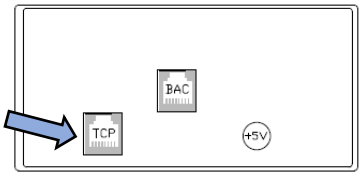
LightLEEDer InSite BACnet Interface
Setup and Configuration

The LightLEEDer InSite BACnet-IP Interface will allow the InSite software to communicate current status and control of 750 InSite control points configured for InSite Groups, InSite Presets or an InSite Sequences using a BACnet-IP Interface. The device can be located at the computer running Insite or any convienient location on the user network.

The LLInSite BACnet-IP Interface is provided with a 5VDC wall power supply and two RJ-45 ports for IP network connections. One for TCP-IP port for the ILC InSite computer and one BACnet-IP port for the Building Automation System BACnet network. Visible from the front of the device are 5 LED status lights. From left to right are Power, InSite: Receive RX, Transmitt TX, BACnet: Receive RX, Transmit TX.

When setting up the device, the IP address must be set for both ports on the LLInSite BACnet-IP Interface and in the Insite Config file for the devices to communicate.
The Default settings for the two ports are **192.168.1.25** for the TCP-IP (Lantronics X-Port) and **192.168.1.24** for the BACnet-IP (SMC Sierra Monitor port)

Setting up the TCP-IP port:
This port is located in the lower left corner and is used for comunicating to the LLInSite software.



Connect a CAT-5 network cable to the TCI-IP port - open a browser and type in the default IP adress for the Lantronics device as shown in Figure 1 (IP port: **192.168.1.25** , Subnet: **255.255.255.0**)
Note: The computer will need to be set for the same subnet and a IP within the device range.

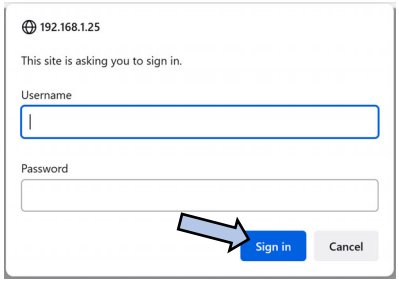


Figure 1 - TC-IP connection screen

No Username or password is set as default – so just click on "Sign in". A User Name and Password can be set later if desired.

From the Lantronics Home screen you will see device status as shown in Figure 2

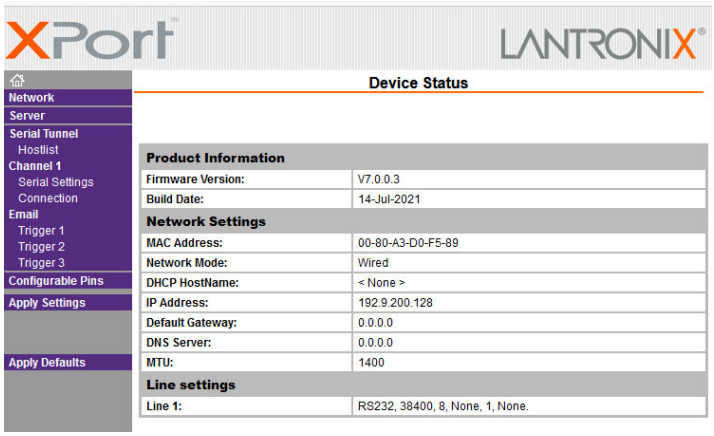


Figure 2 – Home Screen

From the left menu, click on "**Network**" as shown in Figure 3. On this screen set the desired IP Address and Subnet for the project.
In my example I have set the device **IP Address** to: **192.9.200.128** , Subnet: **255.255.255.0**
Click on "**OK**" to save in software and "**Apply Settings**" to send to the module.

