R-TEC AUTOMATION® by Rowley

Integration Support - Control4

Control4 homeowners enjoy personalized smart living experiences perfect for any home - no matter the size or budget, new construction or decades old.

Take your Automate experience to the next level by integrating R-TEC Automation® window treatments into Control4 Smart Home control systems.

About Control4

Life gets busy - but when your home technology is connected into one simple-to-use system, it helps take away some of those daily little stresses.

A true smart home makes your life more convenient and your home safer, more comfortable, and easy to enjoy.

Getting Started

Before connecting Control4 to your R-TEC Hub, please ensure the R-TEC Hub and window treatments are working.

In order to control your window treatments with your voice, you will need the following:
- R-TEC Hub already setup and working
- R-TEC Automation® App and account
- Working window treatments with your R-TEC Automation® App
- Control4 account

The R-TEC Hub is a rich integration that supports discrete window treatment control and features a two-way communication system offering real time window treatment position and battery level status. The R-TEC Hub supports Ethernet Cable and Wireless Communication for home integration using the RJ45 port conveniently located on the back.

Scene Control

Control4 allows you to set customized scenes to activate multiple devices, ensuring your window treatments and other smart home compatible devices, like lights, thermostats and locks, all work together simultaneously. When you return home from work and unlock your door, this trigger can activate multiple other devices within the home, including lights and window treatments.

Whole Home Control in the Palm of Your Hand from Your Favorite Spot

The Neeo Remote is thoughtfully engineered to control your home media experience and unify the smart home by leveraging the power of Control4 Smart Home OS 3.

Home is a Touch Away

An intelligent home always keeps you in the know. Stay informed and in control of everything happening in and around your home - whether you're in the kitchen or across the world.

Overview

Control4 Version Required	2.9.0 minimum	Developer	annex4
Initial Release Date	5/28/2019	Last Modified Date	5/28/2019
Support Email	Sales@RowleyCompany.com		

Hardware Installation

- Install all window treatments and motors at desired locations.
- Connect the R-TEC Hub to the R-TEC Automation® App.
- Connect all window treatments and motors to the R-TEC Automation® App.

Drive Installation

1. Place the "Automate Pulse Hub" driver into the project.
2. Navigate to the Connections section and select the Network tab.
3. Enter the IP address of the R-TEC Hub.
4. Confirm that window treatments have been detected by looking at the Detected Drivers property.
5. For each shade that the "Automate Pulse Hub" has added to the connections, add an "Automate Pulse Shade" driver to the project.
6. Bind the "Automate Pulse Shade" drivers to the "Automate Pulse Hub".
    a. Once the connection has been bound the driver will automatically populate window treatment properties.
7. Set the 'Shade Movement Type' to 'Move' or 'Rotate' to determine what the driver should control.
    a. 'Move' will control basic shade movement.
    b. 'Rotate' will control the motor rotation.
8. Run the 'Calibrate' action on the shade, this will prepare the driver to calculate the travel times of the shades. By doing this the driver will accurately display ramp rates for a better user experience.
9. Refresh Navigators.

NOTE: Grayed out sections are part of the hub driver installation.

