

Outdoor Wireless Setup and Operations Guide



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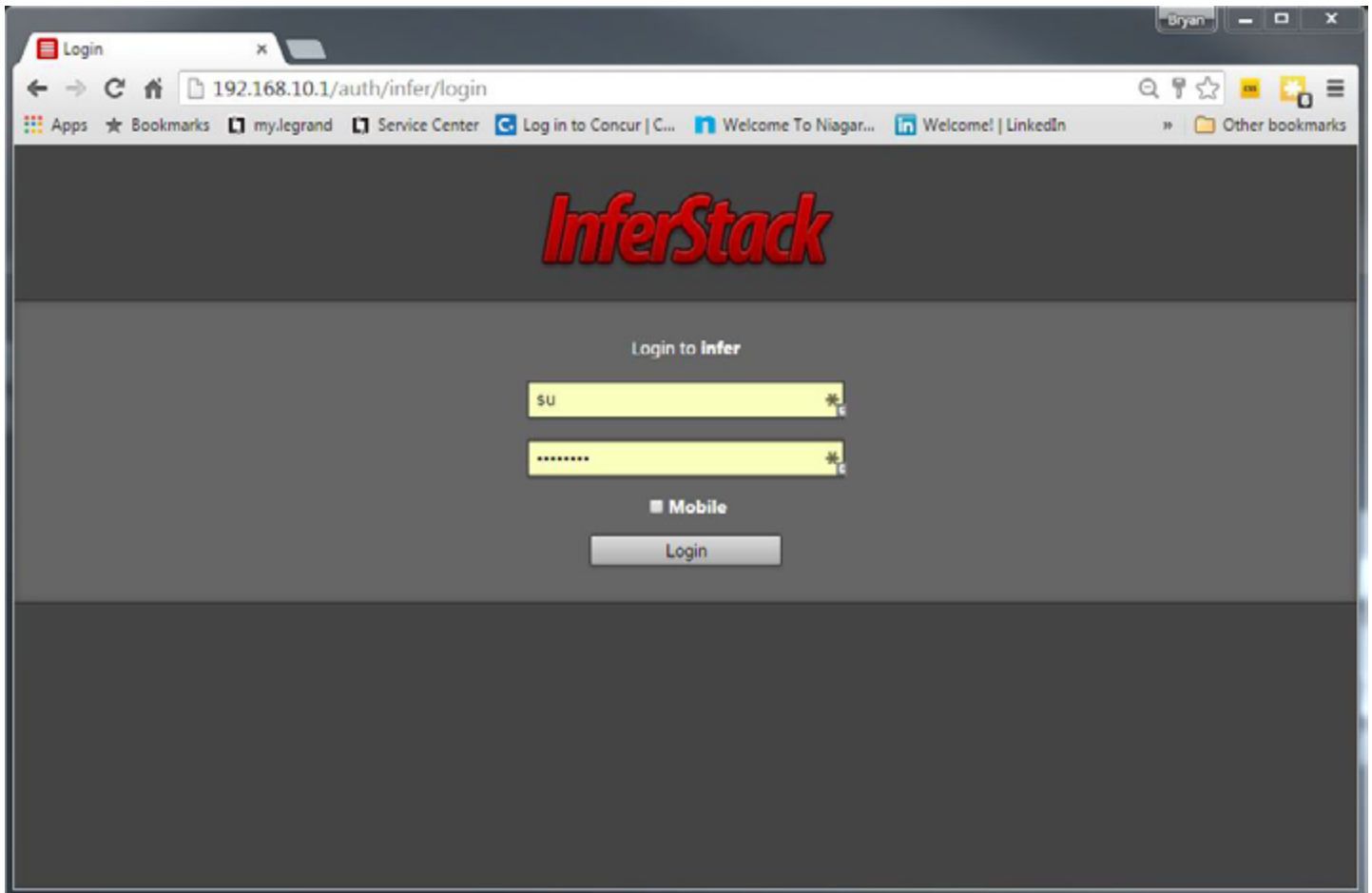
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This guide provides detailed information on how to setup and run a Legrand Outdoor Wireless System. It assumes all components have already been installed. The software applications described in this guide reside within the 225CWS.

LOGGING IN

1. Once the 225CWS is powered, the WiFi led will turn green after a boot up. Once green the 225CWS will broadcast a WiFi network with an SSID the same as the first 2 sections of your Host ID. The Host ID can be located on the label of the device, or on the box the device came in.
SSID Example: 225CWS-C1234567890
The default WiFi SSID passphrase is the last 8 characters of your Host ID, and is case sensitive. Connect to this network with your computer.
Passphrase Example: ABCD1234
2. Using the Web browser of the computer (Google Chrome is recommended), connected the to the WiFi network, navigate to <http://192.168.10.1>. The InferStack login screen will appear.

Login Screen

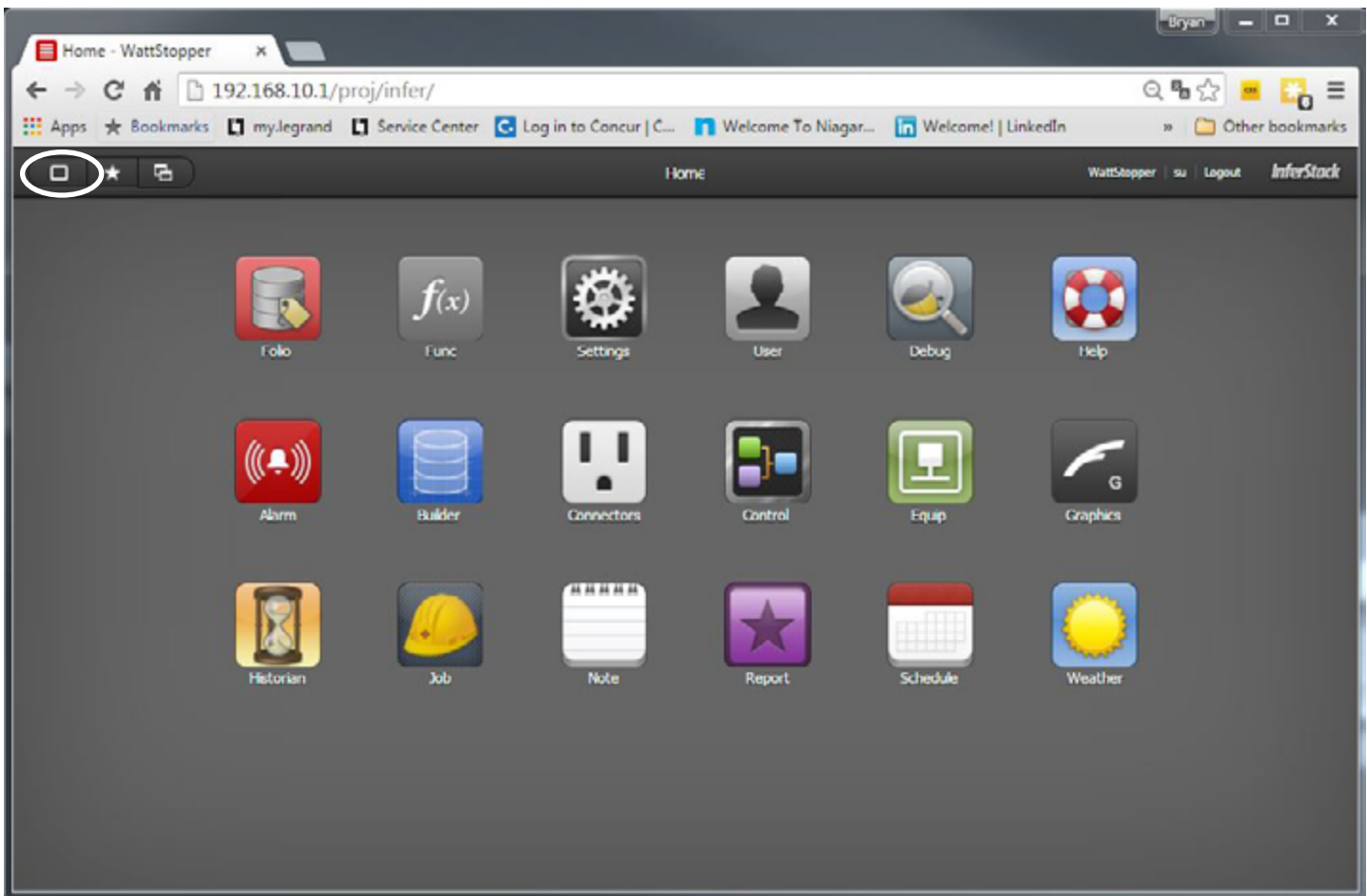


3. The default username: su
Default Password: The last 8 characters of your host ID.
4. Once logged in, the Home screen appears, displaying the various available applications.

UPDATING THE FIRMWARE

1. After Logging In, the **Home** screen opens.

Home Screen



2. Before doing anything else, check the current version of firmware and any associated patches in the 225CWS. Select the small square button at the top left of the screen to open a pop-up menu which contains smaller versions of the same icons on the home page.

NOTE: Clicking this icon is the way to access the various apps when you are currently on a different app. From the pop-up window (shown below), you can click the icon for any app, or click the **Project Home** icon to return to the Home screen, shown above.

3. In the pop-Up the current Build version is visible at the top right corner of this menu. The next step is to enter the Host app. This is the only method to get to the Host app—it is not accessible from the main screen. Click **Host** to continue.

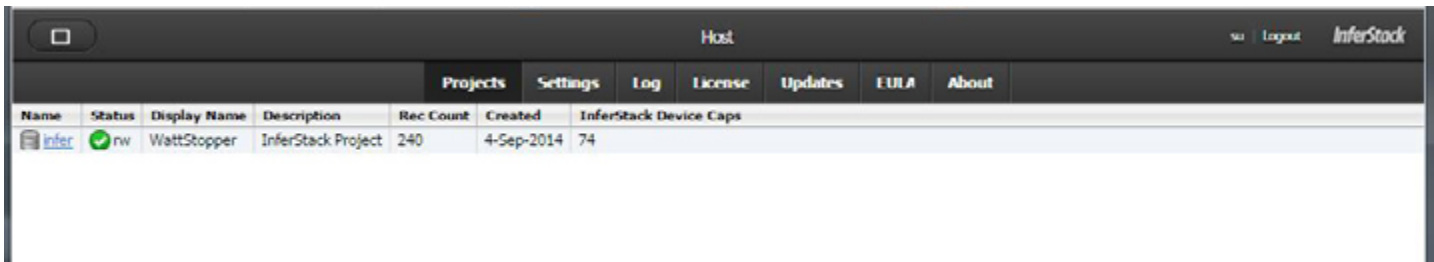
NOTE: Only users logging in as “su” can access the Host app.



Select the Host App



4. The **Host** screen opens with the **Projects** tab selected.

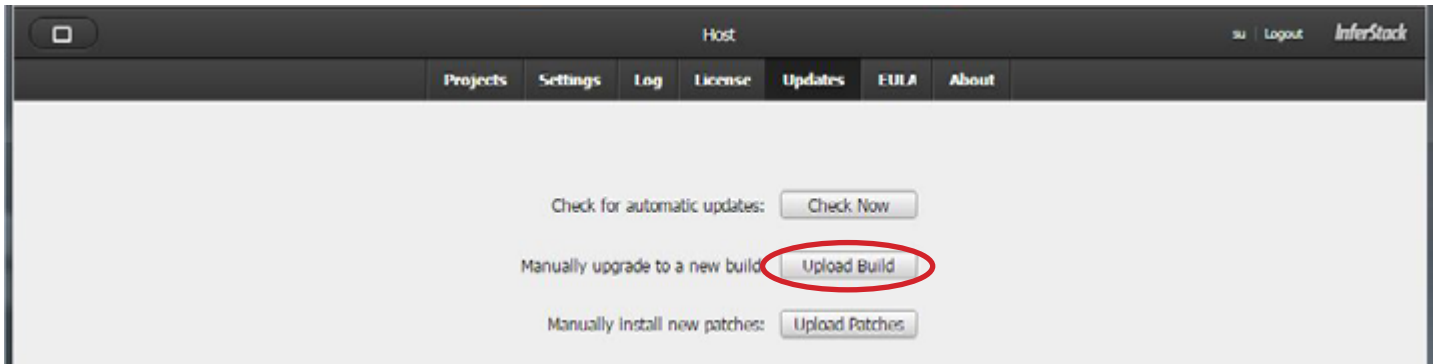
Host App Project Tab



Name	Status	Display Name	Description	Rec Count	Created	InferStack Device Caps
 infer	 nw	WattStopper	InferStack Project	240	4-Sep-2014	74

5. Click the **Updates** tab, then click **Upload Build**.

Host App Updates Tab



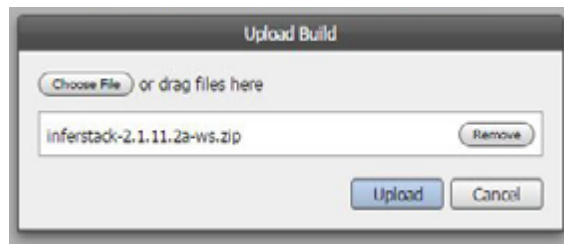
Check for automatic updates:

Manually upgrade to a new build:

Manually install new patches:

6. The **Upload Build** dialog opens. Click **Choose File**, select the location on your computer where the latest .zip file is located, and click **Open**. Then click **Upload**.

Upload Build



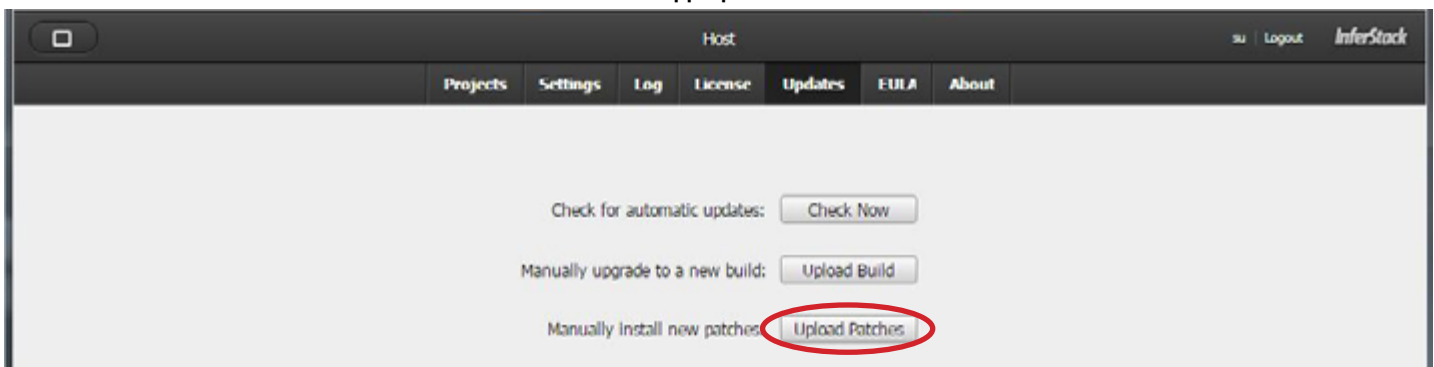
Upload Build

or drag files here

inferstack-2.1.11.2a-ws.zip

7. Following the upload, the 225 CWS will reboot. Following the reboot process, reconnect to the WiFi.
NOTE: Contact Wattstopper Technical Support for information on the most recent version of the firmware.
8. If a patch update is required, repeat steps 1-4 to return to the **Updates** tab then click **Upload Patches**.

Host App Updates Tab



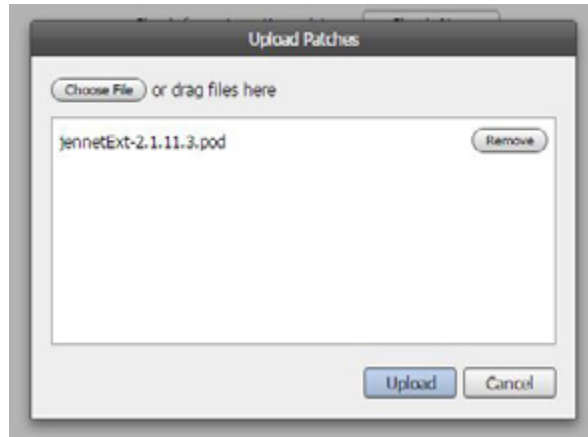
Check for automatic updates:

Manually upgrade to a new build:

Manually install new patches:

9. The **Upload Patches** dialog opens. Click **Choose File**, select the location on your computer where the latest .pod file is located, and click **Open**. Then click **Upload**.

Upload Patches



10. Following the upload, the 225 CWS will reboot. Following the reboot process, reconnect to the WiFi.

NOTE: Contact Wattstopper technical support for information on the latest version of the firmware.

INSTALLING THE BASE SNAPSHOT

The base snapshot is the starting point for the database stored in the 225CWS.

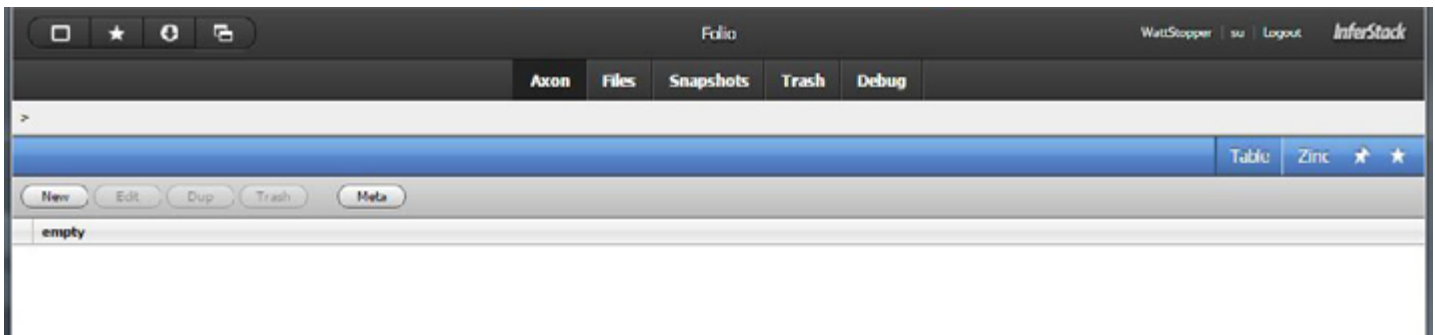
1. From the Home Screen click the **Folio** icon.

Home Screen



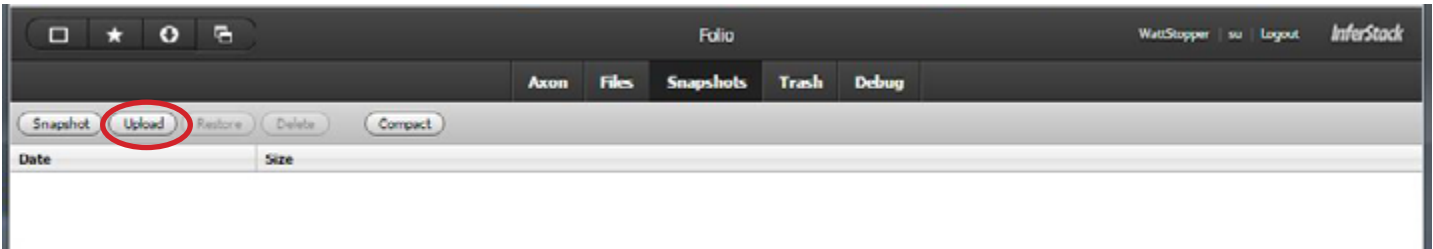
2. The **Folio** screen opens with the **Axon** tab selected.

Folio App Axon Tab



3. Click the **Snapshots** tab, then Click **Upload**.

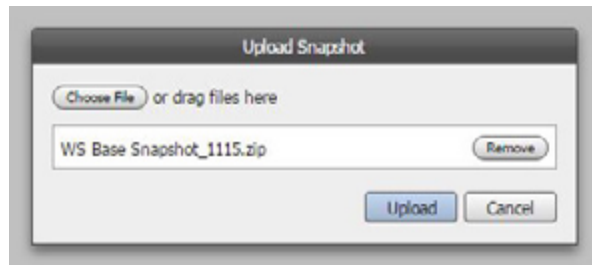
Folio App Snapshots Tab



- The **Upload Snapshot** dialog opens. Click **Choose File**, select the location on your computer where the latest ".WS Base Snapshot_XXXX.zip" file is located, and click **Open**. Then click **Upload**.

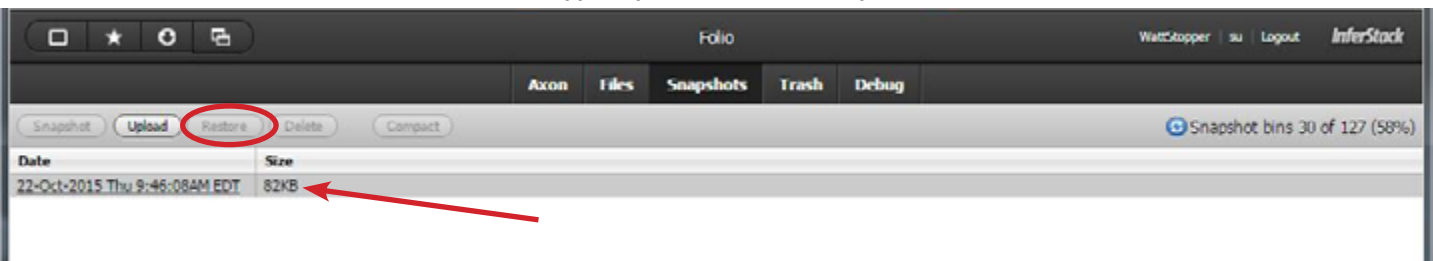
NOTE: Contact Wattstopper Technical Support for information on the most recent version of the 225CWS Builds.

Upload Snapshot



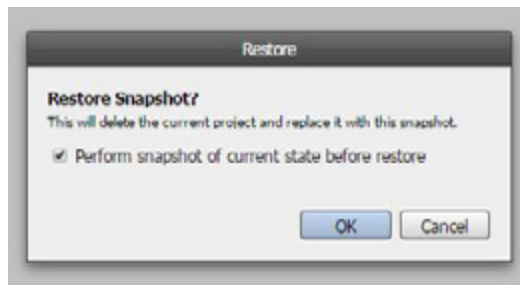
- After uploading the snapshot, the file will appear in the window. Click the file under the "Size" column to select it, then click **Restore**.

Folio App Snapshots Tab with File Uploaded



- The **Restore** dialog opens. Be sure that the **Perform snapshot of current state before restore** checkbox is selected, then click **OK**. Following the restore, the 225CWS will reboot. Following the reboot process, reconnect to the WiFi and return to Home Screen.

Restore



CONFIGURING HOST SETTINGS

The Host app allows you to configure the network and wireless settings, and to set the date and time.

1. From the Home screen, select the small square button at the top left of the screen to open a pop-up menu.

Home Screen



2. Click **Host** to continue. This is the only method to get to the Host app—it is not accessible from the main screen.
NOTE: Only users logging in as “su” can access the Host app.

Select the Host App



3. The **Host** screen opens with the **Projects** tab selected.

Host App Project Tab

The Host App Project Tab displays a table with project information. The table has columns for Name, Status, Display Name, Description, Rec Count, Created, and InferStack Device Caps. The data row shows a project named 'WattStopper' with a status of 'nw' and a description of 'InferStack Project'.

Name	Status	Display Name	Description	Rec Count	Created	InferStack Device Caps
Infer	nw	WattStopper	InferStack Project	240	4-Sep-2014	74

4. Click the **Settings** tab. The **Settings** tab has several pages, accessed by clicking the menus on the left side of the screen. By default, the **Settings** tab opens on the **General** menu.

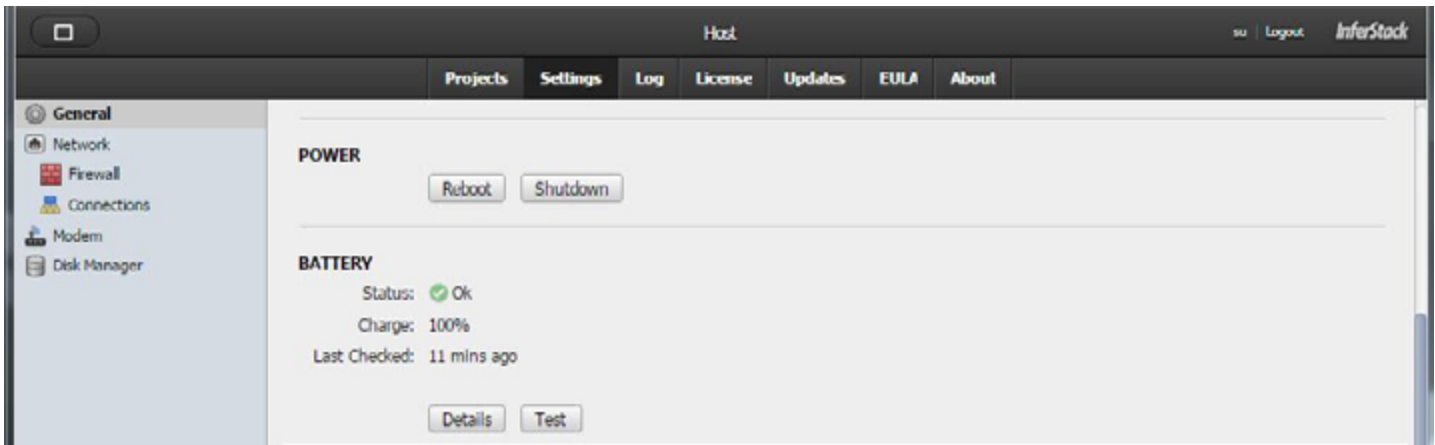
Host App Settings Tab – General Page

5. Click the top **Edit** button in the **Date & Time** section to open the **Date & Time** dialog. If you select the **Manually set date and time** option, you can change the settings if needed. If the 225CWS will remain connected to the Internet, you can select the **Automatically set date and time** option, if desired. Click **OK**.
6. If the currently selected time zone needs to be changed, click the **Edit** button in the **Date & Time** section, and modify the setting. If you change the time zone, you must reboot the 225CWS. After rebooting, repeat steps 1-4 to return to the **Settings** tab.

