

**Protege GX Inovonics Integration
Application Note**

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Protege GX Inovonics Integration

Protege GX Inovonics integration is a licensed feature that enables you to use Inovonics' detection devices as Protege GX Input Expanders within Protege GX. Communication between the two systems is facilitated by Ethernet.

This integration enables you expand the reach of your Protege GX system and gives you to opportunity to take advantage of the Inovonics wireless detection system.

This application note covers:

- Supported software and firmware versions (see page 4)
- Integration prerequisites (see page 4)
- Configuring the integration (see page 5)
- Registering Devices (see page 13)

The document only covers the programming that is relevant to Protege GX. For further information, refer to the relevant Inovonics documentation.

Supported Versions

Protege GX Inovonics integration has been tested and verified with the following versions:

Software	
Protege GX Software	Version 4.0.128 and above
Mozilla Firefox	Version 18 and above
Firmware	
PRT-CTRL-DIN	Version 2.08.583 and above
EN6080 Area Control Gateway	Version 1.0.2.2

Prerequisites

Before attempting this integration, ensure that the following requirements have been met:

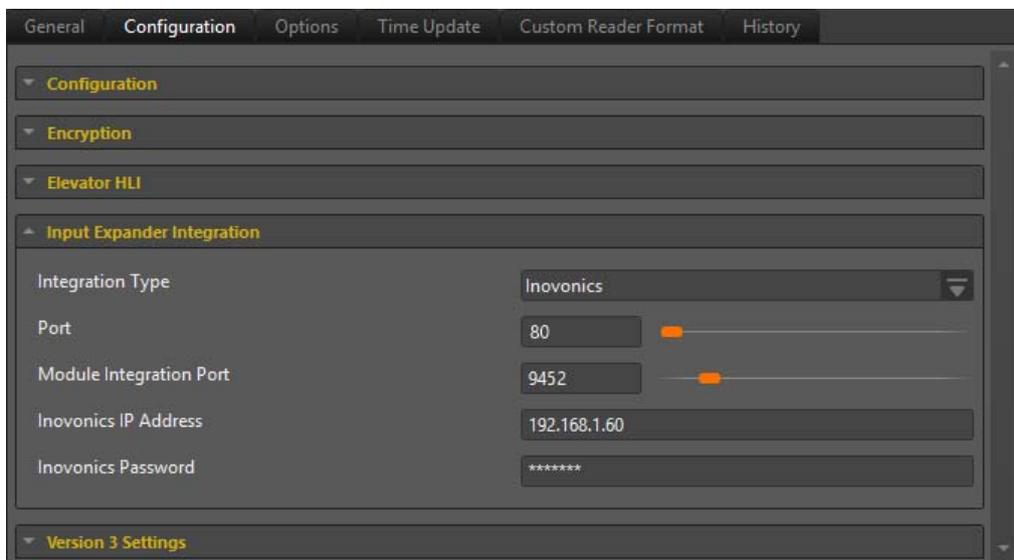
- An existing, operational Protege GX system is running (and updated to the supported versions).
- An Inovonics integration license is applied to the relevant Protege GX SSN.
- You are using Mozilla Firefox (v18 or later) for web browsing to the tested version of the Inovonics Gateway.
- You have the components required by the Inovonics side of the integration.

Configuring the Integration

Enabling Inovonics Integration

Innovonics integration is enabled per controller.

1. Navigate to **Sites | Controllers | Configuration**.
2. From the **Input Expander Integration** section, select **Inovonics** from the **Integration Type** drop down.
3. Set the **Port** to **80**. This defines the TCP port that the Controller is connected to and uses to receive Inovonics event codes.
4. Set the **Module Integration Port** to **9452**. This defines the UDP port that the integration uses to listen for replies to requests from Protege GX.
5. Enter the **Inovonics IP Address**. This is the IP address of the ACG unit Protege GX is connected to.
6. Enter the **Inovonics Password**. This is the password used by the controller when it attempts to access information from the ACG. The controller is required to login as an administrator so ensure that the password entered is the administrator password used for the ACG.



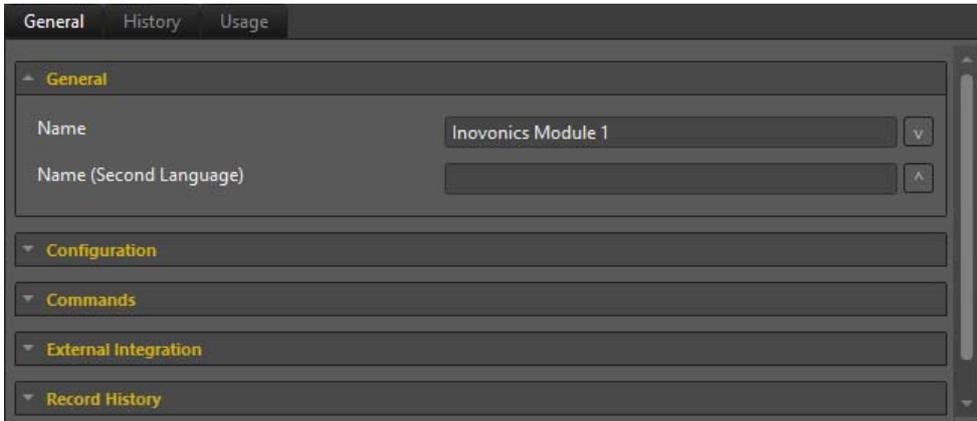
7. Click **Save**.

