Lynxus Gateway/Switch App
User Guide

CN Version 1.01
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Revision History

Version	Date	Author	Descriptions
1.0	3/2017	QiYun Zheng	Draft to release
1.0.1	4/10/2017	Jake Wang	Minor updates
1.0.1	8/4/2018	G. Culbert	Minor Updates

Contents

Definitions

- **Controller Device** – A wireless controlling device, and it can be a wireless dimming adaptor, a wireless dimmer switch, or a sensor. A controller can be a composite device that provides multiple types of functions. For e.g., one Lynxus ZBA-E controller is able to present as a lighting device and also a sensor device in a Zigbee network.
- **(LAC) Lynxus Area Controller** – A device that forms and manages the wireless network, and also is responsible for bridging the device communication across different networks.
- **OTA** – Acronym for "Over the Air", and it specifically means the controller device's firmware update.
- **DFU** – Acronym for "Device Firmware Update" and it means the (LAC) firmware update.
- **Identify** – Identify means to put a device into an Identification mode.
- **Tap** – Press down on an Icon to access menu.
- **Click** – Quickly *click* the icon to access information.
- **Node** – A device controlled within the network.
- **Device** – Any Controlled Device within a network.
- **Area** – A group of devices meant to be controlled under a single command.
- **Scene** – An assignment of a group which can be placed into the schedule.
- **Commissioning** – To bring a device into the network.

1. Gateway Connection

Wi-FI

Prior to logging onto the Lynxus App you must first power up the gateway to transmission mode. This will take approx. 1 minute after power up. The bottom light should change from blinking to steady once Wi-Fi has been established.

Once transmission is set you will need to log on to your tablet or device, enter settings, connections, WiFi.

In the dropdown in Wi-Fi you will find the corresponding connection to the Lynxus gateway. This information is found on the back of the gateway. The **last 6 numbers in the serial number** will be the last **"6"** characters following **Lynxus_ZGW**.

In this case **Lynxus_ZGW-553B62.**

Tap the corresponding WI-Fi signal to establish connection with the gateway.

Password

You will be prompted for a **Password.** Now we will use the last **"8"** characters in the same serial number. In this case **79553B62**. You can change this later.

Enter **79553B62**, check the desired boxes and you can log on to the Lynxus App.

Once you connect you may receive a series of notification, "Wi-FI Connected, No Internet Connection." These notifications are determined by your current router connection. You may exit the interface now and open the LynxPro App.

2. App Log In

Make sure (LAC) is plugged in and operational, giving it 30 seconds to find a network signal. Download and install the app on any **Android** device. After installing the app, *click* the icon to access the login page. Enter the user name and password and *click* on **"login."**

2. This will bring you to the **Menu Page** where you will access groups, scenes, devices, schedules, statistics and settings as well as the home page for messages and device reference.

3. From the **Settings** tab, under **Connection Management** *click* **"Connect to (LAC)"** to interface the (LAC) and App. This will take a few seconds and bring you back to the Menu page.

## 3. Commissioning Devices/Equipment to the Network

Devices are individual *drivers*, *modules*, *switches* and *adapters* referred to as **control nodes,** these will join the network to be placed in groups and engaged in a scene. Commissioning a device is the first step in creating a controllable environment. When you add a device you are merely communicating to the (LAC) that there is an apparatus which is ready and able to communicate back and forth. You will not want to enact the device itself, rather, all of your devices will be placed into a group and ultimately into a scene. Though you can control a device separate from the group or scene, its settings within the group or scene will remain at the initial programmed setting. It is important to rename and place a description on each device for future reference in the subsequent group and scene settings.

1. From the **Settings Tab** under **Permit join control** *click* **"Add new devices."** This will bring you to the **Learn New Device** page.

Note: You can also *click* the **"Device"** tab and *click* **"+"** to achieve the same result.

2. *Click* **"Start Learn"** to begin the commissioning process. Each Control Node will blink when connecting to the network and the number of devices will be populated in the Joined Devices column. It is not necessary to let the process finish once all nodes are connected. You may *click* **"Stop Learning"** at any time in the process.

