ecoSYS
Site Supervisor
Refrigeration & Air Conditioning Applications

Education You Can Build On

EMERSON™
Climate Technologies

Presented By:

(Instructor Name)

Housekeeping

- Smile Card
- No Smoking
- Class Length
- Portable Phones and Beepers
- Rest Rooms
- Fire Safety

Course Reference Materials

- Participant Manual
- *ecoSYS Site Supervisor Controller User Guide*
- *ecoSYS Site Supervisor Quick Setup Guide*

Course Agenda

- Changing Setpoints
- Creating an HVAC/AHU Application
- Creating Refrigeration (XR75) Control
- Creating Refrigeration Monitoring and Alarm
- Creating an Anti-Sweat Application
- Creating Exhaust/Supply Fan Control
- Override HVAC

Changing Setpoints

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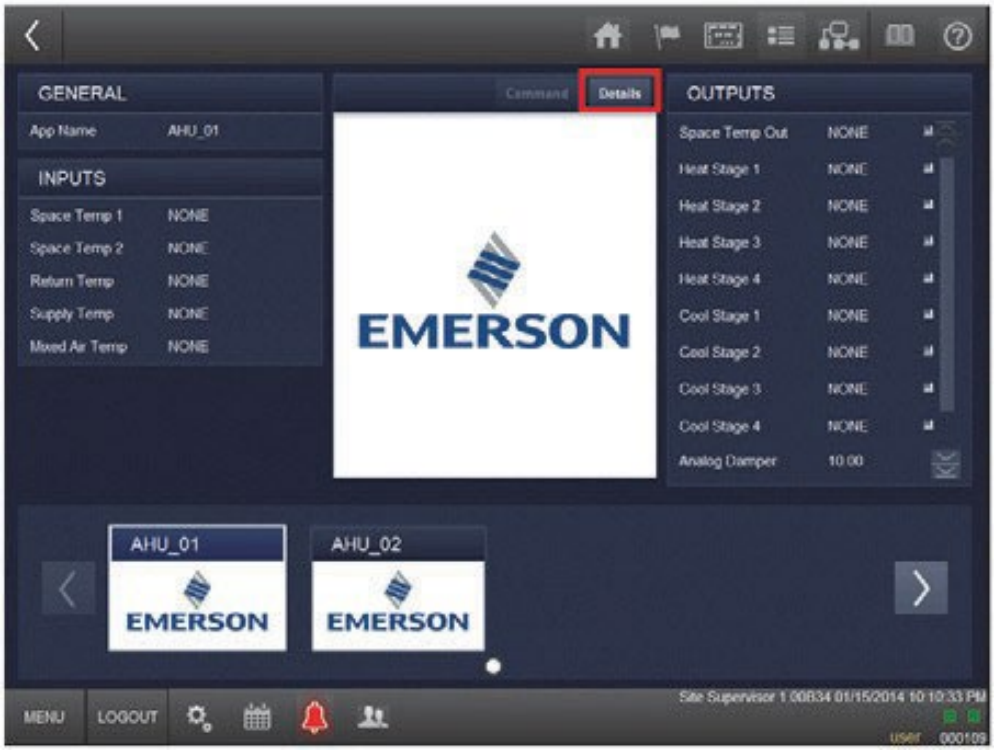
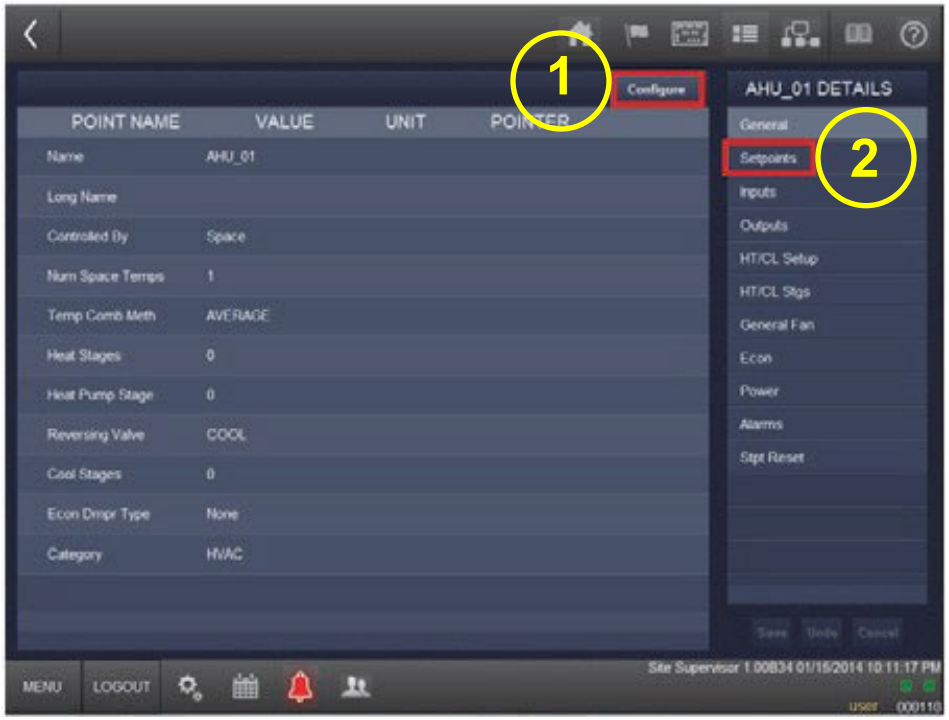
Changing Setpoints

- Go to the control status screen of the application you want to modify.
- Click on **Details**.



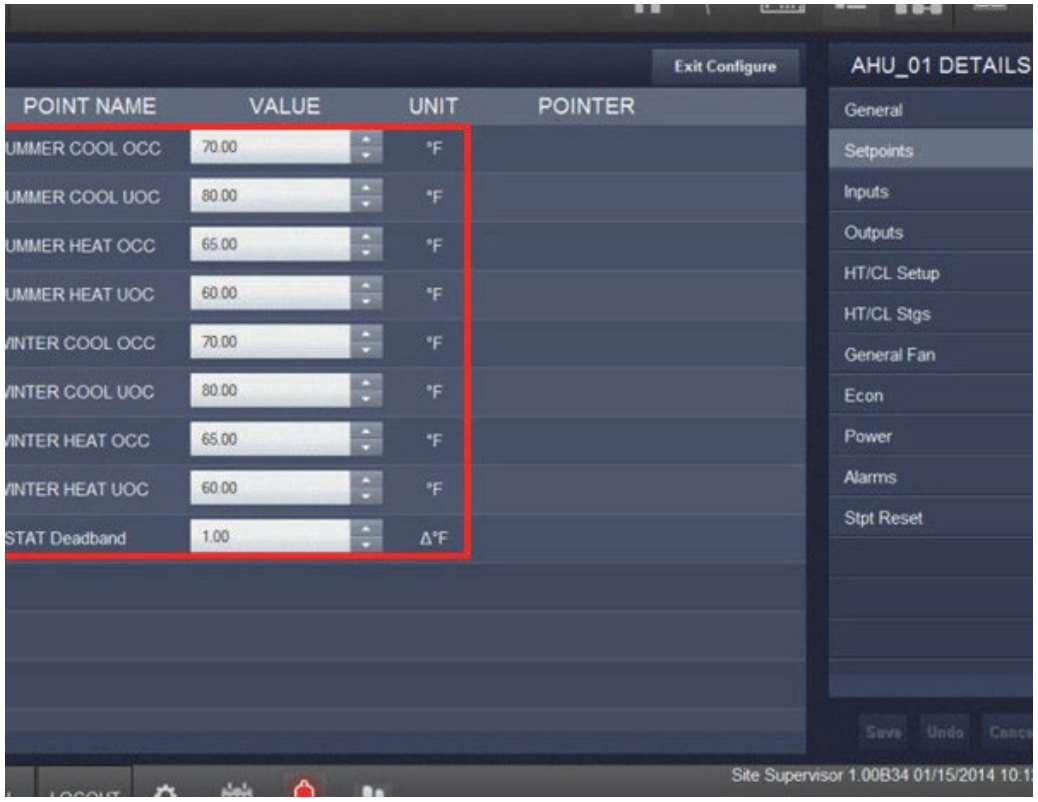
Changing Setpoints

- Select **Configure**, then choose **Setpoints** from the panel on the right side of the screen.



Changing Setpoints

- Make any necessary changes to the setpoints.



Changing Setpoints

- After making changes, select **Save**, then **Exit Configure**.

Creating an HVAC/AHU Application

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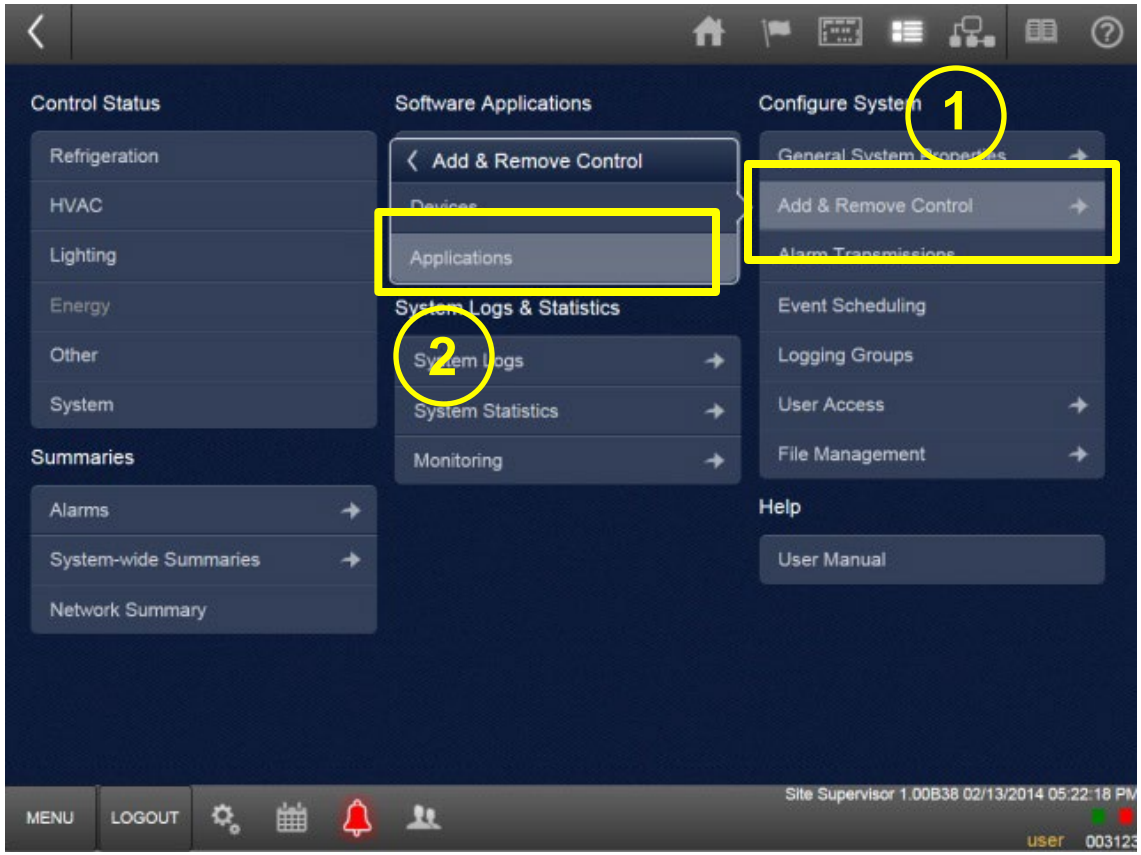
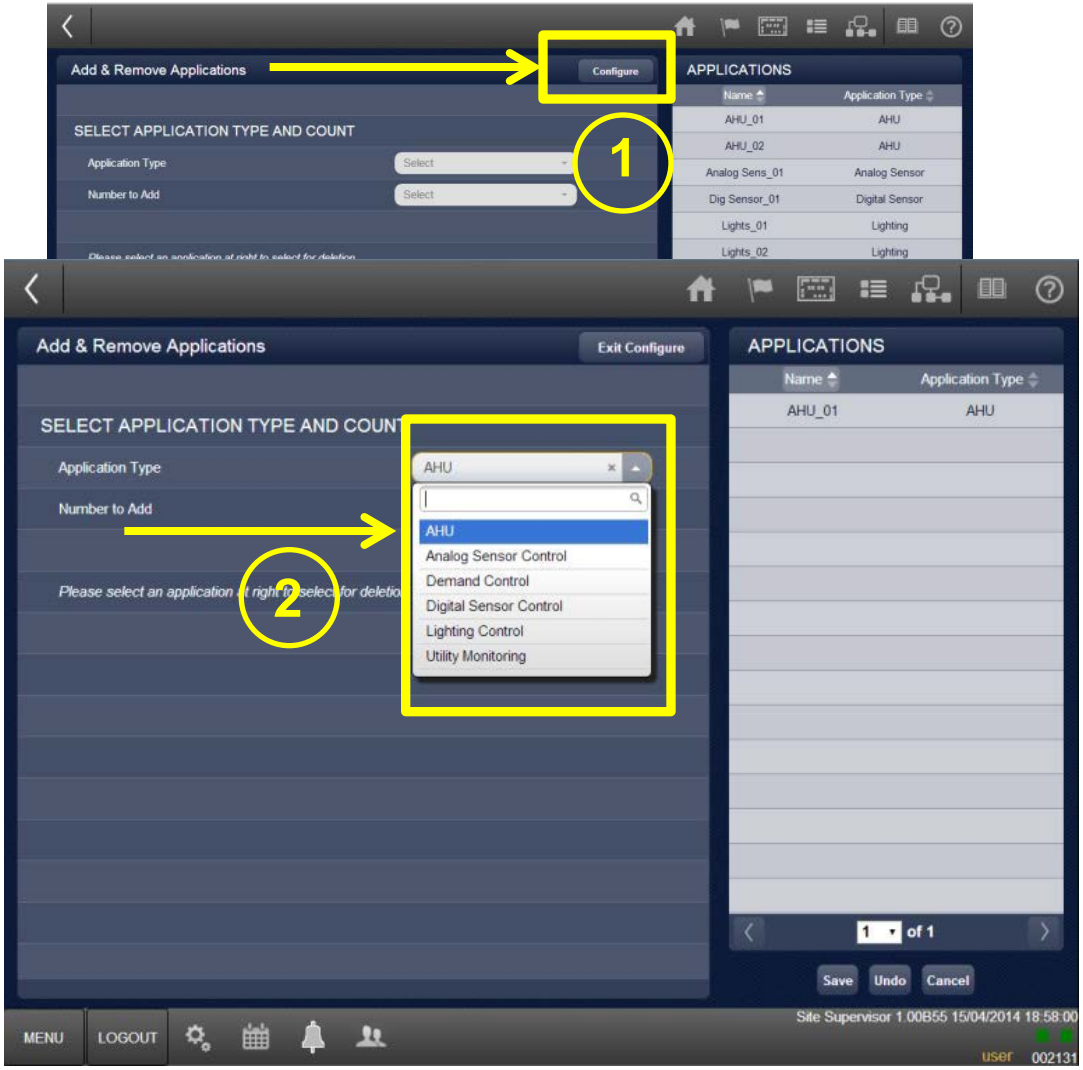
Creating an HVAC/AHU Application

- Login to Site Supervisor Controller and go to the **Site Map**
- Choose **Add & Remove Control**, then **Applications**



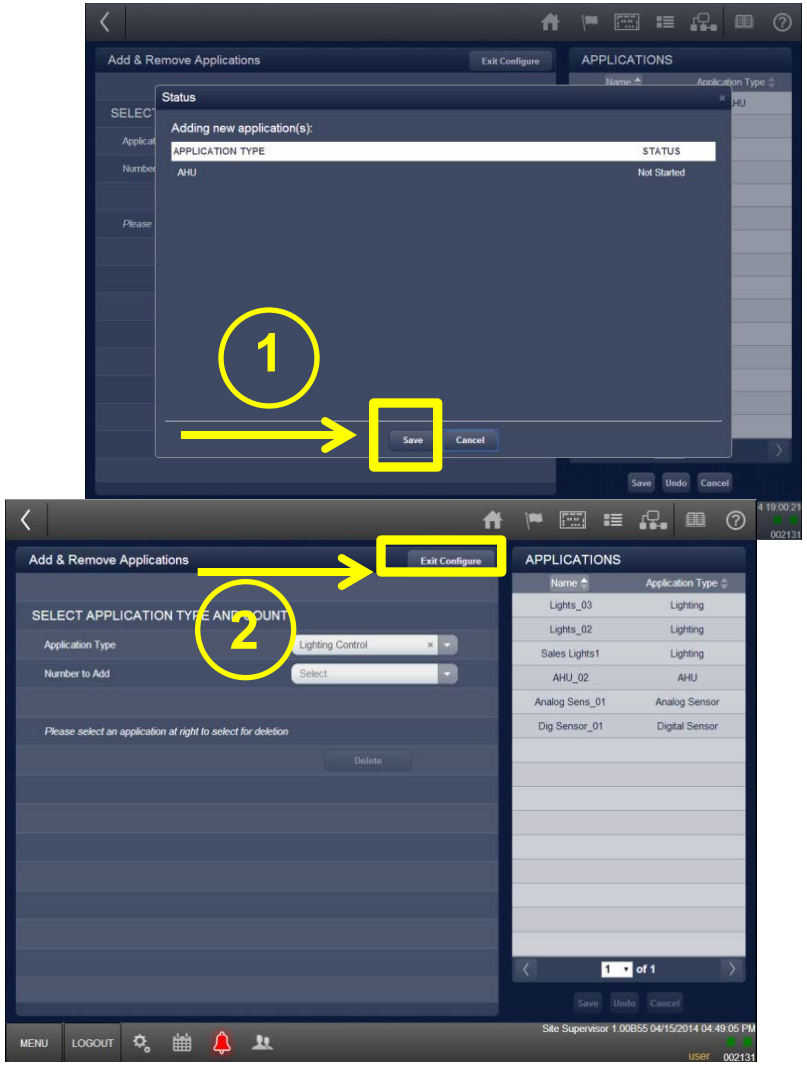
Creating an HVAC/AHU Application

- Select **Configure**
- Select **Application Type** and **Number to Add** from dropdown



