



## **Control4 Driver Manual**

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Revision History			
Version	Date(dd/mm/yyyy)	Author	Description
0.1	03/11/2014	Remi P.	Draft (driver v1.0.8)
0.2	15/01/2015	Remi P.	Draft (driver v1.2.1)
1.0	27/03/2015	Gary S.	Reformatted. First public release (driver v1.4.1)
1.1	29/04/2015	Remi P.	Added multi-zone (driver 1.6.0)
1.2	07/08/2015	Gary S.	Updated support section
1.3	13/08/2015	Gary S.	Added known issues section
1.4	03/09/2015	Gary S.	Add support for Node 2, Pownode 2, Pulse Flex, Pulse Mini, Pulse 2 and Vault 2.
1.5	08/03/2016	Remi P.	Updated screenshot in sect 2.2 & sect 3.3
1.6	01/06/2016	Remi P.	Updated screenshot in sect 2.2 & sect 3.3; Removed the known issue in sect 7.0
2.2	01/09/2016	Gary S.	Updated known issues. Supports driver v2.2.0.
2.4	22/11/2016	Remi P.	Updated driver properties to add new features (Auto Power Off, On Room Off); add mini drivers support; updated installation note to support CI580; removed Spotify playback problem from known issue.
2.6	20/01/2017	Remi P.	Added driver installation order, note for CI580 installation, keypad connection, and event programming. Updated known issues.
2.6.2	13/04/2017	Remi P.	Updated supported NAD models; updated event programming.
2.6.4	01/06/2017	Remi P.	Updated player audio path connection for matrix switches in sect 3.1, and "Auto Power Rooms" description in sect 3.4
2.6.5	22/06/2017	Remi P.	Added a note for multi-zone grouping in sect 5.8
2.8.0	07/07/2017	Remi P.	Updated "On Room Off" feature in sect 3.4
2.8.1	17/07/2017	Remi P.	Updated sect 3.1 to add extra note to explain how the Main Off scenario works within an Audio Matrix Switch
2.8.6	22/03/2018	Remi P.	Added Reindex and RebuildIndex in section 4.2 device specific commands
2.8.7	24/05/2018	Remi P.	Added Media Scenes; updated section 6.5 Local Sources screenshot
2.8.9	06/12/2018	Remi P.	Updated supported Bluesound model in sect 1.0 and screenshot in sect 3.2
2.9.0	15/01/2019	Remi P.	Updated NAD C658 to the supported models.
2.9.1	28/06/2019	Remi P.	Added Play/Pause button link in sect 3.3; Added PlayDirectInput device specific command in sect 4.2; Added support for M10; Added section 3.2 for Input Connections.

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# 1.0 Introduction

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This document describes how to install, configure and use the BluOS Control4 driver suite. This suite consists of media service driver for player, zone network driver, and mini driver for each music services. They are designed to work together. Zone Network driver uses AVSwitch proxy, Player driver uses Media Service Proxy (MSP) and Amplifier proxy, and mini drivers use Media Service Proxy (MSP).

The following Bluesound and NAD players are supported with this driver:

- Bluesound Node (N100)
- Bluesound Node 2 (N110)
- Bluesound Node 2i (N125)
- Bluesound Powernode (N150)
- Bluesound Powernode 2 (N180)
- Bluesound Powernode 2i (N225)
- Bluesound Flex (P100)
- Bluesound Flex 2i (P125)
- Bluesound Pulse Mini (P200)
- Bluesound Pulse Mini 2i (P225)
- Bluesound Pulse (P300)
- Bluesound Pulse 2 (P310)
- Bluesound Pulse 2i (P325)
- Bluesound Vault (V500)
- Bluesound Vault 2 (V510)
- Bluesound Vault 2i (V525)
- Bluesound Soundbar (P400)
- Bluesound Soundbar 2i (P425)
- NAD CI720
- NAD CI580
- NAD C390
- NAD C658
- NAD M50
- NAD M50.2
- NAD VM130
- NAD VM300

This driver requires Control4 OS v2.10 or higher.

