URC Integration

Tech Note 106

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Introduction

This TECH NOTE 106 and Integration Guide was developed for you, our Integration partner, and your clients. We have provided this simple guide to help assist in the design and integration of a Screen Innovation shade system, and to a provide some best practices which can help yield the best possible performance from deployments.

Control – your way, at Screen Innovations we provide complete control of all your shade and screen products via both wireless and wired technologies.

Screen Innovations® has developed the most innovative shade system available to the CEDIA® market. Our revolutionary Shade Builder tools, ultra-high-quality interior and exterior motorized shades and the most extensive control and power options in the industry. We built our shade products to a world class level and are the absolute best you can buy

We engineered the system in Austin Texas, USA and our products are all engineered and manufactured in the USA. We have some exclusive partnerships with world class raw parts suppliers such as Somfy the world leader in motors. These partnerships combined with our innovations and patent pending technologies mean not only do our shade products look amazing in your client's home, but more importantly "they just work"

This Screen Innovation Tech Note will help with your integration. We provide step-by-step details and screen shots to enable rapid deployments and testing.

For the latest information on our products please visit our website at http://www.ScreenInnovations.com or please call our technical support and sales teams for additional help and information...

How To Use This Tech Note

QR CODES – When you see this image, scan your phone or tablet and you will receive the latest version of the corresponding document.

Zigbee – When you see this logo. This product uses Zigbee 3.0 Mesh RF protocol.

Radio Technology Somfy® (RTS) – When you see this logo, this product uses one-way Radio Frequency commands for control of the shade(s).

Somfy® Digital Network (SDN) – When you see this logo, this product uses an RS-485 network to allow full two-way control and status of the shade(s).

Common Control Nomenclature

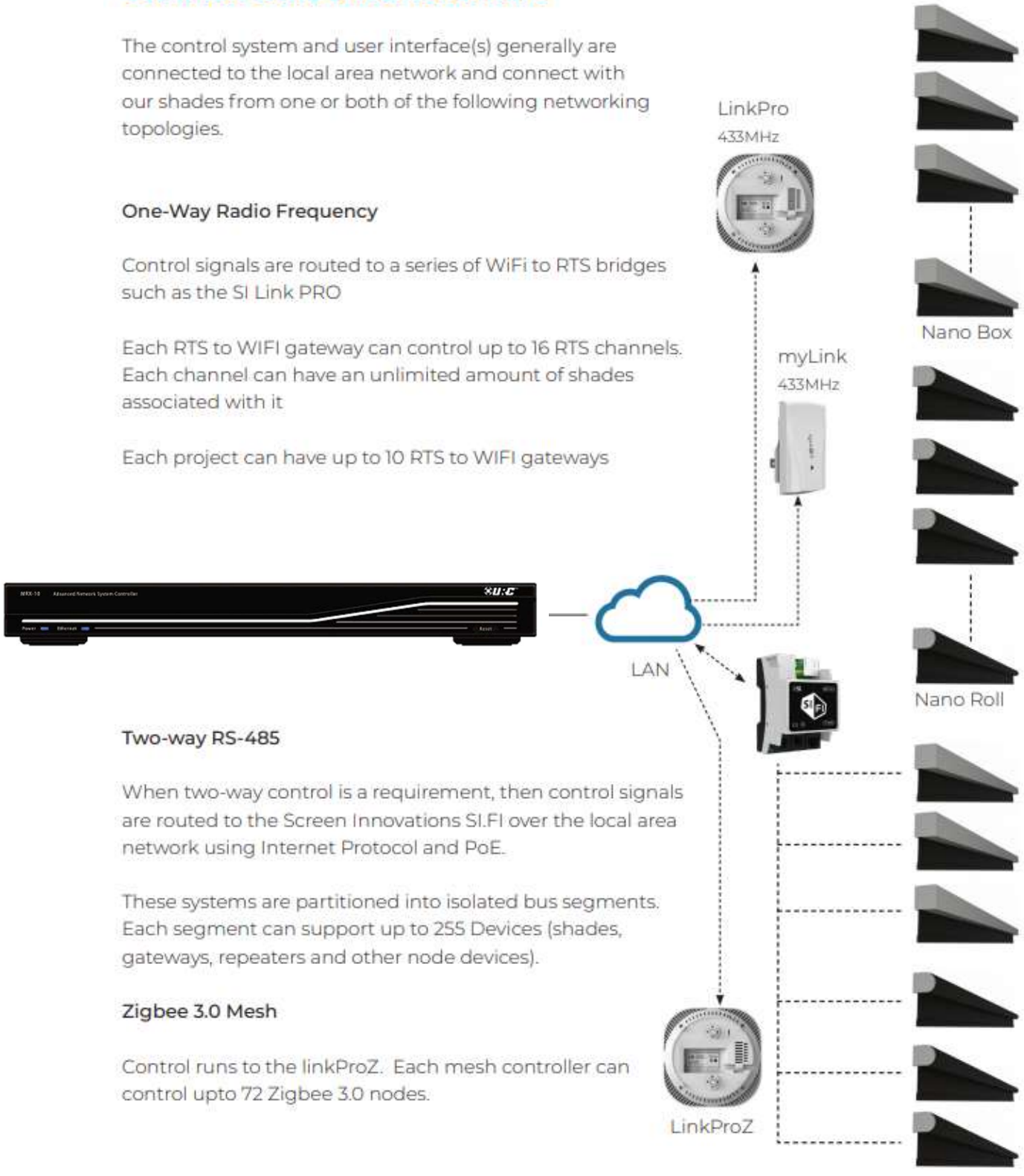
The control system and user interface(s) generally are connected to the local area network and connect with our shades from one or both of the following networking topologies.

One-Way Radio Frequency

Control signals are routed to a series of WiFi to RTS bridges such as the SI Link PRO

Each RTS to WIFI gateway can control up to 16 RTS channels. Each channel can have an unlimited amount of shades associated with it

Each project can have up to 10 RTS to WIFI gateways



Two-way RS-485

When two-way control is a requirement, then control signals are routed to the Screen Innovations SI.FI over the local area network using Internet Protocol and PoE.

These systems are partitioned into isolated bus segments. Each segment can support up to 255 Devices (shades, gateways, repeaters and other node devices).

Zigbee 3.0 Mesh

Control runs to the linkProZ. Each mesh controller can control upto 72 Zigbee 3.0 nodes.

IP CONTROL WITH TRO.Y

This integration was tested at SI offices using the URC Accelerator 3 software, and we have also tested this on previous Accelerator 2 versions as well. TRO.Y is 100% compatible with the Somfy Synergy™ API and works for all IP and RS232 drivers found in the URC Accelerator 2 and higher software.

A fully operational TRO.Y system is required prior to URC programming.

Import the URC Module

1) Download the Somfy Connect UAI Shade Control Two-Way Module from the URC Dealer Portal

2) In Accelerator, ensure the completion of Program Steps 1 through 3 “1.Name & Location,” “2.Add Rooms” and

“3.Add URC Devices” for the project

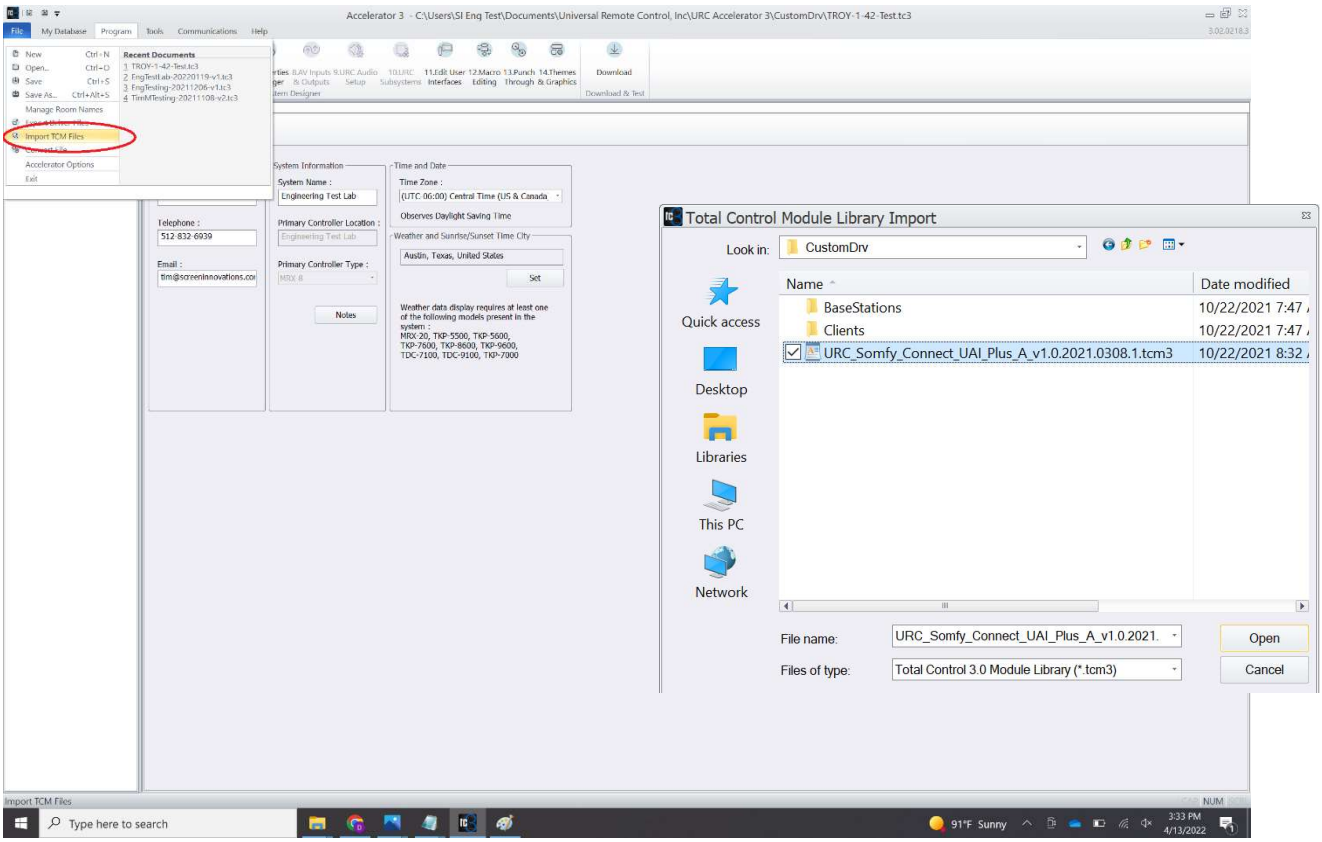
3) Once connected to the URC Base Station, import the URC Connect UAI SOMFY Module:

a) SELECT the “File” Tab

b) SELECT “Import TCM Files”

c) BROWSE to the Somfy Connect UAI Module file (“URC_Somfy_Connect_UAI_Plus_A_v1.0.2021.0308.1.tcm3a”), SELECT “Open”

d) SELECT “Import”



Add the CORE Module

1) SELECT the “Program” Tab to access the Accelerator Programming Bar

2) SELECT “4.Add Other Devices”

3) SELECT the current room using the “Previous” or “Next” buttons or SELECT the room in the Project Tree