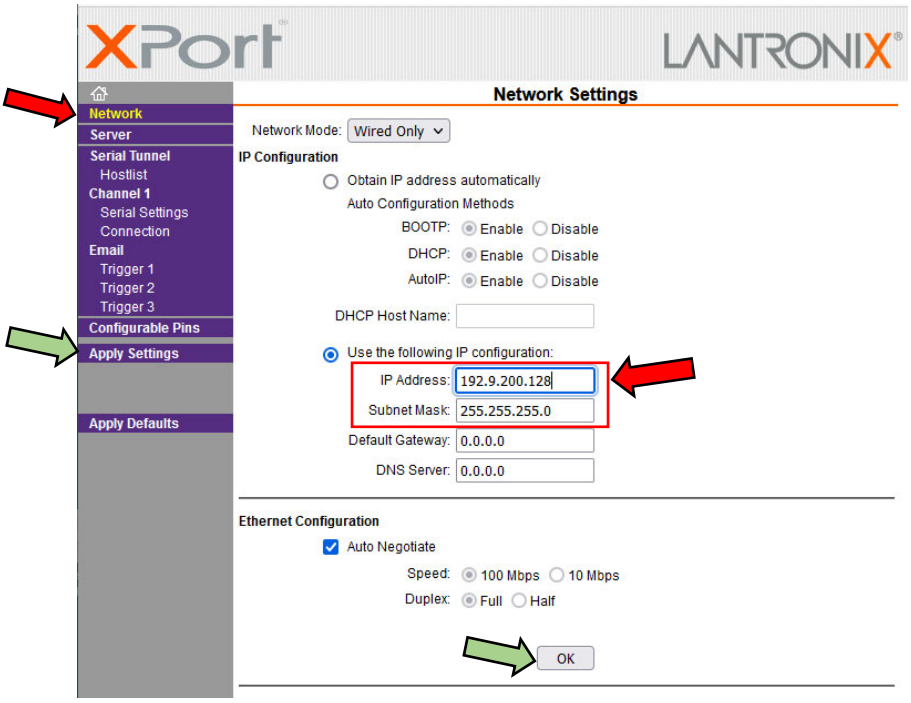


Figure 3 – IP Setting

You will see a progress status screen and be promted to reconnect to the new IP address/Subnet.

After reconnecting, go to the Connection Settings screen by selecting "**Connection**" from the menu

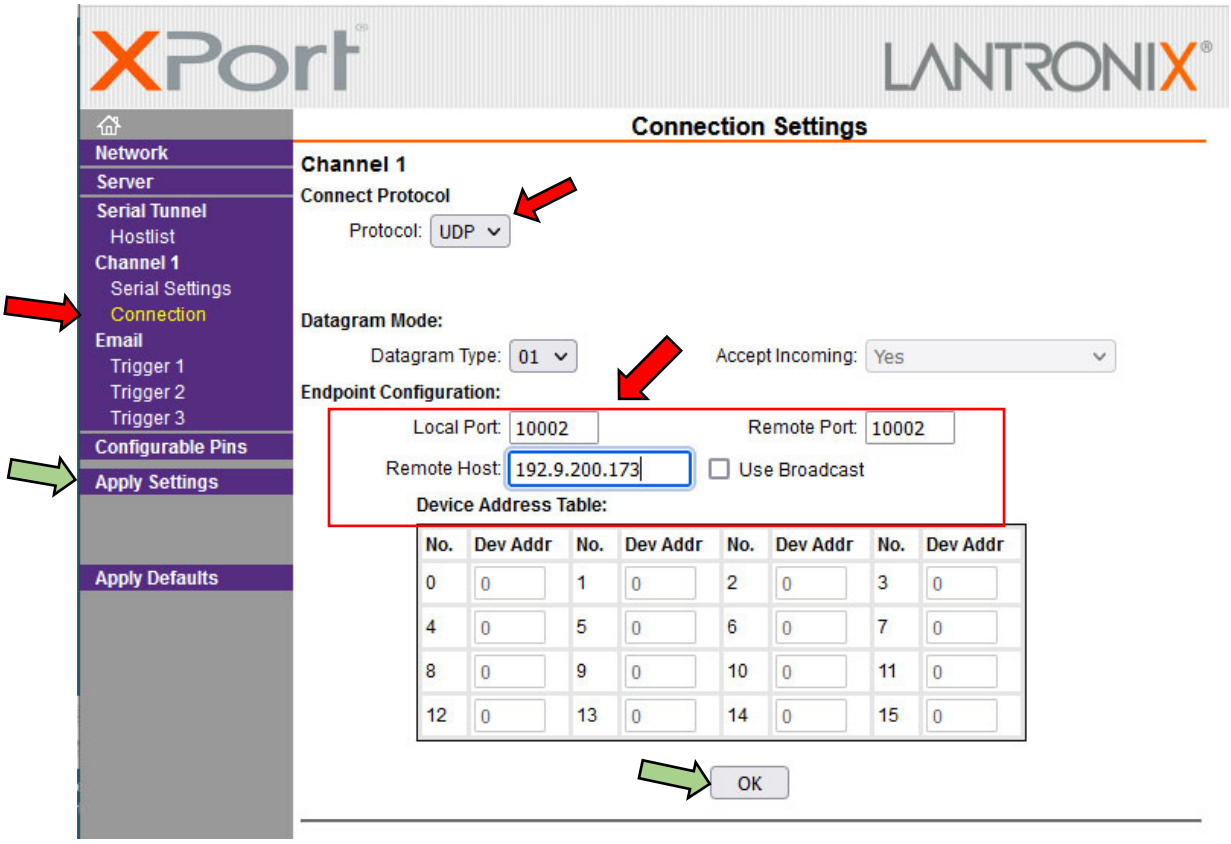


Figure 4 – Connection Settings

From the Connection screen shown in Figure 4, set the connection protocol to "**UDP**" and "**Remote Host**" for the computer that is running the LLInSite software. For this example I have entered the computer IP remote host address of: **192.9.200.173** for my InSite Computer. You will also need to set the Local Port number to match the setting in LLInSite configuration (Port: **10002**) as shown in figure 7.

Click on "**OK**" to save in software and "**Apply Settings**" to send to the module.

Setting Up the BACnet-IP Port:

The BACnet-IP port is located in the middle of the module for the SMC BACnet-IP comunication.
Open a browser and search the default address of: **192.168.1.24** on Subnet: **255.255.255.0**
Note: The computer will need to be set for the same subnet and IP within the device range.
Original models shipped befor April of 2023 did not offer HTTPS security and proceed as discribed in Figure 5. For models with the upgraded security password options, see the sections starting at Figure 7.

