



Push Controls

Module: Somfy RTS

Script Device: Luke Bowers

Guide: Luke Bowers

Version 1.3

www.pushcontrols.com

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Version History

Version No.	Date	Description
1.0	23/07/2014	Initial document created with instructions for setting channels, and importing a blind GUI component into a GUI page.
1.3	12/10/2016	Add Gen IV theme guidelines

Step 1: Getting Started – Setting Up Your Hardware

For a successful PUSH integration into the Somfy RTS, the following hardware is required:

1. Push Controller (Either PC2/PC1)
 - a. PC4 can be supported if you are using a IP to RS485 converter



2. RS232 to RS485 converter **OR** IP to RS485 converter



3. Somfy RS485 RTS Transmitter



Wiring Specifics

Serial RS232 connection

The serial connection from the Somfy RTS to the PC1/PC2 can be connected in a variety of ways. The easiest way to wire is to connect the RS232-RS485 converter directly into the male DB9 connection on the controller, as the DB9 end of the converter is almost always the RS232 input/output.

The terminal strip end of the converter will then need to be wired into the RS485 terminal strip on the Somfy RTS interface. The wiring from the RS485 converter to the Somfy RTS Transmitter terminal pins will differ depending on the converter being used, however most of the time the 485 + on the converter will be wired to the RS485 + pin, 485 - on the converter will be wired to the RS485 - pin, and GND will go to G on the Somfy RTS Transmitter (see Figure 1).

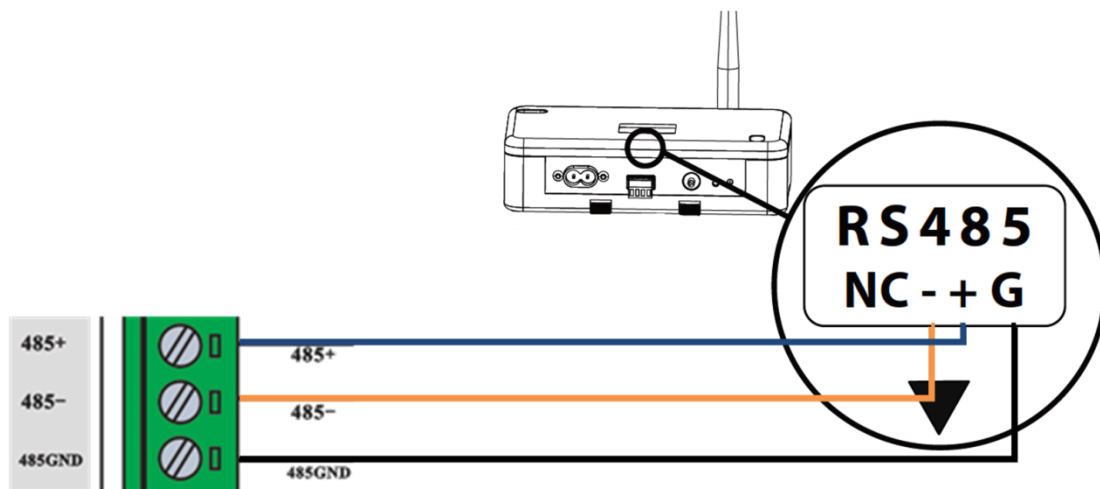


Figure 1 - Wiring of RS485-RS232 converter to Somfy RTS terminal strip

Step 2: Setting Up Your Project – Configuring the Serial Port

The Somfy module communicates with the Somfy RS485 RTS system over either an RS232 port facilitated via an RS232-RS485 converter (only available on PC1/PC2 due to requirements of serial port configuration outlined below) or over TCP/IP through an IP to RS485 converter (compatible with all Push controllers). Hence you will have to either configure the serial port on the PC1/PC2 for communication over serial, or the serial port on the PC4 to operate with a TCP device.