4) SELECT “My” for the Database

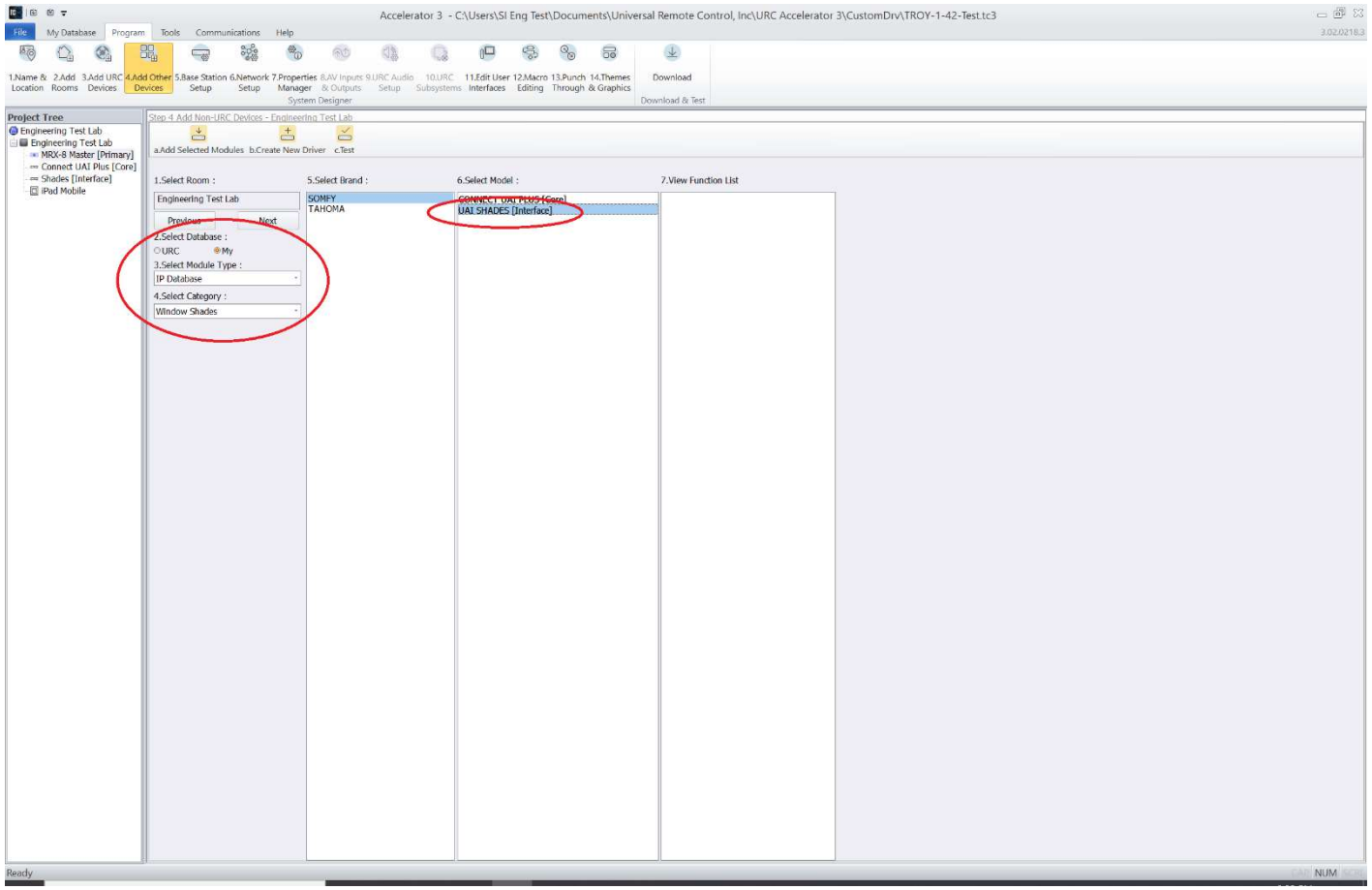
5) SELECT “IP Database” for the Module Type

6) SELECT “Window Shades” for the Category

7) SELECT “SOMFY” for the Brand

8) SELECT “UAI SHADES [Interface]” for the Model

9) SELECT “a.Add Selected Modules”



Add the INTERFACE Module

1) SELECT the “Program” Tab to access the Accelerator Programming Bar

2) SELECT “4.Add Other Devices”

3) SELECT the current room using the “Previous” or “Next” buttons or SELECT the room in the Project Tree

4) SELECT “My” for the Database

5) SELECT “IP Database” for the Module Type

6) SELECT “Window Shades” for the Category

7) SELECT “SOMFY” for the Brand

8) SELECT “UAI SHADES [Interface]” for the Model

9) SELECT “a.Add Selected Modules”

10) In the “Module Properties - Interface Module” window:

a) ENTER a name for the Module

b) SELECT “CONNECT UAI PLUS” for the associated Core module

c) SELECT “OK”

NETWORK SETUP

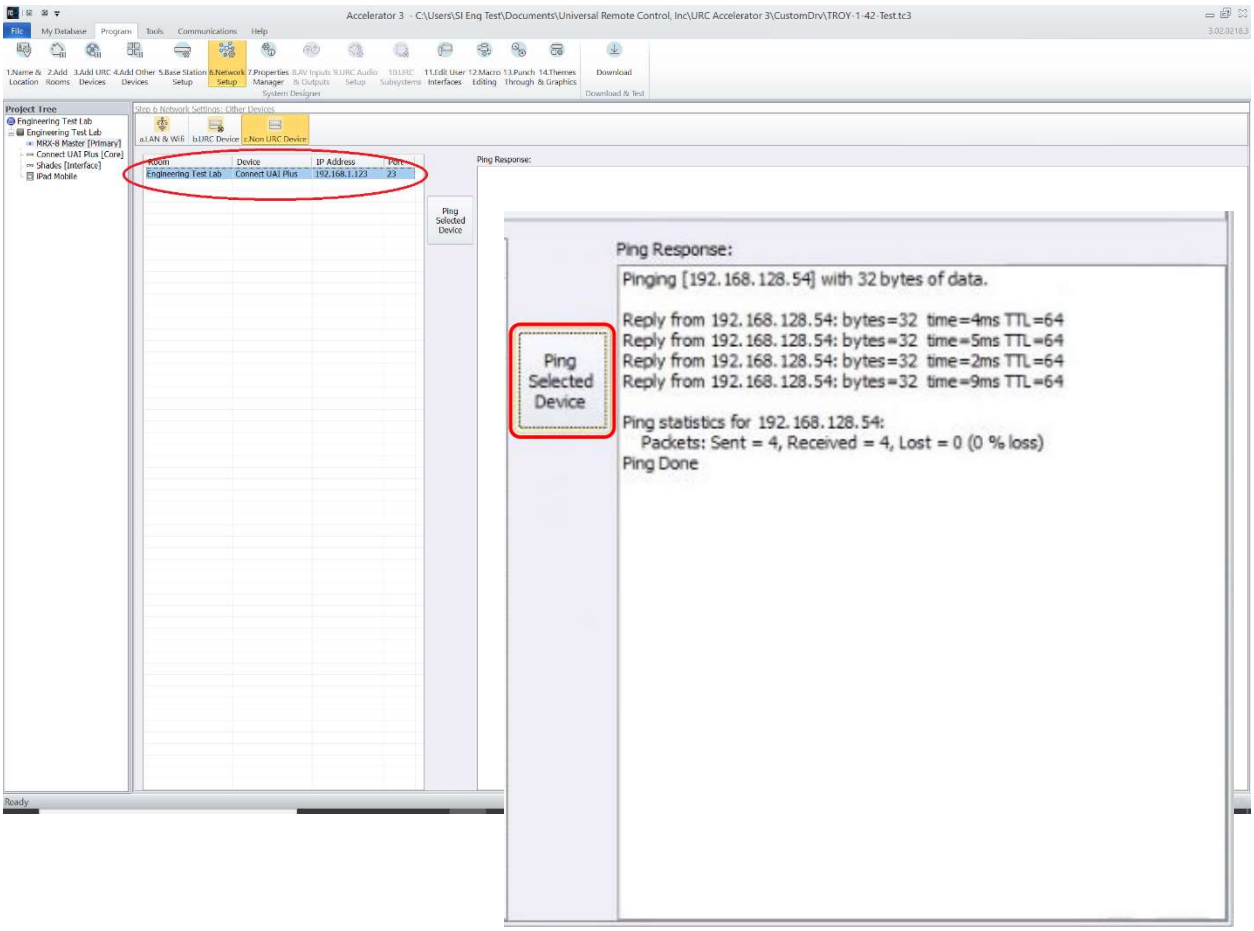
1) SELECT the “Program” Tab to access the Accelerator Programming Bar

2) SELECT “6.Network Setup”

3) SELECT “c.Non URC Device”

4) ENTER the IP Address of the TRO.Y in the IP Address field, PRESS “Enter” key on keyboard

5) SELECT “Ping Selected Device” to confirm the network connection with the TRO.Y



TELNET SETUP

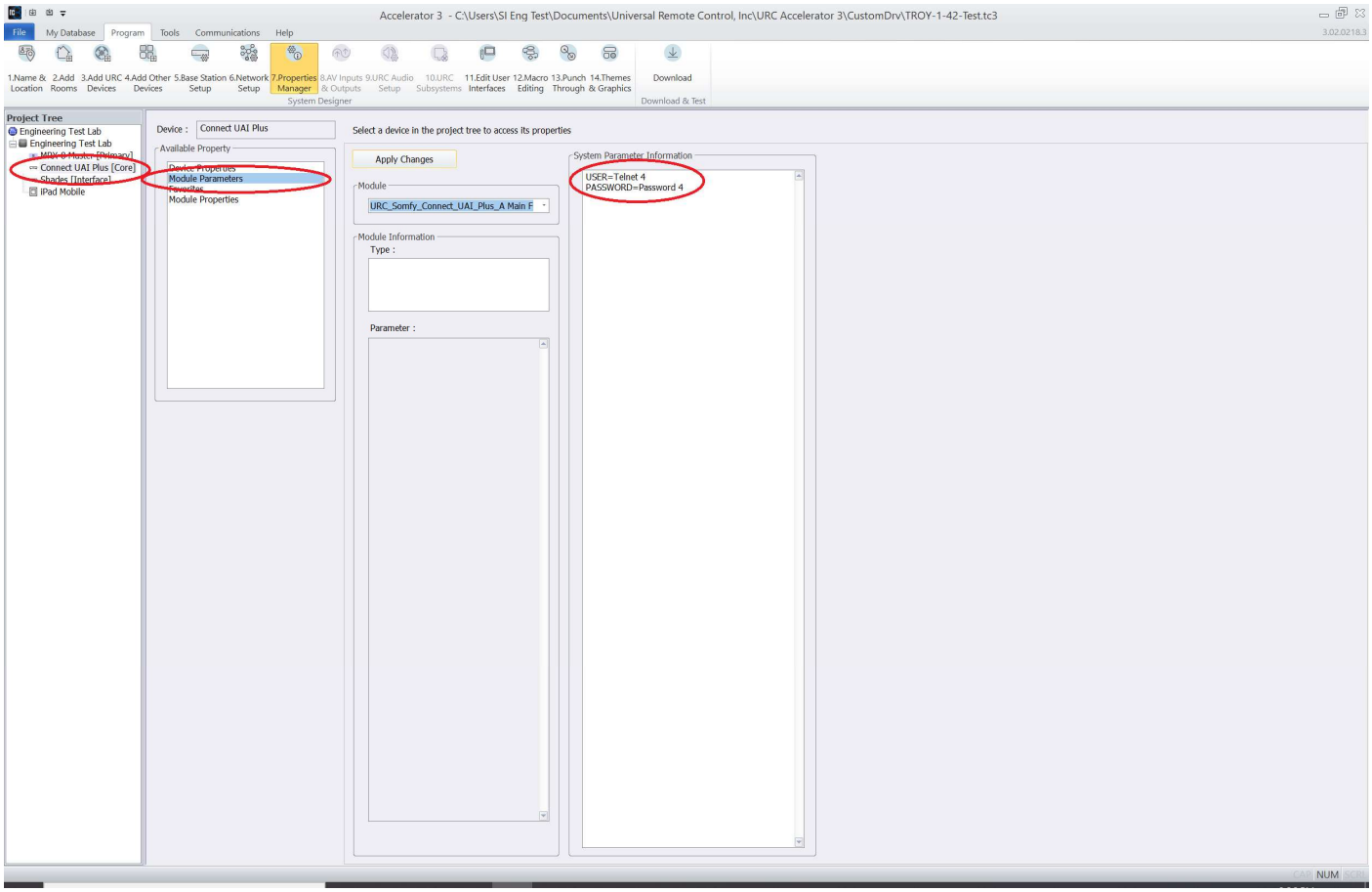
1) SELECT the “Program” Tab to access the Accelerator Programming Bar

