INTEGRATION GUIDE



Control INTEGRATION FOR SDN



INTEGRATION GUIDE CONTROL4 INTEGRATION FOR SDN VERSION 1.0 | DECEMBER 2020 | Prepared by PROJECT SERVICES

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A. AVAILABLE COMMANDS & ACTIONS

I. OVERVIEW

INTRODUCTION

The Somfy Organization strength has been demonstrated with 50 years of experience in motorization. Leading the shading industry with innovation and modernization solutions for homes and commercial buildings. Offering the widest range of strong, quiet motors and controls for all types of applications and technologies.

Who is this Guide for?

This guide is aimed at providing support and guidance to Control4 System Integrators, achieving complete automation of Somfy Digital Network[™] (SDN) motors and controls.

What does this Guide contain?

The sections of this guide contain walkthroughs and various methods of controlling SDN motors using the appropriate control device as the bridge between the AV System and the Somfy system of choice.

This guide discusses common methods of integration with Control4. For advanced technical support contact: Somfy Technical Support at 1-800-227-6639 technicalsupport_us@somfy.com

How to use this Guide?

This guide is designed as a reference manual. Use the table of contents to find the integration method, then follow along in the instruction.

REFERENCED DOCUMENTS & SOFTWARE

Visit <u>www.somfypro.com</u> for the following Programming Guides:

- Somfy Connect[™] UAI Plus
- SDN Motor Configuration Software
- SDN Keypad Configuration Software

Visit <u>www.somfypro.com/services-support/software</u> for the following Software:

- SDN Motor Configuration Software
- SDN Keypad Configuration Software

II. SOMFY CONNECT UAI PLUS INTEGRATION

The Somfy Connect[™] UAI Plus is designed to control residential and commercial SDN motors through IP and RS232 serial communication.

Details of this controller and commissioning instruction is further referenced in the <u>Somfy Connect[™] UAI Plus Programming Guide</u>.

SYSTEM REQUIREMENTS

PC running Windows 10 or higher Somfy Connect[™] UAI Plus with latest firmware UAI Plus Integration Report Control4® Composer Software 2.6 or newer Control4® Somfy UAI Plus Interface Driver Control4® Somfy UAI Plus Blind Driver



UAI PLUS CONNECTIONS & LEDs

RS232/RS485 WIRING PINOUT							
Dia #	Color	Function					
PIN#	Color	UAI Plus	Third-Party				
1	Orange White	SDN RS485 (+)	-				
2	Orange	SDN RS485 (-)	-				
3	Green White	RS232 RS	RS232 TX				
4	Blue	24V DC	-				
5	Blue White	24V DC	-				
6	Green	RS232 TX	RS232 RX				
7	Brown White	SDN RS485 GND	GND				
8	Brown	SDN RS485 GND					



SYSTEM CONFIGURATION FOR SDN

A fully operational SDN system is required prior to Control4 programming.

- Confirm with Shade Commissioning Agent that the Somfy Connect UAI Plus firmware is up to date and SDDP is enabled in the UAI Plus Ethernet Settings
- An Integration Report must be provided by the Shade Commissioning Agent which will include all network, telnet and system parameters

	A	В	С	D	E
	UAI+IP Address	192.168.0.32			
	MAC Address	00.1B.C5.00.08.	79		
3	UAI+ Firmware Version	02.01.42			
	Telnet Users	Telnet 1	Telnet 2	Telnet 3	Telnet 4
5	Telnet Passwords	Password 1	Password 2	Password 3	Password 4
6					
7					
8	Motors	LABEL	Group 1	Group 2	Group 3
9	20023C	BLACKOUT	ALL	Master Suite	
10	1303F0	LIVING ROOM	ALL	Living Room	
11	0A06B8	PATIO	ALL	Exterior	
12	4000EA	SHEER	ALL	Master Suite	
13	0667B4	KITCHEN	ALL	Kitchen	
14					
15					
16	GROUPS	INVERTED	NAME		
17	010100	FFFEFE	ALL		
18	010101	FEFEFE	Kitchen		
19	010102	FDFEFE	Living Room		
20	010103	FCFEFE	Master Suite		
21	010104	FBFEFE	Exterior		
	report	Ð			

ADDING UAI PLUS INTERFACE DEVICE TO PROJECT

If integrating with multiple Somfy Connect UAI Plus devices, ensure each unit is installed on a separate Somfy Digital Network. Follow a method of connecting individual Blind devices to the corresponding UAI Plus Interface device in the Control & Audio Video Connections. Control4 OS updates may require reconnecting these devices.

