



# Push Controls

## Module: Bluesound

Version 1.1

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## Version History

Version No.	Date	Description
1.0		Initial release of documentation
1.1	12/10/2016	Add Gen IV theme guidelines

## Step 1: Importing the Bluesound Module

Import the Bluesound module by completing the following actions:

- Right click on 'PROJECT' at the top of the tree and select 'Import Module'. *Refer to Figure 1*
- Locate and select 'Bluesound\_X.pemod' (where X is the current version number)

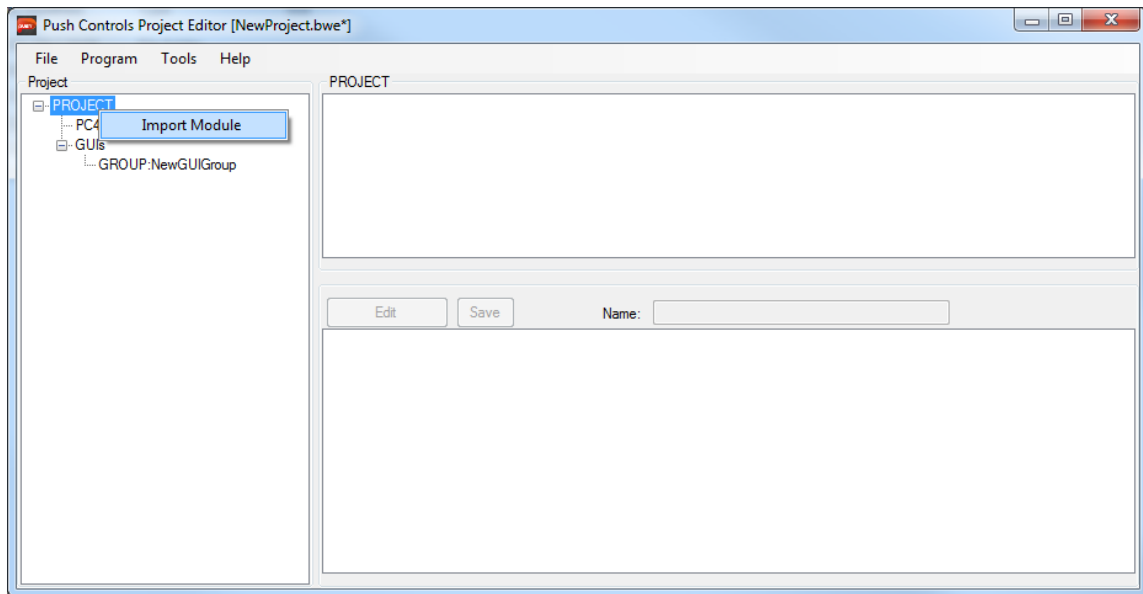


Figure 1 – Right click on PROJECT, inside the project tree, to import a module.

The selected module will now appear in the module browser window (See Figure 2), where you can see everything that is included in the module.

Note: A GUI group must be available in the GUI's section of the Project Editor, in order to import the Bluesound module.