2) SELECT “7.Properties Manager”

3) SELECT “c.Non URC Device”

4) ENTER the USERNAME AND PASSWORD in the System Parameter Information , PRESS “Enter” key on keyboard

Ensure this is the same telnet information as entered into TRO.Y



EDIT USER INTERFACES

1) SELECT the “Program” Tab to access the Accelerator Programming Bar

2) SELECT “11.Edit User Interfaces”

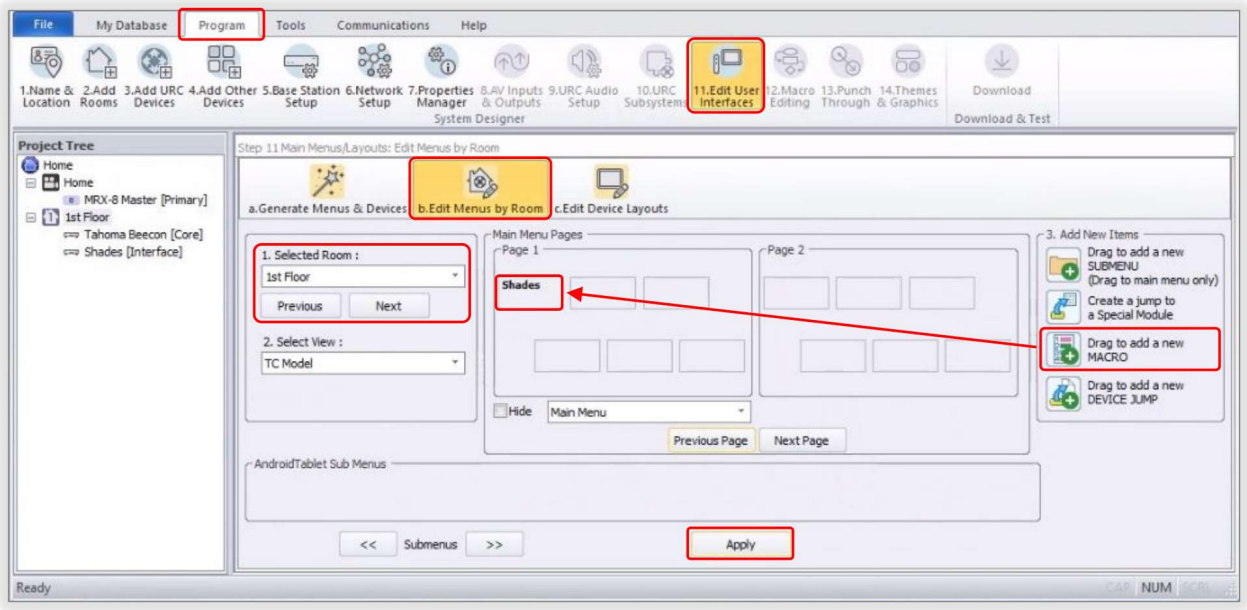
3) SELECT “b.Edit Menus by Room”

4) SELECT the room using the “Previous” or “Next” buttons or SELECT the room in the Project Tree

5) DRAG & DROP “Drag to add a new MACRO” into the desired page in the “Main Menu Pages” section

6) DOUBLE-CLICK to rename the macro, PRESS “Enter” key on keyboard

7) SELECT “Apply”

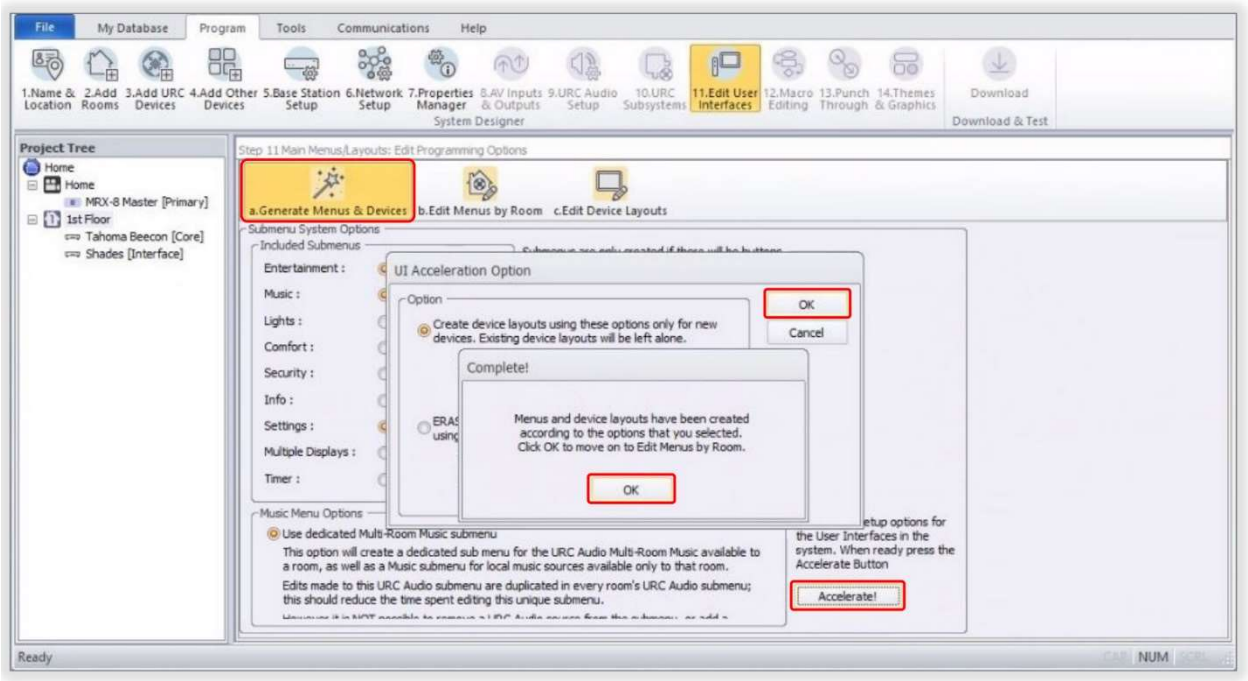


8) SELECT “a.Generate Menus & Devices”

9) SELECT “Accelerate!”

10) SELECT “OK” to create the device layouts

11) SELECT “OK” to complete the menu and device layouts



DOWNLOAD SYSTEM CONFIGURATION

1) SELECT the “Program” Tab to access the Accelerator Programming Bar

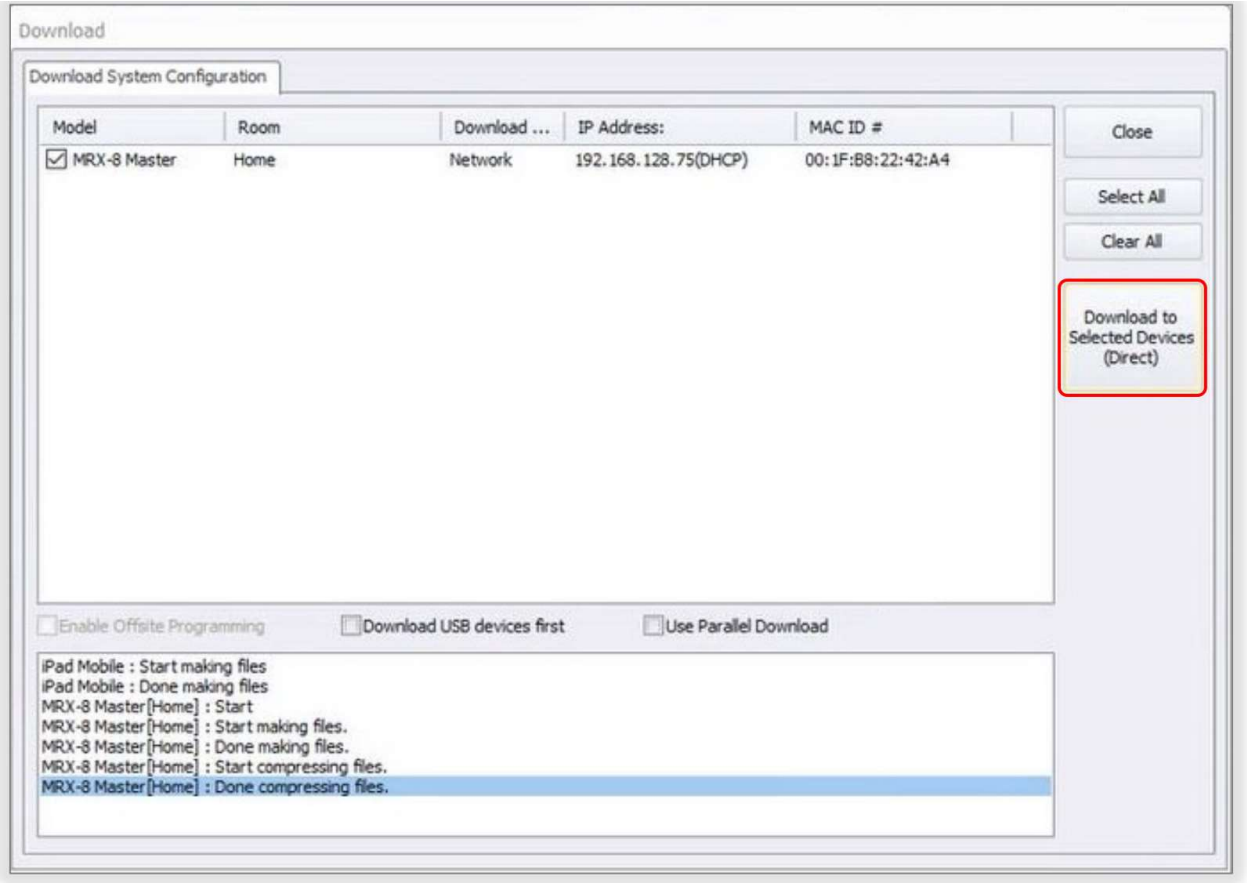
2) SELECT “Download”

3) Accelerator will prompt to save changes, SELECT “OK”

4) BROWSE to a file location and name the TCM2 file, SELECT “Save”

5) In the Download window, SELECT the URC device to download to

6) SELECT “Download to Selected Devices”



Zigbee 3.0

Before you begin your Integration with Zigbee

A fully operational SI Zigbee system is required with all shade limits set (including the MY position if desired) and at least one SI Zigbee transmitter.

The Link Pro Z system must be fully operational and programmed using the Somfy TaHoma app.

Any changes to number of shades, scenes or smart plugs in the system will require you to enable or refresh the integration in the TaHoma app.

Compatible with Link ProZ and TaHoma running firmware 4.06 and higher.
This driver set enables you to control both RTS and ZigBee 3.0 shades connected to a Link Pro Z or TaHoma, from Total Control 2.0 App or Flex 2.0.