There are three methods to add the Somfy Connect UAI Plus Interface device to Project:

- via IP with SDDP Discovery Enabled
- via IP Searching the Composer Driver Database
 - via RS232 Serial Connection

<u>OPTION A</u> – Adding the UAI Plus Interface Device via IP with SDDP Discovery Enabled:

Reference the Somfy UAI Plus driver set details located in the device Documentation tab.

- 1) In the Composer System Design view, Project tree, select a Room in which a device is to be added
- 2) Go to the Items pane, select the Discovered tab
- 3) Locate the UAI Plus device, double or right click to Add to Project automatically connecting the IP address
- 4) Rename the device to the associated location or room
- 5) Go to device Properties tab
- 6) Verify the device Driver Information status displays "Communicating with the Somfy UAI Plus normally (IP)..."

System Design	Properties	Properties	Summary List View	Items
stem	Properties			Locations Discovered My Drivers Search
~~~ ~ 0 7	Properties Actions Documenta	tion Lua		Type Manufacturer Model
C Project	Driver Version			Binds Converging System UAI-Plus
Home House	Driver Information	Communicating with the Somfy UAI Plus normality (IP) since		Bilinds     Manufacturer Converging Systems Inc.     Moder: UAI-PLin
B S EA-5	Debug Mode	OI	~	IP Address: 192.168.0.32 Address: CSI:gateway.e_Node: 2010-JAI-Plus-0018C50008
- 2 Digtal Media	Debug Duration in Minutes	15	0	
Tunein	UAI Plus Available via IP	Yes		
Win My Movies		Provide User and Password below only when you have enabled Login in the UAI Plus Televit configuration	\$	
- W Chanels	Teinet User			
-G conv un numerace	Teinet Password			
🗅 System Design	Blinds Polled Each Cycle	Maximum 5 blinds	~	
9 Connections		In larger installations, polling less than 100% of the blinds each 60-second cycle may bein revformance	0	
> Hedia				
🕽 Agents				
/> Programming				Auto add identified devices

#### <u>OPTION B</u> – Adding the UAI Plus Interface Device via IP Searching the Composer Driver Database:

Reference the UAI Plus Integration Report for the IP address. Ensure using a static IP or MAC-based address reservation.

- 1) In the Composer System Design view, Project tree, select a Room in which a device is to be added
- 2) Go to the Items pane, select the Search tab
- 3) In the Manufacturer dropdown list, select Somfy
- 4) Locate the Somfy UAI Plus Interface driver, double or right click the driver to Add to Project
- 5) Rename the device to the associated location or room

System Design	Properties	Properties Summary List View	Items
System	Properties		Locations Discovered My Drivers Search
· · · · · · · · · · · · · · · · · · ·	Properties Actions Document	ation Lua	
C Project	Driver Version		Local Online Certified Only <u>Clear Search</u>
E Thouse	Driver Information	Follow the steps in the Documentation tab	Category - Al Categories - V
E S EA-5	Debug Mode	CH v	Туре
Digital Media	Debug Duration in Minutes	15 😒	- Al Types - United States - U
Tunein Mu Matte	UAI Plus Available via IP	No	Sonfy ~
My Movies		Provide User and Password below only when you have enabled Login in the UAI Plum Telnet configuration	Control Method: All Methods v Sort: Relevance v
- Channels	Teinet User		Cambul Al Dive Dired
G Sonty UAI Plun Interface	Telnet Password		Somey 10/23/2020 5:32 PM CHine 2
🙆 System Design	Blinds Polled Each Cycle	Maximum 5 blinds v	Somfy UAI Plus Interface
🚱 Connections		In larger installations, polling less than 100% of the blinds each 60-second cycle	Series 2020 5/28 PM
D Hedia			
🔘 Agents			
(/) Programming			

- 6) Navigate to the Connections view, Network tab