When simply adding a switch or additional nodes to the existing network, these may be commissioned quickly depending on the network size.
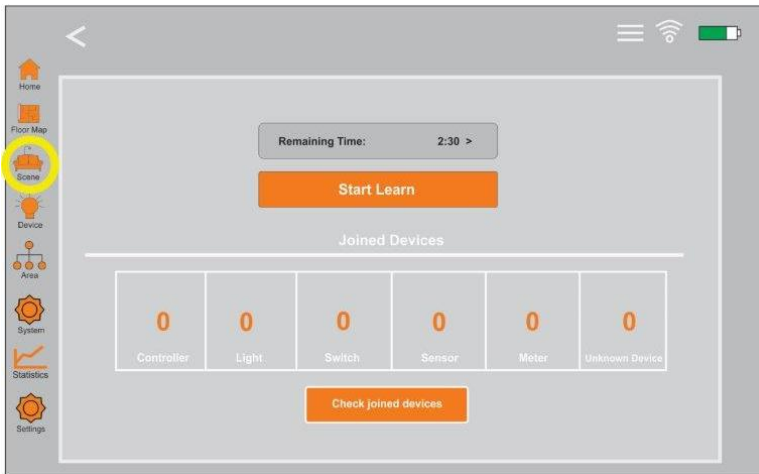

3. When finished, *click* **"Check joined devices"** to view established connections or you can observe them by *clicking* the **"Devices"** tab. The nodes listed have successfully joined the network equipment and are ready to be Renamed, Described and put into use.

Note: Since each device applies a different random numerical name upon commissioning, renaming will be helpful in future tasks. As the number of devices grows, you will want to be aware of each location and description of previous strategies. As your groups and scenes develop this information will be even more useful.

*** Just as in any programming, the work you put into the initial setup will make future encoding easier.

Note: The App operation consists of four levels that are addressed separately yet operate as a whole. **Device, Area, Schedule** and **Scene.** Once a **Learn** is preformed, the found objects become a **Device**. Once you have identified your devices, they can be placed in an **Area**. *"An area can contain a single device or multiple devices".* Once you have an area, it can be brought into a **Scene**. "*A scene can only contain an area, not devices".* Once you have your areas placed into a scene you can place your scene into a **Schedule**. *"The schedule can only contain a scene, not a areas or a devices".*
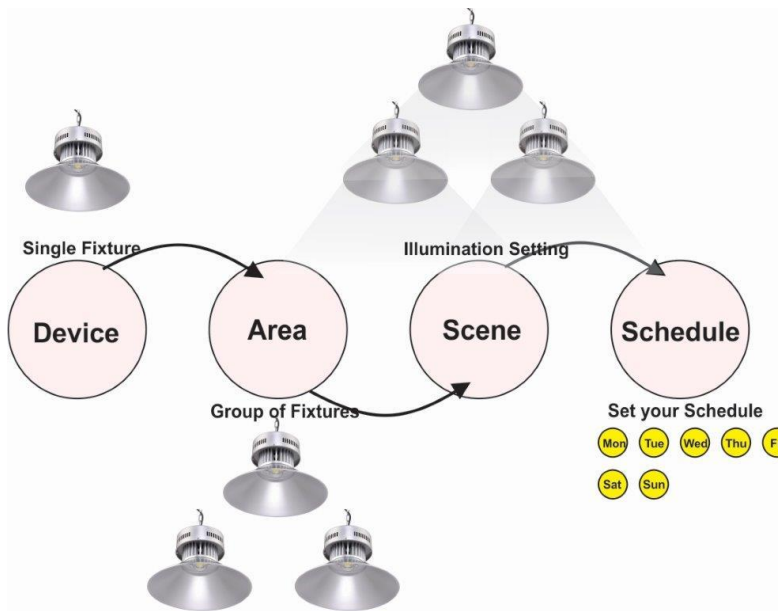
4. Device Operation

Devices are the Control Nodes that have been joined to the network. When you *click* the Device tab, this allows you to change the device name and properties. Whether it be an individual switch, fixture or group, the device setting will give you separate control of each.