When connected the SMC home screen should displas as shown in Figure 5

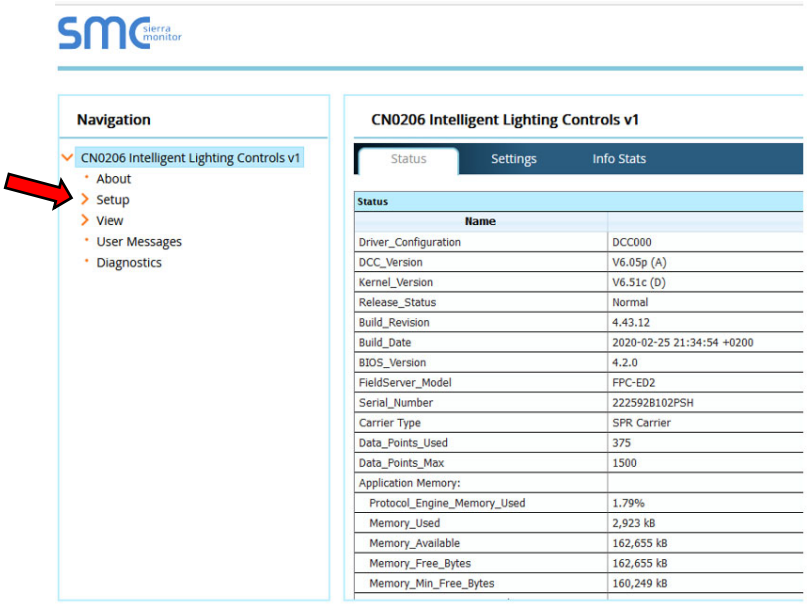


Figure 5 – SMC Home screen

From the left meneu click on "**Setup**", and then select "**Network Settings**"

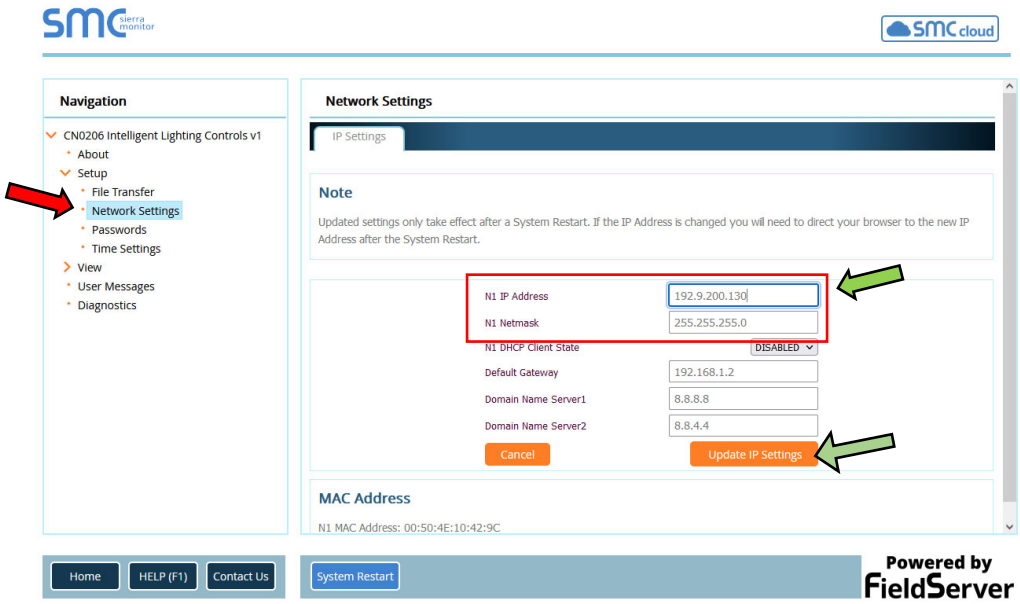


Figure 6 – Network Settings

On the Network Setting screen enter the desired IP address and Subnet for the BACnet-IP device, and then click on "**Update IP Settings**" as shown in Figure 6

For New BACnet-IP modules with a MSA-Fieldserver GUI web server for the BACnet-IP port, this module will support HTTPS security with SSL/TLS certification.

When connecting to the module with a browser you will see Figure 7 for basic set up use the HTTP setting option. HTTPS setting that will need to be configured by the building IP security administrator. For basic operation and set up connection during a system start-up you can select "**Continue with HTTP**" to use the HTTP non secure connection.