- 7) In the IP Network Connections pane, select the Somfy UAI Plus Interface in the device list
- 8) Double-click the Somfy UAI Plus Interface device or click Identify
- 9) Enter the IP address of the Somfy Connect UAI Plus, then click Close



- 10) Return to the System Design view, device Properties tab
- 11) Verify the device Driver Information status displays "Communicating with the Somfy UAI Plus normally (IP)..."

#### <u>OPTION C</u> – Adding the UAI Plus Interface Device via RS232 Serial Connection:

Ensure the proper serial communication pinout and connection to the Somfy Connect UAI Plus Port 1.

- 1) In the Composer System Design view, Items pane, select the Search tab
- 2) In the Manufacturer dropdown list, select Somfy
- 3) Locate the Somfy UAI Plus Interface driver, double or right click the driver to Add to Project
- 4) Rename the device to the associated location or room

System Design	Properties	Proper	rties	Summary List \	hew	Items.			-
System	Properties					Locations	Discovered	My Drivers	Search
· · · · · ·	Properties Actions Documents	tion Lua				<b>_</b>			
Project     Home	Driver Vension					Srocal S	Online Ce	niñed Ordy	Clear Search
🕀 🈚 House	Driver Information	Follow the steps in the Documentation tab				Category: - Al Categorier	-		
E EAS	Debug Mode	Off		0		Type:			
- 🐮 Digital Media - 🔛 Add Music	Debug Duration in Minutes	15	1	1		- Al Types - Manufacturer:			
Tunein	UAI Plus Available via IP	No			- 11	Somfy			
My Movies		Provide User and Password below only when you have enabled Login in the 1 Plan Talnet configuration	UAI	\$		Control Methor	d. All Methods	Sort: Rele	evance 🔍
Diameis	Teinet User				- 11	Contail			1
Starty LAI Plus Interdace	Teinet Password					Somly U/	10/23/2020	0 5.32 PM	(Ordine: 🗸
🙆 System Design	Blinds Polled Each Cycle	Maximum 5 blinds		~		Somfy U/	Al Plus Inter	face	
G Connections		In larger installations, polling less than 100% of the blinds each 60 second cy may been revformance	rcle	0		Somty	10/23/2020	0 5:28 PM	(Crime V
D Hedia									
C) Agents									
(/) Programming									

- 5) Navigate to the Connections view, Control/AV tab, Control & Audio Video Connections pane
- 6) Drag & drop the Serial RS-232 for UAI Plus Control Input into the appropriate RS_232 Output Device below

Connections		Control & Audio Video Connections							
Control/AV	Network	Somfy UAI Plus Interface							
	· · · 0 Y	Name Control Insuits	Туре	Connection	Input/Output	Connected To			
Project		Senal RS-232 for UAI Plus	Control	RS_232	Input	EA-5->SERIAL 1 (DB-9)			
House House House Ream House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House House Hou		Control Outputs © Sonfy UAI Plue Binds	Control	SOMFY_UAI	Output				
- S My Movies - Tunein - My Music - Add Music		RS_232 Output Devices Device		Name		Location	Connections		
Stations C Sonty UAI Plu	s interface	5 EA-5 5 EA-5 5 EA-5 5 EA-5		SERIAL 1 (DB-9) SERIAL 2 (DB-9) SERIAL 3 SERIAL 4		Room Room Room	Sonfy UAI Plus Interface->Senal RS-232 for UAI Plus		
System Design				JETUSE 4		Pool II			
O Connections									
D Media									
C) Agents									
(/) Programming									

- 7) Return to the System Design view, device Properties tab
- 8) Verify the device Driver Information status displays "Communicating with the Somfy UAI Plus normally (Serial)..."

# SETTING UAI PLUS INTERFACE TELNET CREDENTIALS

Reference the UAI Plus Integration Report for the Telnet Credentials.

- 1) Navigate to the System Design view, device Properties tab
- 2) Enter the Telnet User, then click Set
- 3) Enter the Telnet Password, then click Set

System Design	Properties	Properties	Summary	List View
System	Properties			
