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# Q-Manager High Reliability Server

The Q-Manager standard server is a dedicated server for hosting and managing Quantum Vue, Vive Vue, and Enterprise Vue systems. It is used to collect and record data from the Quantum Vue and Vive lighting systems.

During system start-up, the Lutron field engineer will install the software on the server. The customer's IT department staff must be available on-site to assist with this process.

The server shall be dedicated for use of Lutron software only, including Quantum Vue, Vive Vue, and Enterprise Vue.

A single server can be connected to no more than a total of 100 Quantum processors or Vive hubs.

## Software Required
- Microsoft Internet Information Services (IIS)
- Current version of Google Chrome
- Microsoft .NET Framework 3.5
- Microsoft .NET Framework 4.6.1 or newer
  (Quantum Vue 3.0 and higher, Vive Vue, Enterprise Vue)

**For more information on required system and network configurations, see the Lutron IT Implementation Guides at www.lutron.com**

**Quantum 1.5-3.4 - P/N 040423**
**Vive Vue - P/N 040437**
**Enterprise Vue - P/N 040449**

## Power Configuration Recommendations
- Server should be configured to automatically restart when power is lost so it does not remain off when power is restored.
- Data recording is not active while the server is powered off.

## Off-premise Server Considerations
- For customers who wish to centrally locate Quantum servers for multiple geographic locations with Lutron systems, it is required that a server exist for each timezone. Each server shall have the timezone set to reflect the location of the facility being serviced by the server. This is most important for correct execution of timeclock events, and Hyperion motorized shade automation. Server time is utilized for creation of these events, and is also synchronized to the lighting system hardware.

## Hardware Requirements

| Software Version | Physical Server |
|---|---|
| Quantum 3.2 | • Quad Core Intel® Xeon® processor<br>• Dedicated graphics card with 256 MB memory<br>• 8 GB RAM<br>• Hot-swappable RAID 5 hard drive system (3 hard drives) with minimum 500 GB SSD per drive<br>• Dual hot-swappable power supplies<br>• 500* GB SSD hard drive<br>• Screen with minimum 1280 x 1024 resolution<br>• Two (2) 10/100 MB wired Ethernet network interfaces<br>  – One for communication to the Quantum processors or Vive hubs<br>  – One for communication to other computers on the corporate network<br>  **Note:** Only needed if processors or Vive hubs are not on the same network. |
| Quantum 3.4 and Vive Vue | • Intel® Xeon® (4 cores, 8 threads 2.5 GHz) or AMD® equivalent<br>• 16 GB RAM<br>• Hot-swappable RAID 5 hard drive system (3 hard drives) with minimum 500 GB SSD per drive<br>• Dual hot-swappable power supplies<br>• 500 GB* SSD hard drive<br>• Screen with minimum 1280 x 1024 resolution<br>• Two (2) 100 MB wired Ethernet network interfaces<br>  – One for communication to the Quantum processors or Vive hubs<br>  – One for communication to other computers on the corporate network<br>  **Note:** Only needed if processors or Vive hubs are not on the same network. |

\* If using secondary drive for installation and SQL storage, the primary drive must have at least 50 GB of available space.

## Microsoft OS & SQL Server Requirements for Lutron Software

| Software Version | Microsoft SQL Server Version [2] | Microsoft Windows Server Version [1] |
|---|---|---|
| myRoom 3.3.441 and newer | SQL Server 2019 Express (default)<br>SQL Server 2019 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit)<br>Windows Server 2022 (64-bit)[3] |
| Quantum 3.4.441 and newer | SQL Server 2019 Express (default)<br>SQL Server 2019 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit)<br>Windows Server 2022 (64-bit)[3] |
| Vive Vue 1.7.65 and newer | SQL Server 2019 Express (default)<br>SQL Server 2019 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit)<br>Windows Server 2022 (64-bit)[3] |
| Enterprise Vue 1.1.15 and newer | SQL Server 2019 Express (default)<br>SQL Server 2019 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit)<br>Windows Server 2022 (64-bit)[3] |

## Multiple Installations of Lutron Software
The Lutron software may all be installed on the same server, as long as they support the same version of SQL and Windows server. A single installation of Enterprise Vue, can co-exist with 10 Quantum Vue instances OR 9 Quantum Vue instances and a single Vive Vue instance. A single server can contain no more than one Vive Vue and Enterprise Vue instance.

