changed at a time.
      Click on SAVE CHANGES AND START. A window will pop up indicating that the change has been sent via Wireless mode. Leave the Logger in its current location until the wireless change is complete.
    - The unit cannot be edited and the Edit option will remain grayed out until the changes have been completed. A "% Change Complete" field will pop up to the left of the logger name field to indicate wireless change status.
    - The receiver will try three times to send changes. If the changes are not sent successfully, an error message will appear indicating that the wireless change has failed. Bring the unit to the PC and edit the unit via USB.

- The following changes can NOT be made wirelessly (logger must be connected to the PC to make changes:
    - Connect Via
    - Unit ID
    - Push to Start
    - Making a logger active

NOTE: Sample Rates of 10 and 20 seconds may result in some lost data if the logger looses communications. Frequent hopping between Sample Rates of 10 or 20 seconds and longer rates may result in future readings.

USB Change

Use this option in the event that the Logger has lost communications or you are making a change that cannot be made wirelessly.

- Connect the Logger to the PC via the USB cable.
- The Edit Logger window will open.
- Modify field(s). More than one field can be changed at a time.
- Click on SAVE CHANGES AND START. The Updating Logger window will open.
- Once the update is complete, unplug the USB and place the Logger/Repeater in the desired logging location.

Active/Inactive/Loggers/Repeaters

Making a Logger/Repeater Inactive

- If a Logger is returned for calibration or a Logger or Repeater is taken out of service, Edit the affected unit and change Logger Status to Inactive and remove power from the Logger/Repeater.
- A Repeater cannot be made inactive if an active device is attached to it. Use the Structure Screen to see if any devices are attached.

Hiding Inactive Loggers:

- Inactive Logger/Repeaters will automatically be removed from the Loggers, Structure and Devices tabs.
- To display Inactive Loggers/Repeaters, go to Options, Settings, and check the box next to Display Inactive Devices.
- Logged data will still remain in the database for all Inactive Loggers.

Returning a Logger to Active Status:

- Batteries should be inserted.
- The probe/pod should be plugged in securely.
- Turn on the logger and connect via USB to the Wizard2 host PC.
- The Edit logger screen will open.
- Is Logger Status set to “Inactive”?
  Yes: Set Logger Status to “Active” and click on “Save Changes and Start”. This will activate the logger and reset the time/date stamp.
  No: Click on “Clear Logger” to rest the logger time/date stamp.
- The logger may now be moved to its target location.

Alarm Operation

Alarm Conditions

- The following alarm conditions will trigger popup alarms in the W2 software:
    - Alarm Min / Max Reading
    - Low Battery
    - Lost Communications
    - Calibration Due
- The popup alarms cannot be turned off.
- Simply closing the alarm popup will not clear the alarm but will prevent a new popup from appearing while the client application is open.
- To clear an alarm click on the Clear Alarm button for that logger in the Logger tab table.
- The table field with the alarm condition will turn dark red to indicate an alarm. Closing the alarm popup will change the color to light red. Clearing the alarm will remove the red indicator.

Setting Min/Max Alarms

- A Min and Max alarm threshold can be set for each logger channel.
- To set alarms, right click on a logger in the Logger tab table and select Edit.
- Click on the Alarm tab.
- Enter the Min and Max alarm threshold for each channel.
- An alarm delay can also be set (in minutes). The alarm delay should be at least as long as the logger sample rate.
- Click on Save Changes and Start to save alarm settings.

Audible Alarms

- Certain logger models feature audible alarms. The logger will sound an alarm when a Min/Max threshold is met.
- To activate audible alarm, edit a logger. In the General Tab in the lower left select Yes next to Audible Alarm On. Click on Save Changes and Start to save.
- If an alarm delay has been selected, the audible alarm will wait till the alarm delay period has passed before sounding. If the readings move out of alarm range, the audible alarm will not sound.
- The audible alarm will sound for 60 seconds followed by two short beeps every 5 minutes. The audible alarm will stop sounding when readings move back into the acceptable operating range.

Email/Text Alarms

- Go to the Email/Text alarm setup section of this manual for instructions.
- Enterprise or Secure version is required.
- When an Email/Text alarm is issued, another Email/Text alarm for that logger and condition will not be issued again until that condition is cleared via the Clear Alarm button in the software.

