

Crestron Construct | Design Ideas

Advanced Template

Device Type: N/A

Connection: N/A

Processor: 3/4-Series

Overview

This guide provides an overview of the Crestron Design Ideas: Advanced Template.

Description

This template serves as a core sample project from which additional room designs are derived when the room requires complex controls and/or multiple display routing. Ongoing updates will introduce new dialogs and expanded functionality.

This version features dynamically defined icons and text labels and is designed to provide the foundation for a reusable control framework.

The following hardware has been defined in the project:

- NVX 36x
- Apple TV IR control
- Comcast DVR IR control
- Crestron Intelligent Video Camera control

Included Files:

- “crestron_designideas_advanced_template_v1.0.1_compiled.zip”: SIMPL Windows program archive.
- “AdvancedTemplate_v1_0_1.cca”: Crestron Construct user interface project archive.

User Interface Design

This template utilizes multiple pages with multiple widgets. This was necessary in order to reduce the DOM size per page, which ensures the node count is within the Chrome recommendations for web-based projects. As additional controls and objects are added to this template, please remember to review the runtime DOM count using the CH5 diagnostics tool.

This template also includes additional footer menu items, as compared to the “Basic Template”, in an effort to support a more flexible design.

Note: The Info popup widget on both the Splash and Presentations pages has the ability to launch the integrated CH5 diagnostics tool. While the widget is open, touching the “?” icon in the upper left corner will open the diagnostics dialog.

Background Image Management

The template includes multiple background assets and a background management module. Image assets can be added or removed from the Construct project as needed. The “Config” folder in the SIMPL program provides the logic to manage the background images.

Display Control

The SIMPL program provides a generic display control module that normalizes how displays are controlled. When presentation destination routing is mapped to a specific display, any source routed to that display will start the power on sequence.

The module provides digital signals to trigger commands for the display.

NVX Routing & Configuration

The SIMPL program has been developed to provide an example of how a Crestron control system can be used to configure NVX hardware. When the NVX hardware connects to the control system, the program will set basic configuration, as well as multicast addresses for any connected encoder. This allows field hardware replacements to be performed without requiring devices to be reconfigured.

The program also includes a very simple NVX SIMPL+ routing control module that utilizes the multicast address of the encoders. With this method of control, subscriptions do not need to be managed on physical devices.

Advanced Routing Control

This template includes a simple and advanced routing mode. The simple mode will route the selected source to all displays, while the advanced mode allows a source to be routed to a specific display.

A presentation routing module is included in the SIMPL program that provides all of the routing and user interface control.

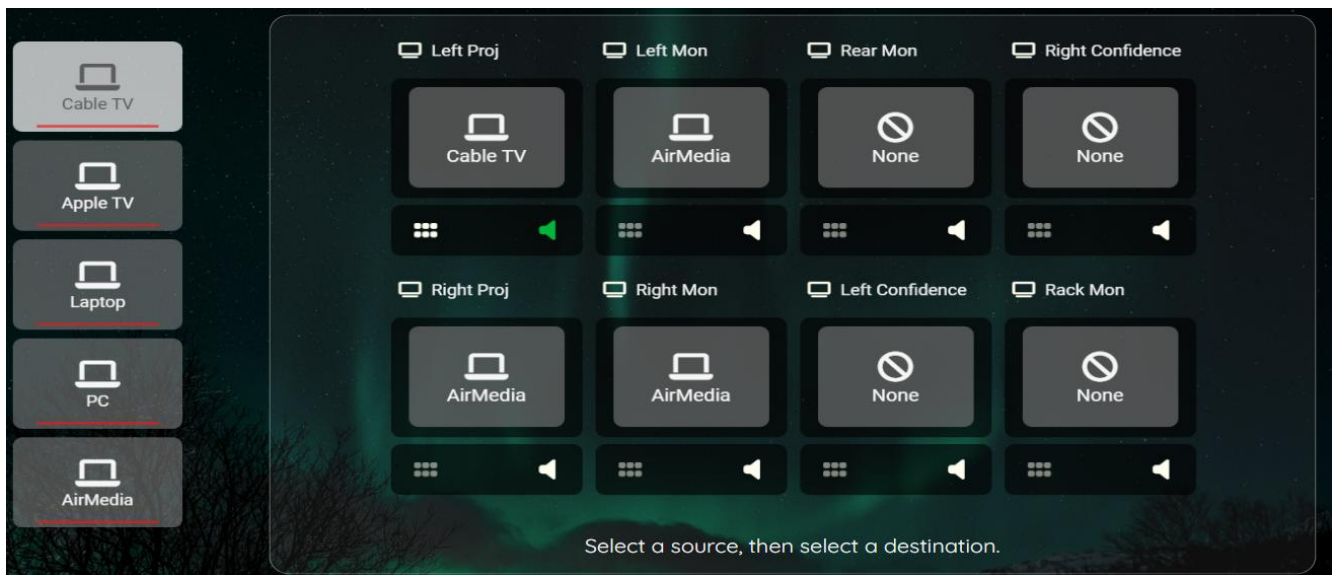
The source and destination labels and icons can be configured using the “Config” folder of the SIMPL program.

Device control logic has been generically implemented using an analog value. Each source that requires control, should have a unique analog value set using the “Config” folder. The presentation routing control module will then drive the source control module output to the configured analog value. This can not only be used to open device controls but can also be used to enable logic for a specific device of the same type. I.E. Cable TV 1 vs Cable TV 2.



To enable advanced routing, select the  icon in the footer menu.

The advanced routing page is organized into sources (left side) and destinations (center).



- Users select a source on the left and then select a destination.
- The destination controls show the currently routed source with its icons.
- If the source allows control, the  icon will be enabled, which allows the routed source controls to be opened.
- The  icon indicates the currently active audio source for the space. When the icon is green, the source routed to the destination is the active audio source. To change the current audio source, touch the icon underneath a different destination's source.

Version History

Version 1.0.1 April 24th, 2026

New features:

- Initial release.

Fixed issues:

- None.

Known issues:

- None.