## 2.0 Installation

Ensure that your Control4 system is running OS 2.10 or later before installing. Also ensure that your players are running the latest version of BluOS firmware.

### 2.1 Installation Order

- Install Bluesound Zone Network driver (one per Control4 project)
- Install Bluesound Player driver (one for each room containing a Bluesound player)
- Install Bluesound mini driver (one per music service and per Control4 project)

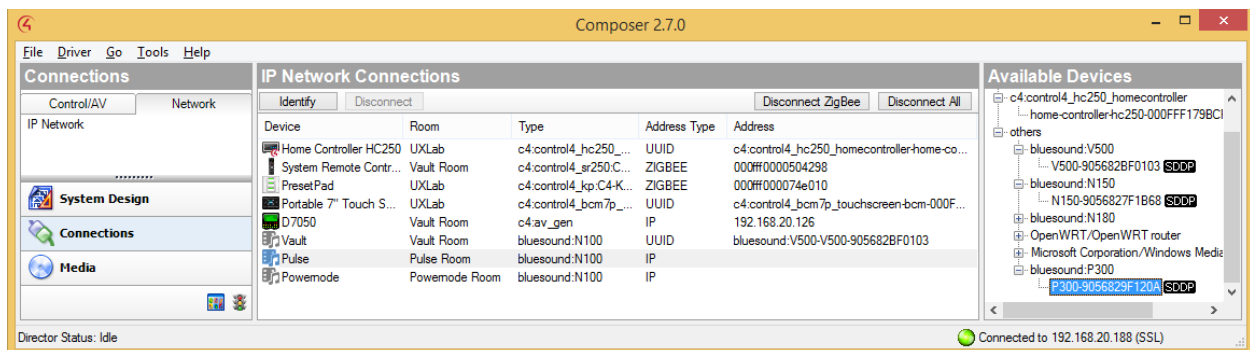
#### NOTE:

\* Make sure the player name in the composer match the real player name in BluOS configuration page (or BluOS app)!

\* For **CI580** which is one device with 4 players, only the first player can be discovered automatically. The rest three have to be installed manually and No IP address is required to be entered in IP Network Connections area. These three players will be connected to network binding by the driver and will not show up in IP Network Connections area after director reboot.

### 2.2 Manually Installing Bluesound Zone Network Driver

Both Media Service and Zone Network drivers are available via the Composer application and the Control4 online driver database. Simply search for Bluesound in the Items panel, choose the room the driver is to be installed in, and double click on the driver from the search result. In this way, you will have to go to "Network" tab in Composer "Connections" to manually identify the player by dragging the player's uuid in "Available Devices" panel and dropping it into the corresponding player in "IP Network Connections" panel.