Configuring the Serial Port on a PC1/PC2

- Expand the PC1/PC2 in the project tree
- Expand the 'Connected Devices'
- Right Click on the serial port connected to the Somfy RTS and select 'Properties'
- Select the "Normal (Supports Two-Way)" option
- Ensure the **baud rate** is set to '**4800**', **data bits** set to '**8**', **parity** set to '**ODD**' and stop bit set to '**1**'
- Select 'Apply' then Select 'OK'

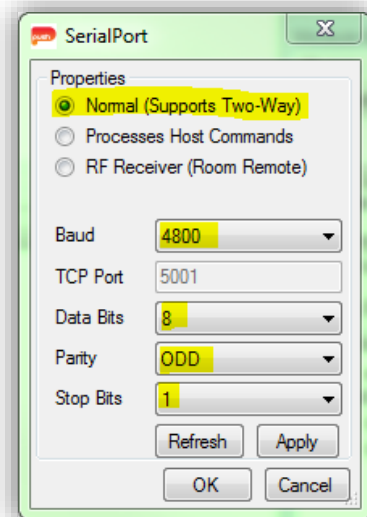


Figure 2 – Highlighting the serial port properties to set on a PC1/PC2. NOTE: dialog box is opened by right clicking SERIALPORT and clicking properties.

Configuring the Serial Port on a PC4 for use with IP to RS485 converter

- Expand the PC4 in the project tree
- Expand the 'Connected Devices'
- Right Click on 'Serial Port' and select 'Properties'
- Select the GUI Two-Way (TCP) option
- Select 'Apply' then Select 'OK'

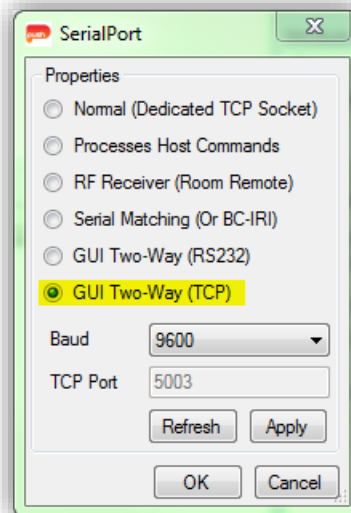


Figure 3 – Highlighting the serial port properties to set on a PC4. NOTE: dialog box is opened by right clicking SERIALPORT1 and clicking properties.

Step 3: Setting Up Your Project – Importing the Somfy RTS Module

Import the Somfy RTS module by completing the following actions:

- Right click on 'PROJECT' at the top of the tree and select 'Import Module'. *Refer to Figure 4*
- Locate and select 'Somfy_RTS_X.pemod' (where X is the current version number)

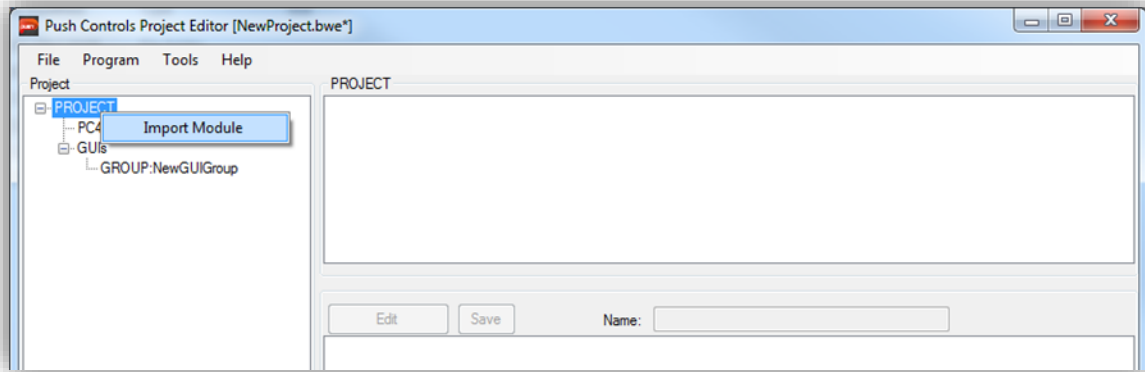


Figure 4 – Right click on PROJECT, inside the project tree, to import a module.

The selected module will now appear in the module browser window (See Figure 5), where you can see everything that is included in the module. The first step of importing the module into the current project is to drag and drop the module script device onto the controller to which the device is connected.

