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USER'S GUIDE

SYNC

Omega Device Configuration Software

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Table of Contents

1. Introduction

SYNC by Omega is a device configuration and management software platform for qualifying Omega Smart devices. It allows users to configure device runtime parameters, view process values, export data, and allows you to efficiently set your devices to operate under your preferred preferences. SYNC does not support long-term process value storage. We recommend Omega Enterprise Gateway (OEG) software for long-term data logging and analytics. OEG web client is platform independent.

SYNC can be installed on Windows 10. The minimum hardware requirements for server installation are: Dual core: CPU 2.4 GHz or up; Memory: 4 GB or higher; Hard drive: 250 GB or higher.

1.1. Licensing

SYNC is free to all customers who use Omega devices. The software is governed by Omega's EULA and is also subject to open-source licensing. Please see **Appendix A: EULA** for more information.

1.2. Use Scenarios

SYNC is the premier device configuration software for Omega Smart products. The use scenarios for the software are outlined below:

1.2.1. Device Configuration

SYNC provides a universal interface for the efficient configuration of qualifying Omega devices. For further information regarding a specific Smart Core device, users should refer to the device User's Manual.

1.2.2. Short-Term Data Graphing

Under certain circumstances, users may want to capture device process values to ensure that the device configuration is done correctly. SYNC supports short-term data trend viewing and export. For long-term data capture, consider using Omega Enterprise Gateway.

2. Installation

The SYNC zip file contains the installer package for the software. Follow these steps to complete the installation process:

Step 1: Unzip and open the SYNC file downloaded from the Omega website.

Note: Included in the installer package are the SYNC Application Files, .msi installer file, User's Manual, Release Notes, License and Copyright Notice, and End User License Agreement.

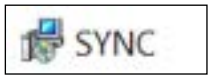

Figure 1: SYNC Installer

Step 2: Click the SYNC.msi file (**Figure 1**) and proceed through the setup (**Figure 2**) to launch SYNC for the first time.

Note: A desktop shortcut icon of SYNC (**Figure 2**) is created after the installation. This shortcut will launch the software after the initial installation.

Figure 2: SYNC Setup and desktop icon

2.1. Windows 7 and USB Interface Installer

For Windows 7 users who will be connecting an IF-001 USB Smart Interface cable or a Platinum USB Interface to SYNC, an **OmegaVCP.inf** text file needs to be installed by copying the text file into your **C:/Windows/inf/** folder. The OmegaVCP.inf file is included in your installer package.

Important: It is **required** for Windows 7 users to install the OmegaVCP.inf file to properly connect a USB interface to SYNC configuration software. Administrator access is required to install this file to your computer.

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3. Navigating SYNC Configuration Software

3.1. Menu Tabs

SYNC has two menu interfaces:

- Configure Device: Allows you to configure your software adjustable devices.
- Capture Data: Provides short-term data logging features.

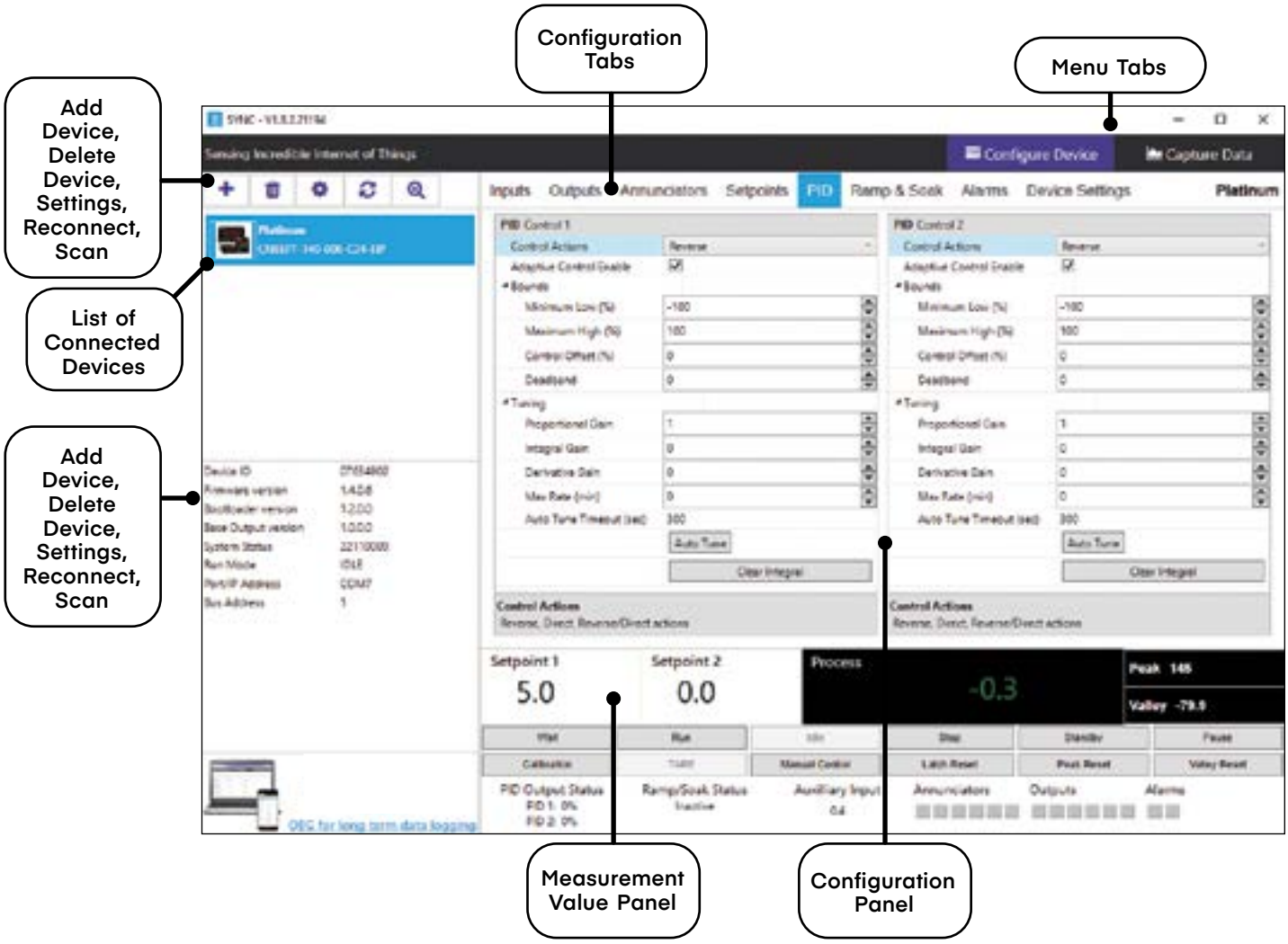

Figure 3: SYNC UI Overview

The blank Configure Device interface is the first view you see after SYNC is launched. Once a device is connected, you will see an interface like the one displayed in **Figure 3**.

3.2. Device Auto Detection

Omega Smart devices will be automatically detected once they are plugged in to the computer running the SYNC software. For instructions on how to connect a specific device to SYNC, please refer to the user documentation associated with that device.

Note: The **Configure Device** menu tab interface may look differently than the one displayed in **Figure 3** depending on the product that is connected.

3.3. Manually Add or Delete Device Buttons

Clicking the **Add Device** icon (**Figure 3**) will lead to a wizard that guides you through the process of adding a device to SYNC. Ensure SYNC is running on a Windows OS computer before continuing. Connect the device to a computer and select the appropriate communication interfaces..

Step 1: Click on the icon located on the top left of the SYNC interface.

Step 2: Proceed through the Add Device Wizard..

Step 3: Configure the communication parameters for the device.

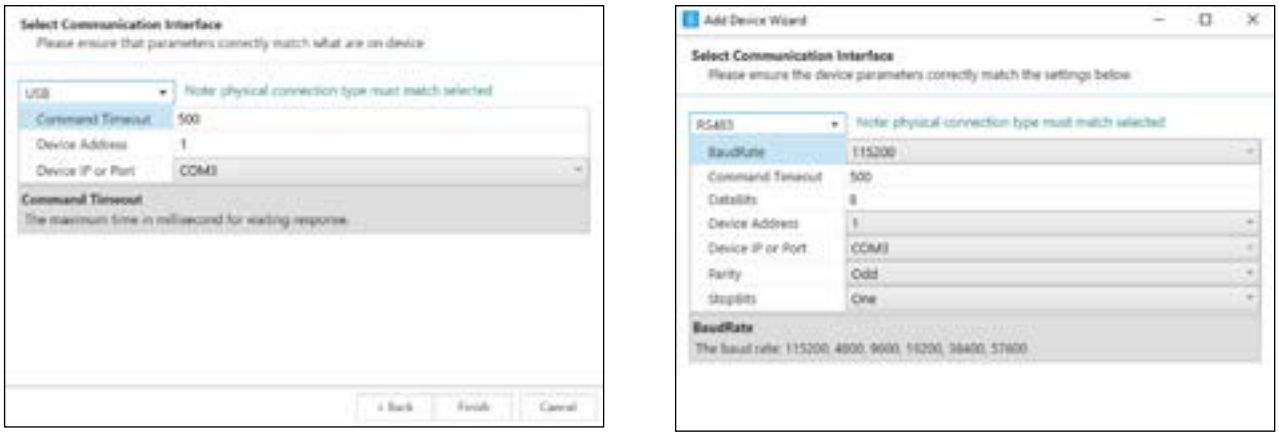

Figure 4: USB and RS485 Communication Interface

Please refer to your device User's Manual for other communication interface setting options if default settings are not applicable.