Integration With Zigbee via LinkPro Z

Download App from Apple App Store or Google Play

Available on the App Store

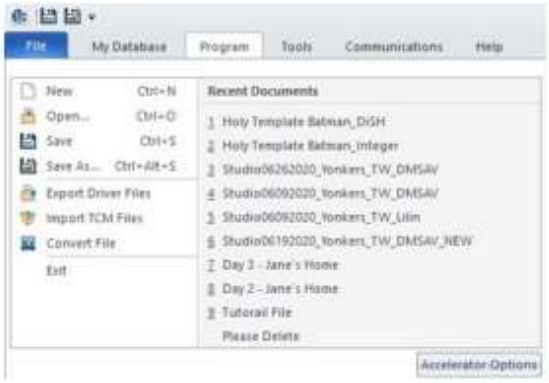
GET IT ON Google play

- "Situo remote on your phone"
- Scalable
- Scenes and schedules
- Easy to program
- Local and remote access

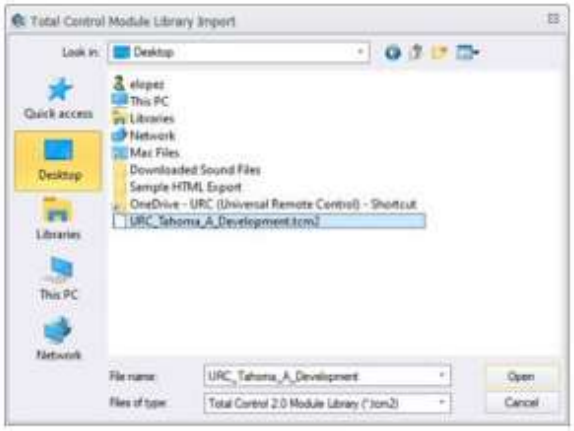
- Over the air firmware updates
- Integration Support
- Demo mode
- English, Spanish and French
- Requires fully operation Zigbee installation w/ limits set

Step process - Integration With Zigbee LinkPro Z

1. Downloading & Importing the Module.
   a. Download the TaHoma Shades Shades two-way module from the URC Dealer Portal: https://urcportal.com/Main/ProductR/?ilevel1=7&ilevel2=&ilevel3=&rbox=r10
   b. Once the module has been downloaded, perform the following:
   c. Select the File tab.



   d. Select Import TCM Files.

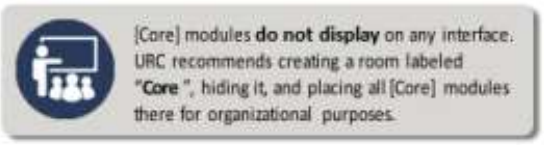


   e. Locate the ".tcm2" file and select Open.

Note: If applicable, SAVE any work and re-start the software.

2. Adding & Configuring the Module

The TaHoma Shades module can be added to any new or pre-existing system.



Add a [Core] module for every physical TaHoma Beecon device that exists in the home or business. Typically only one (1) [Core] module is required.

a. Select Step 4 in the software to add other devices.

Perform the following:

(1) Select Room: Choose a room to add the module (i.e. Core).

(2) Select Database: My

(3) Select Module Type: IP Database

(4) Select Category: Window Shades

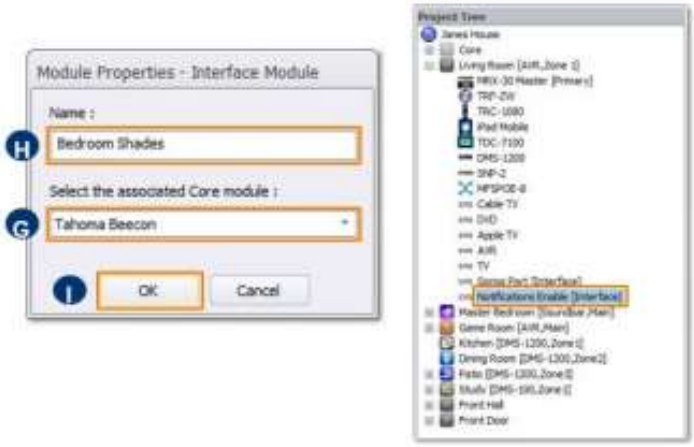
(5) Select Brand: TaHoma

(6) Select Model: BEECON [Core]

(7) Double-click or select Add Selected Modules.

3. With a [Core] added, the [Interface] module must be added to a room/zone.

   Add an [Interface] module to every room/zone that physically contains TaHoma shades or requires access for control.

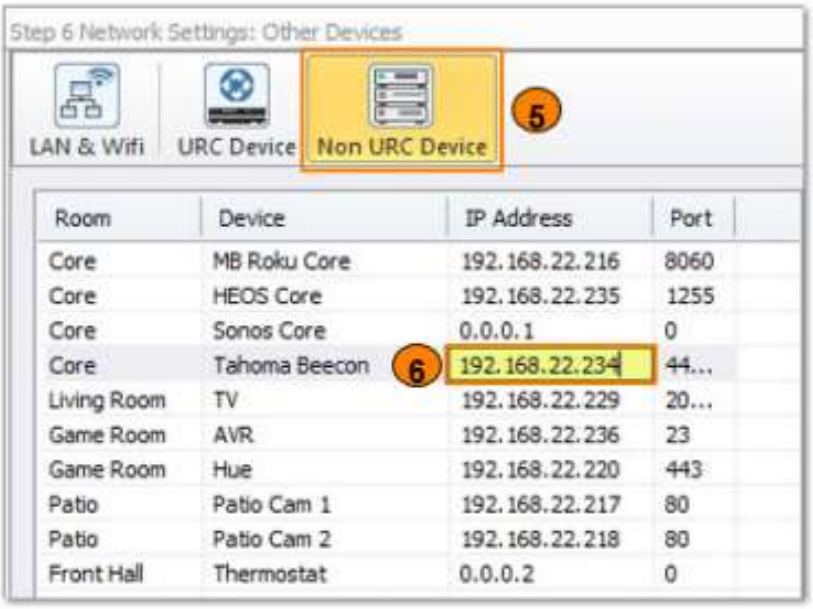


   Perform the following:

   a. Select Room: Choose a room (i.e. Master Bedroom) in the system that requires access.
   b. Select Database: My
   c. Select Module Type: IP Database
   d. Select Category: Window Shades
   e. Select Brand: TaHoma
   f. Select Model: SHADES [Interface]
   g. Double-click or select Add Selected Modules
   h. Enter a custom name, this label becomes the button name on the user interface.
   i. Select OK.

4. Select Step 6 (in the software): Network Setup

5. Select Non URC Device.
   Enter the IP address of the Beecon device, this must be configured on the networking using a DHCP/MAC reservation within the local router.



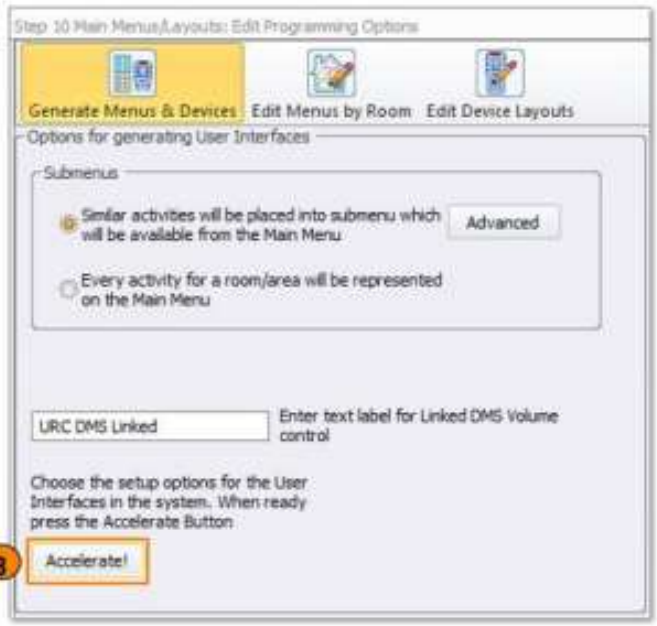
6. Select Step 10 in the software, to edit User Interfaces.

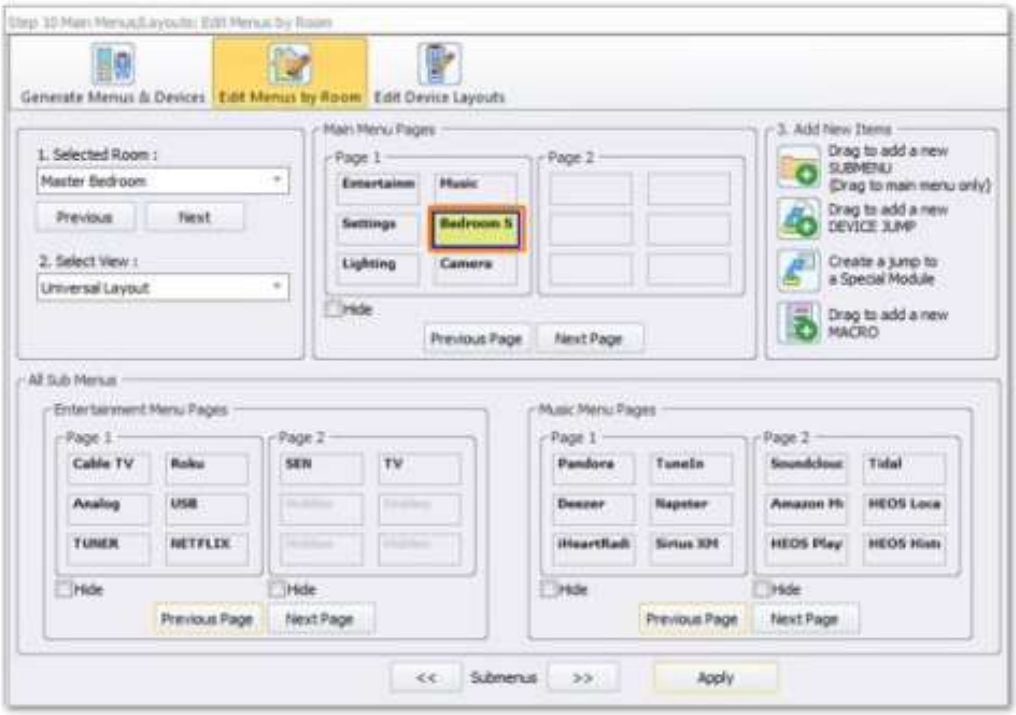
By **default**, access to this button is placed within the **Main Menu**.

Move this button by **dragging-n-dropping** it into the desired location such as the Settings sub-menu.

Keep in mind, if the system is **Accelerated with the ERASE option**, this button **returns to its original position** in the Settings sub-menu.

7. Select Accelerate!





8. Select Step 12 in the software, to do macro Editing.

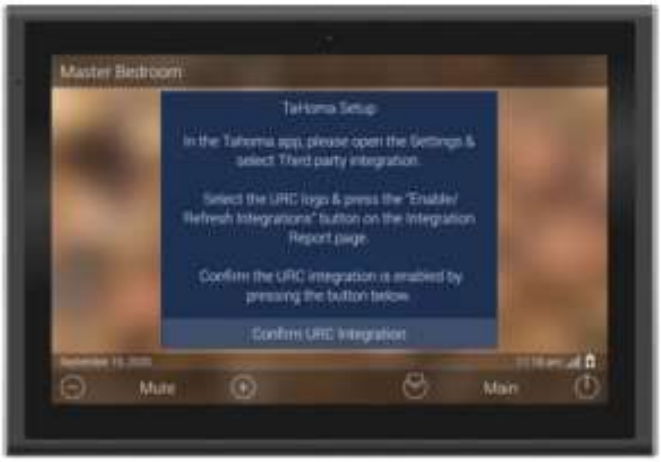
9. Select Accelerate! Download the configuration to the system

The TaHoma Shades shades module has been successfully added to the Total Control system. There are additional steps to complete the integration process; however, these steps are performed from the user interface.

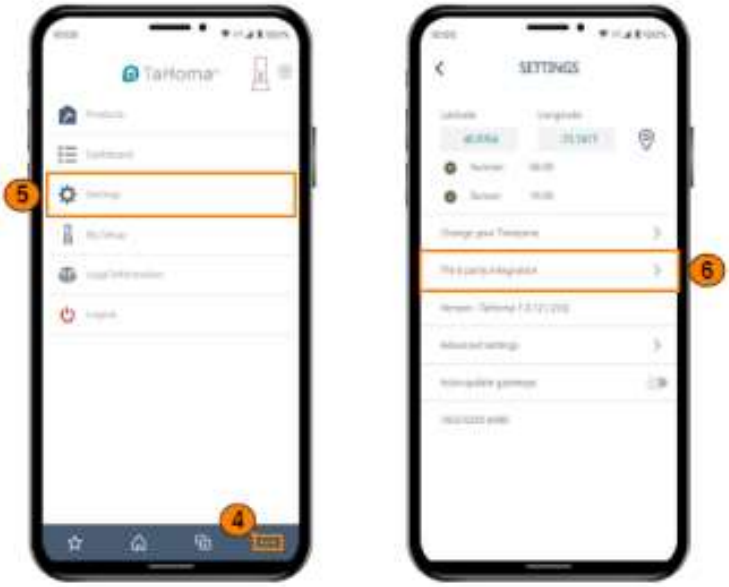
10. Initializing the Module

Before the TaHoma module can be used for control or macro integration, it must first be initialized from any user interface within the system.
Perform the following steps from within:

(1) Navigate to the room/area (i.e. Master Bedroom) where the Shades [Interface] module was placed (above).
(2) Select the Shades button on the Main Menu, this is the default location.
(3) Keep this screen opened on the user interface, if the device's screen goes to sleep, simply wake the device and the page remains on the screen.



