

# Crestron Mobile™ and Crestron Mobile Pro®

## Control Apps for Android™ Devices

### 1 Introduction

The Crestron Mobile™ and Crestron Mobile Pro® apps provide a Crestron® touch screen user interface for Android™-powered mobile devices. Fully integrated with Crestron programming software including Crestron Studio®, SystemBuilder™, VT Pro-e®, and SIMPL Windows software, the Crestron apps are available for download from Google Play.

**NOTE:** It is recommended that an authorized Crestron installer download the Crestron app and configure the Android device for the customer according to the instructions in this guide. If, however, it is not practical that the download and configuration be performed for the customer, the installer should complete the form at [crestron.com/crestronmobilesetup](http://crestron.com/crestronmobilesetup). The instructions in this guide are then e-mailed to the customer to provide assistance with the installation and startup of the Crestron app from the Android device.

### 2 Download the Crestron App

**NOTE:** This section provides instructions to download the Crestron app from Google Play that is available on the Android device. The application is downloaded directly to the device. The application can also be downloaded from the Google Play Web site ([play.google.com](http://play.google.com)) on a computer. For details, refer to [support.google.com/googleplay](http://support.google.com/googleplay).

#### Prerequisites:

- Cellular data network or Wi-Fi network that is connected to the Internet. (Refer to the device's Operations Guide for Wi-Fi network information.)
- Google Play account. (Refer to [support.google.com/googleplay](http://support.google.com/googleplay) for information about setting up an account.)

#### Download the Crestron App from Google Play:

1. Tap the Google Play icon. Google Play opens.
2. Search for the desired Crestron app (Crestron Mobile or Crestron Mobile Pro):
  - a. Tap the search icon.
  - b. Tap the search field.
  - c. Enter "crestron mobile" and tap the search icon. The Crestron Mobile apps are listed.
3. Tap the desired Crestron Mobile app and follow the prompts to start the download. The Crestron Mobile app appears on the notification bar with its download status. Upon completion the Crestron mobile app icon appears in the device's app drawer.

### 3 Upload the Crestron Studio/SIMPL Windows Program

Upload the Crestron Studio/SIMPL Windows program to the control system(s):

1. Depending on the control system's firmware version, locate the appropriate sample Crestron Studio/SIMPL Windows program for the Android device at [crestron.com/exampleprograms](http://crestron.com/exampleprograms), and download it to the computer.
2. Modify the program as required (refer to the Crestron Studio or SIMPL Windows help file for information).
3. Using Crestron Toolbox™ software:
  - a. From the **Tools** menu, select **System Info**.
  - b. In the Address Book drop-down list, select the control system to which the program is to be loaded.



- c. Click the **Quick function access button** (⚡) and select **SIMPL Program**.



- d. Browse for the program, select the program, and click **Open**.
- e. Click **Send**. The "Confirmation" window opens, asking to overwrite the default IP table of the control system with the default IP table of the SIMPL Windows program.
- f. Click **Yes**.
- g. In the "SIMPL Program" window, click **Close**.

**NOTE:** Do not close Crestron Toolbox. It is required in section 4.

### 4 Upload the VT Pro-e Project

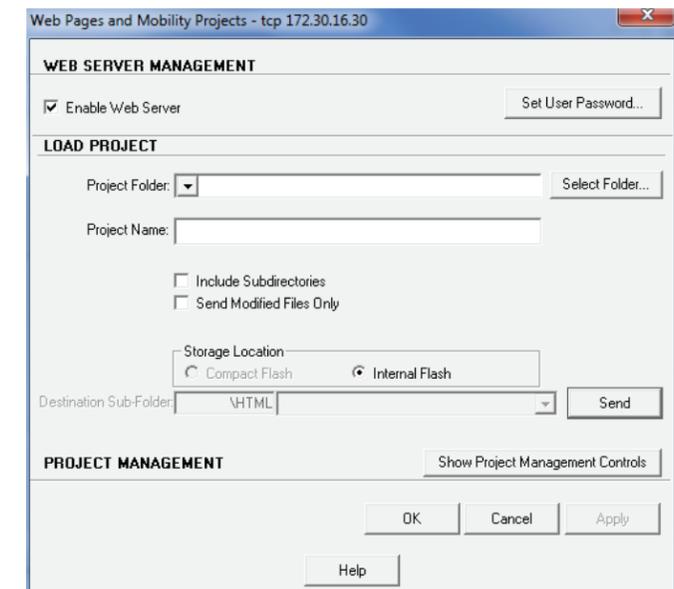
1. In VT Pro-e, create a new project or modify an existing project and compile it.