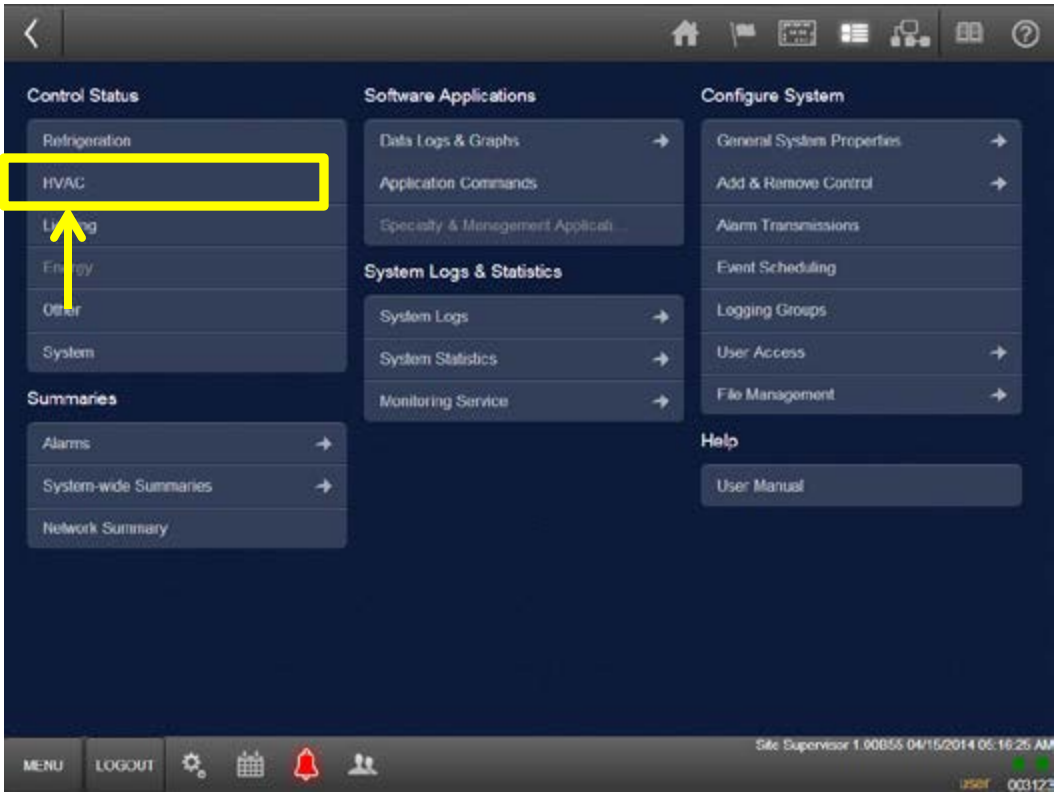
Creating an HVAC/AHU Application

- Click on **Save**
- Select **Exit Configure**



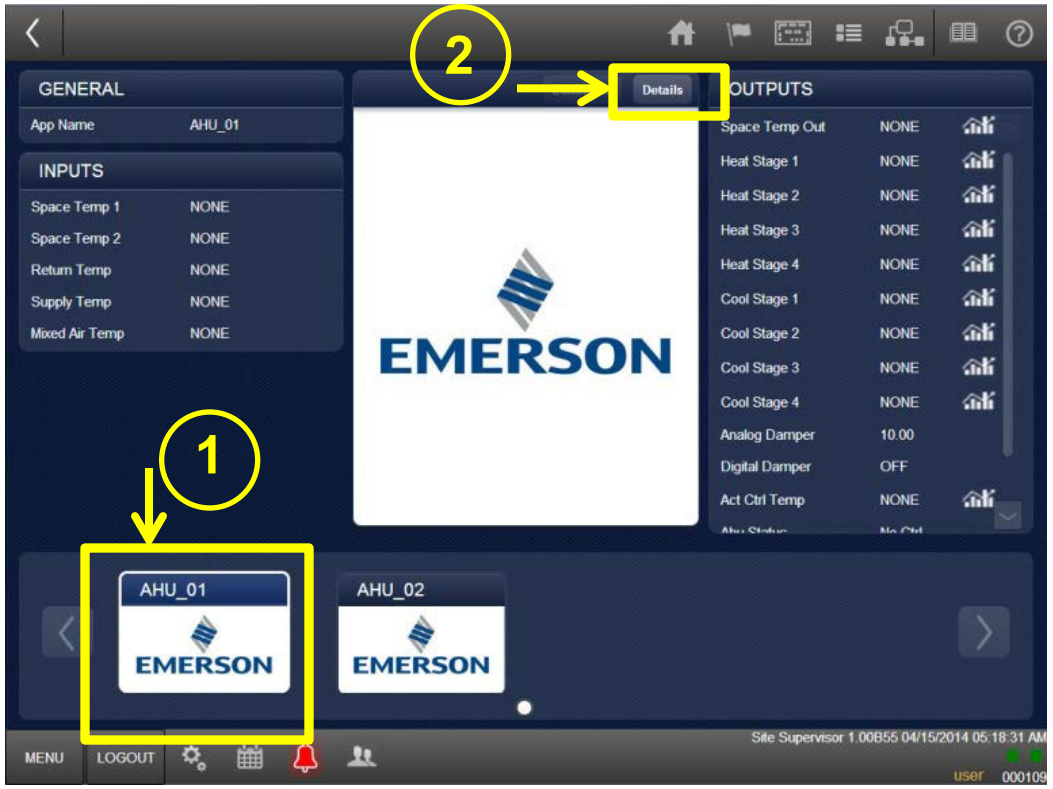
Basic Setup for AHU

- From the **Site Map**, under Control Status, select **HVAC.**



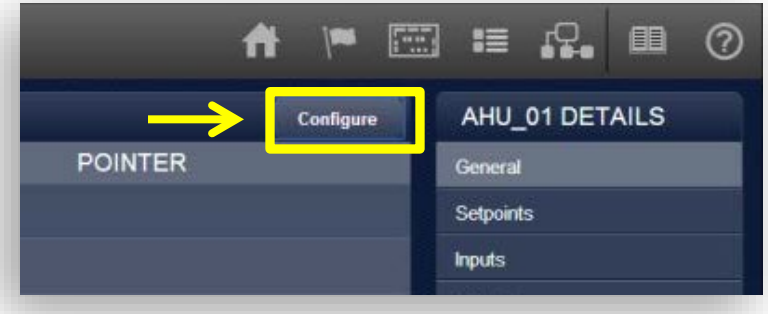
Basic Setup for AHU

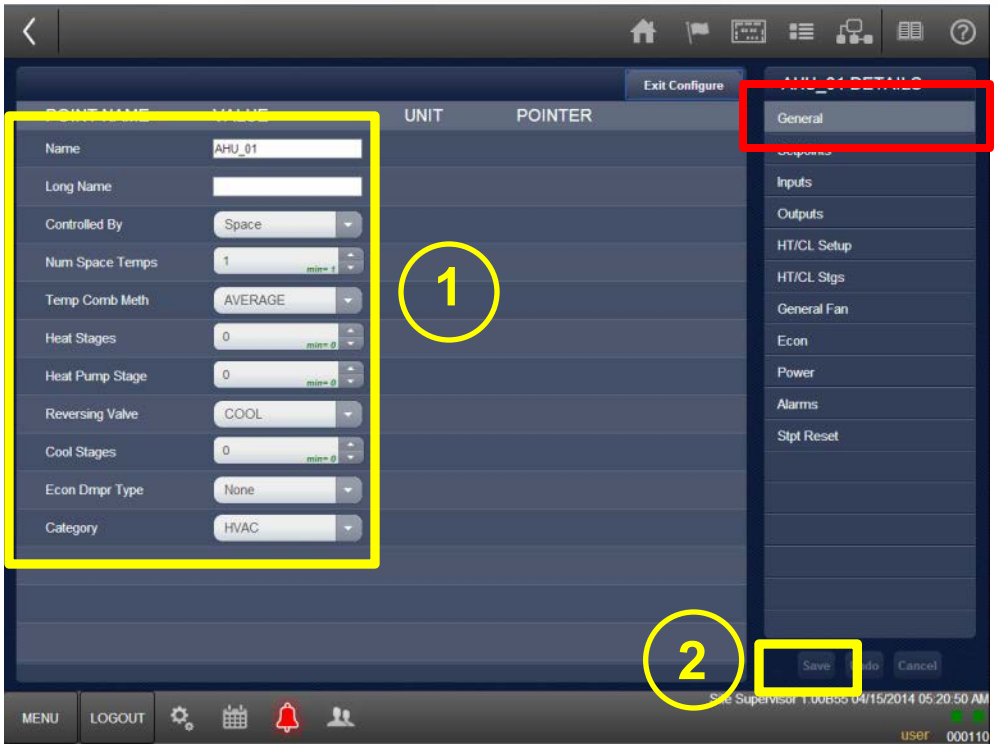
- Select HVAC Application, then select **Details**



Basic Setup for AHU

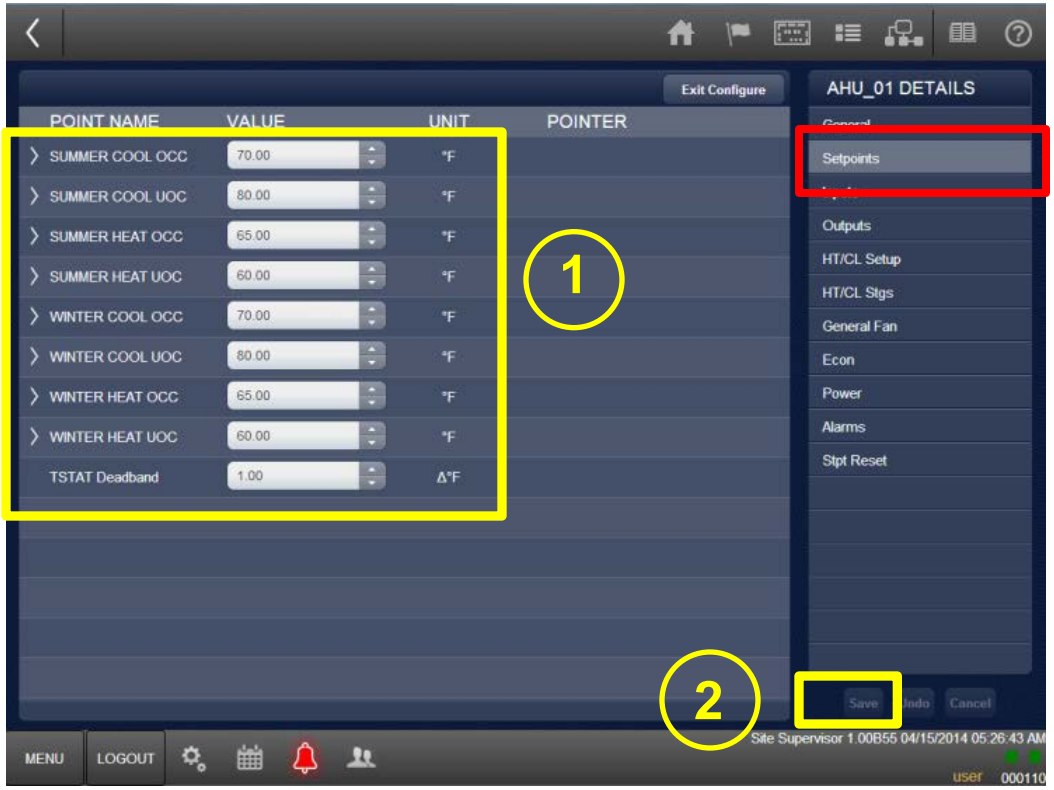
- Select **Configure** in upper right
- On the General Tab, enter details for:
  - Name of AHU
  - Number of control sensors
  - Number of heating and cooling stages
- Select Save to continue





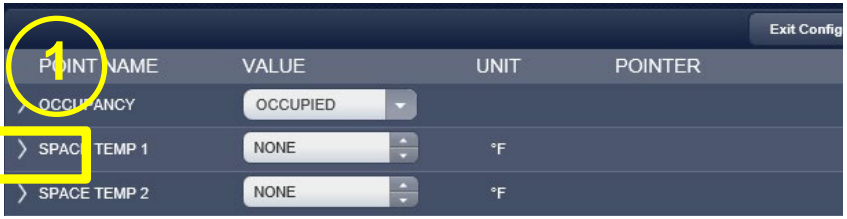
Basic Setup for AHU

- On the Setpoints tab, enter details for:
  - Occupied and unoccupied set points
  - Control dead band
- Select Save to continue



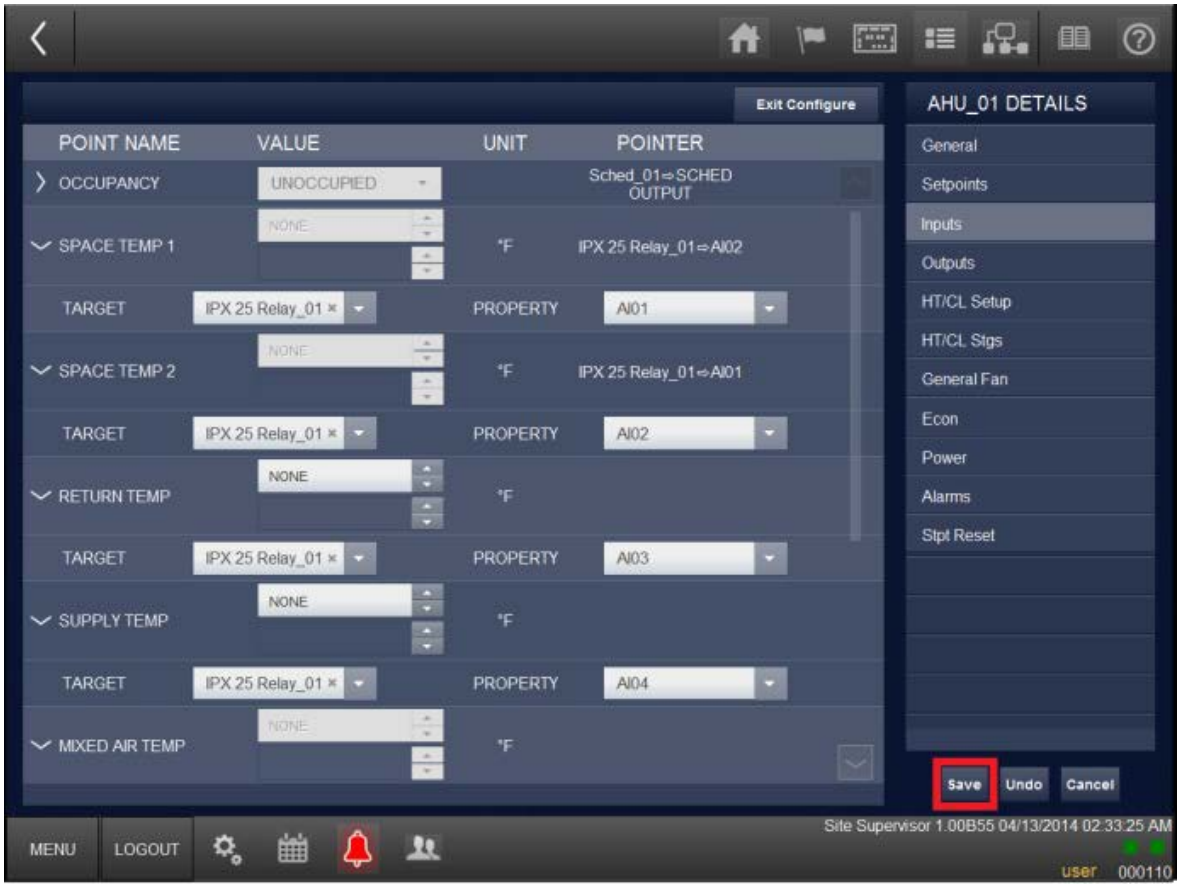
Basic Setup for AHU

- On the Inputs tab (temperature sensor setup):
  - Select the arrow next to the sensor to adjust settings (e.g., SPACE TEMP 1).
  - Set the Target and Property where the sensor is connected (e.g., Target of IPX 25 Relay_01 and Property A102).



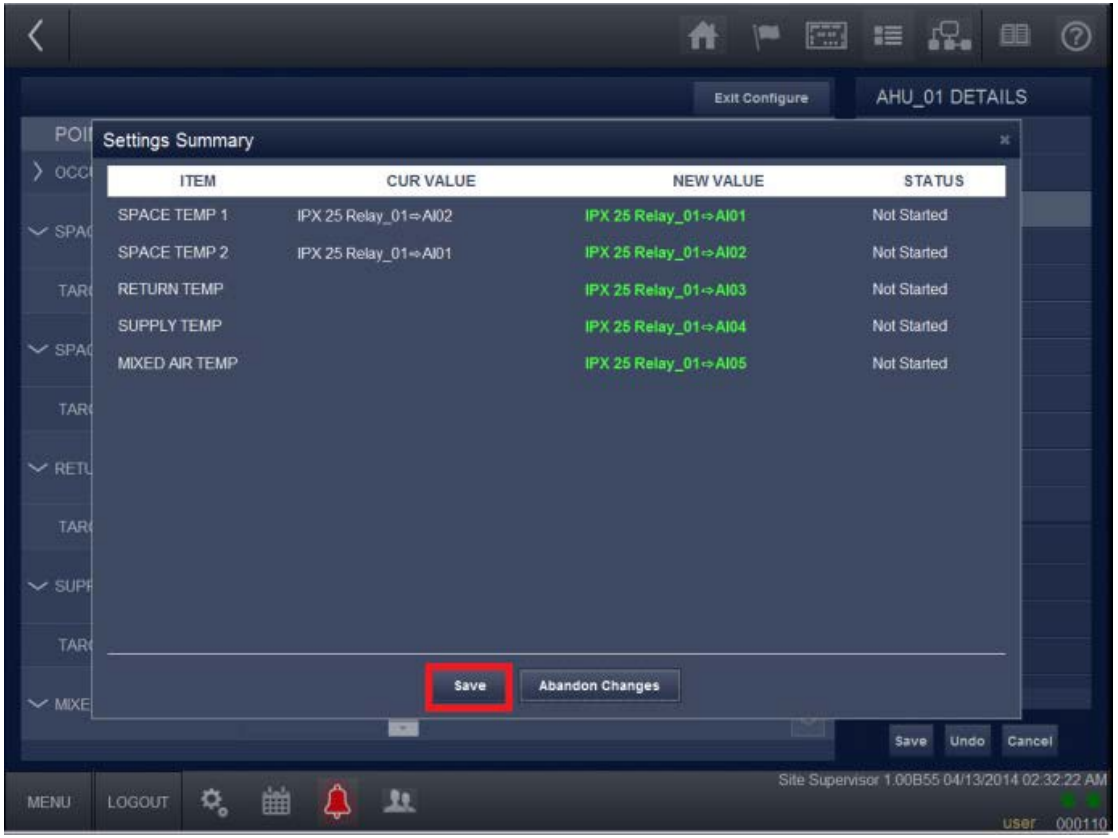
Basic Setup for AHU

- Using the same procedure, proceed to associate the rest of the sensors with the corresponding inputs in the IPX board or on-board I/O.