(4) Open the TaHoma mobile app (iOS and/or Android) and click on the Options button ["..."]
(5) Select the Setting button.
(6) Click on Third Party Integration

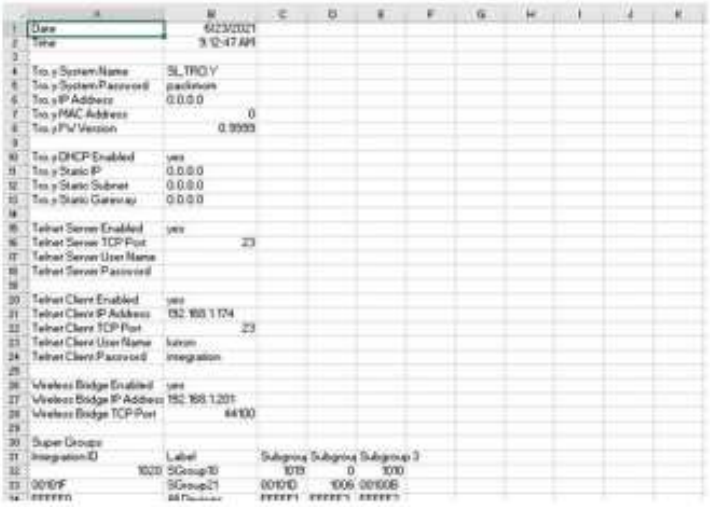


(7) Select the URC logo

(8) Click on Enable / Refresh Integrations

(9) Return to the Total Control system user interface [page 9] and select Confirm URC Integration.

NOTE: This step MUST be performed after clicking on the Enable / Refresh Integrations button on the previous page.



	A	B	C	D	E	F	G	H	I	J	K
1	Date	6/23/2021									
2	Time	9:12:47 AM									
3											
4	Tro.y System Name	SL_TRO.Y									
5	Tro.y System Password	packmom									
6	Tro.y IP Address	0.0.0.0									
7	Tro.y MAC Address	0									
8	Tro.y FW Version	0.9999									
9											
10	Tro.y DHCP Enabled	yes									
11	Tro.y Static IP	0.0.0.0									
12	Tro.y Static Subnet	0.0.0.0									
13	Tro.y Static Gateway	0.0.0.0									
14											
15	Telnet Server Enabled	yes									
16	Telnet Server TCP Port	23									
17	Telnet Server User Name										
18	Telnet Server Password										
19											
20	Telnet Client Enabled	yes									
21	Telnet Client IP Address	192.168.1.174									
22	Telnet Client TCP Port	23									
23	Telnet Client User Name	kmm									
24	Telnet Client Password	integration									
25											
26	Wireless Bridge Enabled	yes									
27	Wireless Bridge IP Address	192.168.1.201									
28	Wireless Bridge TCP Port	44100									
29											
30	Super Groups										
31	Integration ID	Label	Subgroup	Subgroup	Subgroup 3						
32	1020	SGroup10	1019	0	1010						
33	00101F	SGroup21	00101D	1006	00100B						
34	######	All Devices	######	######	######						

Once the module has been confirmed, the TaHoma module is displayed on the user interface. The module can be used for control and tilt of TaHoma Shades as well as control of TaHoma light via macro integration.

Two-way Module Commands

Two-way module commands are special one-way functions that are derived from the two-way module and the only way to send discrete commands to the TaHoma Shades module
Below are the available two-way module commands:

Shade : Move Basic: Using the Device ID(s) of the desired shades, this adds a command to any macro that moves the shades up, down, or stop. Multiple Device IDs can be entered, use a comma (,) to separate Device IDs.

Shade : Move to Percentage: Using the Device ID(s) of the desired shades, this adds a command to any macro that moves the shades to the entered percentage (0-100) [0 = Shades Open & 100 = Shades Closed].

Shade : Move To My: Adds a command to any custom macro that moves the entered shades device (using the Device ID) to the preset "My" position as configured in the TaHoma mobile app.

Shade : Tilt: Adds a command to any custom macro that moves the entered shades device (using Device ID) up or down.

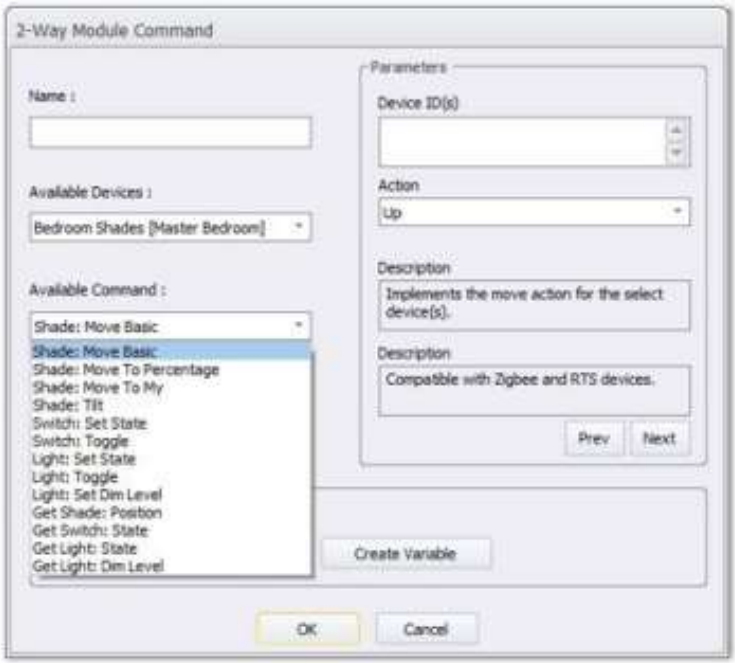
Switch : Set State: Adds a command to any custom macro that turns the entered lighting switch (using Device ID) on or off.

Switch : Toggle: Adds a command to any custom macro that sends a toggle command to the entered lighting switch (using Device ID).

Light : Set State: Adds a command to any custom macro that sets the state of the entered lighting device (using Device ID) On or Off.

Light : Toggle: Adds a command to any custom macro that sends a toggle command to the entered lighting device (using Device ID).

Light : Set Dim Level: Adds a command to any custom macro that sets the dim level of the entered lighting device (using Device ID).



Query Commands

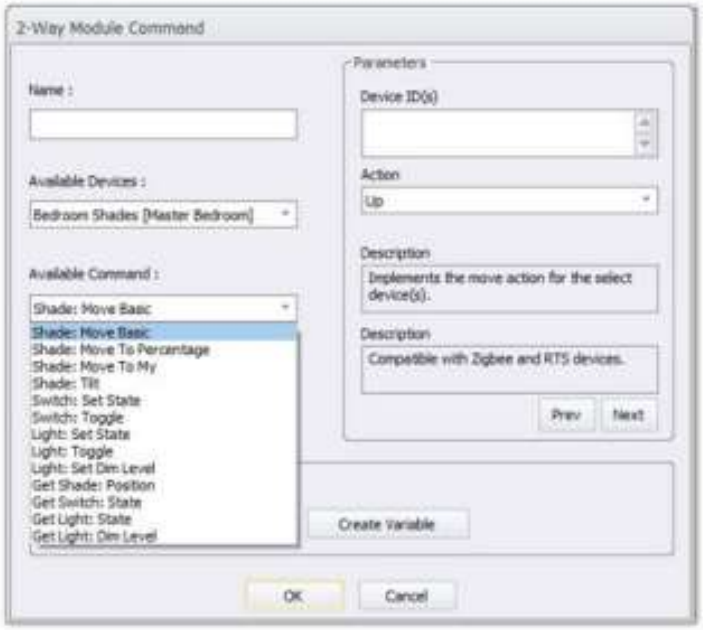
Allow the Total Control system to "ask a question". Programmers can save the result (value) of that question as a variable. This variable can then be polled and used with conditional logic to create advanced macros.
Below are the Query Commands that are available for the TaHome Shades module:

Get Shade : Position: Gets the current position of the entered (using Device ID) shades device.

Get Switch : State: Gets the current power status of the entered (using Device ID) lighting switch.

Get Light : State: Gets the current power state of the entered (using Device ID) lighting device.

Get Light : Dim Level: Gets the current dim percentage of the entered (using Device ID) lighting device.



Since this module supports macro integration for shades, lights, and switches the **[Core] must be selected as the Available Device**

Automation Capabilities (Device Events)

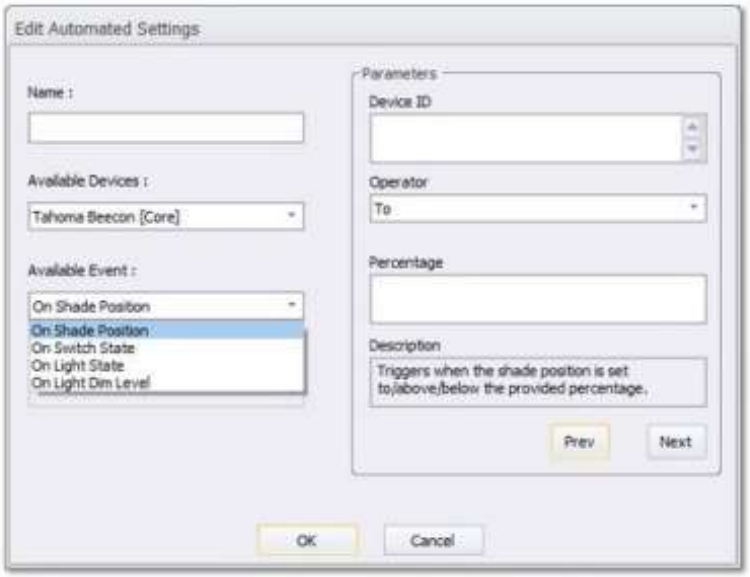
Device Events allow Total Control to trigger macros based on changes within the subsystem of a supported two-way device.
Below are the available Device Events supported by this two-way module:

On Shade Position: Triggers a custom macro when the entered shades device (using Device ID) reaches, goes above, or goes below the entered percentage.

On Switch State: Triggers a custom macro based on a state change (on / off / toggled) of the entered switch (using Device ID).

On Light State: Triggers a custom macro based on a state change (on / off / toggled) of the entered lighting device (using Device ID).