The device can be deleted by clicking the Delete icon (**Figure 3**).

3.3.1. Communication Interface

Set the communication parameters for the connected device.

Note: The connection type and parameters must be accurate for a proper connection to be established. Failure to accurately setup communication parameters may result in communication errors.

- **Connection Type:** Select the type of connection between the Platinum device and the computer.
- **Command Timeout:** The maximum time (in milliseconds) for a command to be completed before the command is aborted.

Note: The default command timeout is 500 milliseconds. It is recommended that this section be left unchanged to avoid communication errors.

- **Device Address:** If the Layer N Smart Interface is part of a network, enter the Network Address here. The default network address is 1 for most devices.

Note: The default Device Address is 1.

- **Device IP or Port:** The COM port on the computer that the device is connected to.
- **BaudRate:** Controls the bits per second.
- **DataBits:** The number of bits in each character sent.
- **Parity:** A means of checking the correctness of a character by adding an extra bit to the character and setting the value based on all the other bits in the character.

- **StopBits:** The number of bits used to indicate the end of the character.

When the user has completed setting the communication parameters for the device, click **Finish**.

3.4. List of Devices

This section of the interface lists all the devices connected to SYNC. For each connected device, the assigned name and the product name will be displayed. The device name consists of COM port, device address, and model. Users can switch between devices in the list to configure or capture data.

You may right click the device to Rename and Refresh your device. Users may choose to refresh the device this way should a quick device reboot be necessary.

3.5. Device Attributes

The Device Attributes list will appear when you click on a device from the Device List section (**Figure 3**).

3.6. Configuration Panel

The configuration of connected devices takes place in the **Configuration Panel**. The Configuration Panel settings and parameters will vary depending on the product that is connected. The configuration panel displays the software adjustable parameters of the Omega device.

3.7. Measurement Value Panel

The Measurement Value Panel displays the value that the device has been configured to measure. Alarm status and active zone status are indicated in colors:

- **Black:** A normal reading is being displayed.
- **Red:** An alarm condition has been triggered.
- **Gray:** The reading zone has been disabled.

Note: For more information on how to set alarms on your device, see the section titled **Setting Alarms**.

3.8. System Settings

The **System Settings** icon allows the user to customize the **Behaviors** and **Display Units** of SYNC.

Figure 5: Data Update Rate and Display Units UI

The **Behaviors** tab (**Figure 5**) manages the **Data Update Rate**: the frequency at which the system pulls information from the device in milliseconds. The **Display Units** tab (**Figure 5**) allows the user to globally customize the units of measure displayed for various values.

Note: The sensors are permanently set to measure SI units. By changing the **Display Units** on SYNC, you are only changing the units displayed on SYNC, not in the sensor itself. Not all configurable global settings that are available for Smart Probes will be available for PID Controllers and Process Meters.

3.9. Reconnect

The **Reconnect** button attempts to connect devices that may not have been auto-detected.

3.10. Auto Scan Settings

The **Auto Scan Settings** button allow the user to choose what devices are detected when SYNC auto scans for connected devices or when the **Reconnect** button is clicked. To add a device to the auto scan list, drag the device category from the Supported Devices Column to the Auto Scan column. To remove a device from the auto scan list, drag the device category from the Auto Scan Devices column to the Supported Devices column. Once you have finished customizing your settings, click **Close**.

3.11. Update Devices

The **Update Devices** button updates the device library for the listed device categories. The update requires an Internet connection and requires SYNC to restart to detect the new devices.

Figure 6: Auto Scan Settings

4. Configuring Smart Probes and Other Compatible Sensing Devices

SYNC allows users to configure qualifying Smart Probes and Wireless Devices. To configure these settings, you must have a Smart Probe or Wireless Device connected to SYNC. Click on the Smart Probe or Wireless Device you would like to customize from your **List of Devices**.

The **Configuration Tabs** allow the user to switch between the device Inputs, Outputs, and Settings interface. Refer to the device specific User's Manual for the software adjustable inputs, outputs, and settings available on your device.

- **Inputs**: Displays configuration options for device inputs
- **Outputs**: Displays configuration options for device outputs.
- **Settings**: Displays configuration options for the device settings and system functions.

Figure 7: SYNC Inputs Configuration UI

4.1. Inputs

To configure the inputs of your sensing device, begin by navigating to the **Inputs Configuration Tab** and select your **Input Type** from the drop down. Settings are adjusted on an interface that allows for full configuration of the device as seen in **Figure 7**.

4.1.1. 4 to 20 mA Process Input Sensing Device - Unit Conversion w/ Gain & Offset

Compatible 4 to 20 mA process input sensing devices that are connected to SYNC can be scaled and configured to report accurate sensor readings in the Omega Link Cloud and Omega Enterprise Gateway dashboard user interfaces. To configure and scale the 4 to 20 mA process input of a compatible, connected, sensing device follow the steps below:

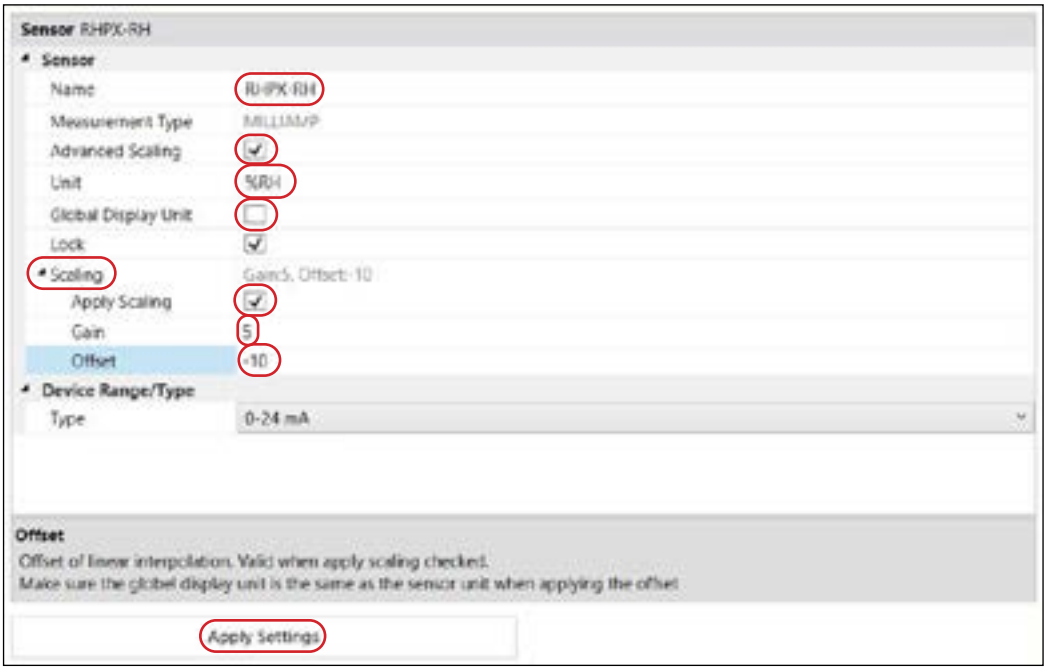

Figure 8: SYNC Advanced Scaling

Step 1: From the **Inputs** tab, click the **Advanced Scaling** check box to **enable** it and display the advanced scaling options.

Step 2: Provide a name to the sensor in the Name text box (16-character limit) and enter the unit of measure associated with the device in the Unit text box (4-character limit).

Step 3: Click the **Global Display Unit** check box to **disable** the option.

Step 4: Click the **Scaling** sub-menu drop down and click the **Apply Scaling** check box to display and edit the **Gain** and **Offset** text boxes.

Step 5: Navigate to a 4 to 20 mA Scaling Calculator at the following url: https://omegaupdates.azurewebsites.net/calcPage.htm

Step 6: Enter the **Sensor Minimum** and **Sensor Maximum** process range values associated with the 4 to 20 mA sensor into the calculator and click **Calculate**.

Step 7: The calculator will then provide **Gain** and **Offset** values as a result.

Step 8: Back on SYNC configuration software, enter the newly received **Gain** and **Offset** values under the **Scaling** drop down from **Step 3**.

Step 9: Click **Apply Changes** to finalize and save the changes to the sensor.

When the configured 4 to 20 mA sensor is added to either an Omega Enterprise Gateway or Omega Link Cloud, the sensor values will display according to the configurations.

4.1.2. Setting Alarms

SYNC allows users to set alarm conditions that notify the user when said conditions are met. The alarm feature is only available on qualifying products. The alarm icon is located to the right of the input name in the configuration interface. Clicking the alarm icon will take you to the Define Alarm dialog box as seen in **Figure 8**.

Figure 9: Defining an Alarm through SYNC

Once the conditions for your alarm have been set, click the Plus icon to add the alarm to your list of active alarms, and click **Save** to finalize.