Date & Time

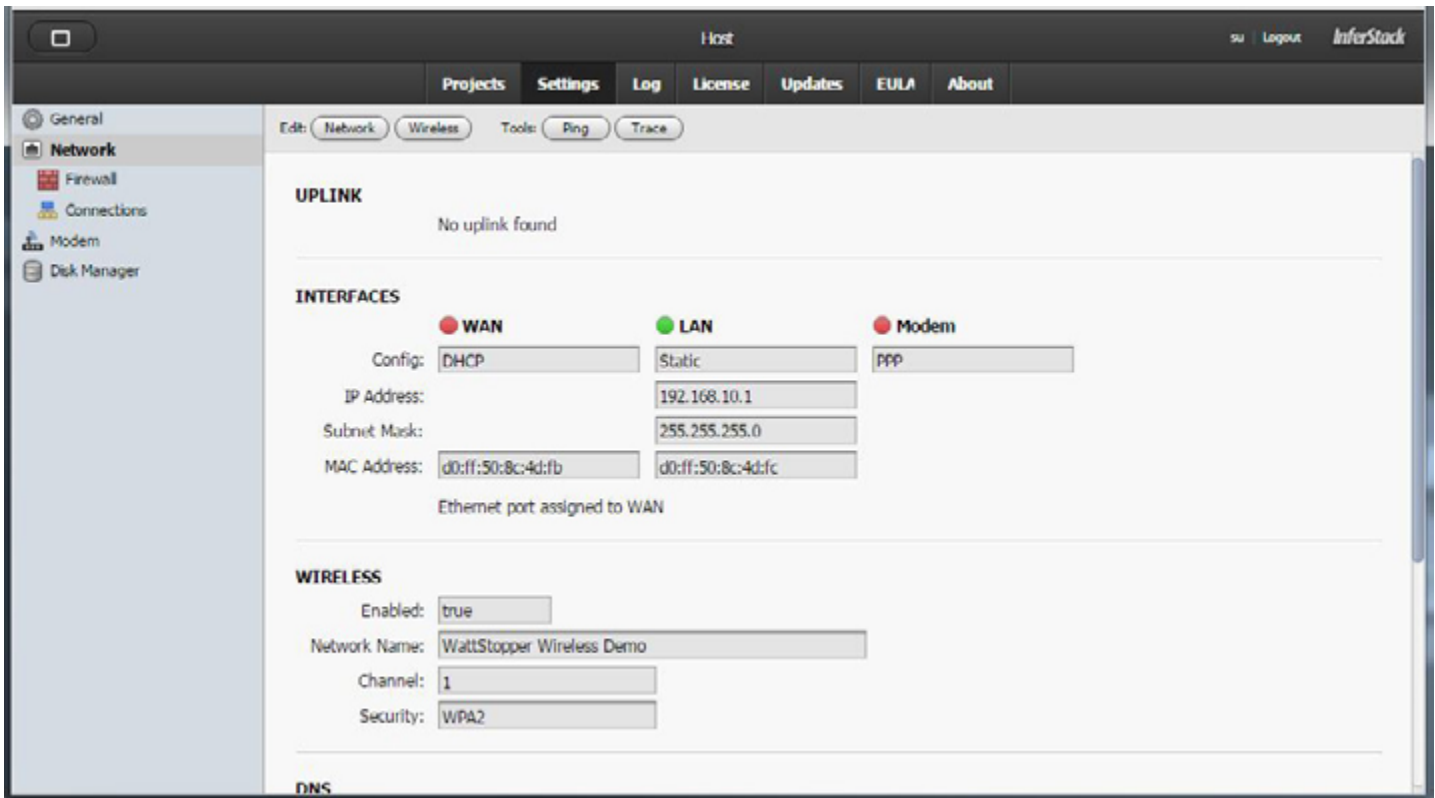
7. If you scroll down the **General** menu page, you will find a section for the **Battery**. If you ever receive a battery alarm, you should navigate back to this section. Click **Test** to perform diagnostics. Then, click **Details** to open the alarm log. Contact WattStopper Technical Support and submit the log.

Host App Settings Tab – General Page



- Click the **Network** menu option to open the **Network** page.

Host App Settings Tab – Network Page



- Click the **Network** button to the right of **Edit** to open the **Network** dialog. The WAN is the default for the **Ethernet Port** on the 225CWS. The LAN is the default port for the WiFi access. Either of these can be edited. If edited ensure that the remaining parameters are set correctly, based on the desired IP Configuration.
- Select the **Uplink Mode** based on the desired method for connecting the 225CWS to the Internet.

The 225CWS operates in the same way as a conventional home router. The WAN (or Modem) interface provides the uplink into either the Internet or a wider area network. The LAN interface runs a local area network. The interface used to connect to the Internet is called the active uplink. There are 3 uplink options for the 225CWS:

- **Auto** – use the best interface available
- **WAN** – always use the wired ethernet WAN interface
- **Modem** – always use the modem interface

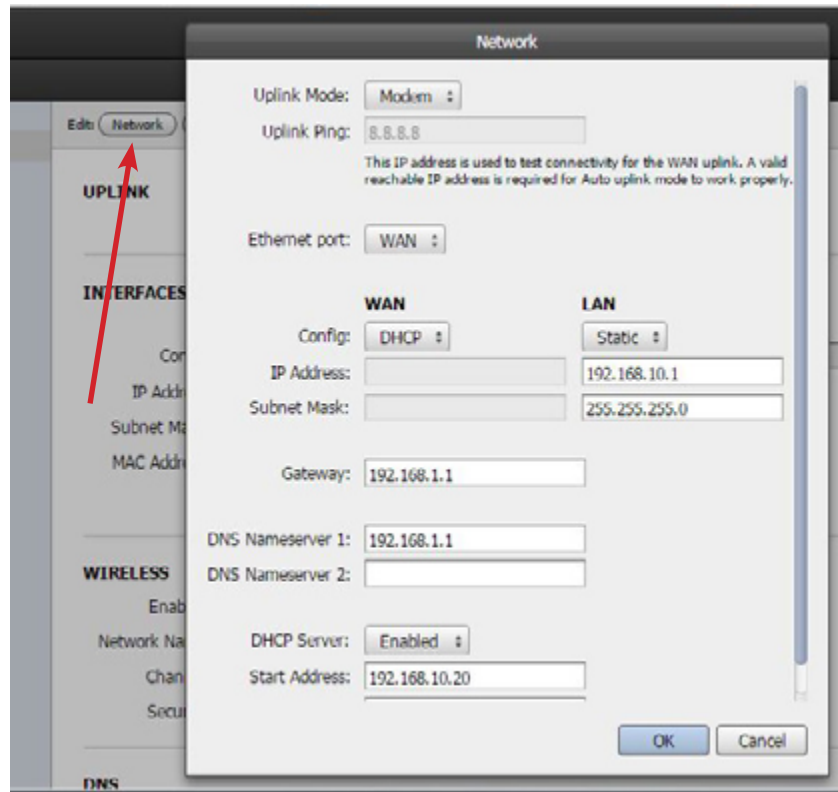
For WAN and Modem, if the connection is unavailable for any reason, the device will be unable to reach external networks. For Auto, the wired ethernet WAN interface will always be preferred. If the system detects that the wired connection no longer has connectivity, it will automatically switch over the modem interface. When the system detects that connectivity over the wired connection is restored, the gateway will be automatically switched back over to the ethernet interface.

Connectivity for the WAN interface is determined by periodically pinging the "Uplink Ping Address". If the device can successfully ping this address via the WAN interface, it is considered "up".

NOTE: Auto uplink mode requires a valid reachable IP address for the the system to properly switch interfaces based on connection status.

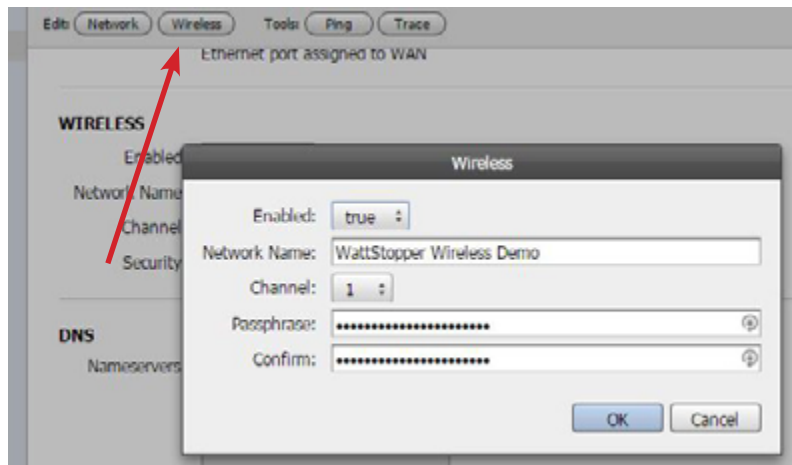
11. Click **OK**.

Network



12. To edit the Wireless WiFi SSID, click **Wireless** to open the **Wireless** dialog, enter the desired **Network Name** and **Passphrase** and select **OK**. You must re-connect to the 225CWS after the settings are saved.

Wireless

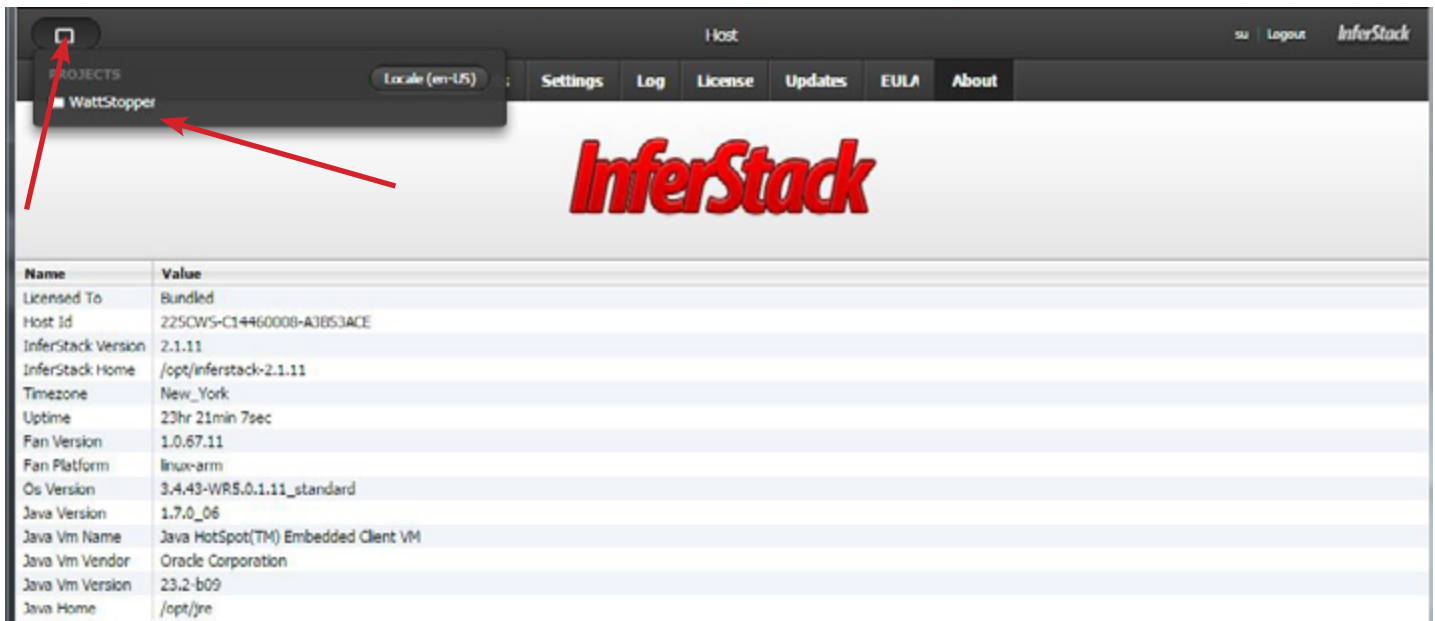


13. If the cellular option is included, click the **Modem** menu option on the left side of the screen. Ensure that the cellular antenna is connected and that all four green LEDs on the modem page are active. Then click **Provision**. This will set up the 225CWS 3G network. This step must be conducted in a Verizon "Home Network".

14. To exit the Host app, click the rectangular button in the upper left corner and then click the Project name, You return to the Home screen.

NOTE: By default, the project name will be “Inferstack”. You will name the project in the next step

Exiting the Host App

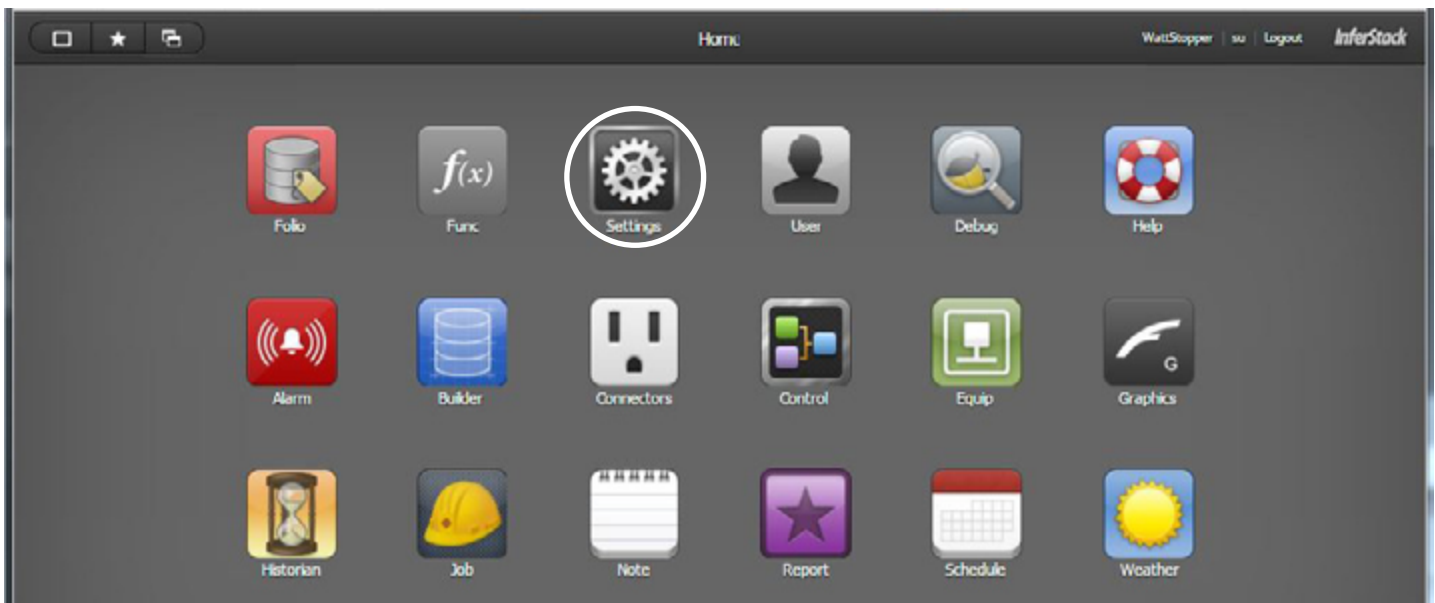


CONFIGURING EXTENSIONS AND OTHER SETTINGS

The Settings app is where drivers and other extensions/apps can be added. It also includes basic settings, such as the project name.

1. From the Home Screen click the **Settings** icon.

Home Screen



- The **Settings** app has several pages, accessed by clicking the menus on the left side of the screen. By default, the **Settings** app opens on the **Project** menu. Enter the desired name for your project in the **Display Name** field. This name will appear in the upper right corner of screen, to the left of the user name (in the following example, the name is "WattStopper"). Click **Save**.

Settings App – Project Page

The screenshot shows the 'Project' configuration page in the Settings app. The left sidebar has 'GENERAL' expanded with 'Project' selected. The main content area has a 'Project' header and four text input fields: 'Display Name' (containing 'WattStopper'), 'Description' (containing 'InferStack Project'), 'Default DateSpan' (containing 'today'), and 'Site URI' (containing 'http://acme.com/'). A 'Save' button is located at the bottom right of the form.

- Click the **Extensions** menu option. This page allows you to enable and disable various extensions. By default, a number of extensions are enabled. Check to be sure that **Email**, **Graphics**, **Haystack**, **JennetIP**, and **Schedule** are enabled, and click the appropriate **Enable** button(s) if they are not.

Settings App – Extensions Page

The screenshot shows the 'Extensions' configuration page. The left sidebar has 'GENERAL' expanded with 'Extensions' selected. The main content area lists several extensions with their status and a 'Disable' button. The extensions are: ADIO (Enabled), Alarm (App, Enabled), BACnet (Enable), BACnet MS/TP (Enable), BACnet Server (Enable), Builder (App, Enabled), Connectors (App, Enabled), Control (App, Enabled), and Email (Enabled). Some extensions have additional requirements listed, such as 'Requires: Connectors, Historian, Point'.

- Click the **Audit** menu option. The Audit menu allows you to track certain changes made in the system. Check to make sure that **Action** and **Login** are enabled and click **Save**.

Settings App – Audit Page

The screenshot shows the 'Audit' configuration page. The left sidebar has 'GENERAL' expanded with 'Audit' selected. The main content area has three checkboxes: 'Action' (checked), 'Commit' (unchecked), and 'Login' (checked). Each checkbox has a description: 'Log each time an action is invoked.', 'Log each time a diff is committed to the folio database.', and 'Log each time a user logs into the REST HTTP API.' respectively. A 'Save' button is at the bottom right.

- Click the **Email** menu option. The Email extension is used to send emails from the system to users. Enter the **Host**, **Port**, **User Name** (normally the same as the sending email address), **Password**, and **From Address** to enable this function. After this information is entered, click **Test**. In the pop-up screen, enter an email address to send a test message to and click **Send** to verify the email app is working properly.
Once receipt of the email is confirmed, click **Save**.

Settings App – Email Page

The screenshot shows the 'Email' settings page in the InferStack application. On the left is a sidebar with 'GENERAL' and 'EXTENSIONS' sections. Under 'EXTENSIONS', 'Email' is selected. The main area is titled 'Email' and contains an 'SMTP Server' section with the following fields: Host (smtp.gmail.com), Port (465), Username, Password, From Address (inferstack@example.com), and a checked 'Use SSL' checkbox. At the bottom right are 'Save' and 'Test' buttons.

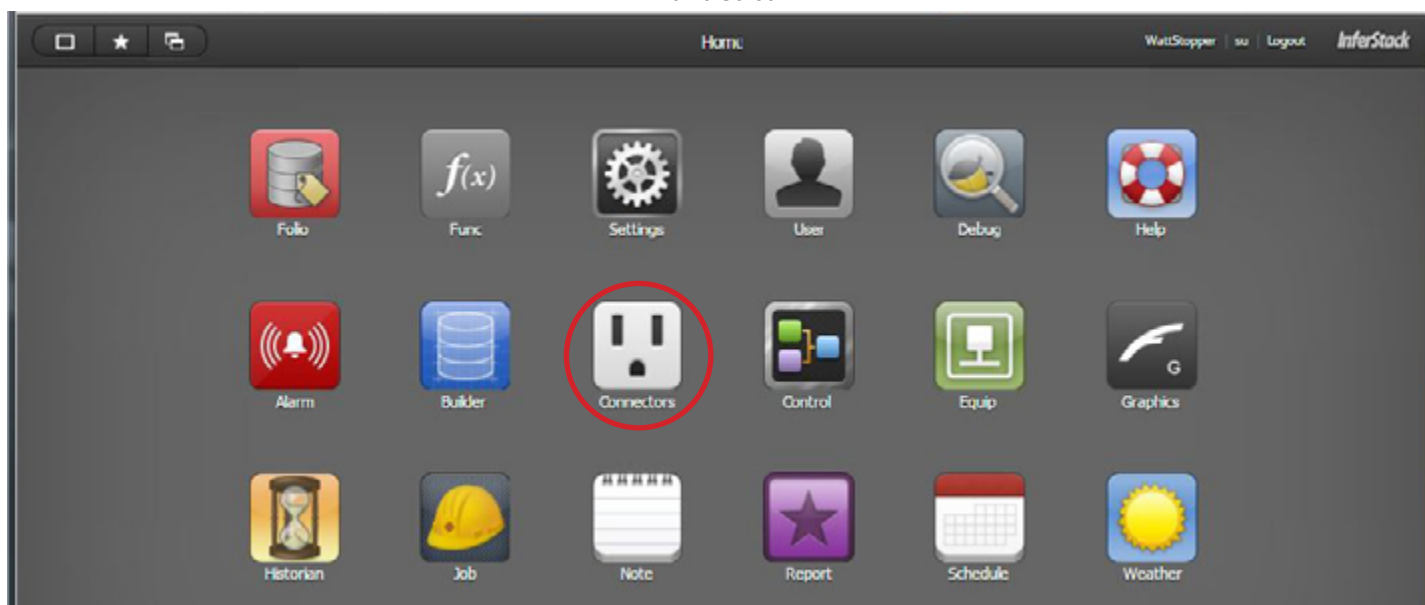
CONFIGURING CONNECTORS

The Connectors app displays a list of all wireless devices that can be discovered by the 225CWS. From this list of devices, you then select the specific devices that you want to control with this 225CWS. These devices will then be added to the network database in a later step.

NOTE: A maximum of 150 devices can be controlled by a single 225CWS. With larger networks of devices, you must use more than one 225CWS, and then choose which devices are controlled by a specific 225CWS.

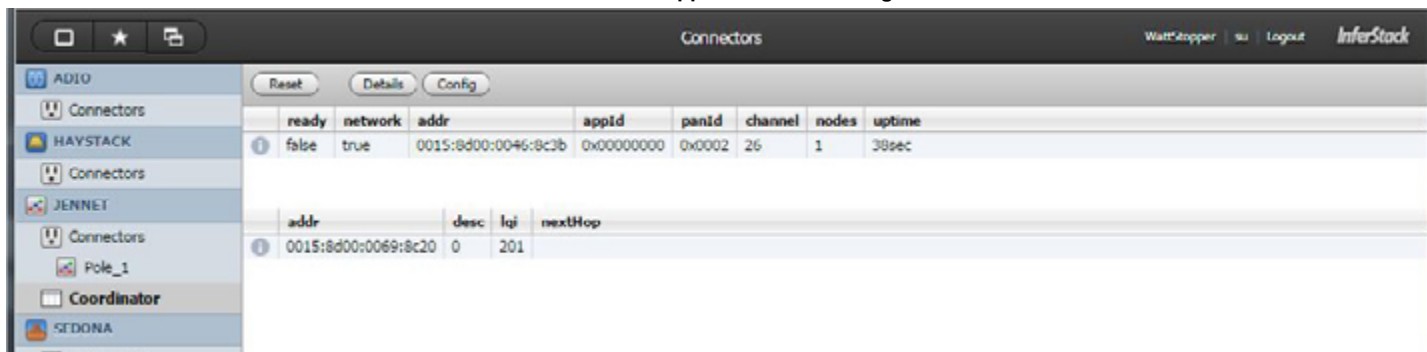
- From the Home Screen click the **Connectors** icon.

Home Screen



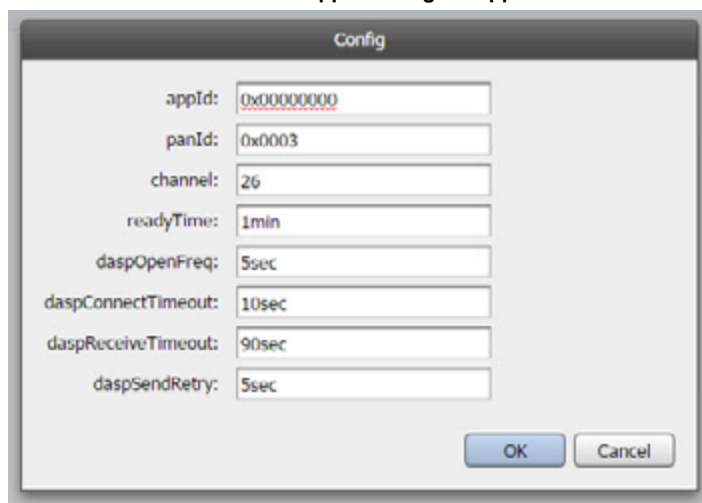
- The **Connectors** app has several pages, accessed by clicking the menus on the left side of the screen. Select **Coordinator** in the **JennetIP** section to display all wireless devices found on the network. This process will take 1 minute before devices begin showing up on the page.