Integration Instructions

Search the driver via 'Automate Pulse Hub 2' in the right window panel. Double click to add to a room.
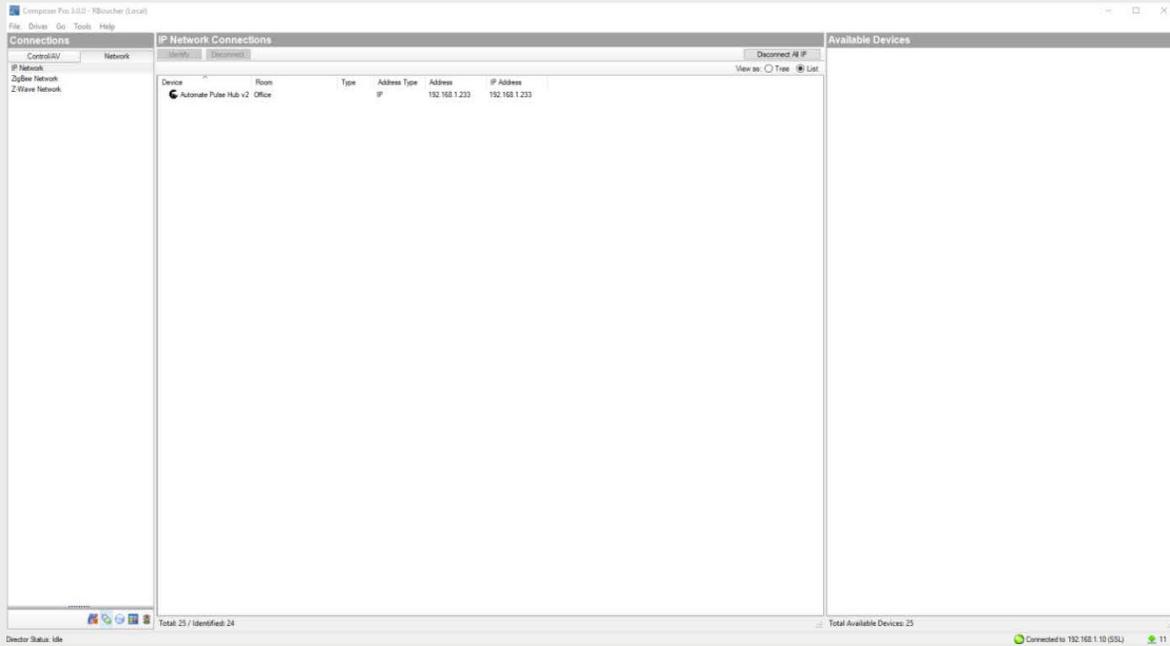
(2) Enter the IP address of the R-TEC Hub.
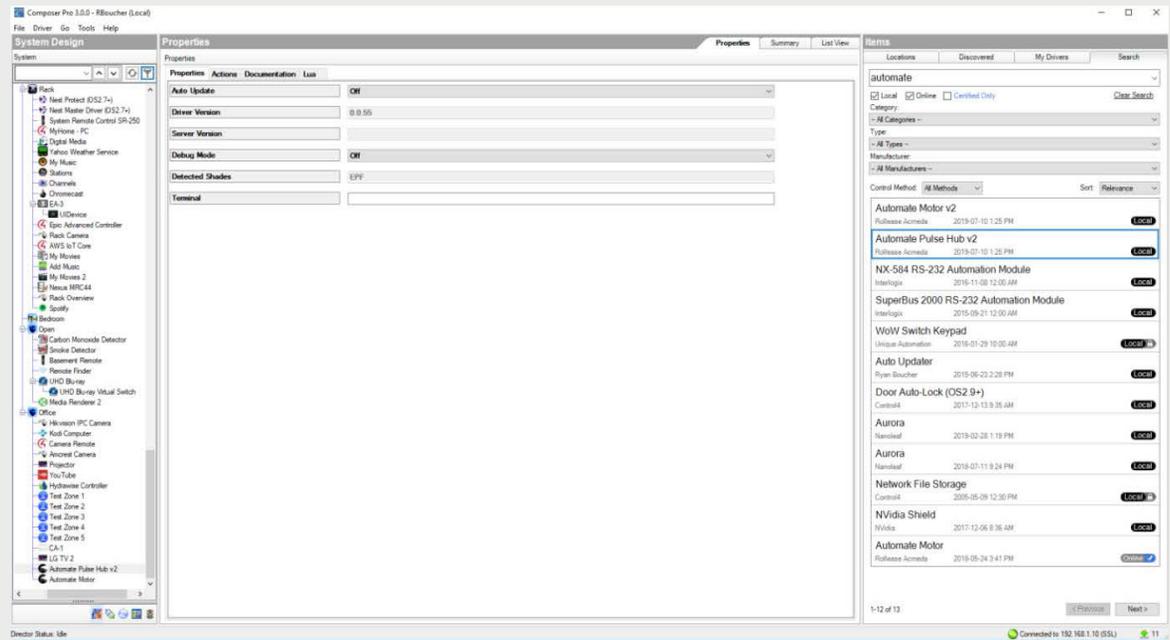
(3) The properties of the driver and discovered shade (5WE).