4.2. Outputs

To configure the outputs of your Wireless Device or Smart Probe, begin by navigating to the Outputs Configuration Tab. Settings are adjusted on an interface that allows for full configuration of the device.

4.2.1. Configuring ON/OFF Control

Note: Only devices that specifically offer digital outputs may configure ON/OFF Control or PWM.

To configure ON/OFF Control on a device, navigate to the **Output** configuration tab and click on the icon located to the right of the available outputs. Clicking the icon will open the **Define ON/OFF Control** dialog box as seen in **Figure 9**. Choose the Input with the active alarm that you would like to control and set your preferred parameters. Once the ON/OFF Control parameters have been set, click **Save** to finalize the settings.

Figure 10: Configuring On/OFF Control

Warning: ON/OFF Control configurations will be erased if the **Input Type** is changed. If the Input Type is changed, ON/OFF Control parameters must be redefined.

4.3. Device Settings

The system functions may vary depending on the device connected.

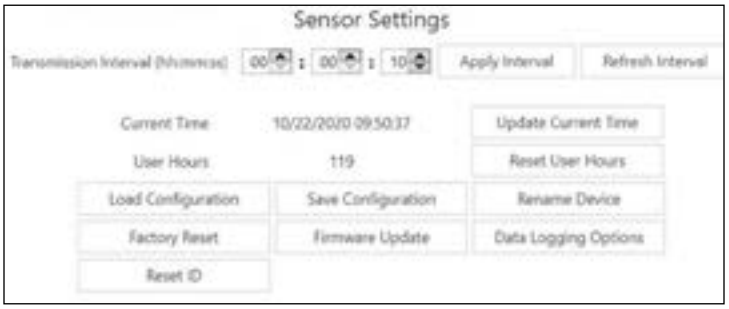

Figure 11: SYNC UI Device Settings

- **Sensor Setting:** Controls the transmission interval of the device.
- **Reset User Hours:** Resets the user hours to zero as displayed in the Device Attributes.
- **Load Configuration:** Allows the user to load a previously configured .json file to your device via Omega SYNC.
- **Firmware Update:** Allows the user to upload and update the firmware of the device.
- **Update Current Time:** Syncs the sensor time with the current time displayed on your computer.
- **Save Configuration:** Allows the user to save the current configuration on Omega Sync as a .json file.
- **Rename Device:** Allows the user to rename the device.
- **Factory Reset:** Resets the device to its factory settings.
- **Set Passwords:** Protects the SYNC configuration of your device behind a password. Once a password has been set, unplug the device and plug it back in to implement the password protection.
- **Data Logging Options:** When the device data log is full, the user may choose to overwrite the oldest data and continue logging new data or stop logging new data once the data log memory is full.
- **Apply Interval:** Sets the transmission interval of your sensing device.
- **Refresh Interval:** Reads and displays the current transmission interval that may have been changed by sensor alarms.

Note: Some additional functions not listed here may be device exclusive. For more information on these functions, refer to your device User's Manual.

5. Omega Link Smart Device Password

Note: It is not required to set a password for your Omega Link Devices.

Some Omega Link Smart devices, such as Smart Probes and Wireless Smart Interfaces (such as the IF-006), allow users to lock the SYNC configuration features behind a password. When a Smart Probe is attached to an IF-006 with a matching password, the IF-006 will allow the probe data to be sent to the Omega Link cloud when integrated into an Omega Link ecosystem.

Caution: Both passwords (Interface and Probe) must match to successfully connect to the Omega Link Cloud. Devices with mismatched passwords will not have cloud access. After 3 failed login attempts, the device will power cycle before you can retry.

When setting a password, if both passwords do not match, users will have the option to automatically update both passwords to match. Once a password is set, users will be required to log in to that device before they are able to make changes to the configuration.

To set a password for your Omega Link Wireless Smart Interface, navigate to the **Device Settings** tab of the SYNC interface.

Step 1: From the Device Settings Tab, click **Set Password** under **Interface Settings** or **Sensor Settings**, depending on which you wish to configure first.

Figure 12: Interface/Device Settings in SYNC

Step 2: Create a password and click Save Password.

Figure 13: Device Password Configuration

Step 3: If your passwords do not match, you will be able to sync them now.

Figure 14: Password synchronization between interface and device

6. Configuring PID Controllers and Process Meters

Important: The following information only applies when connecting qualifying PID Controllers and Process Meters. Not all configurable global settings that are available for Smart Probes will be available for PID Controllers and Process Meters.

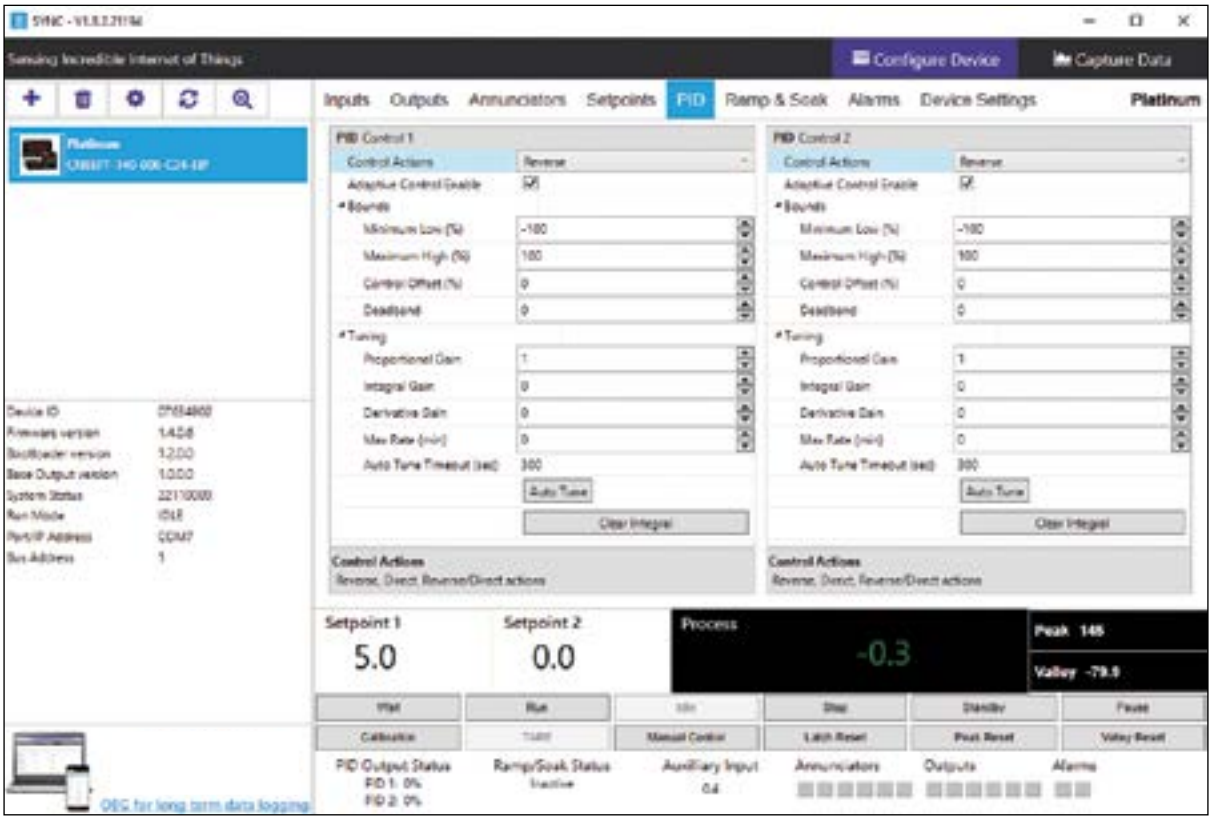

Figure 15: PID and Process Controller SYNC UI

SYNC allows users to configure qualifying PID Controllers and Process Meters (CN6xx, DP6xx, etc.) To configure these settings, you must have a PID controller or Process Meter connected to SYNC. Click on the PID Controller or Process Meter you would like to customize from your **List of Devices**. PID Controller / Process Meter settings are adjusted on an interface that allows for full configuration.

6.1. Reading and Control

SYNC provides an interface at the bottom of the screen that allows users to configure the operating mode of the Platinum controller.

6.1.1. Operating Modes

The six control buttons (**Wait, Run, Idle, Stop, Standby, and Pause**) may be selected to change the operating mode of the device.

6.1.2. Run Mode Options

The Run Mode option buttons (**Peak, Valley, and Latch Reset**) mimic the functionality found in the Platinum Run Mode. The Peak and Valley buttons include Peak/Valley values. Pressing either will clear the current value. Clicking the Latch Reset button resets the latched alarms.

6.1.3. Calibrate

The Calibrate button allows users to set the calibration parameters for process values. 1-point, 2-point, and Ice Point calibration are supported.