× ^ v Ø 9	Properties Actions Documenta	ation Lua		
Project	Driver Version			
House	Driver Information	Communicating with the Somfy UAI Plus normally (IP) since		
E Fa-5	Debug Mode	Off	~	
- 🖅 Digital Media - 🚭 Add Music	Debug Duration in Minutes	15	* *	
	UAI Plus Available via IP	Yes		
My Movies		Provide User and Password below only when you have enabled Login in the UAI Plus Telnet configuration	0	
Channels	Telnet User		S	et Cancel
Chi Somy Uni rius interace	Telnet Password		S	et Cancel
System Design	Blinds Polled Each Cycle	Maximum 5 blinds	~	
S Connections		In larger installations, polling less than 100% of the blinds each 60-second cycle may been performance.	\$	
▶ Media				
Agents				
Programming				

#### **REQUESTING UAI PLUS INTERFACE SDN GROUPS**

Before adding new or modifying existing SDN Blinds or Blind Groups, always use the "Request and List SDN Groups" action to properly update all tables, similar to Refresh Navigators in Composer. Refresh time may vary per system size.

• In the System Design view, device Actions tab, click Request and List SDN Groups

System Design	Properties	Properties Summary List View
System	Properties	
Image: Second secon	Properties         Actions         Documentation         Lua           Print Status Report         Print Debug Log         Toggle Message Tracing         Toggle Message Tracing           Request and List SDN Groups         Calibrate SDN Binds and Groups         Stop Current Calibration	
System Design		
D Media		
🗘 Agents		
Programming		

## ADDING UAI PLUS BLIND DEVICE TO PROJECT

Reference the Somfy UAI Plus driver set details located in the device Documentation tab. When adding an SDN Blind or Blind Group, only use the Somfy UAI Plus Blind driver. Do not use the generic Control4 Blind Group.

- 1) In the System Design view, Project tree, select a Room in which a device is to be added
- 2) Go to the Items pane, select the Search tab
- 3) In the Manufacturer dropdown list, select Somfy
- 4) Locate the Somfy UAI Plus Blind driver, double or right click the driver to Add to Project
- 5) Rename the device to the associated location, name or group of blinds
- 6) Select the appropriate Blind Type for the product in the dropdown
- 7) Select the appropriate Blind Movement for the product in the dropdown
- 8) In the Advanced Properties tab, select the Blind Type in the dropdown, then click Set
- 9) In the Available Blinds dropdown, select the SDN Blind or SDN Blind Group, then click Set

Reference the UAI Plus Integration Report when assigning SDN Blinds or Groups.

Select the blind or group by the corresponding motor node ID, inverted group address or name label.

System Design	Properties	Pr	operties	Summary	List View	Itema		
System	Properties					Locations	Discovered My Driver	s Search
SG Project	Blind Type Shad	e ~				M Local M	Inline Certified Only	~ Clear Search
House	Blind Movement Open	Cose ~				Category:	-	
Room	Keypad Button	Open Any Closed				- All Categories - Type: - All Types -		~ ~
Add Music	Advanced Properties					Manufacturer Somfy		×
Stations	Properties Actions Documenta Driver Version	tion Lus			^	Control Method	All Methods v Sort	Relevance v
G Sonty UAI Pus Interface	Debug Mode	Of	v			Somfy UA Somfy	Plus Blind 10/23/2020 5 32 PM	Online 🗸
	Debug Duration in Minutes	15	Ŷ			Somfy UA	Plus Interface	1000
	Driver Information	Available blinds list updated on				Sonty	10/23/2020 5:28 PM	Chine 🗸
System Design	Blind Type	SDN (two-way, controlled by Somly UAI Plus)	÷	Set	Cancel			
Of Connections	Available Blinds	SDN Bind: '066784' (UAI Plus Label: 'KITCHEN') - Not assigned	×	Set	Cancel			