1. From the **Device** tab you can view and control each commissioned unit separately by *pressing* on the individual control.

Note: Addressing each device separately prior to moving on to the next alleviates future confusion.

Note: You will want to identify the device prior to any changes. Don't assume anything otherwise you may be grouping or creating scenes out of sequence. Always identify which light you are working with.
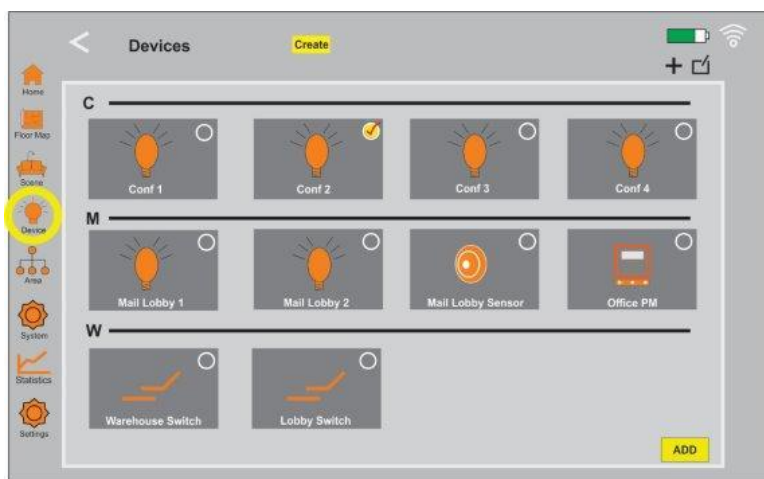
1. *Tap* the **Device** menu and press on the individual device to **name,** enter a **description,** change the **icon** if necessary and set the **Light Control**. This is where the features of the individual devices are

set. They can be changed or edited at any time by simply reentering the **Device** menu and pressing on the device.
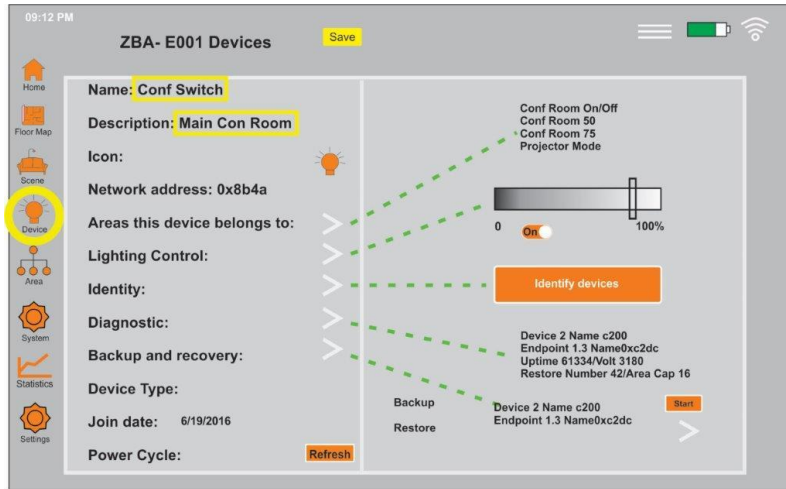
Newly commissioned devices will appear. You may notice additional units such as switches and sensors which were unexpected. These are not devices, only additional ports within the modules which haven't been utilized. Example. A single device may contain Power Meter, Sensor and CCT yet is only configured as a single fixture.

3. For a quick change of **color** or **light intensity** it is not necessary to enter the device menu. Simply *click* on the device tab and *click* on an individual device icon for on/off, output level, RGB and color temperature. You can switch between the RGB and color temperature by *clicking* "**Switch the RGB mode**" at the lower left corner of the control box.

Note: If the device is in a Group, **Groups this device belongs to** will identify the group or groups associated with this device.

