



## CONTACT SUPPORT

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## GENERAL INFORMATION

**SIMPLWINDOWS NAME:** CCI Crestron Home Bridge - Command Processor

**CATEGORY:** Utility

**VERSION:** 1.0.0

**SUMMARY:** The CCI Crestron Home Bridge Module Suite is made up of multiple modules that when used together will allow you to integrate a SIMPL Windows program with a Crestron Home system.

The suite creates a bridge between the processor running the SIMPL Windows program and the processor running Crestron Home. The SIMPL Windows program will send Crestron Home information about what components have been included in the SIMPL Windows program. At this point, Crestron Home will automatically add these new components to its UI. From that point on, any changes on the Crestron Home side will be sent to SIMPL Windows for handling, and vice versa.

This module is responsible for creating/linking to a specific "Tile" in Crestron Home (and the corresponding layout on which various components can add themselves to) and one instance of this module **MUST** be included in your SIMPL Windows program for each "Tile" you would like to add to Crestron Home.

To learn more about what other utility modules are available from Control Concepts visit the [CCI Utility Module Store](#).

**GENERAL NOTES:** - Any changes on the SIMPL Windows programming side such as adding new components, removing existing components or changing the order of components will require you to stop/restart the Crestron Home program after the SIMPL Windows program is loaded.

- This module (and the related components) make up one half of a complete solution (the "server side"). The corresponding "client side" driver will need to be loaded in Crestron Home. It can be found within Crestron Home in the Drivers → Utilities → Control Concepts section. It has also been included within this module suite package for reference (or in case you need to side load it in Crestron Home for any reason).

For detailed notes and instructions for using the entire CCI Crestron Home Bridge module suite, please see the "CCI Crestron Home Bridge - Module Suite Overview" document included in the module package.

**CRESTRON HARDWARE REQUIRED:** 4-Series and VC-4 processors **ONLY**.



## PARAMETERS

<b>Command_Processor_ID</b>	<p>Indicates the ID to use for this module. Up to 32 separate Command Processor modules can be used in a single SIMPL Windows program, each operating independently and creating its own "Tile" with its own UI components in Crestron Home. This parameter is used to distinguish events corresponding to this command processor module from events corresponding to other command processor modules in the SIMPL Windows program. Note that if multiple command processor modules are to be used in your SIMPL Windows program, they must each have different Command_Processor_ID's set.</p>
<b>IP_Port</b>	<p>Indicates the IP Port to use when listening for connections from the Crestron Home processor. Each instance of the command processor in a system (e.g. across all SIMPL Windows programs talking to a particular Crestron Home processor) <b>MUST</b> use a different port.</p> <p><b>Note: in order to allow for communication between VC-4 and Crestron Home, we found it necessary during development to manually open the desired port on the VC-4 server's internal firewall. While this may change in the future or differ on your deployment, it should be noted that this is what we had to do in order for communication to work correctly.</b></p>
<b>Tile_Icon</b>	<p>Indicates the default icon to set for the Tile, if any. This value can later be overridden during run-time using the "Icon_Override" signal described later in this document.</p> <p>Note that only the officially supported Crestron Home icons can be used. You must enter the name of one of the icons found at this link in order for anything to show up on the Crestron Home interface:</p> <p><a href="https://sdkcon78221.crestron.com/sdk/Crestron_Certified_Drivers_SDK/Content/Extension-Device-Icons.pdf">https://sdkcon78221.crestron.com/sdk/Crestron_Certified_Drivers_SDK/Content/Extension-Device-Icons.pdf</a></p>
<b>Tile_Secondary_Icon</b>	<p>Indicates the default secondary icon to set for the Tile, if any. This value can later be overridden during run-time using the "Secondary_Icon_Override" signal described later in this document.</p> <p>Note that, as above, only the officially supported Crestron Home icons can be used.</p>
<b>Tile_Alternate_Icon_Text</b>	<p>Indicates the default alternate icon text to set for the Tile, if any. This value can later be overridden during run-time using the "Alternate_Icon_Text_Override" signal described later in this document.</p> <p>Any text used here will replace the primary Icon on the Tile.</p>
<b>Tile_Display_On_Page</b>	<p>Indicates where to show the corresponding Tile on the Crestron Home interface. There are 4 possible types to choose from: Room, Home, Both and Neither.</p>
<b>Layout_ID</b>	<p>Indicates the name of the layout this component is bound to. By default, the value is "main" and that is the only supported layout for those using the free/Lite version of the module suite. Paid/premium users will have access to multiple layouts to choose from.</p>
<b>Layout_Title</b>	<p>Indicates the default title to set for the main Layout of the Tile, if any. This value can later be overridden during run-time using the "Title_Override" signal described later in this document.</p>
<b>Layout_Subtitle</b>	<p>Indicates the default subtitle to set for the main Layout of the Tile, if any. This value can later be overridden during run-time using the "Subtitle_Override" signal described later in this document.</p>

