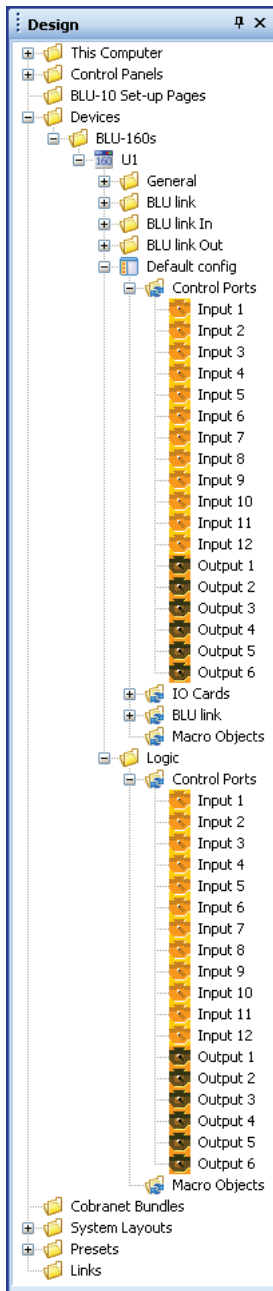


## Using Control Ports in London Architect

In another guide we showed how to connect wall controllers to the Control Ports on Soundweb London devices. In this guide we will focus on London Architect and what types of controls can be assigned to Control Inputs and Logic Outputs.



Let us start by viewing the Control Ports in London Architect. There are two groups of Control Ports in the Design Tree for each Soundweb London device in the system. This is because Logic controls and DSP controls reside in separate parts of the device and can be used in different ways. More on this later.

Create a new design and add a BLU-160 to it. Open the Design Tree by selecting |View|Design| in the main menu bar of London Architect. This will open the Design Tree on your screen. Expand the categories called Devices | BLU-160's | U1. If you expand both the Default Config folder and the Logic folder you will see a folder labeled Control Ports. Each of these folders represents the same control ports. The Logic control ports are used to assign Logic Sources and Logic Ends to external devices. The Configuration control ports are used to assign DSP controls. These controls can be any parameter from any default control panel within the design. You can only associate one Logic control or one DSP control to a given port at one time. Logic is executed on the Host CPU inside the London device, not on the DSP chip. This is why it does not use any DSP resources. The Soundweb London device can store and load up to 20 configurations, each with its own unique control port utilization. Each configuration is listed in the Design Tree and has its own control port assignments. This is why Logic control ports and DSP control ports are shown in separate locations within the Design Tree.

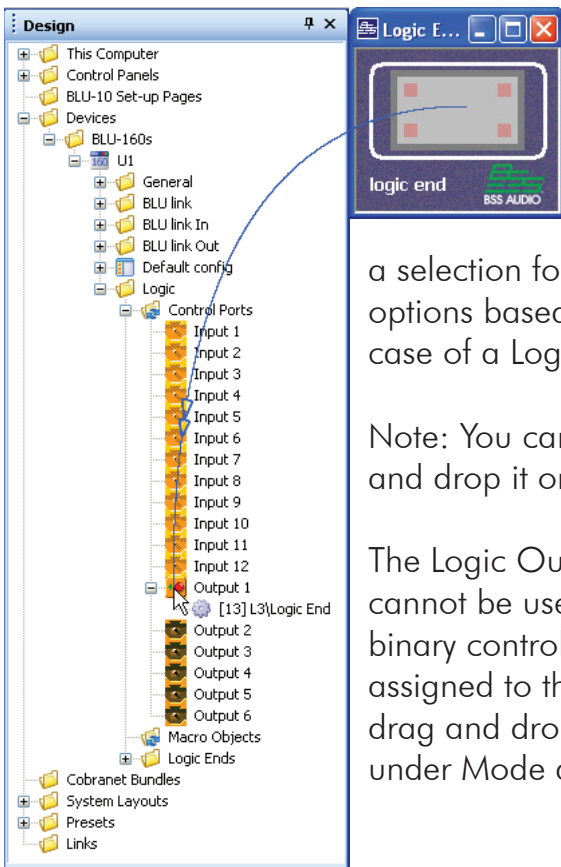
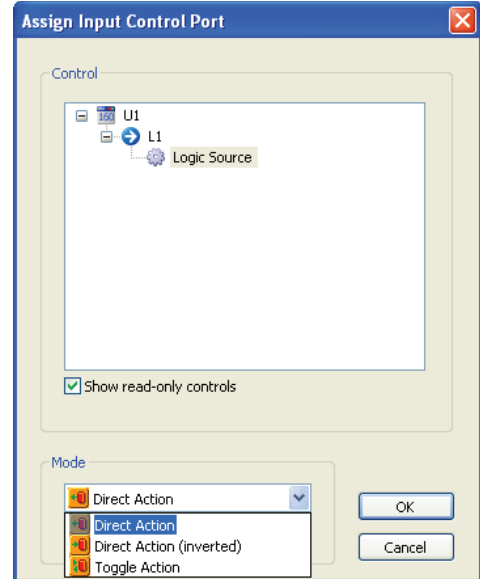
Soundweb™ London



# Using Control Ports in London Architect



To assign a Logic Source to a Control Input, drag the button from the Logic Source control panel to the control port in the Logic folder. This displays the Assign Input Control Port dialog box. In this dialog box is displayed the control's origin and a selection for Mode. The Mode selection will display different options based on the control being assigned to the port. In the case of a Logic Source button, the choices are Direct Action, Inverted Direct Action or Toggle. Direct action means that when the port is activated (or shorted to common), then the assigned button will be in the On state. Inverted Direct Action means that when the port is active the assigned button will be in the Off state. Toggle Action means each time the port is activated the assigned button will change to its alternate state.



To assign a Logic End to a Logic Output, drag the indicator from the Logic End control panel to the control port in the Logic folder. This displays the Assign Output Control Port dialog box. In this dialog box is displayed the Control's origin and a selection for Mode. The Mode selection will display different options based on the control being assigned to the port. In the case of a Logic End indicator, the choices are Normal or Inverted.

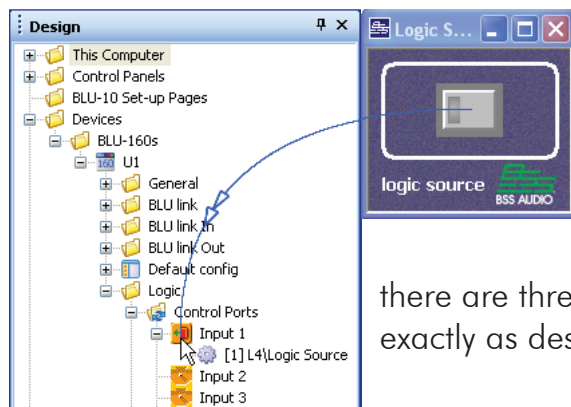
Note: You can also click and drag the port from the Design Tree and drop it on a Control or Indicator to make the assignment.

The Logic Outputs on Soundweb London are either on or off. They cannot be used as a variable analog output. Because of this, only binary controls like buttons, or indicators such as LED's may be assigned to the Logic Outputs. These are assigned with the same drag and drop method described earlier. The options available under Mode are Normal and Inverted.

# Using Control Ports in London Architect



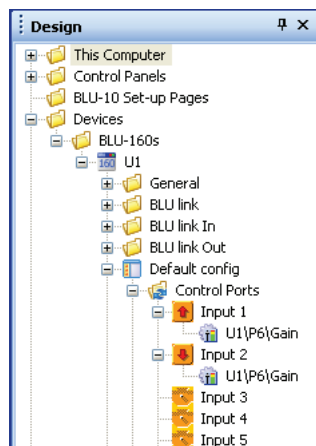
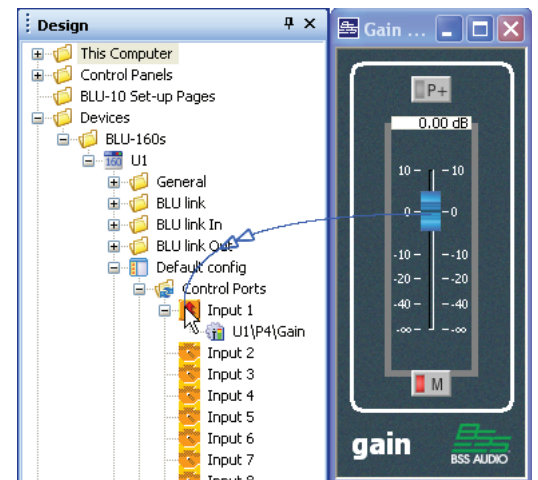
Within the DSP configuration there are many more controls and indicators that can be assigned to the Control Ports and Logic Outputs of a Soundweb London device. These can be broken down into several categories; Binary objects like buttons and indicators, Multi-state objects like Source Selectors and Parameter Presets and Scalar objects like Gain and Threshold. These objects use the control ports under the configuration section of the Design Tree (e.g. Default config).



