Control 4 Integration
Tech Note 101
# Table of Contents

Introduction ................................................................................................................. 4
How To Use This Technote .......................................................................................... 5
Common Control Nomenclature .................................................................................. 6
Screen Innovations Integration Support ....................................................................... 7
Screen Innovations Shade System Control Options ................................................. 7
Before you begin your integration with RTS ......................................................... 8
RTS LinkPro .................................................................................................................. 9
Integration With RTS via LinkPro .............................................................................. 10
Wifi and RTS Device Range ....................................................................................... 11
Step process - Integration With RTS via LinkPro ..................................................... 12 - 14
Integration with SDN .................................................................................................. 15
Before you begin your integration with SDN ........................................................... 15 - 16
Integration with SDN via SiFi ..................................................................................... 17
Step Process - Integration with SDN via SiFi .......................................................... 18 - 20
Integration FAQ .......................................................................................................... 21 - 27
**Introduction**

This TECH NOTE 101 Control4 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 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 with our SICON ecosystem will provide an unmatched level of performance. 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 integration to a Crestron system. We provide step-by-step details and screen shots to enable rapid deployments and testing.

This Tech Note may also contain data sheets that may be helpful for your shade integration project. Scan the QR code at the top any page to download the latest datasheet(s).

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 at 512.832.6939.
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.

Somfy® Wired Technology (WT) – When you see this logo, this product uses line (high) voltage to power the shade, and it may have GPIO, IR, RS-485 or RF control methods.

Somfy® Dry Contact Technology (DCT) – When you see this logo, this product uses dry contact closure(s) for control of the shade(s).

Somfy® Infrared Technology (IR) – When you see this logo, this product uses Infrared commands for control of the shade(s).

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).
Screen Innovations Shade System Control Options
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 Link PRO system 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 within Control4 Composer.

Any changes to number of channels, scenes or myLinks in the system will require update in system configuration in Composer.

Compatible with Control4 processors running OS 2.6 and higher.

Compatible with Link Pros, myLinks and legacy myLinks running firmware 4.06 and higher.

Integration requires both the Control4 myLink driver and blinds driver. See driver details for more information.
Link Pro

Hardware Overview

- Compatible with qualified WIFI networks (See RTS Guide for more details on qualified networks)
- 2.4 GHz & 5GHz WIFI compatible with a/b/g/n routers
- WPA2, WEP, TKIP open, and mixed mode encryption
- Real Time Clock (RTC) for timed events without app/server connection
- Supports Up/Down/My/Stop commands and incremental control
- All Screen Innovations RTS gateways are rated for Interior use only
- LED indicates WIFI status and RTS transmission
- latest Firmware version: 5.16
Integration With RTS via LinkPro

Download App from Apple App Store or 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
LinkPro must be as close as possible to the nearest WiFi access point.

Shades should be located within the horizontal plane of LinkPro.

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.

-65dBm or better
Step process - Integration With RTS via LinkPro

Step-by-Step – Ten steps to Integrate myLink or Link PRO with Control4

Before you begin please download the latest drivers from our site; https://www.screeninnovations.com/accessories/linkpro/

1. Open Composer & connect to the appropriate Control4 Controller.

2. Select the Room from the “System Design” column that the myLink will physically reside.
3. Select and Double-click the Somfy myLink device from the “Discovered” tab of the “Items” column. This will add the Device to the currently selected Room. Rename the Driver added to the selected Room as needed.

![Items Table]

Requires SDDP to be enabled in the myLink App. Integration With RTS Via LinkPro.

4. Select the myLink Driver and enter the “System ID” under the Properties menu of the Properties column and then click on the “SET” button to finalize.

![Properties Menu]

5. With the new Driver still selected, navigate to the “Connections” section of the “System Design” column and then click on the “Network” tab at the top of the column. Select the myLink Driver and assign the correct IP Address for that device.

The myLink IP Address can be found in the myLink Integration Report.
6. With the new Driver still selected, navigate back to the “System Design” section of the “System Design”. At the top of the “Properties” column, select the “Actions” tab and click on the “Print Status Report” button. Then navigate to the “Lua” tab and review the “Lua Output” messages. If communication is successful you will see the following messages.

   a. Controller IP address: **IP Address entered in Step #5** Communicating: true

7. Navigate back to the “Items” column and select the “Search” tab, enter “Somfy” into the Search bar and hit enter. Select and double-click the “Somfy myLink-UAI Blind V2.1” driver from the list. This will add the Driver to the recently added Somfy Device. Rename the Driver added to the selected Room as needed.