## CONTROL

<b>Start_Server</b>	D	Pulse to manually start the local Secure TCP server and begin listening for incoming connections from Crestron Home on the port set using the "IP_Port" parameter has been established. Note this signal is provided as a convenience. The module will automatically start up the local server and begin listening when the SIMPL Windows program starts. Also note that once SIMPL Windows and Crestron Home are connected, it may take up to 5 seconds for them to fully sync up and exchange all relevant component data.
<b>Stop_Server</b>	D	Pulse to manually stop the local Secure TCP server, break any existing server connections and stop listening for incoming connections from Crestron Home on the port set using the "IP_Port" parameter has been established.
<b>Restart_Server</b>	D	Pulse to stop and then start the server in one action, performing the functionality listed above for "Stop_Server" and then "Start_Server".
<b>Enable_Debug</b>	D	Set high to enable internal trace messages to be printed in SIMPL Debugger. These messages may be useful while debugging to see what processes are occurring within the module. <b>Note it is highly recommended to leave this signal low unless actively debugging as it causes much additional signal traffic in Debugger.</b>
<b>Icon_Override</b>	S	Send serial data to override the default icon for the Tile during runtime on the Crestron Home interface. The serial string must match one of the officially supported icons (as noted above) in order for the corresponding icon to appear on the Crestron Home interface.
<b>Secondary_Icon_Override</b>	S	Send serial data to override the default secondary icon for the Tile during runtime on the Crestron Home interface. The serial string must match one of the officially supported icons (as noted above) in order for the corresponding icon to appear on the Crestron Home interface.
<b>Alternate_Icon_Text_Override</b>	S	Send serial data to override the default alternate icon text for the Tile during runtime on the Crestron Home interface.
<b>Status</b>	S	Send serial data to set the current Status text label on the Tile in the Crestron Home interface.
<b>Title_Override</b>	S	Send serial data to set the Title text label on the main Layout that is defined for the Tile in the Crestron Home interface.
<b>Subtitle_Override</b>	S	Send serial data to set the Subtitle text label on the main Layout that is defined for the Tile in the Crestron Home interface.

## FEEDBACK

<b>Is_Communicating</b>	D	High to indicate that a connection with Crestron Home on the port set using the "IP_Port" parameter has been established.
<b>Is_Initialized</b>	D	High to indicate that a "Tile" bound to this command processor has been created in Crestron Home and all components have been added to it.
<b>Is_Debug_Enabled</b>	D	High to indicate that internal debugging messages should be enabled and printing out in SIMPL Debugger.
<b>Component_Count</b>	A	Indicates the number of component modules that have registered themselves with this command processor.



## TESTING

<b>OPS USED FOR TESTING:</b>	MC4: 2.7.52.1 VC-4: 2.7100.00030
<b>SIMPL WINDOWS USED FOR TESTING:</b>	4.2.0
<b>CRES DB USED FOR TESTING:</b>	212.0.2.0
<b>DEVICE DATABASE:</b>	200.18.1.0
<b>SYMBOL LIBRARY USED FOR TESTING:</b>	1165
<b>SAMPLE PROGRAM:</b>	CCI Crestron Home Bridge – Demo.smw
<b>REVISION HISTORY:</b>	v1.0.0 – Initial Release