On Light Dim Level: Triggers a custom macro when the entered lighting device (using Device ID) reaches, goes above, or goes below the entered percentage



Since this module supports macro integration for shades, lights, and switches the **[Core] must be selected as the Available Device.**

Using the TaHoma Shades Module

This section of the document explains how to operate and navigate the TaHoma Shades module for any user interface. Launching the Module:

1. Navigate to the room/area (i.e. Master Bedroom) where the Shades [Interface] module was placed (page 5).

2. Select the Shades [Interface] button (i.e. Bedroom Shades).

3. A list populates on the screen displaying all the shades that have been installed on the system's Beecon device.

Select a shades device

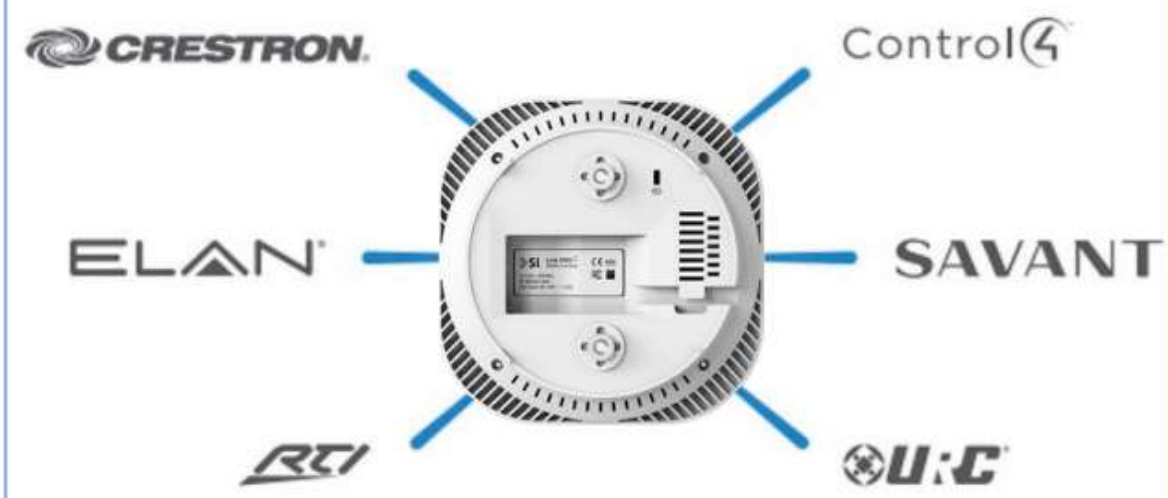
The Shades Control Page: This page displays only what the shade device supports. Shades can support control, control with feedback, and/or tilt controls (feedback is NOT available)

Shade Control: The module displays buttons that provide one-way control for up, down, and stop. Shade Control with Feedback: The module displays a slider that represents the current position of the shades. This slider can be moved left or right to raise or lower the shades.

Device feedback is only available on **Zigbee** devices.

Tilt Controls: Displays on the same page as the shade control options, these buttons only populate if the device supports tilt controls

RTS



RTS

Before you begin your Integration with RTS

A fully operational SI RTS system is required with all shade limits set (including the MY position if desired) and at least one SI RTS transmitter.

The RTS Gateway such as Link PRO or myLink must be fully operational and programmed with all desired RTS channels using the Somfy myLink app. The App must also be used to assign a system ID for identification

Required Hardware: URC MX-10, Screen Innovations LinkPro
Required Software: URC Accelerator 2 Config, Somfy myLink Smarthpone App

Before beginning you may want to review the "Somfy MyLink Setup and RTS Programming" and the "Somfy MyLink and URC Integration Requirements" documentation.

Integration With RTS via LinkPro

Download App from Apple App Store or Google Play

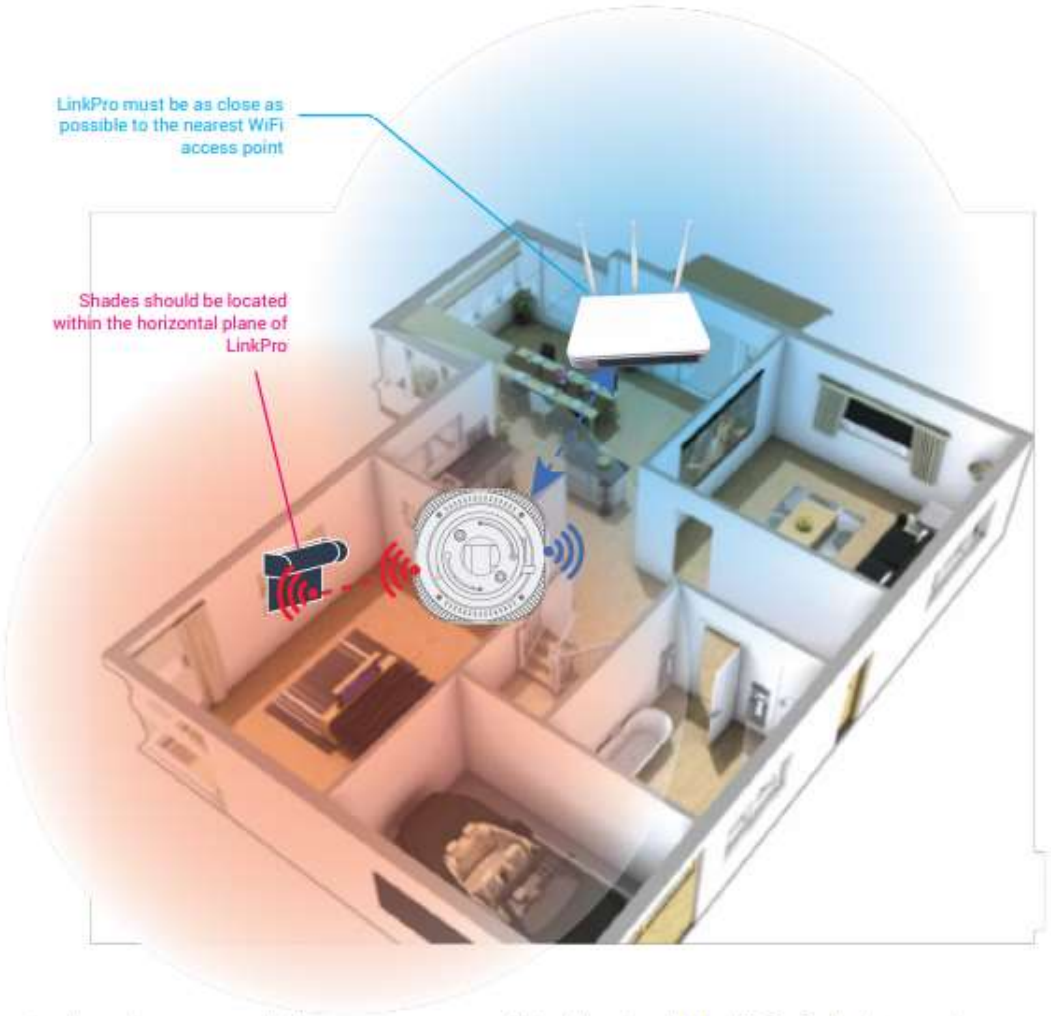
Available on the App Store

GET IT ON Google play

- "telis remote on your phone"
- Scalable
- Scenes and schedules
- Easy to program
- Local and remote access
- Easily add users

- Over the air firmware updates
- Integration Support
- Demo mode
- English, Spanish and French
- DOES NOT set limits or "copy & paste" new transmitters
- Requires fully operation RTS installation w/ limits set and at least 1 programmed RTS transmitter

Wifi and RTS Device Range

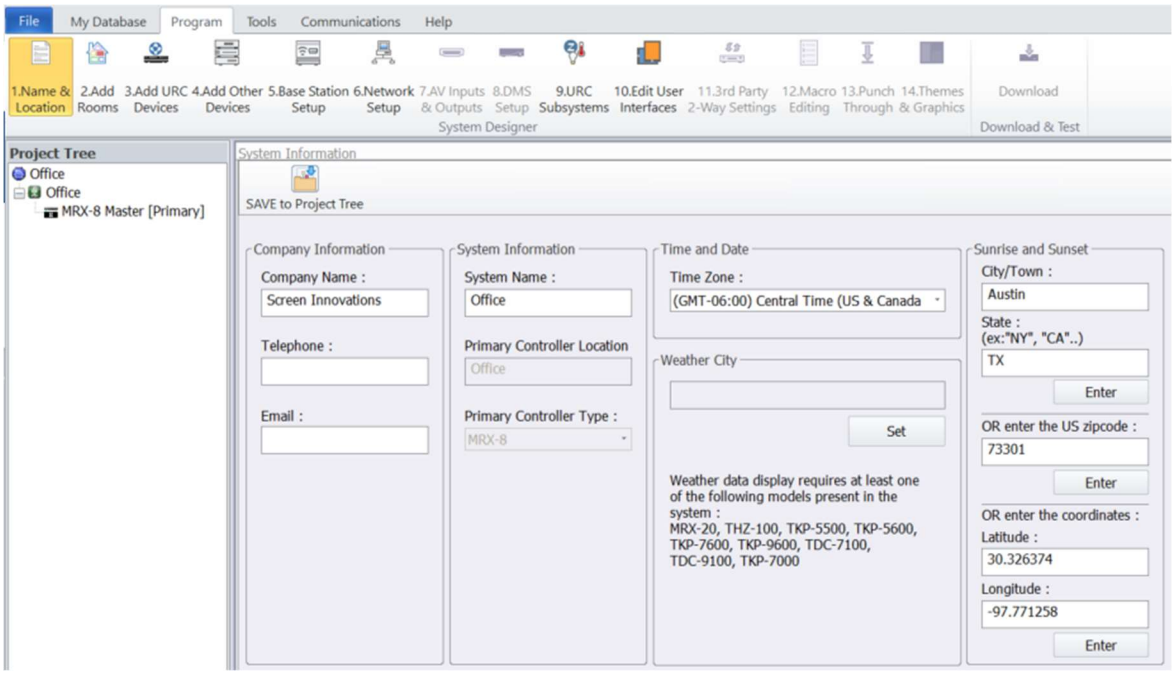


Must be located as close as possible to the nearest WAP.

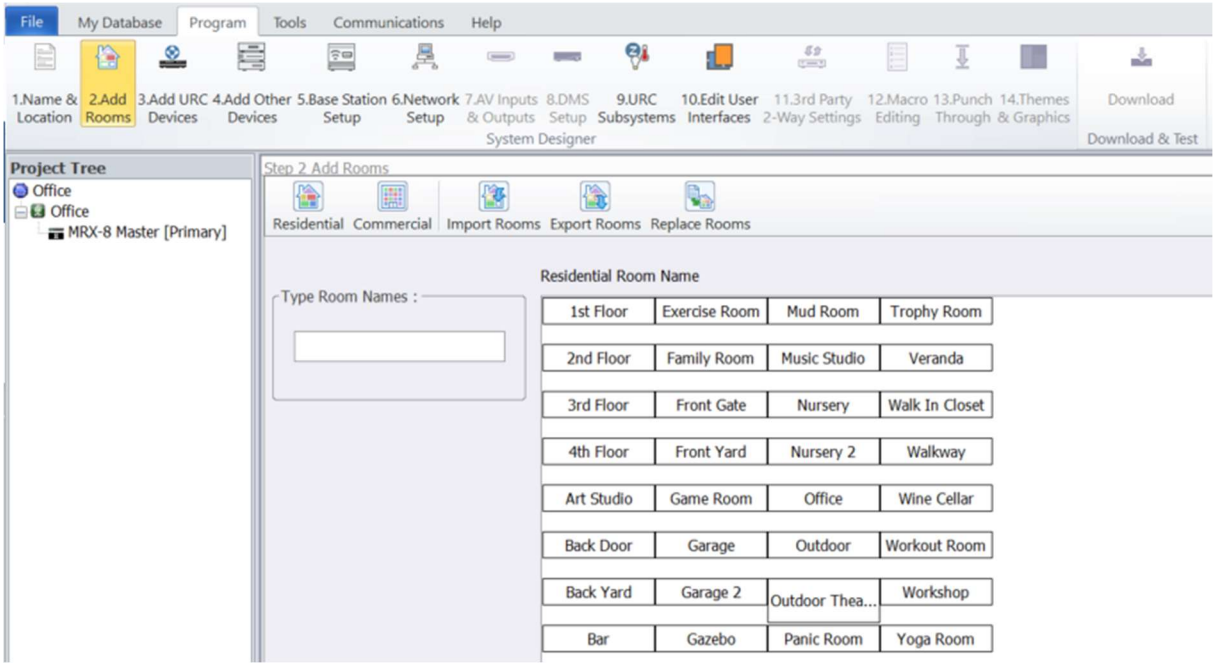
Work best within 30 ft of shades and the horizontal plane of Link Pro.