Note: A GUI group must be available in the GUI's section of the Project Editor, in order to import the Somfy RTS module.

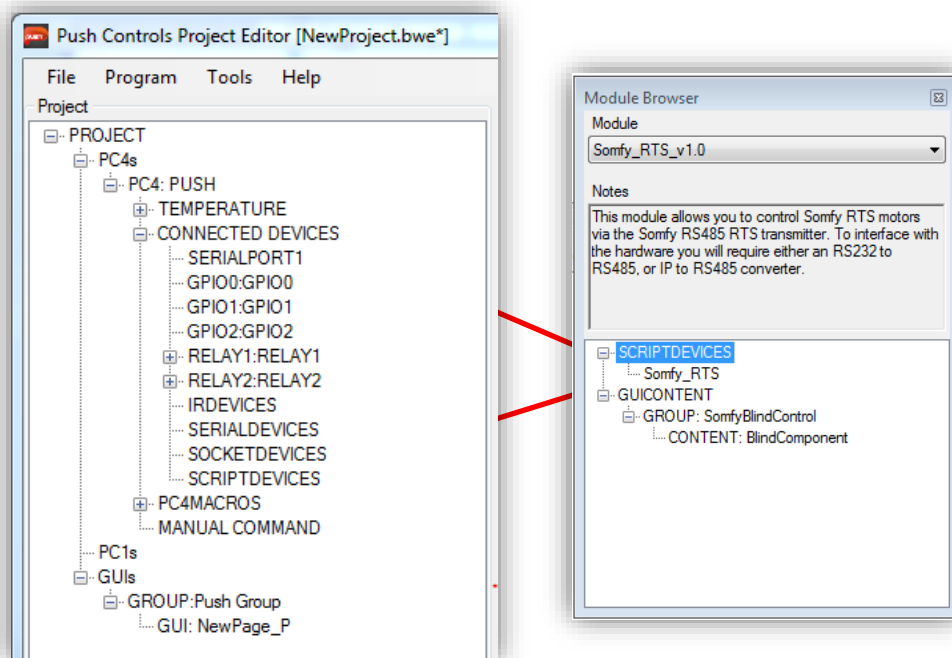


Figure 5 – Dragging and dropping script from the Module Browser window

Step 4: Setting Script Device Parameters

Setting the protocol

The Somfy script device must have the correct protocol set for communications to and from the Push controller. The following are the steps to take to set the protocol for the Somfy script device.

- Right click on the newly added script device, and select “Properties”. *Refer to Figure 6*
- Set the Protocol to:
 - RS232 for control via a PC1/PC2. *Refer to Figure 7*
 - In the case of PC1 and PC2 controllers you will also have to provide the appropriate port number in the port field, so that it matches the serial port connected to the Somfy RTS Transmitter
 - TCP/IP for control via an IP-RS485 converter (only option available for PC4 integration), and enter the IP address and Port number of the converter into the appropriate fields

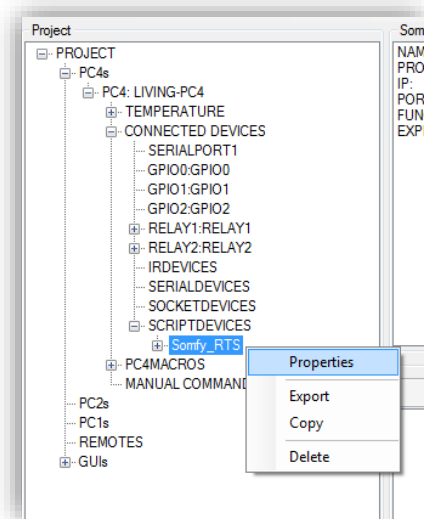


Figure 6 - Configuring device parameters: right click the device and select properties