④
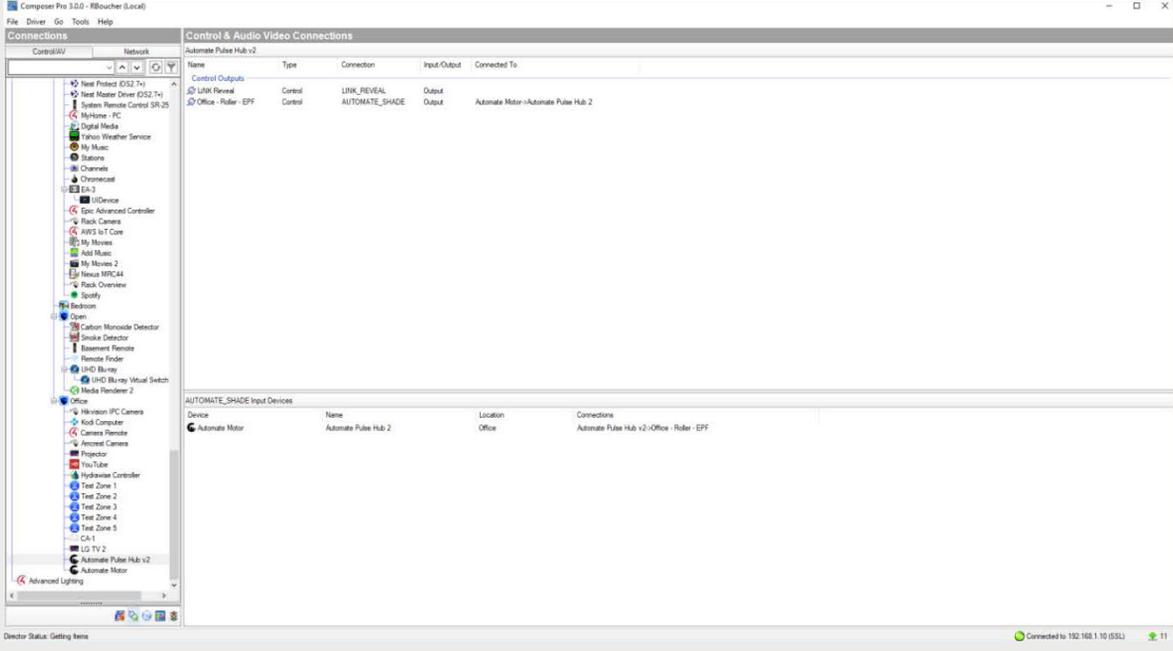
Connect to the shade (5WE) to an 'Automate Motor' endpoint.

⑤
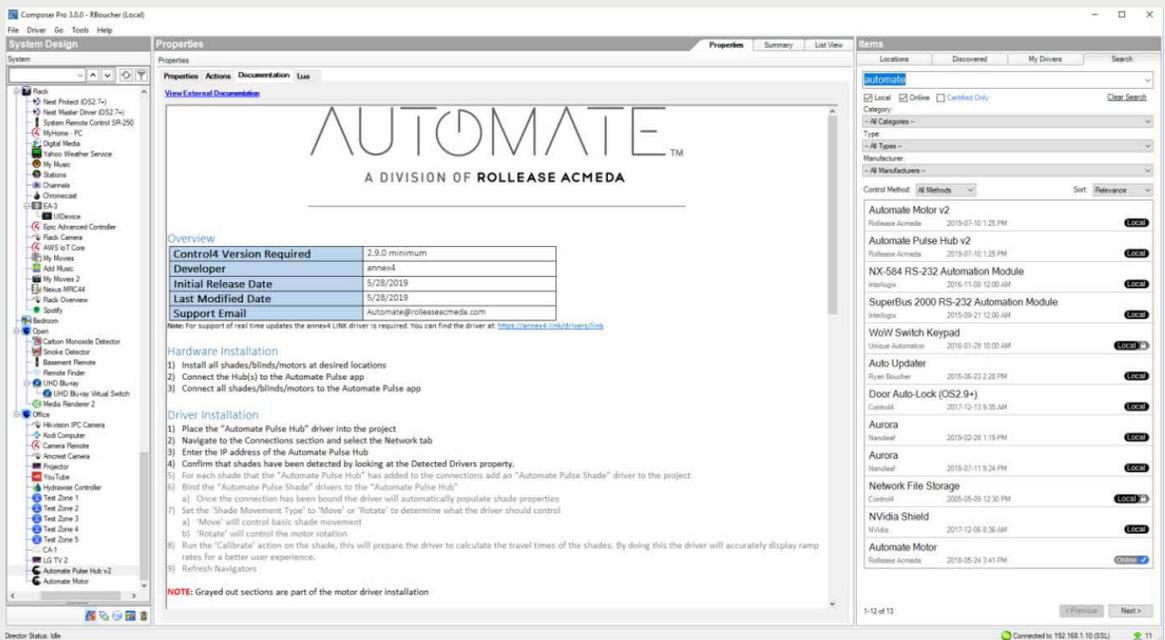
Documentation available on the Composer Pro.