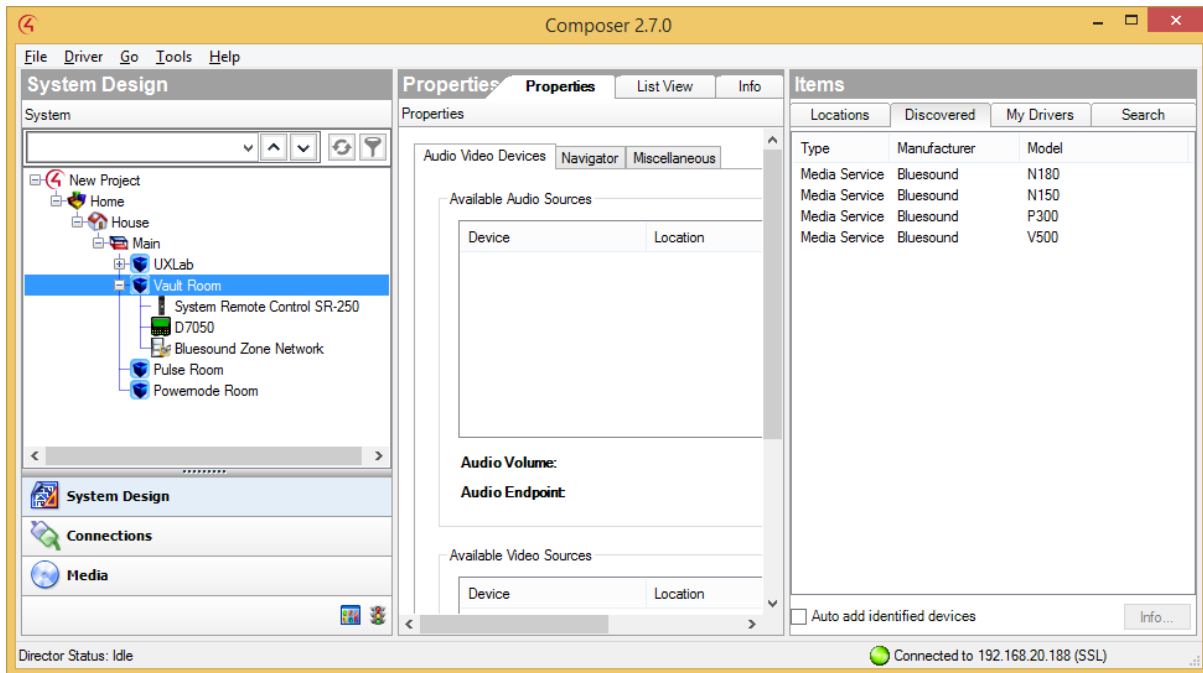


### 2.3 Installing Bluesound Player Driver

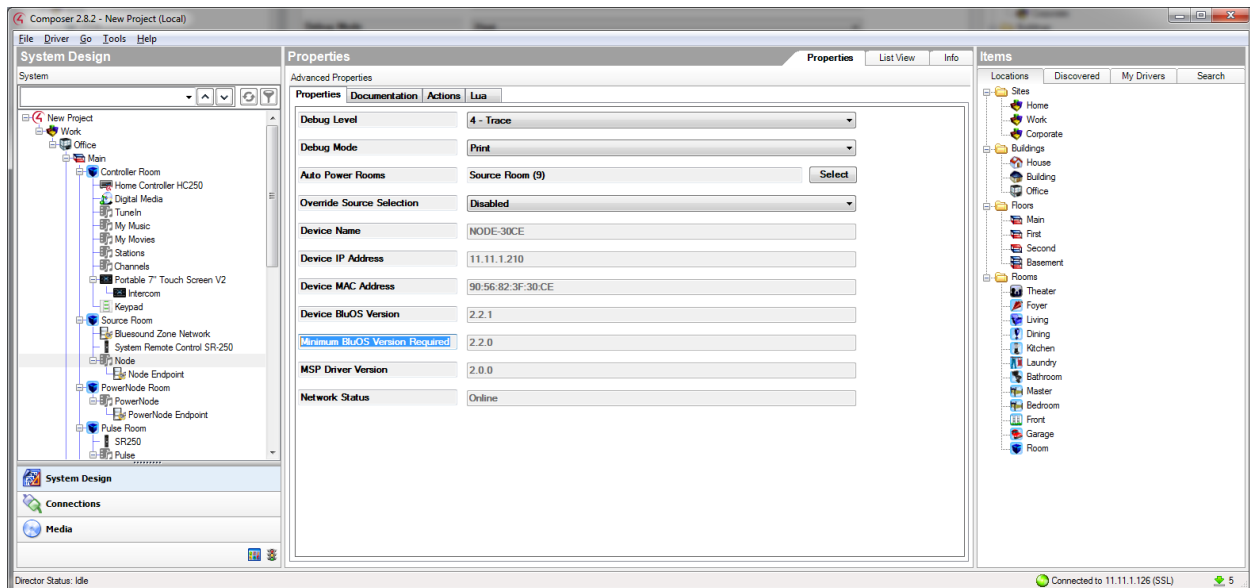
Bluesound Player driver can be installed manually in the same way as that Bluesound Zone Network driver is installed. It can also be installed automatically because Bluesound players support Control4 SDDP. The steps below show how to install Bluesound Player driver automatically in Composer.