Programming Input Expanders

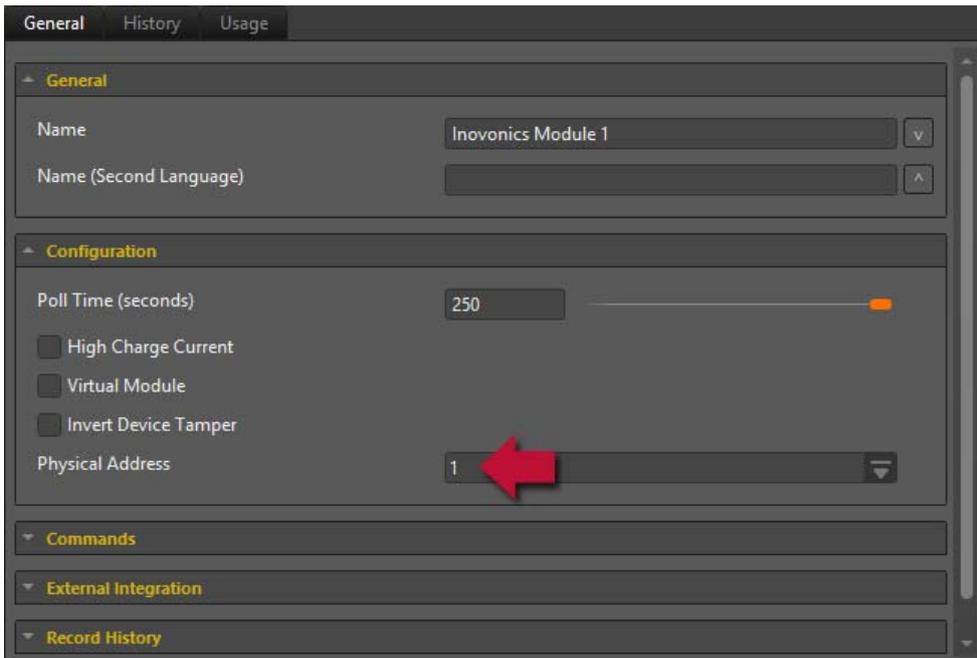
Inovonics integration enables Inovonics devices to mimic the behavior and operation of a Protege input expander and be processed by a Protege GX controller.

To program an input expander record for Inovonics operation:

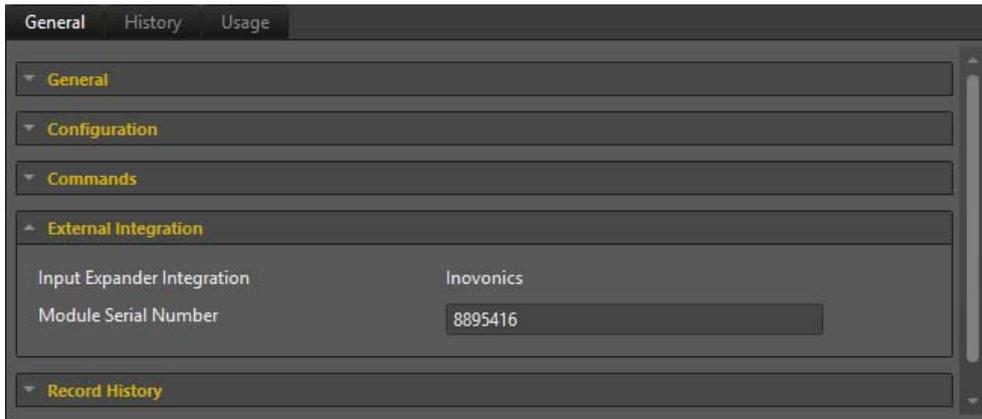
1. Navigate to **Expanders | Input Expanders | General**.
2. Click **Add**.
3. Enter a **Name** to identify the Inovonics device.