Binary objects within the DSP are assigned just like the button in the Logic Source. Open the processing object's Default Control Panel and drag the control over to the port in the Design Tree.

When assigning a Binary control to a control port there are three choices; Direct, Inverted or Toggle. These function exactly as described earlier.

Scalar objects within the DSP, like volume controls, are assigned with the same drag and drop method. The Assign Control Input dialog now displays two different options for Mode; Analog Input or Up/Down Pair. Analog input measures a voltage drop through a potentiometer connected to the Control Port. The control in the software will track and follow the position of the potentiometer.



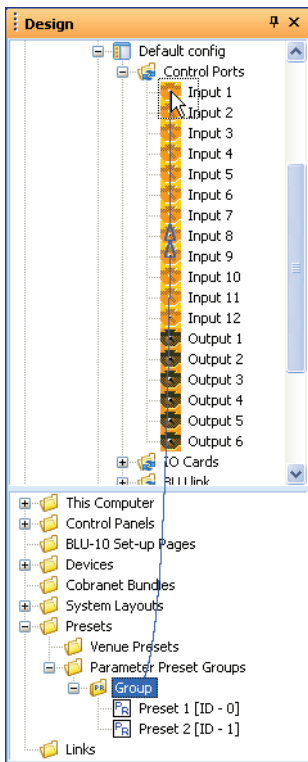
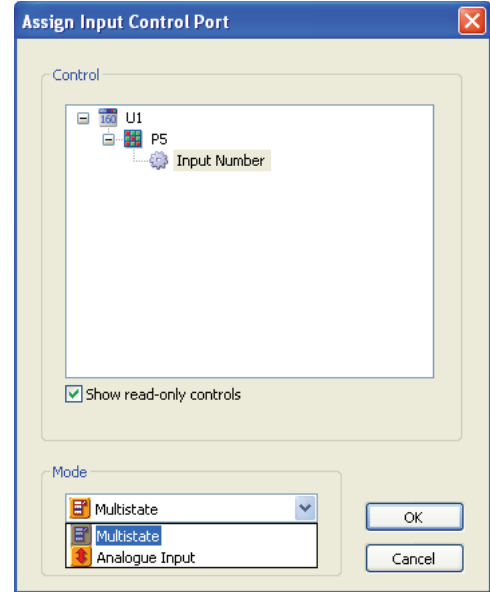
Selecting Up/Down pair will span the control across two consecutive Control Ports so that momentary buttons can be attached to the Control Ports to bump the value up or down.

# Using Control Ports in London Architect



Multi-state objects like source selectors and presets are assigned with the same drag and drop method.

The Assign Control Input dialog has two selections for the Mode - Analog and Multi-state. Analog assigns the control to a single port. Like the scalar control, the port is measuring a voltage drop through a resistor ladder. The number of steps in the resistor ladder must be the same as the number of inputs on the source selector for the control to work correctly.



Presets are assigned in a different manner, as there is no default control panel to drag and drop them from. They must be accessed through the Design tree. By dragging the divider bar at the bottom of the Design Tree, you can split the window to display two instances of the Design Tree. In one half you can expand folders to reveal the control ports. In the other half you can expand the folders to reveal the Presets. You can drag individual presets to specific control ports, or assign an entire preset group to an individual port. When assigning presets, the number of preset states must be the same as the number of steps on the physical control.

These Control Ports can be used to provide simple external control of the system by an operator or provide a means for Soundweb London to control external devices such as screen controls and indicator lamps.