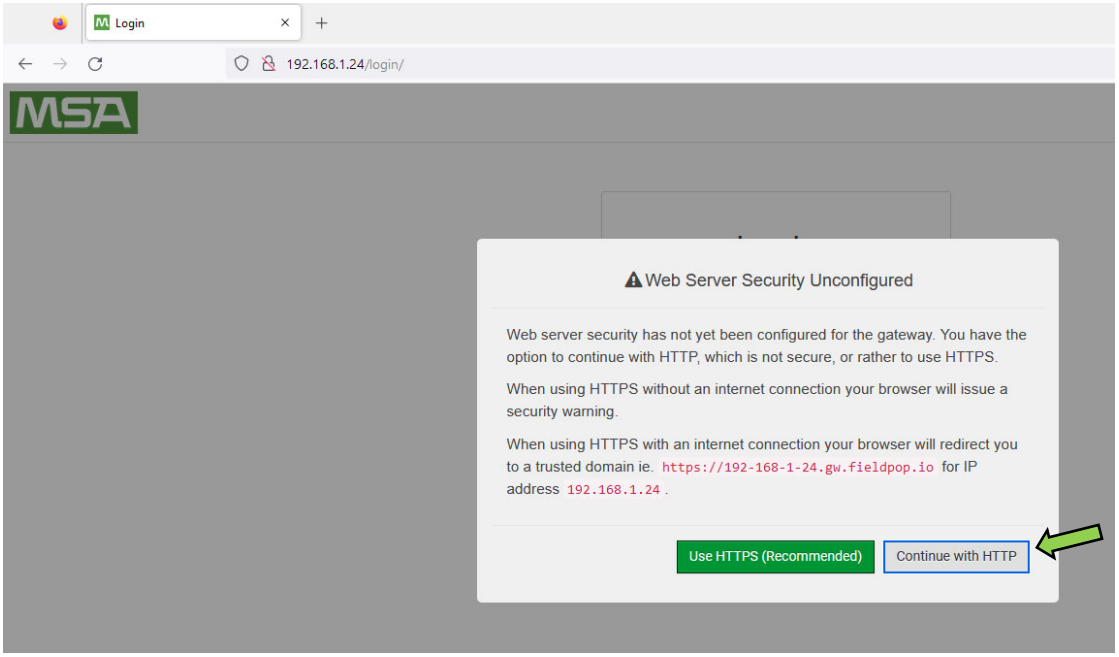


Figure 7 – MSA Web Server Security Selection

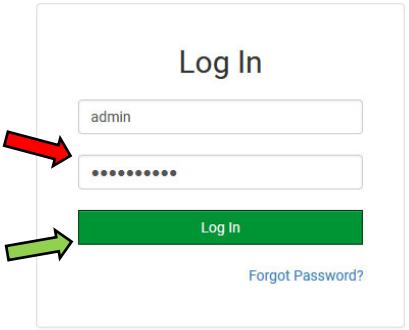


Figure 8 – Log In

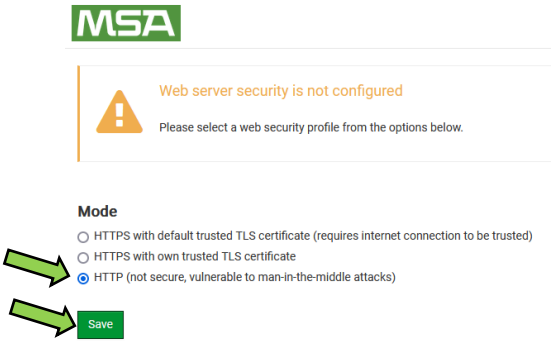


Figure 9 – MSA Security Conformation

After entering "admin" and the Default **Password** as shown in Figure 8 , click on **Log In**. The next page allows you to continue with HTTP or go back to setting up the HTTPS options as shown in Figure 9, select "**HPTTP**" and then "**Save**".

You will now have access to the Navigation screen as shown in Figure 10, and can change the network settings as needed for the interface and then select "**Save**".