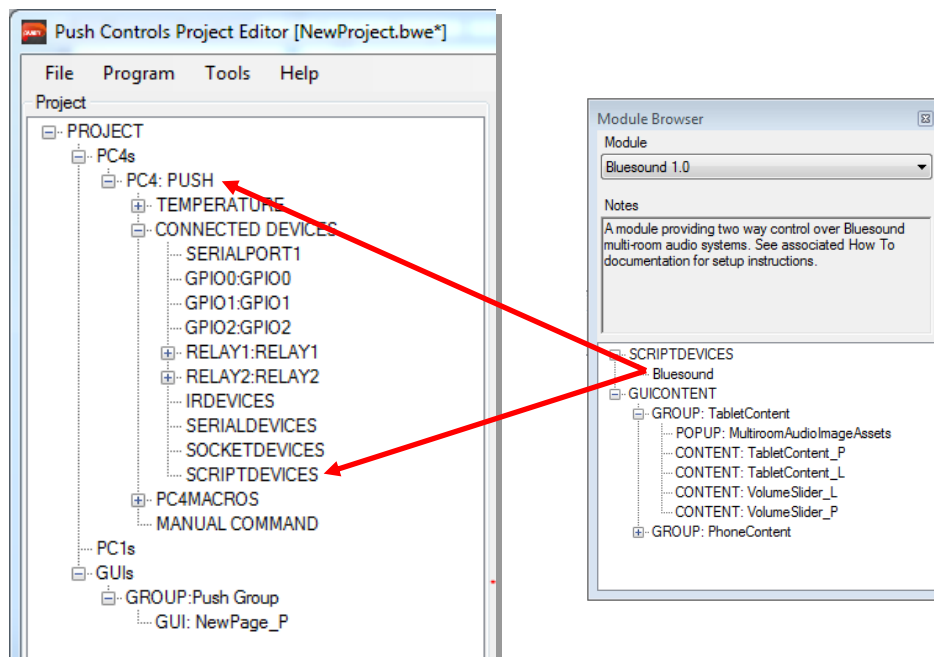


Figure 2 – Dragging and dropping the script from the Module Browser window

## GUI Components

### Themes Available

The Bluesound module contains Gen IV and Gen III themes, each theme is grouped into a GUI Group as follows:

1. TabletContent\_G4: components with Gen IV theme for iPad/tablets
2. PhoneContent\_G4: components with Gen IV theme for iPhone 5/6/6+ and phones with an aspect ratio close to 16:9
3. TabletContent\_G3: components with Gen III theme for iPad/tablets
4. PhoneContent\_G3: components with Gen III theme for iPhone 5/6/6+ and phones with an aspect ratio close to 16:9

### Components Available

Each of the elements contained in the module need to be dragged and dropped into their respective positions within the project. The items under the SCRIPTDEVICES category need to be dragged onto the desired controller. The GUICONTENT area of the Bluesound module contains components for both tablet and phone, which are outlined below *Refer to Figure 2:*

- Phone Content:
  - MultiroomAudioImageAssets – contains reference images for the module and must be imported into the project.
  - PhoneContent – the panel to be imported as a placeholder for the dynamically generated interface.
  - PhoneX\_Volume\_Slider – a pre-programmed iPhone/Phone volume slider component for individual control of a Bluesound device using the ‘break-out’ functions.
- Tablet Content
  - MultiroomAudioImageAssets – contains reference images for the module and must be imported into the project.
  - TabletContent\_X – a panel to be imported as a placeholder for the dynamically generated interface, choose \_P when working with the portrait template or \_L when working with the landscape template.
  - VolumeSlider\_X – a pre-programmed tablet volume slider component for individual control of a Bluesound unit using the ‘break-out’ functions, choose \_P when working with the portrait template or \_L when working with the landscape template.

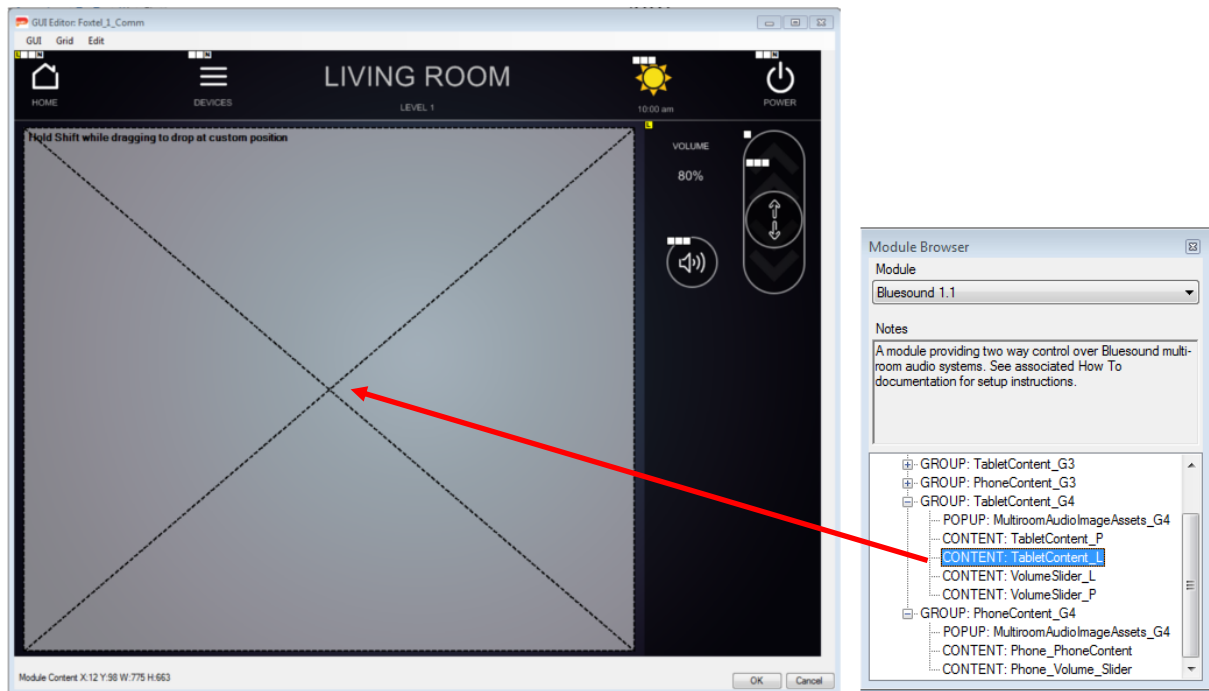
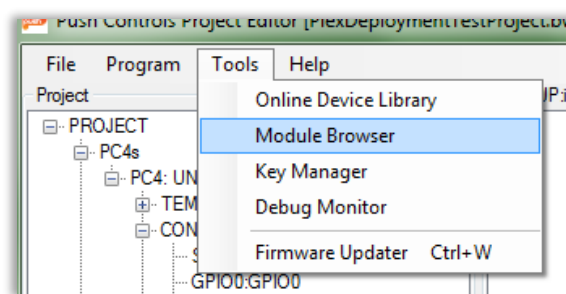