[1] All Server editions are standard.
[2] Lutron provides SQL Server Express by default, other editions as required by the customer will require custom installation.
[3] Windows Server 2022 Standard and Data Center are both supported.

| Job Name: | Model Numbers: |
|---|---|
| | |
| Job Number: | |

## Model Options

- QS-A-CMP-R-0 – Standard tower server with a keyboard, mouse, monitor, and UPS
- QS-A-CMP-R-K – Standard rack mount server without a keyboard, mouse, or monitor (1U)
- QS-A-CMP-R-C – Standard rack mount server with a rack mount console with a keyboard, mouse, and slide-out monitor (1U for Server, 1U for console)
- All Lutron rack mount servers come with rails for a standard 4-post rack only

## UPS Specifications

- Capacity: 1500 VA
- Voltage: 120 V∼

## Considerations for Customer-Supplied Computers

- Lutron Field Service will install the purchased Lutron software on one computer only, at the time of commissioning. Customer must have available:
  — The working computer that meets the minimum Lutron specification
  — The original Windows installation disks
  — All driver disks for the customer-supplied computer
  — Administrative rights for the customer-supplied computer
  — An IT representative
- Computers that meet the minimum specification but cannot be configured by Field Service (maximum on-site configuration time is limited to 4 hours) will require a connection to the Internet for remote access from a Lutron services company representative (additional charges may apply).

- Lutron recommends that the machine is installed and maintained as part of the customer's IT infrastructure and involve the customer's IT department in the patching, security and maintenance of the machine.
- If remote access is not available, the computer must be shipped (using an insured shipment) by the customer, at the owner's risk and expense, to Lutron for Lutron software installation and from Lutron to the job site. The computer must be shipped with the correct operating system disk and all driver disks. A 4 week lead-time will apply to any computers shipped to Lutron. To cover the Lutron troubleshooting, an additional 4 hour service charge will apply. Computers supplied by the customer are not covered by a Lutron warranty.
- Once configured by Lutron, the computer must be used for Lutron lighting control only and cannot be used for other applications. No applications other than the Lutron software may be installed on the computer.
- Lutron reserves the right to ask the customer to reformat the customer's computer and reload the operating system to rectify any installation issues.
- Any Lutron software upgrades can only be loaded on computers that have been unaltered after the initial Lutron configuration. Otherwise, additional charges will apply.

## Software Updates / Patches

- Note that Lutron will not be responsible for maintenance, security and software patching of the machine.

## Microsoft OS & SQL Server Requirements for Previous Versions of Lutron Software

The versions listed below are for historical purposes. **Note**: The current hardware minimums listed above may not be compatible with earlier OS Versions.

| Software Version | Microsoft SQL Server Version [2] | Microsoft Windows Server Version [1] |
|---|---|---|
| Quantum 1.5 - 1.9 | SQL Server 2005 Express (default)<br>SQL Server 2005 Full (requires custom installation) | Windows Server 2003 (32-bit) |
| Quantum 2.0 - 2.7 | SQL Server 2005 Express (default)<br>SQL Server 2005 Full (requires custom installation) | Windows Server 2003 (32-bit)<br>Windows Server 2008 R2 (64-bit) |
| Quantum Vue 3.0 - 3.1 | SQL Server 2012 Express (default)<br>SQL Server 2012 Full (requires custom installation) | Windows Server 2008 R2 (64-bit) |
| Quantum 3.2 | SQL Server 2012 Express (default)<br>SQL Server 2012 Full (requires custom installation) | Windows Server 2008 R2 (64-bit)<br>Windows Server 2012 R2 (64-bit)<br>Windows Server 2016 (64-bit) |
| Quantum 3.3 | SQL Server 2012 Express (default)<br>SQL Server 2012 Full (requires custom installation) | Windows Server 2012 R2 (64-bit)<br>Windows Server 2016 R2 (64-bit) |
| myRoom 3.3.399 and older | SQL Server 2012 Express (default)<br>SQL Server 2012 Full (requires custom installation) | Windows Server 2012 R2 (64-bit)<br>Windows Server 2016 R2 (64-bit) |
| myRoom 3.3.401 - 3.3.439 | SQL Server 2019 Express (default)<br>SQL Server 2019 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit) |
| Quantum 3.4.399 and older | SQL Server 2017 Express (default)<br>SQL Server 2017 Full (requires custom installation) | Windows Server 2012 R2 (64-bit)<br>Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit) |
| Quantum 3.4.401 - 3.4.439 | SQL Server 2019 Express (default)<br>SQL Server 2019 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit) |
| Vive Vue 1.7.49 and older | SQL Server 2012 Express (default)<br>SQL Server 2012 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit) |
| Vive Vue 1.7.51 - 1.7.63 | SQL Server 2019 Express (default)<br>SQL Server 2019 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit) |
| Enterprise Vue 1.0.49 and older | SQL Server 2017 Express (default)<br>SQL Server 2017 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit) |
| Enterprise Vue 1.1.5 - 1.1.13 | SQL Server 2019 Express (default)<br>SQL Server 2019 Full (requires custom installation) | Windows Server 2016 (64-bit)<br>Windows Server 2019 (64-bit) |

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |