Product Manual

Crestron® Control App for Microsoft Teams® Rooms

Control App

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Overview

The Crestron® Control App for Microsoft Teams® Rooms enables easy integration with a third-party Microsoft Teams Rooms Windows® system to offer small to large conferencing room control. It supports custom user interfaces created with Crestron Construct™ software and SIMPL and SIMPL Sharp Pro, allowing greater flexibility for UI developers and programmers. It also enhances control over room space and technology integration to offer dynamic meeting experiences. For configuration, a control system, user interfaces, network devices, and control equipment are required.

The control app is compatible with supported third-party Microsoft Teams Rooms systems when paired with a compatible 3-Series®, 4-Series® or Crestron Virtual Control (VC-4) control system[1,2]. The associated program is loaded to a program slot (3-Series and 4-Series control systems) or room (Crestron Virtual Control), allowing multiple third-party Microsoft Teams Rooms systems to be hosted on a single control system[3].

For more information, refer to Deployment on page 6.

This section provides the following information:

- Features

Features

Key features include:

- Easy to use
- Enhanced conferencing experience with advanced technology integration
- Flexible across small to large conferencing rooms on a common platform
- Simple integration with existing third-party Microsoft Teams Rooms Windows conferencing system

Specifications

Refer to the following requirements for installing and using the Crestron Control App for Microsoft Teams Rooms.

Minimum Requirements

Crestron® Control System	3-Series® control system, firmware version 2.8001.00095 or greater[2]; 4-Series® control system, firmware version 2.8001.00048 or greater; Crestron Virtual Control (VC-4), software version 4.0003.00016 or greater
Microsoft Teams Rooms	MAXHUB™ XCore Kit Windows 11® IoT Enterprise SAC, 12th Gen, i3; Logitech™ BASE Microsoft Teams Rooms w/ TAP, 11th Gen, i5;
Crestron Construct™ Configuration Software	Software version 1.3201.0017 or higher

Notes:

1. Refer to Specifications for supported Crestron tested systems and Microsoft Teams Rooms system components. The control system must be connected to the network to deploy and run the app.

2. The MC3 and TPCS-4SM control systems are not compatible with the Crestron Teams Control App Microsoft Teams Rooms.

3. Certain 3-Series® and 4-Series® control systems ship with one program slot enabled by default. Up to 10 simultaneous programs can be run on these control systems by enabling Modular Programming Architecture (MPA), which requires the purchase of one SW-RMC3-10PROG license.

Deployment

Use the following procedures to deploy the control app for a third-party solution:

Crestron Control App for Microsoft Teams Rooms Installation

The Crestron control app for Microsoft Teams Rooms must be installed on a third-party Microsoft Teams Rooms system to load the Crestron HTML5 User Interface (CH5) project and configure the control system authentication parameters. The control app uses port 41794 (default) for communication to the Crestron control system.

> **NOTE:** The control system must be connected to the internet to deploy and run the app.

Installation Methods for the Control App

The control app can be installed in the following ways:

- Using standard enterprise deployment tools such as Microsoft Configuration Manager or WSUS, or
- By using a USB drive.

Install the Control App using Enterprise Deployment

1. Download the control app from the Crestron Control App for Microsoft Teams Rooms product page and save it to a preferred location.
2. Install the control app to the third-party device through WSUS or Microsoft Configuration Manager.
3. After the installation is complete, the Json structure ({"AppIPTableList" [{"IPaddress":"10.34.68.128","Port":41794,"RoomID":"","IPID":3,"Username":"","Password":"**************","SSL":false,"CertVerification":false}]} is used to deploy the IP address, IP IDs, and credentials.

Install the Control App using a USB Drive

1. Download the control app from the Crestron Control App for Microsoft Teams Rooms product page and save it to a USB drive.
2. Connect the USB drive to the third-party device.
3. Go to the **Settings** screen in the device.
4. Select **Windows** settings.
5. Log in to **Admin** on the third-party device.