Connectors App – Coordinator Page



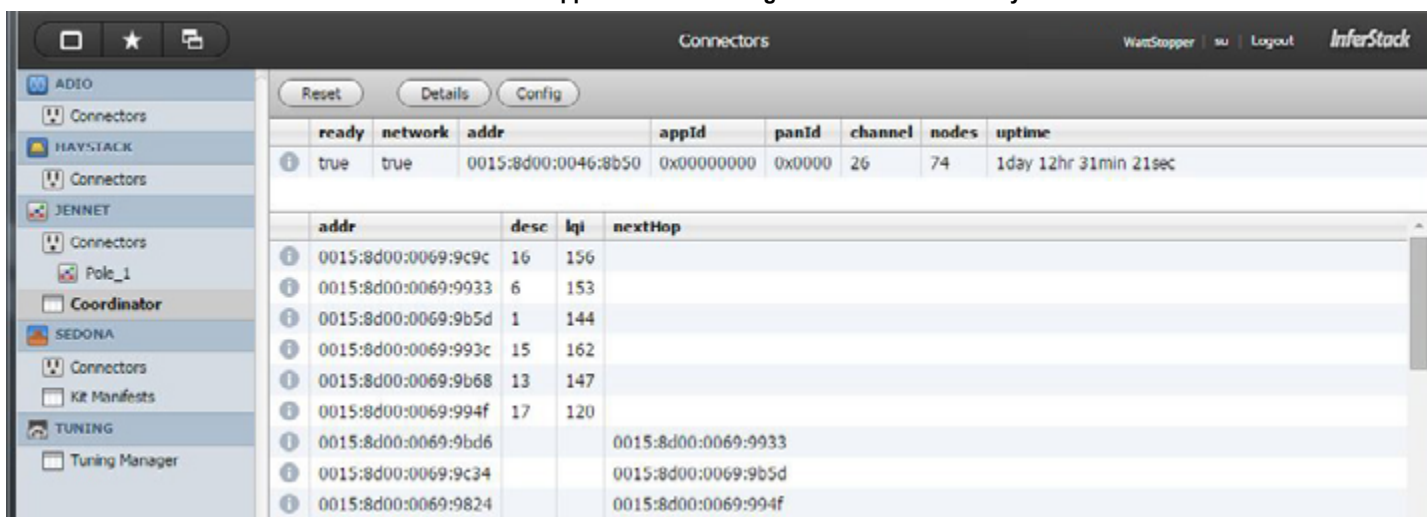
- The network parameters can be edited by clicking **Config**. Any changes made in this section will affect connectivity. The **Default App ID** of the wireless products is "0". To change the coordinator App ID, edit only the ending digits of the App ID, ensuring that the App ID remains 8 digits following the "x". For example, if the App ID needs to be changed to 4, change the ID to "0X00000004". Once the change is made and saved, you must click **Reset**.

Connectors App – Configure App ID



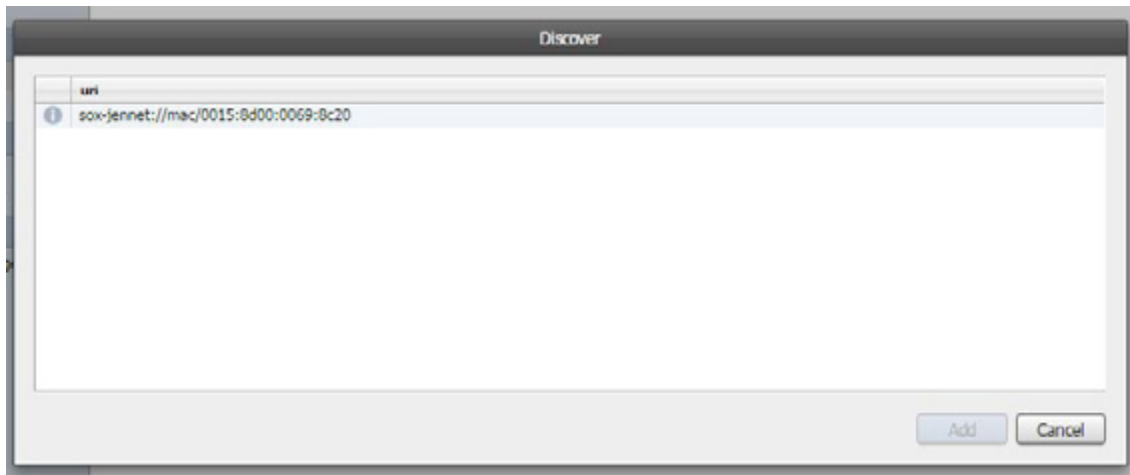
- Once the devices are found, they are displayed on the page. Any device that is a "direct connect" to the 225CWS displays an **lqi** (Link Quality Indicator). Additionally, the **desc** column displays the number of descendants (also referred to as Children/Grandchildren) connected to that device. For the descendent devices, these two columns are blank, but instead the **nextHop** column indicates which other device that device is connected to.

Connectors App – Coordinator Page after Device Discovery



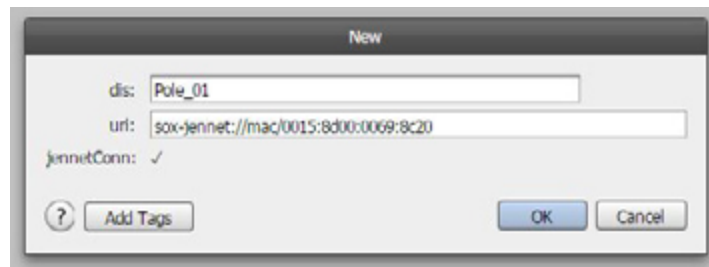
- The next step is to add the desired devices to the database for the 225CWS. Click **Connectors** in the JennetIP section, then click **Discover**. Any device on the wireless network that has not already been added to the database will appear in this window. Select one of the devices you want to add, then click **Add**.

Discover Devices



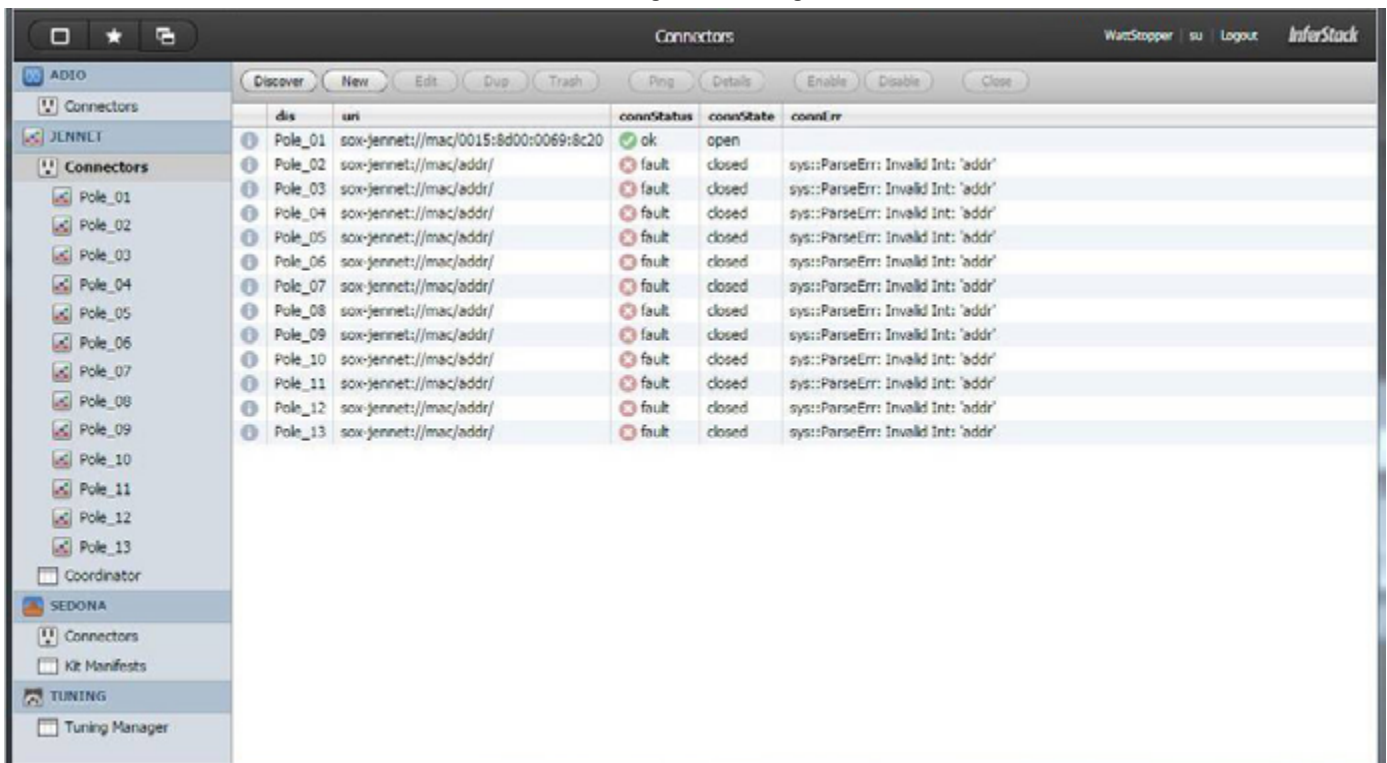
6. The **New** dialog opens. Enter a name for the device in the **dis** field. This will be used for reference when viewing the devices in the network. Then click **OK**. You return to the **Discover** dialog. Repeat this process until all devices are added to the network. If a list of device IDs has been provided along with some type of naming reference has been provided, you can use that. For example, Pole_1, Pole_2, Pole_3, etc. If not, you can use any naming convention will work, provided you note the device ID.

Add a New Device



7. Once devices are added to the network, they will appear on **Connectors** page in the JennetIP section. The devices will either be in "fault" or "unknown" condition until control points have been added.

Connectors Page after Adding Devices



SETTING UP THE DATABASE

Use the Builder app to create the database within the 225CWS. It will contain the site and equipment information, as well as the control points.

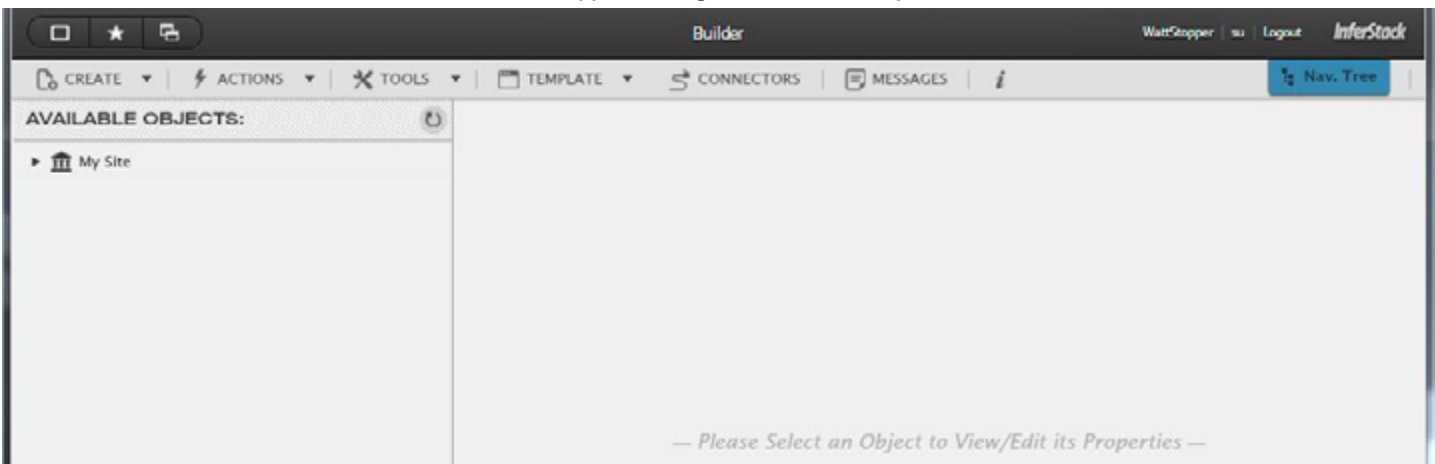
1. From the Home Screen click the **Builder** icon.

Home Screen



2. If the snapshot was successfully loaded, as described in the section "[Installing the Base Snapshot](#)" on page 6, the screen should appear as shown below. If a new site is being created, click **Create > New Site**.

Builder App – Starting with the Base Snapshot



3. Select the site. The **Essential Tags** screen appears and the site information is visible. Edit the **Site Name**, **Country**, **Address**, **City**, **State**, **Postal Code**, and **Time Zone** according to your site details. Enter the **Latitude** and **Longitude** based on the site location. Be sure to hit the **Enter** key on the keyboard after each value.

NOTE: All Longitude values in North America have a "-".

If a site specific tag is required, a marker tag can be added by clicking the "+". A marker tag is a unique "identifier" that can be added to any site, equip or point.

Builder App – Editing Site Information

The screenshot shows the Builder App interface for editing site information. The top navigation bar includes 'CREATE', 'ACTIONS', 'TOOLS', 'TEMPLATE', 'CONNECTORS', 'MESSAGES', and a 'Nav. Tree' button. The left sidebar, titled 'AVAILABLE OBJECTS', shows a tree structure with 'My Site' expanded. The main form area is titled 'ESSENTIAL TAGS' and contains the following fields:

- SITE-NAME:** Text input field with 'My Site' entered.
- SITE AREA:** Text input field with '0.00' and a unit dropdown set to 'ft'.
- COUNTRY:** Dropdown menu with 'United States' selected.
- WEATHER:** Text input field with a 'Browse...' button.
- ADDRESS:** Text input field with '1111 My Street' entered.
- CITY:** Text input field with 'My City' entered.
- STATE:** Dropdown menu with 'Texas' selected.
- POSTAL CODE:** Text input field with '12345' entered.
- TIME ZONE:** Dropdown menu with 'America/Chicago' selected.
- LATITUDE:** Text input field with '33.02' and a unit dropdown set to 'None'.
- LONGITUDE:** Text input field with '-96.70' and a unit dropdown set to 'None'.

Below the essential tags, there are sections for 'MARKER TAGS' and 'PROPERTY TAGS'. The 'MARKER TAGS' section shows a list of tags: 'children' and 'site'. The 'PROPERTY TAGS' section shows a list of tags: 'treePath' and 'tz'.

- In the left section of the screen, expand the site tree. A default equipment is present, "My Pole_001". This equipment already has default points assigned.

NOTE: You have the option of adding a new piece of equipment and using that to add points. To create a new piece of equipment, highlight the site, click **Create > New Equip in My Site**. Edit the **Equip Name**, Select the **Is A Meter** checkbox. Select **Submeter** from the drop-down below that checkbox. Click **Browse** for the **Is a SubMeter Of** field, then select the site from the pop-up and click **Done**. Add any additional marker tags, as desired. Finally, click the **Create** button at the bottom of the screen to save the equipment. Note that you will have to manually add points to this equipment, which is outside the scope of this document.

Builder App - Editing Equipment Information

The screenshot shows the Builder App interface for editing equipment information. The top navigation bar is the same as the previous screenshot. The left sidebar, titled 'AVAILABLE OBJECTS', shows a tree structure with 'My Pole_001' expanded. The main form area is titled 'ESSENTIAL TAGS' and contains the following fields:

- EQUIP NAME:** Text input field with 'My Pole_001' entered.
- DISPLAY-NAME-SCHEME:** Text input field with 'My Site My Pole_001' entered.
- IS A METER:** Checkbox that is checked.
- METER-KIND:** Dropdown menu with 'ELEC. METER' selected.
- SITE REF:** Text input field with 'My Site' entered.
- EQUIP REF:** Text input field.
- SUBMETER OF:** Text input field with 'My Site' entered.

Below the essential tags, there are sections for 'MARKER TAGS' and 'PROPERTY TAGS'. The 'MARKER TAGS' section shows a list of tags: 'equip', 'meter', 'children', and 'elec'. The 'PROPERTY TAGS' section shows a list of tags: 'treePath' and 'tz'.

- To edit the sample points in the equipment provided, expand the first piece of equipment. Delete any points not to be used by selecting the point, then selecting **Actions > Delete**.
- To globally edit the sample points to a new device added in the connectors app, select all the points under the equipment and select the **Actions > Edit All**.

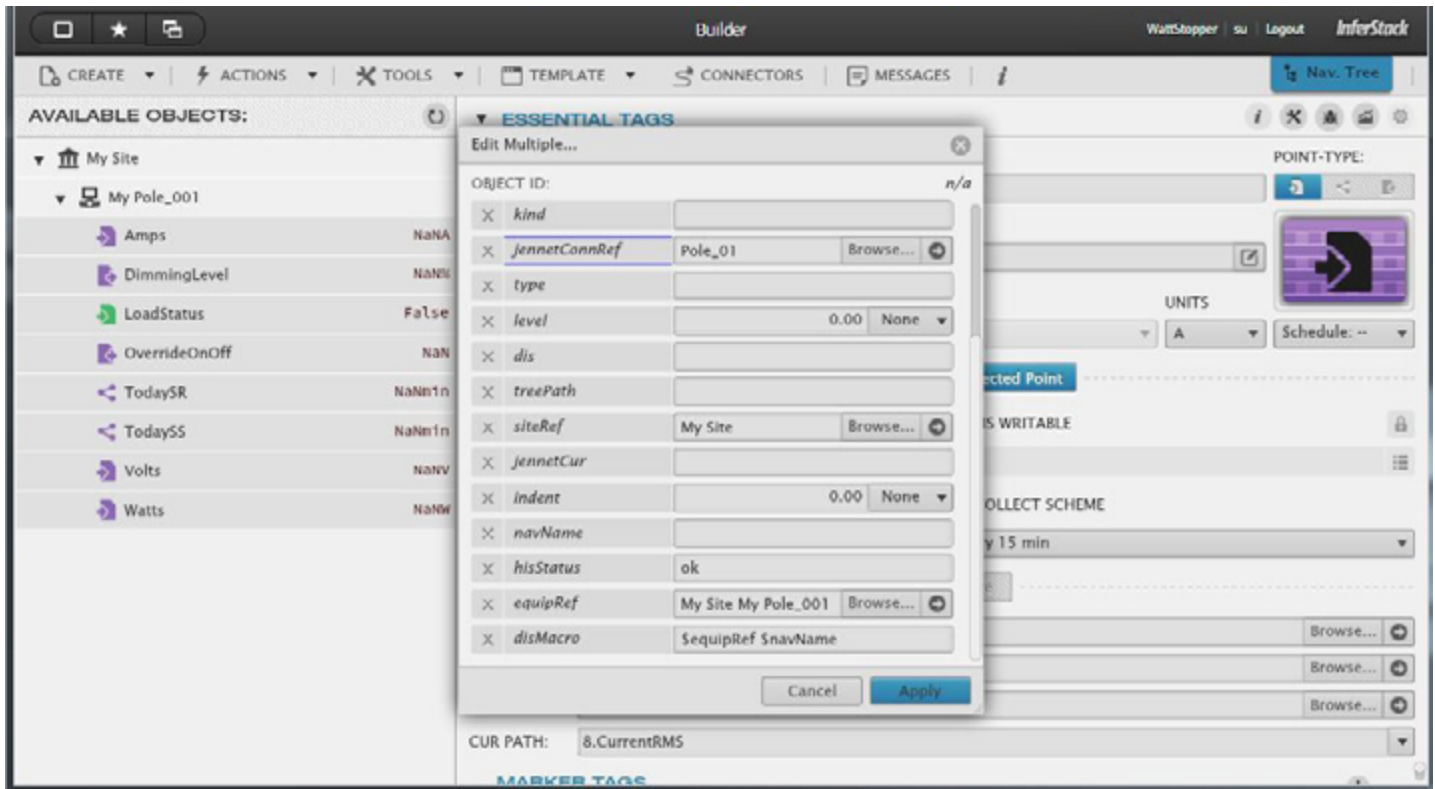
Builder App - Edit All Points

The screenshot shows the Builder App interface. On the left, under 'AVAILABLE OBJECTS', a tree view shows 'My Site' expanded, with 'My Pole_001' selected. Below it, a list of points is shown: Amps, DimmingLevel, LoadStatus, OverrideOnOff, TodaySR, TodaySS, Volts, and Watts. The 'Amps' point is selected, and an 'ACTIONS' menu is open, showing 'EDIT ALL', 'DUPLICATE', and 'DELETE'. The main panel displays the configuration for the 'Amps' point. It includes fields for 'POINT NAME' (Amps), 'DISPLAY-NAME-SCHEME' (My Site My Pole_001 Amps), 'POINT-KIND' (Numeric), and 'UNITS' (A). There are checkboxes for 'HAS CUR VALUE' and 'IS WRITABLE'. A 'HAS HISTORY' section shows 'Collected' and 'Every 15 min'. At the bottom, there are fields for 'SITE REF' (My Site), 'EQUIP REF' (My Site My Pole_001), 'CONN REF' (@1dbba915-b91829b2), and 'CUR PATH' (8.CurrentRMS). A 'MARKER TAGS' section is visible at the bottom.

Point	Definition
Amps	Current/Amperage from the fixture
DimmingLevel	0-100%. Drives the 0-10V Driver
LoadStatus	Based on reading current from the fixture
OverrideOnOff	Override command to drive the on board relay on or off. Commands the fixture. (0=Auto, 1=ON, 2=OFF)
TodaySR	Sunrise time. Minutes after midnight calculation based on geographic coordinates of the site. Commands fixture Off.
TodaySS	Sunset time. Minutes after midnight calculation based on geographic coordinates of the site. Commands fixture On.
Volts	Voltage (RMS) from the load
Watts	Active Power/Wattage reading from the fixture

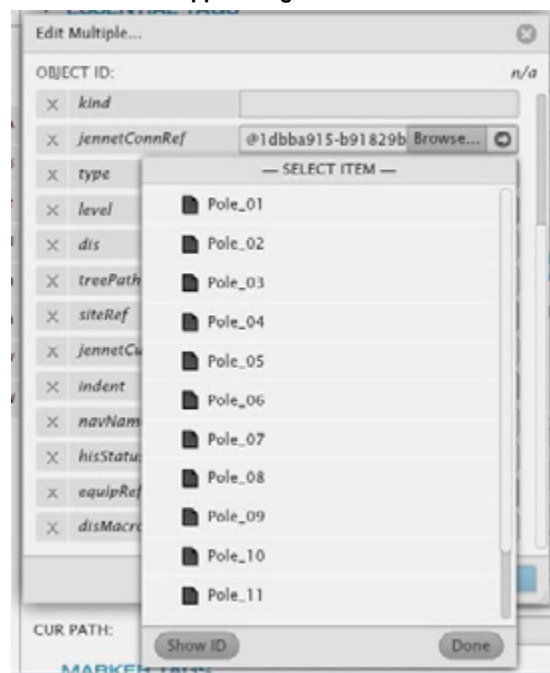
- After selecting Edit All, scroll to the selection "JennetConnRef" and select the browse button.

Builder App - Edit Values for Multiple Points



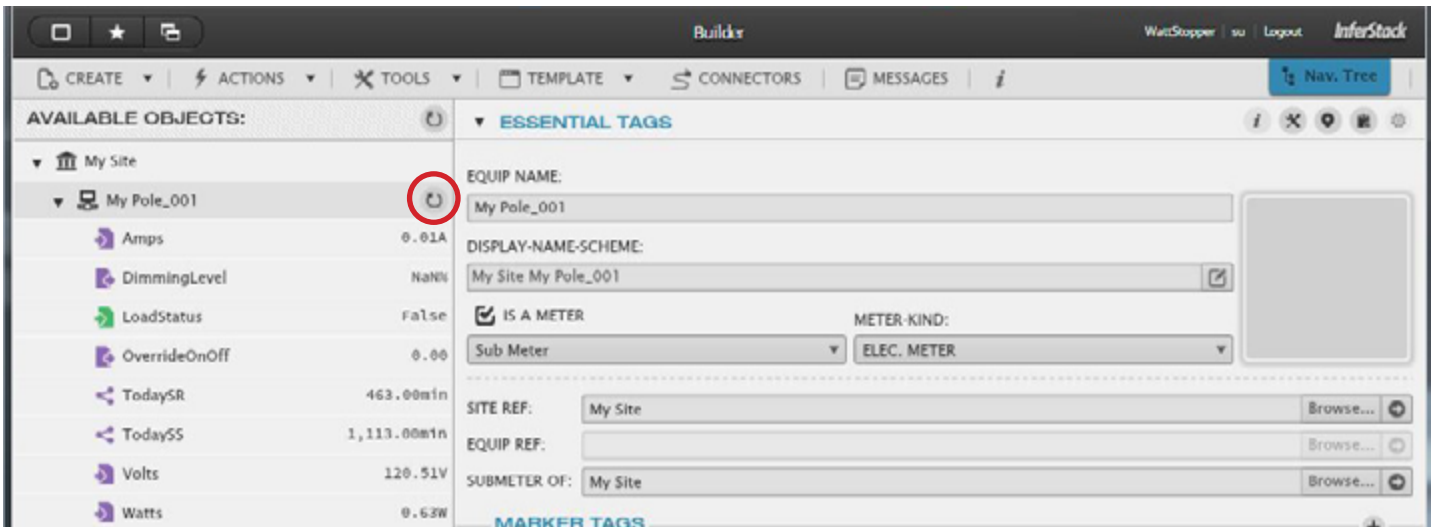
8. Select the "Connector" that you want to relativize the points to and select done. This will associate the points in the sample device to the connector chosen.