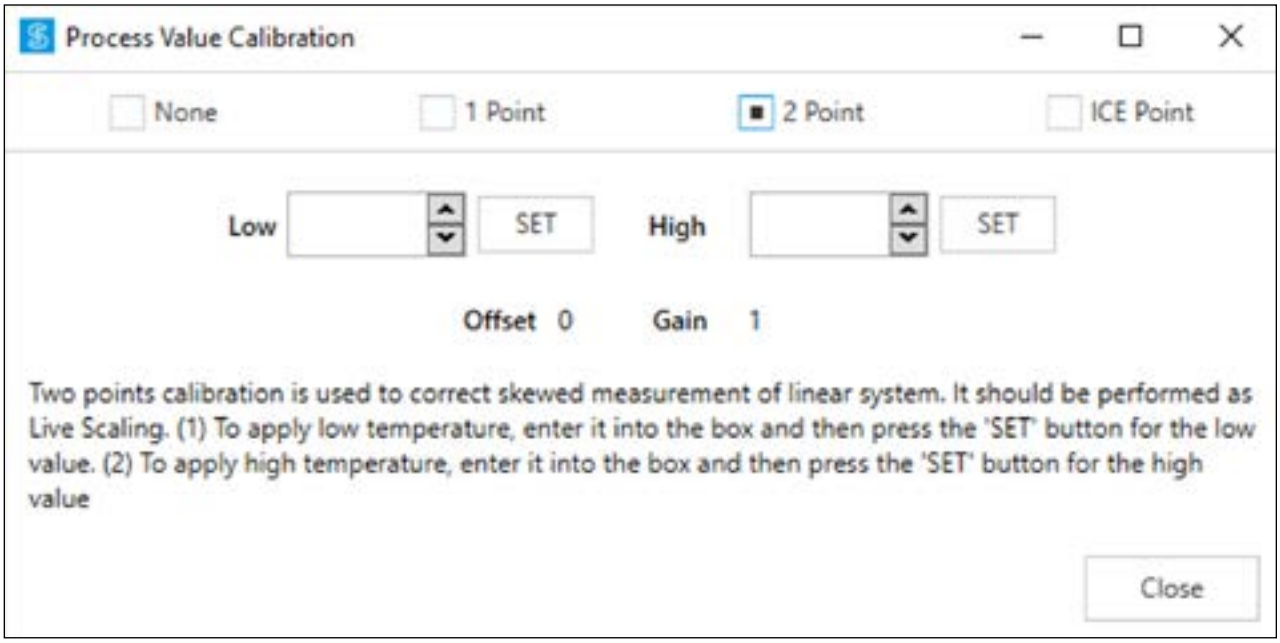

Figure 16: Process Value Calibration

6.1.4. TARE

The TARE button is only enabled when the input is set to process. Clicking the TARE button will set the current weight reading to 0.

6.1.5. Manual Control

The Manual Control button operates like the OPER/MANL option on the Platinum Controller. Selecting this button will open a separate window for manually setting the Input Value or Control Value; the unit will be placed into IDLE mode. Selecting the Output option sets the Control Output and any outputs configured as PID may be set from 0 – 100% of full power. Selecting the Input Option generates a 'pseudo input' within the range defined by the Input Range value. The Disable option disables both the Input and Output functions.

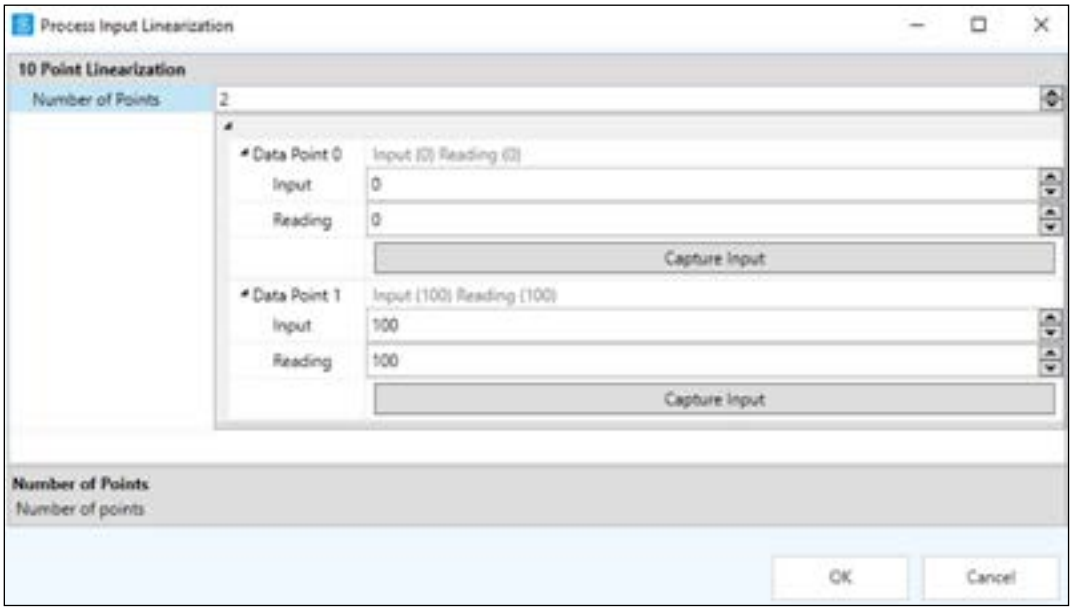

Figure 17: Process Input Linearization

6.2. Inputs

Under the Inputs tab, users can configure the type of process input connected to the Platinum controller, set the reading filter, and configure additional settings based on the type of process input.

6.2.1. Thermocouple

When the Process Input option is set to the thermocouple option, users may choose the thermocouple type from the TC dropdown. The reading filter may be configured by clicking the corresponding dropdown.

6.2.2. RTD

When the Process Input option is set to the RTD option, users may choose the RTD wire number and type connected to the Platinum device. The reading filter may be configured by clicking the corresponding dropdown.

6.2.3. Process

When the Process Input option is set to the Process option, users may select the process range, type, and configure the scaling settings. The reading filter may be configured by clicking the corresponding dropdown.

6.2.4. Range

The following process ranges are supported:

4-20 mA	± 1.0 V
0-24 mA	± 0.1 V
± 10 V	± 0.05 V

6.2.5. Range Sub-Types

Some process range options also allow for range sub-types to be configured to Single-Ended Voltage, Differential Voltage, or Ratiometric Voltage.

6.2.5.1. Scaling Types

Scaling types can be changed between Manual and Live. Live adds a Capture Enable and Disable button that allows users to capture the current value for high or low inputs.

6.2.5.2. Scaling Settings

The following scaling values and settings can be configured: Low Input, Low Reading, High Input, High Reading.

6.2.5.3. Input / Output Scaling

Scaling operations translate source (input) signals to scaled output signals using a linear translation defined by a SLOPE (or gain) and an OFFSET. As shown below, (X1, Y1) and (X2, Y2) define two points on a line with a certain SLOPE and OFFSET. Knowing the SLOPE and OFFSET determines the OUTPUT value for any given INPUT value using this equation:

Output = Input X SLOPE + OFFSET, where

GAIN = (Y2 - Y1) / (X2 - X1)

OFFSET = Y1 - (GAIN * X1).

If (X2 - X1) == 0, the GAIN is set to 1 and the OFFSET is set to 0.

For MANUAL scaling the two points are entered directly, as values, in the “Manual Settings” screen area.

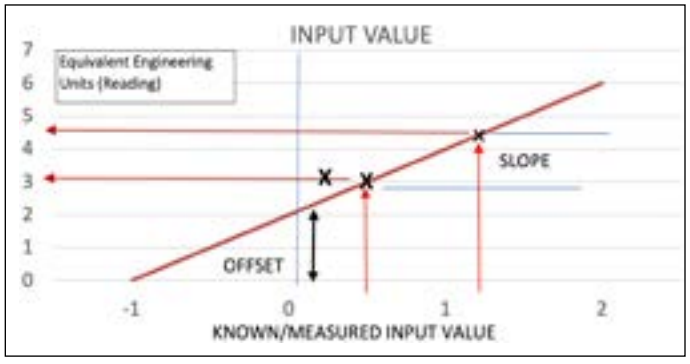

Figure 18: Input Output Scaling graph

6.2.5.4. Linearization

Platinum supports 10-Point Linearization in process input. The 10-point linearization enters up to 10 Reading/Input value pairs and is used to internally calculate 10 gain/offset parameters.

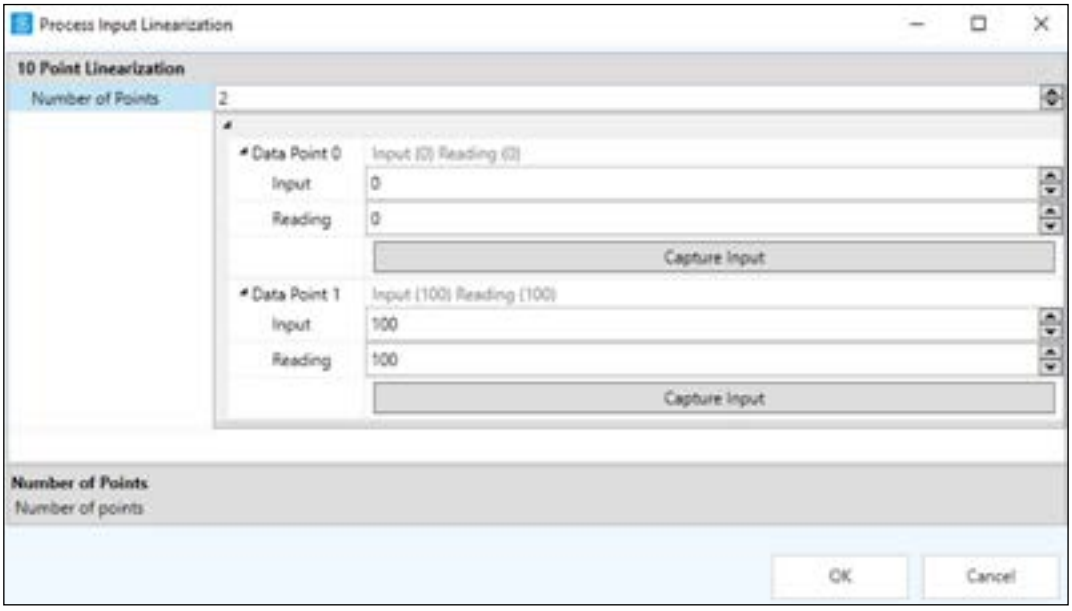

Figure 19: Process Input Linearization

6.2.6. TARE Options

TARE can be enabled, disabled, or set to remote. When enabled, the TARE button will be selectable.