Add or Remove Device:

To add a newly commissioned device or remove an existing device, *click* **"Device"** tab and *click* **"+"** to add or the edit icon ⤢**"** to remove, at the top right corner of the screen.

1. Select the devices you wish to add or remove using the orange check marked circle, and *click* **"Add"** or **"Remove"** in the lower right hand side of the screen to complete the process. You will be prompted to confirm removal.

5. Creating New Area

Areas will be created to configure future scenes. You cannot create a scene out of individual devices, only through areas. The area can contain anywhere between 1 and 200 control nodes at varying levels and colors. Additionally, the areas can be controlled independently or through the scene.

1. *Click* the **"Area"** tab to create a new area and *click* the **"+"** located at the top right corner of the Area page. This will take you to the **device** interface where you will click the devices you wish to add to your new area.

2. *Click* **"Devices in this area",** then *click* the **"+"** at the upper right corner of the screen to add the new devices to your area.

3. From here you can add devices to your area by marking the circle, then *click* **"Add"** at the lower right hand corner of the screen and you area will be stored and visible on the right side.
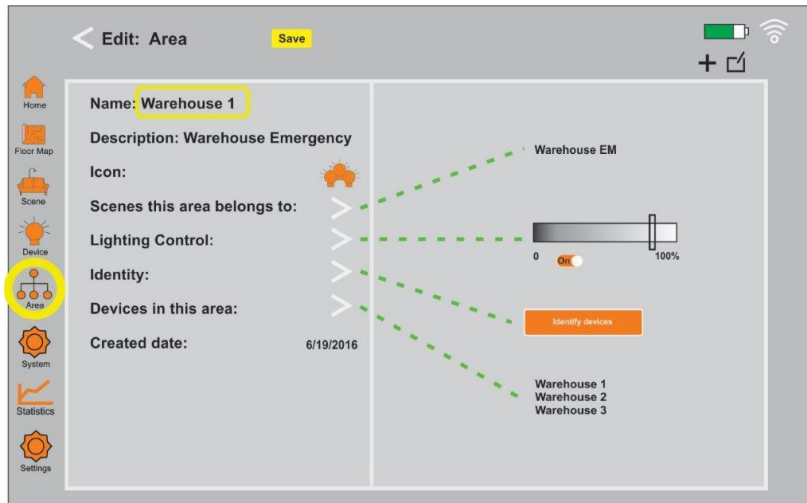
4. Once you are finished editing the details and adding devices for your new area, *click* on the orange **"Create"** button to complete creation. You will notice he individual devices added under the right hand section, "**Devices to be added."**

The **"Area"** tab will now display your newly created area.

Note: An **"Area"** is constantly changing and has no effect on the current scenes. **You will change an area many times to create new scenes.** The area only exists to hold devices and program a scene. *The scene is the actual control of the system.*

Modifying Areas:

Under the **"Area"** tab you will be able to view details for each area. This menu allows you to turn it on/off as well as modify output and color temperature *Press* the **Area** icon to view/edit details for that area.

1. *Click* **Area** tab and *press* on the **"Area"** you wish to edit.

From here you can add or remove devices by choosing the **"Devices in this area"** tab.

Note: In the Area Menu you can change name, description, and light control along with adding or removal of fixtures by using **"+ or ⌧."**

2. To remove areas, select the area you wish to remove with the orange check marked circle, and *click* **"Remove"** to complete the process. You will be prompted to complete.

Once you done editing, *click* **"Save"** to retain your settings.

6. Creating New Scenes

Scenes are the "user experience" in control systems. This is where you may set every condition to your system. On/Off, color, intensity, singular to group light control are all developed in **"Scenes"** tab.

1. *Click* the **"Scene"** tab to create a new scene and *click* the **"+"** located at the top right corner of the Scene page. This will take you to the interface.

Note: Just as with areas and devices, you want to name and describe your scene completely for future reference.