A sample VT Pro-e project for the Android device can found at [crestron.com/exampleprograms](http://crestron.com/exampleprograms).

**NOTE:** In VT Pro-e, names of the panel types are **Crestron Mobile** and **Crestron Mobile Pro**.

**NOTE:** When used with the free Crestron Mobile app, the VT Pro-e project is limited to about 10 pages; however, the limitation also depends on the complexity of the project (for example, number of buttons, graphics, and so on). If the project is too large, VT Pro-e displays an error message at compile time.

2. Use Crestron Toolbox to upload the VT Pro-e project:
  - a. From the **Functions** menu of the System Info tool, select **Web Pages and Mobility Projects**. The "Web Pages and Mobility Projects" window opens.



- b. Verify that *Enable Web Server* is selected.
- c. Browse for the project folder, select the folder, and click **OK**.
- d. In the "Web Pages and Mobility Projects" window, click **Send**, and click **OK**.

**NOTE:** Do not close Crestron Toolbox. It is required in section 5.

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## Control Apps for Android™ Devices

### 5 Connect the Device to the Crestron Control System(s)

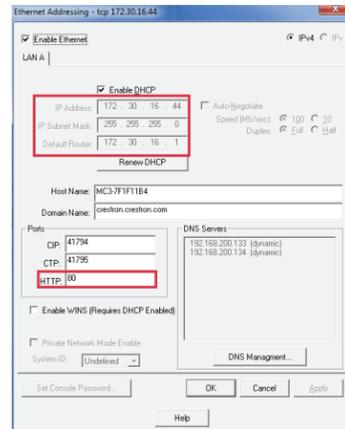
To connect the Android device to the Crestron control system(s), refer to one of the following:

- **Mobile Solution.** Use this solution (shown below) if the customer requires access within and also outside of the home network.
- **Local Solution.** Use this solution (on page 3) if the customer requires access within the home network only.

#### Mobile Solution

**NOTE:** To use the mobile solution, a DNS host name must be obtained from the customer's ISP or use a service such as mycrestron.com. For information on setting up a host name, refer to Answer ID 4863 in the Online Help section of the Crestron Web site (support.crestron.com).

1. Use Crestron Toolbox to configure the Ethernet addressing parameters of the control system:
  - a. From the **Functions** menu of the System Info tool, select **Ethernet Addressing**. The "Ethernet Addressing" window is displayed.

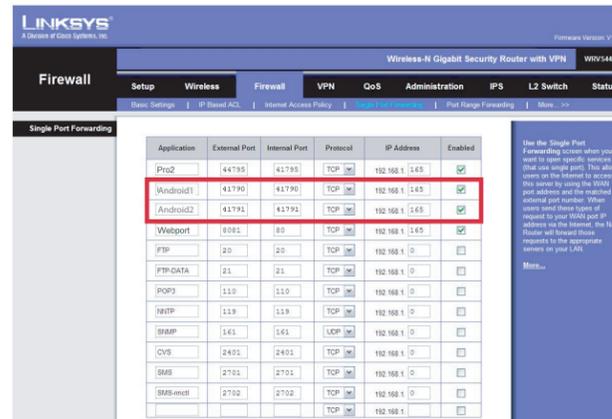


- b. Enter a static IP address and related network information.
- c. Verify that the *HTTP Port*: field is set to the default value of 80.
- d. Click **OK**.

2. From the router configuration utility, configure the router.

- a. Open two TCP control ports to the control system using the port numbers assigned in the Crestron Studio/SIMPL Windows program. The default port numbers are 41790 and 41791 and are used for *Android1* and *Android2* as shown in the sample configuration screen at the top of the next column.

**NOTE:** If the firmware version of the control system is 4.003.0029 or later, only one TCP control port is needed.

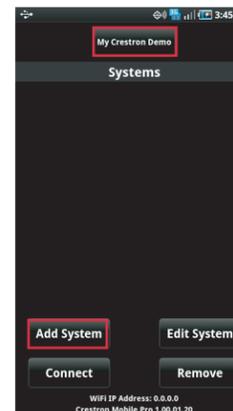


**NOTE:** The router configuration screen shown above is a sample screen only. The screen that appears for a particular router may differ from the sample screen shown.