6.2.7. Thermistors

When the Process Input option is set to the Thermistors option, users may choose the thermistor type from the corresponding dropdown. The reading filter may be configured by clicking the corresponding dropdown.

6.3. Outputs

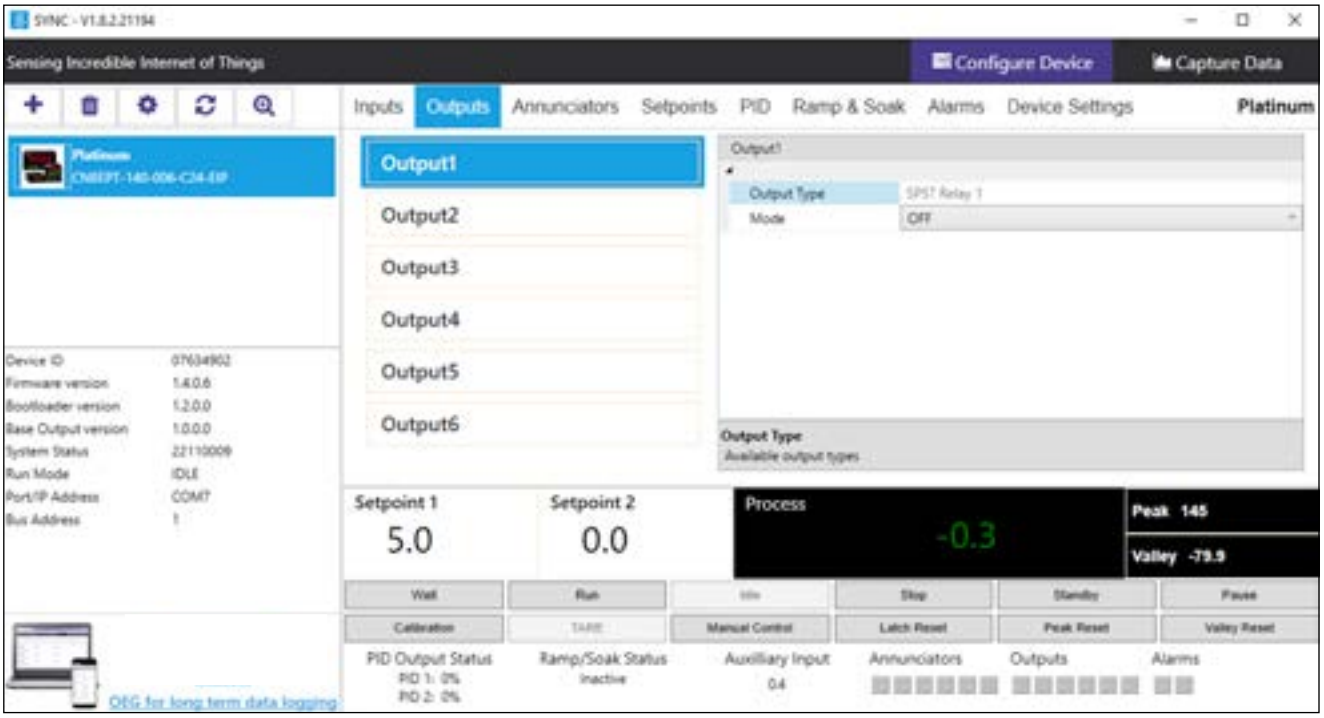

Figure 20: Controller Outputs SYNC UI

The Platinum controller supports 6 outputs, and each output configuration may be refreshed or updated independently.

The "Output Mode" selection assigns the output to a specific mode of operation and defines which parameters apply and enables the corresponding control blocks. The state of each output is shown on the main screen.

Available outputs modes are:

- OFF - output is turned off
- PID – output is set to output PID control value
- ON.OFF – output is set to On or Off based on setpoint value
- ALARM1 – output is linked to alarm1
- ALARM2 – output is linked to alarm2
- RAMP ON – output is linked to PID control ramping stage
- SOAK ON – output is linked to PID control soaking stage
- PID 2 – output is set to output PID 2 control value.
- SENSOR ERROR – output is turned on if there is a sensor fault
- OPEN LOOP – output is set on when the control loop is open

Note: Only valid parameters/options for the selected mode will be enabled when the user switches output mode.

6.4. Annunciators

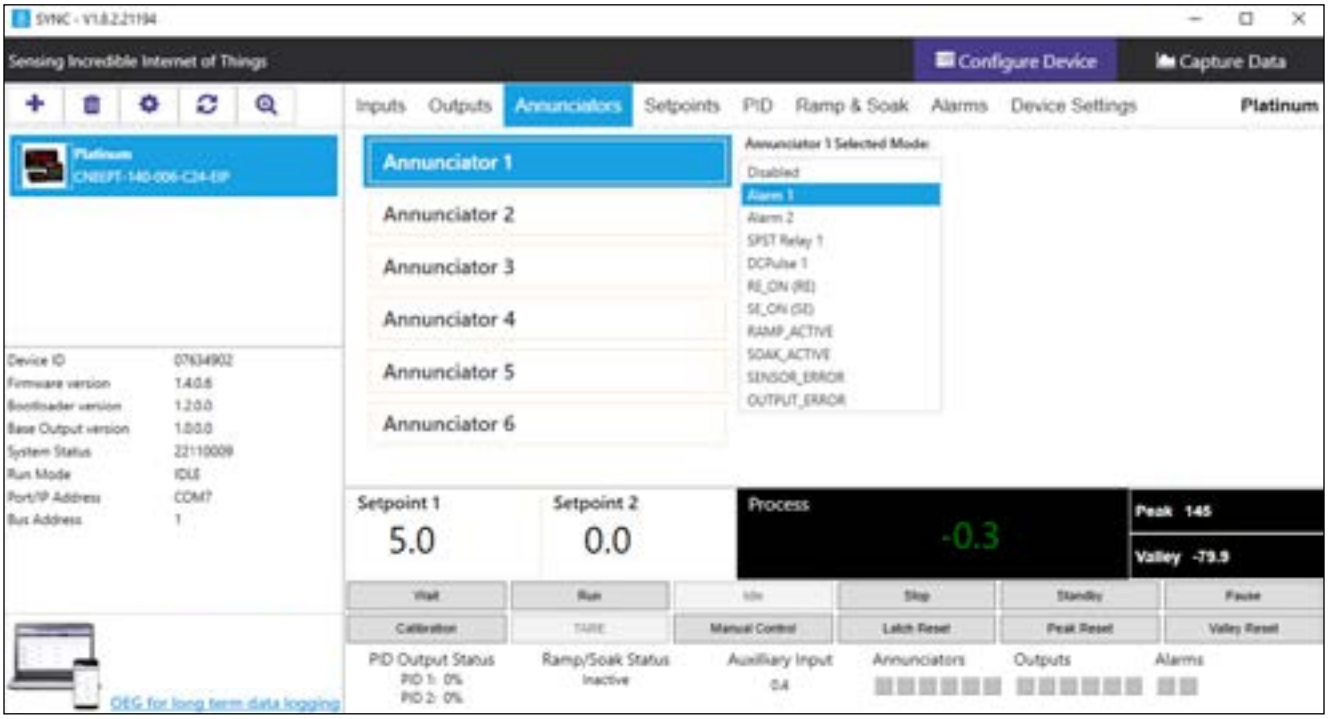

Figure 21: Controller Annunciators SYNC UI

Platinum annunciators appear on the front display and are activated based on the state of the Alarms and Outputs. A total of 6 annunciators are supported by the controller. The user can select an annunciator number to change the annunciator mode.

The Platinum Configurator extends the annunciator options to trigger the annunciator based on individual RE.ON or SE.ON states including 'any RAMP' or 'any SOAK' status.

Available Annunciator Modes:

- Disabled – The annunciator is disabled.
- Alarm1 – The annunciator is linked to Alarm1.
- Alarm2 – The annunciator is linked to Alarm2.
- SPST Relay1 – The annunciator is linked to SPST Relay1.
- DCPulse1 – The annunciator is linked to DCPulse1.
- Isol DCPulse1 – The annunciator is linked to isolated DCPulse 1.
- Isol DCPulse2 – The annunciator is linked to isolated DCPulse 2.
- RE.ON – The annunciator is linked to RE.ON state.
- SE.ON – The annunciator is linked to SE.ON state.
- Ramping – The annunciator is active when PID control is in ramping stage.
- Soaking – The annunciator is active when PID control is in the soaking stage.
- Sensor Error – The annunciator is active when the sensor is in a fault state.
- Output Error – The annunciator is active when the output is in a fault state.