Installing the WiZARD2 Viewer (Client View)

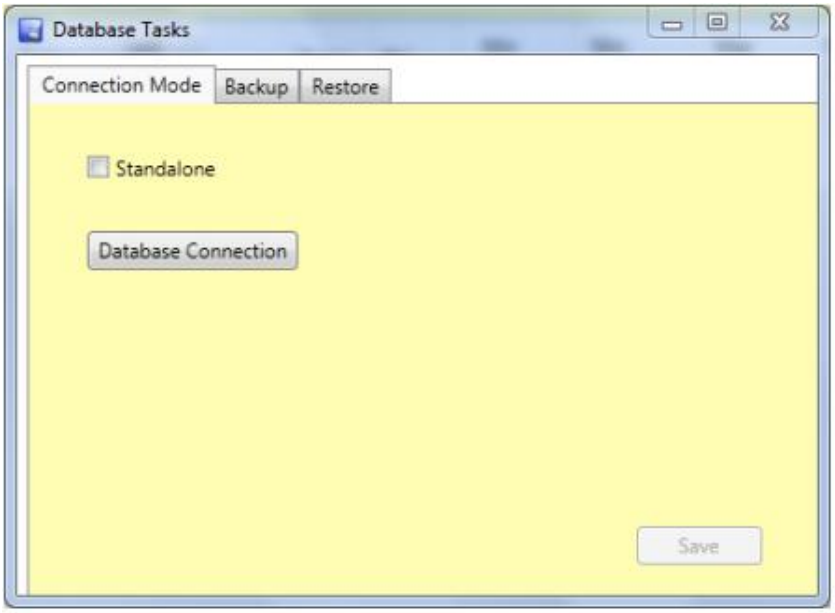
The Client View software allows you to view, but not edit your WiZARD2 information via another computer on the same network as your WiZARD2 System.

Included on the installation CD are two folders called Client View 32 Bit and Client View 64 Bit. The Client View software can be installed on PC(s) on the same network as the WiZARD2 host PC allowing these users to view data saved to the database. The Client View software:

- Refreshes every 2 minutes displaying the most recently saved data including Current Min and Max readings
- Allows the user to open historical graphs and print, save and export data
- No devices settings or host PC settings can be changed when in Client View
- More than one PC can run the Client View software at the same time

Installation & Setup

- Full administrator rights on the Client View PC are required for installation and configuration. If running on a domain, administrator rights on the domain are required as well.
- Cannot run on any PC currently running another SQL application.
- Determine if the client PC is a 32 bit or 64 bit system.
    - Click on the Windows Start button, then right click on ‘My Computer’ (or just ‘Computer’ on Windows 7) and select properties.
    - In the window that appears look for your system’s type.
- Insert CD into the client PC’s CD/DVD drive. The Auto Play window should open. Select Open Folder to View Files.
- Open the Client View Install folder
- Open the folder that matches your system configuration and double click on the install file to begin installation.
- Run installation. Installation will not take as long as installation on the host PC. Follow the screen prompts to complete installation.
- Once installation is complete, the WiZARD2 icon will display on the client PC desktop. Double click on the icon to open the application (you will not be creating a database or starting the broker service on this PC)
- Is the host WiZARD2 PC running a Secure Version? If yes the user will need to be added to user group:
    - Client View Local Secure: Add to WiZARDStandAlone user group on local PC
    - Client View Domain Secure: Add to WiZARDStandAlone user group on Domain
- From the top menu click on Tools then Database in the WiZARD2 software.
- The Database Task window will open with the Connection Mode tab
- Check Standalone then click on the Database Connection button

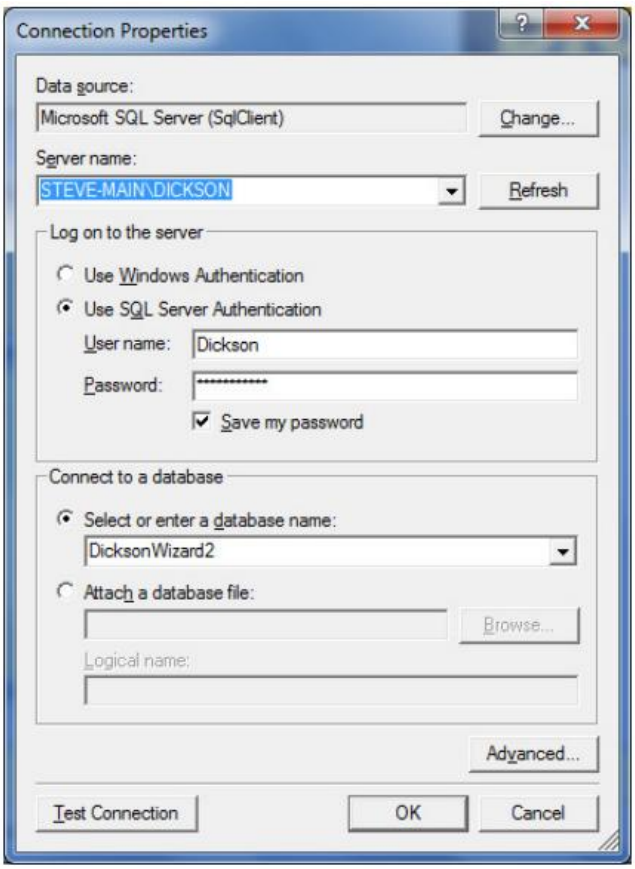


- Update the following fields:
    - **Server Name:** This is the name of the Host PC running the WiZARD2 system. You may need you IT manager to help you identify this device name. (The server name should be the name of the host PC followed by \DICKSON)