Figure 3 - Dragging content onto a GUI page

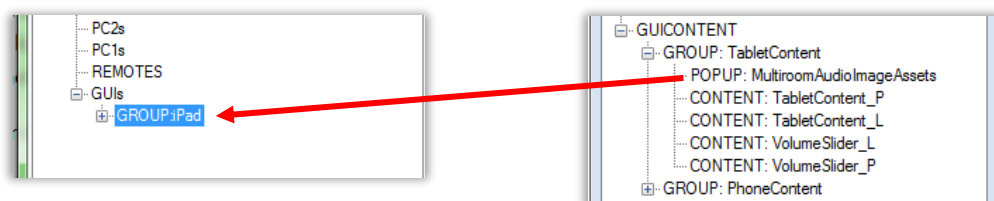
## Adding the Bluesound Panel and GUI Assets

Depending on the functionality you wish to provide you will have to import a selection of the GUI components to the interface. In this section we will go through each step of adding all components for a landscape tablet template, the same steps apply when working with the portrait or phone templates.

1. Open the module browser (Tools->Module Browser) and select the Bluesound module

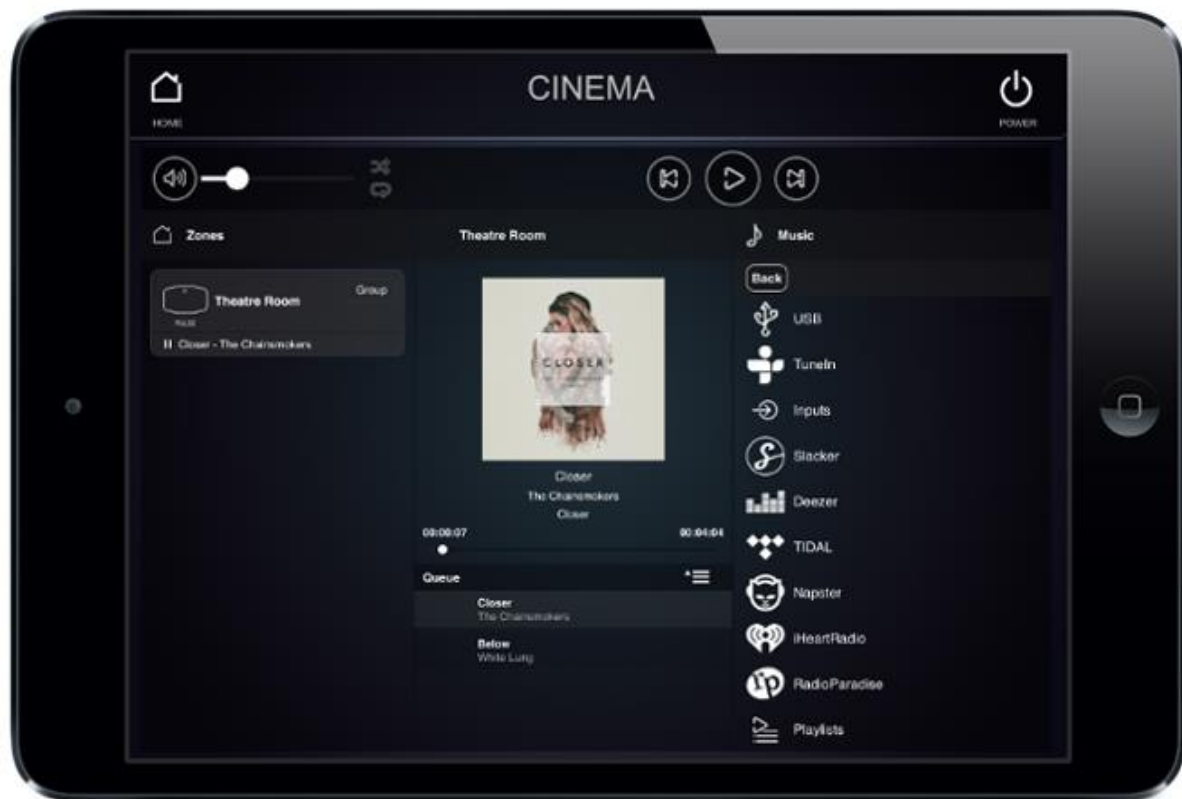


2. Expand GUICONTENT->GROUP: TabletContent
3. Left click and drag MultiroomAudioImageAssets onto your working GUI group name in the project tree and select OK when the dialog box appears asking for confirmation

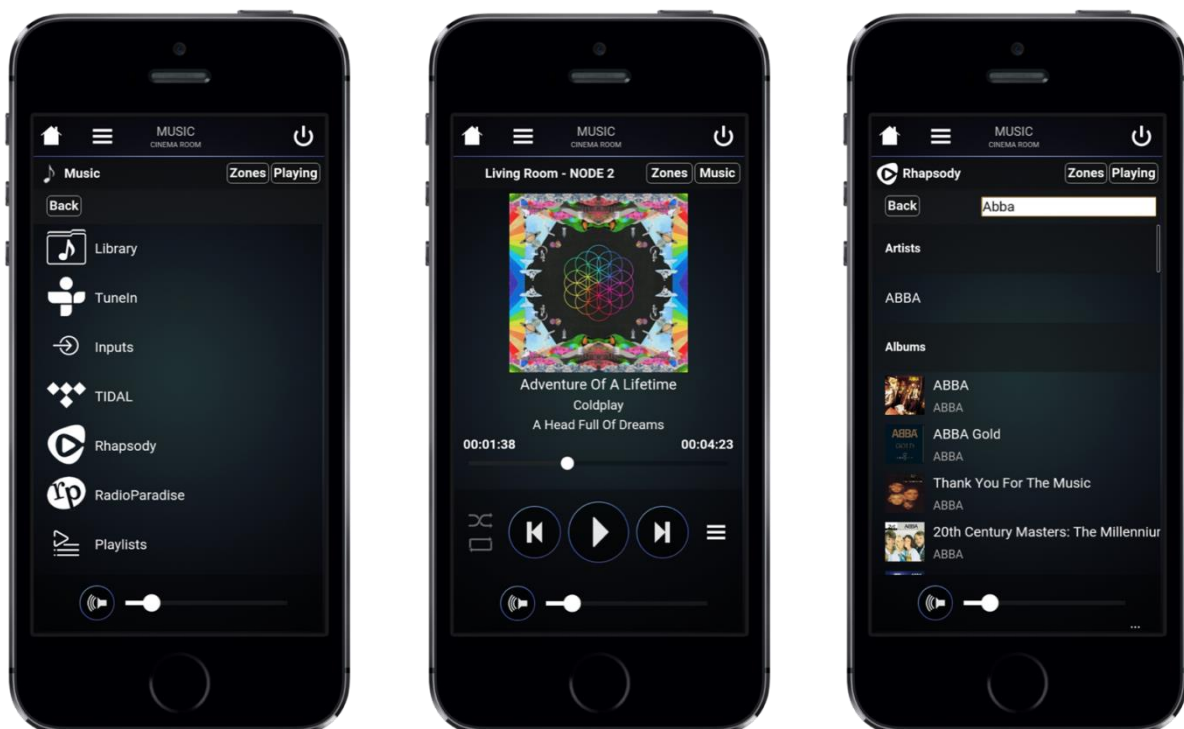


4. Next open the page you wish to import the Bluesound panel into by right clicking and selecting 'Edit' or double clicking on the page name
5. With both the open GUI page and Module Browser in view drag and drop the TabletContent\_L into the open GUI page and you should see a grey box with a black cross through the middle, hold down shift to reposition this placeholder to the location you wish to add the panel and release your mouse button. (Figure 3 - Dragging content onto a GUI page)
  - a. NOTE: If you are placing the panel over the top of existing GUI elements you will be prompted to choose if you wish to remove the GUI elements beneath the panel or add it over the top: Choose 'Yes' to remove existing elements or 'No' to add the panel on top of the existing elements.
6. After you have placed the placeholder on the page you can rescale the placeholder as you would any other image and the interface after upload will scale to match the same area. This provides you with three panels when viewing the interface in landscape mode on a tablet.
7. After uploading your devices the module will scan the network for all available Bluesound devices and you will be presented with an interface similar to the following screenshots depending on your device.