6. Select and copy the app from the USB drive and save it to a preferred location.

Crestron_TeamsControl-1.00.01.021.exe

7. Double click the saved file to start the installation process.
8. The **Setup - Crestron Teams Control Version** window opens displaying **Ready to Install**.
9. Click the **Install** button to start installation, or click the **Cancel** button to cancel the installation.
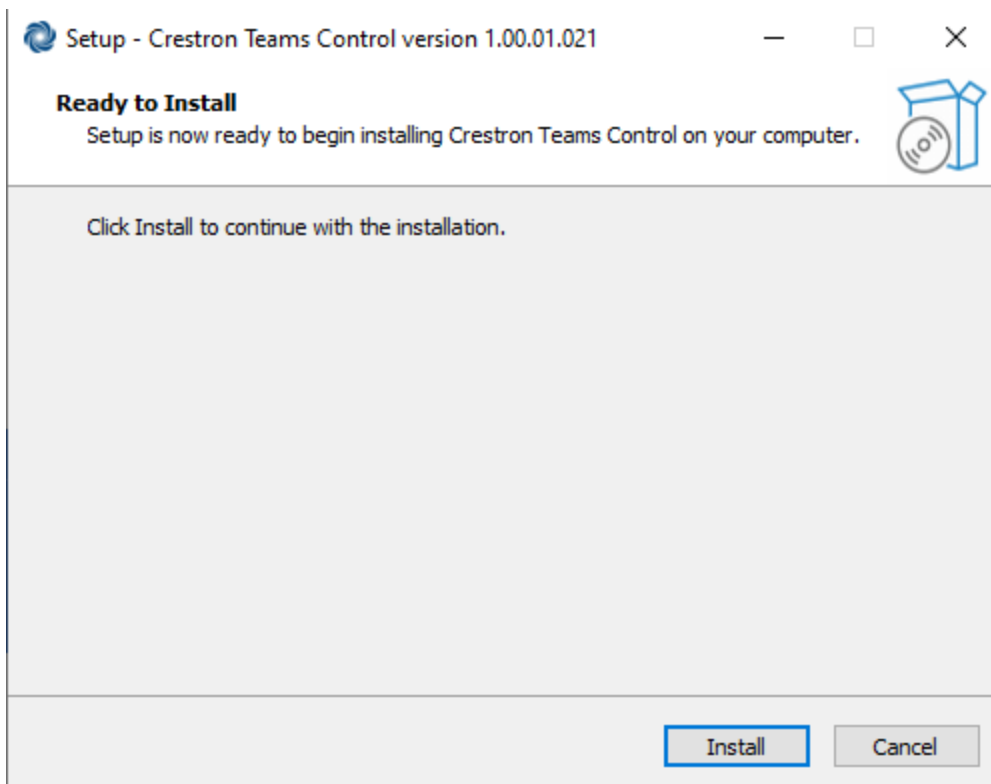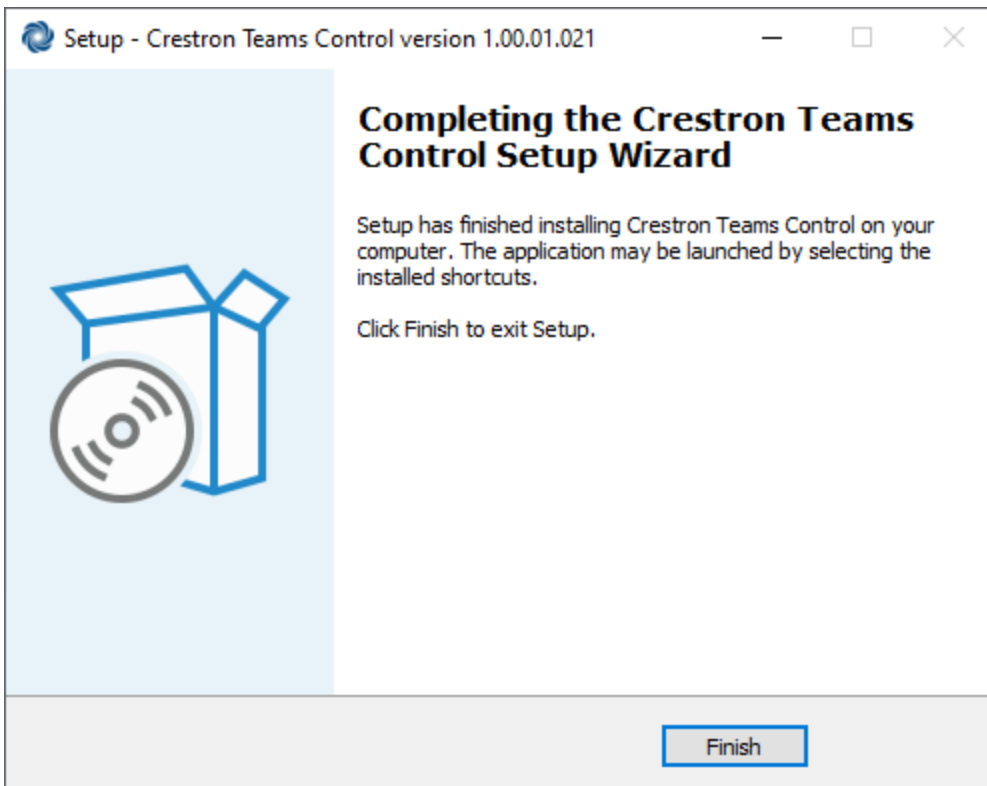
10. **Installing** is displayed. Click the **Cancel** button to cancel the installation.
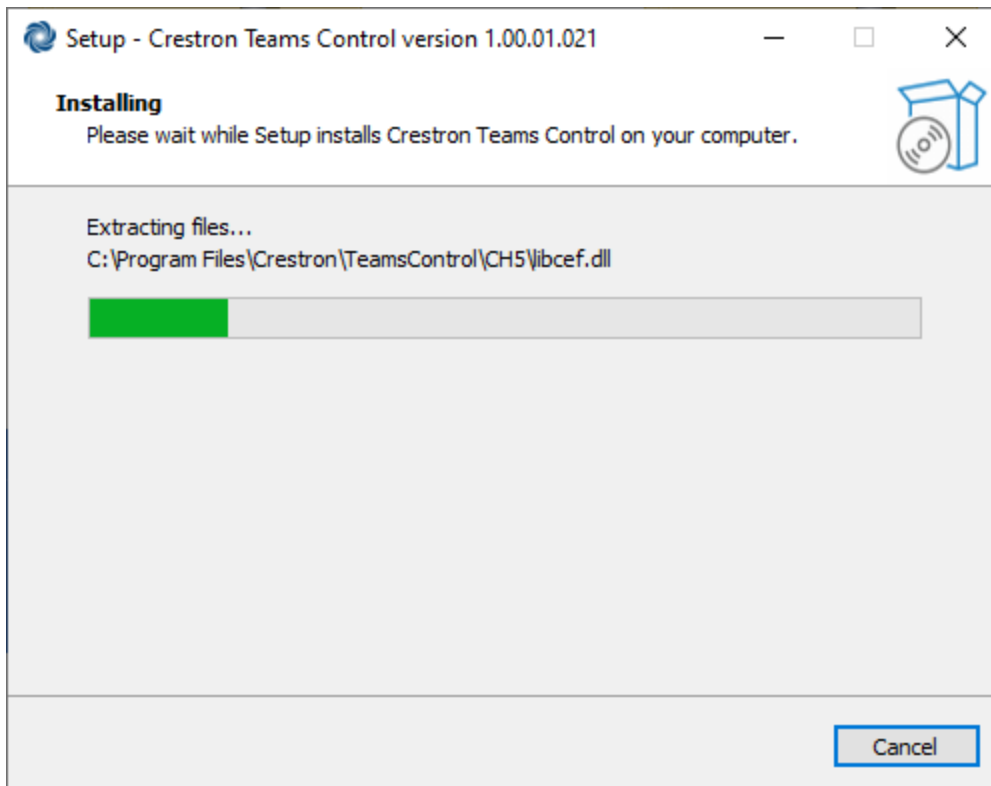
11. Once installation is completed, the **Setup - Crestron Teams Control Version** window displays **Completing the Crestron Teams Control Setup Wizard**.