      Check the box next to User SQL Server Authentication
      User Name: Dickson
      Password: Wizard12345
      Click on 'Test Connection'.

      If successful click OK. Close the WiZARD2 application then reopen. You will now see all WiZARD2 devices on the host PC. If unsuccessful, confirm the server name with your IT manager

- The application is now connected to the host database
- The application will automatically refresh the data displayed on the Logger tab every 2 minutes.



Firewall Exceptions for WiZARD2 Client View

For Client view to properly work with the firewall active on the host PC some exceptions will need to be made on the firewall in order for client view to access the database.

Windows XP

- In the control panel open up Windows firewall
- Click on the Exceptions tab and then Add Program.
- Click on Browse to find the applications. Please add these two applications to the exceptions list. You may only add one application at a time, so once you have added the first one please go back and add the other application
    1. C:\Program Files\Microsoft SQL Server\90\Shared**SQLBrowser.exe** C:\Program Files\Microsoft 2.
    2. SQL Server\MSSQL10_50.DICKSON\MSSQL\Binn**SQLServr.exe**
- Make sure both have been added and changes have been saved.

Windows 7

- In the control panel open up Windows firewall
- Click on Advance Settings
- Click on Inbound Rules; right click Inbound Rules and then New Rule.
- What we want to add is a Program rule
- Click on Browse to find the applications. Please add these two applications to the exceptions list. You may only add one application at a time, so once you have added the first one please go back and add the other application.
    - C:\Program Files\Microsoft SQL Server\90\Shared**SQLBrowser.exe**
    - C:\Program Files\Microsoft SQL Server\MSSQL10_50.DICKSON\MSSQL\Binn**SQLServr.exe**
- Allow the connection, apply to all connections, name your rule and Finish.

Upgrading Your Software

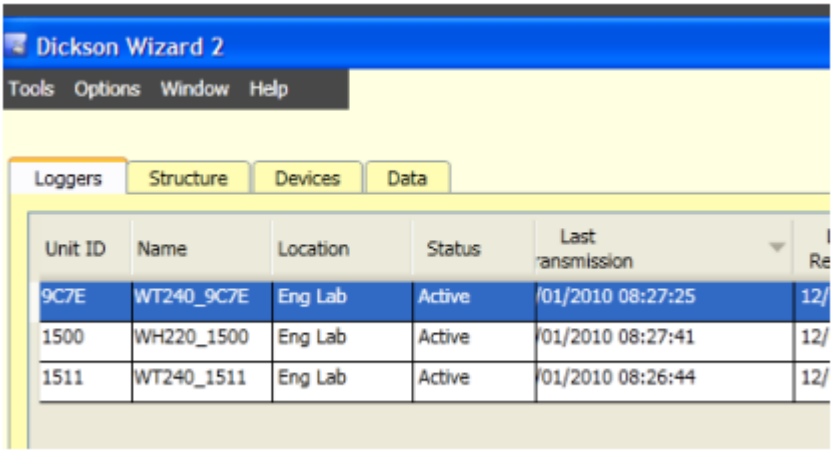
Upgrading from WIZARD2 version 3.01.XX

1. The old WiZARD2 software should be uninstalled and moved to a different PC (If you want to be able to view the old data. Refer to your original software's installation manual for instructions.). Opening the Old WiZARD2 software while the new version is running will result in lost data.

2. If the old WiZARD2 software must remain on the same PC as the new install, please note that the Receiver must be disconnected from the USB and the client should be closed while looking at archived data in the old WiZARD2 database.