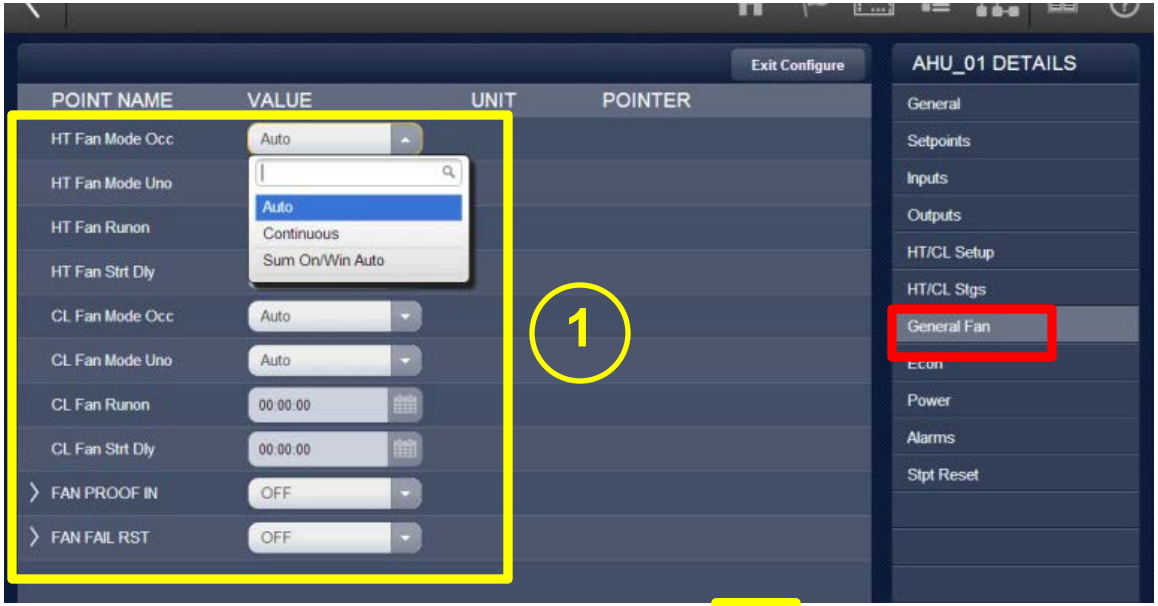
Basic Setup for AHU

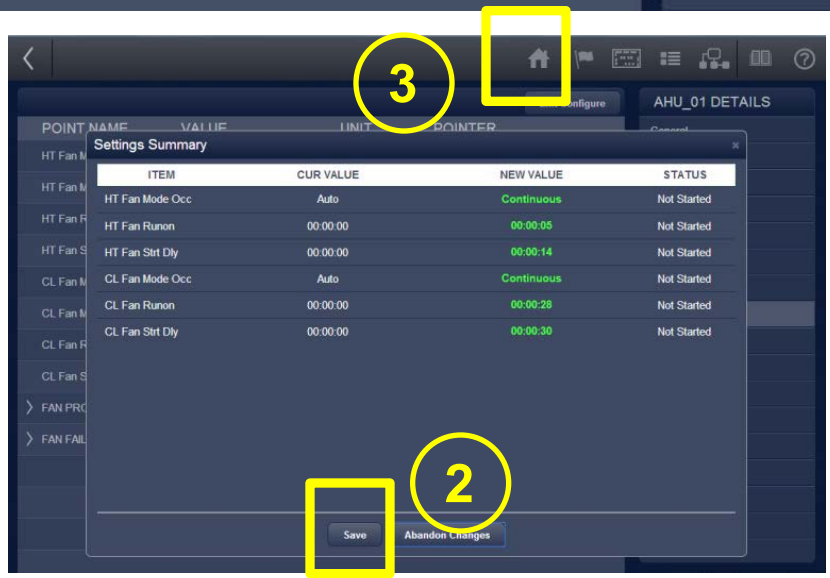
- Verify the inputs associated.
- Select **Save**, then **OK**.



Basic Setup for AHU

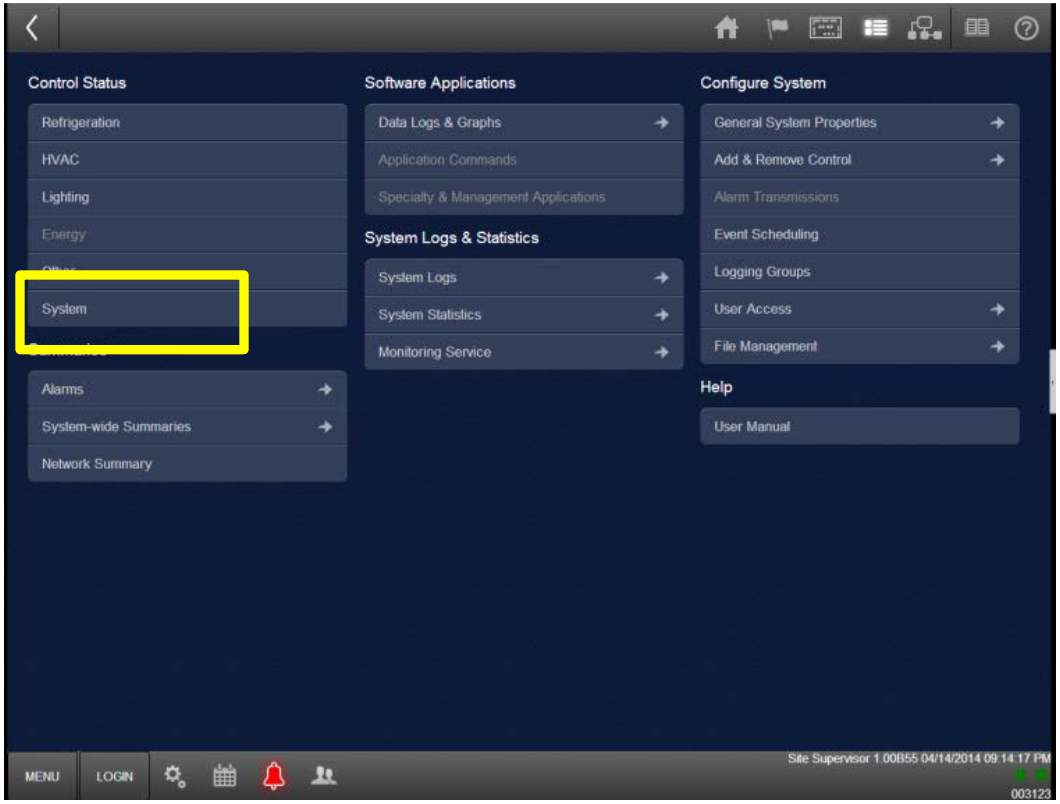
- On the General Fan tab:
  - Enter required modes and time delays for the supply fan.
  - Select **Save**.
- Return to the Home screen.





Basic Setup for AHU – Associate to Relays

- Go to the Site Map and choose **System** under Control Status.

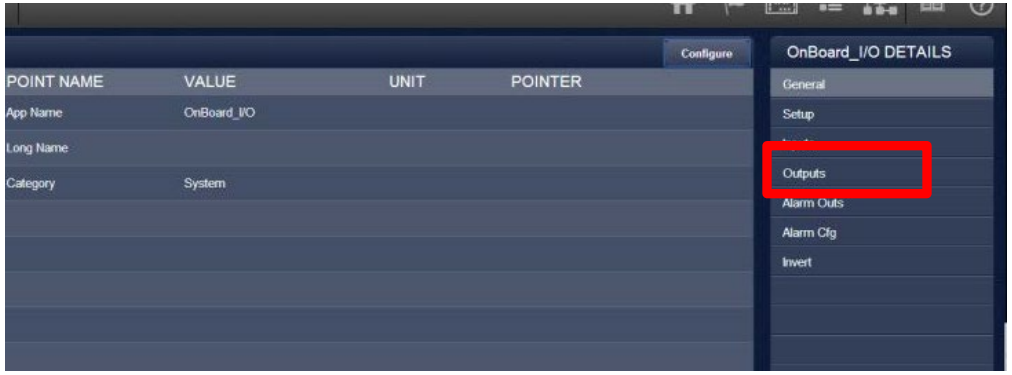


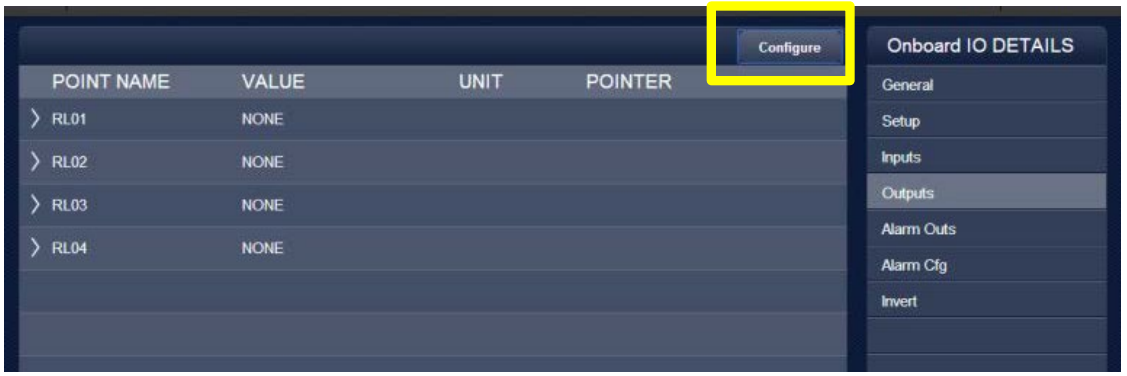
Basic Setup for AHU – Associate to Relays

- Select the hardware device that has the relay output (in the example, the Onboard I/O is used).
- Click on the **Details** button.

Basic Setup for AHU – Associate to Relays

- Select Outputs tab on the right.
- Select **Configure**





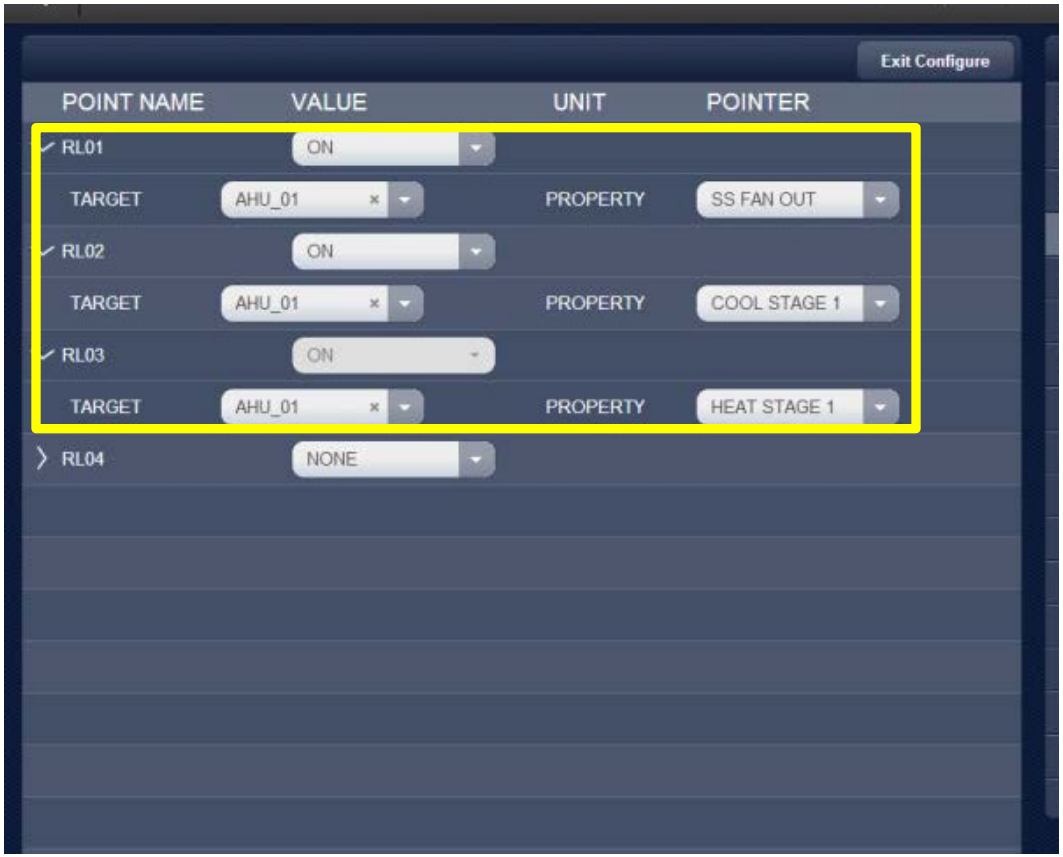
Basic Setup for AHU – Associate to Relays

- Use arrow next to relay (RL0X) to open the panel.

- For Target, from the dropdown select the AHU application.
- For Property, from the dropdown select the out from within the AHU application that will be controlled at this location.

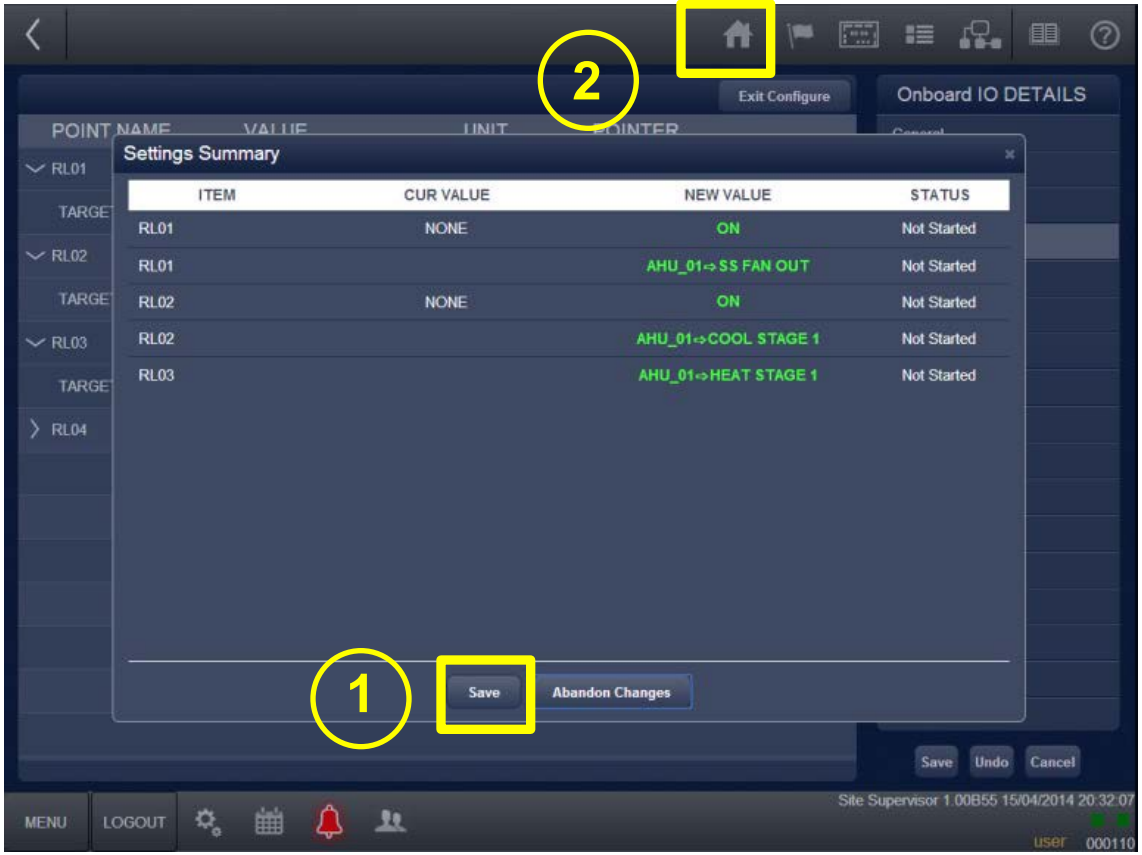
Basic Setup for AHU – Associate to Relays

- In the same way, associate other relays.



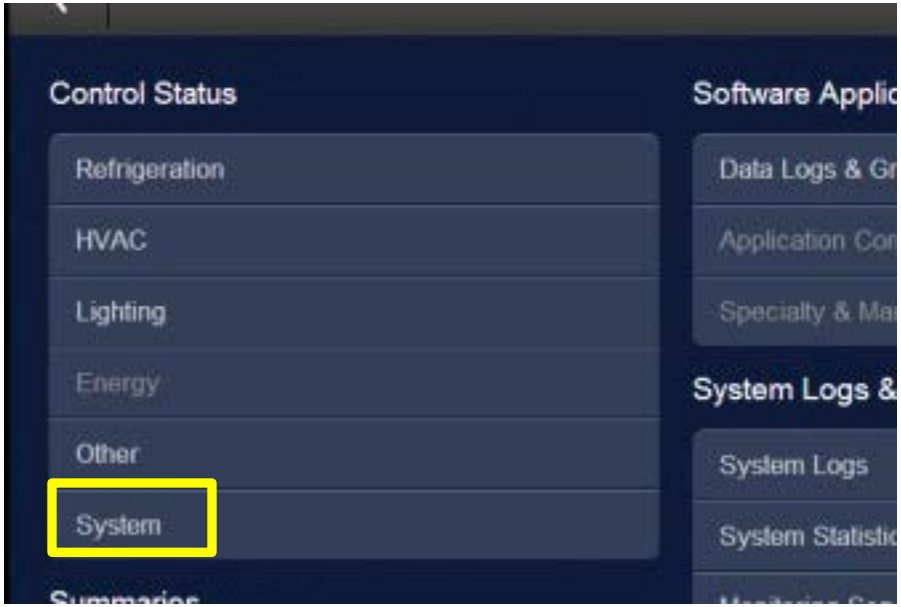
Basic Setup for AHU – Associate to Relays

- Select **Save** and exit to the **Home** screen.



Basic Setup for AHU –
Analog Input Definitions

- Go to the **Site Map** and under Control Status, choose **System**.