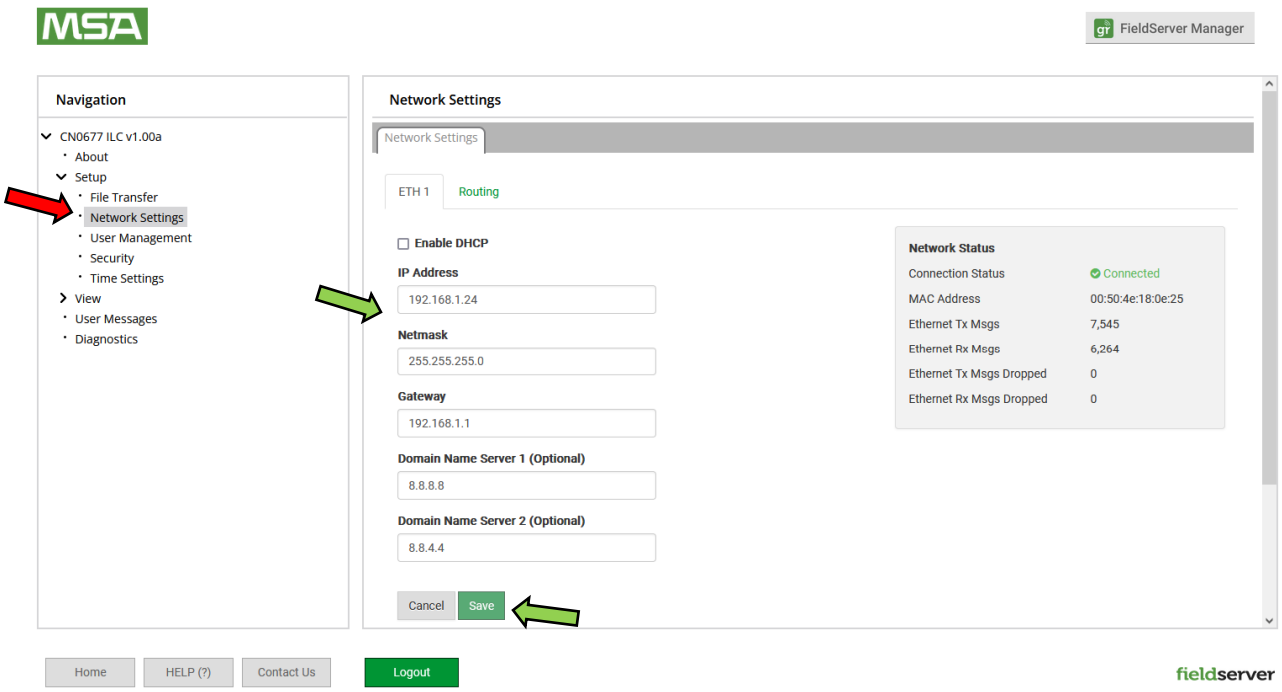


Figure 10 – Network Settings

Note: that Saving an IP Setting change takes effect immediately and the browser will lose connection to the device. Reconnect to the New IP address setting in the same manner as shown above to continue. For netork connections where the HTTPS Security is required refer to FieldSafe Secure FieldServer Web Server Setup and User Management Instructions by MSA.

For my example I have set the BACnet-IP address: **192.9.200.130** and Subnet: **255.255.255.0**.
Note: The SMC Sierra Moniter BACNet-IP interface device is pre-loaded with a internal configuration file by ILC. If name changes are required to the point mapping then they can be edited in a "Config.cvs" file format, consult ILC for assistance on using the "File Transfer" operation.

Configuring the LLInSite BACnet Interface in the InSite software:
Open the "ILC-MN ConfigEdit" software and enter the Interface device IP address and the port number that you have entered in the Lantronics Xport TCP-IP port in Figure 3. Enter this into the ConfigEdit screen in this format: **192.9.200.173:10002**

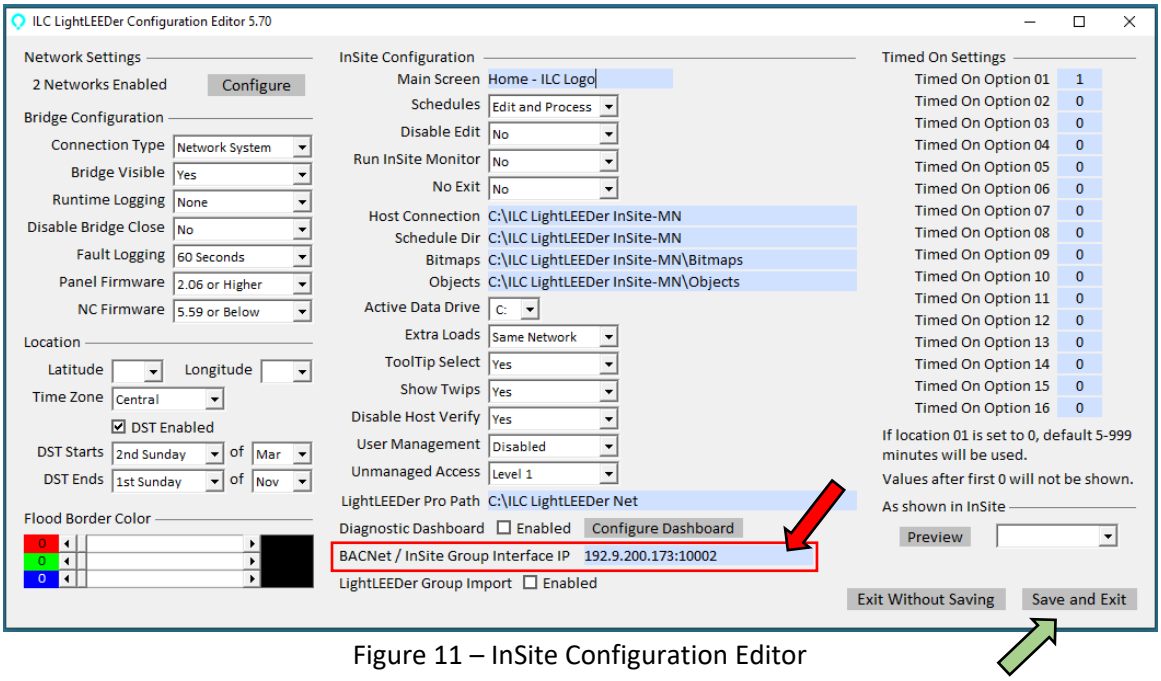


Figure 11 – InSite Configuration Editor

When completed click on "**Save And Exit**"

Navigating to the InSite Groups and BACnet Control Points:

After opening InSite, from the menu bar select the Edit, and then open "**Edit InSite Groups**" or "**Edit BACnet Control Points**"