8. Select the newly added Room Driver from the “System Design” column, then set the “Blind Type” value to “RTS” and choose the desired Device from the “Available myLink Devices” section in the “Advanced Properties” section of the “Properties” column. Click on the “SET” buttons to finalize the selections.

9. Double-click on the newly added myLink device in the “System Design” column to open the Control Panel for this device. From here you can test the functions of the myLink Device.

10. Finally, go to the “File” button at the top-left corner of the application and select “Refresh Navigators” from the Drop-down menu.

Note: As mentioned in the “Before you begin integration with RTS section of this document”, and before any attempts to Integrate Link PRO products, the RTS system will need to be completely setup including the System ID, System PIN and Paired to the RTS Devices that you want to control.
Integration with SDN

Before you begin your integration with SDN

Requires a fully operational SI SDN system with all shade limits set (including the MY position if desired) and a fully commissioned SI.FI.
Open a browser and connect with the IP address of your SI.FI and navigate to the TELNET tab. You will need this telnet user name and password for identification within Control4 Composer.

Compatible with Control4 processors running OS 2.6 and higher. Integration requires both the Control4 myLink driver and blinds driver SDDP enabled. See driver details for more information.
Integration with SDN via SiFi

The SI.FI SDN Gateway allows for commissioning and integrating a Somfy Digital Network™ (SDN) over Internet Protocol (IP).

Embedded motor commissioning software streamlines SDN system configuration.

The SI.FI SDN Gateway is also compatible with the Somfy Synergy™ API as well as drivers from all popular home automation and control systems and Amazon Alexa, a Google Assistant via IFTTT making it easy to integrate custom automation programming.
Step Process - Integration with SDN via SiFi

1. Open Composer and connect to the appropriate Control4 Controller.

2. Select the Room from the “System Design” column that the UAI+ will physically reside.
3. Select and Double-click the Somfy UAI-Plus device from the “Discovered” tab of the “Items” column. This will add the Device to the currently selected Room. Rename the Driver added to the selected Room as needed.

4. Select the Connect UAI+ Driver and enter the “Telnet User” and “Telnet Password” in the Properties column and then click on the “SET” button to finalize.
5. With the new Driver still selected, navigate to the “Connections” section of the “System Design” column and then click on the “Network” tab at the top of the column. Select the Somfy UAI/UAI Plus Driver and assign the correct IP Address for that device.

6. With the new Driver still selected, navigate back to the “System Design” section of the “System Design”. At the top of the “Properties” column, select the “Actions” tab and click on the “Print Status Report” button. Then Navigate to the “Lua” tab and review the “Lua Output” messages. If communication is successful you will see the following messages.

a. Controller IP address: **IP Address entered in Step #5** Communicating: true

7. Navigate back to the “Items” column and select the “Search” tab, enter “Somfy” into the Search bar and hit enter. Select and Double-click the “Somfy myLink-UAI Blind V2.1” driver from the list. This will add the Driver to the recently added Somfy Device. Rename the Driver added to the selected Room as needed.

8. Select the newly added Room Driver from the “System Design” column, then set the “Blind Type” value to “SDN” and choose the desired Device from the “Available Blinds” section in the “Advanced Properties” section of the “Properties” column. Click on the “SET” buttons to finalize the selections.

9. Double-click on the newly added Connect UAI+ device in the “System Design” column to open the Control Panel for this device. From here you can test the functions of the Connect UAI+ Device.

10. Finally, go to the “File” button at the top-left corner of the application and select “Refresh Navigators” from the Drop-down menu.

Note: Again as mentioned in the “Before you begin integration with SDN section of this document”, and before any attempts to Integrate the Connect UAI+ products, the SDN system will need to be completely setup including the Telnet User name and Password Information.
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 RTSDESIGN GUIDE available at www.screeninnovations.com

Which SI Shade products can I control with Control4?
All SI Shade products including nano, zen, veil and sail can be controlled with Control4

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 my Control4?
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

**NOTE YOUR CURRENT PIN**
• Select Skip then you will see a blank page.

• Click Menu, select Mobile PIN.
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.
How can I control an SDN shade or screen without SI.FI?

Ensure you have a fully commissioned SDN screen or shade with all limits set before you begin any direct control. It is not necessary to have a permanently installed SDN gateway such as SI.FI. But you will need to set all limits with a SI.FI or a hard-wired limit setting tool.

In order to do this, you must have a control system capable of direct serial communications for RS-485.

Connect the TX (A) to Orange+white, RX(B) Orange, and brown to ground from your chowmain to the screen or Shade.

Screen Innovations Integration Support

Can't find the answer to your design questions in this Tech Note? Our support team will help you with the problem you're having.

Call us now at 512-832-6939. Office Hours: Monday - Friday (8am - 6pm).