2. Once you have selected the areas you would like to add to the scene, *click* **"Add"** at the lower right corner of the screen to complete the process.
3. When you are done with your changes, *click* **"Store Scene"** and then **"Create"** to complete creation.
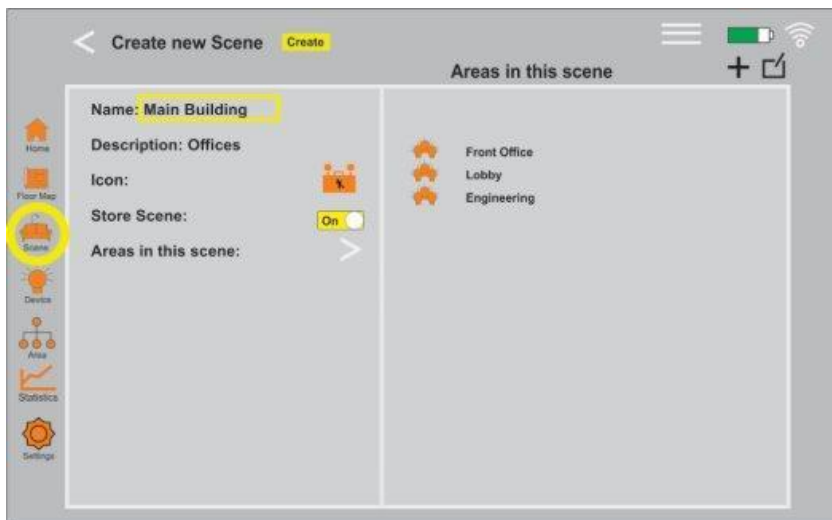
The **"Scene"** tab will display all successfully created scenes.

Note: You must create a scene for every event you wish to occur. I you want to have *"All lights on"* you must have a scene containing an area with all of the devices turned on. Contrary, if you wish to have *"All lights off"* return to the same area, turn the area off through "light control," name and save. Now you can create a new scene with the area.

****The schedule only programs an event. When you place a scene into the schedule you have created an event.

Modify Scenes:

The **"Scene"** can be modified in the same way as the **"Areas."** The **"Scenes"** tab will retain the original version and you may return to this at any time to modify the scene by adding or subtracting areas.

1. *Press* the desired **"Scene"** you wish to modify. This will let you view the details for that scene.
2. Change the areas of your Scene, *click* **"Groups in this scene."** *Click* **"+"** at the upper right corner of the screen to add the new areas or **"⬚"** to remove areas.
3. When you are done with your changes, *click* **"Store Scene"** and then **"Save"** to complete creation.

7.   Add 8 Button Switch

In this example we will be setting the **S1** button on an **8 Button Gateway/Switch** to dim the conference room lighting to a preset Projector Mode. Since the rules are fairly symmetric you will find this one programming step, consistent with other settings.

1. Start by choosing the **"Scene"** tab and entering into the **"Advanced Scenes"**

Tap **Scene** and in the top right corner tap **+** and **Advanced Scenes**.

2. Once in Advanced Scenes you will be prompted with each step in programing an actions such as On/Off, Dimming for the arrows and setting the S1 – S2 – S3 and S4. We will also explore advanced selections used in multi-dim, color changing and color tuning.

Once you have entered Advanced Scenes you will be asked to Choose Rule Entity. A rule entity is the device you will be creating rules for, in this case, a Conference Room Switch.

3. Tap **+** from here you will begin to create your rules.
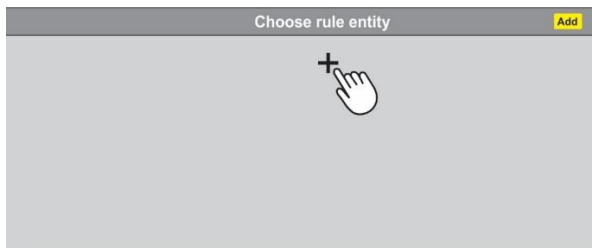
4. Tap "Choose Input Source" the physical device that will give the commands. Once you have you will dee a list of devices which have been commissioned. Since the source giving commands can only be a switch or sensor Click the appropriate device you wish to work with. In this case **"Conf Switch"**
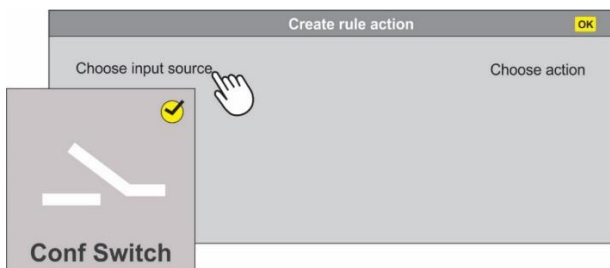
You will need to press [Add] at the bottom to confirm your choice.