4. Set the device's **Physical Address**.

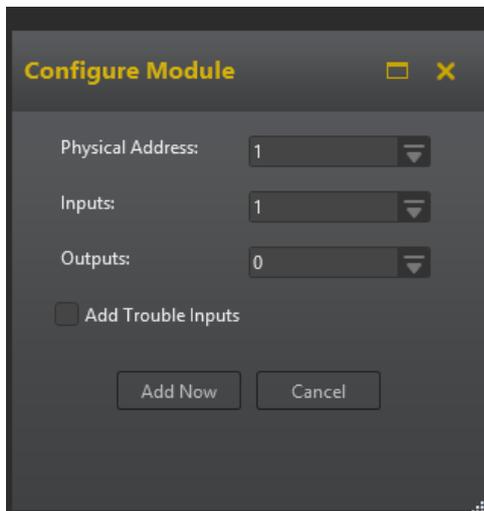


5. Enter the **Module Serial Number**. This is the 7 digit serial number located on the sticker of each Inovonics wireless devices. If you find a zero prefixing the serial number, this should be omitted.



The screenshot shows a configuration window with three tabs: 'General', 'History', and 'Usage'. The 'General' tab is active. It contains several expandable sections: 'General', 'Configuration', 'Commands', 'External Integration', and 'Record History'. The 'External Integration' section is expanded, showing a table with two rows. The first row is 'Input Expander Integration' with the value 'Inovonics'. The second row is 'Module Serial Number' with the value '8895416' entered in a text field.

6. Click **Save**.
7. As we only require one input per Inovonics device, set the **Inputs** field to 1 and set the **Outputs** field to 0.
8. Leave the **Add Trouble Inputs** option disabled. Trouble inputs for this integration are created manually.
9. Click **Add Now**.



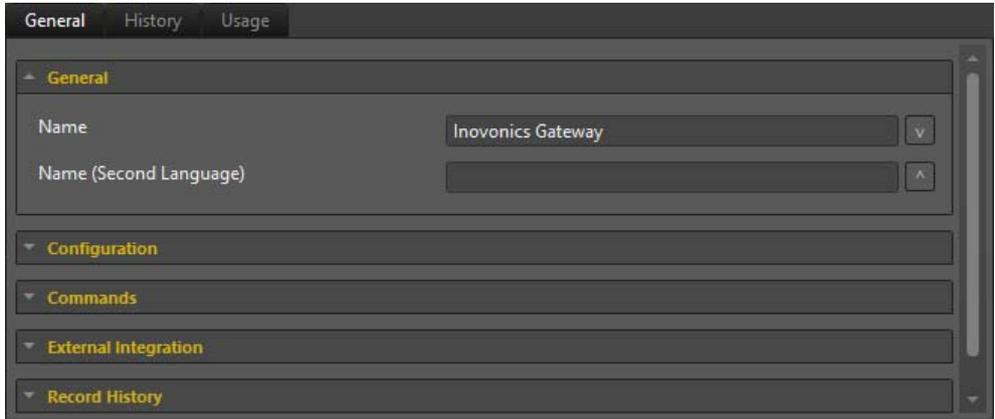
The screenshot shows a 'Configure Module' dialog box with a title bar containing a minimize icon and a close icon. The dialog has three dropdown menus: 'Physical Address' set to 1, 'Inputs' set to 1, and 'Outputs' set to 0. Below these is a checkbox labeled 'Add Trouble Inputs' which is unchecked. At the bottom are two buttons: 'Add Now' and 'Cancel'.

For each Inovonics device used, an input expander record is required.

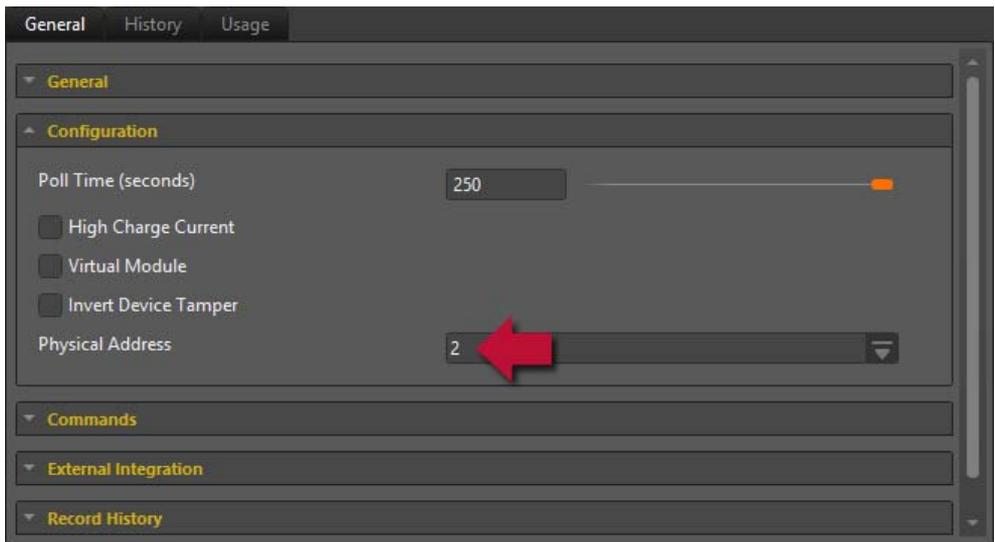
Programming the Gateway as an Input Expander

If required, you can also monitor the Inovonics Gateway itself by adding it as an input expander. Unlike the other Inovonics devices, the Gateway does not support input configuration. The status of the Gateway is monitored using trouble inputs.