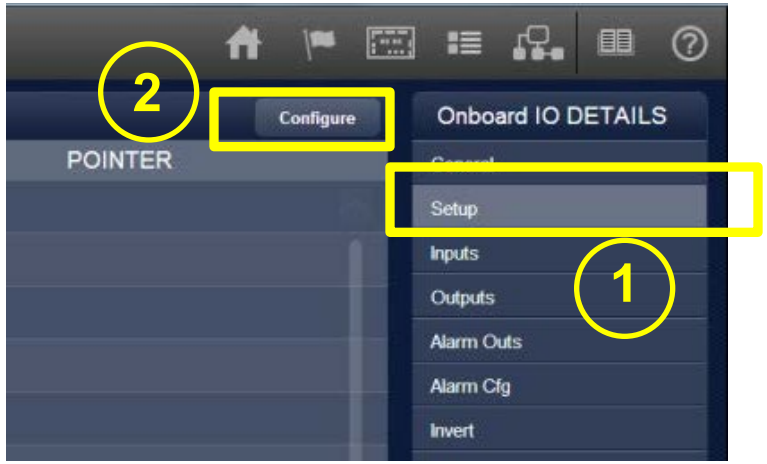


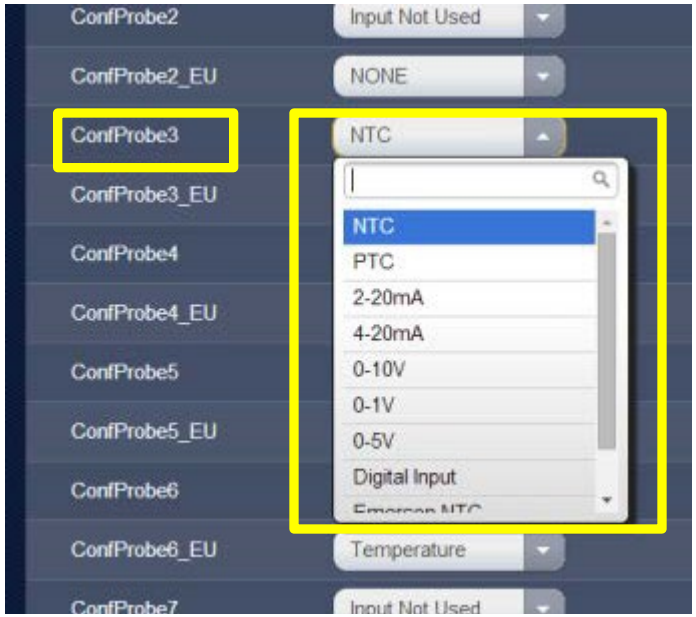
Basic Setup for AHU –
Analog Input Definitions

- Select the hardware device with analog inputs (e.g., Onboard I/O).
- Click on **Details**.

Basic Setup for AHU –
Analog Input Definitions

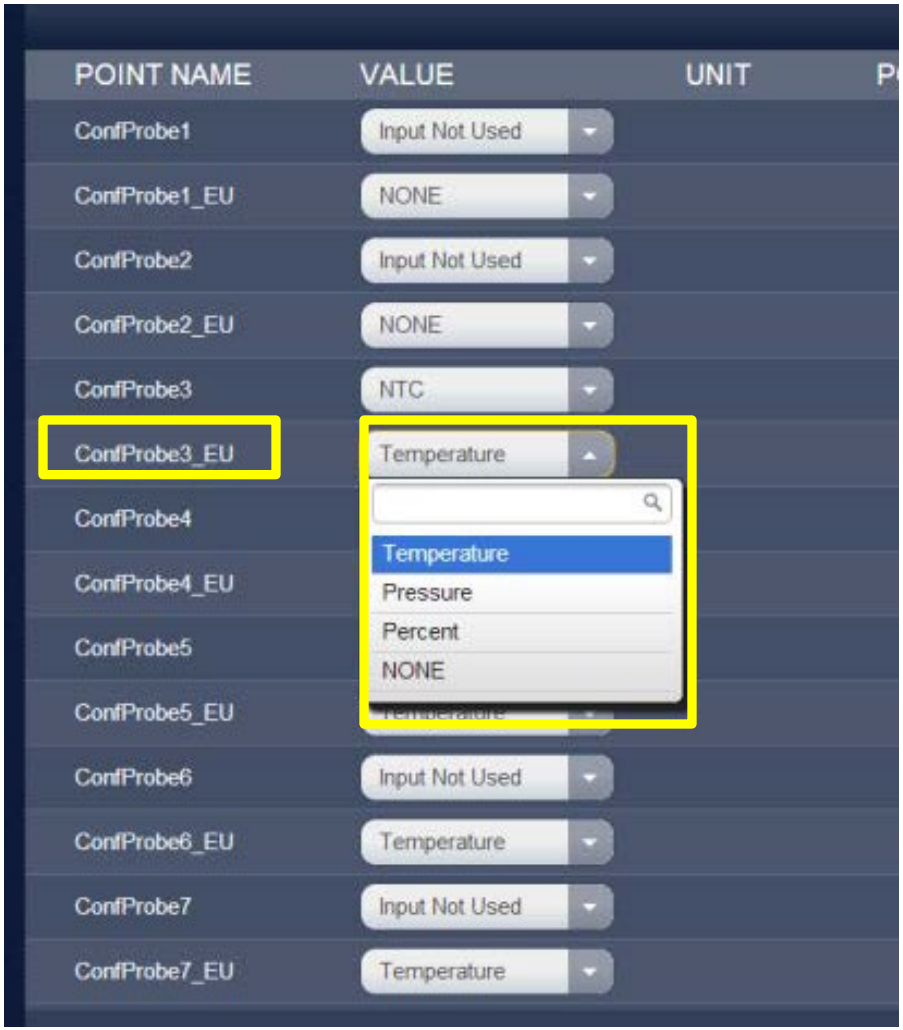
- Select **Setup**, then **Configure**.
- In the dropdown next to **ConfProb3**, select type of probe being used (e.g., NTC).





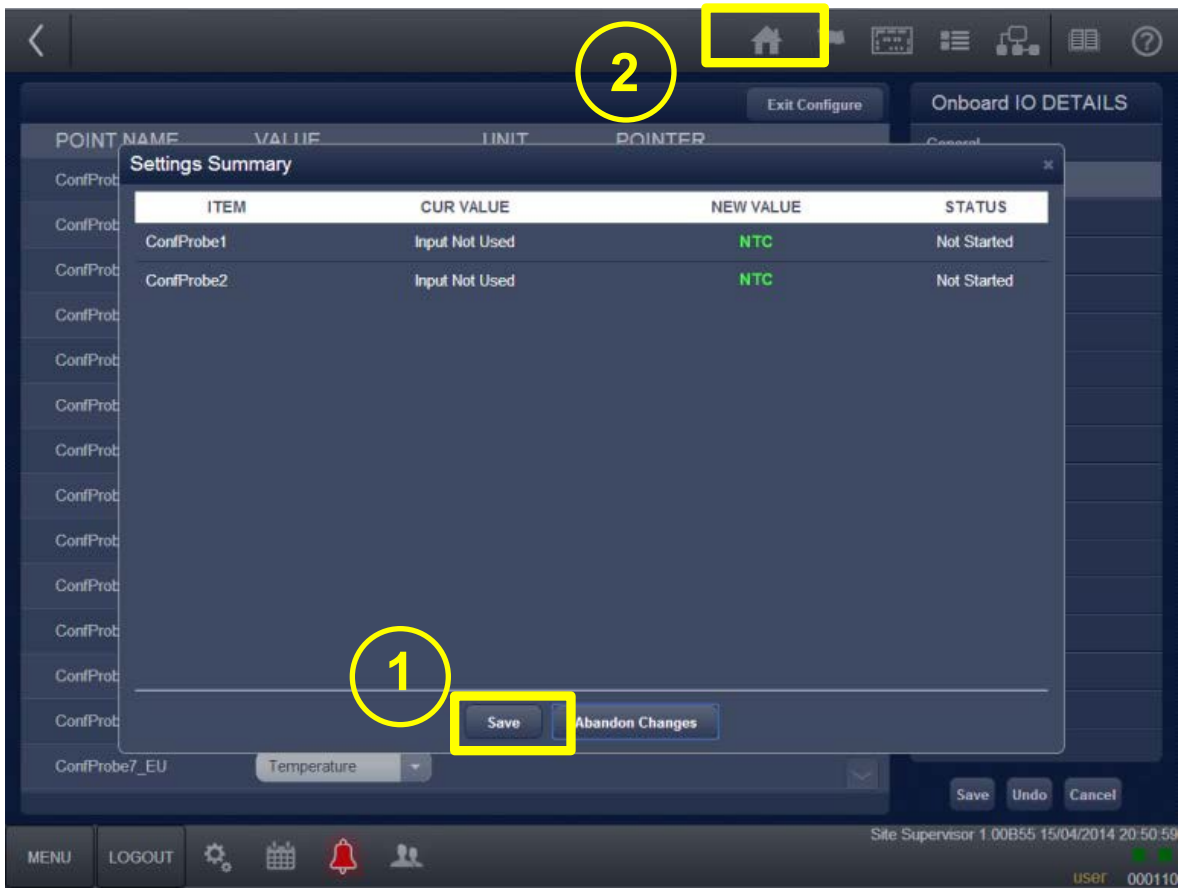
Basic Setup for AHU –
Analog Input Definitions

- In the dropdown next to **ConfProb3_EU**, select type of units being used (e.g., Temperature).



Basic Setup for AHU –
Analog Input Definitions

- Select **Save** and exit to the **Home** screen.



Creating Refrigeration (XR75) Control

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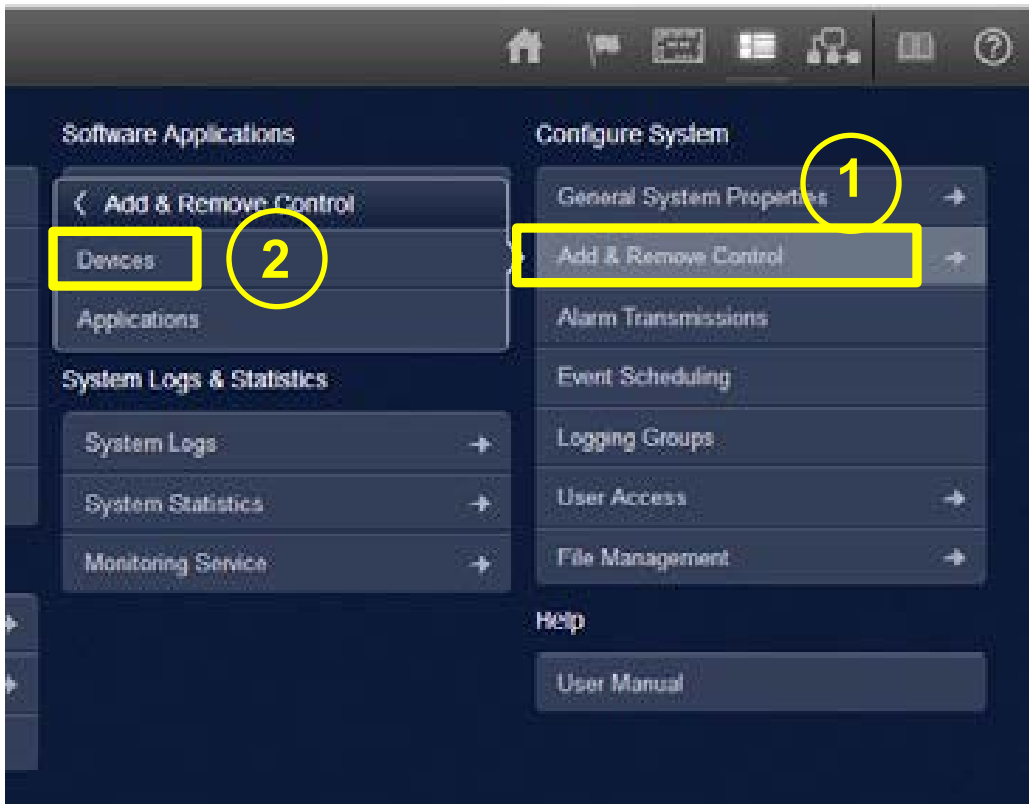
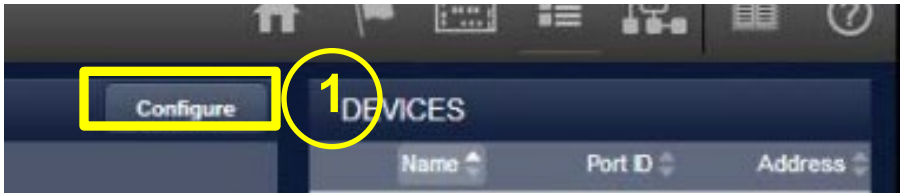
Creating Refrigeration (XR75) Control

- Go to **Site Map.**
- Choose **Add and Remove Control**, then **Devices.**



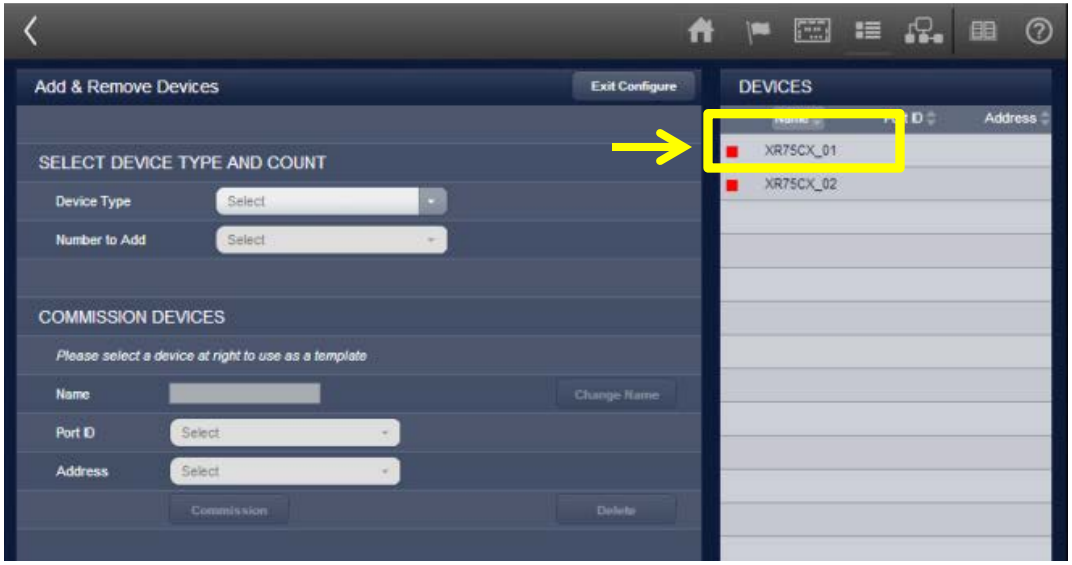
Creating Refrigeration (XR75) Control

- Select **Configure.**
- Select **Device Type** and **Number to Add** from dropdown (e.g., XR75CX 5.6)
- Select **Save.**



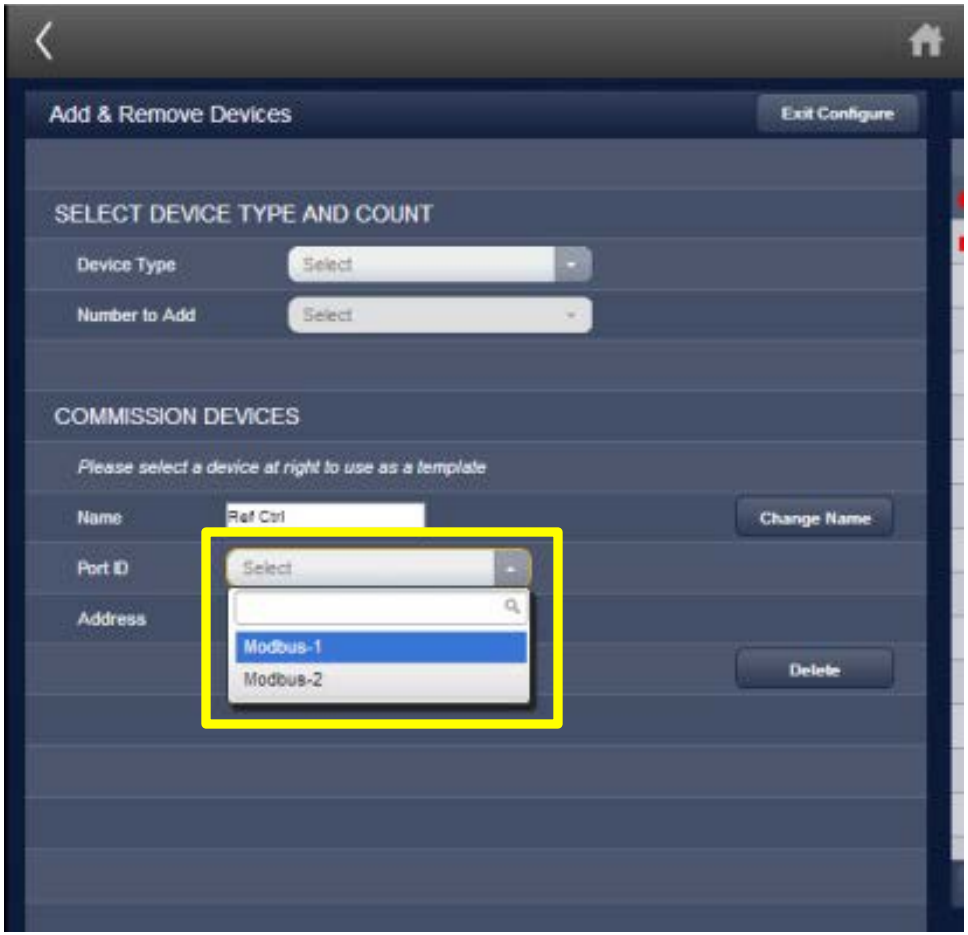
Creating Refrigeration (XR75) Control

- From the list of devices on the right side of screen, choose the device to commission (e.g., XR75CX).
- On the left side, choose **Change Name** and enter the system name.



