

#### Overview

This document describes how to set up and configure the QSE-CI-NWK-E network interface for integrating Sivoia QS shades and Venetian blinds with other systems. The QSE-CI-NWK-E provides RS-232 and Ethernet TCP/IP interfaces and contains 100 Phantom ("Virtual") Buttons that can be accessed through these interfaces.



### Why integrate with a QSE-CI-NWK-E?

- Integrates Sivoia QS Shades and Venetian blinds with a PC or other digital equipment that supports RS-232 or Ethernet TCP/IP connection.
- Allows monitoring and control of shades, draperies, and Venetian blinds. For example, the QSE-CI-NWK-E can be used to simulate button presses, report button presses, monitor LEDs and control shade levels.

# **Integration Capabilities**

- 100 phantom "virtual" programmable buttons
- Each phantom button supports four commands
  - Activate a preset (lift and/or tilt)
  - Send shades and blinds to custom levels
  - o Raise shades and blinds / Lower shades and blinds
  - Stop shades and blinds
- Stop-if-moving can be enabled for each button if desired (disabled by default)



# **Table Of Contents**

1.	Overview of setting up Phantom Buttons	3
2.	Getting Serial Numbers of QSE-CI-NWK-E, Shades, and Venetians	4
3.	Assigning Integration IDs to Devices (optional)	5
4.	Programming the QSE-CI-NWK-E Phantom Buttons	7
5.	Verifying Programming of the Phantom Buttons (optional)	.11
6.	Activating the QSE-CI-NWK-E Phantom Buttons	.13
7	List of Error Scenarios	16



# 1. Overview of setting up Phantom Buttons

The following steps give a brief overview of the procedure to setup and use Phantom Buttons on the QSE-CI-NWK-E to control Sivoia QS Shades and Venetian blinds. Each step is explained in detail with the commands required in the following section of this user guide.

# Step 1 – Get the Serial Numbers of the QSE-CI-NWK-E and the QS Shades and Venetian blinds

Each device on the link has a unique Serial Number, which is used to refer to it while programming and activation. This step involves the user getting these Serial Numbers from the link. See Page 4 for the detailed procedure and examples.

#### **Step 2 – Assign Integration IDs to Devices** (*optional*)

To make referring to the devices easier, the user can assign descriptive Integration IDs to them – for example "living room blackout" or "dining room sheer". This also includes the QSE-CI-NWK-E. See Page 5 for the detailed procedure and examples.

#### Step 3 – Program the Phantom Buttons to control Shades and Venetian blinds

This step allows the user to set up the system's programming i.e. which Shade(s) are assigned to which Phantom Button(s). Configuring Stop-If-Moving for each Phantom Button can also be done here. See Page 7 for the detailed procedure and examples.

#### **Step 4 – Verify programming of the Phantom Buttons (***optional***)**

Here the user can display all the programming of each Phantom Button. This is not required to setup the system, but provides a mechanism to check all the assignments. See Page 11 for the detailed procedure and examples.

#### Step 5 – Activating the Phantom Buttons to control Shades and Venetian blinds

This section describes how to *use* the Phantom Buttons i.e. activate them to control the assigned Shades, Draperies, and Venetian blinds. See Page 13 for details about the commands and examples.



# 2. Getting Serial Numbers of QSE-CI-NWK-E, Shades, and Venetians

Each Lutron device has a unique Serial Number associated with it. This is used to refer to the device during programming and activation. This is an 8 digit Hexadecimal number – for example 1234 ABCD.

#### Sivoia QS Shades and Venetian Blinds -

The Serial Number of a Shade or Venetian Blind can be found on a label on the harness of the EDU.

#### QSE-CI-NWK-E -

The Serial Number of the QSE-CI-NWK can be found on a label placed on the side of the unit.

It is also possible to see the entire list of devices on the QS link. This can be done by sending the following command through the QSE-CI-NWK-E being used –

?DETAILS, ALL\_DEVICES



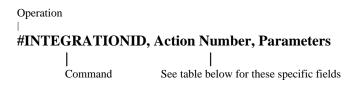
# 3. Assigning Integration IDs to Devices (optional)

#### <u>Purpose</u>

This set of commands allows the user to assign Integration IDs to devices on the link. Integration IDs are 'names' which can be used to refer to devices in an easier and more logical fashion than serial numbers. For example the user can set the Integration ID for a shade (with Serial Number 12345678) installed in the living room as "living room sheer". Similarly the user can also assign the QSE-CI-NWK-E to have an Integration ID – MyQseNwk.

This is an optional command – all devices can be referred to by their Serial Numbers as well.

#### **INTEGRATION ID Command Format**



Description	Action #	Parameters
Assign Integration ID to a Serial Number	1	Serial Number – 8 character HEX serial number of the device Integration ID – The Integration ID to be assigned
Get information from ID	3	Integration ID - The Integration ID that information is desired for NOTE: If this field is left blank, all Integration IDs will be printed.