Builder App - Assign Device to Points



9. Click the Refresh icon. The points will respond and update.

Builder App - Refresh Equipment

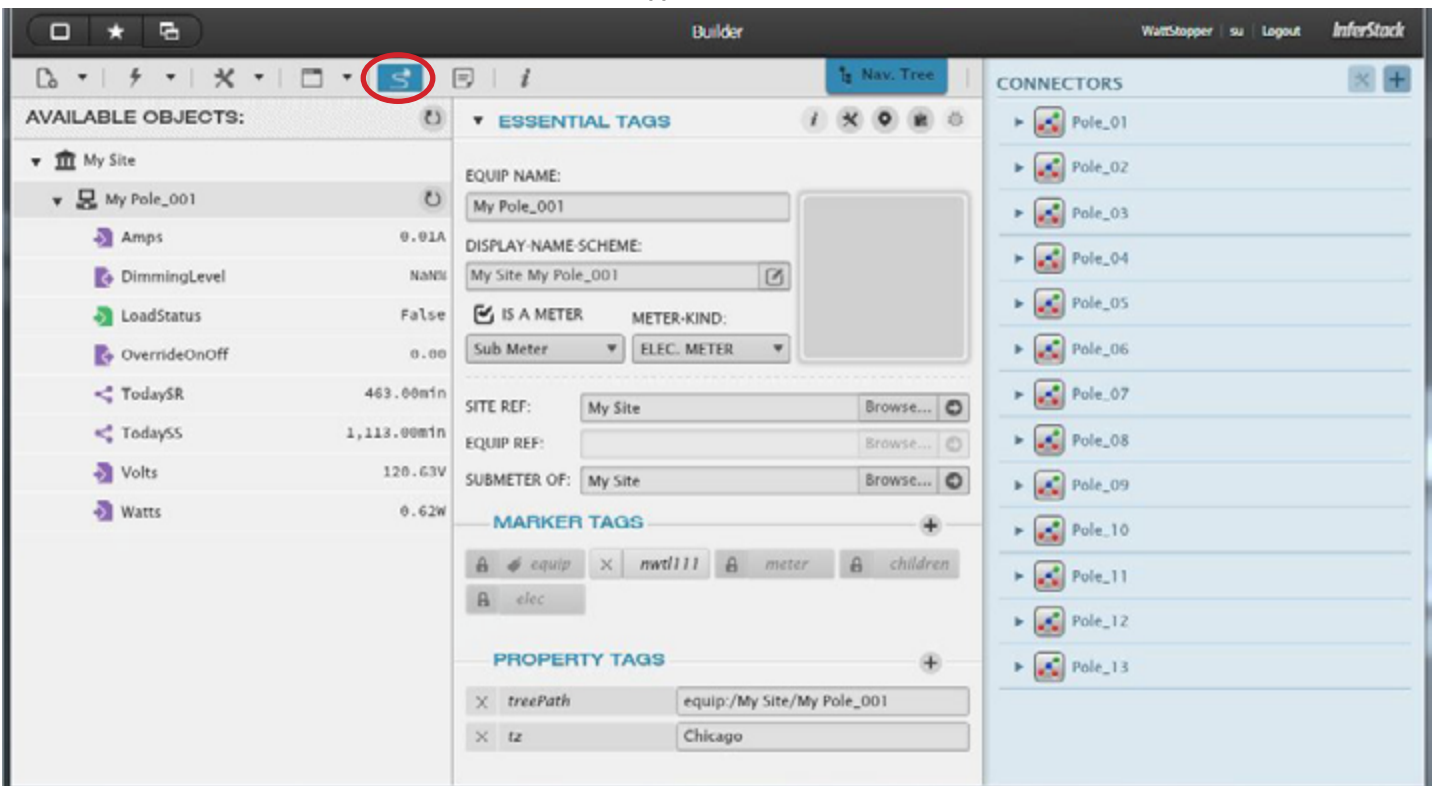


10. The points in the first device are now active. The next step is to “clone” the remaining devices in the network. This process will duplicate the first device and apply all settings to the remaining devices on the network.

To start, click the **Connectors** icon at the top. This will open the “Connectors” previously added on the right side of the screen.

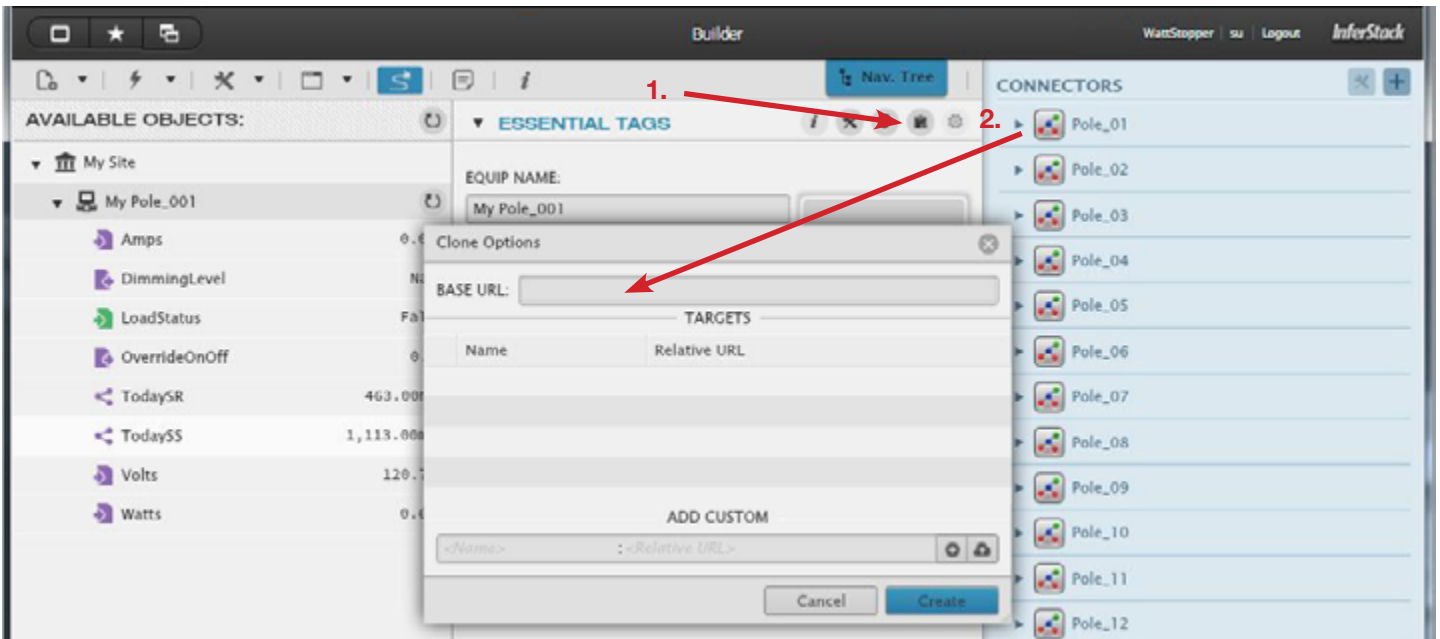
NOTE: In a situation where multiple 225CWS controllers will be in close proximity, it is necessary to segregate the wireless networks. This is known as changing the App ID (panID) in both the 225CWS and the field devices. Because this must be done for all devices in the entire network, you will want to add the panID to the first device before cloning the network. See [“Changing the App ID \(panID\) for Multiple Networks” on page 44](#) for details.

Builder App - Select Connectors



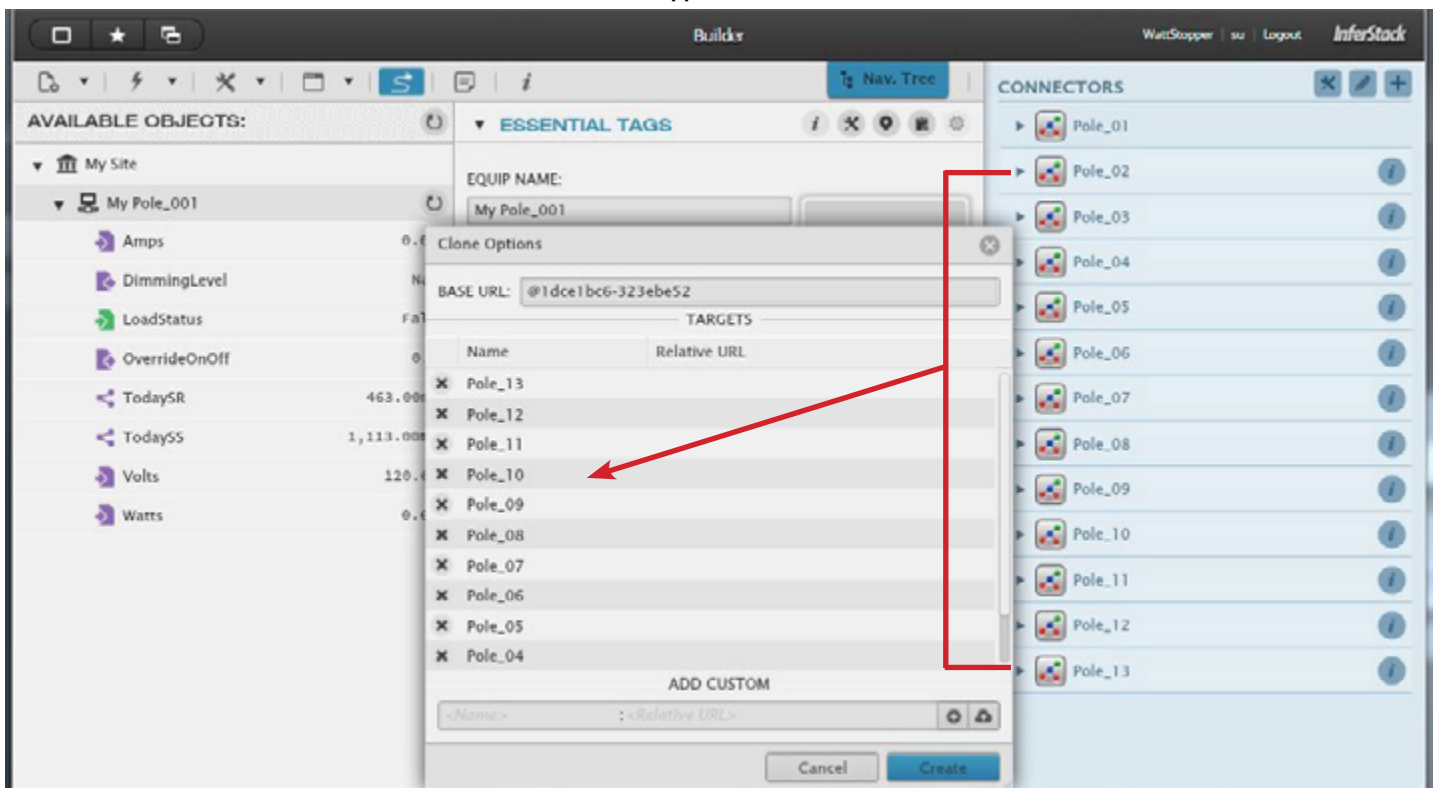
11. Select the first piece of equipment. Click the **Clone Equipment** icon. From the Connectors section on the right, click and drag the connector used to make the first device in step 6, to the “Base URL” in the pop up window (in this example, “Pole_01”).

Builder App - Assign Initial Device to Base URL



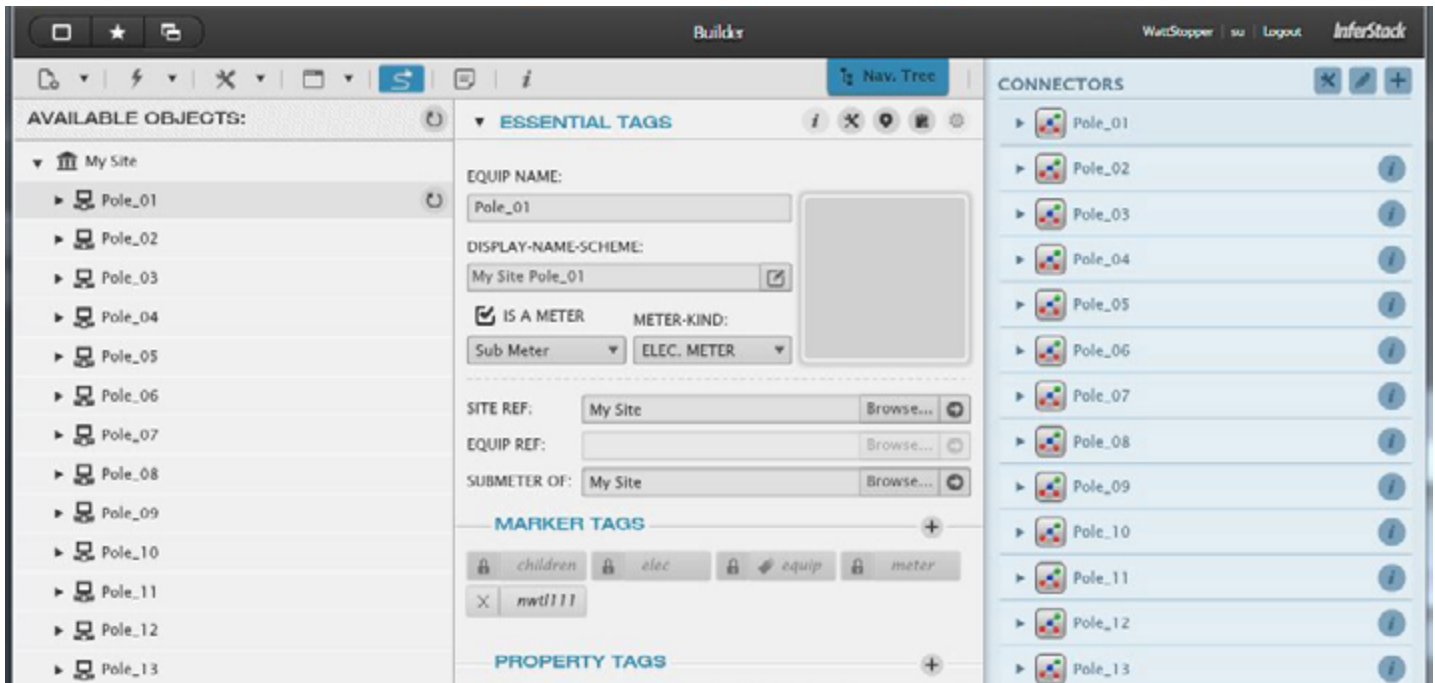
12. After the initial device has been added to the base URL, select all the remaining devices from Connectors section as a group and drag them to the window under the “Relative URL” section. Click **Create**.

Builder App - Clone Devices



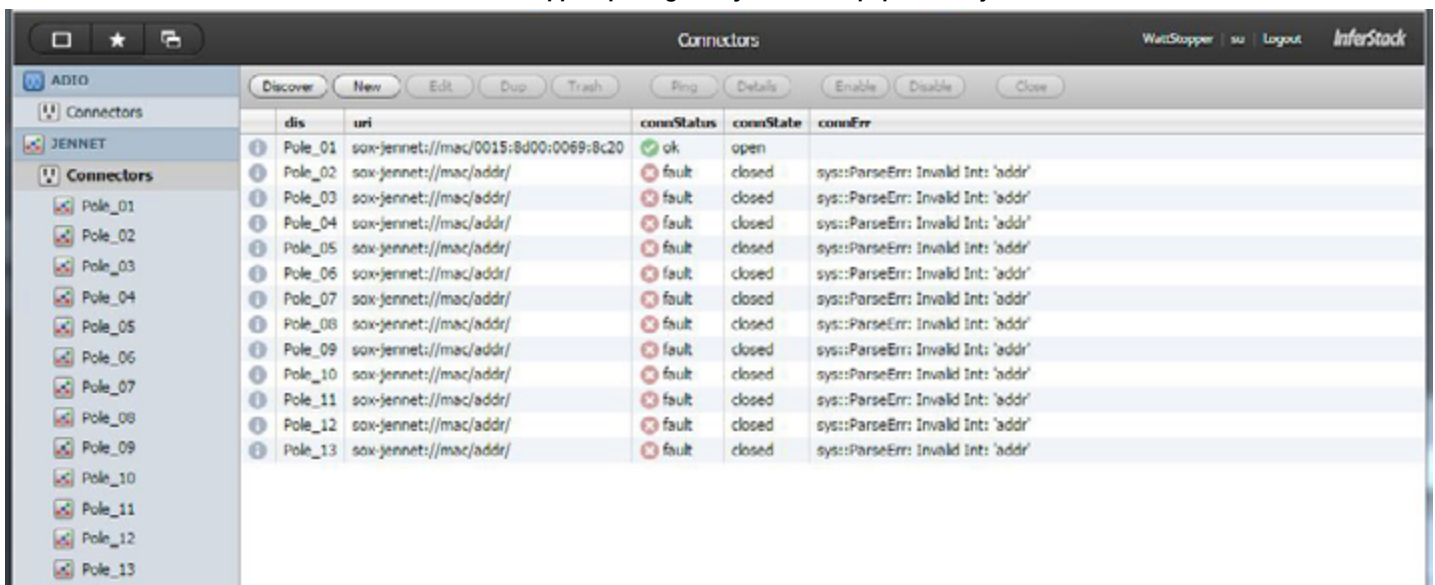
13. Highlight the site in the left section of the screen, and click the Refresh icon to the right of the site name. The database will build the rest of the site automatically. This process associates each device to its correct relative points.

Builder App - Object List After Cloning



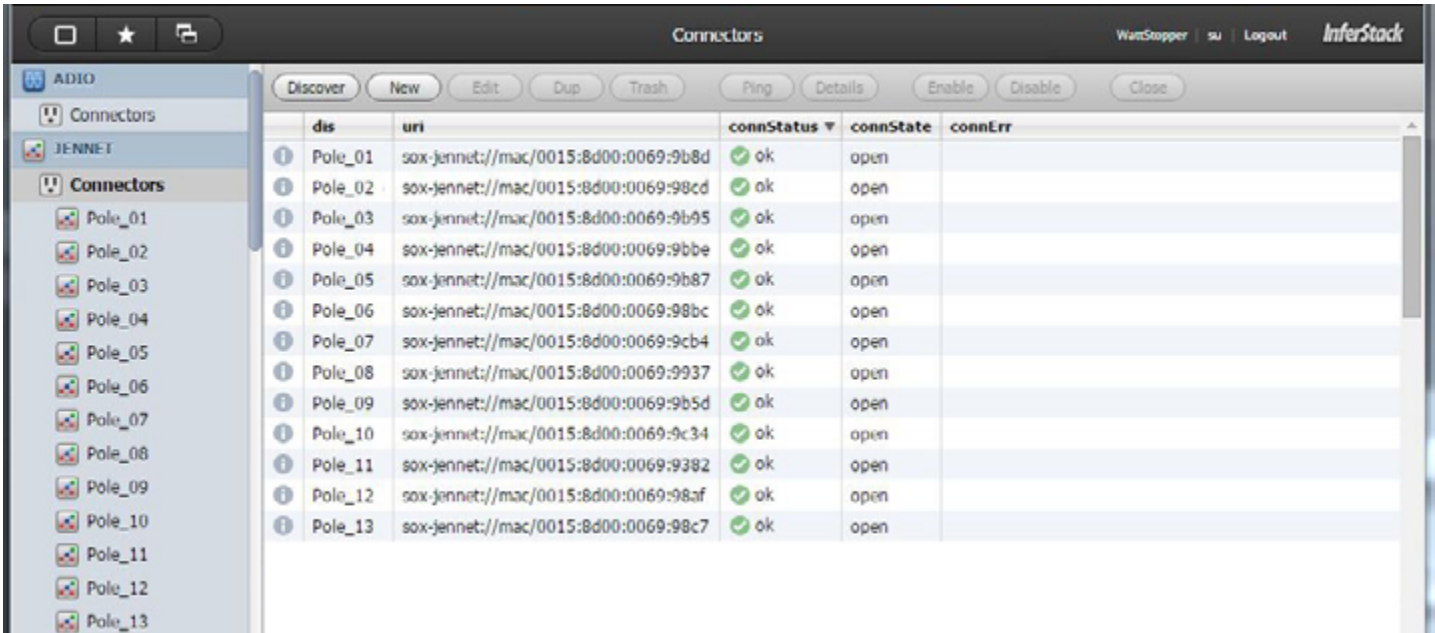
14. Return to the Home screen, then reselect the **Connectors** App. You will see the devices begin to open one at a time. After a device has been opened and the points relativized, the connector status will change from “fault” to “ok”. This process can take several minutes, depending on the device count.

Connectors App - Opening Newly Created Equipment Objects



15. After the points are relativized, the network should look like this.

Connectors App - All Objects Opened



The screenshot shows the 'Connectors' app interface. On the left, a sidebar lists 'Connectors' and 'JENNET'. Under 'Connectors', there is a list of 13 poles: Pole_01 through Pole_13. The main area displays a table with columns: 'dis', 'uri', 'connStatus', 'connState', and 'connErr'. All poles are listed with a status of 'ok' and 'open'.

dis	uri	connStatus	connState	connErr
Pole_01	sox-jennet://mac/0015:8d00:0069:9b8d	ok	open	
Pole_02	sox-jennet://mac/0015:8d00:0069:98ed	ok	open	
Pole_03	sox-jennet://mac/0015:8d00:0069:9b95	ok	open	
Pole_04	sox-jennet://mac/0015:8d00:0069:9bbe	ok	open	
Pole_05	sox-jennet://mac/0015:8d00:0069:9b87	ok	open	
Pole_06	sox-jennet://mac/0015:8d00:0069:98bc	ok	open	
Pole_07	sox-jennet://mac/0015:8d00:0069:9cb4	ok	open	
Pole_08	sox-jennet://mac/0015:8d00:0069:9937	ok	open	
Pole_09	sox-jennet://mac/0015:8d00:0069:9b5d	ok	open	
Pole_10	sox-jennet://mac/0015:8d00:0069:9c34	ok	open	
Pole_11	sox-jennet://mac/0015:8d00:0069:9382	ok	open	
Pole_12	sox-jennet://mac/0015:8d00:0069:98af	ok	open	
Pole_13	sox-jennet://mac/0015:8d00:0069:98c7	ok	open	

CREATING SCHEDULES AND EVENTS

In the Schedule app, you create schedules and assign events to those schedules.

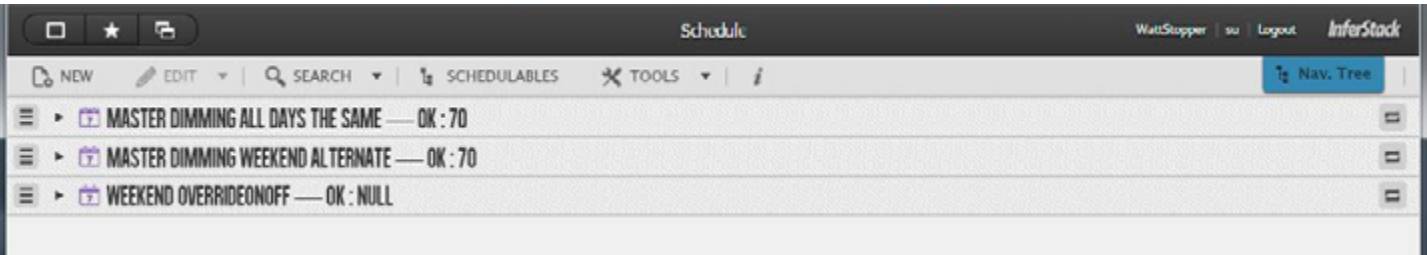
1. From the Home Screen click the **Schedule** icon.

Home Screen



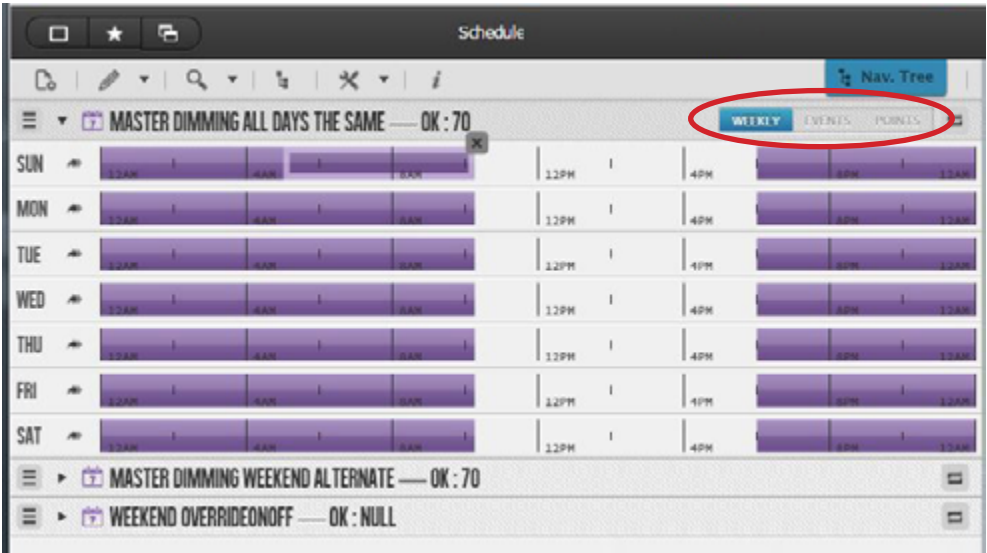
2. As part of the snapshot, the schedules in the following screenshot are provided.