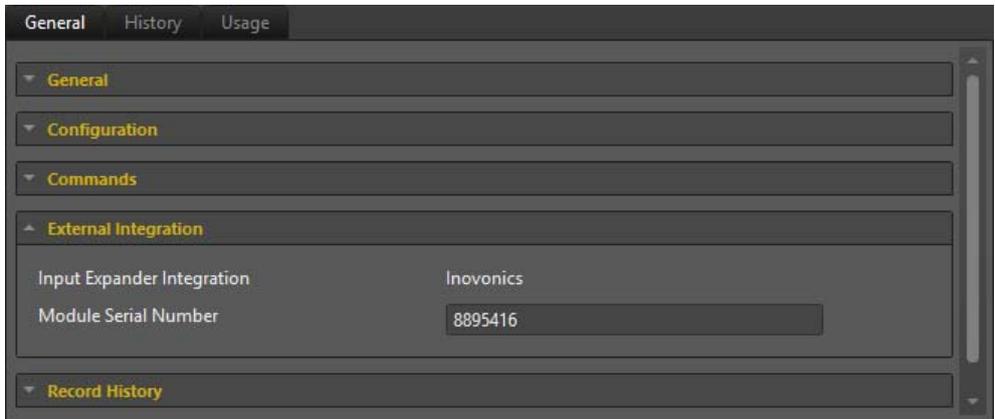
1. Navigate to **Expanders | Input Expanders | General**.
2. Click **Add**.
3. Enter a **Name** to identify the Inovonics device.



4. Set the device's **Physical Address**.

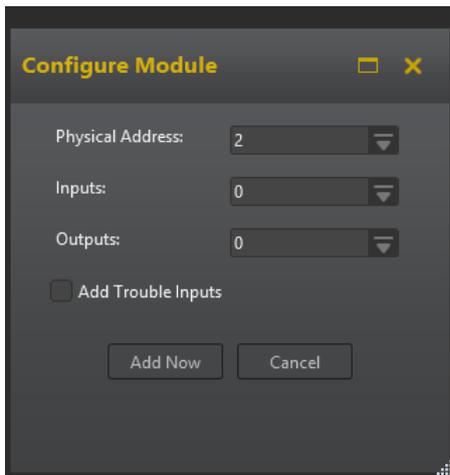


5. Enter the **Module Serial Number**. This is the 7 digit serial number located on the sticker of each Inovonics wireless devices. If you find a zero prefixing the serial number, this should be omitted.



6. Click **Save**.

7. Set both the **Inputs** and **Outputs** fields to **0**.
8. Leave the **Add Trouble Inputs** option disabled.
9. Click **Add Now**.



Programming Inputs

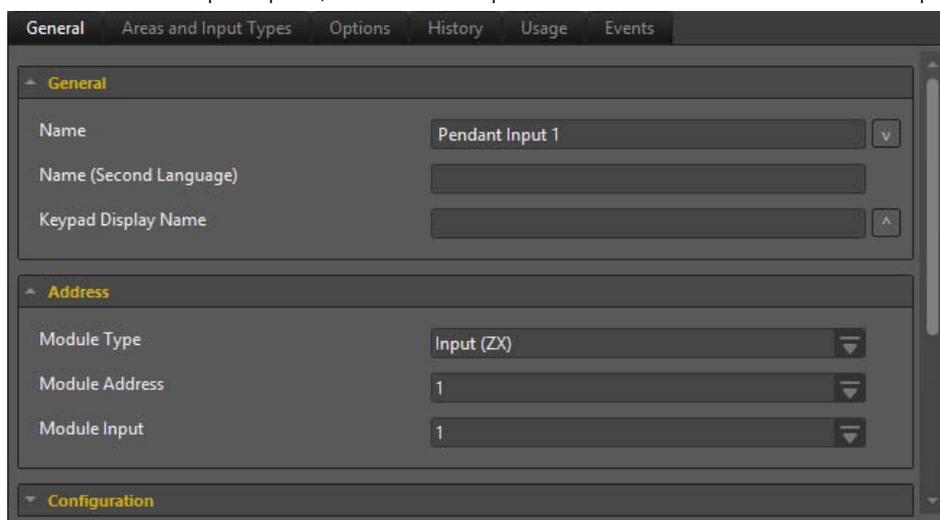
In order for the integration to operate correctly, we need to program some inputs for the Inovonics devices. The table below outlines the number of different inputs associated with each device used in the integration.

	Single Input Pendant	Window/ Door Transmitter	Repeater	ACG
Number of Inputs	1	1	0	0

1. Navigate to **Programming | Inputs** and select the input linked to one of the Inovonics devices.

When creating the input expander record in the previous topic, we also created the input associated with it using the expander wizard.