- b. Since most ISPs block port 80, open the HTTP port to the control system using a TCP port number other than 80. Use a number such as 8081 as used for the Webport (HTTP port) in the sample router configuration screen. Note that the selected port number maps to HTTP port number 80 on the control system in step 1c.
3. Configure the Android device:
 

**NOTE:** The form at [crestron.com/crestronmobilesetup](http://crestron.com/crestronmobilesetup) should be completed by an authorized Crestron installer if the customer is to configure the Android device. Upon completion, the instructions in this guide are e-mailed to the customer to provide assistance with the installation and startup of the Crestron app from the Android device.

    - a. On the home screen, tap the Crestron app icon (for Crestron Mobile or for Crestron Mobile Pro). The Setup screen is displayed. When configuring the Android device for the first time, the screen appears empty.



**NOTE:** Tap **My Crestron Demo** to run a demo project for an Android phone or tablet.

- b. Tap **Add System**. The System Configuration screen is displayed.

- c. Tap the *Friendly Name/Location* field and enter the name or location of the control system to be connected. The field is for user reference only and is not a host name.
- e. Tap the *Host Name or IP Address* field and enter the host name or IP address of the control system.

**NOTE:** Use a host name rather than an IP address as ISPs may change the IP address periodically.

- f. If necessary, tap the *HTTP Port* field and enter the port number assigned when configuring the router in step 2. Otherwise the default value of 80 is used.
- g. If the TCP/IP server port number in the SIMPL Windows program was changed from the default value of 41790 to another value, tap the *CIP Port* field and replace 41790 with the assigned value.
- h. Tap the *Passcode* field and enter the passcode assigned in the SIMPL Windows program. (The default passcode is 1234.)
- i. If using Secure Sockets Layer (SSL) encryption between the device and the control system, tap **Advanced** to configure the feature.



- 1) Tap the *Enable SSL* checkbox to enable SSL.
- 2) If authentication is set on the control system side, enter a user name and password in the *User Name* and *Password* fields.



- 3) Enable SSL on the control system. For details, refer to the control system's Operations Guide.
- 4) Tap **Return** to return to the previous screen.

**NOTE:** If using SSL, the default value in the *HTTP Port* field changes from 80 to 443.

- j. Tap **Save**. The setup screen is displayed, listing the control system that has been added.
- k. Select the name/location of the control system, and tap **Connect**. The *Loading Configuration* message appears with a progress indicator.



Once the Android device connects to the control system, the device is ready for use as a Crestron touch screen.

**NOTE:** When multiple control systems are set up, multiple systems are listed in the setup screen. When the Crestron app is restarted, the application automatically connects to the last control system that was connected (default setting). To allow the customer to select a system from among multiple systems when the Crestron app is restarted, refer to section 6.

(Continued on following page)

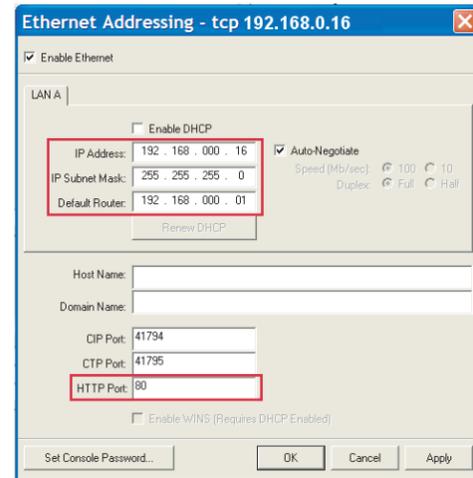
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## Control Apps for Android™ Devices

### 5 Connect the Device to the Crestron Control System(s) (Continued)

#### Local Solution

1. Use Crestron Toolbox to configure the Ethernet addressing parameters of the control system:
  - a. From the **Functions** menu of the System Info tool, select **Ethernet Addressing**. The “Ethernet Addressing” window is displayed.



- b. Enter a static IP address and related network information.
  - c. Verify that the **HTTP Port:** field is set to the default value of 80.
  - d. Click **OK**.
2. Verify that the Android device can connect to the wireless access point in the home. To do so, browse Web pages on the Internet using the Android device's Web browser while connected to the home network.

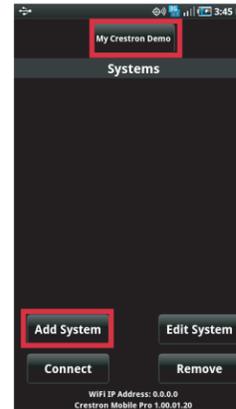
If Web pages can be viewed, proceed to step 3 at the top of the next column. Otherwise, refer to the router documentation for configuration information or to the Android device's Operations Guide for troubleshooting information.