5. Once you have added the conference room switch it will be identified as you see below and prompt you to add an Input Source. These are the instructions for the switch. It identifies the button you are programming.
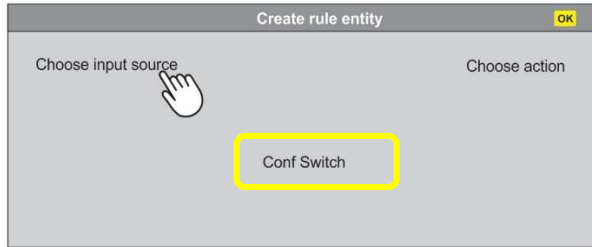
From your input source you will find several dropdowns. These will identify whether you will be controlling a Scenes, Dimming Levels, On/Off and to which button they will be assigned.

6. Since we have determined our button to be **S1** we will choose a **Lynxus Scene** on the left and Button 1 from the dropdown on the right. You don't have to set the Buttons to any particular scene, level or On/Off. The buttons are independent blank slates and will accept what you program.

***You must tap **OK** to confirm your action.*
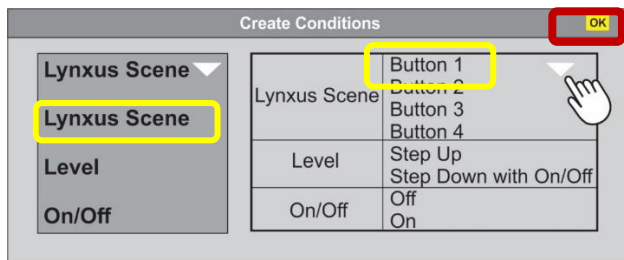
Once you have told the switch which button you are dealing with and how you plan to proceed, you need to bring the button into the program where you will instruct it further.

7. Once you have hit **OK** to confirm the condition and button you wish to address, you will see that the conditions have been placed into the program as a **Rule**. You may continue to add rules for changing lighting strategies. Once they are in the system there is no need to create new conditions. You will simply choose your input source and go straight to the preconfigured rules.

For now, click the appropriate rule, newest rules will always appear at the top, and tap **OK**.

You screen will now display "Conf Switch Scene-scene button 1"

***You must tap **OK** to confirm your action.*

Your new *Rule* is:

"Conf Switch Scene-scene button 1"

Now we need to create an *Action* for this *Rule*. We will do this by creating a new *Action Entity*. Since we have decided the rule is *Conf Switch, Scene Button 1,* we now need to attach an action to the rule.

8. In the drop down Choose Action, you can select Scene, Area or Device to attach your Rule. In our setup we will be using an existing Scene, "Projector Mode". Click the preset scene, in this case Projector Mode, and click save, this will attach the action to the **S1 Button in the Conf Switch.**
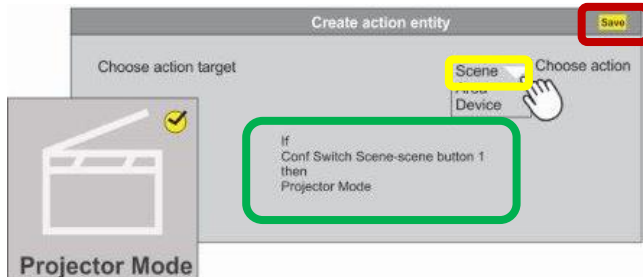
Inspect the new rule, if written properly, click **Save.**

The new rule will be added to the Rules and action of the Conf Switch and should appear on the screen as below.