Step process - Integration With RTS via LinkPro Step-by-Step

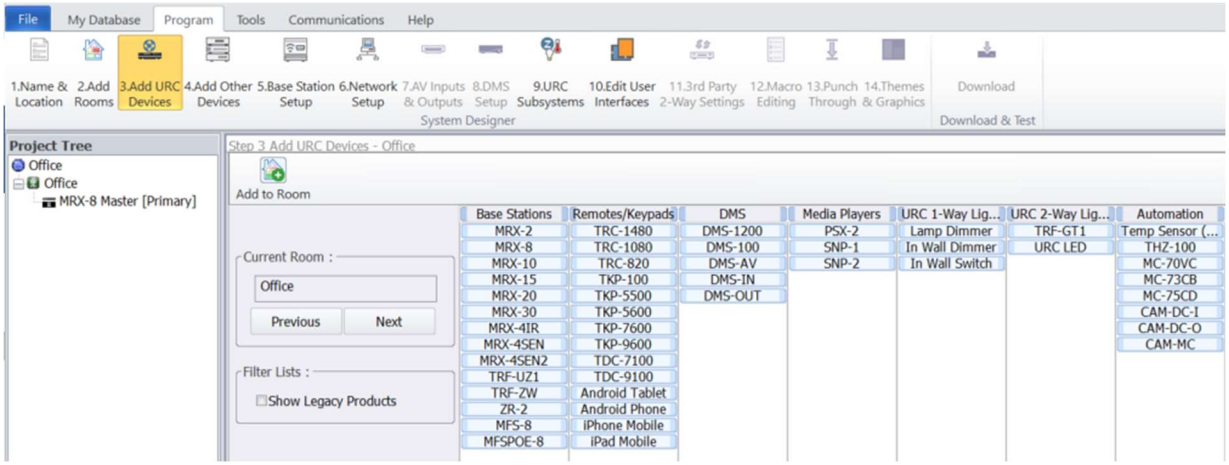
1. Create a Project, include the required information in the “Name and Location” section below.



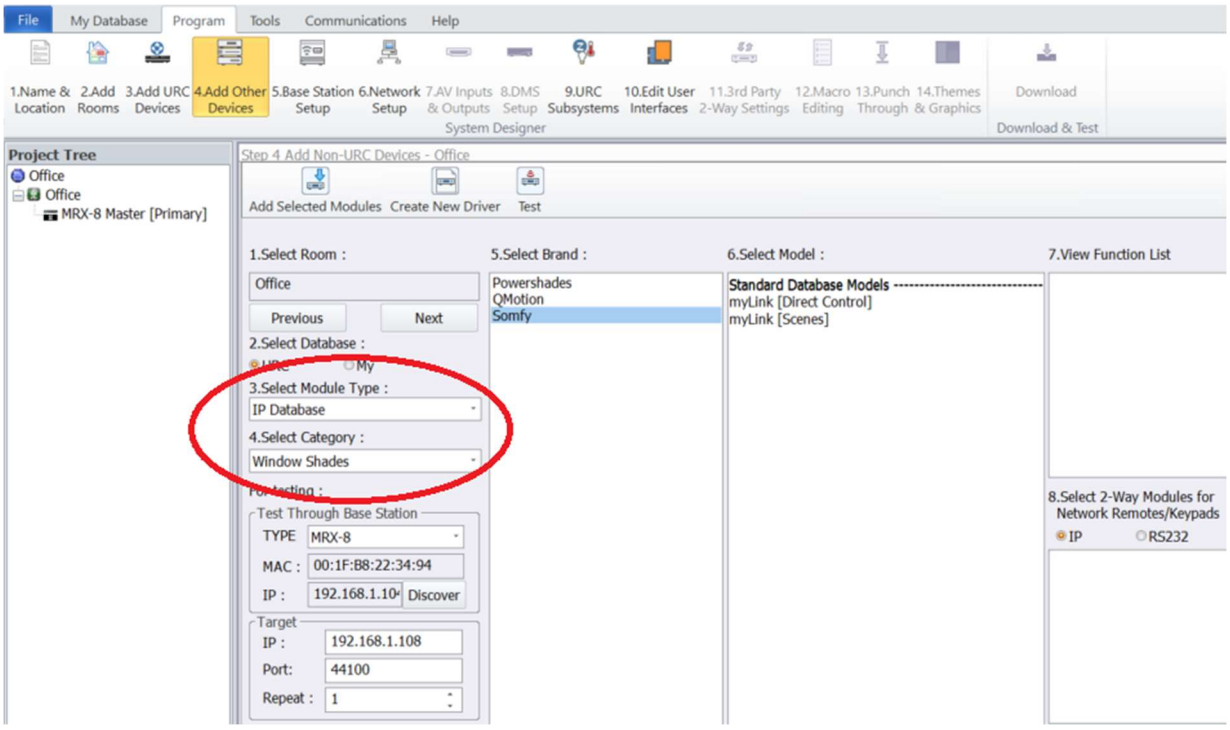
2. In this screen you can add additional Rooms as Needed for your project.



3. In this screen you can add additional URC Devices as Needed for your project.

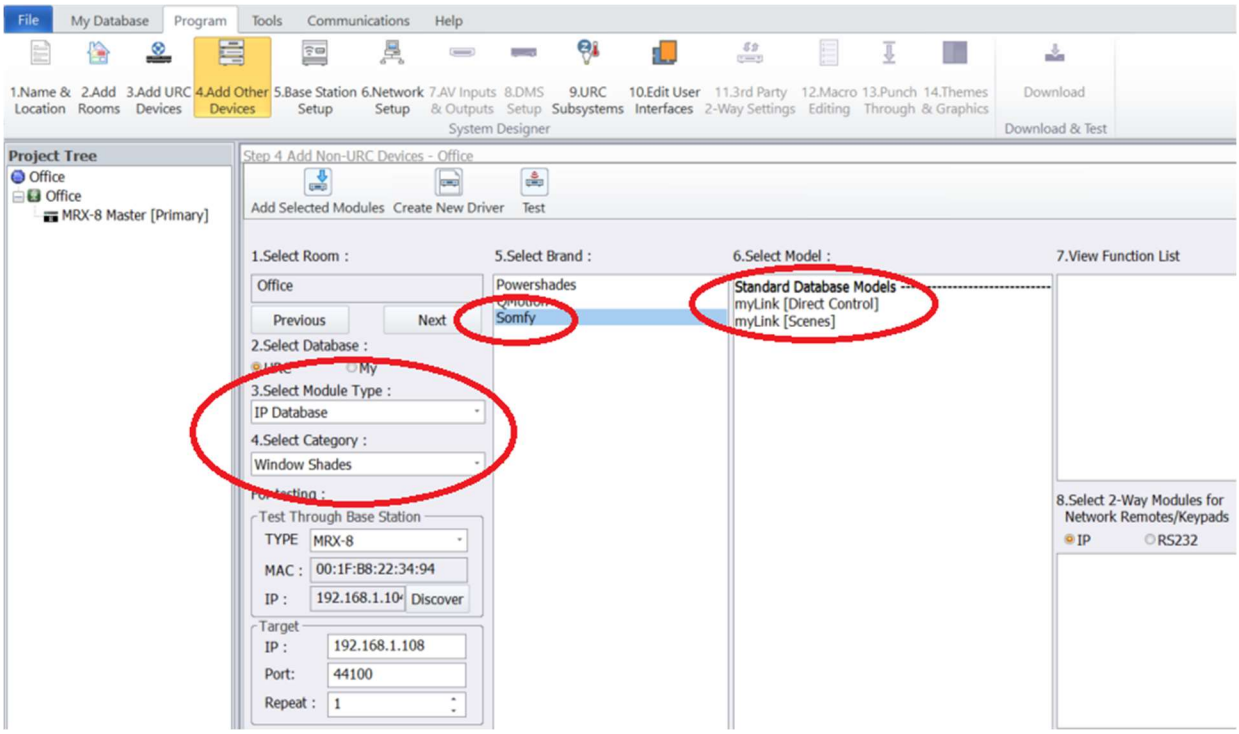


4. Select the “IP Database” option from the “Select Module Type” dropdown box.
5. Select the “Window Shades” option from the “Select Category” dropdown box.

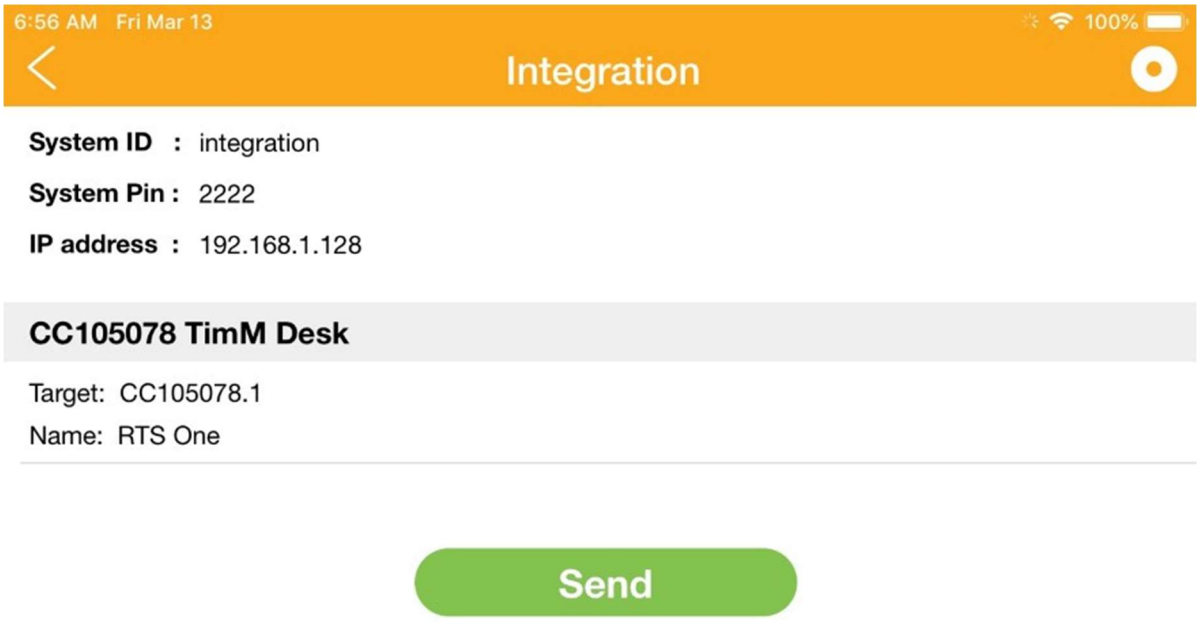


6. In Step.6 we will need to make several selections. Refer to image below for these steps. Select the “Somfy” option from the “5. Select Brand” column. Next, Select the “MyLink [Direct Control]” option from the “6. Select Model” column.

7. When finished select the “Add Selected Module” button in the Top-left corner of the page. The new Driver will now be listed in the Left-hand column of your Project.



8. Now that the MyLink Driver has been added, you will need to configure the new Driver for Buttons to Show in the Interface, Button Names, and MyLink control Strings. Control String Format provided below. Actual Integration configuration information can be retrieved from the Somfy MyLink Integration Report.



Integration FAQ

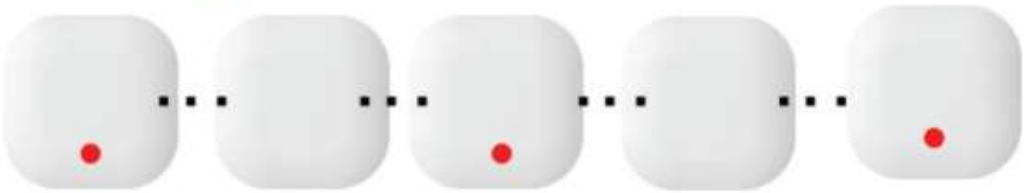
What do the different colors on the Link Pro LED indicate?

Blinking red to solid red indicated Link PRO is scanning for WiFi networks & will stop blinking when scan is complete. Rescan WiFi by clicking on setup button

Solid Green: Connect to the configured WiFi.

Slowly blinking Green: Link Pro is trying to connect to the configured WiFi network but cannot connect or has been disconnected.