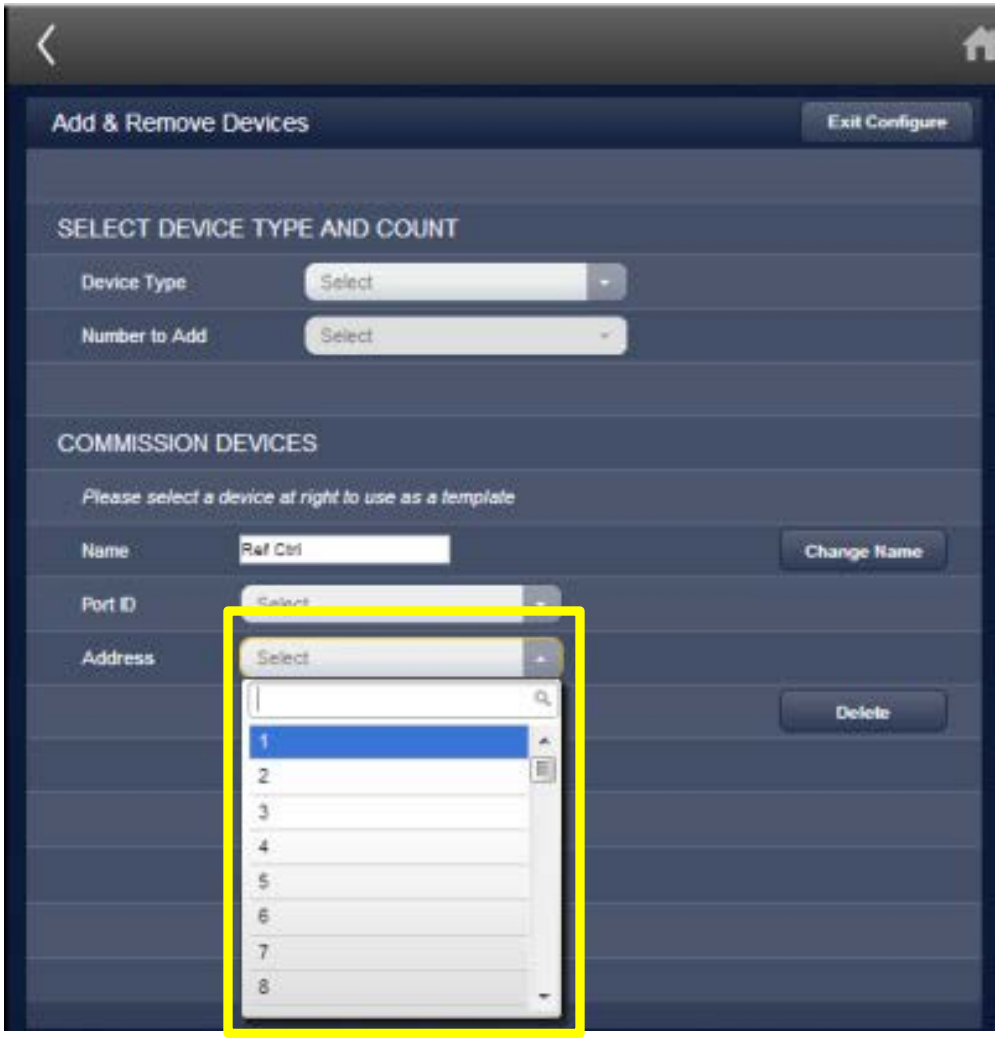
Creating Refrigeration (XR75) Control

- Select the **Port ID** dropdown and choose communications.



Creating Refrigeration (XR75) Control

- Select the **Address** dropdown and select the network address of the device.

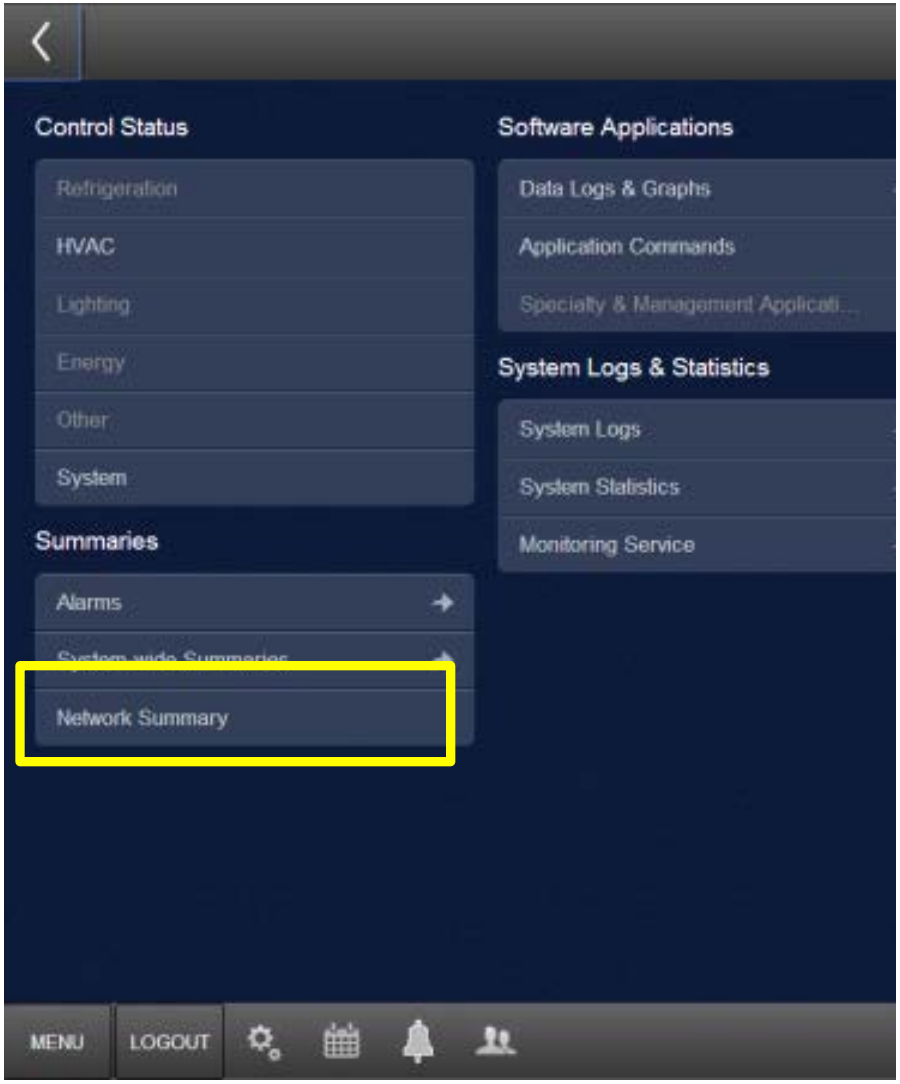


Creating Refrigeration (XR75) Control

- Click on the **Commission** button and exit to the **Home** screen.

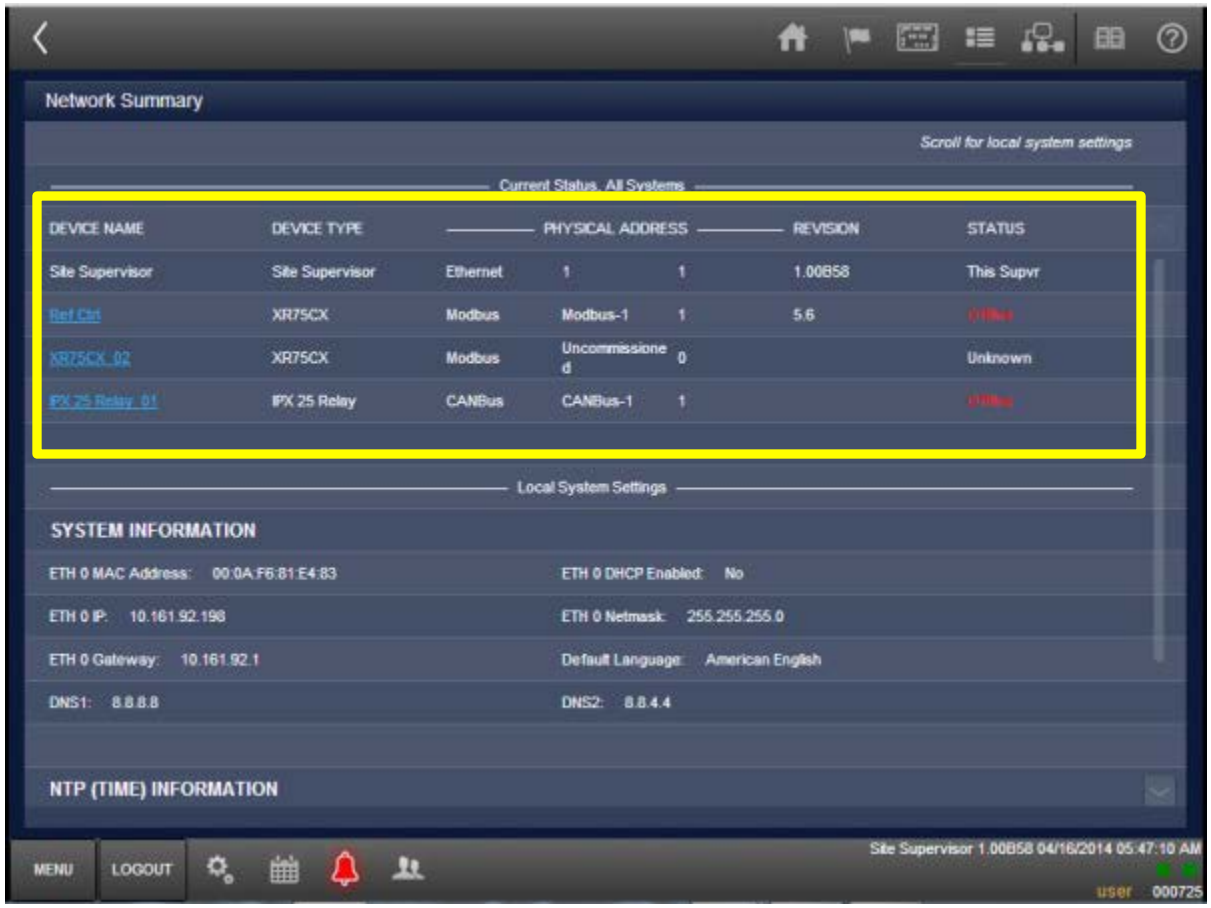
Creating Refrigeration (XR75) Control

- To verify the device is online, go to **Site Map**, then under Summaries, choose **Network Summary**.



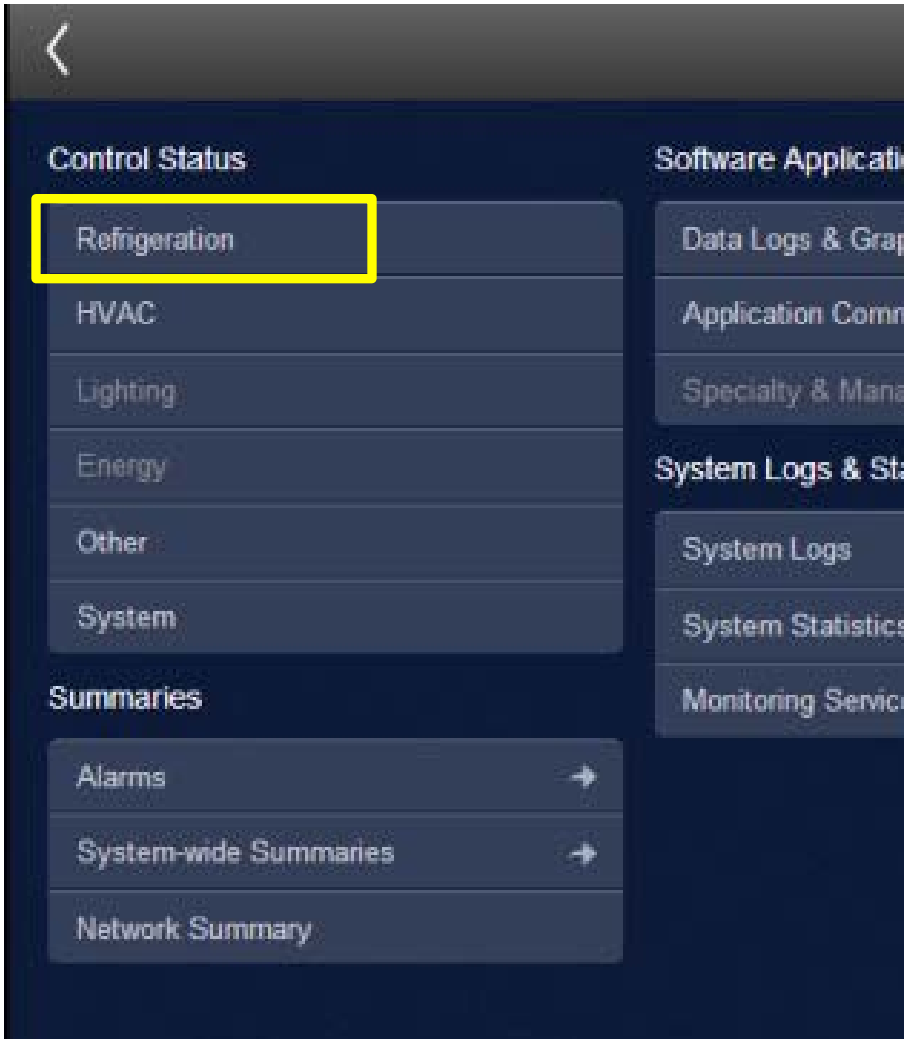
Creating Refrigeration (XR75) Control

- Online status of all devices is displayed.



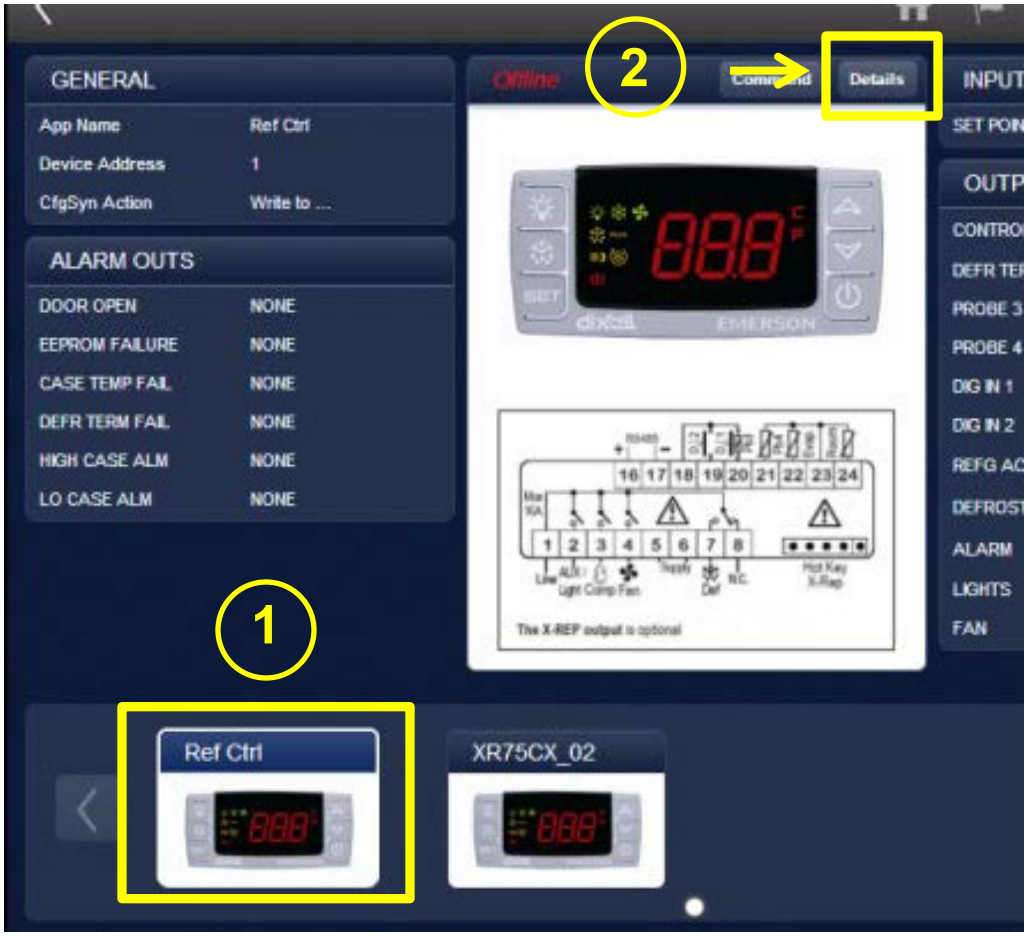
XR75 Basic Setup

- Go to **Site Map** and choose **Refrigeration** under Control Status.



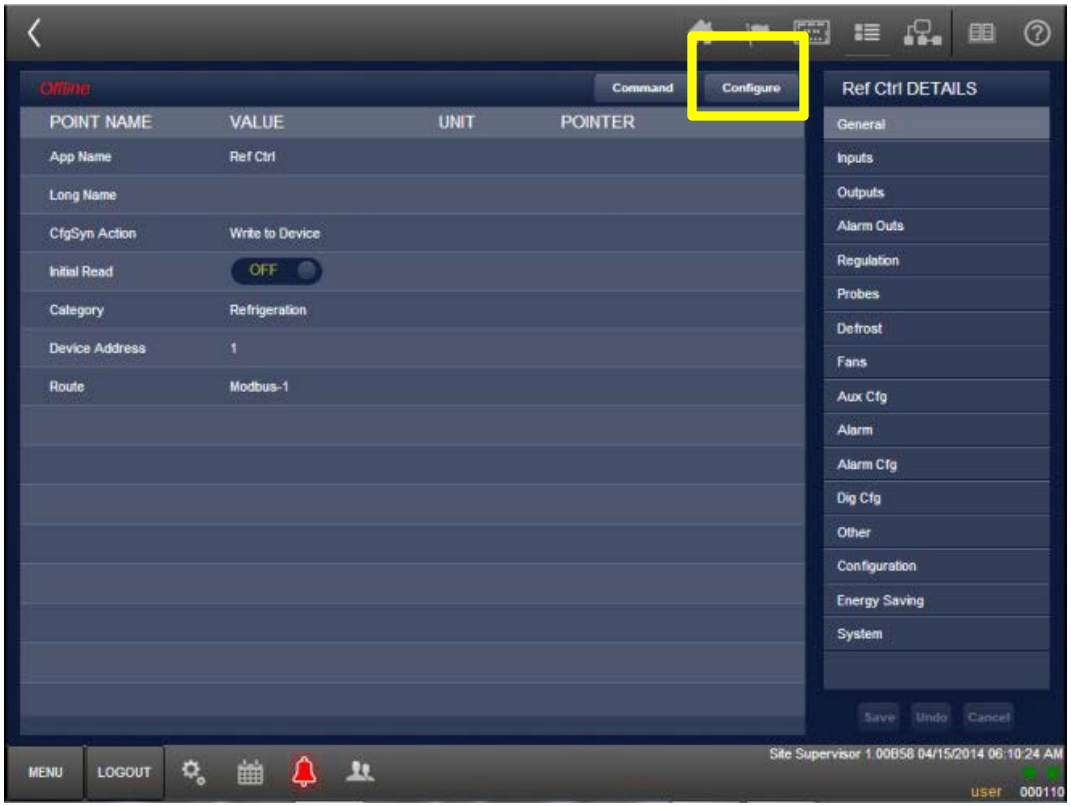
XR75 Basic Setup

- Select the XR75 controller to be configured, then select **Details**.