Schedule App – Default Schedules



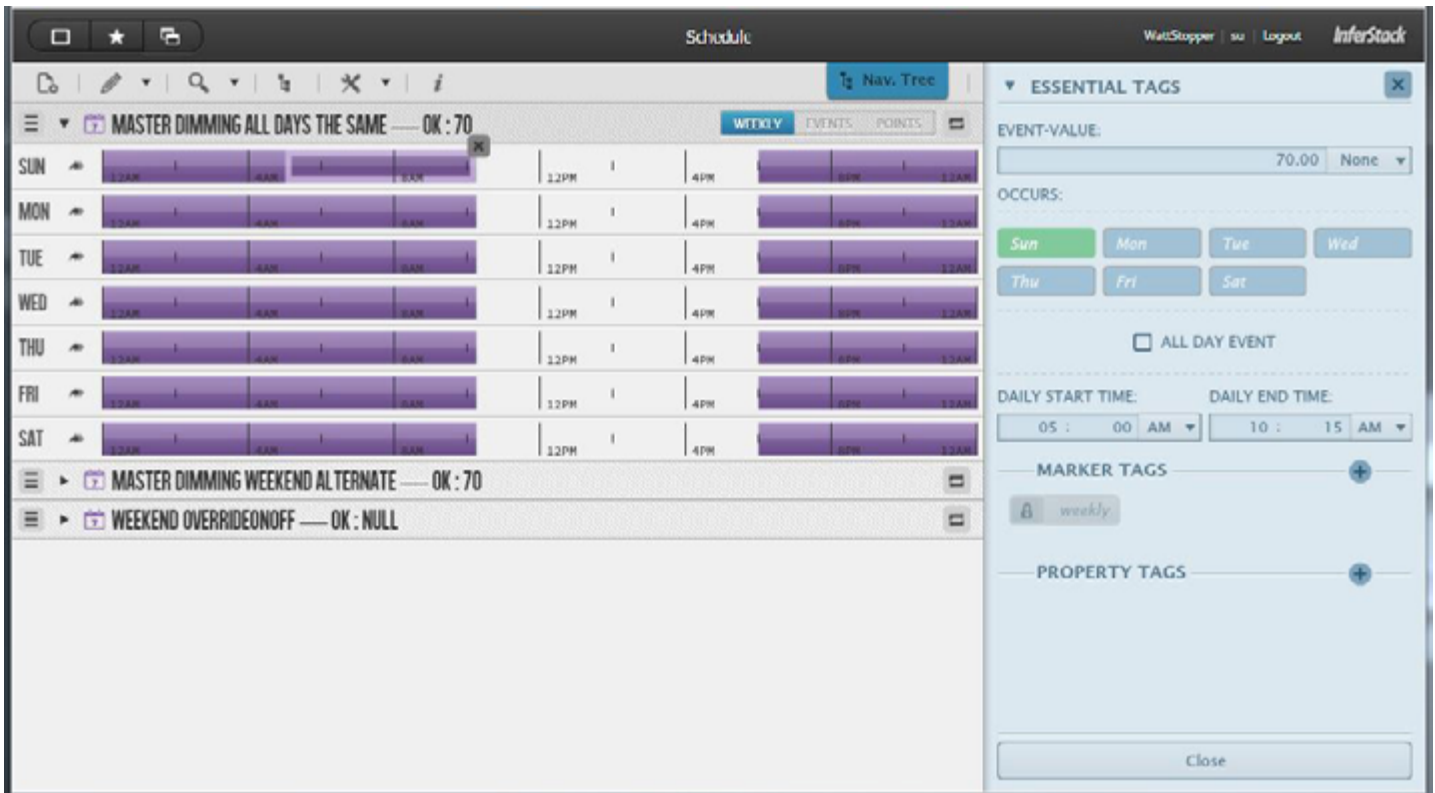
3. To view or edit the schedule values, select the arrow by the schedule to open and view. To the right of the schedule name are three buttons: **Weekly**, **Events**, and **Points**. Click these buttons to change the display:
- Weekly – Displays the events in a weekly/hourly format
 - Events – Allows you to view individual events in the schedule
 - Points – Allows you to assign points to the schedule

Schedule App – Schedule Expanded



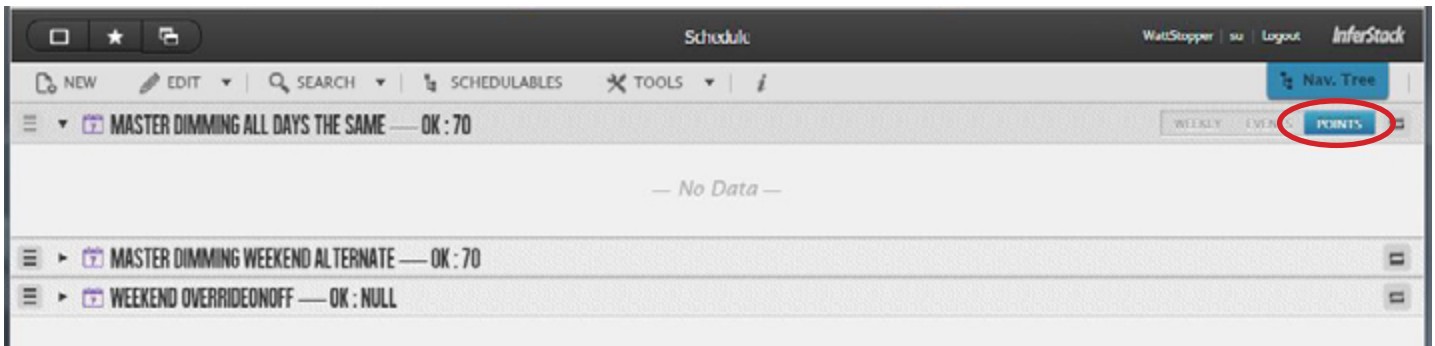
- To edit the values, double click any portion of the schedule. The right section of the screen changes to show editable parameters for the portion of the schedule you selected.

Schedule App – Editing Values



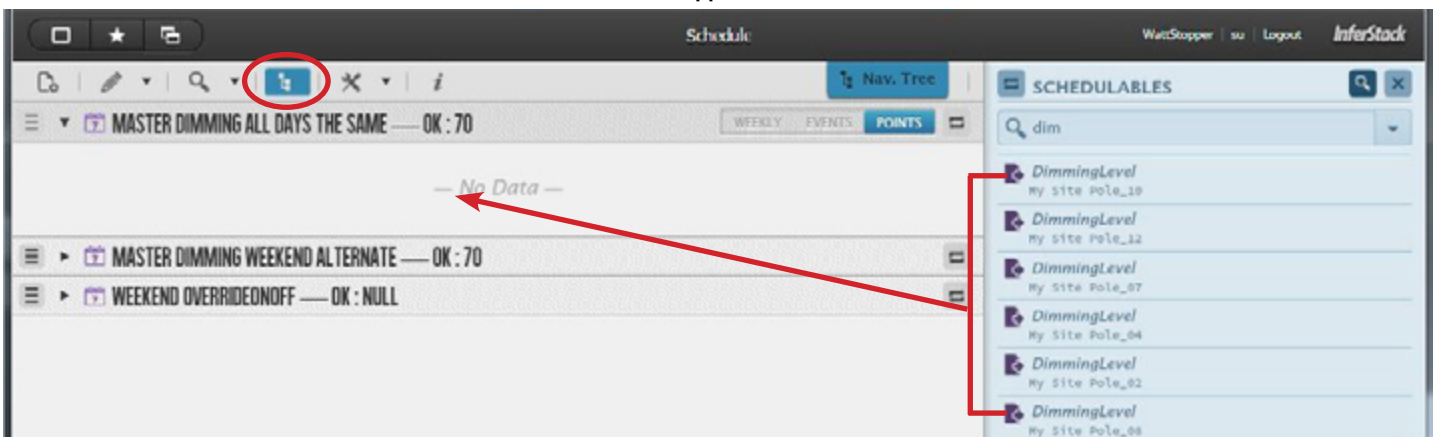
- Click **Points** to add points to the schedule.

Schedule App – Select the Points Display



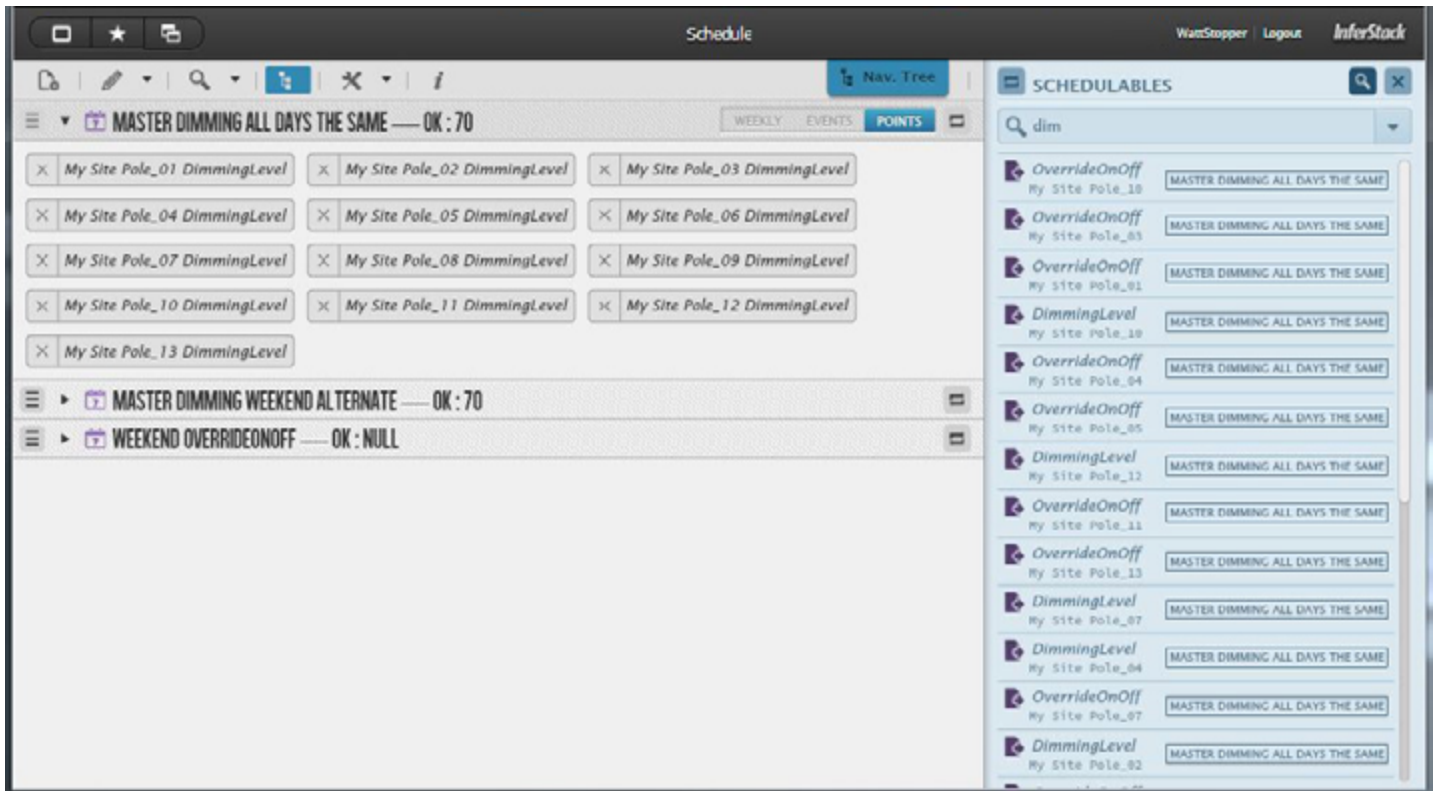
- Click the **Schedulables** icon at the top of the screen to open the Schedulables section on the right. You can manually scroll through the points to add to the schedule or search for a particular type of point. For example, typing “dim” in the **Search** field displays the “DimmingLevel” point. Select individual points or group select all of the points and simply drag them to the schedule and release.

Schedule App – Add Points



- Once added to the schedule the points will be visible in the points window. The name of the schedule associated with each point will also appear by the points in the Schedulables window.

Schedule App – After Points are Added

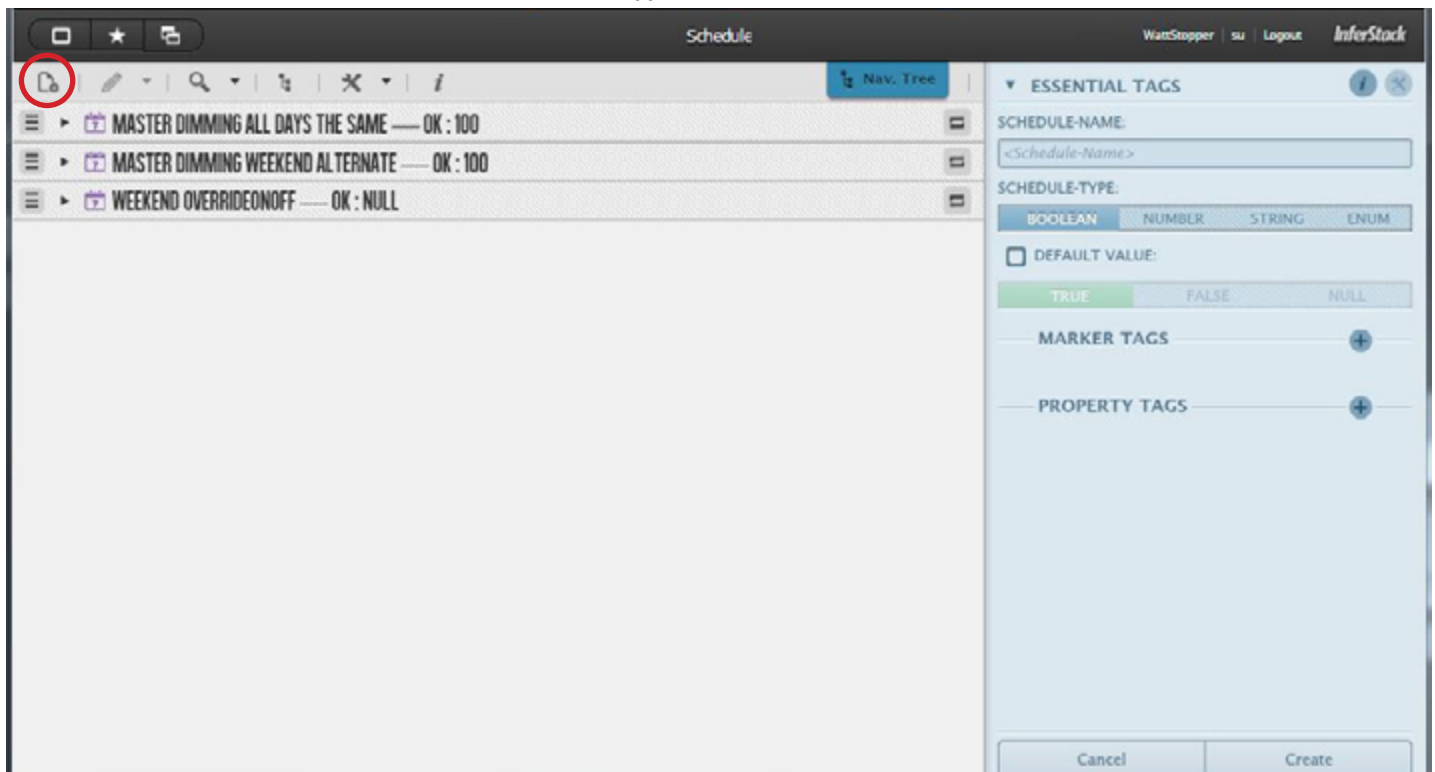


- To create a new schedule, click **New** to open the Essential Tags section on the right. Complete the following fields:

- **Schedule Name**
- **Schedule Type** (for DimmingLevel and OverrideOnOff the schedule must be “Number”)
- **Default Value** (this is optional)

If the schedule requires any marker tags (receiving values from a function), select the “+” in the **Marker Tag** section and add them. Click **Create**.

Schedule App – Create a New Schedule



- To set the time (or times) the schedule occurs, click and drag inside the schedule to highlight a time period for one day. Once completed, double click the highlighted time and the section to the right appears. Enter the values required for this schedule. Note that the time can be edited here as well. When complete, click **Apply**.

NOTE: In the next step, you can apply this time period to multiple days.

Schedule App – Set a Time for a Schedule

The screenshot shows the 'Schedule' app interface. On the left is a weekly grid with days from Sunday to Saturday. Each day has time slots from 12AM to 12AM. A purple bar highlights the 4PM to 8PM slot on Tuesday. On the right is a configuration panel titled 'ESSENTIAL TAGS'. It includes fields for 'EVENT-VALUE' (75.00), 'OCCURS' (None), and 'ALL DAY EVENT' (unchecked). There are buttons for 'Sun', 'Mon', 'Tue' (selected), 'Wed', 'Thu', 'Fri', and 'Sat'. Below these are 'DAILY START TIME' (02:00 PM) and 'DAILY END TIME' (07:00 PM) dropdowns. There are also sections for 'MARKER TAGS' (with a 'weekly' tag) and 'PROPERTY TAGS'. At the bottom of the panel are 'Reset' and 'Apply' buttons.

- Once a particular day has been completed, click the double arrows icon to the right of the day name. A dialog pops-up, providing the option to apply that day to another **Day**, **Weekdays** only, or the **Week**. Make the selection and click **Apply**.

Schedule App – Apply a Time to Multiple Days

This screenshot shows the same weekly grid as before, but with a dialog box open over it. The dialog is titled 'Apply Tuesday To...'. It has three tabs: 'DAY', 'WEEK DAYS', and 'WEEK'. The 'WEEK' tab is selected. Below the tabs is a list of days with checkboxes: Sunday, Monday, Wednesday, Thursday, Friday, and Saturday. All checkboxes are checked. At the bottom of the dialog are 'Cancel' and 'Apply' buttons. In the background, the Tuesday row of the grid is highlighted with a purple bar.

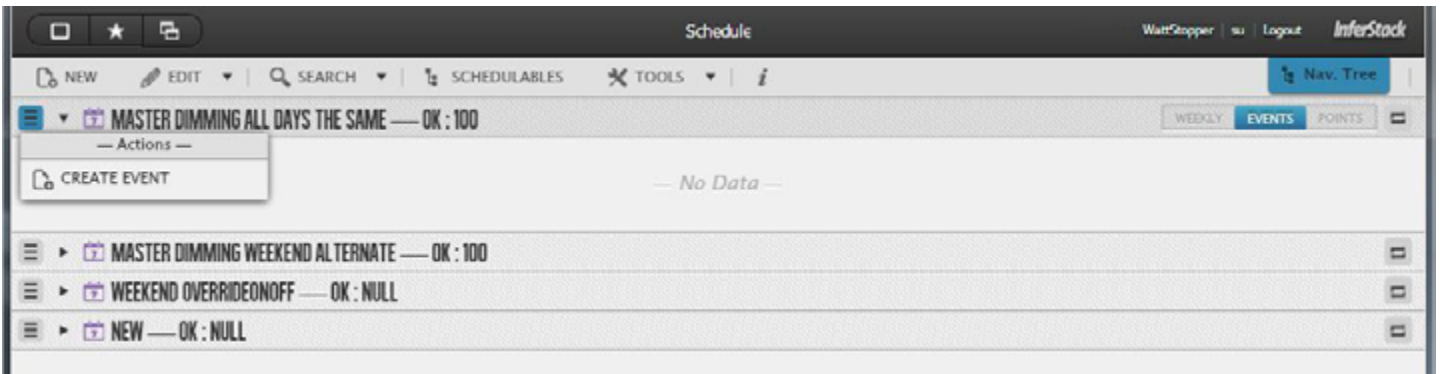
- To create an Event within a schedule, click **Events**.

Schedule App – Select Events Display

The screenshot shows the 'Schedule' app interface with the 'EVENTS' tab selected in the top navigation bar, which is circled in red. The main area displays a list of schedules: 'MASTER DIMMING ALL DAYS THE SAME — OK : 100', 'MASTER DIMMING WEEKEND ALTERNATE — OK : 100', 'WEEKEND OVERRIDENOFF — OK : NULL', and 'NEW — OK : NULL'. The first schedule is expanded, showing a '— No Data —' message. The 'NEW' button in the top left is also visible.

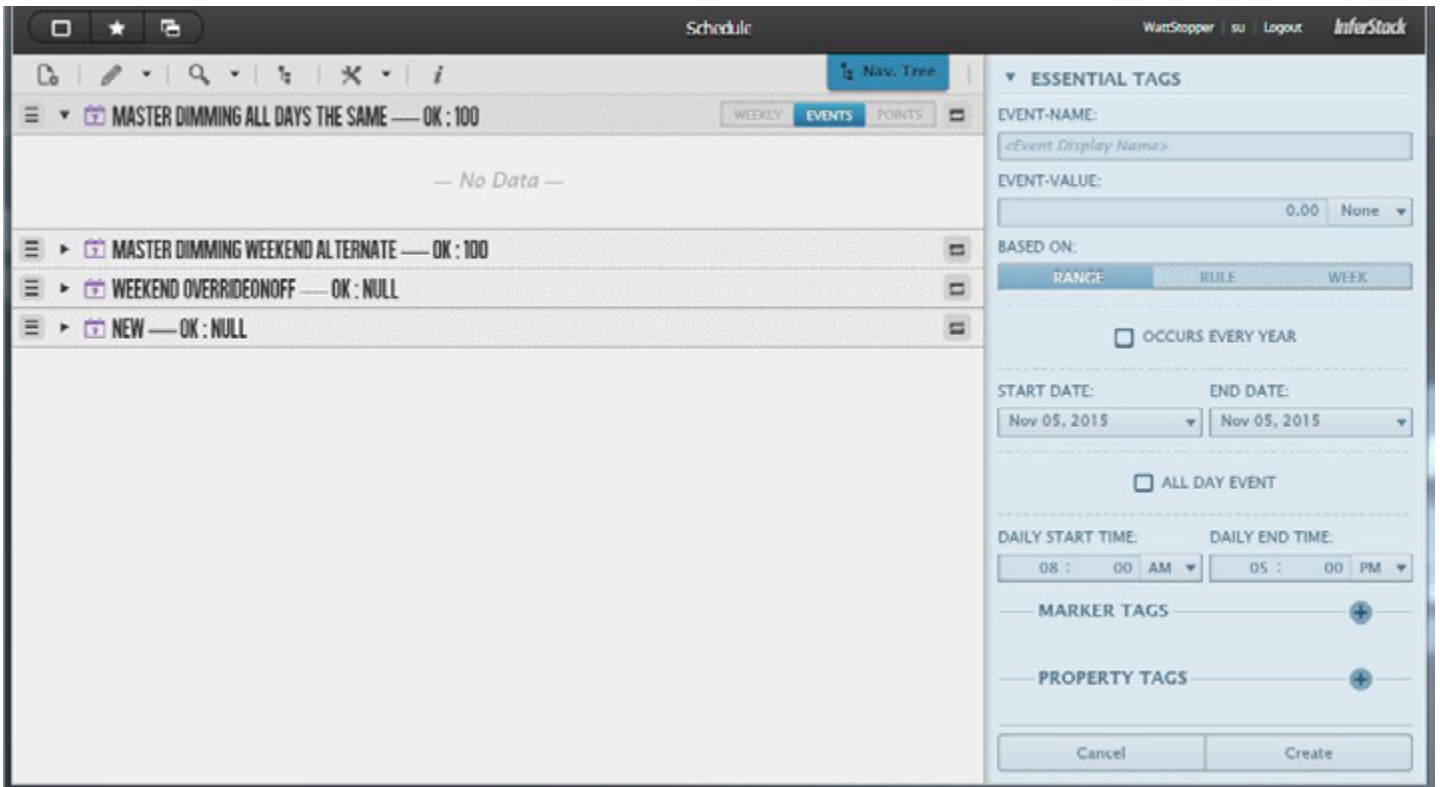
12. Click the menu icon and select **Create Event**.

Schedule App – Create an Event



13. Create a custom event that will override the schedule during that period. The values can be added based on a “Range”, “Rule” or “Week”. Once the event has been edited, select “Create”.

Schedule App – Edit Event Values



USING THE FOLIO APP

The Folio App is used to batch edit the database. Site, Equip and Points can be queried. Certain functions can be executed as well.

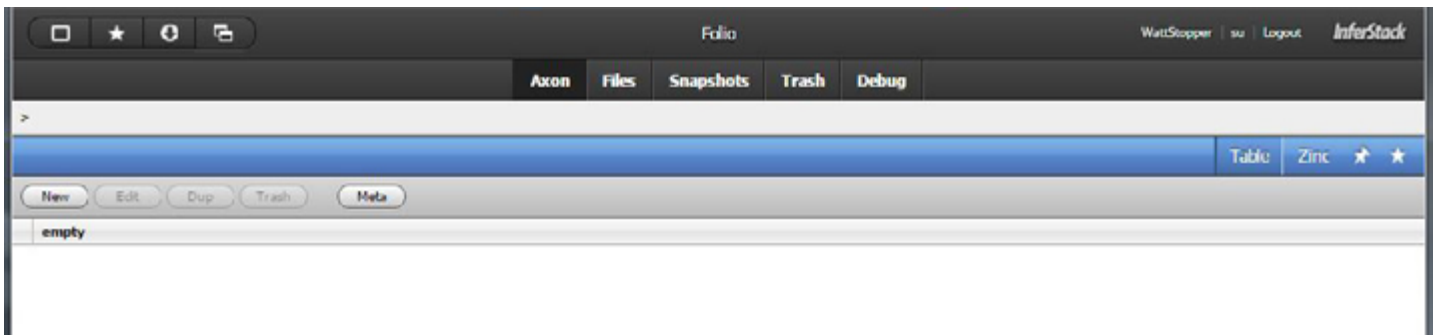
1. From the Home Screen click the **Folio** icon.

