SECTION 27 41 16

INTEGRATED AUDIO-VIDEO SYSTEMS AND EQUIPMENT

GUIDE SPECIFICATION

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Specifier: Please see PART 4 for a listing of products specified in this Guide Specification.

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# GENERAL

NOT USED in this Guide Specification. Specifier shall Specify PART 1 administrative and procedural requirements as needed.

# PRODUCTS

## Virtual Control Server Software

Specifier Note:

Crestron® Virtual Control (VC-4) is a server based control platform for enterprise applications that can be used in place of hardware based Crestron control systems. The platform runs programs to control multiple rooms over the network from a single, centralized location. Cloud based monitoring is also available using the XiO Cloud® service.

https://www.crestron.com/Products/Control-Hardware-Software/Software/Licensing/VC-4-ROOM

### Basis of design

#### Crestron VC-4-ROOM

Specifier Note:

Licensing

The Crestron Virtual Control licensing model is similar to a traditional hardware purchase model: purchase a specified number of room licenses (VC-4-ROOM), and the Crestron Virtual Control installation will run the number of rooms purchased.

### Software Functions:

#### The control software shall allow network connected devices to be controlled and integrated into a pre-programmed system.

#### The control software shall provide centralized server based control of multiple rooms containing multiple controlled devices.

##### A single server when configured properly shall be capable of controlling up to 500 rooms.

##### The control software shall act as a virtual control processor for connected devices.

##### Additional hardware control processors shall not be required.

#### The control software shall support control of non-network connected devices by use of interface modules by the same manufacturer.

#### The control software shall support the BACnet communication protocol to provide a direct interface to third-party building management systems over Ethernet.

#### The control software shall support a cloud management service option by same manufacturer to facilitate the following functions:

##### Device and network setting configuration

##### Server control software license management

#### The control software shall support an offline licensing option via USB storage device as referenced in section 2.2.

#### The control software shall support server redundancy.

#### The control software shall support security measures.

#### The control software shall support development and deployment of a single control program across multiple rooms or systems.

### Environment

#### The control software shall run on the following platforms:

Specifier Note:

Operating Systems supported

Red Hat Enterprise Linux® 8.2 software (64-bit version) or greater;

AlmaLinux OS® 8.2 software (64-bit version) or greater;

Rocky Linux™ OS 8.2 software (64-bit version) or greater

##### Red Hat Enterprise Linux Server 8.2 software (64-bit version)

Specifier Note:

Installation guide can be found at the follow link:

https://www.crestron.com/getmedia/bebda4cf-2070-4ff0-94c7-6fc70b5bc99a/mg\_ig\_crestron-virtual-control-red-hat-os

##### AlmaLinux OS® 8.2 software (64-bit version)

##### Rocky Linux™ OS 8.2 software (64-bit version)

### Deployment

#### The control software shall support centralized deployment.

##### A single deployment may support up to 500 rooms or systems.

#### The control software shall support the following programming languages:

##### C#

##### SIMPL

##### SIMPL#Pro

## Control System License

Specifier Note:

*The Crestron® USB‑OFFLINE is a USB dongle that provides a means for validating Crestron Virtual Control (VC-4) room licenses offline without requiring an XiO Cloud® service account.*

### Basis of Design

#### Crestron USB-OFFLINE

Specifier Note:

USB-OFFLINE
https://www.crestron.com/Products/Control-Hardware-Software/Software/Licensing/USB-OFFLINE

### Device Architecture

#### Physical Form factor

##### Dimensions:

###### Height: 0.31 in. (8 mm)

###### Width: 0.63 in. (16 mm)

###### Depth: 1.61 in. (41 mm)

##### Weight: 0.22 oz. (6.24 g)

### Functions

#### The device shall support offline validation of control system licenses without a service account via USB connection to control system software host server.

# EXECUTION

NOT USED in this Guide Specification. Specifier shall Specify PART 3 On-Site work as needed.

# APPENDICES

## SPECIFIED PRODUCTS

Specifier Note: This Article includes Crestron products specified in this Guide Specification document. This Article is for reference only and should not be required in actual project manual unless included in an overall system equipment list.

Please see the following link for manufacturer product page:

<https://www.crestron.com/Products/Control-Hardware-Software/Software/Licensing/VC-4-CORE>

### Crestron VC-4-ROOM

### Crestron USB-OFFLINE