3. Follow the installation instructions in the "Installing Software" section.

Upgrading from WiZARD2 version 1.0.8.X



1. Data saved to the DB will not be deleted or altered. All existing loggers will remain configured to the W2.
2. Close the WiZARD2 application
3. Remove USB from the Receiver
4. Double click on the Broker Service Icon and Stop the Service
5. Close the Broker Service window (the icon should no longer appear in the lower right corner with the other service application icons)
6. Go to Start (windows icon in lower left corner of display) / Control Panel / Remove (Uninstall) Programs
7. Select “Dickson WiZARD 2 (x86) or (x64)” and uninstall
8. Once complete go to C:\program files\Dickson Data make sure the W2 folder has been removed. If this folder shows, delete it.
9. Insert CD and begin installation - be sure to select the correct install version for your PC configuration. The database will remain unchanged with data intact.
10. Update the database: open the “Start” menu (windows icon in lower left corner of display) and select “All Programs”. Scroll to find folder “Dickson Data” in the programs list. Open the folder.
    - Database Configuration window will open. Click Setup Database.
    - Setup Database window opens. Click Run.
    - The program will detect that a database exist and will update it.
    - When complete close the window.
11. Once installation is complete, start the service by going to Start (windows icon in lower left corner of display) / All Programs / Dickson Data and double click on WiZARD 2 Service Monitor.
12. Look for the service monitor icon in the lower right hand corner. If it is red, double click on the icon and start the service. If it is green, the service is running.
13. Double click on the WiZARD2 icon to start the application
14. If running Secure or Enterprise, you may need to re-enter the key to reactivate these features.

    NOTE: If you receive an error message when updating the database or cannot open the WiZARD2 application, the update did not complete properly. Please repeat the steps starting with #5. If this fails again, please contact technical support at 800.323.2448.

Explanation of Software Operation and Features

How the WiZARD2 System Operates

The WiZARD2 software features 5 main components

1. **The Database:** The Database only needs to be setup once. The database can be saved and restored if the host PC fails. The WiZARD2 database is built in SQL.

2. **The Application:** The software opened via the WiZARD2 icon is your tool for adding/editing devices and viewing saved logged data. The application does not need to remain open for the system to work. The application can remain closed until edits or viewing of saved logged data is required.

3. **The Receiver:** The Receiver must be attached to the host PC via USB at all times. The Receiver will blink blue and occasionally green every few seconds to indicate operation. If the receiver blinks red or remains solid red, the receiver buffer is full or the receiver is not connected. See technical support for tips to resolve this issue. If the receiver is not connected, logger data cannot be saved to the database.

4. **Ethernet loggers:** Ethernet loggers do not require the Receiver for communications. Ethernet loggers send data directly to the Host PC via an Ethernet connection. The broker must be running in order for logger data to be saved to the Database.

5. **The Broker:** The broker is a service that lets the Database, Application and Receiver all talk together. The broker must be running in order for the system to operate and for sent logged data to be saved to the database. If the broker is down the receiver will be disconnected and no logger data can be saved to the database.

How to tell if the Broker is running and how to start/stop broker...

1. Once the broker is started for the first time, it should automatically start every time the PC is rebooted.

2. The broker is running if:
   a. The PC icon in the lower right corner of the main Windows display is Green.
   b. When the Application is open, “Connection to Broker: Connected” is displayed.

3. The broker is not running if:
   a. The PC icon in the lower right corner of the main Windows display is Red.
   b. When the Application is open, “Connection to Broker: Not Connected” is displayed.

4. How to start the broker:
   a. If the Red PC icon is present in the lower right corner of the Windows display, double click on the icon. The WiZARD Broker Service Monitor window will open. Click on Start broker. Minimize the window. The icon is now green.
   b. If the icon is not present, go to Start, All Programs, Startup open the Startup folder and double click on the WiZARD 2 Service Monitor. The red PC icon will appear in the lower right corner of the main Windows display. Double click to open the WiZARD Service Broker Monitor. Click on Start broker. Minimize the window. The icon is now green.

5. How to stop the broker:
   a. If the Green PC icon is present in the lower right corner of the Windows display, double click on the icon. The WiZARD Broker Service Monitor window will open. Click on stop broker. Minimize the window. The icon is now Red.
   b. If the icon is not present, go to Start (windows icon in lower left corner of display), All Programs, Startup open the Startup folder and double click on the WiZARD 2 Service Monitor. The Green PC icon will appear in the lower right corner of the main Windows display. Double click to open the WiZARD Service Broker Monitor. Click on Stop broker. Minimize the window. The icon is now red.

F/C Unit of Measure

- The system can be set to display all temperature readings in Fahrenheit or Celsius.
- Go to Options, Settings and select.

NOTE: Changing temperature unit of measure via Options/Settings will not change logger display unit of measure setting. Logger display unit of measure can only be set via the Logger Edit window.

Viewing Data

Loggers Tab

- The loggers tab displays data for all loggers.
- Data can be filtered by clicking on View Filter in the lower left corner of the Logger tab window.
  Live Data is the default filter view – Including all current readings
  Status – Indicates if a logger is Active or Inactive
  General Info – Logger Model, Serial Number, Calibration Dates and settings
  Config Data – Connect Via, Sample Rate
  Alarm Settings – Alarm Min/Max settings and delay settings
- Right click on any logger to Edit, Customize Graph and view a Live or Historical Graph for that logger.

Customize Graph

- Select Customize Graph set and save graph format.
- Once saved the format options will display every time that logger is opened in graph view.

Live Graph

- Select Live graph to view data sent within the past two hours from the logger.
- Multiple live graphs can be opened at the same time.
- See graphing below for a detailed explanation of all graphing features.

Historical Graph

- Select Historical graph to view data saved to the database.
- Window allows you to select start and end date for data displayed on the graph.
- See graphing below for a detailed explanation of all graphing features.

Structure Tab

- Allows you to view the relationship for all active loggers and repeaters.
- Each device can be edited from this tab. Simply right click on the device.

Devices Tab

- List all devices (including repeaters and the receiver).
- All devices can be edited from this tab. Simply right click on the device.

Data Tab

- Live view (last 2 hours of data only) of each logger in a larger graph with table displayed to the left of the graph.
- If you want to see all saved data, go to the Loggers tab, right click on a logger and select Historical Graph.

Graphing Features

Y Axis

The Y axis automatically adjusts the scale to ± 2 units above and below the min/max reading to make the graph easier to read. To change the scale, right click on the logger and select Customize Graph.

Zoom

To Zoom in/out simply click on the graph with your mouse and roll the mouse wheel up and down to zoom in and out.

Scroll

To scroll through data, click on the arrow buttons to the bottom right of the graph to scroll left and right. The double arrows will scroll to the begging/end of data. The single arrows adjust the data by one page view.

Exporting Data

- Report: Click on Report to view a summary of all data displayed on the current graph – only available in Historical Graph view
- All graphs and tables can be printed
- All graphs can be saved as .gif, .jpg and .png files
- All tables can be exported to Excel or as .csv files.

Customize Graph

- Right click on graph or right click on logger in logger tab to open Customize Graph window
- Graph line style & color, Y axis ranges and titles can be customized and saved for each graph.

alpha CONTROLS & INSTRUMENTATION

View Multiple Loggers on Same Graph

- View data from two or more loggers on the same graph
- Hold down the CNTL or SHIFT key while highlighting loggers in the Loggers Tab with your mouse.
- Right click and select Historical Graph
- Select Date Range
- All selected loggers with data for that time period will display on the graph.

Backing Up and Restoring the Database

Creating Database Backups

- Go to Tools, Database and click on the Backup tab.
- This feature allows for scheduling of regular backups.
- Set the Days of the Week and Time for the backups.
- Path to Backups must be set to either:
  - The Windows Public (c:\Users\Public) or Shared (c:\documents and settings\shared) folder on the host PC – you must ask your IT department to schedule regular backups of this folder to the network.
    OR
  - To a Flash or USB drive connected to the host PC.

Moving Wizard2 backups to Network Shares

- First we need to modify the Batch file to the work with the user's computer/network setup.
- On the CD please right click on the backup script file and Edit. The steps below will walk through changing the script.
- Below is the actual script that is located on the CD:

```
@echo off
xcopy C:\Users\Public\w2bak\*.bak G:\backuptest /Q
del C:\Users\Public\w2bak\*.bak /Q
@echo Dickson Database has been copied to your destination Folder
pause
```

- Change this part of the script to the location where you backups are being made. Make sure to include the *.bak after your folder directory. The location could be found through the Wizard software by going to Tools – Database – Backup Tab. Under path to backups is the location of the backups. Make sure to add the *.bak to the end of it.

```
C:\Users\Public\w2bak\*.bak
```

- Below Change this part of the script where you want your backups to be copied to. Please add the /Q to the end of the folder directory.

```
G:\backuptest /Q
```

- This will delete any back up files that are in the directory after they have been copied to your destination directory on your network share. This should be exactly the same as the first step just with a /Q at the end of it.

```
C:\Users\Public\w2bak\*.bak /Q
```

- Save the Batch file and drop it on the desktop. Now you may manually click on the batch file every time you would like to transfer the backups to the network share, or you may add this batch file to the Windows Task Scheduler so it automatically runs the file for you.

Database Restore

If the host PC crashes, the software can be installed on a new PC and the backed up database can be restored on that PC. Contact Dickson Technical support for procedures.