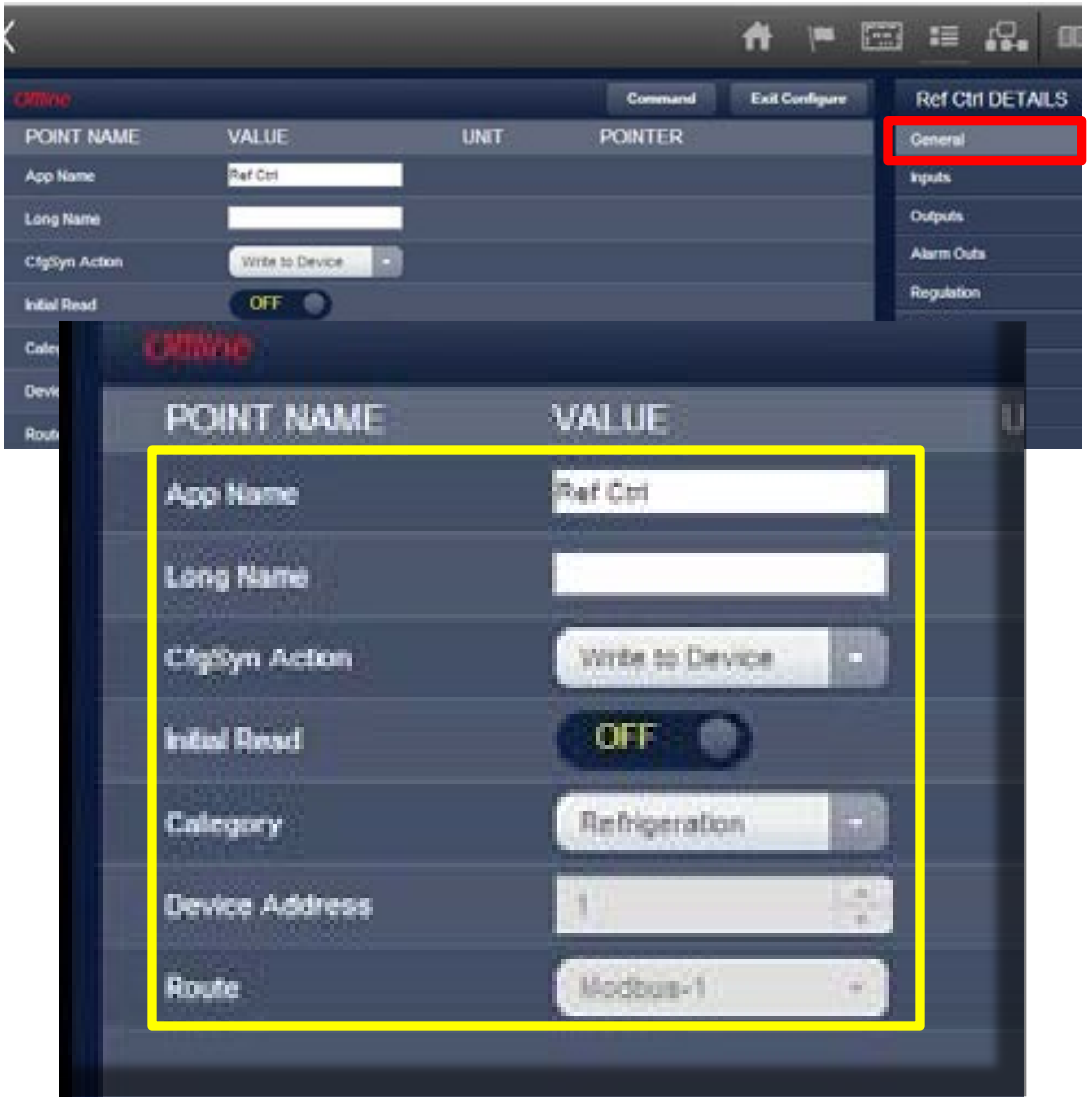
XR75 Basic Setup

- Select **Configure**.



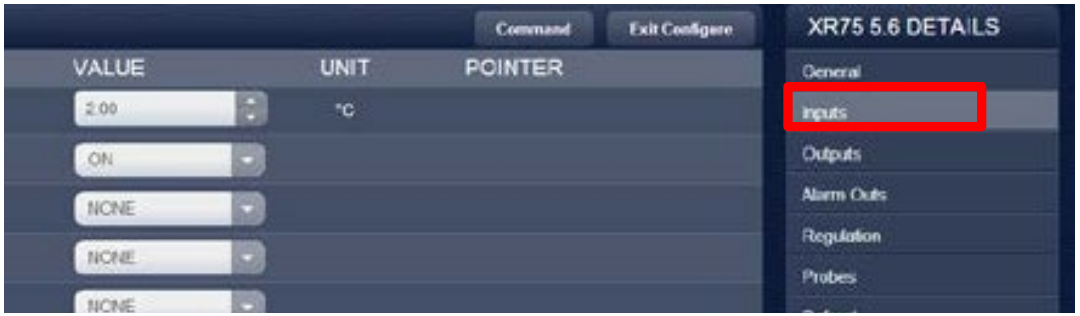
XR75 Basic Setup

- On the **General** tab, enter details for:
  - Application Name
  - Category



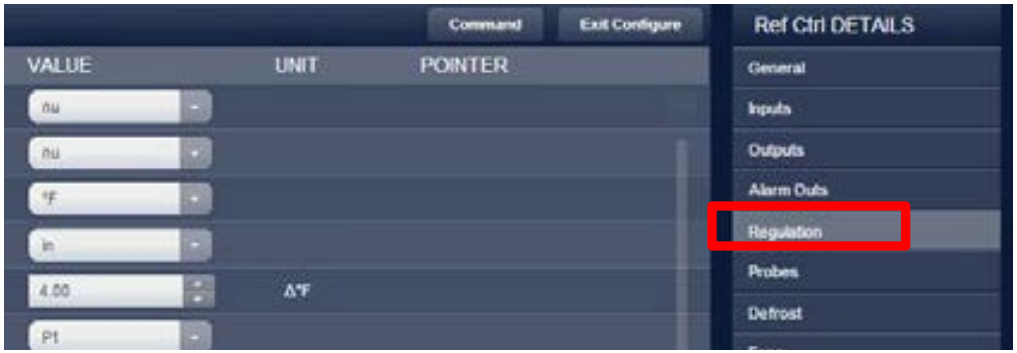
XR75 Basic Setup

- On the **Inputs** tab, enter detail for:
  - Setpoint



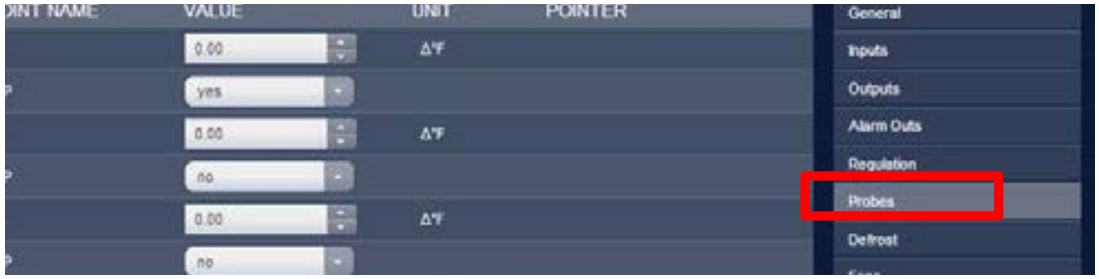
XR75 Basic Setup

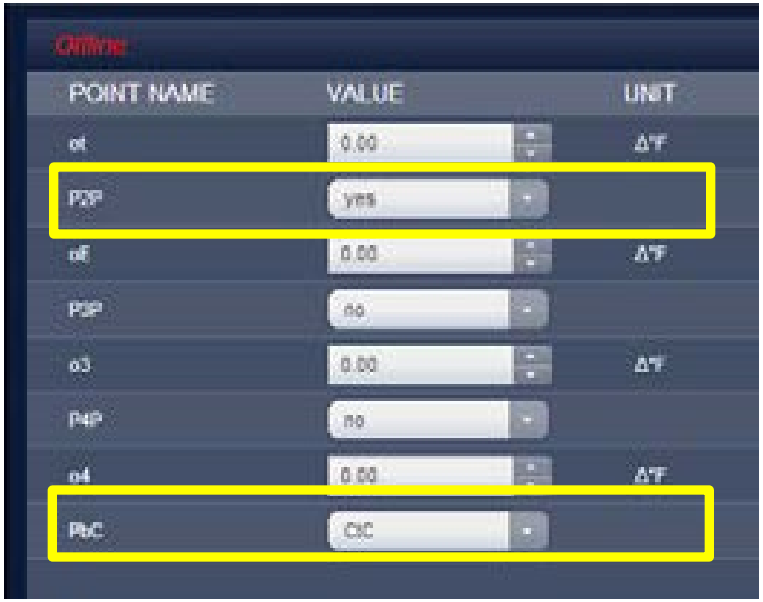
- On the **Regulation** tab, enter details for:
  - CF (Temperature Measurement Unit)
  - Hy (Differential)



XR75 Basic Setup

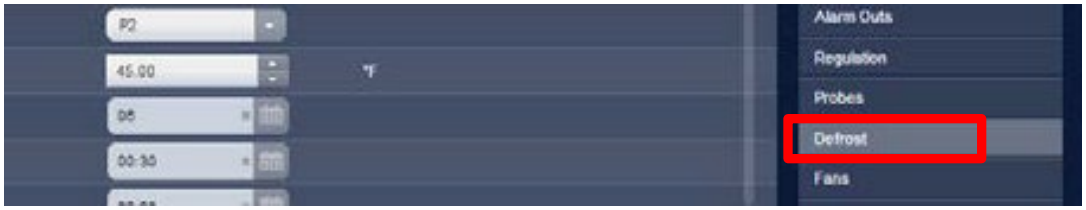
- On the **Probes** tab, enter details for:
  - P2P (if evaporator is present)
  - PbC (probe type)





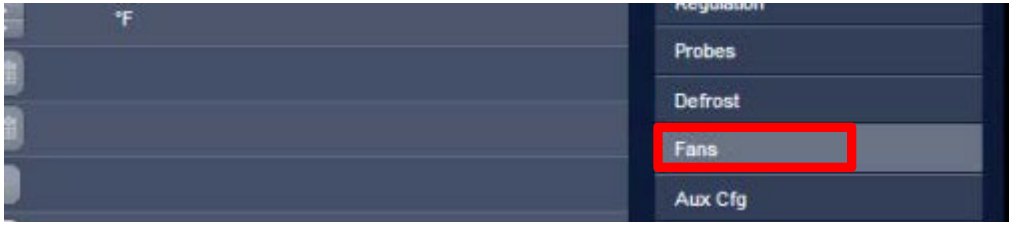
XR75 Basic Setup

- On the **Defrost** tab:
  - **EdF** (defrost mode)
  - **dFp** (probe selection DEF term)
  - **idF** (defrost interval)
  - **MdF** (defrost length)
  - **dFd** (defrost display)
  - **Fdt** (drip)
  - **Defr Term SP** (Defrost Termination)



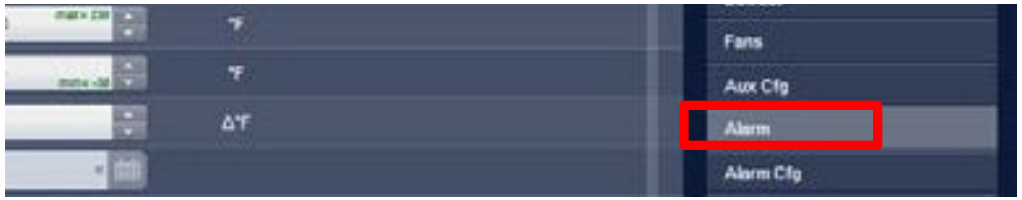
XR75 Basic Setup

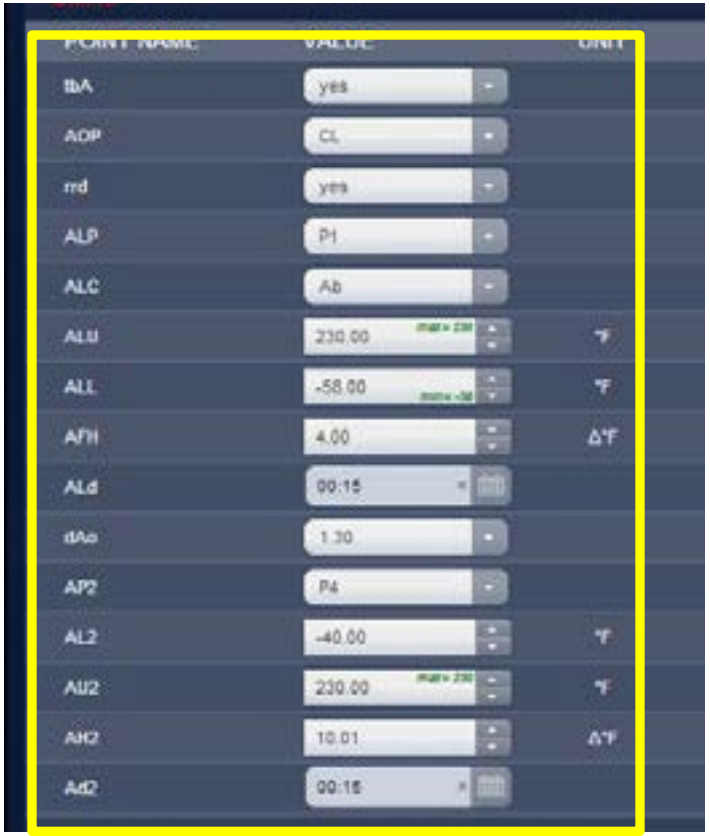
- On the **Fans** tab:
  - **FnC** (fan operating mode)
  - **Fnd** (fan delay after defrost)
  - **FST** (fan stop temperature)
  - **FAT** (fan probe selection)



XR75 Basic Setup

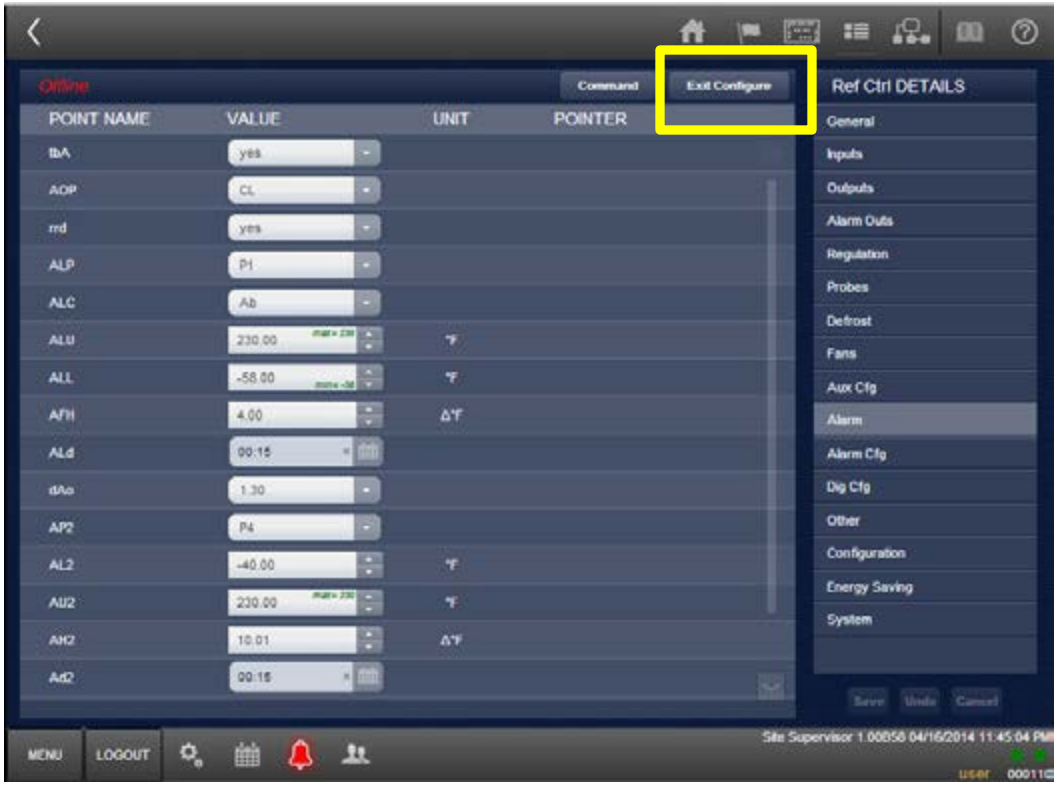
- On the **Alarm** tab:
  - **ALP** (probe selection for alarm)
  - **ALC** (alarms configuration)
  - **ALU** (temperature high alarm)
  - **ALL** (temperature low alarm)
  - **AFH** (alarm diff)
  - **ALd** (alarm delay)