Table 1 - INTEGRATION ID Command-specific fields



#### **Example INTEGRATION ID Commands**

1. Set the Integration ID for a serial number – #INTEGRATIONID, 1, 0x1234ABCD, living room blackout

Response Received – ~INTEGRATIONID, 1, 1234ABCD, living room blackout

2. Get information about an Integration ID – ?INTEGRATIONID, 3, living room sheer

Response Received – ~INTEGRATIONID, 3, living room sheer, DEVICE, 1234EFEF

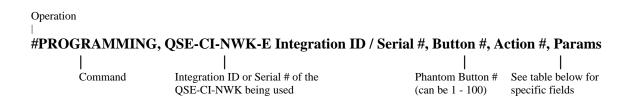


# 4. Programming the QSE-CI-NWK-E Phantom Buttons

#### **Purpose**

This set of commands allows the user to configure their phantom buttons and assign shades and Venetian blinds to them. They also allow configuring of the stop-if-moving functionality on each phantom button (disabled by default).

#### **PROGRAMMING Command Format**



Description	Action #	Parameters
Add programming to a phantom button – shade level only	1	Integration ID – The Integration ID of the shade being programmed  Component # – Always '0'  Level – The level to which the shade being programmed will go to on activation of this button
Clear programming from <u>ALL</u> phantom buttons  NOTE: Use button # = '0'	3	None
Configure Stop-If-Moving functionality	4	Stop-If-Moving ON - '1' Stop-If-Moving OFF - '0' (default)
Add programming to a phantom button – Venetian blind Lift & Tilt levels	5	Integration ID – The Integration ID of the Venetian blind being programmed  Component # – Always '0'  Lift Level – The lift level to which the Venetian being programmed will go to on activation of this button  Tilt Level – The tilt level to which the Venetian being programmed will go to on activation of this button



Add programming to a phantom button – Venetian blind Tilt level only	6	Integration ID – The Integration ID of the Venetian blind being programmed  Component # – Always '0'  Tilt Level – The tilt level to which the Venetian being programmed will go to on activation of this button
Add programming to a phantom button – Venetian blind Lift level only	7	Integration ID – The Integration ID of the Venetian blind being programmed  Component # – Always '0'  Lift Level – The lift level to which the Venetian being programmed will go to on activation of this button

Table 2 - PROGRAMMING Command-specific fields



#### **Example PROGRAMMING Commands**

For a system with 2 Shades, 1 Venetian blind, and 1 QSE-CI-NWK-E having Integration IDs "living room sheer", "dining room blackout", "venetian", and "MyQseNwk" respectively, the following examples show how programming can be done.

- 1. Add Shade at 100% to Phantom Button 1 #PROGRAMMING, MyQseNwk, 1, 1, living room sheer, 0, 100
  - Response Received ~PROGRAMMING, MyQseNwk, 1, 1, living room sheer, 0, 100
- 2. Add Shade at 50% to Phantom Button 2 #PROGRAMMING, MyQseNwk, 2, 1, dining room blackout, 0, 50
  - Response Received ~PROGRAMMING, MyQseNwk, 2, 1, dining room blackout, 0, 50
- 3. Add Venetian at 25% Lift level (Tilt unaffected) to Phantom Button 3 #PROGRAMMING, MyQseNwk, 3, 7, venetian, 0, 25
  - Response Received ~PROGRAMMING, MyQseNwk, 3, 7, venetian, 0, 25
- 4. Add Venetian at 80% Tilt level (Lift unaffected) to Phantom Button 4 #PROGRAMMING, MyQseNwk, 4, 6, venetian, 0, 80
  - Response Received ~PROGRAMMING, MyQseNwk, 4, 6, venetian, 0, 80
- 5. Add Venetian at 30% Lift and 60% Tilt to Phantom Button 5 #PROGRAMMING, MyQseNwk, 5, 5, venetian, 0, 30, 60
  - Response Received ~PROGRAMMING, MyQseNwk, 5, 5, venetian, 0, 30, 60
- 6. Turn ON Stop-If-Moving for Phantom Button 3 #PROGRAMMING, MyQseNwk, 3, 4, 1
  - Response Received ~PROGRAMMING, MyQseNwk, 3, 4, 1
- 7. Clear programming from <u>ALL</u> the Phantom Buttons #PROGRAMMING, MyQseNwk, 0, 3
  - Response Received –



"Repeat command to Clear All Phantom Buttons Programming"

Repeat command to clear all Phantom Buttons Programming – #PROGRAMMING, MyQseNwk, 0, 3

Response Received – ~PROGRAMMING, MyQseNwk, 0, 3

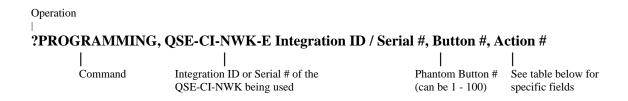


# 5. Verifying Programming of the Phantom Buttons (optional)

#### **Purpose**

This set of commands allows the user to display the programming and stop-if-moving configuration of each QSE-CI-NWK-E Phantom Button. It is not a required step in setting up the system, but can be used to verify the programming.