### Tablet Landscape – Full Width Scaling (with Gen IV theme)



### Phone Interface (with Gen III theme)

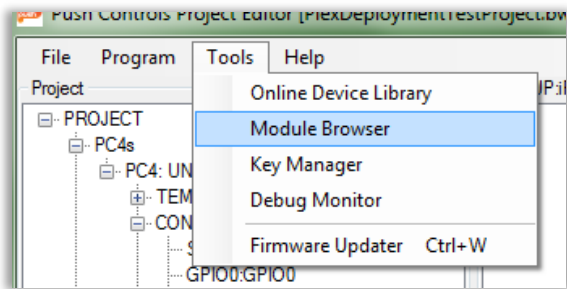




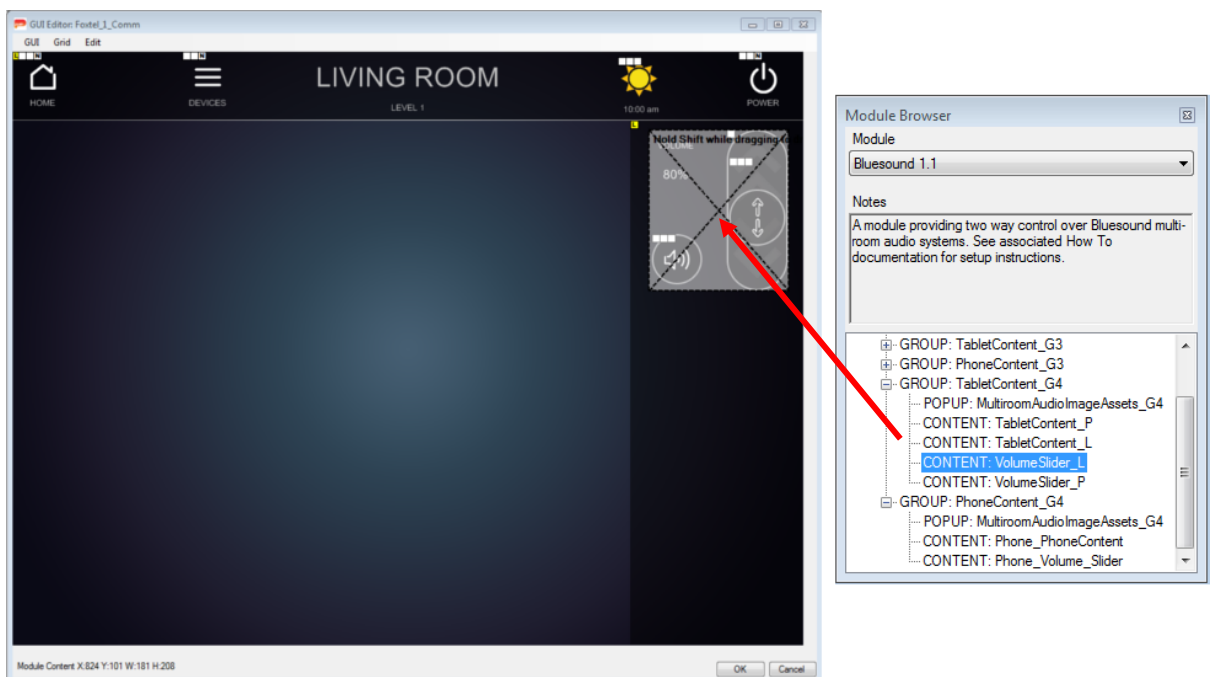
## Adding a Bluesound Volume Component

The volume components included within the PhoneContent and TabletContent groups within the Bluesound module allow you to directly control the volume of individual Bluesound devices. For both tablet and phone there is a volume slider component, which includes feedback and allows control of volume via a slider. Importing the various volume components follow the same steps outlined below. In this example we will add the VolumeSlider\_L component.