Quick Red Flash: Link PRO is transmitting using the 433MHz radio



Solid Amber: Firmware is being updated.

Should I choose 2.4GHz or 5GHz for Link PRO?

Choose 2.4GHz if the home construction is concrete, or multi-floor, or stucco walls. Choose 5GHz if single floor, no concrete or stucco walls and if the project has a high noise floor at 2.4GHz or many other networks such as Zigbee or large 2.4 WiFi deployments. For more information on this please consult with the RTS DESIGN GUIDE available at www.screeninnovations.com

Which SI Shade products can I control ?

All SI Shade products including nano, zen, veil and sail can be controlled

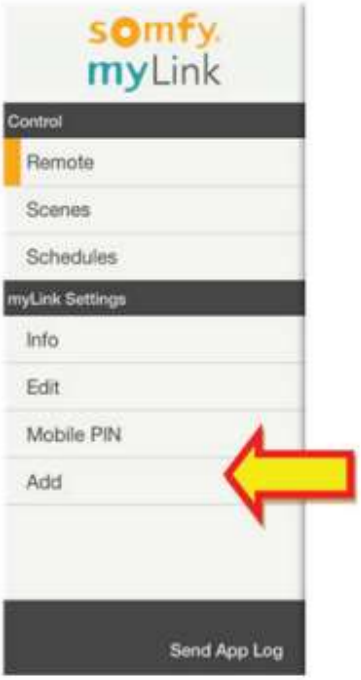
Which ports are needed for Link PRO control on my network?

55050
44040
40045
20000
44100
44200
1902

How do I update a Link PRO Network Settings to match

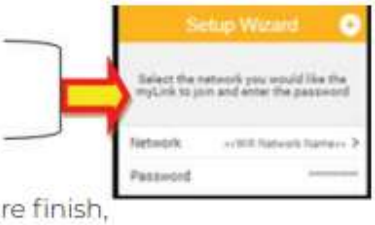
- In the myLink App Open the Menu

- Select ADD under "myLink Settings"



- Follow the instructions shown on your device to connect to your Link Pro

- After you select "Search for myLink", you will need to select your network & current password for your network.



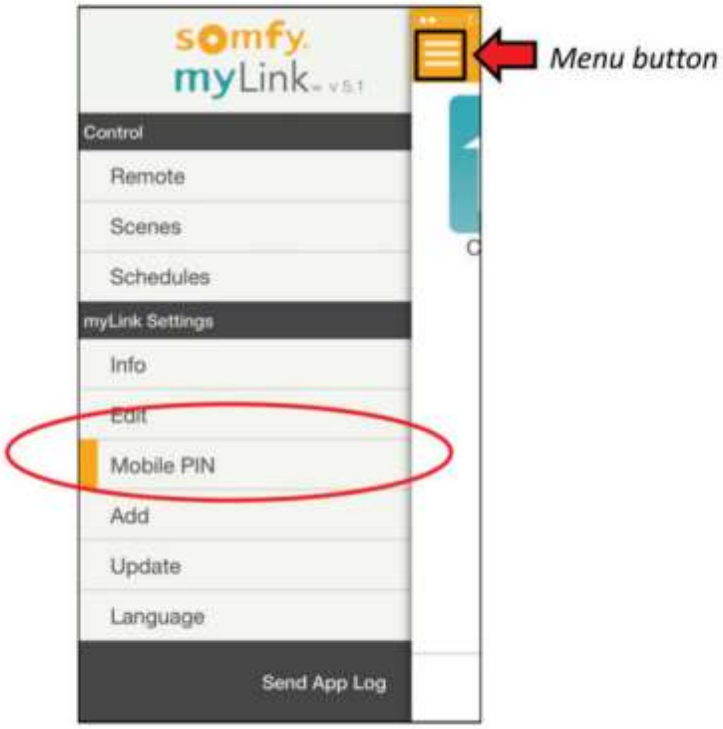
- Once you complete that and the Auto Configuration steps are finish, you will be asked if you would like to Erase or Continue.
- Select Continue, then you will see the icon for current Link PRO device.
  - Select Next, then you will see all your current channels.
  - Finally select Done as all your programming is still existing.

Once the first Link PRO has been successfully added, repeat the process to add the rest of the Link PROs.

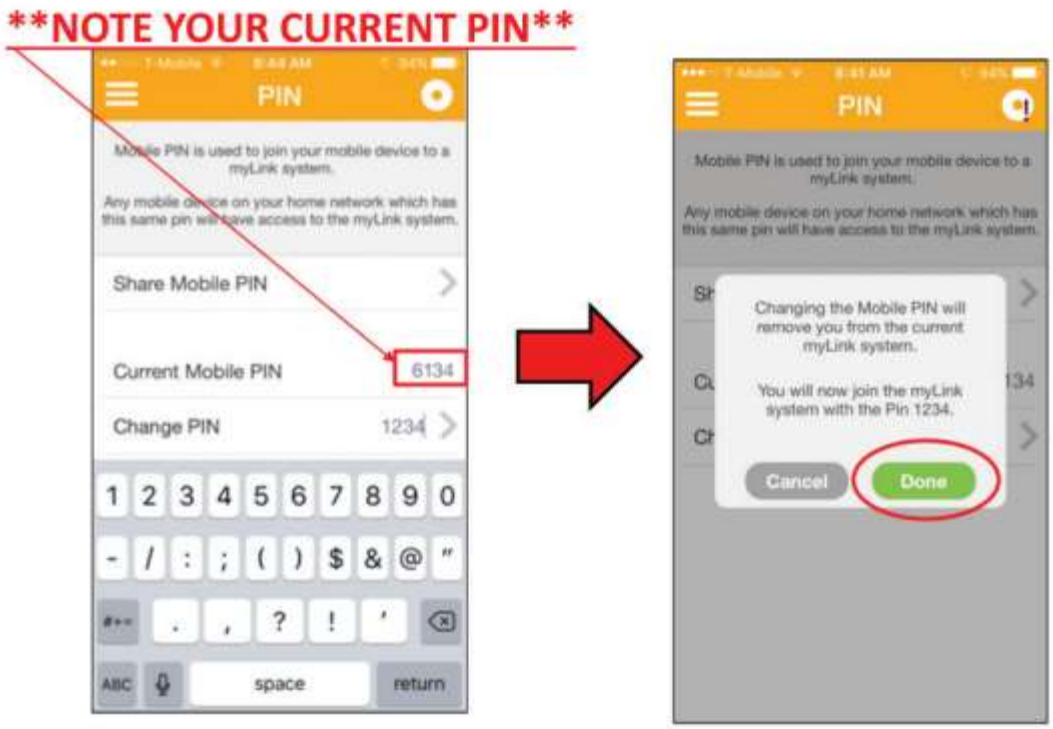
How can I delete a Link Pro from the myLink app?

- Unplug Link Pro, and the Icon for it will go from Blue to Gray

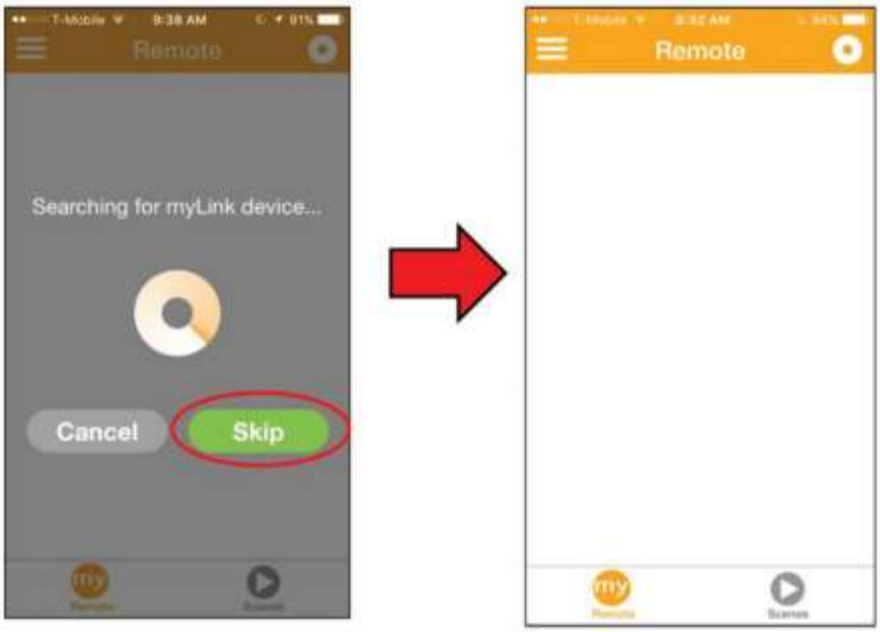
- Click Menu button, and select Mobile PIN.



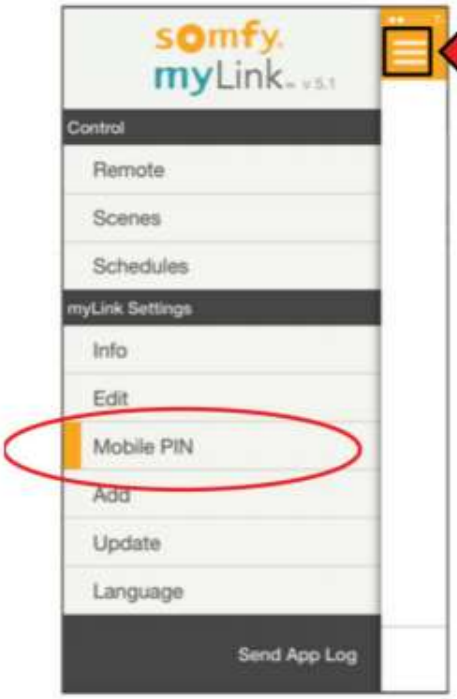
- Under "Change PIN", enter random 4-digit number and select return. The select DONE



- Select Skip then you will see a blank page.



- Click Menu, select Mobile PIN.

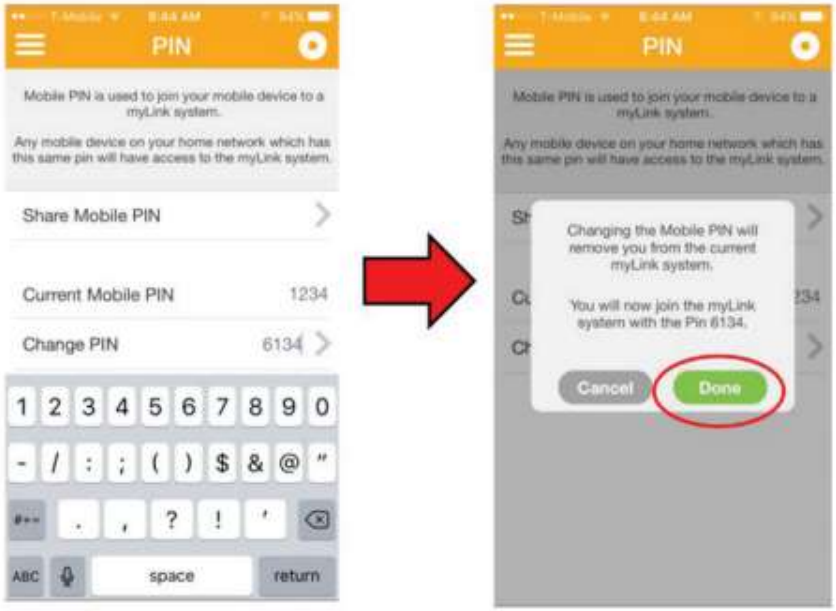


Menu button

You will see that the current mobile pin is now the different number that you had just entered. Under "Change PIN", enter what your 4-digit PIN was, and then hit return.

Then select DONE. SKIP, then you will see a blank Remote page.

After selecting DONE, you will ONLY see your active Link Pro devices listed.



Screen Innovations Integration Support

https://www.somfypro.com/services-support/software

For more information and design help please call us at **512.832.6939**
or contact us at **www.screeninnovations.com**

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