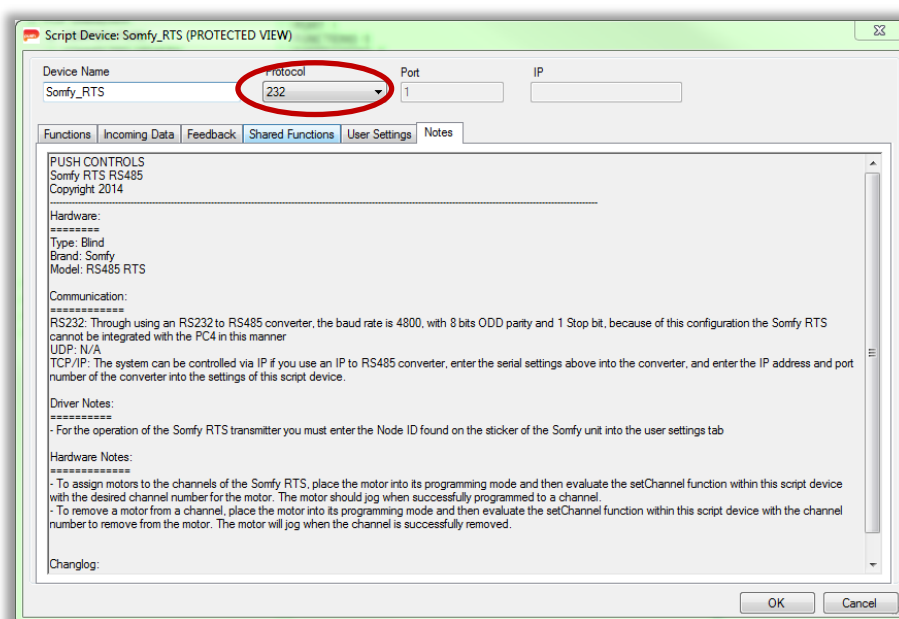


Figure 7 – Device Properties Window: Set the protocol to be used for communication with the device

Entering the Somfy Node ID

Each Somfy RS485 RTS Transmitter comes with a unique Node ID, which is used to identify an interface when you are integrating with multiple units. The Node ID can be found on the product label on the Somfy RTS Transmitter unit (see Figure 8) and will be a 6 digit hexadecimal number, e.g. 0580E3.



Figure 8 - Highlighting the Node ID on the Somfy RTS unit

Once you have noted the Node ID it has to be entered into the Node ID user settings field within the Somfy RTS script device. To achieve this follow the steps below:

1. Right click on the Somfy RTS script device and select properties (see Figure 6)
2. Click on the User Settings tab
3. Change the value within the quotation marks to match the Node ID you noted down earlier

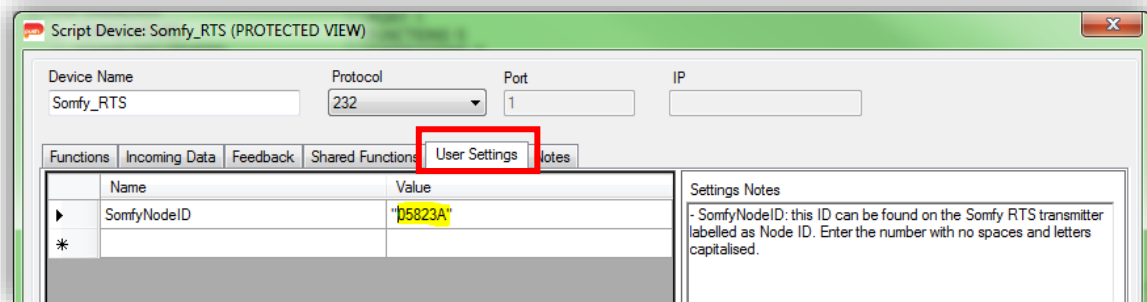


Figure 9 - User Settings tab and Node ID field highlighted

Step 5: Setting Up Somfy RTS Channels

The Somfy RTS Transmitter can control up to 16 assignable channels. By default no channels are associated to motors, this section outlines how to assign a channel in the Somfy RS485 RTS Transmitter to a compatible Somfy motor. To assign a channel to a motor (or group of motors if a channel group has been set) complete the steps below:

1. Place the motor/group into its programming mode (please refer to the Somfy documentation associated to the device you are pairing with, for steps on placing a motor/group into programming mode)
2. Once the motor/group is in programming mode open the Somfy_RTS script device, select the functions tab and select the setChannel function from the drop down list (see below)