12. Click the **Finish** button to complete the installation.

Configure the Control App

Follow the steps below to configure the control app for use with a Crestron control system:
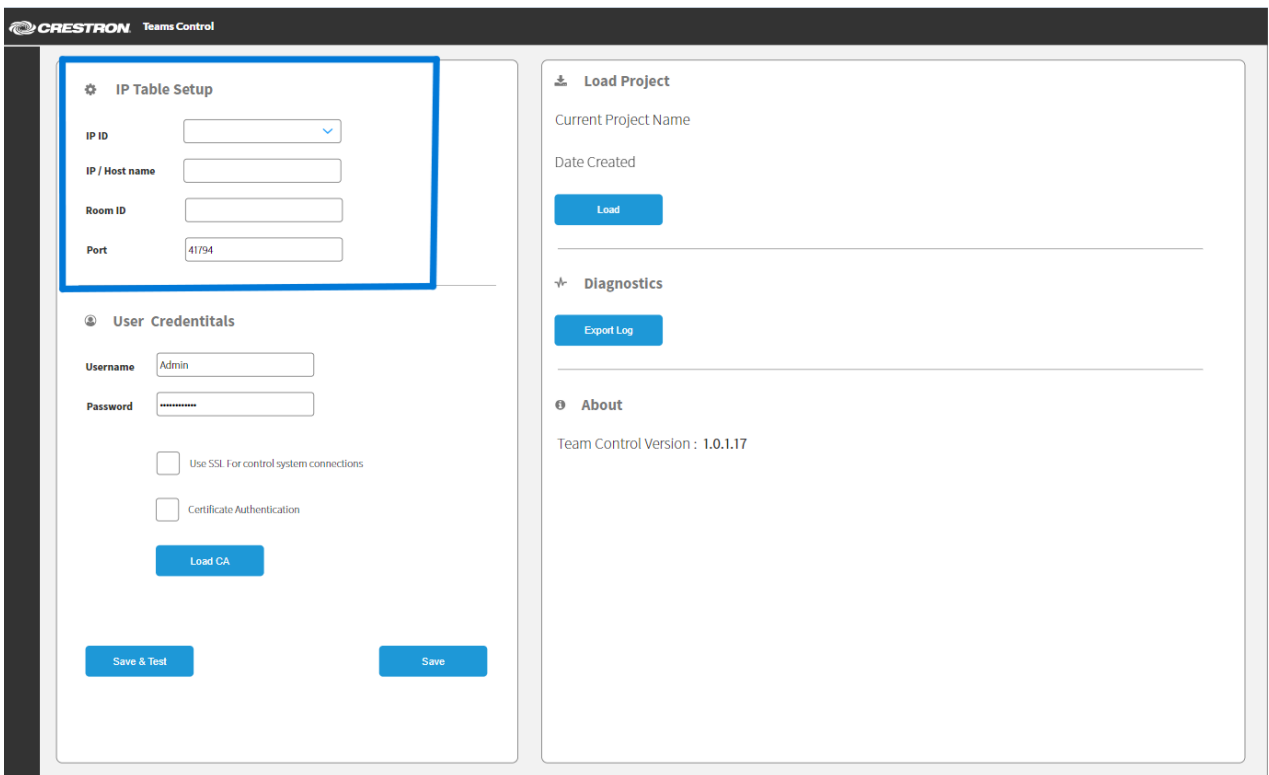