1. Open the module browser (Tools->Module Browser) and select the Bluesound module

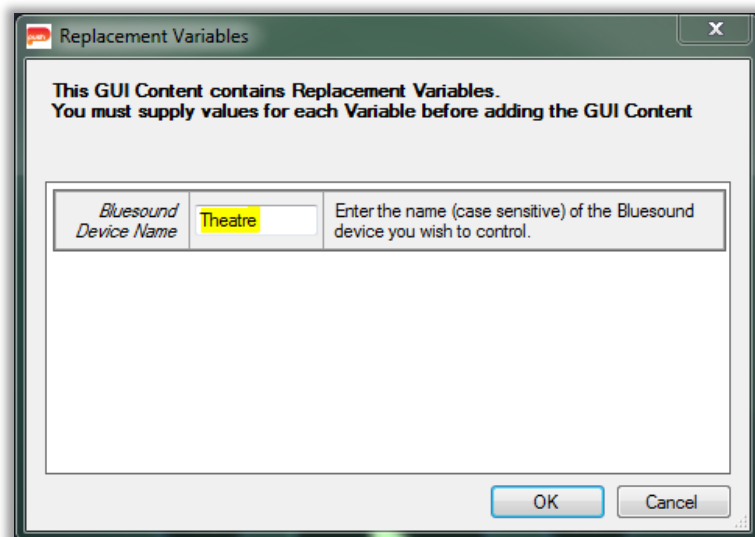


2. Expand GUICONTENT->GROUP: TabletContent
3. Next open the page you wish to import the Bluesound VolumeSlider\_L into by right clicking and selecting 'Edit' or double clicking on the page name
4. With both the open GUI page and Module Browser in view drag and drop the TabletContent\_L into the open GUI page and you should see a grey box with a black cross through the middle, hold down shift to reposition this placeholder to the location you wish to add the panel and release your mouse button. (Figure 3 - Dragging content onto a GUI page). Choose 'Yes' to remove existing elements.



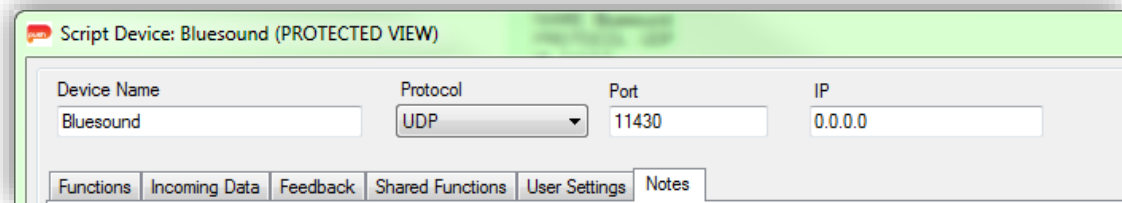
5. Confirm overriding the existing volume components with the pre-programmed Bluesound component you will be presented with a dialog box asking for a Bluesound device name

parameter to be provided. The name corresponds to the name of the Bluesound device you wish to control with this volume component and *is case sensitive* (Note: It is important to notify users that changes to device names within their system will stop functionality via break-out components from working). In the example below we have provided the name Lounge as an example.



## Step 2: Configuring the Bluesound Module

After you have imported the Bluesound SCRIPT DEVICE onto your controller no further configuration should be required. If you have modified the SCRIPT DEVICE properties ensure you revert the details to the default, which is the protocol set to UDP, port number set to 11430 and IP address set to 0.0.0.0 (see screenshot below). To do so right click on the Bluesound SCRIPT DEVICE and select properties then modify the Protocol, Port and IP information to match the details previously mentioned.



Script Device: Bluesound (PROTECTED VIEW)

Device Name	Protocol	Port	IP
Bluesound	UDP	11430	0.0.0.0

Functions Incoming Data Feedback Shared Functions User Settings Notes

### Step 3: Bluesound Macro Functions

Within the Bluesound module there are a number of functions exposed through the Bluesound SCRIPT DEVICE. Any of these functions can be assigned to buttons on the interface or within macros (only on the PC2/PC1 controllers), to provide one-way control over Bluesound devices. The only parameter you need to provide for the majority of functions is the name of the Bluesound device you wish to control, which *is case sensitive*. The functions that require parameters other than the device name are:

- setVolume – requires parameter of inLevel, which should be entered as a digit between 0-100
- recallPreset – requires a parameter of inPresetNum, which is a number that corresponds to the preset number corresponding to the preset you have created within the Bluesound device via a Bluesound application. The preset options are powerful as you can specify source, playlist and volume within the preset configuration, and if you are wanting to switch to the line input of the device via a macro this can be achieved through saving a preset and using the recallPreset function within a macro.