Home Screen



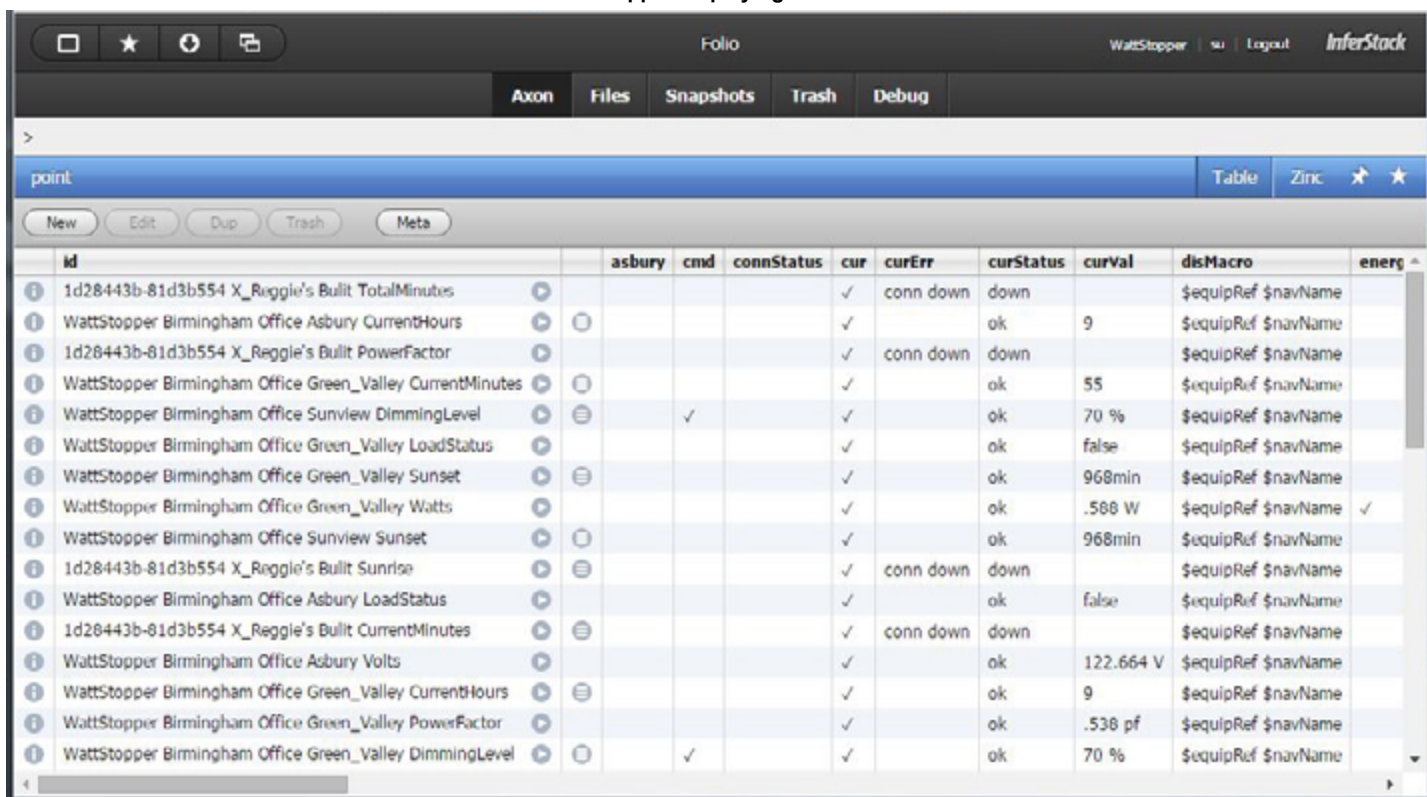
2. The Folio App opens on the **Axon** tab. In the Axon tab the all entries are entered to the right of the ">".

Folio App – Axon Tab



- To search for all points in the database, type “point” and press the Enter. All points in the database will be visible. Any point can then be selected and edited.

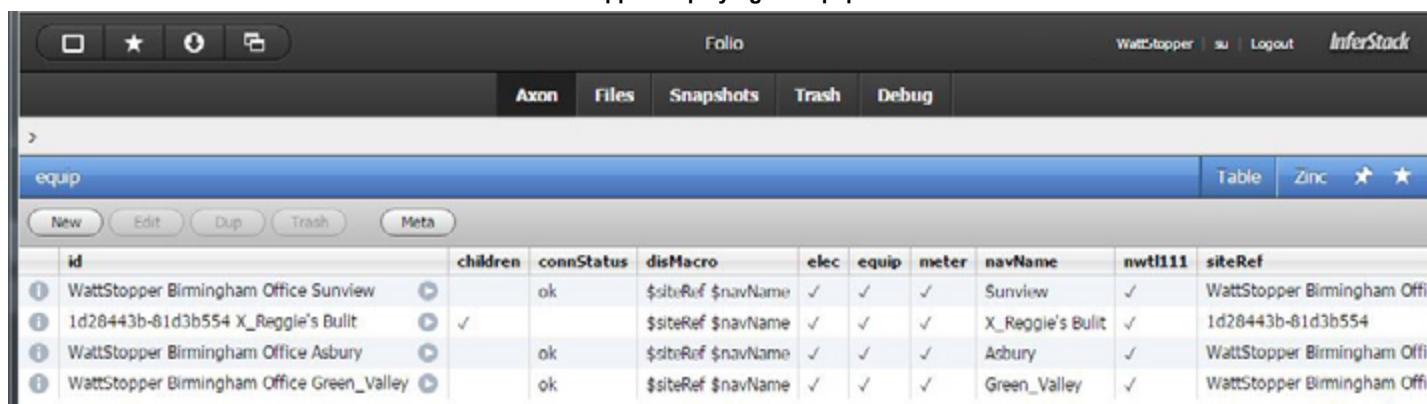
Folio App – Displaying All Points



	id	asbury	cmd	connStatus	cur	curErr	curStatus	curVal	disMacro	energ
1	1d28443b-81d3b554 X_Reggie's Bulit TotalMinutes				✓	conn down	down		\$equipRef \$navName	
1	WattStopper Birmingham Office Asbury CurrentHours				✓		ok	9	\$equipRef \$navName	
1	1d28443b-81d3b554 X_Reggie's Bulit PowerFactor				✓	conn down	down		\$equipRef \$navName	
1	WattStopper Birmingham Office Green_Valley CurrentMinutes				✓		ok	55	\$equipRef \$navName	
1	WattStopper Birmingham Office Sunview DimmingLevel		✓		✓		ok	70 %	\$equipRef \$navName	
1	WattStopper Birmingham Office Green_Valley LoadStatus				✓		ok	false	\$equipRef \$navName	
1	WattStopper Birmingham Office Green_Valley Sunset				✓		ok	968min	\$equipRef \$navName	
1	WattStopper Birmingham Office Green_Valley Watts				✓		ok	.508 W	\$equipRef \$navName	✓
1	WattStopper Birmingham Office Sunview Sunset				✓		ok	968min	\$equipRef \$navName	
1	1d28443b-81d3b554 X_Reggie's Bulit Sunrise				✓	conn down	down		\$equipRef \$navName	
1	WattStopper Birmingham Office Asbury LoadStatus				✓		ok	false	\$equipRef \$navName	
1	1d28443b-81d3b554 X_Reggie's Bulit CurrentMinutes				✓	conn down	down		\$equipRef \$navName	
1	WattStopper Birmingham Office Asbury Volts				✓		ok	122.664 V	\$equipRef \$navName	
1	WattStopper Birmingham Office Green_Valley CurrentHours				✓		ok	9	\$equipRef \$navName	
1	WattStopper Birmingham Office Green_Valley PowerFactor				✓		ok	.538 pf	\$equipRef \$navName	
1	WattStopper Birmingham Office Green_Valley DimmingLevel		✓		✓		ok	70 %	\$equipRef \$navName	

- To search for all equipment in the database, type “equip” and press Enter. All equipment in the database will be visible. Any piece of equipment can then be selected and edited.

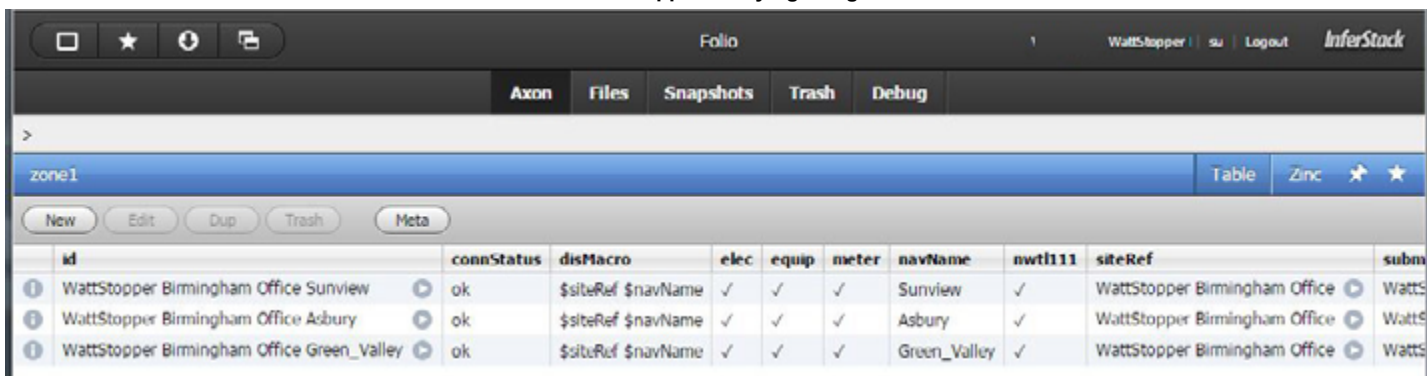
Folio App – Displaying All Equipment



	id	children	connStatus	disMacro	elec	equip	meter	navName	nwtf111	siteRef
1	WattStopper Birmingham Office Sunview		ok	\$siteRef \$navName	✓	✓	✓	Sunview	✓	WattStopper Birmingham Office
1	1d28443b-81d3b554 X_Reggie's Bulit	✓		\$siteRef \$navName	✓	✓	✓	X_Reggie's Bulit	✓	1d28443b-81d3b554
1	WattStopper Birmingham Office Asbury		ok	\$siteRef \$navName	✓	✓	✓	Asbury	✓	WattStopper Birmingham Office
1	WattStopper Birmingham Office Green_Valley		ok	\$siteRef \$navName	✓	✓	✓	Green_Valley	✓	WattStopper Birmingham Office

- Any site, equip or point that has a tag can be queried as well. In the following screenshot, “zone1” was queried and 3 pieces of equipment with that tag were displayed.

Folio App – Querying a Tag



	id	connStatus	disMacro	elec	equip	meter	navName	nwtf111	siteRef	subm
1	WattStopper Birmingham Office Sunview	ok	\$siteRef \$navName	✓	✓	✓	Sunview	✓	WattStopper Birmingham Office	WattS
1	WattStopper Birmingham Office Asbury	ok	\$siteRef \$navName	✓	✓	✓	Asbury	✓	WattStopper Birmingham Office	WattS
1	WattStopper Birmingham Office Green_Valley	ok	\$siteRef \$navName	✓	✓	✓	Green_Valley	✓	WattStopper Birmingham Office	WattS

6. In the screenshot above, “watts” was queried and 4 points with that tag were displayed.

Folio App – Querying a Tag

	id	cur	curErr	curStatus	curVal	disMacro	energy	equipRef
1	WattStopper Birmingham Office Green_Valley Watts	✓		ok	.585 W	\$equipRef \$navName	✓	WattStopper Birmingham Office Green_Valley
2	WattStopper Birmingham Office Asbury Watts	✓		ok	.605 W	\$equipRef \$navName	✓	WattStopper Birmingham Office Asbury
3	1d28443b-81d3b554 X_Reggie's Bulb Watts	✓	conn down	down		\$equipRef \$navName		1d28443b-81d3b554 X_Reggie's Bulb
4	WattStopper Birmingham Office Sunview Watts	✓		ok	.583 W	\$equipRef \$navName	✓	WattStopper Birmingham Office Sunview

7. To add tags to a site, equip or point, following the query, select the object(s) and click **Edit**. To add a maker tag (name) click **Add Tags**. A dialog pops up. Enter the tag and click **Add**. In the following example, a zone2 tag is being added to 2 points. Once added, click **OK**.

Folio App – Adding a Tag

Batch editing 2 recs. Only modified fields will be applied to selected recs.

cur: ✓
curStatus: ok
curVal: 0 No Unit
disMacro: \$equipRef \$navName
energy: ✓
equipRef:
his: ✓
hisCollectInterval: 15 min
hisEnd: 5-Nov-2015 Thu 9:45:00AM CST
hisEndVal: 0 No Unit
hisId:
hisSize: 0 No Unit
hisStart: 29-Jun-2015 Mon 9:15:00AM CDT

zone2
Examples: marker, bool:true, num:12, ref:@id
str:"Hello", date:2012-01-01, time:12:15:00,
dateTime:2012-01-01T12:45:00-05:00 New_York

Add OK Cancel

8. The query tool can also be used to delete or “trash” items from a database. Select any item in the query and click the **Trash** button directly above the listed items. Once an item or items have been trashed it is always best to empty the trash folder once confident the items are no longer needed. To empty the trash, click the **Trash** tab at the top. Select the items and click **Empty**. If an item has been put in the trash by mistake, select that item and click **Restore** to move it out of the trash and back to the database.

Folio App – Trash Items in the Database

	id	connState	connStatus	dis	jennetConn	trash	uri	mod
1	Pole_1	open	ok	Pole_1	✓	✓	sox-jennet://mac/0015:8d00:0069:8c20	5-Nov-2015 Thu 1:12:18PM UTC

RUNNING FUNCTIONS WITH THE JOB APP

The Job App is used to run Functions at a scheduled time.

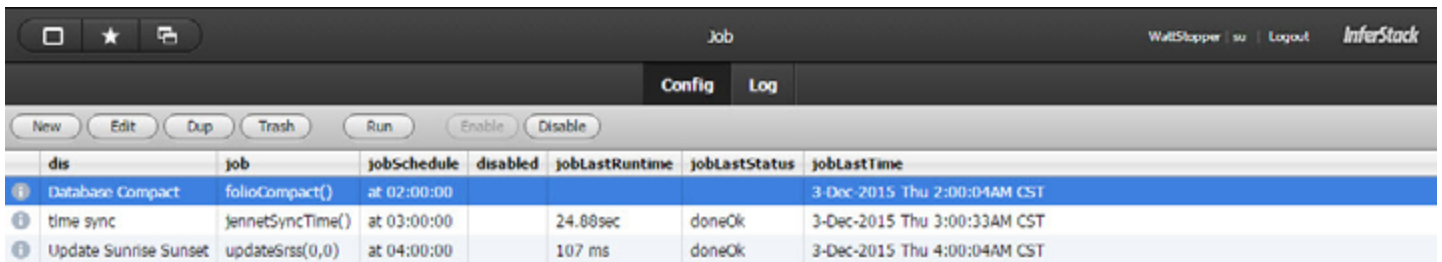
1. From the Home Screen click the **Folio** icon.

Home Screen



2. Three Jobs are included in the Snapshot, scheduled to run at preset times. These times can be edited as required.

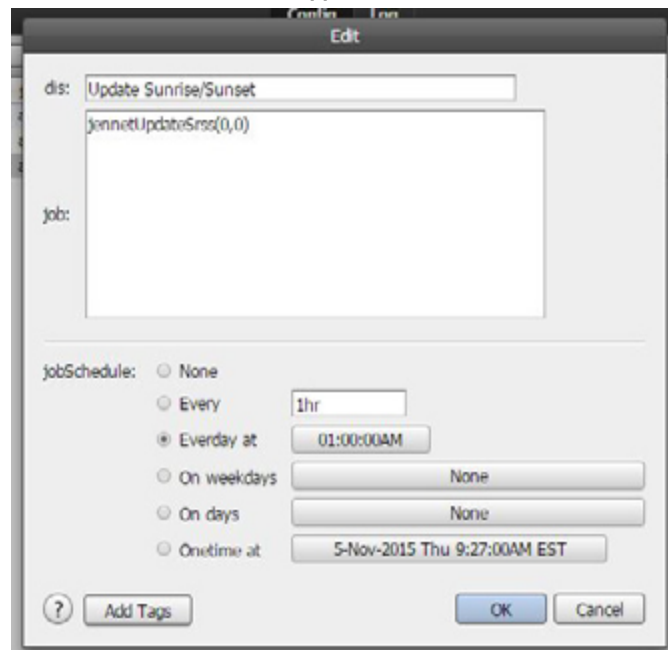
Job App



dis	job	jobSchedule	disabled	jobLastRuntime	jobLastStatus	jobLastTime
Database Compact	folioCompact()	at 02:00:00				3-Dec-2015 Thu 2:00:04AM CST
time sync	jennetSyncTime()	at 03:00:00		24.88sec	doneOk	3-Dec-2015 Thu 3:00:33AM CST
Update Sunrise Sunset	updateSrss(0,0)	at 04:00:00		107 ms	doneOk	3-Dec-2015 Thu 4:00:04AM CST

3. To edit a job, select the job and click **Edit**. Modify the job parameters as needed and click **OK**.

Job App – Edit Job



dis: Update Sunrise/Sunset

job: jennetUpdateSrss(0,0)

jobSchedule:

☐ None

☐ Every 1hr

☒ Everyday at 01:00:00AM

☐ On weekdays None

☐ On days None

☐ Onetime at 5-Nov-2015 Thu 9:27:00AM EST

? Add Tags OK Cancel

4. To create a new Job, click **New**. In the window, enter a job name in the **dis** field. Enter the function to run in the **job** field. Set the time or times to run the job in the **jobSchedule** section and click **OK**.
 5. To manually run any job, select the job in the and click **Run**. After running the job, the status of the job can be monitored in the Log".
- NOTE:** The Sync Time job must be run after the NWTL-111 devices all display "OK" in the Connectors App. This will ensure the time in the internal clock is set. This is a requirement for the Sunrise/Sunset times to function properly. Running this job the first time could take up to an hour on a project with over 100 devices. After the Sync Time job is 100% complete the status will report "doneOK". (If an error is reported the status will return "doneErr".) After the Sync Time job is completed properly, the Update Sunrise/Sunset job must be run. This will publish the current Sunrise/Sunset time to the TodaySR and TodaySS points in the devices.

USING THE HISTORIAN APP

The Historian app is where all histories are stored in the 225CWS. The 225CWS has 8GB of Flash Storage. At preset trending rates (15min for energy data and COV for command and status changes), there is more than 20 years of storage capacity on a 225CWS (based on maximum point load) before data is overwritten.

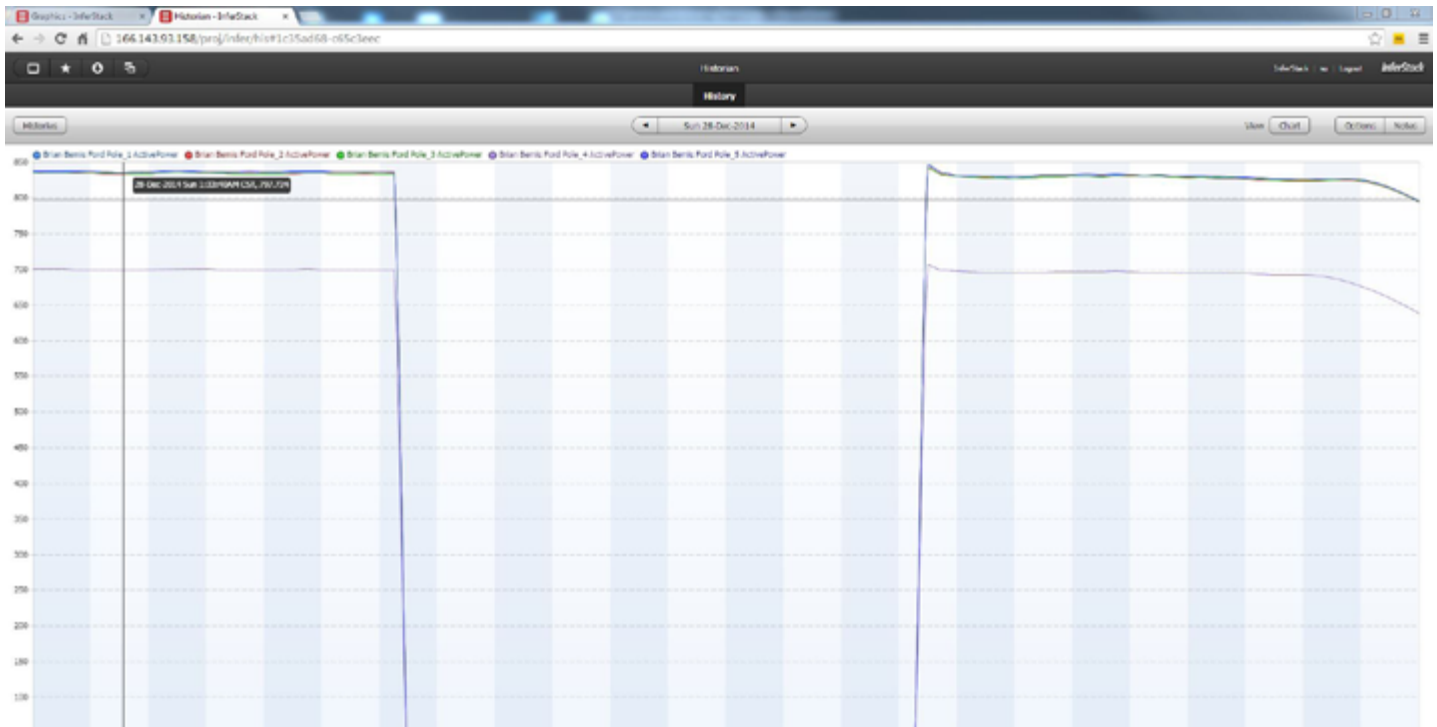
1. From the Home Screen click the **Folio** icon.

Home Screen



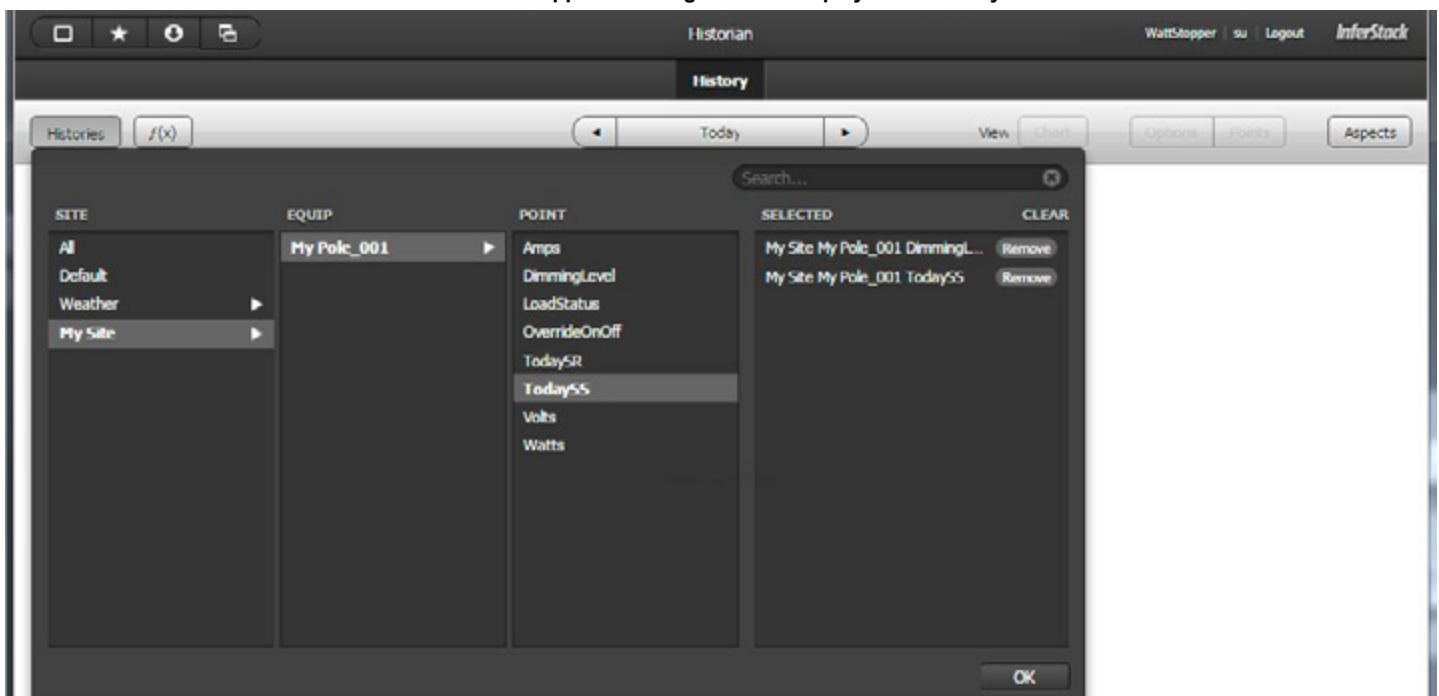
- To access historical data, click **Histories**.