1. **Log in** to a Skype Account on the third-party device where the control app is installed.
2. Go to the **Start** menu.
3. The **Crestron Teams Control Settings** is displayed in the **Start** menu.
4. Select and click the **Crestron Teams Control Settings**.
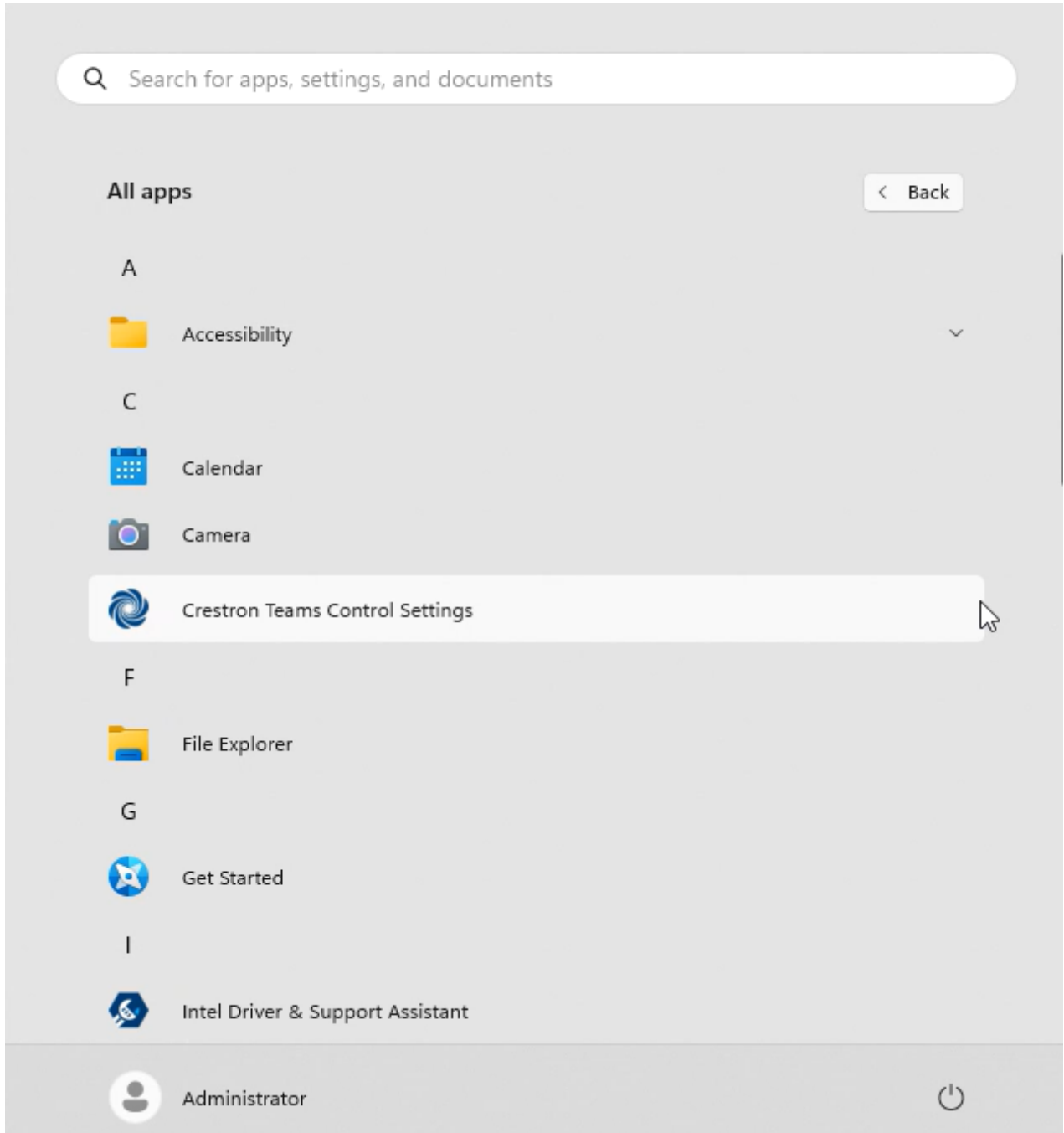
5. The **Crestron Teams Control** window opens.
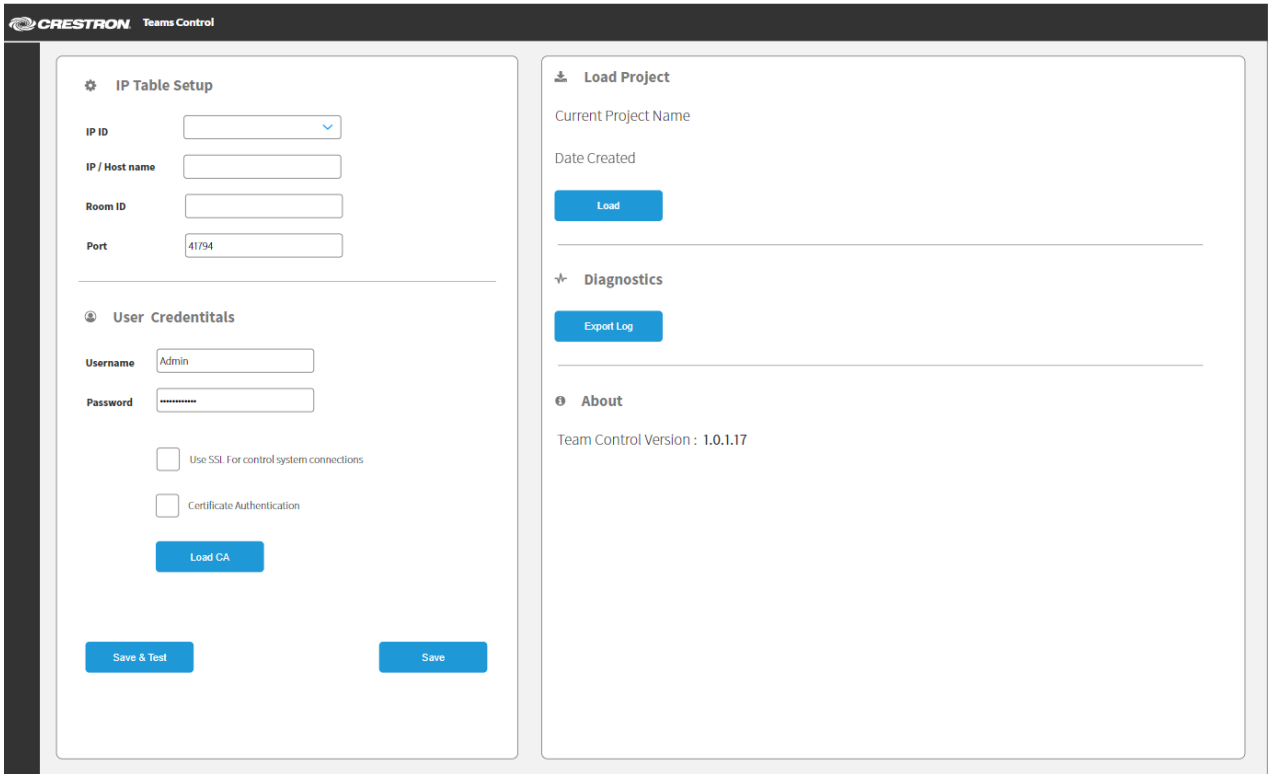
6. Enter the fields under **IP Table Setup**.