> Hedia	-	SDN Blind: 2002.3C (UAI Plus Label: 'BLACKOUT') - Not assigned SDN Blind: '066784' (UAI Plus Label: 'KITCHEN') - Not assigned						
C Agents	Blind Node/Group ID	SDN Bind: '40068' (UAI Plus Label': LIVINS (PKUM) - NRI assigned SDN Bind: '40068' (UAI Plus Label: 'SHEER') - Net assigned SDN Group: 'FEFEFE' (UAI Plus Group #0 'ALL') - Net assigned SDN Group: 'FEFEFE' (UAI Plus Group #1) 'Kichen') - Net assigned			Ŷ			

If a blind or group is not listed, use the "Refresh All Devices" action to update the Available Blinds list. Refresh time may vary per system size.

- a) Go to the device Actions tab, click Refresh All Devices List, then repeat step 9 OR
- b) Manually enter motor node ID or inverted group address in the Blind Node/Group ID field, then click Set
- 10) Double-click the Blind or Blind Group device to test each button operation

See Appendix A of this guide for a list of Somfy UAI Plus Blind device specific commands and actions.



# CALIBRATING SDN BLINDS AND GROUPS

After adding new or modifying existing SDN Blinds or Blind Groups, always use the "Calibrate SDN Blinds and Groups" action to calculate the full course of each SDN (two-way) Blind. The Calculated Full Course value is calculated automatically when blinds are moved and is averaged over time.

- 1) In the System Design view, Somfy UAI Plus Interface device Actions tab, click Calibrate SDN Blinds and Groups
- 2) In the Action Parameter List window, Action dropdown, select Calibrate Blinds
- 3) Click OK to calibrate all SDN Blinds
- 4) To calibrate SDN Groups, repeat Step 2, selecting Calibrate Groups
- 5) Click OK to calibrate all SDN Groups

It is recommended to not interrupt this operation. To stop this action, click Stop Current Calibration. Ensure the calibration process completes. Reference the Somfy UAI Plus driver set details located in the device Documentation tab.

System Design	Properties		Propert	ies Summary	List View
System Design System System Project House Man System Man System Design Supplai Media Supplai Media Su	Properties Properties Properties Properties Print Status Report Print Debug Log Toggle Message Tracing Request and List SDN Groups Calibrate SDN Binds and Groups Stop Current Calibration	Action Parameter List IMPORTANT Action Simultaneous Calibs. Operations for Each	Propert	Summary	List View
Agents            Programming			OK Can	cel:	

Should the Calculated Full Course value become invalid, use the 'Reset Calculated Full Course' action to reset. This action is available for SDN (two-way) blinds only.

- 1) In the System Design view, device Actions tab, click Reset Calculated Full Course (SDN)
- 2) Operate the individual blind the full course multiple times
- 3) Return to the device Advanced Properties tab
- 4) Verify the Calculated Full Course displays the new course duration

System Design	Properties	Properties Summary List View
lystem	Properties	
Youged     Younged     Y	Blind Type Shade Blind Movement Open-Close Keypad Button Open Any Open Closed	
System Design Connections Hedia C Agents	Properties Actions Documentation Lus Print Debug Log Refresh All Devices List Refresh Unassigned Devices List Reset Calculated Full Course (SDN)	

# **III. DIRECT SERIAL INTEGRATION**

Previous to the release of the Somfy Connect[™] UAI Plus, Control4 integration was accomplished using serial communication via a Control4 Controller serial port connecting directly to the Somfy Digital Network.

This method of integration will allow control of Somfy SDN motors. A Control4 Blind Group driver must be used when operating a group of SDN motors.