This driver is an Interface Controller for the R-TEC Hub. It allows IP control over R-TEC Automation® window treatments from Control4.

Drive for the Motor

Supported Features
- • Drag and drop installation.
- • Easy calibration of window treatment travel time.
- • Control of motor rotation and window treatment movement.

Properties

Property	Description
Auto Update	Enables or disables real time updates of the driver from annex4 For support of this property the annex4 Link driver is required
Driver Version	The current version of the driver
Server Version	The server version of the driver For support of this property the annex4 Link driver is required
Debug Mode	Reports information to the log and Lua output window

Modes	
Debug	Reports the data being moved around
Trace	Reports the flow of the driver
Info	Reports basic pieces of information
Warning	Reports any small issues that arise
Error	Reports any large issues that arise
Fatal	Reports issues that cause the driver to fail

Property	Description
Shade Movement Type	'Move' to control shade movement; 'Rotate' to control motor rotation
Shade Address	The address of the shade
Shade Type	The motor type operating the shade
Shade Speed	The speed in rotations per minute
Reverse Operation	Reverse the UI level displayed
Open Travel Time	The time it takes for the shade to go from closed to opened in milliseconds
Close Travel Time	The time it takes for the shade to go from opened to closed in milliseconds
Current Motor Level	The current level of the motor, this is the opposite of what is shown in Control4. A motor level of 30 is displayed as 70 in Control4.
Current UI Level	The current level that Control4 is displaying

Actions

Action Name	Description
Stop	Stops the shade
Jog	Jogs the shade open
Open	Opens the shade
Close	Closes the shade
Calibrate	Create bindings for paired shades on the serial connection
Identify	Moves all other shades to 'Open' and sets this shade to '50'; This allows a dealer to quickly identify a shade
Get Shade Info	Forces the driver to retrieve the shade information to update properties
Update Now	Updates the driver to the latest version

Connections

Control Name	Connection Type	Description
R-TEC Hub	AUTOMATE_SHADE	The communication binding that lets the shade relay commands to the hub driver
Open Button Link	BUTTON_LINK	Click to open, push to start opening, release to stop
Close Button Link	BUTTON_LINK	Click to close, push to start closing, release to stop
Toggle Button Link	BUTTON_LINK	Click to toggle, push to start the toggle, release to stop
Stop Button Link	BUTTON_LINK	Click to stop

For the Hub

- Simple installation of the hub driver by connecting the network connection.
- Automatically calculates the travel time of the motors accurate to within 50 milliseconds.

Properties

Property	Description
Auto Update	Enables or disables real time updates of the driver from annex4 For support of this property the annex4 Link driver is required
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Debug Mode	Reports information to the log and Lua output window

	Modes	
	Debug	Reports the data being moved around
	Trace	Reports the flow of the driver
	Info	Reports basic pieces of information
	Warning	Reports any small issues that arise
	Error	Reports any large issues that arise
	Fatal	Reports issues that cause the driver to fail

Property	Description
Serial Number	The serial number of the hub
MAC Address	The mac address of the hub
Detected Shades	Lists the addresses of all shades discovered on the hub
Terminal	Allows the dealer to manually send commands to the automate hub. Commands should be formatted with a starting "!" and an ending ";" Responses will show in the property shortly after the command is sent

Actions

Action Name	Description
Retrieve Shades	Create bindings for paired shades on the serial connection
Clear Shades	Clear the bindings created for shades on the serial connection
Close All	Closes all shades
Open All	Opens all shades
Calibrate All	Informs each motor endpoint to calibrate its motor travel times
Update Now	Updates the driver to the latest version

Connections

Control Name	Connection Type	Description
<Room>:<Shade>:<Address>	AUTOMATE_SHADE	The communication binding for a shade endpoint driver
Link Reveal	LINK_REVEAL	This connection is used for annex4's notification and display type devices. By using this binding, you can get notifications on display type devices with minimal programming.