7. Enter **User Credentials** of the control system (if applicable).

8. Click **Save & Test** to save the configuration and test the connectivity to the control system, or click **Save** to save the configuration without testing the system.

IP Table Setup	
IP ID	IP ID is a hexadecimal value that must be unique and ranges from 03 to FE.
IP/Hostname	IP address or host name of the primary control system.
Room ID	Room ID allows Crestron devices to automatically connect to a room through the Connect Request method. The room ID cannot be changed once a room is created and persists across program and server restarts.
Port	Port is used for mapping the control system. The default value for the port is 41794.

User Credentials	
Username	Username is required to authenticate device communication to the Crestron control processor.
Password	Password is required to authenticate device communication to the Crestron control processor.
User SSL for control system connections	A self-signed certificate is automatically generated by the control system. It is always available and used by default when a certificate is required. No other certificate is available.
Certificate Authentication	Certificate Authentication enables the control app to verify its identity against the control systems authentication server.
Load CA	Load a custom CA whose certificate can be used for server validation, as specified by the network administrator. The CA file needs to be in. pem format that is installed in the app.
Save & Test	Saves the configuration and completes a CIP test to check for connectivity to the control system.
Save	Saves the configuration.

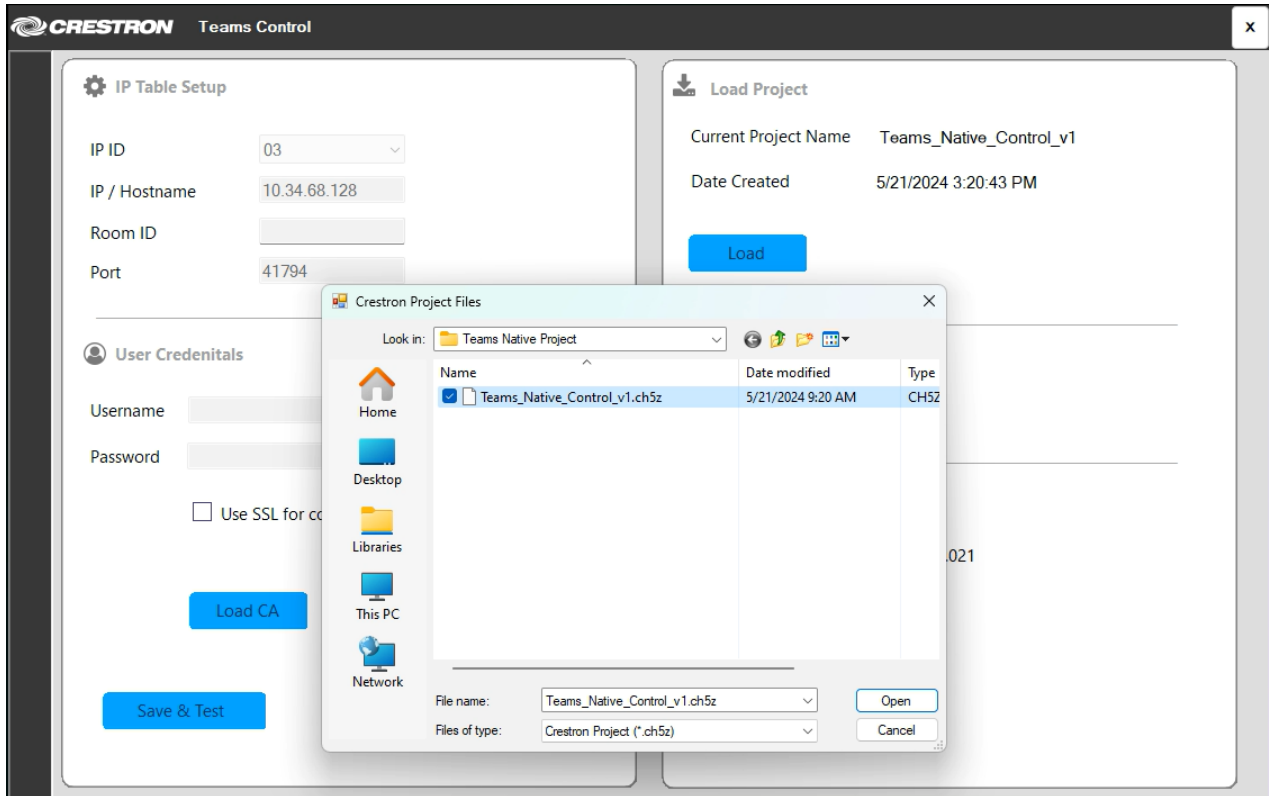| Load Project	
Current Project Name	Project file name.
Date Created	Compiled date of project.
Load	Clicking the 'Load' button allows the user to load the custom UI project.