- Select the room where the Bluesound device is to be added, e.g. Vault Room.

- Click on “Discovered” tab at right hand side of Composer. If Bluesound device is connected in the same network as the Control4 Director, Bluesound Player driver will show up under “Discovered” tab. Make sure to choose the right model for the Bluesound device. If you have more than one device having same model in the same network, right click on the MSP driver and click on “Info...” to find the right driver.



- Double click on the driver to be added. This step will add the Media Service driver to project and configure the network connection automatically. Change the driver name to be same as that showing in BluOS native apps.



## 2.4 Installing Bluesound Mini Drivers

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Bluesound Control4 driver provides mini drivers for each supported music service. They can be installed as per customer's needs. Each Control4 project only requires one mini driver for each service. Mini drivers have to be manually installed in the same way as that of Bluesound Zone Network driver.



## 3.0 Configuration

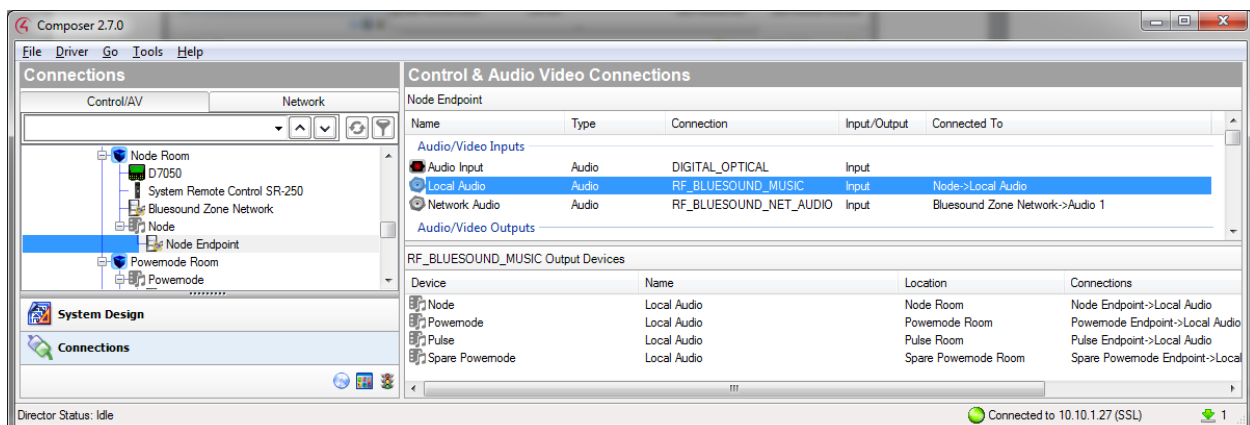
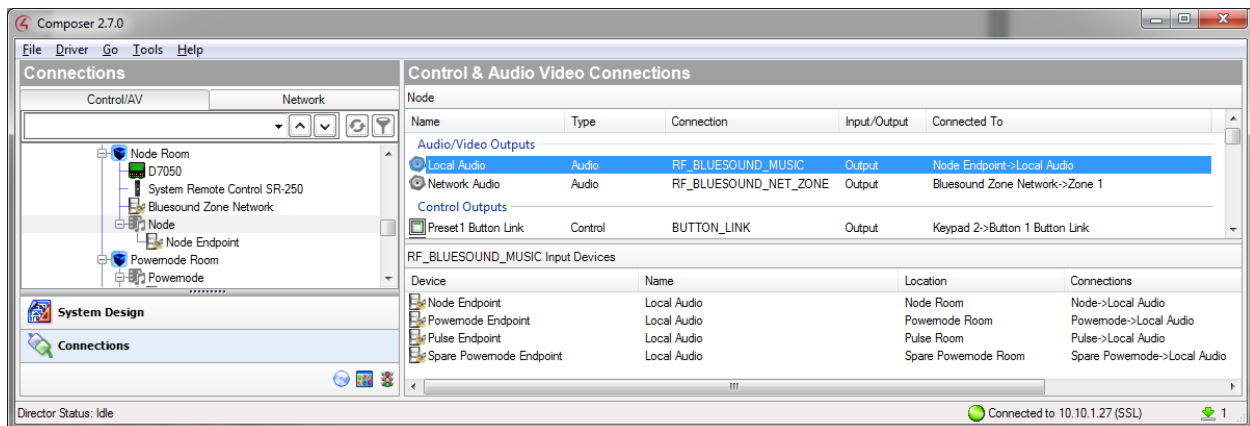
Bluesound Player driver has to be configured properly in order for all Bluesound devices in the same network to work well together.