Common Mistakes
- Entering the wrong IP address in the "IP Address" configuration line. If you're failing to discover devices double check this!

Control4 Control System Connection

Integration Topology

Control4

RJ45 Socket   Wi-Fi

or

R-TEC Hub

RJ45 Plug

Dotted line denotes
the "kit"
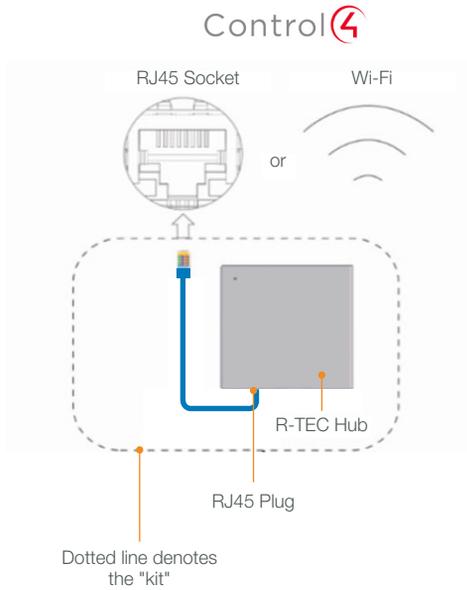
Additional Information:
- The CAT 5 cable should be no longer than 328'.
- Router, switch or access point are required to connect the R-TEC Hub via LAN connection.
- Wi-Fi repeater is required depending on the cover of the Wi-Fi Router Signal.
- The R-TEC Hub works only with Wi-Fi in 2.4 Ghz (not 5 Ghz).

R-TEC Hub

4 ¹/₂"

4 ¹/₂"

R·TEC AUTOMATION®

1 ¹/₄"

RJ45 Socket

Factory
Reset

Pairing
Button

5 V DC / 1A
Micro USB
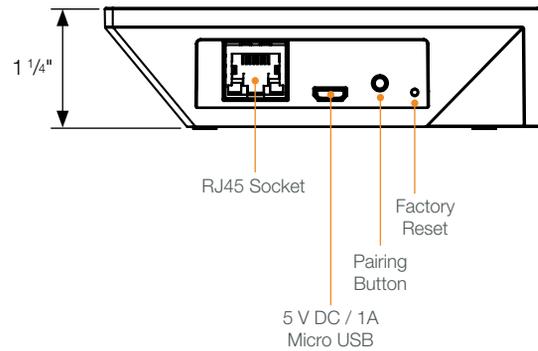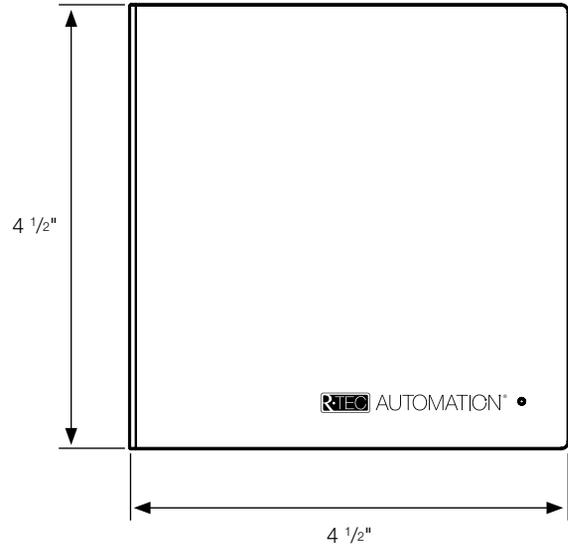
Connections

The standard connections of the R-TEC Hub are Ethernet or Wi-Fi. For a LAN connection, you can use a straight through wiring accordingly indicated below.