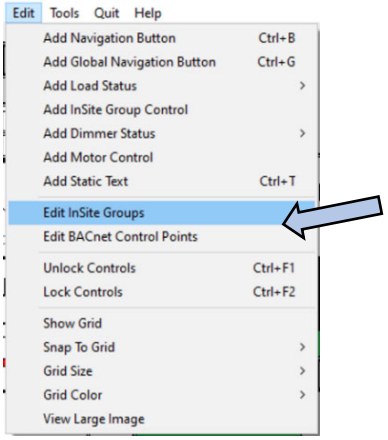
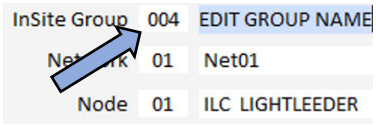


Figure 12 – Edit Menu

Editing an InSite Group:

This screen allows the user to configure each of the 750 InSite Group control points. Select the **InSite Group** to be edited, from group 1 to 750 (Figure 13). Then select the **Network** of panels to be included, from Net01 to Net32 (Figure 14). Then select the LightLEEDer panel **Node** within the network, from Node 01 to FE (Figure 15). Then you can select the relay to be included in this InSite Group (Figure 17). The final InSite Group configuration can include multiple relays per panel, in multiple panel nodes and within multiple networks at the same time.

Left Click one of the 3 white option boxes to get a selection dialog box for each category, you can also Right Click on each option box to get a full screen selection window.



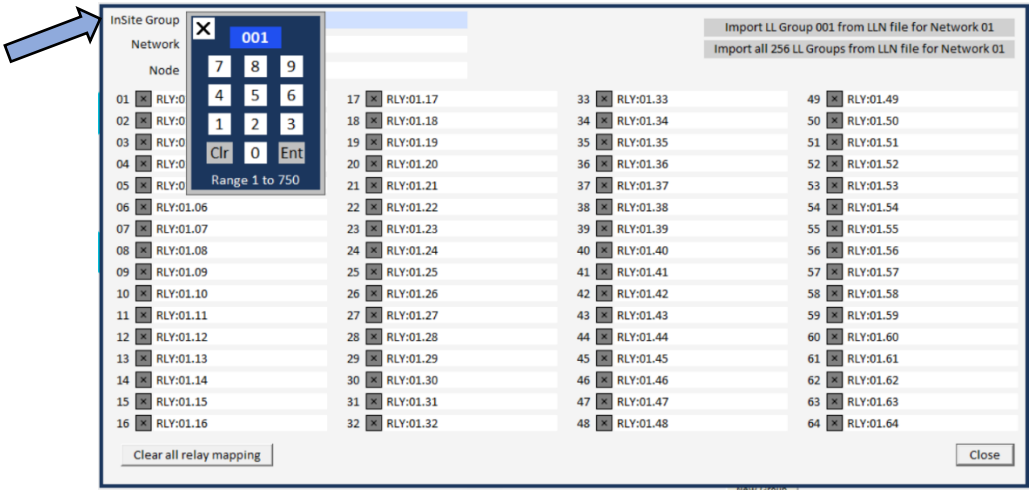


Figure 13 - Select InSite Group

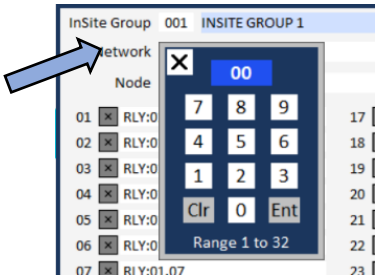


Figure 14 - Select the Network

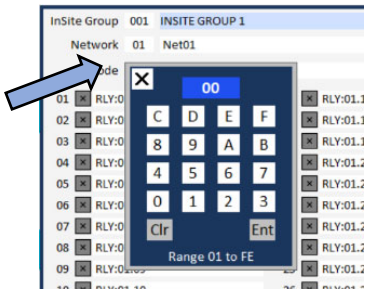


Figure 15 - Select the LL Panel Node

The InSite Group name can be edited in this filed by typing in the blue dialog box as shown in Figure 16.

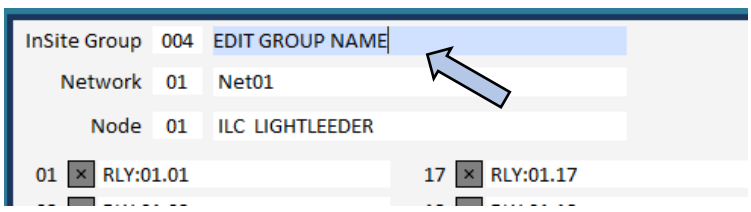


Figure 16 – Edit Group Name

Select the relay(s) to be included in the group as shown in Figure 17.