XR75 Basic Setup

- Select Save, then **Exit Configure**



Creating Refrigeration Monitoring & Alarm

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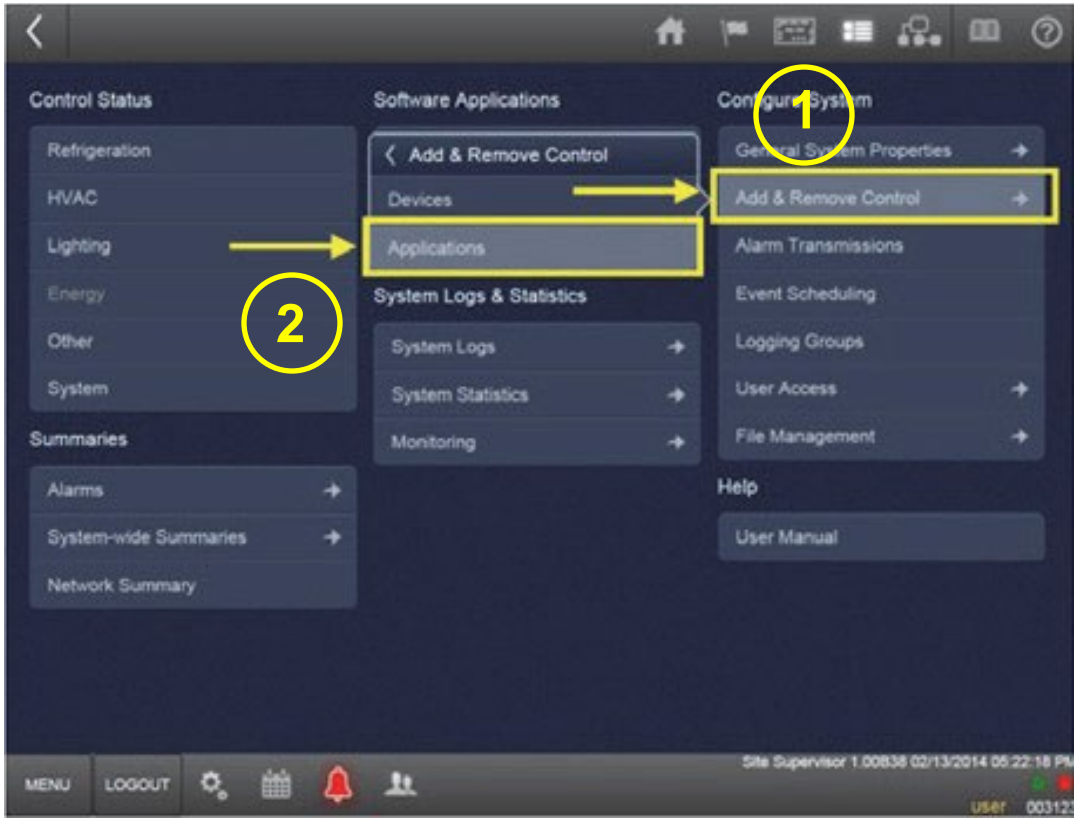
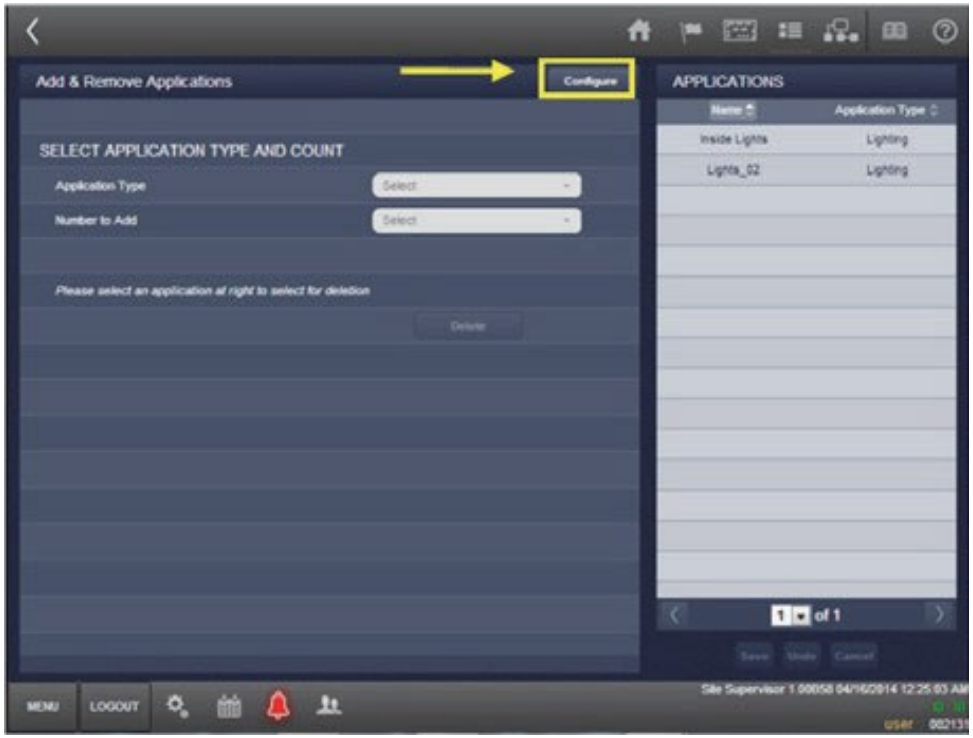
Refrigeration Monitoring & Alarm

- Login, go to **Site Map**.
- Choose **Add & Remove Control**, then **Applications**



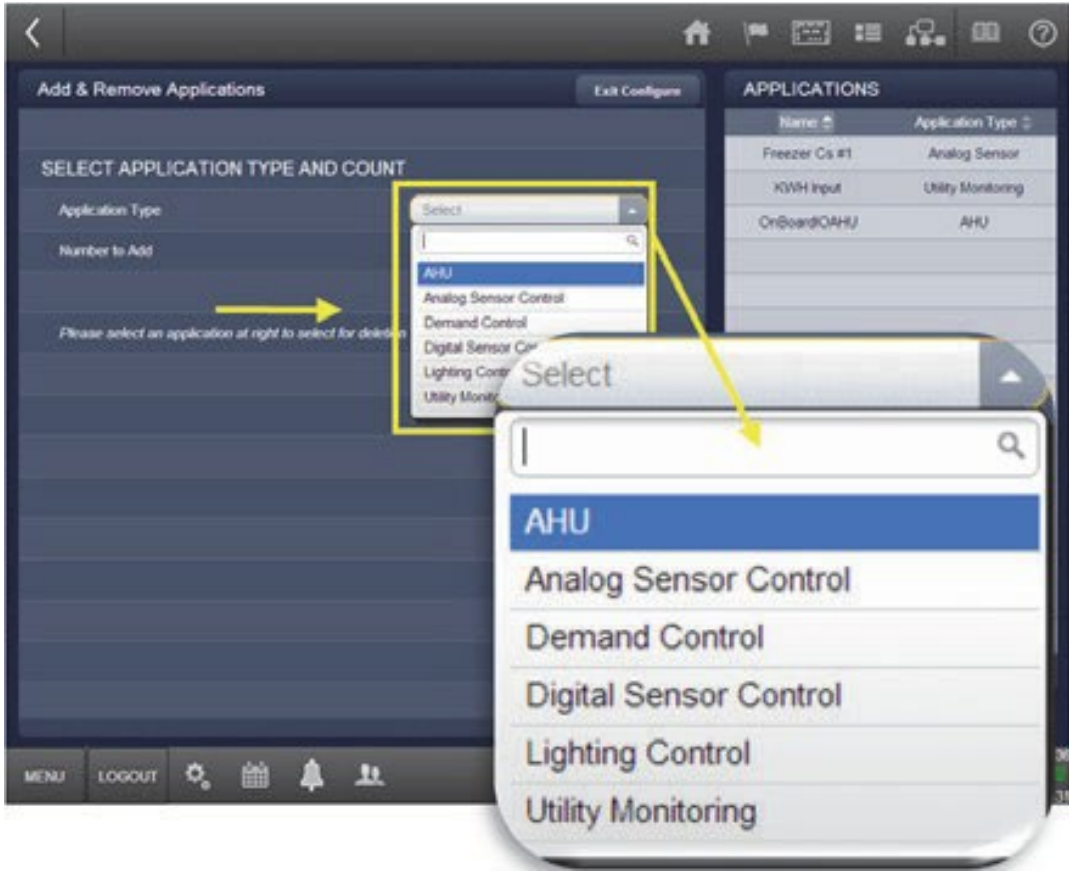
Refrigeration Monitoring & Alarm

- Select **Configure**



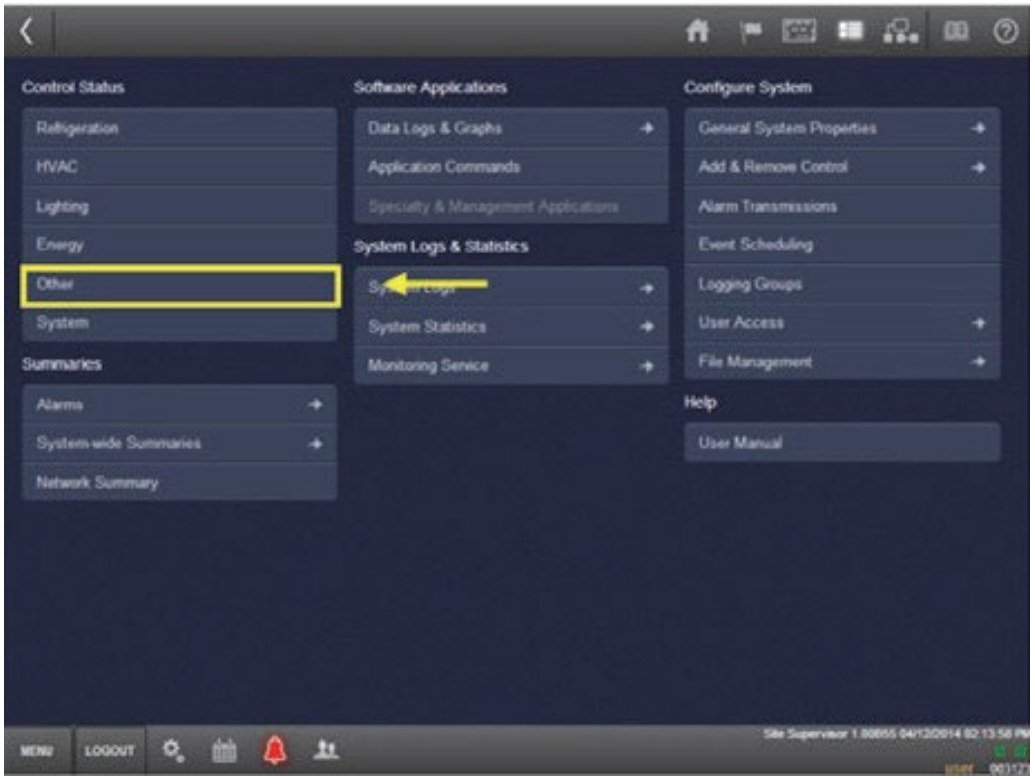
Refrigeration Monitoring & Alarm

- For Application Type, choose **Analog Sensor Control**.
- For **Number to Add,** select number of applications to be added.
- Click **Save**, then **Save** again and exit to **Home** screen.



Refrigeration Monitoring & Alarm

- Return to **Site Map**.
- Under Control Status, choose **Other**.

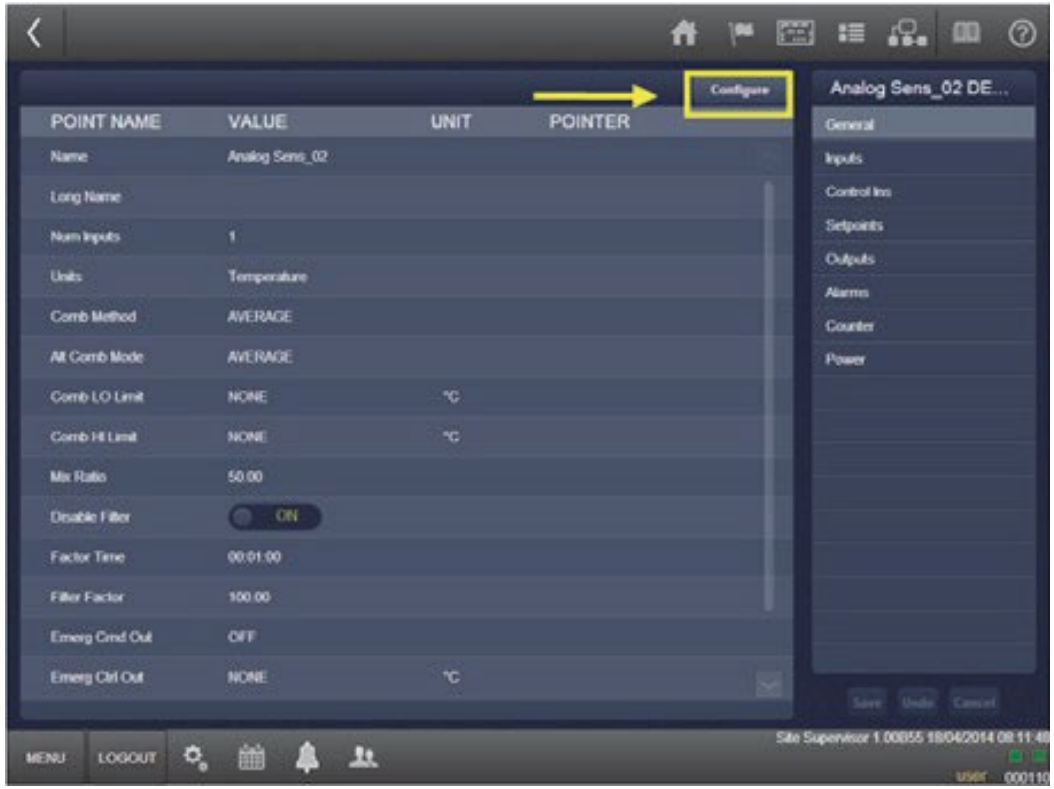


Refrigeration Monitoring & Alarm

- Select the Analog Sensor application that was created, then select **Details**.

Refrigeration Monitoring & Alarm

- Click the **Configure** button.

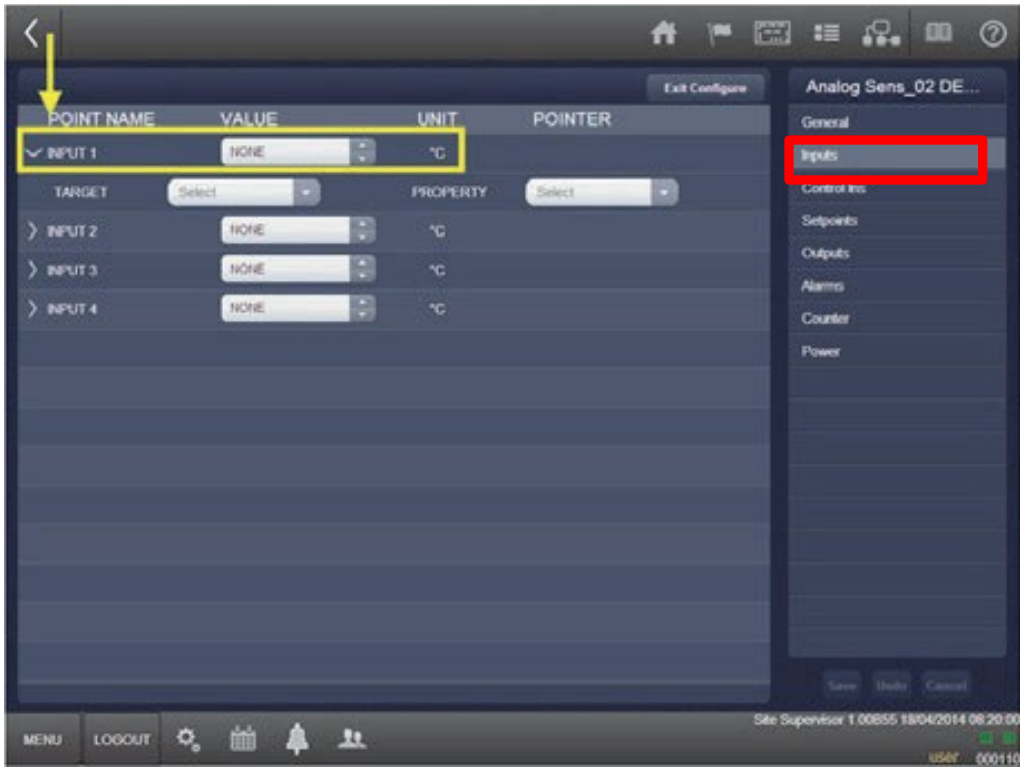


Refrigeration Monitoring & Alarm

- On the **General** tab, enter details for:
  - **Name** (system name)
  - **Num Probes** (enter case qty)
  - **Category** (Refrigeration)

Refrigeration Monitoring & Alarm

- **Inputs** tab: For each probe selected, an expansion board point number needs to be assigned.

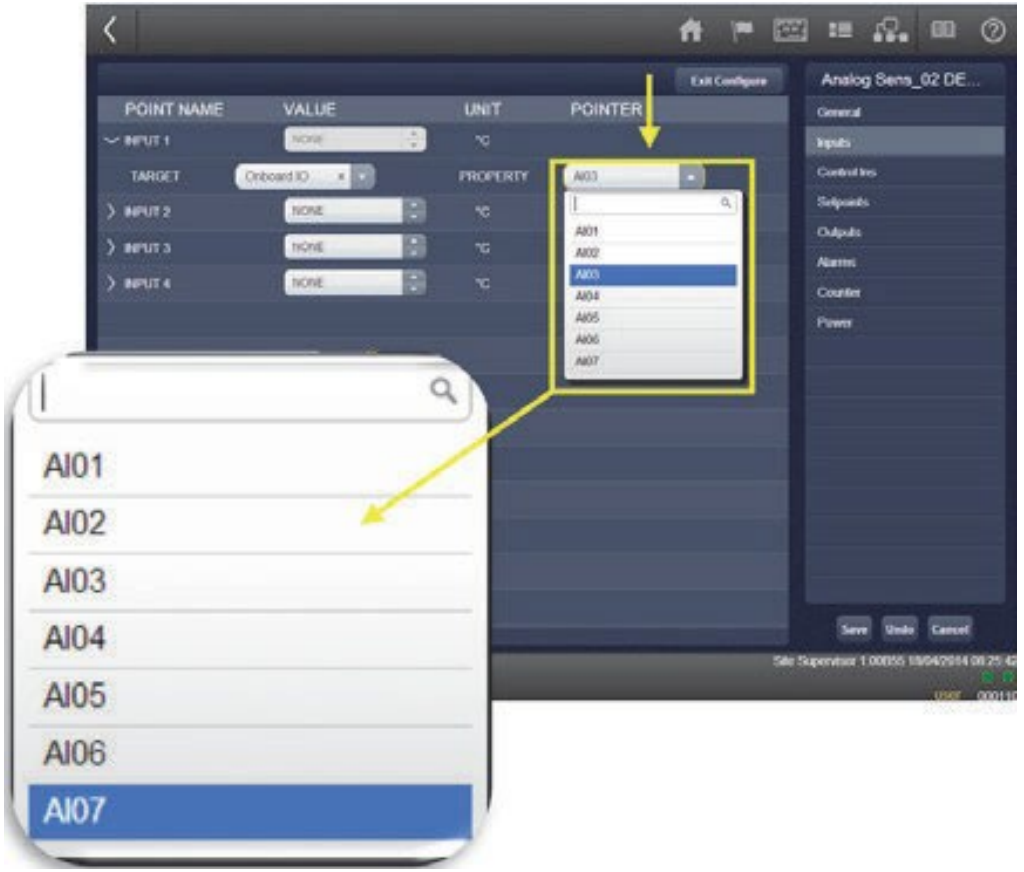


Refrigeration Monitoring & Alarm

- **Target** dropdown: select location or board number into which the probe is wired (e.g., Onboard I/O).

Refrigeration Monitoring & Alarm

- **Property** dropdown: select point number into which the probe is wired (e.g., Onboard I/O).