2. Enter a **Name** for the input.
3. The **Module Type**, **Module Address**, and **Module Input** fields should have automatically populated. If these options have not been configured:
 - Set the **Module Type** to **Input (ZX)**.
 - Set the **Module Address** to the Physical Address associated with the Inovonics device that the input belongs to.
 - Set the **Module Input**. For Inovonics pendants, only one input is used, however, if you are using a remote with multiple inputs, the Module Input should be set to the button the input is associated with.



4. Click **Save**.

Programming Trouble Inputs

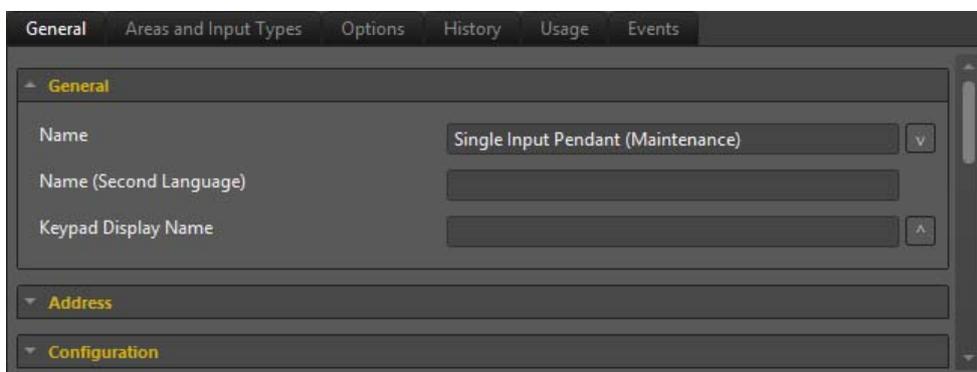
As the integration allows Inovonics devices to mimic Protege input expanders, specific trouble inputs can be created for Inovonics.

The table below outlines the different trouble inputs associated with each device used in the integration.

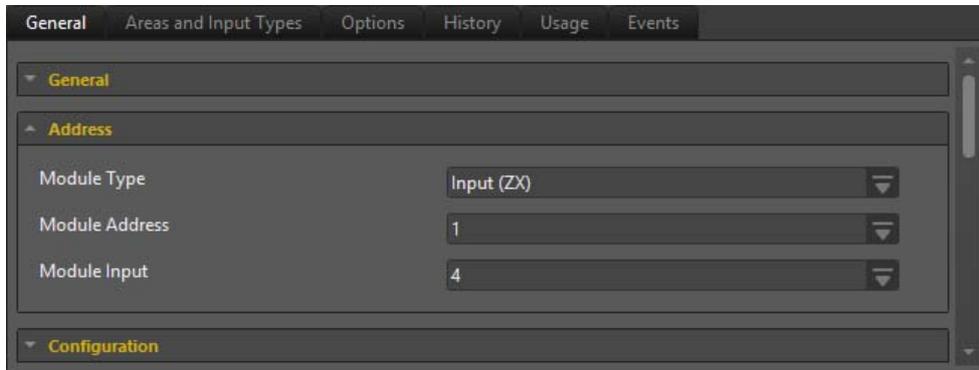
Trouble Type	Number	Single Input Pendant	Window/ Door Transmitter	Repeater	ACG
Tamper	1	Included	Included	Included	Included
EOL Tamper	2	N/A	N/A	N/A	N/A
Low Battery	3	Included	Included	Included	Included
Maintenance	4	Included	Included	Included	Included
Low Signal	5	Included	Included	Included	Included
Reset	6	Included	Included	Included	Included
Configuration	7	N/A	N/A	Included	Included
Power Loss	8	N/A	N/A	Included	Included
Jammed Signal	9	N/A	N/A	Included	Included
CRC Failed	10	N/A	N/A	Included	Included
ACG Firmware Update Failed	11	N/A	N/A	N/A	Included
ACG Shutdown	12	N/A	N/A	N/A	Included
ACG FW Pending	13	N/A	N/A	N/A	Included
ACG IP CRC Invalid	14	N/A	N/A	N/A	Included
ACG Reboot Requested	15	N/A	N/A	N/A	Included

To create the trouble inputs:

1. Navigate to **Programming | Trouble Inputs** and click **Add**.
2. Enter a **Name** for the trouble input. It is recommended that you name the trouble input in a way that enables you to easily identify the specific device and the function of the trouble input.