Historian App



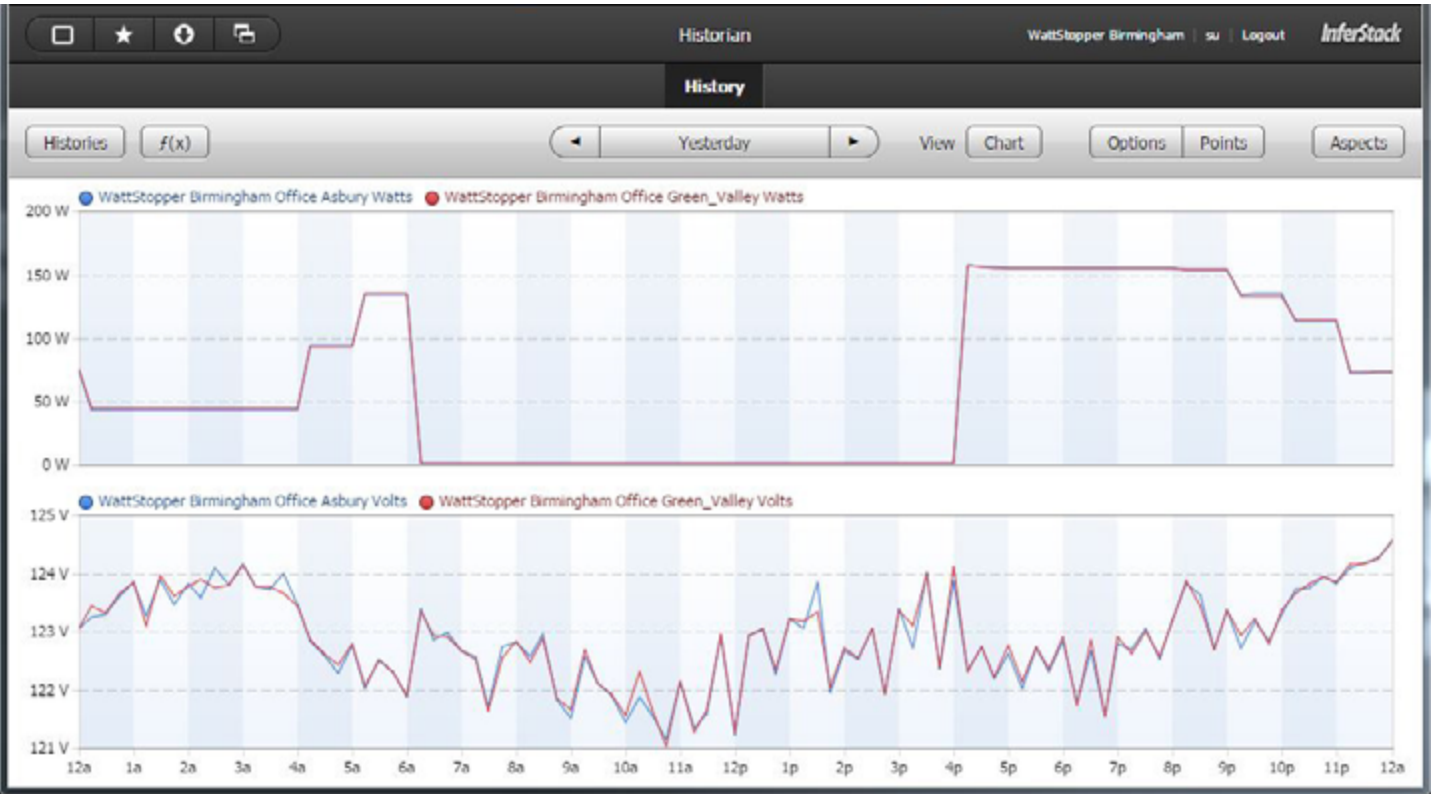
- Select the Site and the Equip column will populate with equipment for that site. Select the desired item in the Equip column and the Point column will populate. Double-click the point(s) that are desired. The selected points will be moved to the Selected column.
NOTE: To select multiple points at once, shift-click or control-click to select multiple items in the list, and then **while still holding the Shift or Ctrl key**, double-click on one of the items in the list.
NOTE: After selecting one item in the Equip column and adding points to the Selected column, you can go back and select a different item in the Equip column, then select the point(s). In this way you can get the histories of points for multiple piece of equipment at the same time. So for, example, you could view the Dimming Point for several pieces of equipment in one chart.
- Click **OK** and the history chart will be displayed.
 If you know the desired point names, you can search for them using the search window at the top right to expedite the query. Multiple points from multiple piece of equipment can be queried at the same time.

Historian App – Selecting Items to Display Their History



5. By default data is displayed in a chart view. To view the same data in a grid, change the **View** from Chart to Grid.

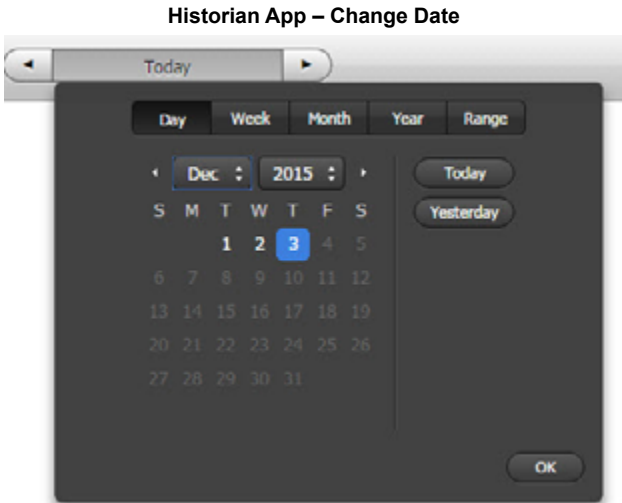
Historian App – Chart View



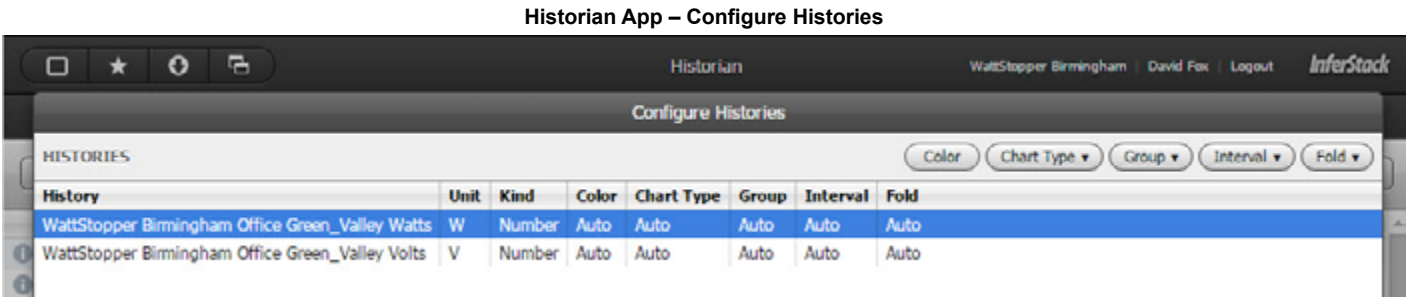
Historian App – Grid View

Historian			
WattStopper Birmingham		David Fox	Logout
History			
Histories	f(x)	Yesterday	View Grid Options Points Aspects
Timestamp	WattStopper Birmingham Office Green_Valley Watts	WattStopper Birmingham Office Green_Valley Volts	
1-Dec-2015 Tue 11:45:00PM CST	74.585 W	122.946 V	
2-Dec-2015 Wed 12:00:00AM CST	74.641 W	123.111 V	
2-Dec-2015 Wed 12:15:00AM CST	45.035 W	123.378 V	
2-Dec-2015 Wed 12:30:00AM CST	45.051 W	123.807 V	
2-Dec-2015 Wed 12:45:00AM CST	45.057 W	123.402 V	
2-Dec-2015 Wed 1:00:00AM CST	45.104 W	123.619 V	

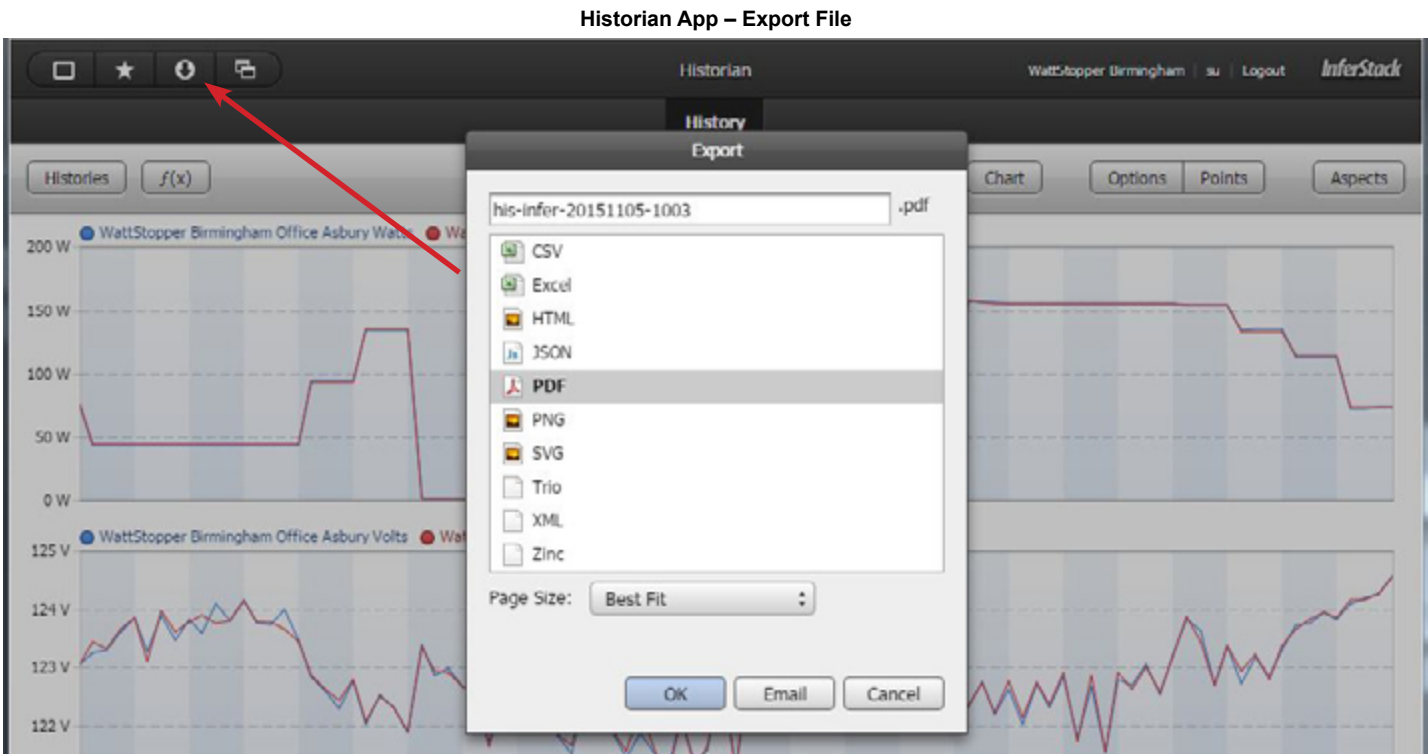
6. You can change the date or range of dates by clicking the Date Range button at the top. You can select an individual day, week, month, or year, or specify any date range. Once set, clicking the left or right arrows at the end of the button will toggle the chart progressively through the days, weeks, months or years.



7. Sample rates can be changed on the **Configure Histories** screen. Click **Options** to open this dialog. Highlight one or more of the points, then click **Interval** to set the scale of the data included on the chart. Other options include choosing the type of chart, colors used in the chart, grouping, and type of calculation.



8. To export the history to a particular file type, click the Download icon, select the file type, and click **OK**. The report can also be emailed from the system in this window if the email extension has been set up.



VIEWING POINT DATA FOR A SPECIFIC PIECE OF EQUIPMENT

The Equip app is similar to the Historian app, but is focused on displaying data for a specific piece of equipment.

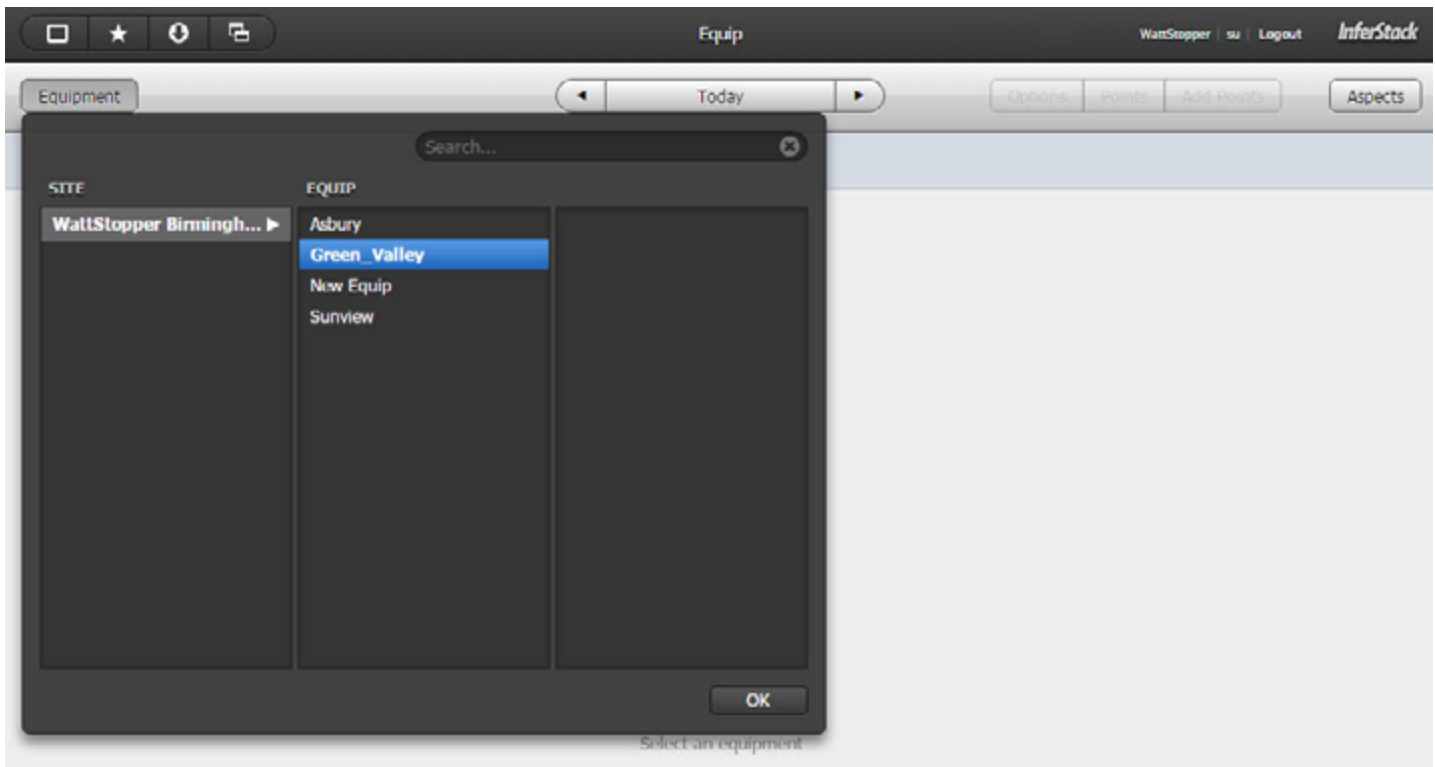
1. From the Home Screen click the **Equip** icon.

Home Screen



2. Click the "Equipment" button. A dialog similar to the one used in the Historian app opens. Note that this only has two columns, for **Site** and **Equip**. Select the **Site** to populate the **Equip** column, then double-click the particular piece of equipment desired.

Equip App



- The screen displays a series of charts displaying data on various points. As with the Historian app, you can change the date or date range by clicking the button at the top.

Equip App – Displaying Data



- Click **Options** to determine whether or not to display the Weather chart. Note that the sunrise and sunset times are determined by the locations settings in the Essential Tags of the Builder App. See [“Setting Up the Database” on page 17](#) for details. Click **Points** to see a list of the point data shown in the charts. To add other charts to the screen, click **Add Points**. A dialog identical to the one in the Historian app opens and you can select the points to add.

ADDING GRAPHICS OF THE SITE AND EQUIPMENT

The Graphics App is where the customer GUI is located. Graphical representation of the Site and Equipment is provided. The Graphics are published to the 225CWS using a 3rd party software which requires training by the commissioning agent.

1. From the Home Screen click the **Graphics** icon.

Home Screen

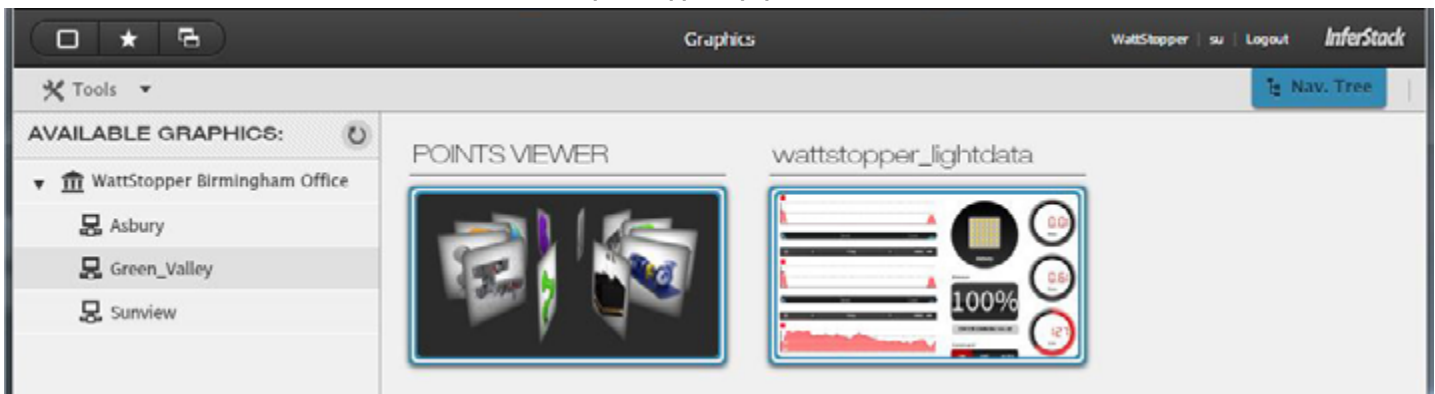


2. Select the Site and a thumb nailed image appears. Click on the thumbnail image to view the site graphic.

Graphics App



Graphics App – Equipment View



MANAGING USERS

The User app provides the ability to edit or create new users.

1. From the Home Screen click the **User** icon.

Home Screen



2. The snapshot provides a default admin and normal user as examples

User App



dis	username	userAdmin	email	tz	Subscriptions	actionAccessFilter	appAccess
Admin User	admin	<input checked="" type="checkbox"/>	admin@email.com	New_York		user_finCat<=6	
Normal User	user	<input checked="" type="checkbox"/>	user@email.com	New_York		user_finCat<=6	settings,user,help,alarm,equip,graphic,his,job,note,schedule,...

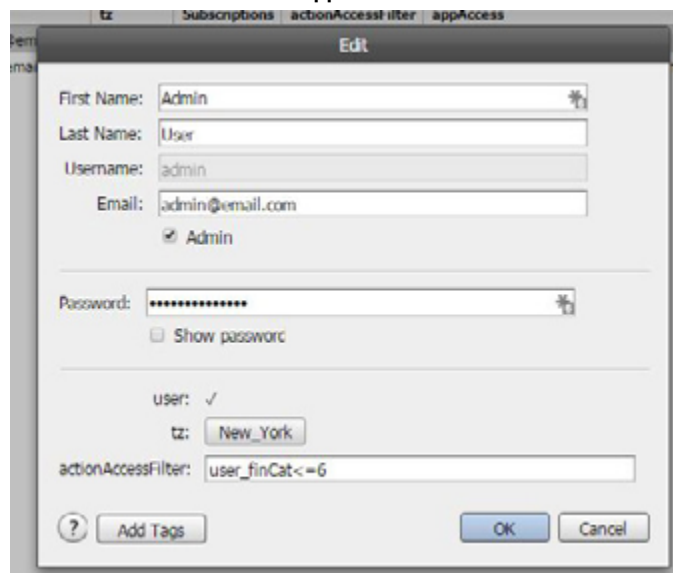
3. To edit a user, select the user and Click **Edit**.

Enable the **Admin** checkbox to add admin privileges, which is required for some apps.

The **tz** field allows you to select the time zone where the user is located. Click the current value to open a dialog and select the appropriate value. This value is used for correctly notating the time in emails sent to the user.

Wattstopper recommends all users be issued the “user_finCat<=6” actionAccessFilter. This filter is a “property tag” that limits the user’s “action” in commands to only “manual override” and “manual auto”. This removes all emergency and default command actions.

User App– Edit User



Edit

First Name: Admin

Last Name: User

Username: admin

Email: admin@email.com

☒ Admin

Password: [masked]

☐ Show password

user: ☒

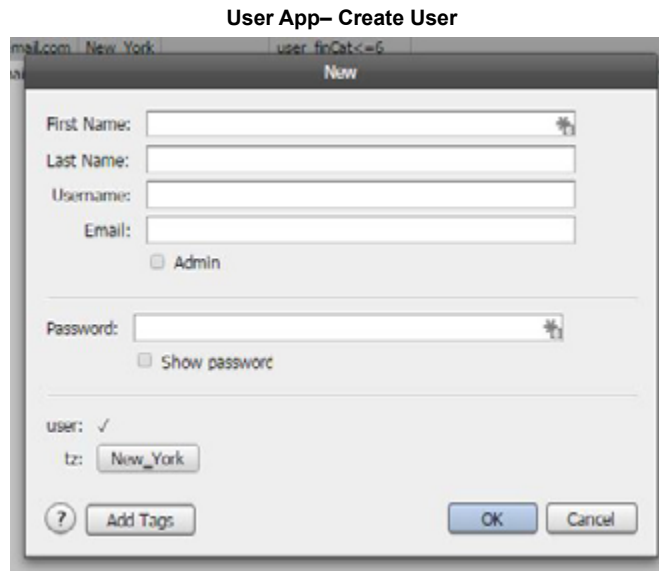
tz: New_York

actionAccessFilter: user_finCat<=6

? Add Tags OK Cancel

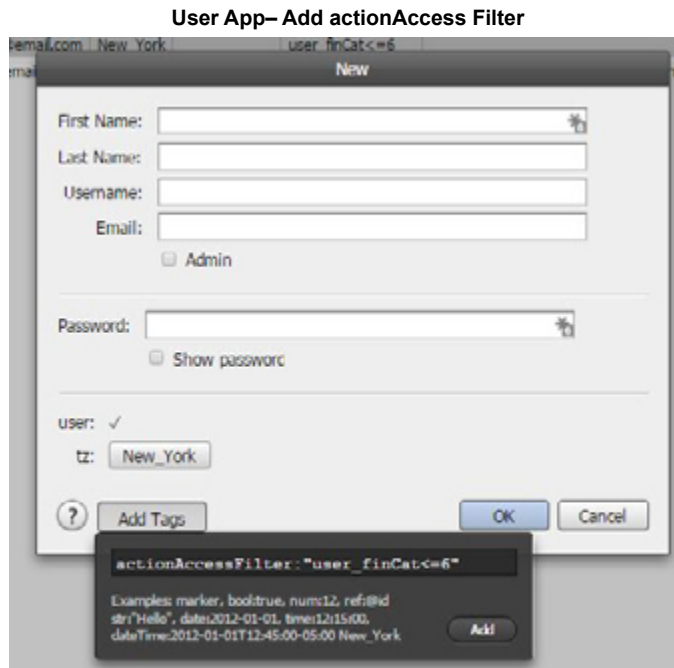
4. To create a new user click “New” and then enter the user specific details in the window.

User App– Create User



5. To add the actionAccessFilter to a new user, click **Add Tags** and type the following in the window:
actionAccessFilter:“user_finCat<=6”.
6. Click **Add**.

User App– Add actionAccess Filter



7. After the user is created, you can limit which apps are available to that user by clicking **App Permissions**. Select or deselect specific apps and click **OK**.
NOTE: Certain apps are only accessible for users with the Admin privilege. If the user does not have that privilege, those apps will be disabled.
8. To delete a user, highlight the user and click **Trash**.

USING THE HELP APP

Selecting the Help App opens the embedded device users manual.