3. Configure the App:

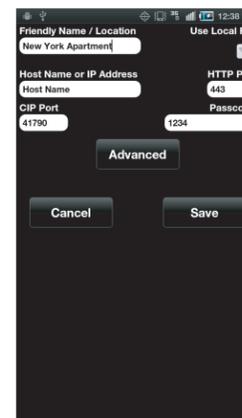
**NOTE:** The form at [www.crestron.com/crestronmobilesetup](http://www.crestron.com/crestronmobilesetup) should be completed by the authorized Crestron installer if the customer is to configure the Android device. The instructions in this guide are then e-mailed to the customer to provide assistance with the installation and startup of the Crestron app from the Android device.

- a. On the home screen, tap the Crestron app icon (for Crestron Mobile or for Crestron Mobile Pro). The Setup screen is displayed. When configuring the Android device for the first time, the screen appears empty.

**NOTE:** Tap **My Crestron Demo** to run a demo project.



- b. Tap **Add System**. The system configuration screen is displayed.
- c. Tap the **Friendly Name/Location** field and enter the name or location of the control system to be connected. The field is for user reference only and is not a host name.
- e. Tap the **Host Name or IP Address** field, and enter the host name or IP address of the control system.
- f. If necessary, tap the **HTTP Port** field and enter the port number assigned in the “Ethernet Addressing” window in step 1c.
- g. If the TCP/IP server port number in the SIMPL Windows program was changed from the default value of 41790 to another value, tap the **CIP Port** field and replace 41790 with the assigned value.
- h. Tap the **Passcode** field and enter the passcode assigned in the SIMPL Windows program. (The default passcode is 1234.)



- i. If using Secure Sockets Layer (SSL) encryption between the device and the control system, tap **Advanced** to configure the feature.

- 1) Tap the **Enable SSL** checkbox to enable the feature.
- 2) If authentication is set on the control system side, enter a user name and password in the **User Name** and **Password** fields.
- 3) Enable SSL on the control system. For details, refer to the control system's Operations Guide.
- 4) Tap **Return** to return to the previous screen.

**NOTE:** If using SSL, the default value in the **HTTP Port** field changes from 80 to 443.

- j. Tap **Save**. The setup screen opens, listing the control system that has been added.
- k. Select the name/location of the control system, and tap **Connect**. The **Loading Configuration** message appears in addition to a progress indicator.

Once the Android device connects to the control system, the device is ready for use as a Crestron touch screen.

**NOTE:** When the Crestron app is restarted, the application automatically reconnects to the last control system that was connected (default setting). As a result, when only one control system is set up and connected, the need to manually reconnect to the control system is eliminated. For additional information, refer to section 6.



### 6 Additional Information

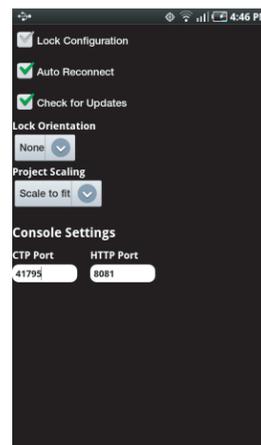
By default, the Auto Reconnect and Check for Updates functions of the Crestron app are enabled. The Lock Configuration is disabled.

- Enable the Lock Configuration function to prevent the end user from adding or deleting systems. When enabled, the **My Crestron Demo** button is also hidden.
- The Auto Reconnect function allows the app to automatically reconnect to the last-connected control system upon startup. The default setting (enabled) is recommended when only one control system is set up. When multiple control systems are set up, however, it is recommended that the Auto Reconnect function be disabled. When Auto Reconnect is disabled, the customer can select the control system to be reconnected.
- The Check for Updates function allows the app to check for an update of the control system's VT Pro-e project upon startup. If an updated project is found, the project is automatically loaded to the Android device. If Check for Updates is disabled (unchecked), the app uses the last project that was loaded to the Android device.

**NOTE:** While developing and testing projects, be sure to have the *Check for Updates* function enabled (checked) so project changes can be seen after a new project is uploaded.

To disable the Lock Configuration, Auto Reconnect or Check for Updates function:

1. While using the Crestron Mobile or Mobile Pro, press the menu button.
2. Tap **Settings**. The "Settings" screen is displayed, allowing the installer to configure the Lock Configuration, Auto Reconnect, and Check for Updates functions as desired.
3. To disable the Lock Configuration function, the Auto Reconnect function, or the Check for Updates function, touch the respective checkbox to enable or disable the function.



The specific patents that cover Crestron products are listed at [patents.crestron.com](http://patents.crestron.com).

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