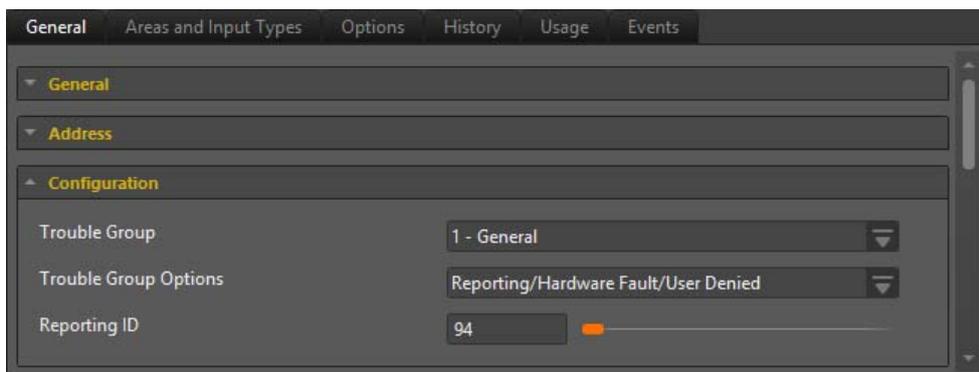


- Set the **Module Type** to **Input (ZX)**.
- Set the **Module Address** to the physical address associated with the Inovonics device that the input belongs to.
- Set the **Module Input** to match the number assigned to the trouble in the table at the beginning of the topic.

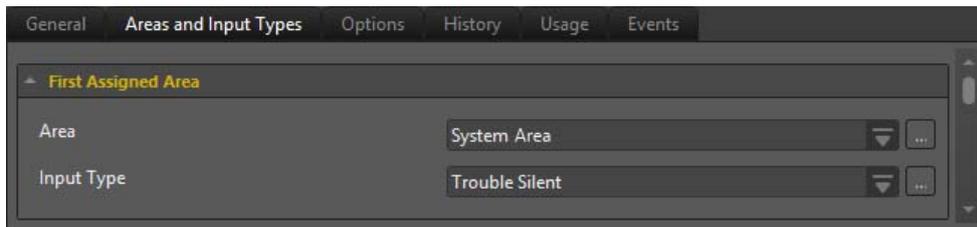


- Set the **Trouble Group** to **1- General**.
- Set the **Trouble Group Options** to the record that is most appropriate for the kind of trouble input. The table below outlines which trouble inputs are associated with the different trouble group options.

Trouble Option Group	Inovonics Trouble Types Associated	Inovonics Trouble Types Associated
AC Failure/ Module Tamper/ Forced Door	Tamper, EOL Tamper	1, 2
Battery/ Module Lost/ Door Left Open	Low Battery	3
Reporting/ Hardware Fault/ User Denied	Maintenance, Low Signal, Reset, Jammed Signal, CRC Failed, ACG Firmware Update Failed, ACG Shutdown, ACG FW Pending, ACG IP CRC Invalid, ACG Reboot Requested	4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15
Power	Power Loss	8



1. Select the **Areas and Input Types** tab.
2. Set the **Area** to your system area. In Protege GX, this is not configured by default.
3. Set the **Input Type** to **Trouble Silent**.



4. Click **Save**.

Configuring IP and Registering Devices to Inovonics Gateway

After programming the Inovonics devices within Protege GX, you also need to register the devices to the Inovonics Gateway in order for it to recognize that the device belongs to the current setup.

1. In Mozilla Firefox, enter the IP Address of the Inovonics Gateway into the URL bar. This is 192.168.60.080 by default.
2. Login with your credentials. The default username and password is Admin.

If you have configured the ACP IP Address before, move forward to step 6.

TX ID	Device Status	Alarm State	Type	Description	Partitions
7260266	Active	✓	EN6080 Receiver	base receiver	
7726887	Active	⚠	EN5040 Repeater	Repeater	
7732243	Active	✓	EN1223S Pendant	second remote	
7732273	Active	✓	EN1223S Pendant	ZX1	
7732277	Active	✓	EN1223S Pendant	fourth remote	
7732290	Active	✓	EN1223S Pendant	ZX4	
7736078	Active	⚠	EN1210W Door/Window	Window	

3. Select the **ACG Setup** tab.
4. Select **IP Administration**. This page enables you to configure the IP Address of the Inovonics ACG. Set the IP Address to match the network you are using for the integration.
5. The ACG should reboot after confirming the changes to the IP Address.
6. Enter the new IP Address into the URL bar and login again with your credentials.