Tech Support FAQs

Q: Received the following error during installation “MSXML 6.0 Setup Failed”
A: The program tried to uninstall and reinstall the file and failed. The process can be done manually. Follow the steps below:

1. Go to Start (windows icon in lower left corner of display), Programs, Windows Install Clean Up
2. Double click on Windows Install Clean Up to open
3. A window will open with a list of programs.
4. Click on MSXML 6.0 to highlight then click on Remove.
5. Confirm that you want to remove the program
6. Once complete, reinstall the WiZARD2 software via the CD

Q: Received the following error during installation “Dickson WiZARD2 Installer. . . . not adequate for running on system”.
A: The wrong installation program was selected for the PC configuration. There are separate installs for the following PC configurations:

1. Windows XP Professional
2. Windows Vista & 7 32 Bit
3. Windows Vista & 7 64 Bit

Go to Control Panel, Systems to confirm that you are installing the correct version.

Q: Wizard Broker Service Monitor will not run. Error: “Service will not start in a timely fashion” error message appears when trying to run.
A: The Event Log is full. Follow the steps below to modify Event Log settings:

- Got to START and right click on Computer. Select Manage from the drop down menu.
- Expand Event Viewer to view sub folders.
- Expand Windows Logs to view sub folders.
- Right click on Application and select Properties
- Select: Overwrite events as needed (oldest events first)
- Click OK to close window
- Right click on System and select Properties
- Select: Overwrite events as needed (oldest events first)
- Click OK to close window
- Close Computer Management Window
- Start Wizard Broker Service Monitor again

Q: What does the LED on each device indicate?
A:
Receiver:
Flashes Blue when being polled (every three seconds) or given a command.
Flashes Green when acknowledging a packet from a logger.
Solid Red when full.
5 Blue/Red/Green flashes when powering on
Repeater:
Flashes Blue when forwarding data packets to Receiver.
Flashes Green when acknowledging a packet from logger/receiver.
Flashes Blue/Red quickly when unable to forward data packets (can not see the Receiver).
5 Blue/Red/Green flashes when powering on
Wireless Loggers:
Flashes Blue when transmitting data packet.
Flashes Green in response to a wireless change or clear command
Flashes Blue/Red when unable to transmit data packet.
5 Blue/Red/Green flashes when powering on
Ethernet Loggers:
Blinks Blue when forwarding data packets to the Host PC.
Blinks Blue/Red when unable to forward data packets.
5 Blue/Red/Green flashes when powering on
5 Blue/Red/Green flashes followed by a long green flash followed by 5 Blue/Red/Green flashes when powering on when connected to the Ethernet.

Q: In my historical graph I show a reading of zero for 1 point only. All other points are normal.
A: There was a missing time stamp in the table for 1 reading. It will display as 0 on the graph. This reading should be disregarded.

Q: When zooming in and out on a graph I sometimes see the following Application Error: "Unhandled Exception: Object reference not set to an instance of an object."
A: This error can occur when zooming in and out very quickly on a set of data containing less than two hours of data. Click Ignore.

Q: Can I run 2.4 GHz and 900 MHz loggers on the same system?
A: No. The logger and repeater frequency must match the receiver frequency.

Q: Can I delete my database or clear saved logged data from the database?
A: In the event that the database needs to be removed or cleared, please contact Customer Service for information.

Q: My Ethernet logger has stopped sending data to the Host PC and the time of last transmission is not updating.
A: If the Ethernet logger stops communicating check the following:

1. Is the logger running on battery power only?
   The logger can save readings via battery power but cannot communicate via the Ethernet. To check, go to the logger and check to see if the Ethernet connector LEDs are green or orange (one will remain solid green or orange, while the other will flash). If so, the unit is powered via AC. If not, double check to make sure the AC adapter is plugged securely into the logger and into a working power outlet. The AC adapter led should remain solid green when plugged in.
2. Is the Ethernet cable plugged in securely to the logger?
   The Ethernet connector has two LED's one will remain sold green or orange when the jack is plugged in. The other will flash green or orange every second or two. If the Ethernet connector LED's are not lit, then the Ethernet plug may not be plugged in properly.
3. Check Target IP Address
   - With the logger running on battery power, remove the logger from AC and Ethernet and bring back to the Host PC.
   - Connect the logger via USB. The Logger Edit window will open.
   - Click on the Network Settings tab and note the Target IP Address.
   - Click on Set Target IP Address, does the current IP Address assigned to the logger show. If not, the Host PC IP Address has changed.
   - Select the IP Address shown in the Set Target IP Address window and click on Save Changes.
     Take the logger back to its location and reconnect AC and Ethernet.
   - It can take up to 5 minutes for the logger to resume communications. All data saved while the logger was unable to communicate will be forwarded to the W2 database. Depending on how much data the logger has to send, this may take a couple hours.

Contact your IT department and ask to have a fixed IP address assigned to the Host PC. Once complete each logger will need to be brought back to the Host PC and edited to correct the Target IP Address.