6.5. Setpoints

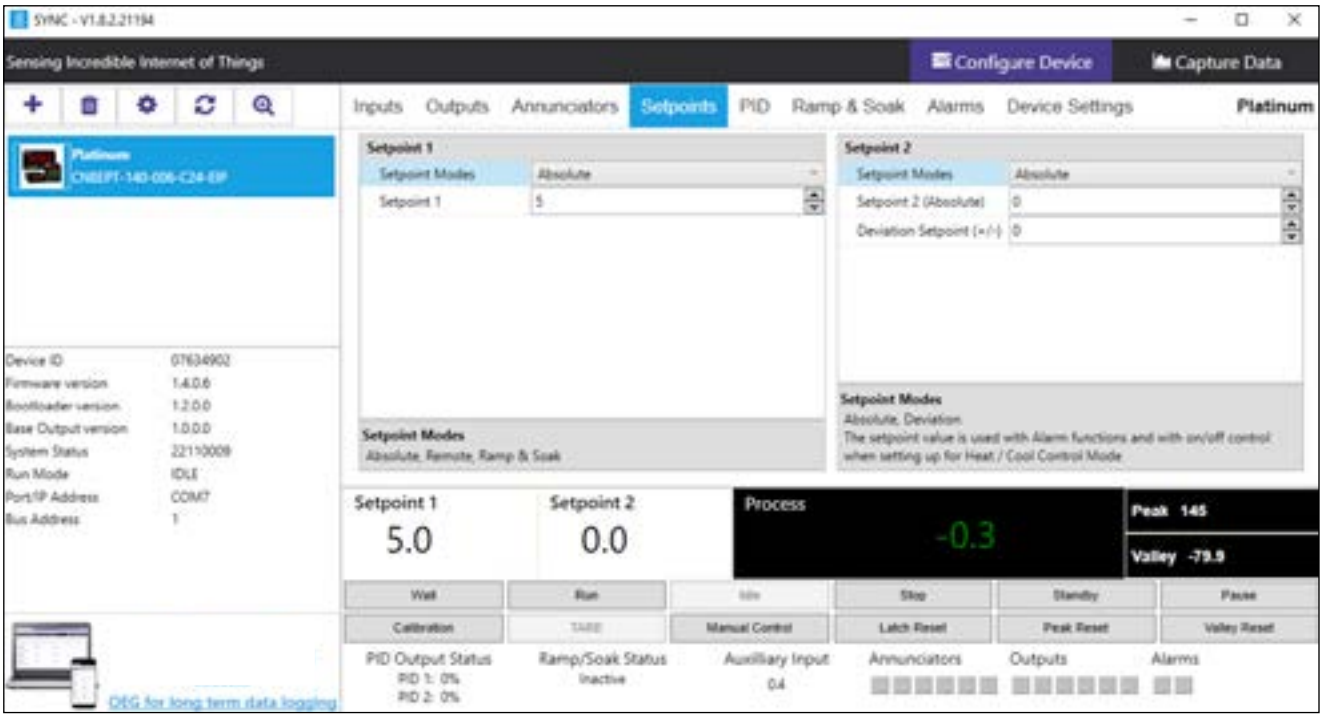

Figure 22: Controller Setpoints SYNC UI

The Setpoint configuration screen sets the mode for Setpoint 1 and Setpoint 2. On the Platinum Configurator, the setpoint mode may be easily set. Setpoint 1 mode on the Platinum is set by enabling the Ramp & Soak or Remote Setpoint functions.

Setpoint 2 mode may be set to either Absolute or a Deviation (+/-) from setpoint 1. The value displayed on the device readings interface of the main screen will be the effective value.

Example: (Setpoint 2 Deviation mode)

Setpoint 1 = 100.0

Setpoint 2 Deviation value = 5

Effective Setpoint 2 value = 105

6.6. PID

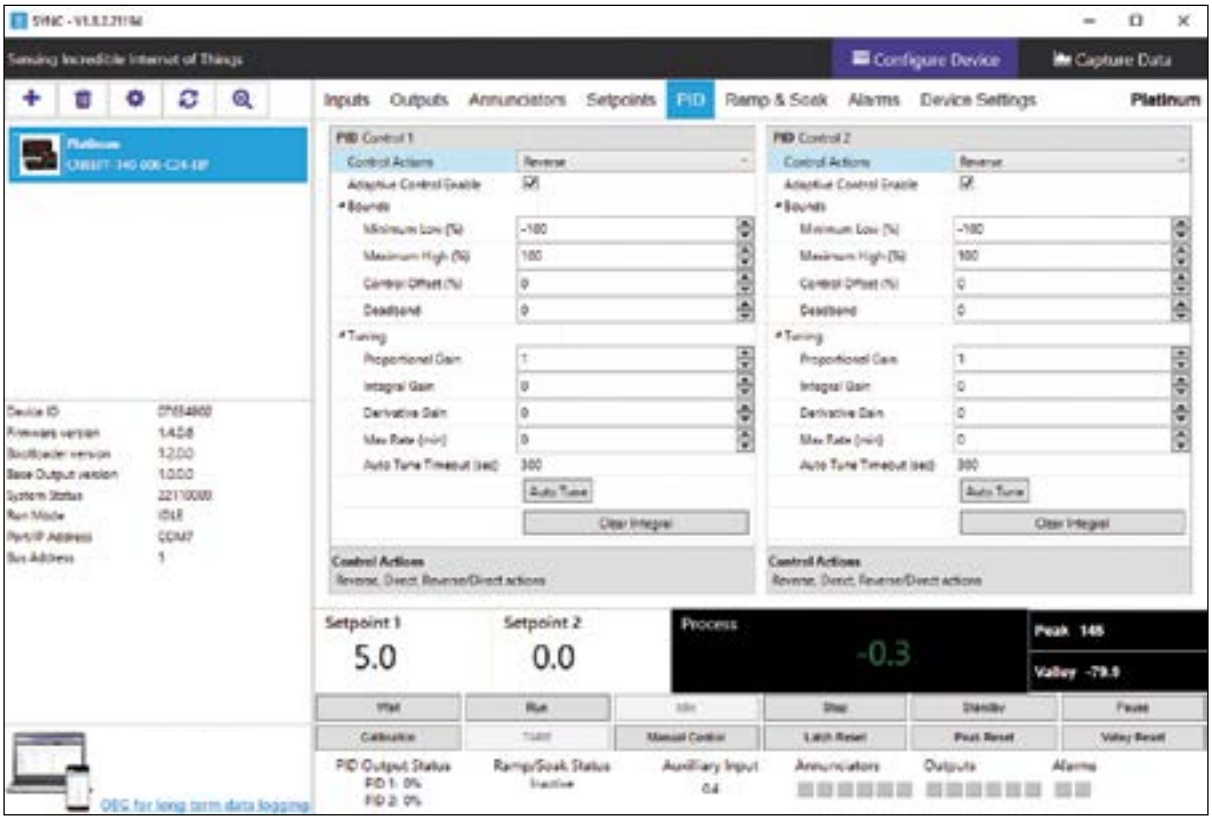

Figure 23: PID and Process Controller SYNC UI

The PID configuration screen sets the PID control parameters and initiates an Autotune cycle. The user can use this dialog to adjust PID parameters for both PID 1 and PID 2.

If the **Auto Tune** button is selected the system will start an AUTOTUNE cycle and the status/input value is shown on the main screen. Once the cycle is complete, the REFRESH button may be used to review the calculated P, I, and D values.

The calculated PID Output power is shown on the main screen. Following an Autotune cycle select the Refresh button to update the new P, I, and D parameters.

Note: Before initiating an Autotune cycle, ensure that the appropriate output has been configured for PID control.