### 3.1 Input / Output Connections

Bluesound Player audio path has to be complete for the driver to work properly. The audio input / output connections between Bluesound Zone Network and Bluesound Player drivers are automatically bound.

**Note 1)** Bluesound Player driver lists all possible audio inputs / outputs for all Bluesound models. Only the supported audio input / output should be connected for the player.

**Note 2)** Please **DO NOT** delete any connection between Zone Network driver and Media Service driver. In case the connection is broken, follow the example below (Node's Audio/Video Outputs and Node Endpoint's Audio/Video Inputs) to repair it.



- **For and ONLY for players connected to matrix switches, please disconnect the player's Network Audio Outputs from Bluesound Zone Network Zone** as below. Otherwise, routing source players to multiple speakers may actually group the players! **Because of the removal of this binding when the starting stream of a multiple room session is turned off it will be necessary to make sure all added rooms are turned off within Control4's UI.**

### Connections

Control/AV      Network

New Project
Work

Office

- Main Floor
  - MSP2 Desk
  - Source Room
  - Bluesound Zone Network
  - NODE-30CE**
    - NODE-30CE Endpoint
    - VAULT 2 - 1FAA
    - VAULT 2 - 1FAA Endpoint
    - NAD T187
    - AM FM Tuner
    - XM Tuner
    - Dock

### Control & Audio Video Connections

NODE-30CE
▼

Name	Type	Connection	Input/Output	Connected To
<b>Audio/Video Outputs</b>				
Local Audio	Audio	RF_BLUESOUND_MUSIC	Output	NODE-30CE Endpoint->Local Audio
Network Audio	Audio	RF_BLUESOUND_NET_ZONE	Output	
<b>Control Outputs</b>				
Preset1 Button Link	Control	BUTTON_LINK	Output	
Preset2 Button Link	Control	BUTTON_LINK	Output	
Preset3 Button Link	Control	BUTTON_LINK	Output	
Preset4 Button Link	Control	BUTTON_LINK	Output	
Preset5 Button Link	Control	BUTTON_LINK	Output	
Preset6 Button Link	Control	BUTTON_LINK	Output	
Preset7 Button Link	Control	BUTTON_LINK	Output	
Preset8 Button Link	Control	BUTTON_LINK	Output	
Preset9 Button Link	Control	BUTTON_LINK	Output	
Preset10 Button Link	Control	BUTTON_LINK	Output	

- If a player is physically connected to a receiver, connect the player's Audio Output to the receiver's Audio Input to match the physical connection. For example, Node in the project has the optical output connected to optical input of the receiver D7050.