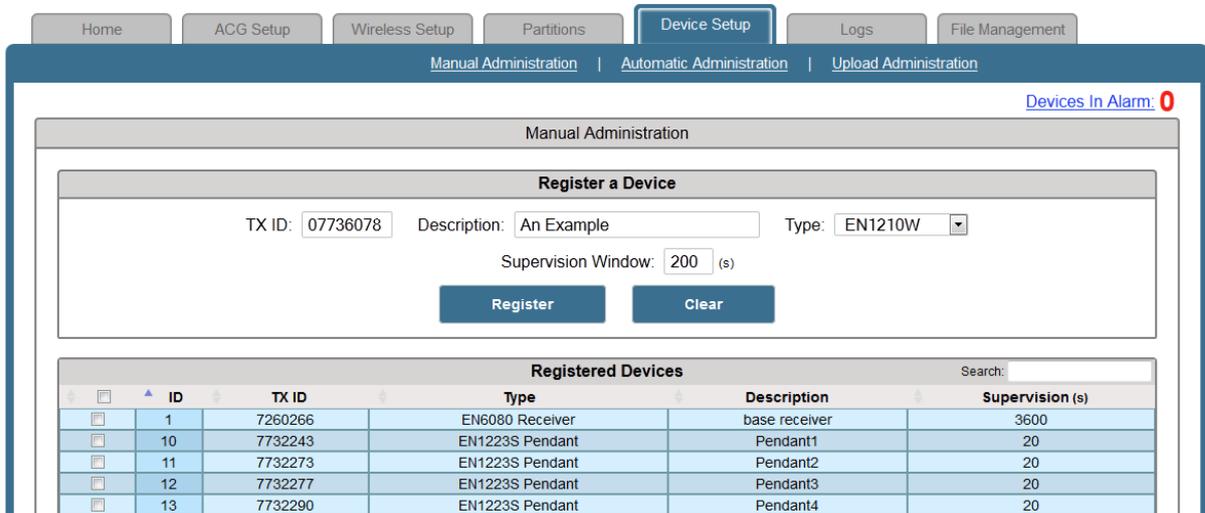
Registering Devices

Using the Inovonics interface you can configure devices manually or you can use the automatic administration feature to register a number of devices simultaneously.

Both methods are outlined in the following topics.

Registering Devices Using Manual Administration

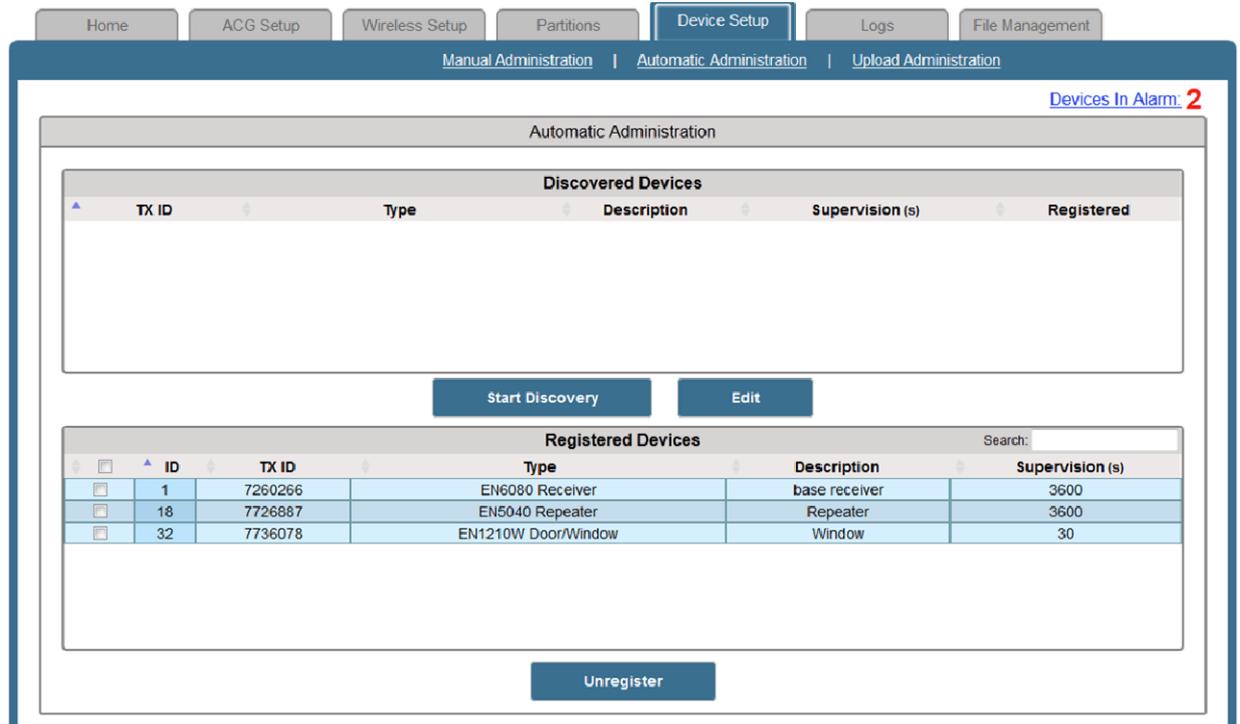
1. Select the **Device Setup** tab.
2. Enter the serial number of the device into the **TX ID** field.
3. Enter a **Description** for the device.
4. Select the **Type** of device you are registering,
5. Set the **Supervision Window** time. The Supervision Window refers to the time that the Gateway expects the device to send a message before being declared offline.