6.7. Ramp and Soak

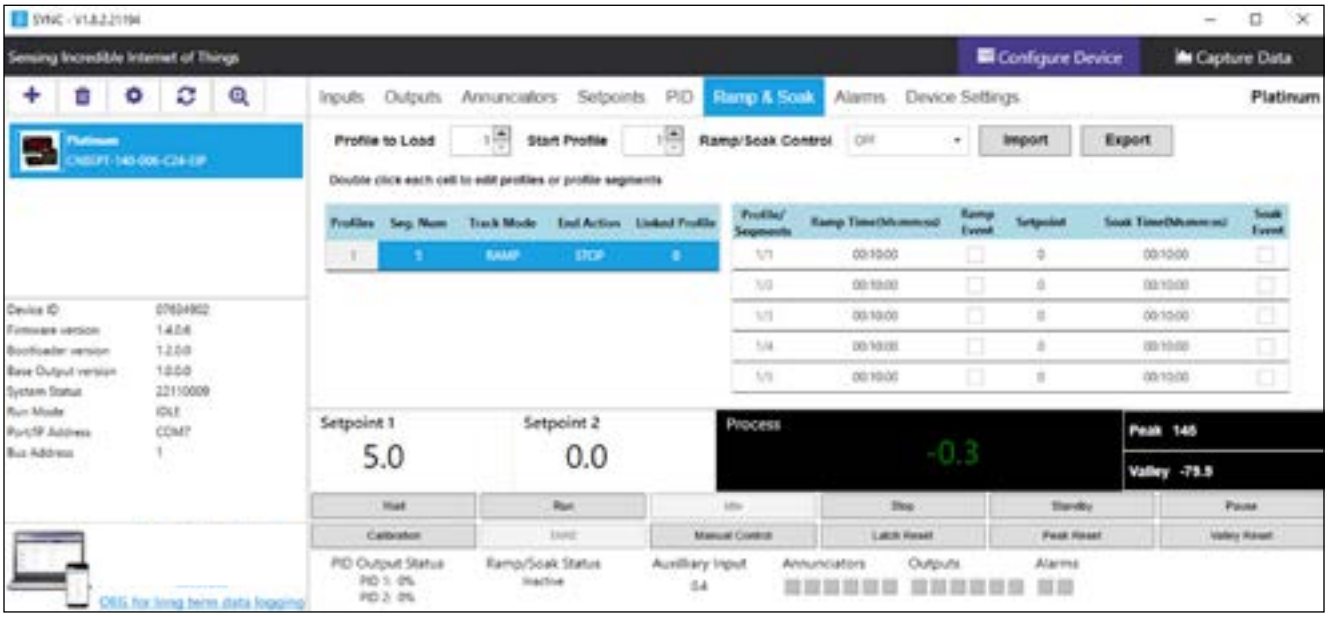

Figure 24: Ramp and Soak SYNC UI

The Platinum controller supports up to 99 Ramp and Soak profiles each supporting up to 8 ramp/soak segments. The ramp and soak profiles may be daisy-chained together using a profile LINKING option.

The Ramp & Soak Control section programs the overall Ramp and Soak control, including enabling the Ramp & Soak mode. Start the profile to use the tracking mode, and a number of segments in each specific profile; and the action to be taken at the end of the profile.

The Profile select control selects which profile data is to be displayed. The time format is maintained and displayed as hours:minutes:seconds. The time values may be adjusted using the Device Settings tab.

6.8. Alarms

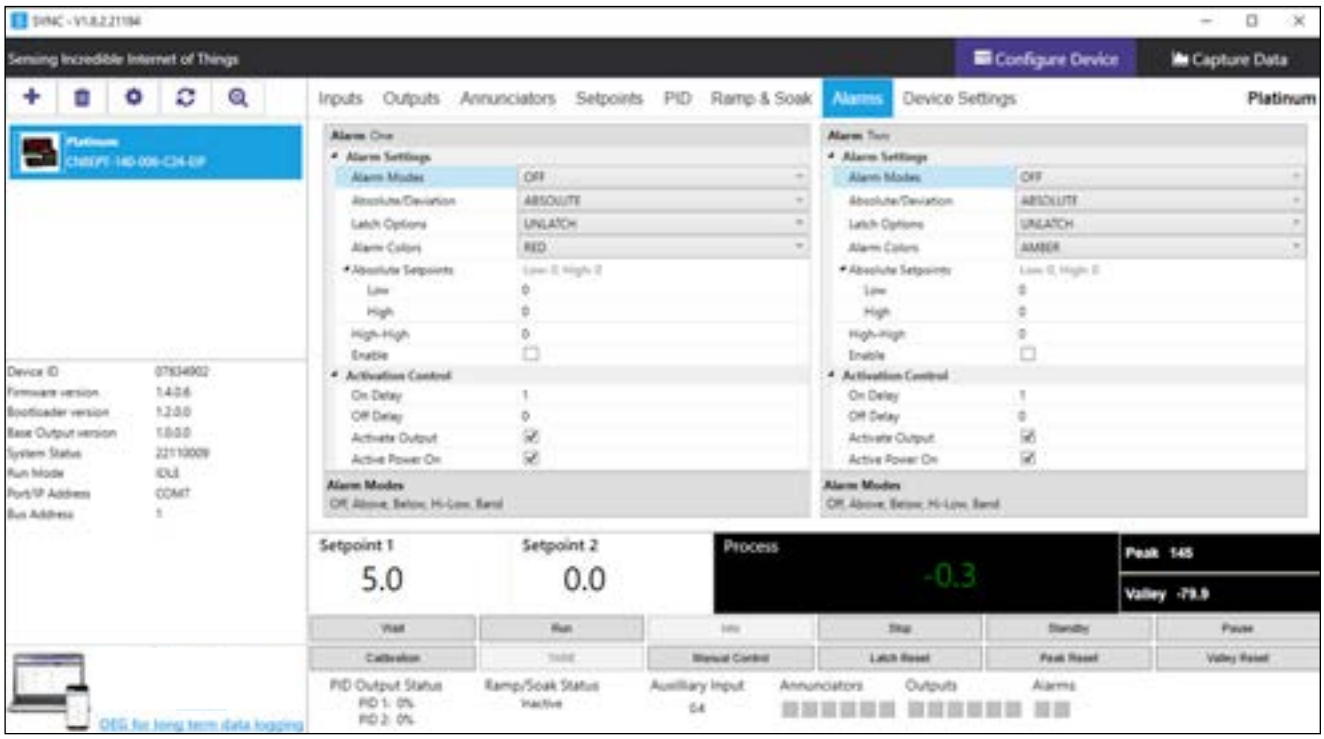

Figure 25: Alarms SYNC UI

The Platinum controller supports 2 alarm control blocks. The state of each alarm is shown on the main screen. The user can change the alarm mode and set alarm parameters/options using the provided interface as shown above.

6.9. Device Settings

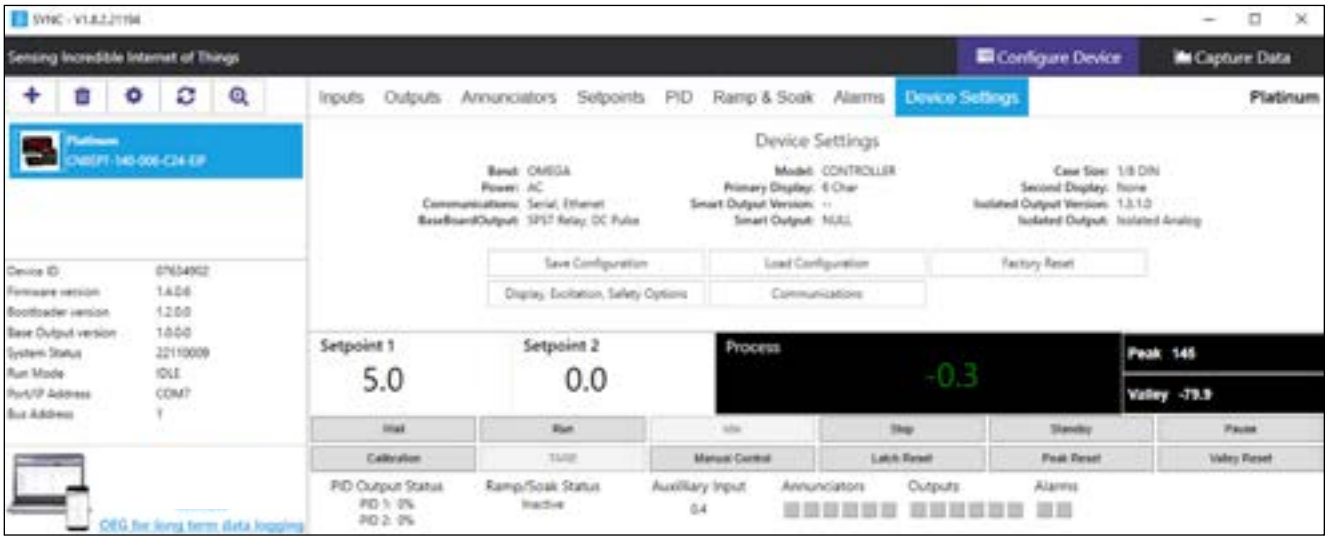

Figure 26: Device Settings SYNC UI

The Device Settings tab displays the device characteristics and allows users to save and load configurations, initiate a factory reset of the device, and configure the display, excitation, safety options, and communications.

6.9.1. Save Configuration

Allows the user to save the Platinum controller configurations as a .txt file.

6.9.2. Load Configuration

Allows the user to load a .json or .txt Platinum controller configuration.

6.9.3. Factory Reset

The Factory Reset button erases all previous configurations and sets the Platinum controller back to its default settings.

6.9.4. Display, Excitation, Safety Options

The Display, Safety, and Excitation control screen has been grouped into one miscellaneous control screen. Each of the sub-groups may be individually refreshed or updated.

Output Break Detect may be enabled if the output is set to a non-OFF mode. Once the break detection is enabled, the deviation and timeout parameters will be used for detection. The user can turn on latch output error option if they want to have the output error stay on when an error occurs.