#### **PROGRAMMING Command Format**



Description	Action #	Parameters
Display programming of a specific Phantom Button	None	None
Display Stop-If-Moving configuration of a specific Phantom Button	4	None

*NOTE*: To display programming and stop-if-moving configuration of all Phantom Buttons, use the same commands as above – but leave the *Button* # field blank or '0'

Table 3 - PROGRAMMING Command-specific fields



#### **Example PROGRAMMING Commands**

The following examples show how to verify the programming of the Phantom Buttons of a QSE-CI-NWK with an Integration ID "MyQseNwk".

 Display programming of Phantom Button 1 – ?PROGRAMMING, MyQseNwk, 1

Response Received – ~PROGRAMMING, MyQseNwk, 1, living room sheer, 0, 100

2. Display programming of all Phantom Buttons – ?PROGRAMMING, MyQseNwk

Response Received –

~PROGRAMMING, MyQseNwk, 1, living room sheer, 0, 100
...

~PROGRAMMING, MyQseNwk, 5, venetian, 0, 30, 60

*NOTE:* Response is repeated for each button that is programmed.

3. Display stop-if-moving configuration of Phantom Button 5 – ?PROGRAMMING, MyQseNwk, 5, 4

Response Received – ~PROGRAMMING, MyQseNwk, 5, 4, 0

4. Display stop-if-moving configuration of all Phantom Buttons – ?PROGRAMMING, MyQseNwk, 0, 4

Response Received – ~PROGRAMMING, MyQseNwk, 5, 1, 0 ... ~PROGRAMMING, MyQseNwk, 5, 5, 0

*NOTE:* Response is repeated for each button that is programmed.

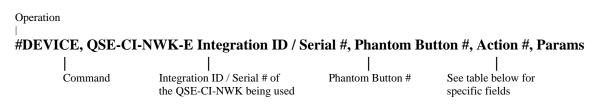


# 6. Activating the QSE-CI-NWK-E Phantom Buttons

#### **Purpose**

This set of commands allows the user to actually activate the Phantom Buttons and achieve the desired functionality from the Shades, Draperies, and Venetian Blinds.

#### **DEVICE Command Format**



Description	Action #	Parameters
Activate a phantom button preset	3	None
Set a custom level of the shades programmed to the Phantom Button	14	Level – The level to which the shades will go to on activation of this button
Raise the shades and blinds	18	None
Lower the shades and blinds	19	None
Stop the shades and blinds	20	None
Set a custom lift and tilt level for the Venetian blinds programmed to the phantom button	23	Lift Level – The Lift level to which the Venetian blinds will go to on activation of this button  Tilt Level – The Tilt level to which the Venetian blinds will go to on activation of this button



Set a custom lift level for the Venetian blinds programmed to the phantom button	24	Lift Level – The Lift level to which the Venetian blinds will go to on activation of this button
Set a custom tilt level for the Venetian blinds programmed to the phantom button	25	Tilt Level – The Tilt level to which the Venetian blinds will go to on activation of this button

**Table 4 - DEVICE Command-specific fields** 



#### **Example DEVICE Commands**

The following examples show how we can activate phantom buttons on a link with a QSE-CI-NWK-E whose Integration ID is MyQseNwk.

- 1. Activate Preset on Phantom Button 1 #DEVICE, MyQseNwk, 1, 3
- 2. Set the level of all shades and blinds programmed to Phantom Button # 2 to 50% #DEVICE, MyQseNwk, 2, 14, 50
- 3. Raise shades and blinds programmed to Phantom Button 3 #DEVICE, MyQseNwk, 3, 18
- 4. Lower shades and blinds programmed to Phantom Button 4 #DEVICE, MyQseNwk, 4, 19
- 5. Stop shades and blinds programmed to Phantom Button 5 #DEVICE, MyQseNwk, 5, 20
- 6. Set the Lift level to 50% and the Tilt level to 35% for all Venetian blinds programmed to Phantom Button 6

  #DEVICE, MyQseNwk, 6, 23, 50, 35
- 7. Set the Lift level of all Venetian blinds programmed to Phantom Button 7 to 75% #DEVICE, MyQseNwk, 7, 24, 75
- 8. Set the Tilt level of all Venetian blinds programmed to Phantom Button 8 to 60% #DEVICE, MyQseNwk, 8, 25, 60



## 7. List of Error Scenarios

- 1. ~ Error, 4: The command tried to interact with a Phantom Button that does not exist (i.e. outside 1 through 100).
- 2. ~ Error, 6: The shade or Venetian blind being programmed is already programmed to this Phantom Button.
- 3. ~DEVICE: The command tried to activate a Phantom Button that is not programmed to any shades or blinds.