### Control & Audio Video Connections

Node Endpoint

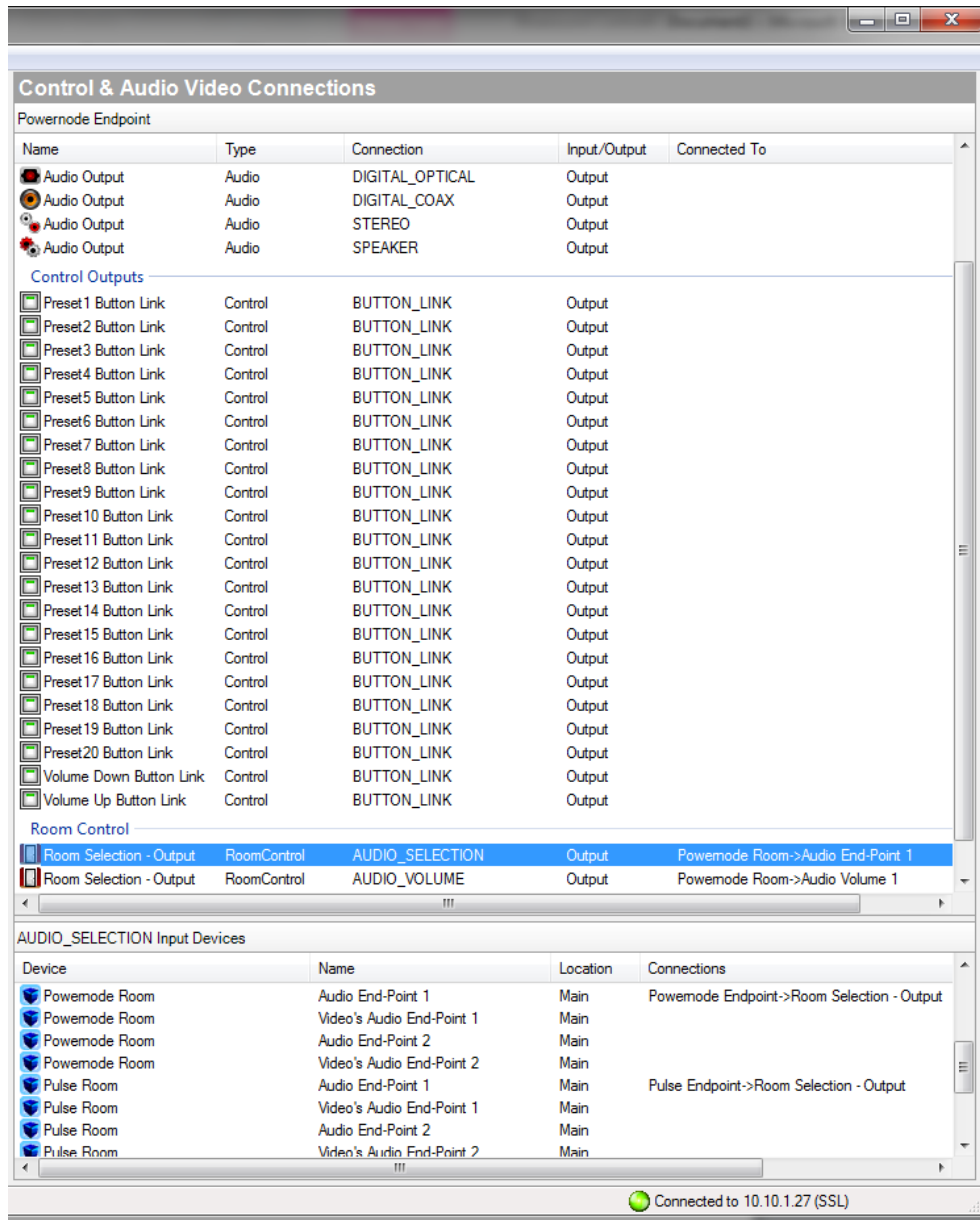
Name	Type	Connection	Input/Output	Connected To
<b>Audio/Video Outputs</b>				
Audio Output	Audio	DIGITAL_OPTICAL	Output	D7050->Digital Audio Input 1
Audio Output	Audio	DIGITAL_COAX	Output	
Audio Output	Audio	STEREO	Output	
Audio Output	Audio	SPEAKER	Output	
<b>Control Outputs</b>				
Preset1 Button Link	Control	BUTTON_LINK	Output	Keypad 2->Button 1 Button Link
Preset2 Button Link	Control	BUTTON_LINK	Output	Keypad 2->Button 2 Button Link
Preset3 Button Link	Control	BUTTON_LINK	Output	Keypad 2->Button 3 Button Link
Preset4 Button Link	Control	BUTTON_LINK	Output	Keypad 2->Button 4 Button Link
Preset5 Button Link	Control	BUTTON_LINK	Output	Keypad 2->Button 5 Button Link
Preset6 Button Link	Control	BUTTON_LINK	Output	
Preset7 Button Link	Control	BUTTON_LINK	Output	
Preset8 Button Link	Control	BUTTON_LINK	Output	
Preset9 Button Link	Control	BUTTON_LINK	Output	
Preset10 Button Link	Control	BUTTON_LINK	Output	
Preset11 Button Link	Control	BUTTON_LINK	Output	
Preset12 Button Link	Control	BUTTON_LINK	Output	
Preset13 Button Link	Control	BUTTON_LINK	Output	
Preset14 Button Link	Control	BUTTON_LINK	Output	
Preset15 Button Link	Control	BUTTON_LINK	Output	
Preset16 Button Link	Control	BUTTON_LINK	Output	
Preset17 Button Link	Control	BUTTON_LINK	Output	
Preset18 Button Link	Control	BUTTON_LINK	Output	
Preset19 Button Link	Control	BUTTON_LINK	Output	
Preset20 Button Link	Control	BUTTON_LINK	Output	
Volume Down Button Link	Control	BUTTON_LINK	Output	Keypad 2->Down Button Link
Volume Up Button Link	Control	BUTTON_LINK	Output	Keypad 2->Up Button Link
<b>Room Control</b>				
Room Selection - Output	RoomControl	AUDIO_SELECTION	Output	
Room Selection - Output	RoomControl	AUDIO_VOLUME	Output	