# SYSTEM REQUIREMENTS

PC running Windows 10 or higher RS232 to RS485 Converter #1810496 Control4 Composer Software 2.6 or newer Somfy SDN 2.0 RS485 Driver Control4 Blind Group Driver



# SYSTEM CONFIGURATION & CONNECTION TO SDN

Prior to Control4 system programming, a fully operational SDN system is required. Motor node ID and location documentation must be provided by the Shade Commissioning Agent.

Depending on the model processor, connect to Serial Port 1 or 2 of EA-1, EA-3 and EA-5 Control4 Controllers. EA-1 or EA-3 models require Control4 part #C4-CBL3.5-DB9B - 3.5mm to DB9 Serial Cable as well as an externally powered RS232 to RS485 Converter (supplied by others). EA-5 models with an available DB9 Serial Port require Somfy part #1810496 - RS232 to RS485 Converter or equivalent.



## ADDING SDN RS485 DEVICE TO PROJECT

The Somfy 2.0 RS485 driver only supports single blind control and does not support Somfy configured groups. Use the Control4 Blind Group driver to control blind groups.

#### -----

#### There are two methods to add the SDN RS485 device to Project:

- Automatically
  - Manually

#### **OPTION A** – Adding SDN RS485 Device to Project Automatically:

Reference the Somfy SDN 2.0 RS485 driver set details located in the device Documentation tab.

- 1) In the System Design view, Project tree, select a Room in which a device is to be added
- 2) Go to the Items pane, select the Search tab
- 3) In the Manufacturer dropdown list, select Somfy
- 4) Locate the Somfy SDN 2.0 RS485 driver, double or right click the driver to Add to Project
- 5) Rename the device to the associated location or room.



- 6) Navigate to the Connections view, Control/AV tab, Control & Audio Video Connections pane
- 7) Drag & drop the Serial RS-232 Control Input into the appropriate RS232 Output Device below

Connections		Control & Audio V	ideo Coni	nections			
Control/AV	Network	Somfy SDN 2.0 RS485					
	~ <b>~ ~</b> Ø 9	Name Control Inputs	Туре	Connection	Input/Output	Connected To	
Home		5 Serial RS-232	Control	RS_232	Input	EA-5->SERIAL 1 (DB-9)	
House	Nedia sic	Control Outputs	Control	SOMFY_SDN_RS485	Output		
Wy Movi	ies	RS_232 Output Devices					
Stations		Device		Name		Location	Connections
- Di Channel	s	5 EA-5		SERIAL 1 (DB-9)		Room	Somfy SDN 2.0 RS485->Serial RS-232
Somfy S	DN 2.0 RS485	5 EA-5 5 EA-5 5 EA-5		SERIAL 2 (DB-9) SERIAL 3 SERIAL 4		Room Room Room	
System Design Connections							

- 8) Return to the System Design view, device Properties tab, Status will update to "Serial Connected" and automatically retrieve each connected SDN motor
- 9) Rename each device to the associated location, name or group of blinds
- 10) Select the appropriate Blind Type and Blind Movement for each product in the dropdown

#### OPTION B – Adding SDN RS485 Blind Device to Project Manually:

- 1) In the System Design view, Project tree, select the SDN 2.0 RS485 device in which a blind is to be added
- 2) In the device Actions tab, click Add Connected Shades
- 3) Rename the device to the associated location, name or group of blinds
- 4) Select the appropriate Blind Type for the product in the dropdown
- 5) Select the appropriate Blind Movement for the product in the dropdown

System Design	Properties Properties Summary List View
lystem	Properties
iystem ✓ ▲ ✓ ▲ ✓ ♥ ♥ ♥ Hence ♥ Hence ♥ Honce ♥ BEA5 ♥ EA5 ♥ EA5 ♥ BA10ce ■ Main ♥ Muice ■ My Muice ■ My Muice ■ My Muice ■ Softy SDN 2.0 Bind	Properties Properties Actions Documentation Lus Add Connected Studes
Sonfy SDN 2.0 Bind Sonfy SDN 2.0 Bind Sonfy SDN 2.0 Bind	