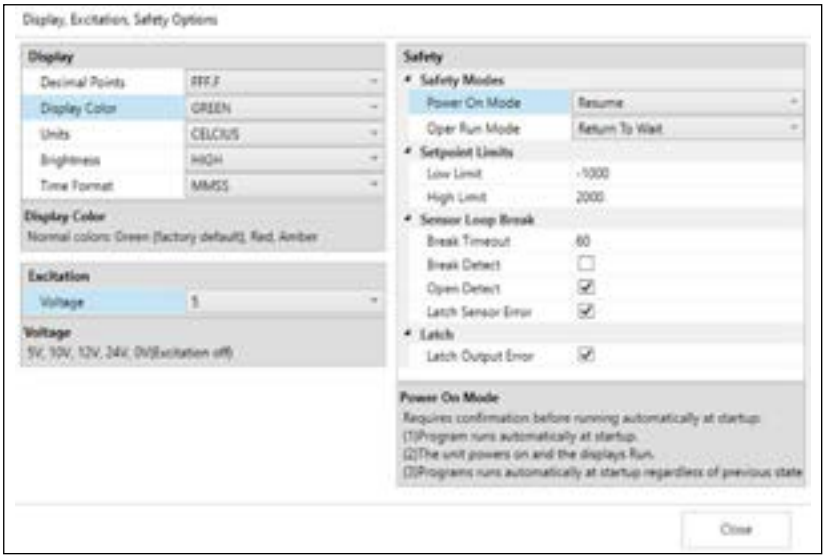

Figure 27: Display, Excitation, Safety Options SYNC UI

6.9.5. Communications

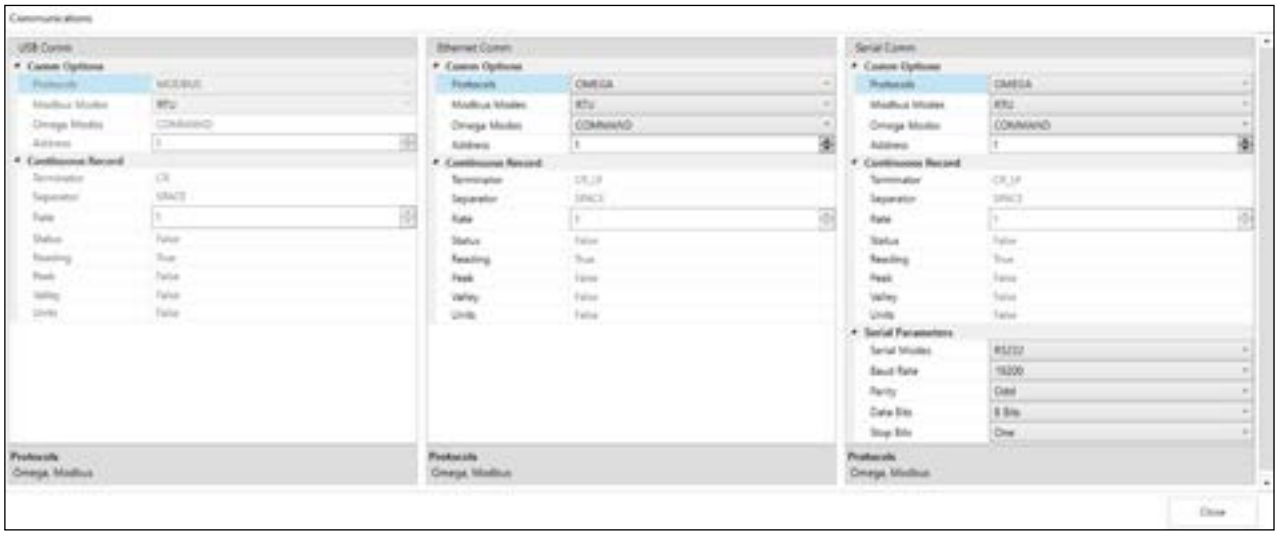

Figure 28: Communications window SYNC UI

The Platinum controller supports 3 COMM channels: USB, Ethernet, and Serial. USB is standard on all products.

Each COMM channel supports either Omega or Modbus protocol. Within the Omega protocol, a variety of communication parameters are presented to the user. Within the Modbus protocol, both Modbus RTU and Modbus ASCII formats are supported. The serial channel supports a variety of data formats and transmission speeds. The configuration options group will be disabled if the module is not supported or is the module that is currently connected.

Important: The channel used by the Platinum Configurator must be configured for Modbus RTU, Modbus TCP/IP, or Modbus ASCII. Following a Factory Default (F.DFT) selection the device will revert to Omega Protocol.
The Serial channel has additional parameters allowing the setting of baud rate, parity, stop and start bits. Changing these values while connected through a serial channel will result in a loss of communications. When connecting to the device, if the Platinum Configurator is connected using a USB connection and the USB/MODBUS RTU options are selected the device USB configuration will be automatically reconfigured. For all other connection options the device must be set to match the Platinum Configurator connection options

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7. Capture Data Interface

The Capture Data interface provides a chart that displays real-time data from connected devices. Additionally, the Capture Data interface contains the following features:

Extract Data		Extracts data from the device data logger.
Start/Stop Recording		Toggles the real-time data display to on/off.
Export Data to CSV File		Gathers the data that has been recorded or extracted and saves it in a .CSV file.

Disabling all of the variables for a particular graph will cause the graph to be hidden, allowing the second graph to fill the entire graph area. The X-axis shows the sample count. Operating the auto-refresh at 1-second intervals results in the X-axis showing 1-second intervals.

Use zoom, pan, and fit to view charts. Both charts are synchronized on X-axis. Adjust maximum charting window. It is the max data windows that can be shown on the screen.

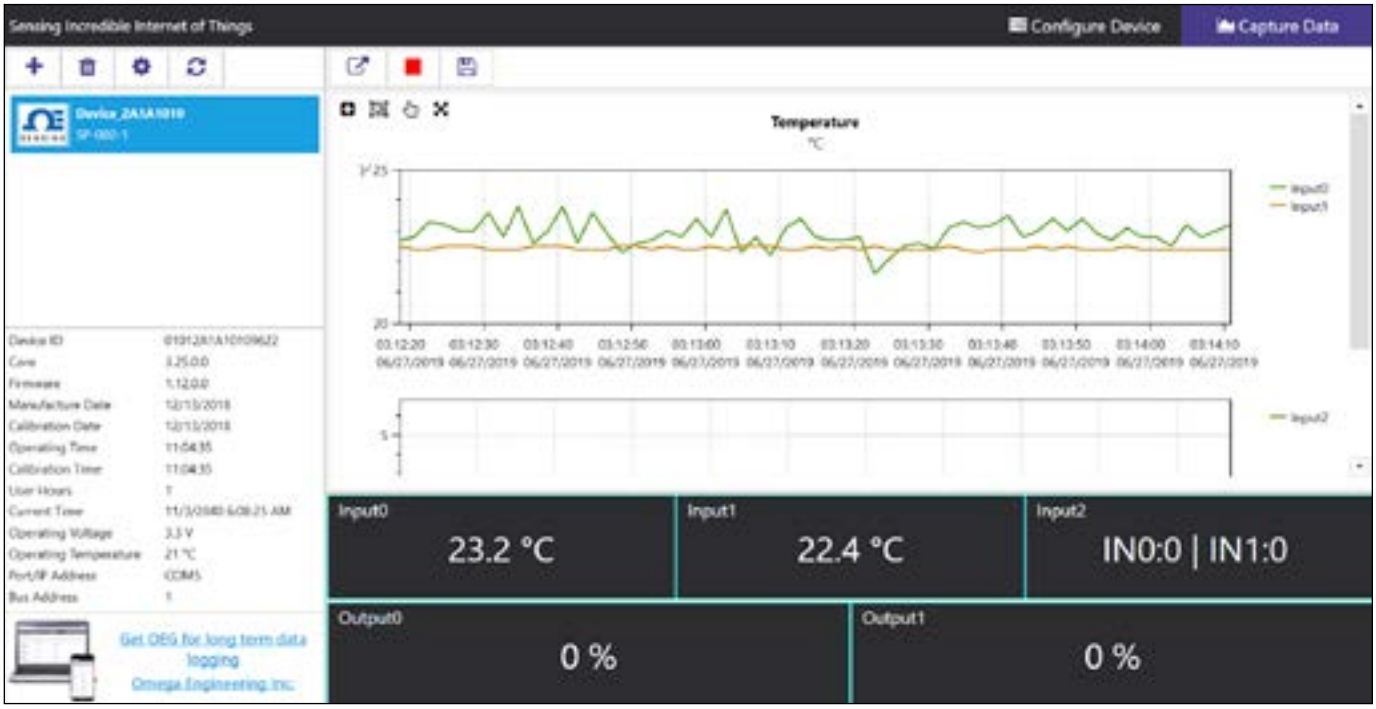

Figure 29: Capture Data SYNC UI

Note: Data will be reset if the user switches to the Configure Device interface. The SYNC Data Capture feature is for short-term data logging. For long-term data logging, we recommend Omega Enterprise Gateway software.

SYNC provides four ways to navigate the Capture Data Interface:

Zoom by Rectangle		Allows the user to left click and drag the mouse across the graphed data to create a rectangle that will be zoomed in on.
Zoom by Middle Mouse Wheel		Allows the user to zoom in and out of the graphed data using the middle mouse wheel. This only applies to users have a mouse with the necessary mouse wheel feature.
Pan by Left Mouse Button		Allows the user to left click and drag on the graphed data to navigate in the direction of the mouse.
Reset		Resets the graphed data to the original position.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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