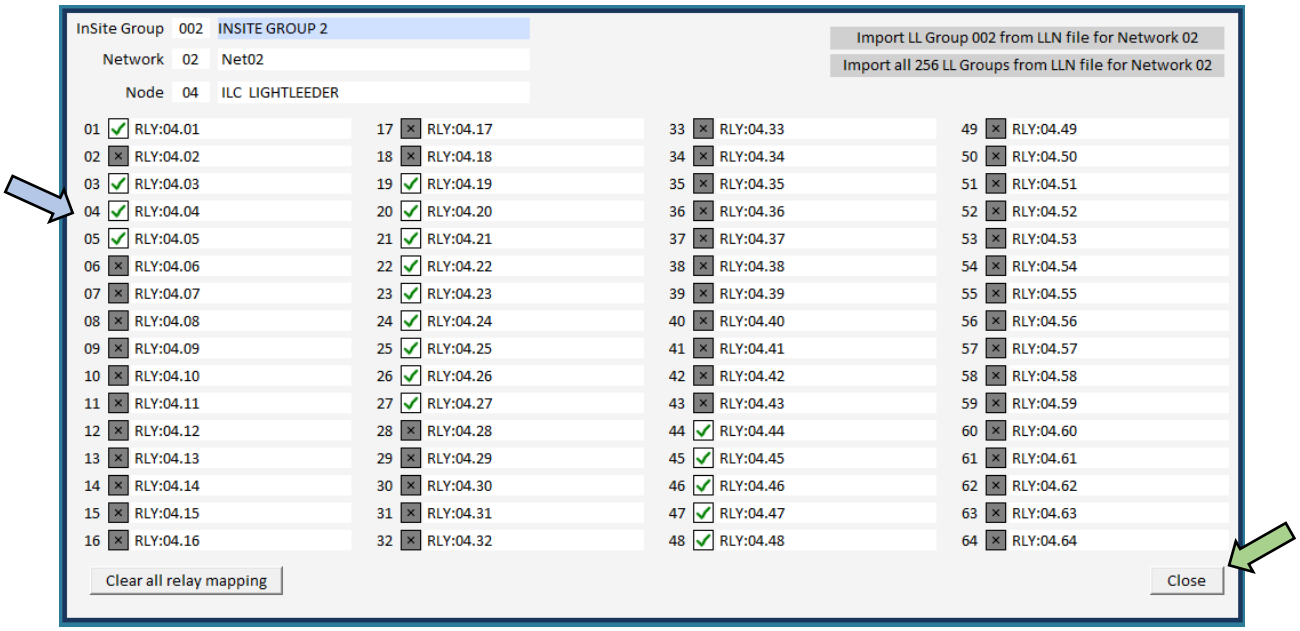


Figure 17 - Select Relays

After selecting a relay you can use "Shift" to select multiple relays across and down the field to repeate the last include ☑ or not included ☒ selection.

The "**Clear all relay mapping**" button shown in Figure 18 is used to clear the current InSite Group's relay control selections, resetting all relays to not included ☒.
Note: It will not affect the other InSite Group's relay mapping.

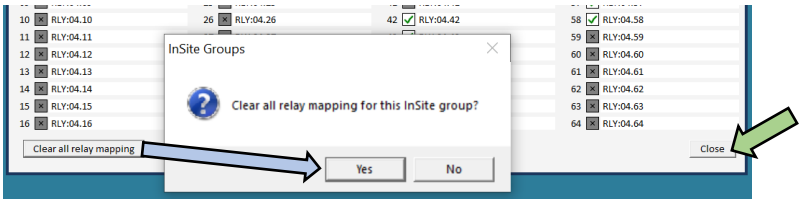


Figure 18 – Clear All Relay Mapping

Once your InSite Groups are created click "**Close**" to save and exit.
To import the LightLEEDer Group relay control settings into an InSite groups for the BACnet-IP interface there are two options buttons that are found on the upper right corner of the Edit BACnet-IP Control Points screen as shown in figure 19.

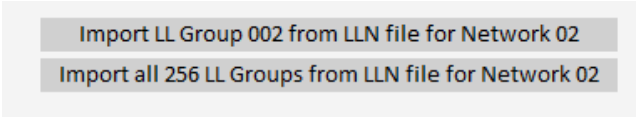


Figure 19 – Import LL Groups

To import the LightLEEDer Group control settings from the .LLN file, select the matching InSite Group (Figure 9), then select the Network (Figure 10) to Import from, then click on the Import LL Group button. A dialog box will appear, click Yes to Import the LL Group for all panel nodes in the selected network.
To import all 256 LightLEEDer Groups control settings from the .LLN file, select the Network(Figure 10), then click on the Import all 256 LL Groups button. A dialog box will appear, click Yes.
This process can be repeated for each Network to build a matching LL Group configuration in InSite.
ILC recommends that control points 1 to 256 be reserved for Groups to allow all 256 panel groups to be matched up to the InSite groups using this method.

Editing BACnet-IP Control Points:
From the **Edit** menu select the "**Edit BACnet Control Points**" as shown in Figure 8. On this screen you can "Click to toggle" the InSite control option type for each BACnet control point.
The Options are: InSite Group, InSite Preset, or InSite Sequence as shown in Figure 20.