## ADDING CONTROL4 BLIND GROUP DEVICE TO PROJECT

When using the Control4 Blind Group driver, motors will operate in a cascading effect. To avoid this cascading effect, utilize the Somfy Connect UAI Plus and the associated Interface and Blind drivers

- 1) In the System Design view, Project tree, select a Room in which a device is to be added
- 2) Go to the Items pane, select the Search tab
- 3) In the Manufacturer dropdown list, select Control4
- 4) Locate the Control4 Blind Group driver, double or right click the driver to Add to Project
- 5) Rename the device to the associated location, name or group of blinds
- 6) In the Advanced Properties tab, click the Select button to add blinds to the Blind Group
- 7) Place a checkmark by each blind to be added, click OK then click Set

System Design	Properties			Properties	Summary	List View	Items			
System	Properties						Locations	Discovered	My Drivers	Search
C Protect     C Protect	Blind Type Esta		Select devicesX				Control & Control & Centified Only Clear Search Category -/A Categories - Type - Al Types Mandacturer Control Method: Al Mathods Sort Relevance Control Method: Al Mathods Control & Control & Control Control & Control Control & Control Control Control Bind Group			lear Search
the Binds	Binds			Se	lect Set	Cancel	Control4	9/25/2017 10:0	0.AM	CCCAD
🛆 System Design	Log Level	2 - Warning	OK Cancel		~		Control4	4/11/2019 2:20	bon PM	
O Connections	Log Mode	ON			~		Control4	C4-LU642D 4/30/2019 8-30	AM	
D Media							IO Extend	ler		
C Agents							Control4			Cocal®
(/) Programming							L2. Putton J	Kounad		

- 8) Select the appropriate Blind Movement for the products in the dropdown
- 9) Double-click the Blind or Blind Group device to test each button operation
- See Appendix A of this guide for a list of Somfy SDN Blind and Control4 Blind Group commands and actions.



# IV. DRY CONTACT INTEGRATION

The Somfy DecoFlex[™] Digital Keypad for SDN is an intelligent control device providing a wired in-wall user interface for the Somfy Digital Network. The SDN keypad includes 8 dry contact inputs on the reverse, associated to a button on the front. Each dry contact input requires an available dry contact relay to perform the programmed action of controlling the SDN motors.

> Details of this keypad and programming instruction is further referenced in the <u>SDN Keypad Configuration Software</u> Programming Guide.

## SYSTEM REQUIREMENTS

PC running Windows 10 or higher Programmed SDN DecoFlex Digital Keypad Control4 Composer Software Control4 Driver: Single Relay Blind or 2/3 Relay Blinds (OS 2.9+) Control4 Normally Open Dry Contact Relay for each button



## SYSTEM CONFIGURATION FOR SDN

Prior to Control4 system programming, a fully operational SDN system is required.

There are three options for dry contact integration, Single Relay, 2 Relay, or 3 Relay blind control. The Shade Commissioning Agent must program the SDN Keypad and motors as required.



**Detail of Inputs** 



Below details the interconnection from a Control4 Controller (EA-5) relay outputs (normally open 1-3) to the dry contact inputs of the SDN Keypad (buttons 6-8 programmed for Up/Stop/Down respectively)



## ADDING BLIND RELAY DEVICE TO PROJECT

- 1) In the System Design view, Project tree, select a Room in which a device is to be added
- 2) Go to the Items pane, select the My Drivers tab
- 3) In the Motorization, Blinds folder, double-click the required relay driver to add to project
- 4) Available relay options are Single Relay Blind, 2 Relay Blinds or 3 Relay Blinds. Example will be 3 Relay Blinds.
- 5) Rename the device to the associated location, name or group of blinds
- 6) In the Advanced Properties tab, change Hold or Pulse to Pulse, then click Set