RJ45 Pinout
T-568A

1 2 3 4 5 6 7 8

RJ45 Pinout
T-568B

1 2 3 4 5 6 7 8

or

RJ45 Socket

RJ45 Pinout T-568A			
1.	White Green	5.	White Blue
2.	Green	6.	Orange
3.	White Orange	7.	White Brown
4.	Blue	8.	Brown

RJ45 Pinout T-568B			
1.	White Orange	5.	White Blue
2.	Orange	6.	Green
3.	White Green	7.	White Brown
4.	Blue	8.	Brown
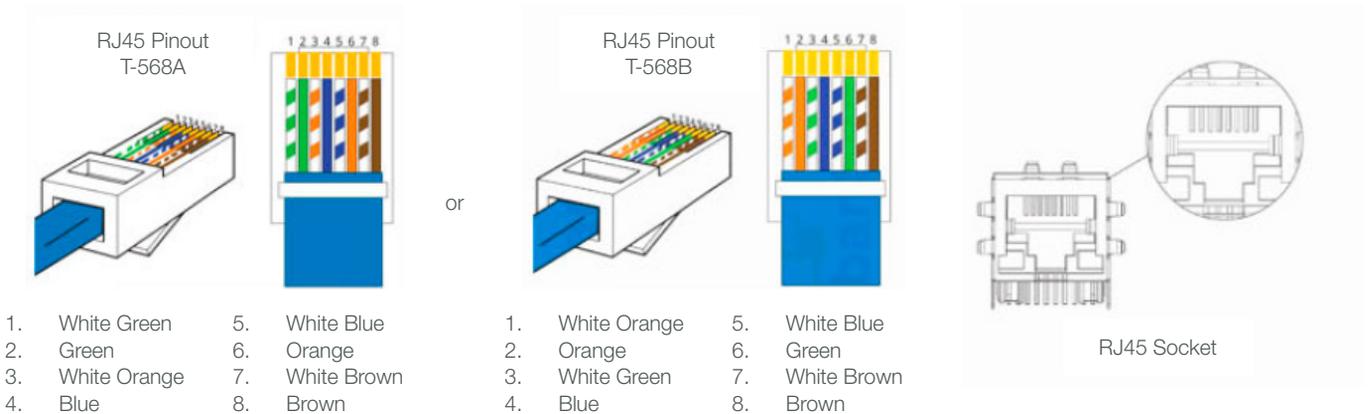
Frequently Asked Questions

Q: What if there's no R-TEC Hub detected?
> A: Make sure that your R-TEC Hub is assigned to the correct network and get an IP Address available and still communicating with the network using the R-TEC Automation® App.

Q. What if limits are not set properly?
> A. Calibrate limits with your R-TEC remote before setting the appropriate open and close time within the Control4 System.

Q. What if the window treatment is not moving at all?
> A. Make sure the selected R-TEC Hub is the correct R-TEC Hub for the window treatment to be controlled. Confirm the correct bindings are set in the Control4 System connections tab between the R-TEC Hub and Shade drivers.

Q. What do I do if I have multiple R-TEC Hubs?
> A. Load two R-TEC Hub drivers. After selecting "Retrieve Hubs" located in the driver actions tab, you will see different R-TEC Hubs - select the desired one.

Q. What if I don't see any shade bindings in the R-TEC Hub driver?
> A. Select "Retrieve Shades" located in the driver actions tab.

Q. How do I scan for available R-TEC Hubs?
> A. Once the R-TEC Hub is properly connected via the Ethernet cable or Wireless network, navigate to the R-TEC Hub Properties page within Composer. Select "Retrieve Hubs" located in the driver actions tab.

Q. What if I get unexpected responses from the Control4 System or "?" symbols?
> A. Ensure that all connections using the Ethernet Port or Wi-Fi are working properly. The missed connection has been known to yield unwanted or unexpected results.

Still have Questions?
For questions about R-TEC Automation® products, contact our in-house experts at 866.985.3423.
Email us at RTECAutomation@RowleyCompany.com.

For Technical Support, contact Control4 at 1.888.400.4070 (Toll Free) or 801.523.3100, or visit: https://help.control4.com/s/ or https://www.control4.com/company/contact-us/support.