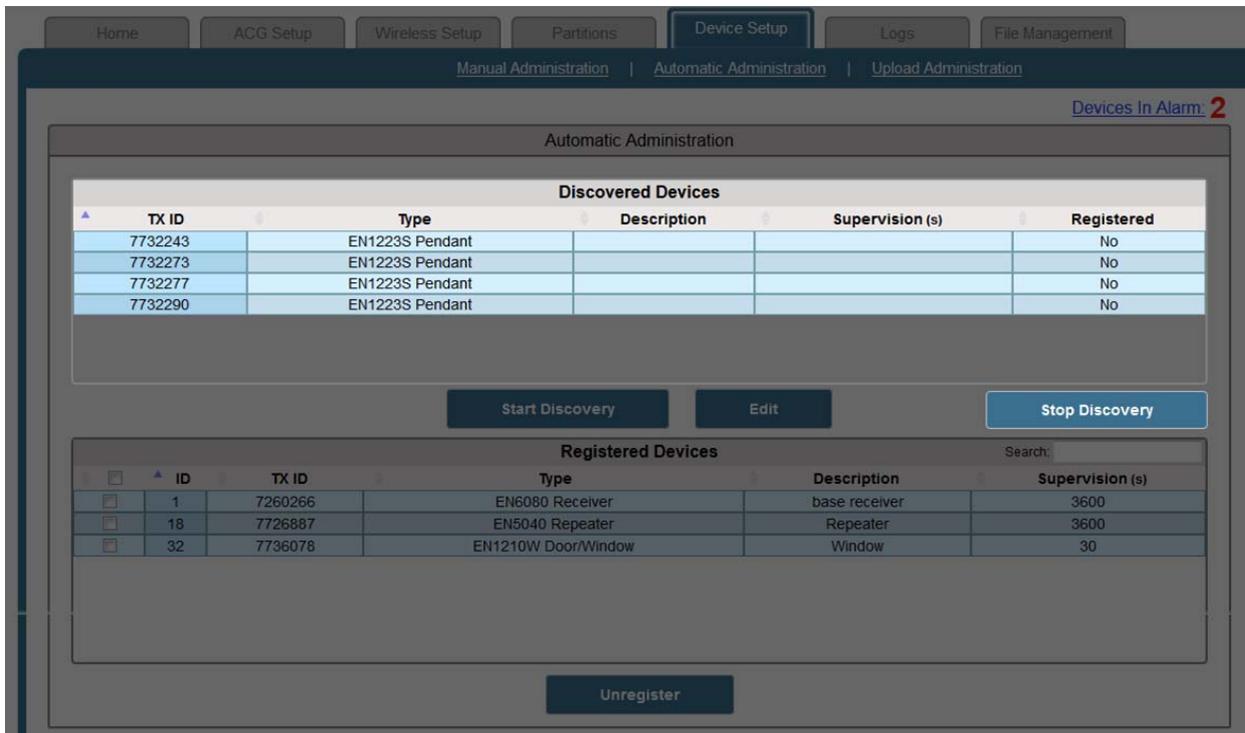
6. Click **Register**.

Registering Devices Using Automatic Administration

1. To automatically register your devices, select **Automatic Registration** under the **Device Setup** tab.
2. Click **Start Discovery**.



3. Any devices found will show up in the list. Click **Stop Discovery**.



- Highlight the devices that are not registered and click **Edit** to add the **Descriptions** and the **Supervision** window time for each device. By default, most wireless devices send a polling signal every 180 seconds. It is recommended that Supervision window is set to 2.2 X the poll time (396 seconds).

The Supervision Window refers to the time that the Gateway expects the module send a message before being declared offline.

- Click **Register**.

The screenshot shows the 'Device Setup' interface with the 'Automatic Administration' tab selected. At the top right, it indicates 'Devices In Alarm: 2'. The interface is divided into two main sections: 'Discovered Devices' and 'Registered Devices'.

Discovered Devices Table:

TX ID	Type	Description	Supervision (s)	Registered
7732243	EN1223S Pendant	Pendent 2	100	Yes
7732273	EN1223S Pendant	Pendent 1	3600	Yes
7732277	EN1223S Pendant	Pendent 3	20	Yes
7732290	EN1223S Pendant	Pendent 4	60	Yes

Buttons: Start Discovery, Edit

Registered Devices Table:

ID	TX ID	Type	Description	Supervision (s)
1	7260266	EN6080 Receiver	base receiver	3600
18	7726887	EN5040 Repeater	Repeater	3600
32	7736078	EN1210W Door/Window	Window	30
36	7732243	EN1223S Pendant	Pendent 2	100
37	7732273	EN1223S Pendant	Pendent 1	3600
38	7732277	EN1223S Pendant	Pendent 3	20
39	7732290	EN1223S Pendant	Pendent 4	60

Buttons: Unregister

Contact

Integrated Control Technology welcomes all feedback.

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