- 7) The Pulse Time (milliseconds) will default to 500.

The Pulse Time (milliseconds) will default to 500.

System Design	Properties		Properties	Summary	mary List View	Items				
System	Properties					Locations	Discovered	My Drivers	Search	
	Blind Type Shad Blind Movement Open Keypad Button	e v Kose v Open Any				B My Driver B Contro B Ugitar Char I Dar I	s Jens 10 riteface		9	
Child Media	Advanced Properties Properties Documentation Lus	Closed				Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor Actor	ization intact/Relay Extender nds IR Controlled Relay Single Relay Blind			
Stations     Orannels     Brown Briefly Max	Driver Version Debug Mode	103 Off		~		-a	2 Relay Binds (OS2 3 Relay Binds (OS 2	9+) (9+)		
🛆 System Design	Driver Information	Off								
🔗 Connections	Hold or Pulse	Pulse		<ul> <li>Set</li> </ul>	Cancel					
D Hedia	Pulse Time (milliseconds)	500								
C) Agents (/) Programming	Fail Safe (Seconds)	10		•						

- 8) Navigate to the Connections view, Control/AV tab, Control & Audio Video Connections pane
- 9) Drag & drop Up/Down/Stop Relay Control Inputs into the corresponding Relay Output Devices below

Connections		Control & Audio Video Connections							
Control/AV Network		Generic 3 relay blind							
The Project	~ <b>~ ~</b> Ø 9	Name Control Inputs	Туре	Connection	Input/Output	Connected To			
Home		💭 Blind Group	Control	BLIND_GROUP	Input				
E-M House		📳 Up Relay	Control	RELAY	Input	EA-5->RELAY 1			
A Main		T Down Relay	Control	RELAY	Input	EA-5->RELAY 3			
E-S Roo	m	T Stop Relay	Control	RELAY	Input	EA-5->RELAY 2			
AAS     Digital Media     Add Music     Tureln     My Music     My Music     My Music     Stations     Channels     Genetic 3 relay blind		Control Outputs							
		Open Button Link	Control	BUTTON LINK	Output				
		Close Button Link	Control	BUTTON_LINK	Output				
		Toggle Button Link	Control	BUTTON_LINK	Output				
		Stop Button Link	Control	BUTTON_LINK	Output				
		RELAY Output Devices							
		Device	Name	Location		Connections			
		5 EA-5	RELAY 1	Room		Generic 3 relay blind->Up Relay			
		5 EA-5	RELAY 2	Room		Generic 3 relay blind->Stop Relay			
System Design		5 EA-5	RELAY 3	Room		Generic 3 relay blind->Down Relay			
		5 EA-5	RELAY 4	Room					

10) Return to the System Design view, double-click the device to test each button operation



# APPENDIX

# [APPENDIX A] AVAILABLE COMMANDS & ACTIONS

SOMFY UAI PLUS BLIND	SOMFY UAI PLUS BLIND & GROUP						
Command	Action						
Open	Moves blind to the fully open position						
Close	Moves blind to the fully closed position						
Toggle	Sequence controls blind close-stop-open						
Stop	Stops blind when moving						
Target level	Moves blind to a percent openness (0-100)						
Set Blind Percent Closed	Moves blind to a percent closed position						
Set Blind Percent Open	Moves blind to a percent open position						
Move to Next IP	Moves blind to the next intermediate position down						
Move to Previous IP	Moves blind to the next intermediate position up						
Move to Specific IP	Moves blind to a specific intermediate position (1-16)						

SOMFY SDN 2.0 RS485 BLIND				
Open	Moves blind to the fully open position			
Close	Moves blind to the fully closed position			
Toggle	Sequence controls blind close-stop-open			
Stop	Stops blind when moving			
Target level	Moves blind to a percent openness (0-100)			

CONTROL4 BLIND GROUP				
Open	Moves blind to the fully open position			
Close	Moves blind to the fully closed position			
Toggle	Sequence controls blind close-stop-open			
Stop	Stops blind when moving			

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