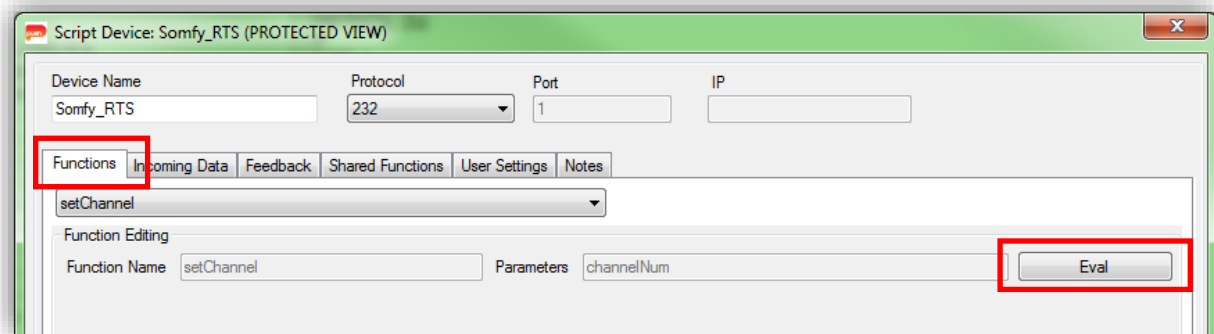


Figure 10 - Highlighting script device Functions tab and Eval button

3. Once you have selected the setChannel function from the dropdown list, press the 'Eval' button (see Figure 10)
4. You will be presented with a dialog box that will ask for a channel number to be entered, this can be a value from 0 through to 15 (see Figure 11). Provide a valid channel number, click OK, and then OK again to transmit the setChannel command to the Somfy RTS transmitter.
 - a. The motor/group you had set in programming mode will 'jog' if the channel has been set successfully

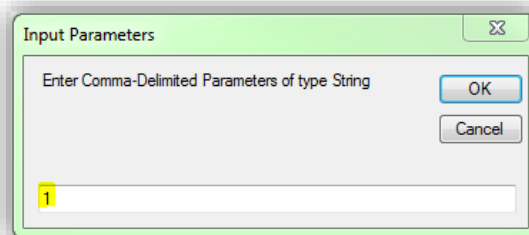


Figure 11 - setChannel function channelNum parameter

5. Repeat steps 1 – 4 for each motor/group you wish to assign a channel to, and note down the channel numbers for assignment to GUI components in the next section

Step 6: Setting Up Your Project – Importing Somfy Blind Component

GUI Themes

Themes Available

The Somfy module contains multiple GUI themes, each theme is grouped into a GUI Group as follows:

- SomfyBlindControl_G4: contains components with Gen IV theme
- SomfyBlindControl_G3: contains components with Gen III theme
- SomfyBlindControl: contains components with an older theme

Tablet and Phone Content

Each GUI Component is available for both tablet and phone resolution:

- Tablet resolution: components without the 'HD' label eg. Blind-Horizontal_G4
- Phone resolution: components with the 'HD' label eg. Blind-Horizontal-HD_G4

Adding a GUI Component to a GUI Page

Each of the elements contained in the module need to be dragged and dropped into their respective positions within the project. The items under the SCRIPTDEVICES category need to be dragged onto the controller connected to the Somfy RS485 RTS Transmitter.

The GUICONTENT area can include POPUP or CONTENT and are imported in the following manner

Refer to Figure 12:

- POPUP content can be dragged directly into an existing GUI group
- CONTENT requires an existing page to be dragged in to. To include content you drag it onto an open GUI page (hold down shift to drag the content to any position on the page).

Note: items should be imported in the order that they appear inside of the Module Browser window due to the dependencies certain modules contain.