Q: My Receiver became disconnected from the USB and will not reconnect – LED is solid red
A: Please follow the steps below:

1. Close the WiZARD2 Application
2. Open the broker icon in the lower right corner of the Windows task bar. If it is green then stop and restart the broker. If it is red restart it.
3. Open the WiZARD2 Application
4. Receiver should be connected and LED should begin blinking blue

Q: My logger displays a current Time of Last Transmission, but the Time of Last Reading is no changing.
A: The logger may have received a bad time/date stamp packet. Clear the logger wirelessly or via USB. The next sent reading should reflect a current Time of Last Reading.

Q: My logger displays a current Time of Last Transmission, but the Time of Last Reading is in the future
A: The logger may have received a bad time/date stamp packet. Clear the logger wirelessly or via USB. Open historical graph to confirm that new readings with current time/date are being saved. The Time of Last Reading field will continue to display the future time till that time has passed.

Q: Logger lost communications
A: If a logger has lost communications please follow these steps to determine where the issue may be?

1. Have all other devices lost communications?
   - **a.** Yes: Then move to step 2
   - **b.** No: Then move to step 3
2. Either the broker or the USB connection for the receiver has been broken
   - **a.** Look at the receiver LED. It may be solid red. This means that the receiver is unable to forward packets form the receiver to the database. The broker may have stopped or the USB connection for the receiver may be affected.
   - **b.** Look at the lower left corner of the main W2 client window. You should see "Connection to Broker" and "Connection to Receiver" followed by "Connected" or "Not Connected"
   - **c**. If "Connection to Broker = Not Connected", then do the following:
     - **i.** Check the broker icon . If it is green then stop and restart the broker. If it is red restart it.
     - **ii.** Wait 2 minutes. If the Receiver LED is no longer solid red, then the receiver is back on line.
     - **iii.** If the receiver is still solid red, then unplug the receiver from the USB. Wait 10 seconds and plug back in.
     - **iv.** Wait 1 minute. The receiver should start to flash blue every 3 seconds and loggers will start to send saved data.
   - **d.** If "Connection to Receiver = Not Connected"
     - **i.** Unplug the receiver from the USB. Wait 10 seconds and plug back in.
     - **ii.** Wait 1 minute. The receiver should start to flash blue every 3 seconds and loggers will start to send saved data.
     - **iii.** If the receiver is still solid red, then Check the broker icon . If it is green then stop and restart the broker. If it is red restart it.
     - **iv.** Wait 2 minutes. If the Receiver LED is no longer solid red, then the receiver is back on line.
     - **v.** If the receiver is still not connected, try moving the USB cable to a different port on the host PC.
     - **vi**. If all else fails, remove the USB and AC power from the receiver and turn the receiver of. Wait 10 seconds. Turn the receiver back on and plug in AC. Wait for the LED to stop flashing. Plug in USB. Receiver should reconnect. Note: Powering down the Receiver may result in lost data
3. Have all loggers connected via a specific Repeater have lost communications:
   - **a.** Yes: Then move to step 4
   - **b.** No: Then move to step 5
4. The Repeater may be off line.
   - **a.** Go to the repeater and make sure it is powered via AC.
   - **b.** Watch the LED flash. If it is flashing very quickly blue/red/green, then turn the Repeater off and remove from AC. Leave for 10 seconds. Turn the Repeater back on and reconnect AC.
   - **c.** Repeater should flash quickly every 10x then stop. It should only flash blue or green when forwarding data between the logger(s) and receiver.
   - **d.** Bring one of the loggers that communicates via the Repeater over to the repeater and hold down on the Push to Start button. Watch the LED flash. If the LED flashes blue only, then the repeater can see the receiver and communications are restored. If it flashes blue/red, then the repeater can not see the target connect via device.
   - **e.** In this case, the repeater may need to be repositioned so it can communicate with the target connect via device.
   - **f.** If there are multiple repeaters in a line, each repeater should be checked
5. Go to the logger and check the following:
   - **a.** Press and hold the Push to Start button on the logger for 10 seconds. If the LED flashes all blue/red, then the logger can not see the target connect via device. If the LED flashes a mix of blue and blue/red, then it is on the very edge of maintaining communications. In both cases the logger should be moved closer to the target connect via device.
   - **b.** If the logger has been operating normally from that location for a long period of time and this is the first time it has lost communications, check the following:
     - **i.** Is the logger on and if using AC, is the AC power source in that location clean and consistent? No brown outs or power outages. If there have been recent brown outs or a power outage the unit may have been damaged. Contact technical support.
     - **ii.** Has the physical environment changed creating more barriers between the logger and the target connect via device? If so the logger should be moved to minimize the physical barriers.
     - **iii**. Bring the logger close to the target connect via device. Hold down on the Push to Start button. If the logger still flashes blue/red, contact Dickson Technical Support

Q: When testing Email/Text Configuration, I receive an Error message.
A: With IT, check the following:

- In the host PC virus scan software, make sure the SMTP port is allowed – you may need to create a port exception.
- If running on XP, and using port 25, turn off mass mailing worm exception.
- SMTP address may need to be entered as the server IP address rather than host address.