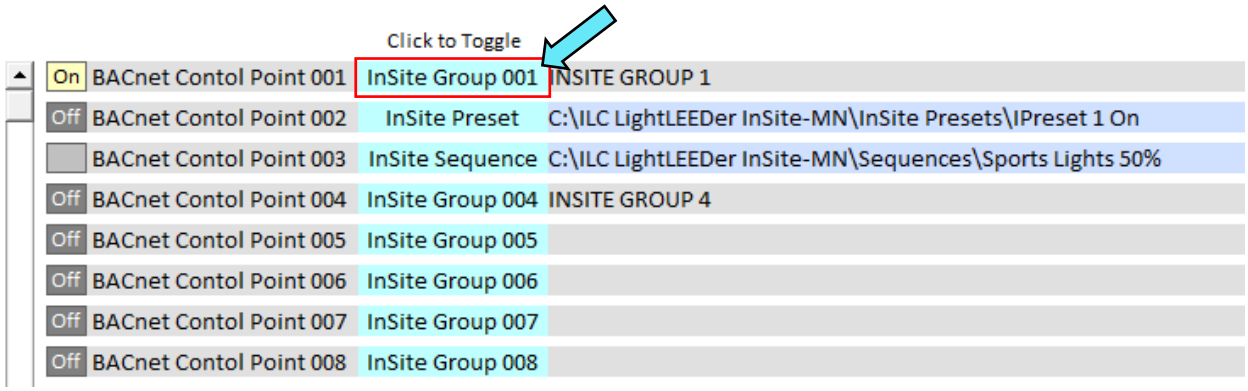


Figure 20 – Toggling the InSite Control Point Type

When toggling to InSite Preset or InSite Sequence, you can **Click** on the blank blue selection line for a navigation window to the existing InSite Presets or InSite Sequences folder as shown in Figure 21.

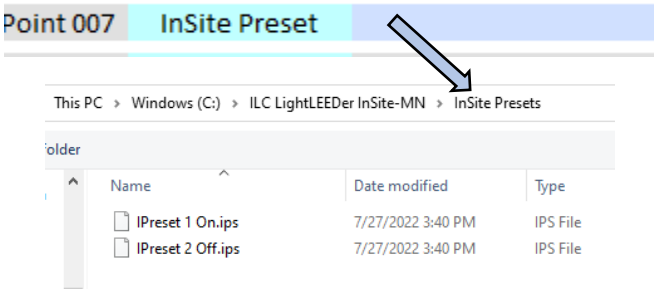


Figure 21 – Selecting the Preset or Sequence

Export to CSV File:

On the bottom right of Edit BACnet Control Points screen there is a button to "**Export mapping to CSV file**" when selected a dialog box will appear giving you the location the file will be exported to after clicking "**OK**" as shown in Figure 22.

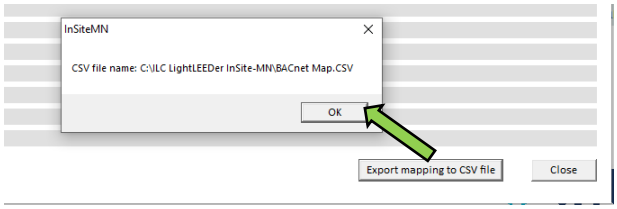
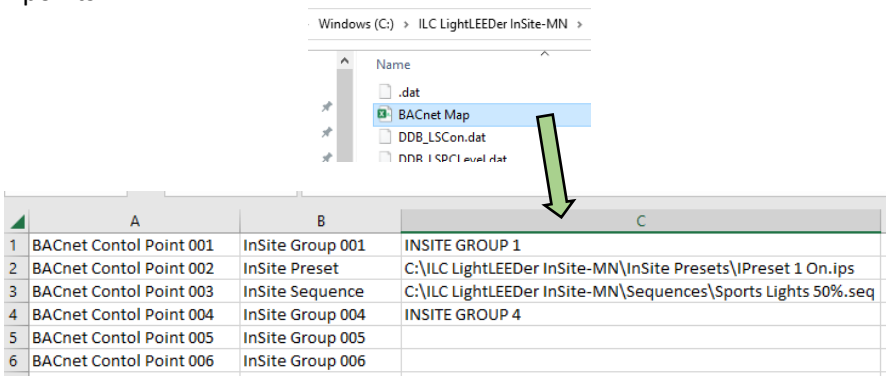


Figure 22 – Exporting the CSV file

This CSV file can be used to generate a final InSite BACnet-IP point map document as shown in Figure 23. This can be used by the InSite operator and the Building Automation System operator for integrating the InSite BACnet-IP points.



	A	B	C
1	BACnet Contol Point 001	InSite Group 001	INSITE GROUP 1
2	BACnet Contol Point 002	InSite Preset	C:\ILC LightLEEDer InSite-MN\InSite Presets\IPreset 1 On.ips
3	BACnet Contol Point 003	InSite Sequence	C:\ILC LightLEEDer InSite-MN\Sequences\Sports Lights 50%.seq
4	BACnet Contol Point 004	InSite Group 004	INSITE GROUP 4
5	BACnet Contol Point 005	InSite Group 005	
6	BACnet Contol Point 006	InSite Group 006	

Figure 23 – Final Point Map Document

After you are done configuring the InSite BACnet-IP control points click "**Close**" to exit and save.

Figure 24 – Close to Exit and Save