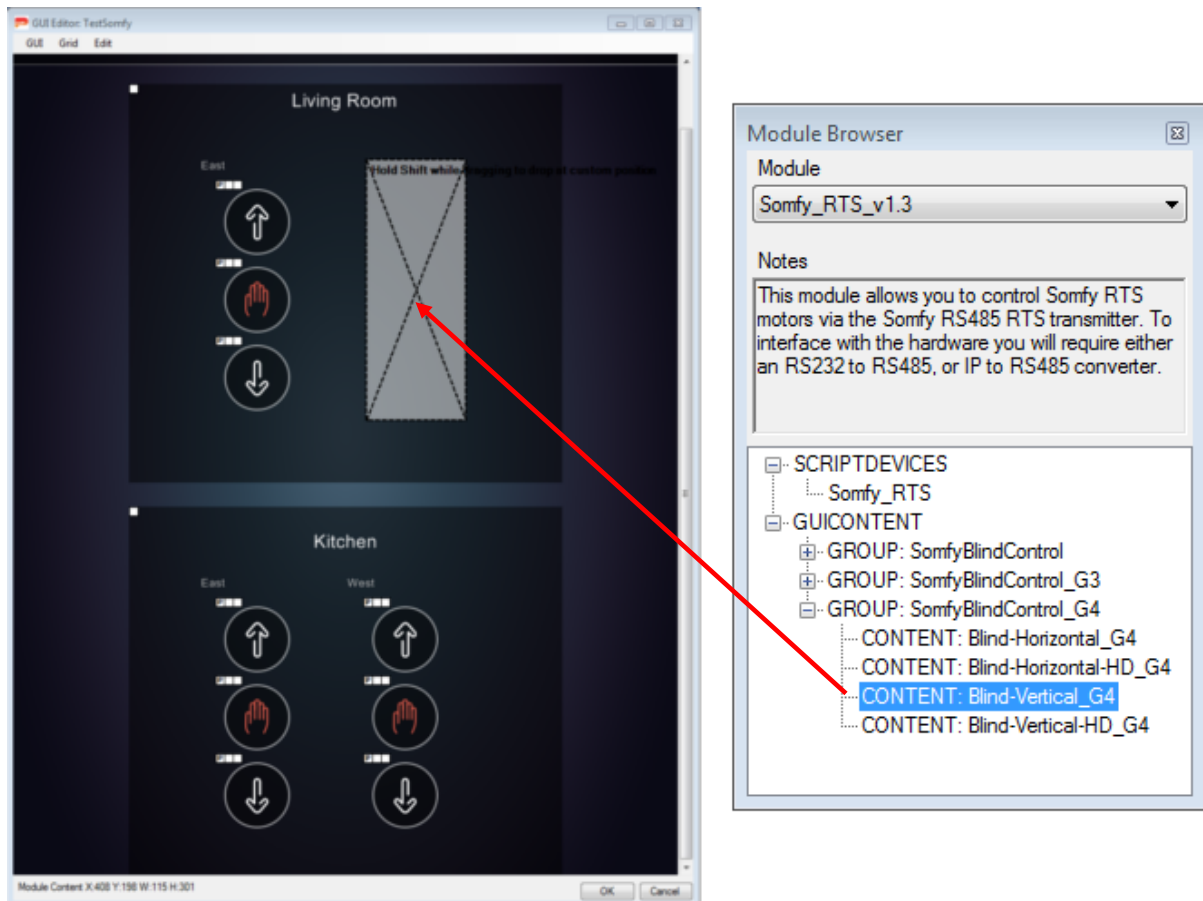


Figure 12 - Dragging content onto a GUI page

Each of the GUI content elements will prompt you to enter parameters required to program the content to the Somfy module. For example in Figure 12 the BlindComponent content is dragged onto the page, whilst holding down shift to move its position. Once the mouse button is released a dialog box will open asking for parameters to be provided (Figure 13). In the case of the BlindComponent element the following data is required:

- Somfy Channel Name: The name of the Somfy channel that this component will control
- Somfy Channel Number: The number of the Somfy channel that this component will control (these were assigned in Step 5: Setting Up Somfy RTS Channels)

Replacement Variables

This GUI Content contains Replacement Variables.
You must supply values for each Variable before adding the GUI Content

Somfy Channel Name	East Blind	Enter the name you wish to display on the interface for this component
Somfy Channel	8	Enter the Somfy channel number you wish this component to control

OK Cancel

Figure 13 - GUI Content parameter dialog box