Diagnostic	
Export Logs	Export Logs are for packaging and uploading all the log files.

Deploy the CH5 Project

A CH5 project can be deployed to the control app once it is saved as a CH5 archive (.ch5z) file. For more information on deploying CH5 archives, refer to the [Crestron HTML5 User Interface Developer Microsite](#).

Loading a Project File

1. Click the **Load** button under the **Load Project** section. The **Crestron Project Files** window opens.

2. Select the corresponding *.chz5 file from the saved location or USB drive .
3. Click the **Open** button to load the project.
4. Click the **Save** button to save the project.
5. Reboot the device for the room controls to take effect.

Copying a Project File

User interface files can be copied manually and pasted to more than one third-party device for repeatability once the initial project loading is done.

> **NOTE:** The control app must be installed prior to copying a project file.

1. Go to C:\ProgramData\crestron\TeamsControl\CH5 in the user's Skype account of the first device .
2. Copy the folder contents of the loaded project and paste it to a shared location or a USB drive.

3. Copy the content from the shared location or the USB drive and paste it to the C:\ProgramData\crestron\TeamsControl\CH5 in the second device.

4. Reboot the device for the room controls to take effect.

Network Port List

The following ports are in use:

Function	Category	Destination Port	From (Sender)	To (Listener)	Notes
Crestron-CIP	Crestron Control	41794/TCP	Third-Party Display	Device	Crestron Connected® protocol
Crestron-CIPS	Crestron Control	41796/TCP	Third-Party Display	Device	Crestron Connected protocol

Connect to the Control System with a CA Certificate

Follow the steps below if using a CA certificate to connect the control app to the control system:

> **NOTE:** The process of establishing a connection to Crestron Virtual Control with a CA certificate differs from 3-Series and 4-Series model connections. For more information, refer to the Crestron Virtual Control Server Software Security Reference Guide.

1. Issue the **ipconfig/all** console command to the control system to get the required control system information for certificate generation.

2. Generate the following files and load them to the control system as described in the 4-Series Control Systems product manual:
   - request.csr
   - srv_key.pem
   - srv_cert.cer
   - rootCA_cert.cer

3. Issue the **ssl ca-p:<privatekeypassword>** command in the control system console.

4. Issue the reboot command to restart the control system.

Resources

The following resources are provided for the Crestron® Control App for Microsoft Teams® Rooms.

NOTE: You may need to provide your Crestron.com web account credentials when prompted to access some of the following resources.

Crestron Support and Training

- Crestron True Blue Support
- Crestron Resource Library
- Crestron Online Help (OLH)
- Crestron Training Institute (CTI) Portal

Programmer and Developer Resources

- help.crestron.com: Provides help files for Crestron programming tools such as SIMPL, SIMPL#, and Crestron Toolbox™ software
- developer.crestron.com: Provides developer documentation for Crestron APIs, SDKs, and other development tools

Related Documentation

- 3-Series® Control Systems Reference Guide
- 3-Series® Control Systems Security Reference Guide
- 4-Series® Control Systems Product Manual
- 4-Series® Control Systems Security Reference Guide
- Crestron Flex Unified Communications Solutions Product Manual
- Crestron® HTML5 User Interface Developer Microsite
- Crestron Virtual Control Server Software Product Manual
- Crestron Virtual Control Server Software Security Reference Guide
- Crestron SIMPL™ Windows® Software

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Specifications subject to
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