

HunterDouglas

PowerView™ Hub

Serial API for Home Automation Integration

PowerView Hub Firmware version: 1.0.477 or newer

Overview

This document describes the serial message format required for operation of the PowerView system as a home automation accessory.

The PowerView system consists of a Hub plus a collection of motorized shades, remotes, and other accessories. The shades are organized into Rooms within the PowerView App and stored in the PowerView Hub. A Scene is a set of one or more shades of a particular shade type, located in a single Room, that are set to customized positions. Further, the Scene defines this position of each shade. The initial setup of the PowerView system and the configuration of Scenes is accomplished using an application (i.e.- the PowerView App) running on a mobile device such as an iPad, iPhone or Android device.

RS-232 Serial Communication Specifics

COM port settings:

- **9600 baud rate**
 - **1 Stop bit**
 - **No parity**
-
- ✓ Each request to the Hub begins with a “?” followed by a two-character ASCII command. Each successful response from the Hub begins with a “!” followed by the same two ASCII characters.
 - ✓ All messages are terminated with a carriage return (0x0D). In this document a carriage return is designated as “<cr>”
 - ✓ Scene and Room identifiers are transmitted as an ASCII string representing an integer value ranging from zero (0) to 65535. Indexes, used for retrieving information about individual Rooms and Scenes, are also transmitted as an ASCII string representing an integer.
 - ✓ Names of Scenes and Rooms are always located as the last parameter of a response and may include spaces.

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Get Scene Data from the PowerView Hub

Request Scene Count

To retrieve the list of Scenes that have been configured and stored in the PowerView Hub, a request is first sent to the Hub requesting the total number of Scenes stored.

Send to Hub:

```
?SC <cr>
```

Successful Response from Hub:

```
!SC <count>
```

Request Scene Object

Specific information about each individual Scene may be retrieved by sending a series of requests to the Hub. Each request includes an index within a range from one (1) to the total scene count.

Send to Hub:

```
?SO <index> <cr>
```

Successful Response from Hub:

```
!SO <index> <scene ID> <room ID> <name>
```

Request List of Scene Objects

Specific information about all Scenes may be retrieved by sending a single request to the Hub.

Send to Hub:

```
?SL <cr>
```

Successful Response from Hub:

```
!SL
```

```
<scene1 ID> <roomX ID> <name1>
```

```
<scene2 ID> <roomY ID> <name2>
```

```
<scene3 ID> <roomZ ID> <name3>
```

```
...
```

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Execute a List of Scenes

A list from one (1) to 28 Scenes may be executed using a single command.

Send to Hub:

```
?SE <scene ID 1> <scene ID 2> ...<scene ID 28> <cr>
```

Successful Response from Hub:

```
!SE
```

Get Room Data from the PowerView Hub

Request Room Count

To retrieve the list of Rooms that have been configured and stored in the PowerView Hub, a request is first sent to the Hub requesting the total number of Rooms defined.

Send to Hub:

```
?RC <cr>
```

Successful Response from Hub:

```
!RC <count>
```

Request Room Object

Specific information about each individual Room may be retrieved by sending a series of requests to the Hub. Each request includes an index within a range from one (1) to the total Room count.

Send to Hub:

```
?RO <index>
```

Successful Response from Hub:

```
!RO <index> <room ID> <name>
```

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Request List of Room Objects

Specific information about all Rooms may be retrieved by sending a single request to the Hub.

Send to Hub:

```
?RL <cr>
```

Successful Response From Hub:

```
!RL  
<room1 ID> <name1>  
<room2 ID> <name2>  
<room3 ID> <name3>  
...
```

Non-Acknowledgment from Hub

If an unrecognized command or invalid data is received by the Hub, a “Non-Acknowledgement or “NAK” is returned.

Non-Acknowledgment from Hub:

```
!EE
```