Since we have only programed button 1, you will want to proceed from here and program the remaining buttons. **A good tip would be to save your rules for each button programed and re-enter Advanced Scenes to create the remaining buttons. Though you can continue writing rules, one after another, by simply pressing the **+** at the completion of each command, it is advisable to save the rule and test the setting prior to writing another command.
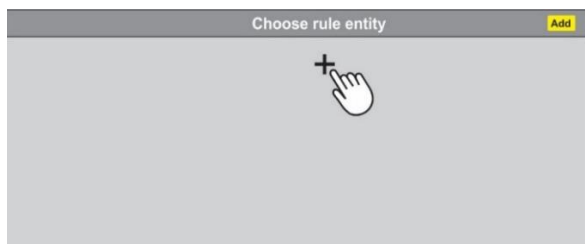
9. Sensors

Once you have entered Advanced Scenes you will be asked to **Create Rule Action.** Essentially, "Tell me where to Start". Start by **"Choose a Rule".**
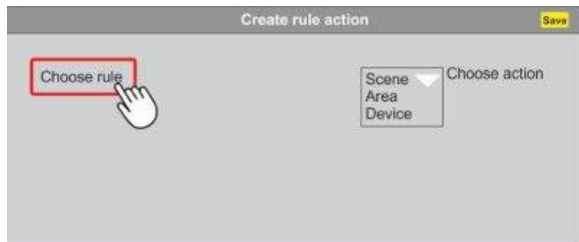

1. From here you will be asked to **Create a rule entity** this is the device you will be creating rules for, typically a sensor or switch, in this case, a Conference Room Sensor.

Tap **+** from here you will begin to create your rules.

2. Tap **"Choose Input Source"** to identify the device that will give the commands. I your list of devices choose the sensor that you will be working with, in this case **"Conf Sensor"**
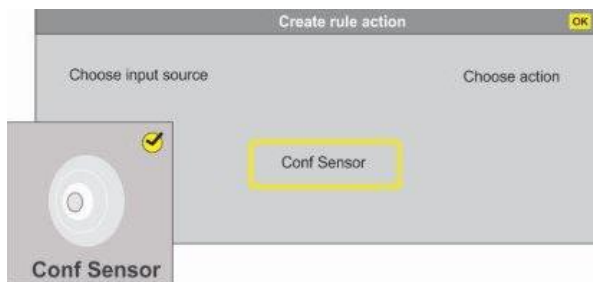
You will need to press **Add** at the bottom to confirm your choice.

3. Once you have added the conference sensor "Input Source" it will be identified as above and prompt you to add a rule for your input source. These are the instructions for the sensor. Since we are dealing with a simple On/Off sensor, our dropdowns will be limited.
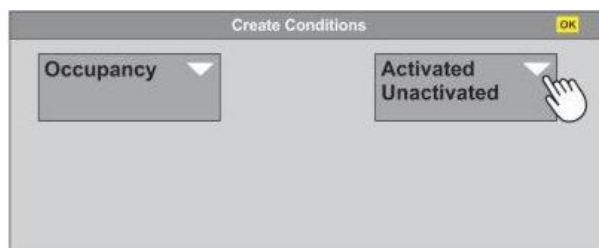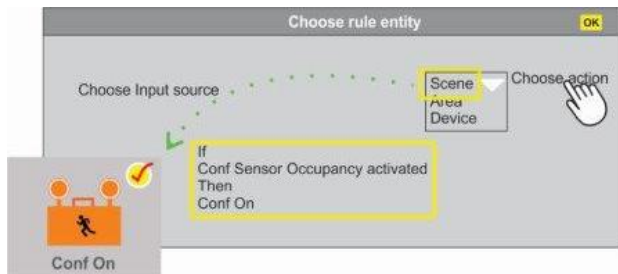
4. From **Choose a Rule** choose what condition you want to work with, Occupancy activated or unactivated.