Refrigeration Monitoring & Alarm

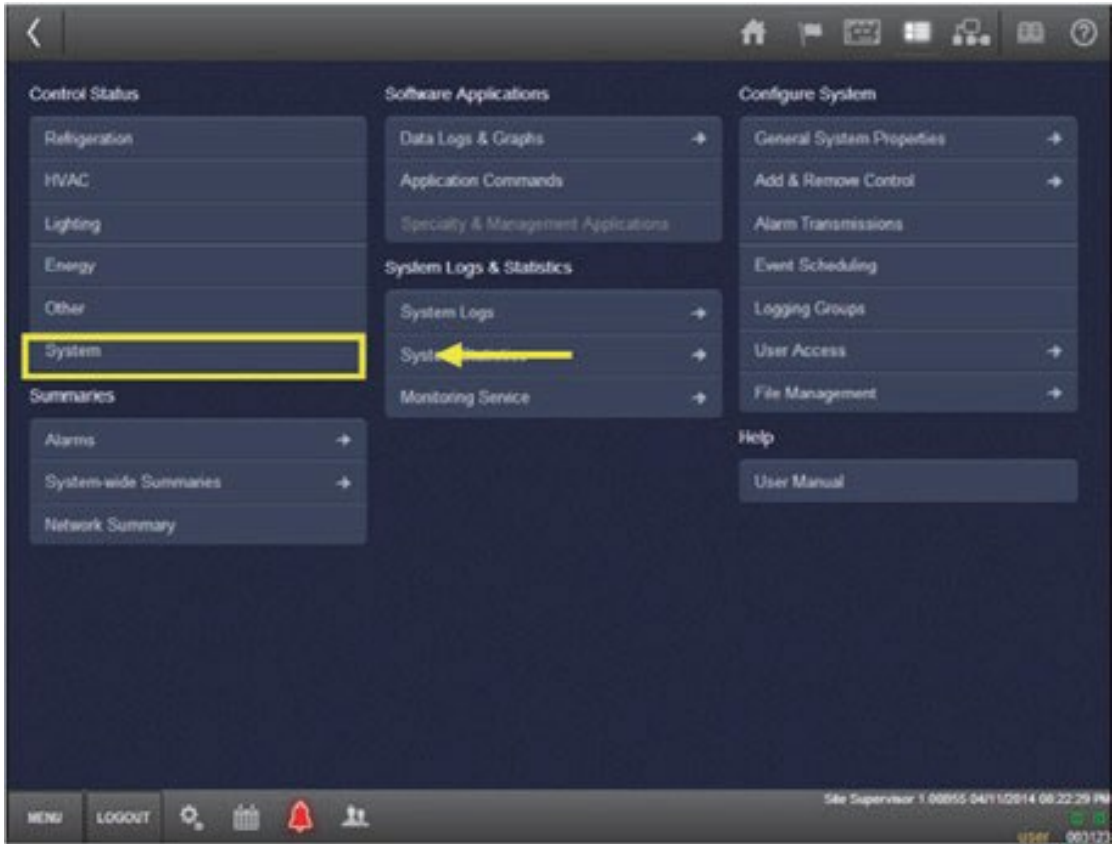
- **Alarm** tab: set high alarms, low alarms, alarm duration.
- Set the alarm message and category.

Refrigeration Monitoring & Alarm

- Select Save and exit to **Home**

Refrigeration Monitoring & Alarm

- Go to Site Map.
- Under Control Status, select **System**.

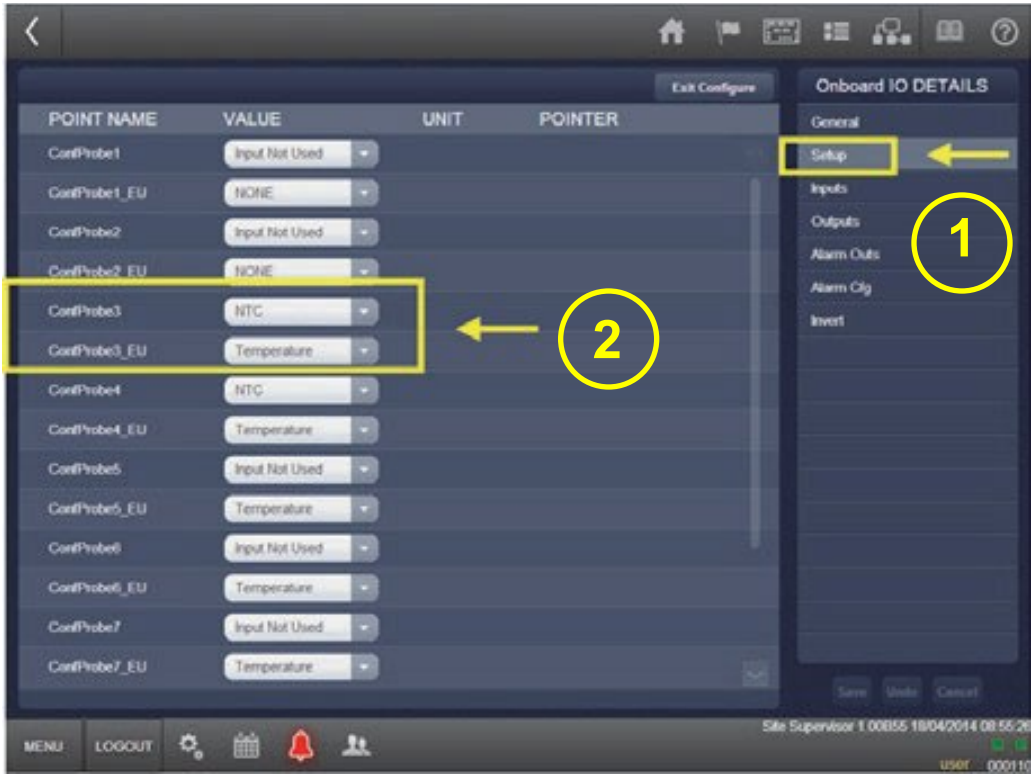


Refrigeration Monitoring & Alarm

- Select the I/O board with probe inputs and then select **Details.**

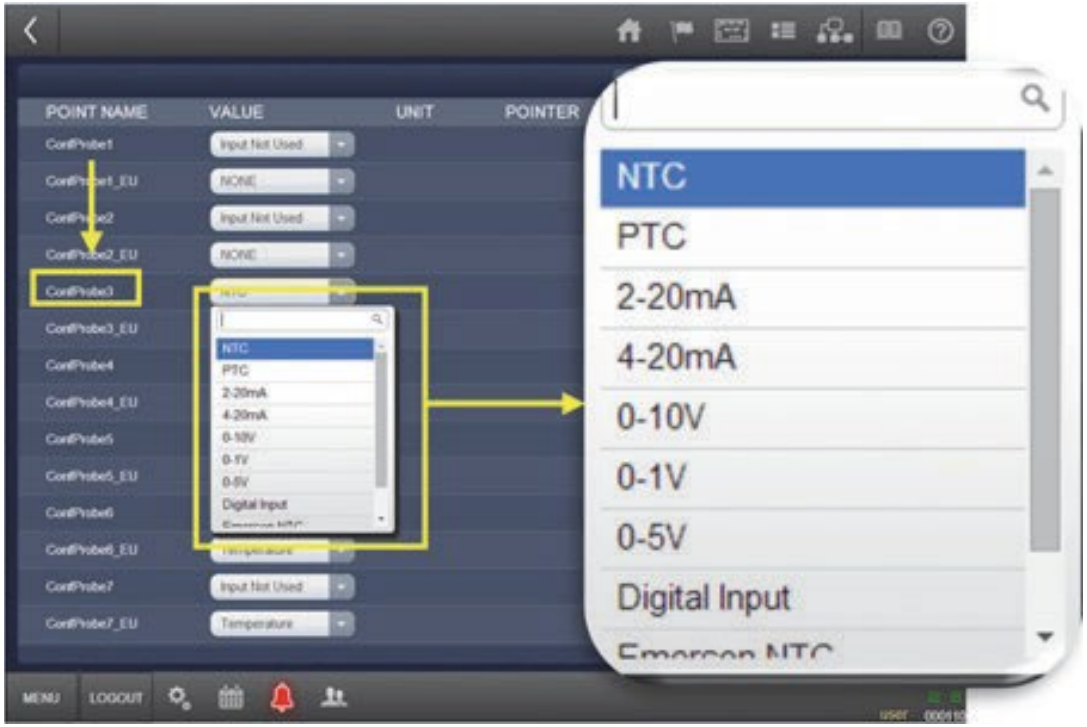
Refrigeration Monitoring & Alarm

- Select Configure.
- Select the **Setup** tab.
- Locate the analog input point(s) programmed as probes.



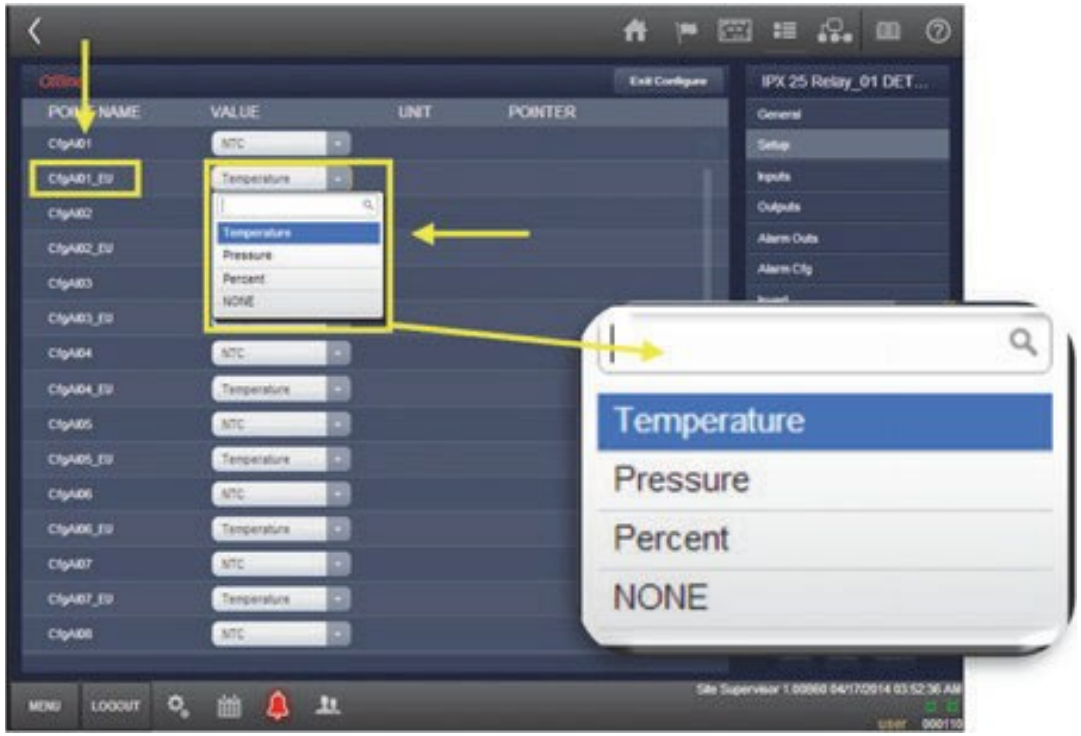
Refrigeration Monitoring & Alarm

- From the dropdown menu for ConFProb3, select the type of probe being used.



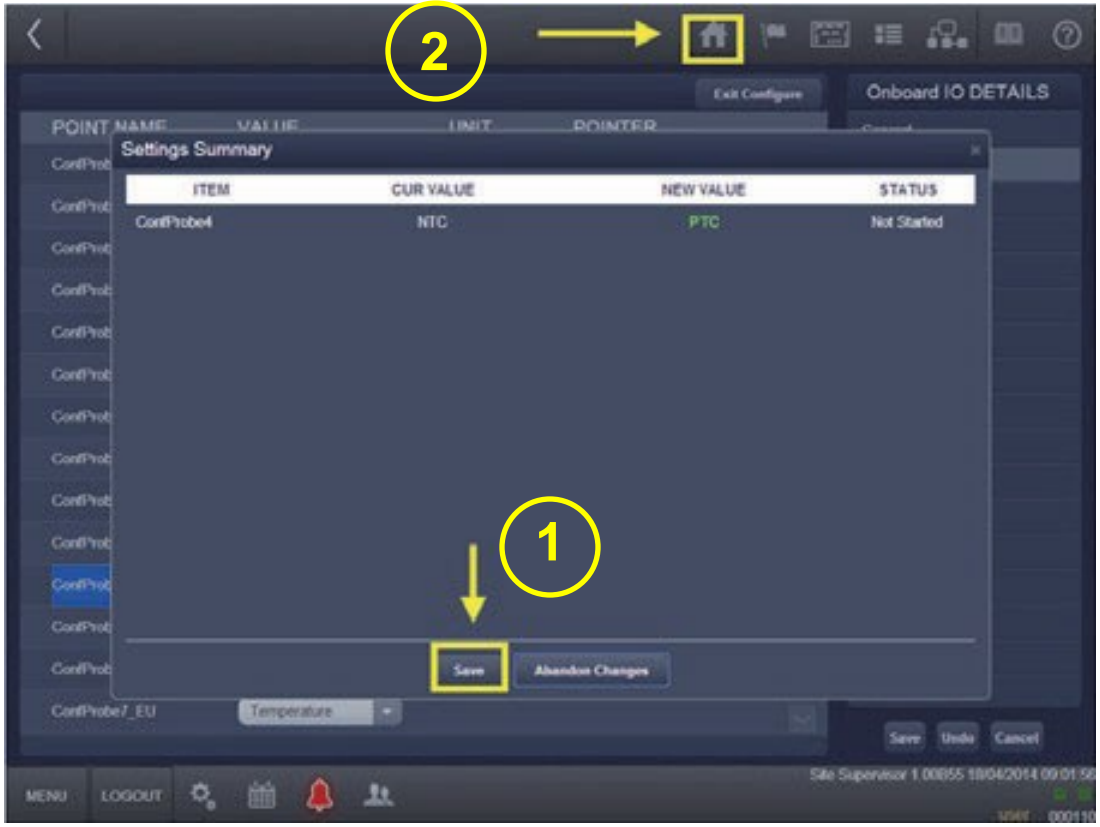
Refrigeration Monitoring & Alarm

- From the dropdown menu for ConFProb3_EU, select the units being used.



Refrigeration Monitoring & Alarm

- Click **Save**, and return to the **Home** screen.



Creating an Anti-Sweat Application

Education You Can Build On

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- INFORMATION NEEDED

Creating Exhaust/Supply Fan Control

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Creating Exhaust/Supply Fan Control

- INFORMATION NEEDED

Override HVAC

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Override HVAC

- Go to the Control Status screen of the application you want to override.
- Click on **Details**.

Override HVAC

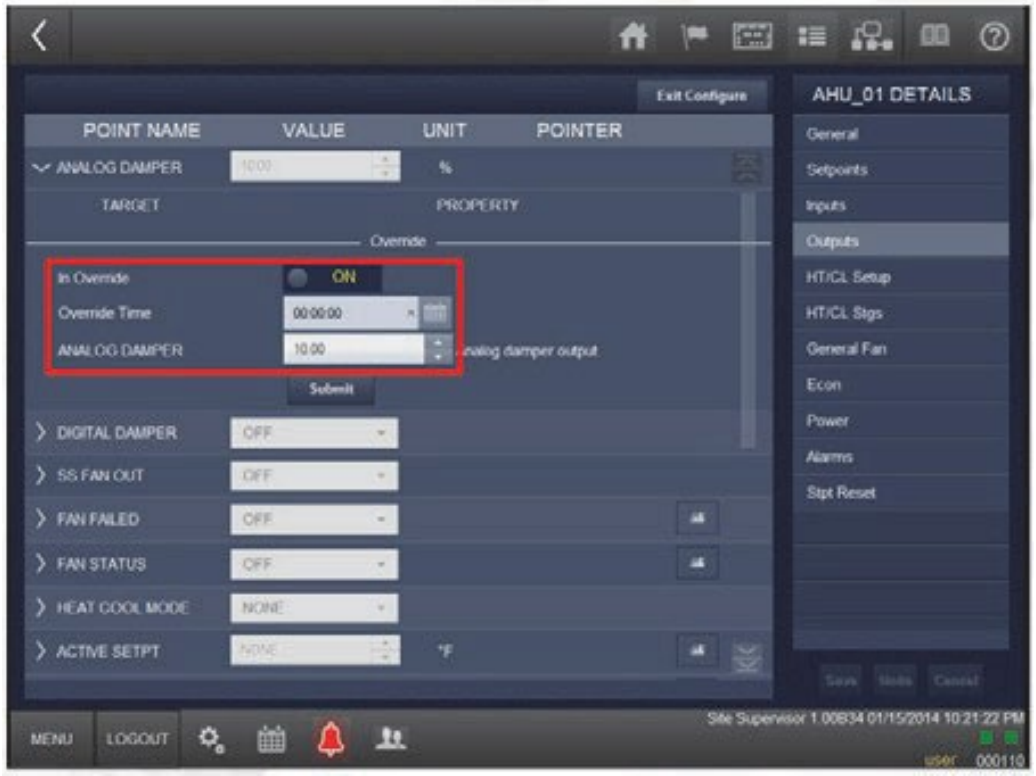
- Select **Configure**, then choose **Outputs** from application details panel on the right.

Override HVAC

- Click the arrow to the left of the name of the output that you want to override.

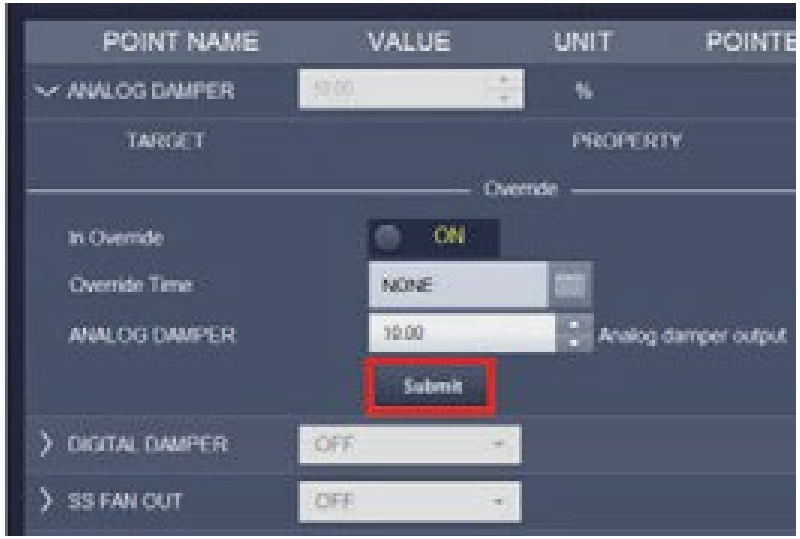
Override HVAC

- Override settings appear.
  - Set **In Override** to **ON**
  - Can also set an override time and enter override value



Override HVAC

- Select **Submit**.
- When pop-up screen appears with notification that override was successful, click **OK**.



Questions?