Quantum Integration API

The Quantum Integration API enables integration partners to implement their custom interfaces into a Quantum system using a RESTful (JSON) web service.

Access to the Quantum API protocol documentation requires approval by Lutron. Contact your local Lutron representative or email workswith@lutron.com for more information.

Model Number

QSW-API – One license per Quantum processor

System Requirements

- Quantum Vue software version 3.4 or greater with the server installed on site
- Devices integrating with the Quantum system via API must support encrypted TLS connections. Clear text connections are not supported.
- For server and network setup requirements, see the Quantum Total Light Management System IT Implementation Guide (P/N 040423) at http://www.lutron.com/TechnicalDocumentLibrary/040423.pdf
- For instantaneous lighting power usage, one QSW-RPT-PP-A license per processor is required. See the Quantum Total Light Management Suite spec (P/N 369778) at www.lutron.com
- Maximum number of concurrent API connections to a Quantum server is ten (10).
- Integration vendors require a Lutron issued API key to authenticate with the Quantum API server. This API key is used across all of the vendor's installation. Separately, a unique device key will be generated for each Quantum API server during installation. Both the API key and the device key are required for authentication.
- In order to take advantage of webhook push notifications, an integration vendor must supply Lutron with an endpoint URL, authentication key and root trust certificate.

Installation

- The integration license and the integration suite will be installed by the Lutron services company on the Quantum server.
- Quantum and API licenses do not include start-up labor costs.
- Integration vendors must supply an endpoint URL, authentication key and root trust certificate at time of API installation in order to take advantage of webhoook push notifications.

Capabilities

Discover Resources (read only)

- Area names and tree hierarchy
- Zone names and control types
- Shade group names
- Switchleg names and control types

Monitor (read only)

- Area information
  - Space is occupied / unoccupied
  - Occupancy Mode:
    - Inactive
    - Active (Auto On / Auto Off)
    - Vacancy (Manual On / Auto Off)
    - Unused
  - The state of lighting zones. (The lighting state will be ON if any of the lighting zones in the area are in the ON state; if all lighting zones are OFF, the lighting will be set to OFF.)
  - Area scene that is active
  - Instantaneous lighting power and max lighting power (require one QSW-RPT-PP-A license per processor)
  - Active alert count for the following alert types:
    - Lamp failure on the output of a digital ballast or LED driver
    - Lamp nearing end of life based on configured lamp hours and runtime
    - Device not responding
    - Digital ballast or LED driver not communicating
    - Device reporting low battery status
    - Measured light level in room does not match the timeclock event lighting state
- System alert counts for the following alert types:
  - Load shed enabled
  - Quantum Vue server hard drive disk space is running low
  - Q-Reporting service on the Quantum Vue server is not running
  - DALI emergency fixture has reported a failure during an automated or manual test
  - Quantum system processor is not communicating
- Zone information
  - Light intensity (0–100%)
  - Switch level (0 = off)
  - CCO state (0 = closed)
  - Correlated Color Temperature (CCT) (if controllable)
- Shade group information
  - Level
  - Active shade group preset
  - Switchleg lamp hours remaining

Monitor (webhook push notifications)

- Area occupied / unoccupied status

Control (write only)

- Lighting control
  - Activate a scene in an area
  - Set a lighting zone level and CCT (if controllable)
- Shade group control
  - Command a shade group to a level

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Job Name:	Model Numbers:
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