***You must tap **OK** to confirm your action.*

5. Once your rule has been chosen you will be prompted to attach a scene or area for the command. Here I have chosen a Scene **Conf Off**.

Once you have confirmed the condition, you will see them placed into the program as a **Rule**. You may continue to add rules for changing lighting strategies.
Inspect the new rule, if written properly, click **Save.**

10. Scheduling

Scheduling determines the actions of each scene. You may have only one scene per schedule but may have multiple scenes being scheduled at the same time. This allows for large scale operations to control multiple scenes or areas at the same time.

1. Click **"Schedule"** *click* **"+"** to create schedule. *Click* "Enter description," to describe your schedule completely. *Click* **"Scenes in this schedule"** and **"+"** to add scene. Select the scene you wish to schedule and *click* **"Add."** *Click* "Set schedule time and date."

2. Set the time you want to start by *clicking* the **00:00** and scrolling to the correct time, repeat for ending time.

Note: The "ending time" is of little importance though it must be greater than the starting time. Once the scene has started it will maintain the scene until another event or scene is instructed to start.

3. **"Set weekday and Set month."** These are the days and months of operation and each scene will need to be identified completely.

4. *Click* **"Save"** which will bring you back to your schedule where you will see all scheduled events.

Note: Once you are back to your "Schedule" you must *click* the <u>recently added</u> schedule and select **"Start"** to initiate the program.

5. **Modifying a schedule** a schedule can be done by *Tapping* on the schedule you wish to modify, changing the time or dates *click* **"Save."**

Note: When you *click* save and return to the schedule page you must *click* the <u>recently added</u> schedule and select **"Restart,"** or **"Start"** to initiate the modified schedule.

11. Trouble shooting

As with any electronic device you will have disruption due to conflicting programs or voltage spikes whether transient or surge. LynxLite is a stable platform but will require attention from time to time.

- ✓ ***Event did not follow as scheduled.*** Go to the event in the schedule, *Tap* on the event to enter description. Verify that the group in the schedule is correct. If the group is correct, *click* on **"Group"** and verify the group is active, "on/off" by *clicking* on the group in question. Check the scheduled dates and times by *tapping* on the event in the schedule, click on **"Set schedule time and date,"** verify the correct values are set.
- ✓ ***How do I manually turn off an event?*** *Click* on **"Scene"** and *click* on the scene you wish to change. You can, start/stop/reset the scene manually from there. You can do the same through **"Group"** and **"Device"** if you are looking for more individual control.
- ✓ ***How do I manually turn off Device?*** Same as in event, *click* "Device" and *click* on the device you wish to change. From the drop-down, turn on/off or adjust the device.
- ✓ ***Can't Log In.*** A failed log-in can be several sources, start with the easiest. Turn-off the App. from your system. Just exiting the system may not work, you need to exit the App. much like exiting a web page. Return to the App. and try to log-in. If this fails, exit the App. again and unplug or power down the (LAC). Wait 60 seconds before powering up the (LAC) and 15 seconds before turning on the App. Since your system memory is stored in the (LAC), you should not have to reconfigure any devices, groups or settings.
- ✓ ***Fixture or group will not function.*** With the device running, look for the flashing LED indicator. Next to the indicator will be a white recessed button. With the end of a pen or pencil, push and hold the button for 5 seconds. This will reset the node and operation should return to normal. You will have to reconfigure the node through the device setting and into any groups, "see Adding Devices" for reference.
- ✓ ***System Time is out of Sync.*** This is a common problem with Tablets and associated programs. *Click* **"Settings,"** under "(LAC) management" see "LAC time". *Click* the arrow to the right and *click* **"Sync LAC time."**
- ✓ ***Light will not turn off.*** Device needs to be reset. Check device LED status. If flashing, hold the reset button for 5 seconds, release and re-commission device.
- ✓ ***Device will commission but not operate.*** We are dealing with RF in an imperfect environment. Should your device commission but fail to operate properly, remove the device entirely from the App and re-commission.