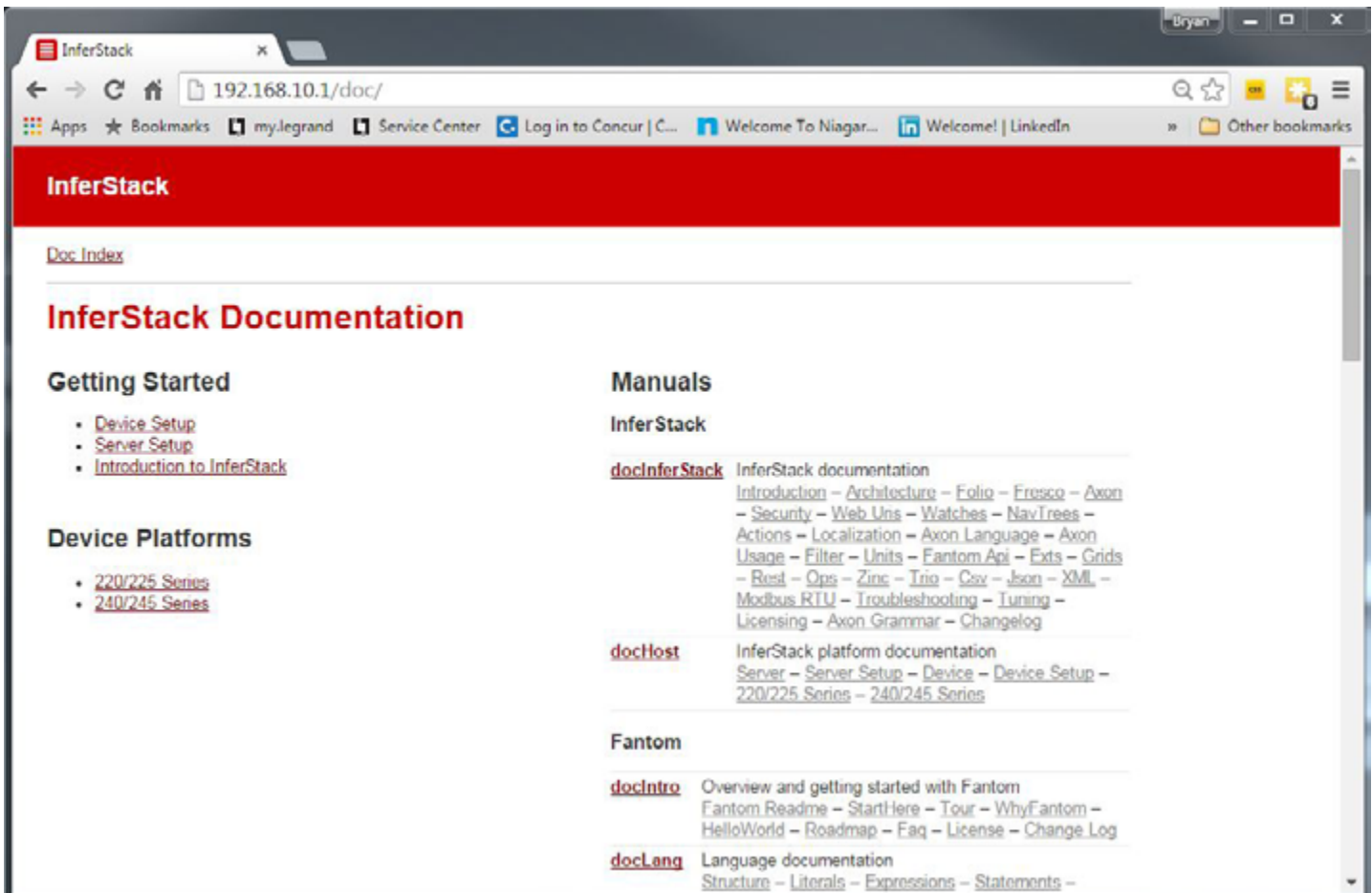
1. From the Home Screen click the **Help** icon.

Home Screen



2. Information for advance users is provided here.

Help App



3. Scroll to “jennet” under the Extensions section for details on embedded functions specific to the jennet extension.

geo	Geolocation Extension	fandoc	Fandoc parser and DOM
graphic	Graphics	fanr	Fantom Repository Manager
greenButton	Analytics Green Button function library	fansh	Interactive Fantom Shell
haystack	Haystack Connector Extension	flux	Flux: Core Application
his	Historian Extension	fluxText	Flux: Text Editor
hisKit	Analytics Historian Analytics Kit Extension	fwt	Fantom Widget Toolkit
hvac	Analytics HVAC Extension	gfx	Graphics API
io	I/O Extension	inet	IP networking
ioBridge	IO Bridge Extension	obix	oBIX XML modeling and client and server REST
jennet	Jennet Extension	sql	Relational database access
job	Job Extension	syntax	Syntax styling for programming languages
kpi	Analytics KPI Extension	sys	Fantom system runtime
ldap	LDAP Extension	util	Utilities
lighting	Analytics Lighting Extension	web	Standard weblet APIs for processing HTTP requests
math	Math function library	webfwt	Web extensions to the FWT toolkit
modbus	Modbus Connector Extension	webmod	Standard library of WebMods
note	Note Extension	wisp	Wisp web Server
obix	oBIX Connector Extension	xml	XML Parser and Document Modeling
point	Point Extension		
prov	InferStack Provisioning Support		
report	Custom report extension		
schedule	Scheduling Extension		
sedona	Sedona Connector Extension		
snmp	SNMP Connector Extension		

CHANGING THE APP ID (PANID) FOR MULTIPLE NETWORKS

In a situation where multiple 225CWS controllers will be in close proximity, it is necessary to segregate the wireless networks. This is known as changing the App ID (panID) in both the 225CWS and the field devices.

1. From the Home screen, click the **Builder** icon. Select the site, then expand the first device to determine whether the panID is already added to the device. If it is not, click **Connectors** to open the Connectors section on the right.
2. Expand the first equipment device in the Connectors section to display the tree. Expand the **Service** folder, then the **plat** folder, to show the **panid** object. Click and drag the **panid** to the device in the left tree.

NOTE: Ideally this should be done prior to cloning the network, because this edit must be done to all the devices on the entire network. Therefore, once this point is added, proceed with the cloning process as described starting in step 10 of the section on Building the Database. See [page 21](#) for details.

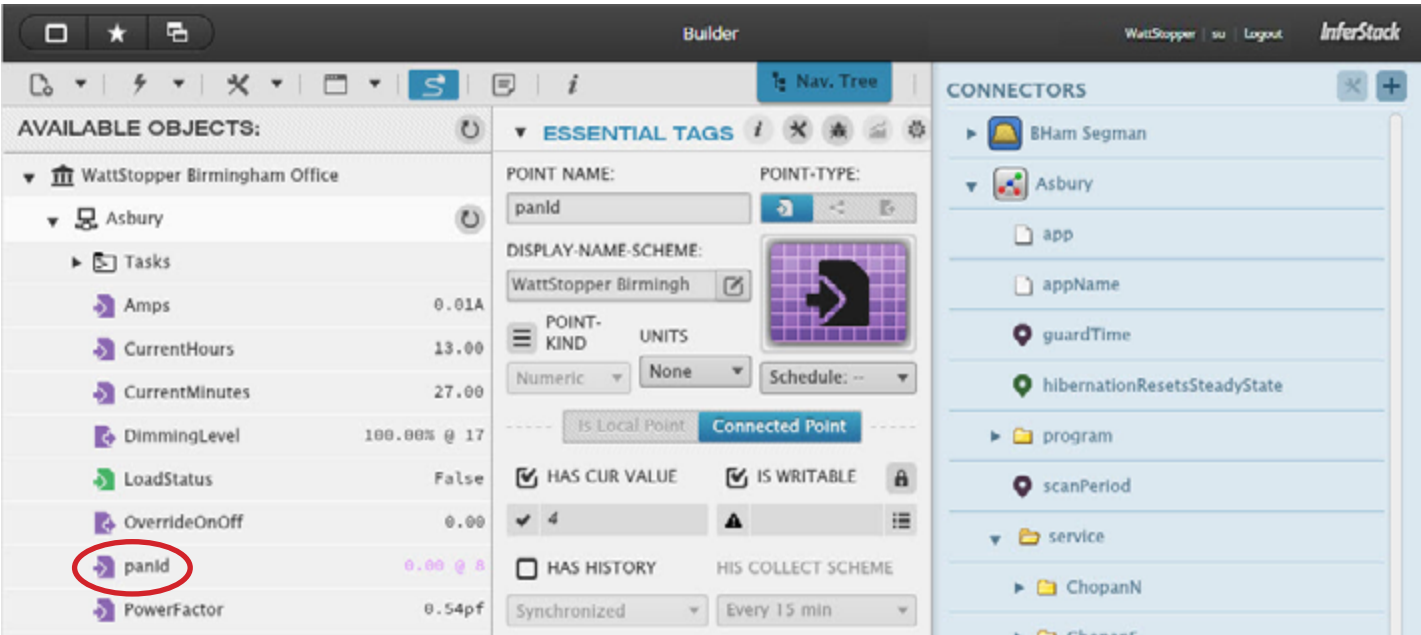
Builder App – Changing the panID

The screenshot displays the Builder App interface with the following components:

- AVAILABLE OBJECTS:** A list of objects under the 'WattStopper Birmingham Office' category. The 'Asbury' object is selected, indicated by a red arrow.
- ESSENTIAL TAGS:** Configuration fields for the selected object.
 - POINT NAME:** panid
 - POINT-TYPE:** panid
 - DISPLAY-NAME-SCHEME:** WattStopper Birmin
 - POINT-KIND:** Numeric
 - UNITS:** None
 - Schedule:** --
 - Is Local Point:** Connected Point
 - HAS CUR VALUE:** ☒ 4
 - IS WRITABLE:** ☒
 - HAS HISTORY:** ☐ Synchronized
 - HIS COLLECT SCHEME:** Every 15 min
 - SITE REF:** WattStopper Birmin
 - EQUIP REF:** WattStopper Birmin
 - CONN REF:** Asbury
 - CUR PATH:** 2.panid
 - WRITE PATH:** 2.panid
- MARKER TAGS:** writable, sensor, point, cur
- PROPERTY TAGS:**
- CONNECTORS:** A list of connectors. The 'service' folder is circled in red, and the 'plat' folder is also circled in red. A red arrow points from the 'Asbury' object in the 'AVAILABLE OBJECTS' list to the 'panid' tag in the 'CONNECTORS' list.

3. The panID will now show up in the tree on the left.

Builder App – panID Added to the Device



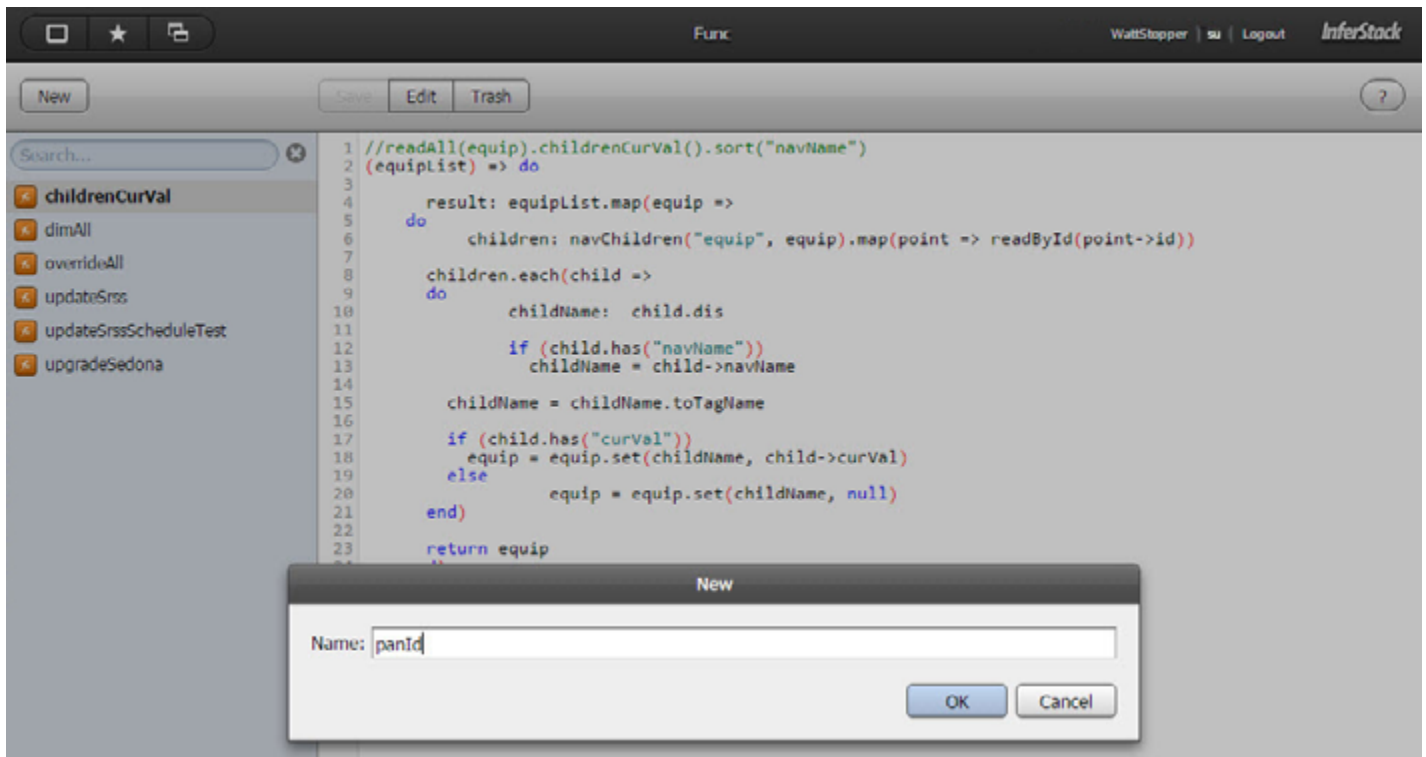
4. Next, you will need to create a function to batch edit all panID points. Return to the Home screen and select the **Func** icon.

Home Screen



5. The Func (Functions) app displays a list of default functions included with the snapshot. Click **New** in the pop-up dialog, enter the name "panId" (
- NOTE:** Note: All functions in Axon are camel case. No spacing between words. First letter of first word is lower case and additional words are note with a first letter capitalized. Example: camelCaseSyntax

Func App – Create a New Function



6. Paste the following function in the window, then click **Save**:

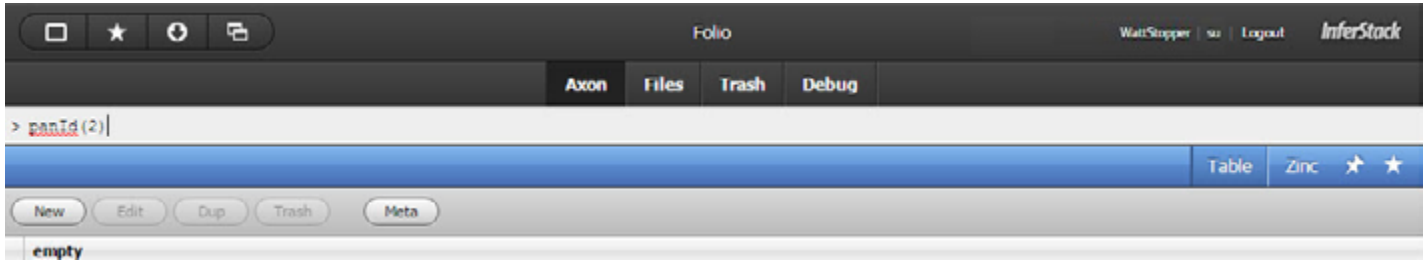
```
(val) => do
  readAll(point and jennetWrite == "2.panId").each p => do
    pointOverride(p, val)
  end
end
```

Func App – Add Code



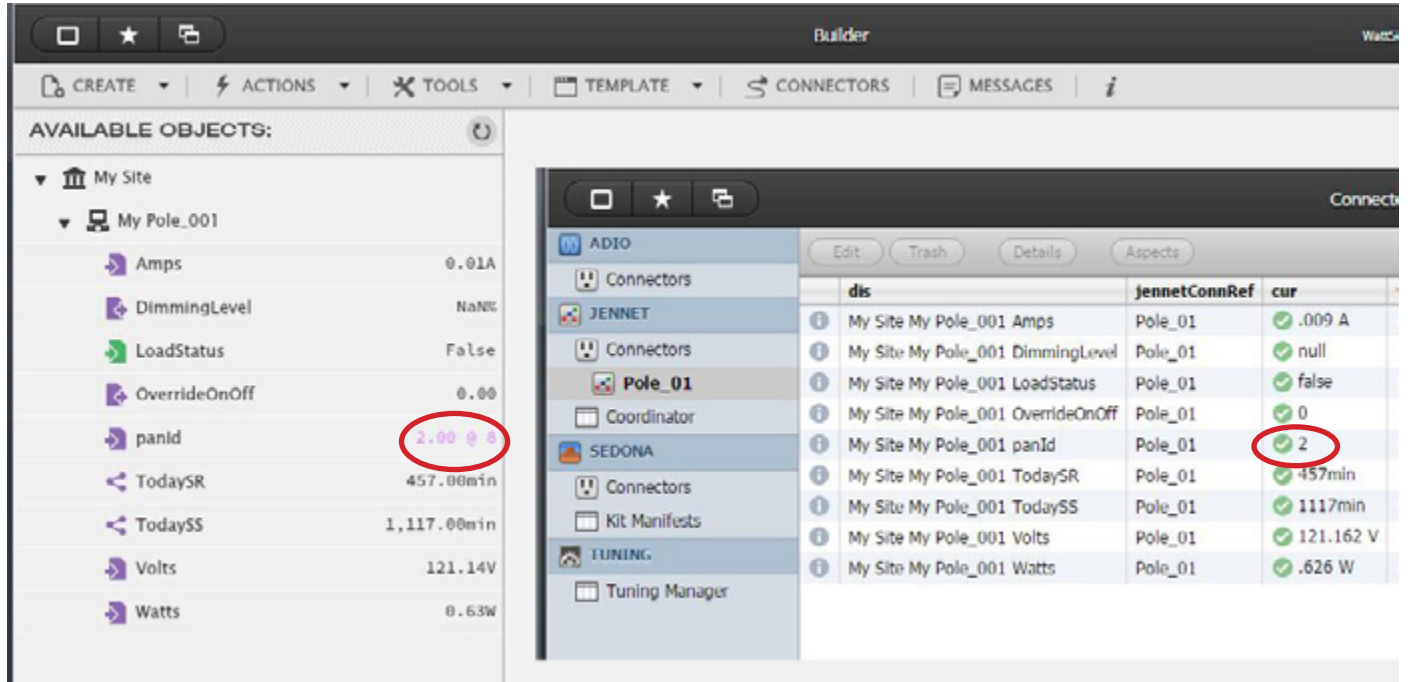
- Next, navigate to the **Folio** app. On the execute line, type “panId(x)”, where x” is the hexadecimal number desired for the new App ID/panId. (In the following example, panId “2” is used.) Run the command by pressing the **Enter**.

Folio App – Run Function



- In both the Builder and Connectors App, you will see the panId has been changed to “2”.

Results of Running the Function



- Next, navigate to the **Job** app and create a new job as described in the section [“Running Functions with the Job App” on page 33](#). Name the job “jennetSaveAll” and then in the job widow type “jennetSaveAll()” and click **OK**.
NOTE: Do not schedule this job. This will run on command only. Once complete, select the job and click **Run**. After the job is complete, the network will require a reboot. Coordination with the customer may be required.

Job App – Run jennetSaveAll

dis: jennetSaveAll

job: jennetSaveAll()

jobSchedule: ☒ None
☐ Every 1hr
☐ Everyday at 12:00:00AM
☐ On weekdays None
☐ On days None
☐ Onetime at 20-Nov-2015 Fri 10:44:00AM EST

? Add Tags OK Cancel

10. After rebooting the NWTL devices, the coordinator apId will need to be changed. Navigate to the **Connectors** app. Select the **Coordinator** menu under JennetIP, then click **Config** and edit the apId to the new number (in our example, it is 0x00000002) and click **OK**.

NOTE: All apId values are hexadecimal.

Connectors App – Change the apId

Connectors

Reset Details Config

ready	network	addr	apId	panId	channel	nodes	uptime
false	true	0015:8d00:0046:8c3b	0x00000000	0x0002	26	0	10sec

Config

appId: 0x00000002
 panId: 0x0002
 channel: 26
 readyTime: 1min
 daspOpenFreq: 5sec
 daspConnectTimeout: 10sec
 daspReceiveTimeout: 90sec
 daspSendRetry: 5sec

OK Cancel

11. After editing the apId, click **Reset** and then click Yes when prompted.

12. After the coordinator resets, the apId will change to the edited value. After 1 min, the devices with the new panId will appear.

FUNCTIONS FOR TESTING THE NETWORK

The following functions are useful for testing the network:

To test the override all:

- jennetOverrideAll(1,1hr) This will override the fixtures on for 1hr.
- jennetOverrideAll(2,1hr) This will override the fixtures off for 1hr.
- jennetOverrideAll(null) This will return the override command to the auto state.

To test the dim all:

- dimAll(50,1hr) This will dim the fixtures to 50% for 1hr.
- dimAll(75,1hr) This will dim the fixtures to 75% for 1hr.
- dimAll(null) This will return the dimming command to the auto state

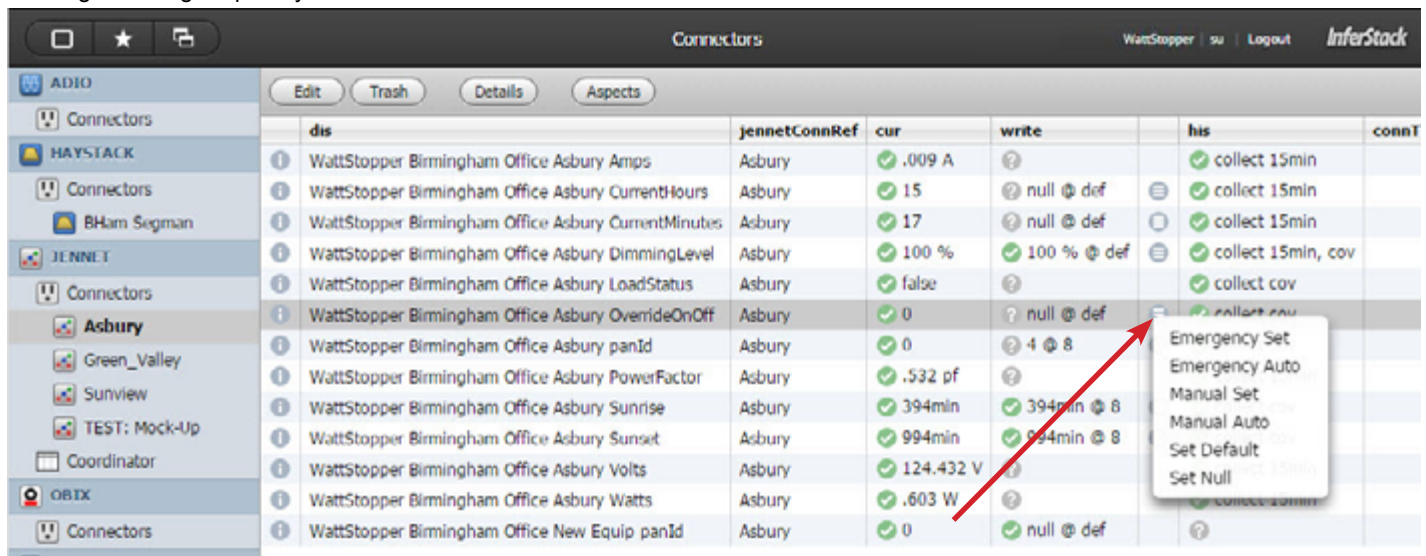
To test an individual device:

To test an individual device, navigate to the **Connectors** app.

Select a connector to test. Both the OverrideOnOff and DimmingLevel points can be overridden using the small command button next to the write value.

Ensure you use the “Manual Set” to override the device. To test the On/Off command with the OverrideOnOff point, enter a value (0=auto, 1=On, 2=Off) and a duration and click **OK**. Always return the value back to “Manual Auto”. To test the dimming command with the DimmingLevel point, enter a value (0-100) and a duration and click **OK**. Always return the value back to “Manual Auto”.

NOTE: The write value should respond immediately. The curVal (current value) may take several seconds as the write commands are given a higher priority.



dis	jennetConnRef	cur	write	his	connT
WattStopper Birmingham Office Asbury Amps	Asbury	.009 A	?	collect 15min	
WattStopper Birmingham Office Asbury CurrentHours	Asbury	15	null @ def	collect 15min	
WattStopper Birmingham Office Asbury CurrentMinutes	Asbury	17	null @ def	collect 15min	
WattStopper Birmingham Office Asbury DimmingLevel	Asbury	100 %	100 % @ def	collect 15min, cov	
WattStopper Birmingham Office Asbury LoadStatus	Asbury	false	?	collect cov	
WattStopper Birmingham Office Asbury OverrideOnOff	Asbury	0	null @ def	collect cov	
WattStopper Birmingham Office Asbury panId	Asbury	0	4 @ 8		
WattStopper Birmingham Office Asbury PowerFactor	Asbury	.532 pf	?		
WattStopper Birmingham Office Asbury Sunrise	Asbury	394min	394min @ 8		
WattStopper Birmingham Office Asbury Sunset	Asbury	994min	994min @ 8		
WattStopper Birmingham Office Asbury Volts	Asbury	124.432 V	?		
WattStopper Birmingham Office Asbury Watts	Asbury	.603 W	?		
WattStopper Birmingham Office New Equip panId	Asbury	0	null @ def		

Emergency Set
Emergency Auto
Manual Set
Manual Auto
Set Default
Set Null

WARRANTY INFORMATION

Wattstopper warrants its products to be free of defects in materials and workmanship for a period of five (5) years. There are no obligations or liabilities on the part of Wattstopper for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.