Q: The Unit of Measure for the Display (Temp Unit Display) does not match setting.
A: Check the following:

- Changing the unit of measure under Options/Settings will not change the logger display unit of measure setting. This must be changed via the Logger Edit window. Connect the logger to the host PC via USB and select unit of measure. Click Save Changes and Start.
- If the displayed unit of measure will not change, try the following:

    - If running version 1.2.0.13, insert installation DVD into host PC
    - Close the W2 Client and stop the Broker Service
    - Open folder for your install and double click on the file Enet LCD Script DB Update to run the update (If this folder is not included, contact Dickson Technical Support at 800.323.2448 for assistance)
        - The Database will be updated automatically
        - Restart the Broker Service and Open the W2 Client
        - Connect the logger via USB to edit Temp Unit Display

Q: The graph displays readings for -500.0.
A: The logger will send a -500.0 reading when the probe has been unplugged from the logger or is damaged. Logger display will read “PROB”. Reconnect the probe or contact Customer Service for an RA.

Appendix

Types of Installations

- **Standard Install:** Installer must have full administrative rights on the host PC and on the Domain if the PC is on a Domain. Once installation is complete and the software has been configured all Standard and Administrative users will be able to run the WiZARD2 software on the host PC.
- **Enterprise Install:** Installer must have full administrative rights on the host PC and on the Domain if the PC is on a Domain. Once installation is complete and the software has been configured all Standard and Administrative users will be able to run the WiZARD2 software on the host PC. Email/Text configuration requires an SMTP address and port for the mail server. Contact IT for this information. If using a 3rd party mail server you must contact your provider for this information. See the Email/Text Notification Setup section in this manual for complete instructions.
- **Secure Local:** Installer must have full administrative rights on the host PC. This version will not work on a Domain. Installer must add standard and admin users to the Dickson WiZARD user group (WiZARDUser) once the Secure Local key is entered and the system is restarted. Email/Text configuration requires an SMTP address and port for the mail server. Contact IT for this information. If using a 3rd party mail server you must contact your provider for this information. See the Email/Text Notification Setup section in this manual for complete instructions.
- **Secure Domain:** IT support is required for this installation. Installer must have local and domain administrative rights on the host PC. If they don't full admin rights on the PC and Domain permissions will fail. Once the Secure Domain key is entered and they system is updated, all logins that are required access to the WIZARD2 on the host PC must be added to the Dickson WiZARD user group (WiZARDUser) that was created on the Domain as part of the install. Email/Text configuration requires an SMTP address and port for the mail server. Contact IT for this information. If using a 3rd party mail server you must contact your provider for this information. See the Email/Text Notification Setup section in this manual for complete instructions.

Warning (Part 15.21)

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

FCC Interference Statement (Part 15.105 (b))

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Section 14

RF SAFETY CALCULATION / MPE CALCULATION (MAXIMUM PERMISSIBLE EXPOSURE)

RF Exposure (OET Bulletin 65)

To comply with FCC RF exposure requirements for mobile transmitting devices, this transmitter should only be used or installed at locations where there is at least 20cm separation distance between the antenna and all persons.

Replaceable Sensor Certificate of Validation

Dickson ensures that the Replaceable Sensors / Instruments listed below were developed, tested and validated together.

- Replaceable Sensor Model: R200 and Instrument Model: WH345
- Replaceable Sensor Model: R300 and Instrument Model: WT320

Operation

The Instruments and Replaceable Sensor models listed above were specifically designed to work together. No other sensors will work with the Instrument models listed. No other Instrument will work with the Replaceable Sensors listed. The Replaceable Sensor must be connected to the Instrument for the Instrument to operate properly.

Calibration

Only the Replaceable Sensor is calibrated. The sensor, and all calibration defaults and adjustments are stored on the Replaceable Sensor. Accuracy is strictly controlled by the sensor – no adjustments are made by the Instrument. Readings are sent from the Replaceable Sensor to the Instrument for storage purposes only. Certificates of Calibration / NISTs are only supplied for the Replaceable Sensor for this reason.

Recalibration

When a Replaceable Sensor is due for recalibration the existing Replaceable Sensor can be replaced with a new Replaceable Sensor thus eliminating the need to return the entire instrument for recalibration. Replaceable Sensors can be returned for recalibration as well.