**DIGITAL\_OPTICAL Input Devices**

Device	Name	Location	Connections
Sony Receiver	DVD	MSP2 Desk	
Sony Receiver	SA-CD/CD	MSP2 Desk	
D7050	Digital Audio Input 1	Node Room	Node Endpoint->Audio Output
D7050	Digital Audio Input 2	Node Room	
Powemode Endpoint	Audio Input	Powemode Room	
Pulse Endpoint	Audio Input	Pulse Room	
Spare Powemode Endpoint	Audio Input	Spare Powemode Room	

Connected to 10.10.1.27 (SSL)

- If a player is the audio endpoint, connect the player's Room Control to room audio endpoint. For example, Powernode has built-in amplifier and its Room Control is connected to Room Audio Endpoint directly.



## 3.2 Input Connections

Bluesound Player driver provides multiple audio inputs: Analog Input 1, Optical Input 1, Coax Input, Analog Input 2, Optical Input 2, and HDMI ARC. Please note that the input is mapped to the player's real input. For example, **NODE 2i has 1 combined analog input and optical input. When use the analog input, connect the audio input to NODE 2i player driver's Analog Input 1. When use the optical input, connect the audio input to NODE 2i player driver's Optical Input 1. If you have POWERNODE 2i, and only analog 2 is used, connect the audio input to POWERNODE 2i player driver's Analog Input 2.**

## Control & Audio Video Connections

### M10-CD2D Endpoint

Name	Type	Connection	Input/Output
<b>Audio/Video Inputs</b>			
HDMI ARC	Video	HDMI	Input
Analog Input 1	Audio	STEREO	Input
Optical Input 1	Audio	DIGITAL_OPTICAL	Input
Coaxial Input	Audio	DIGITAL_COAX	Input
Analog Input 2	Audio	STEREO	Input
Optical Input 2	Audio	DIGITAL_OPTICAL	Input

## 3.3 Button Link Connections

Bluesound Player driver provides the following button links for keypad: 20 presets, volume up, volume down, mute toggle, play, pause, play/pause, stop, skip forward, and skip reverse. Connecting these button links to keypad buttons can be convenient for preset loading, player volume control, and playback control.

**Note:** It is normal that “Control Outputs” button links appear in both Player and Player Endpoint because BUTTON\_LINK connection doesn’t have proxy binding.

## Control & Audio Video Connections

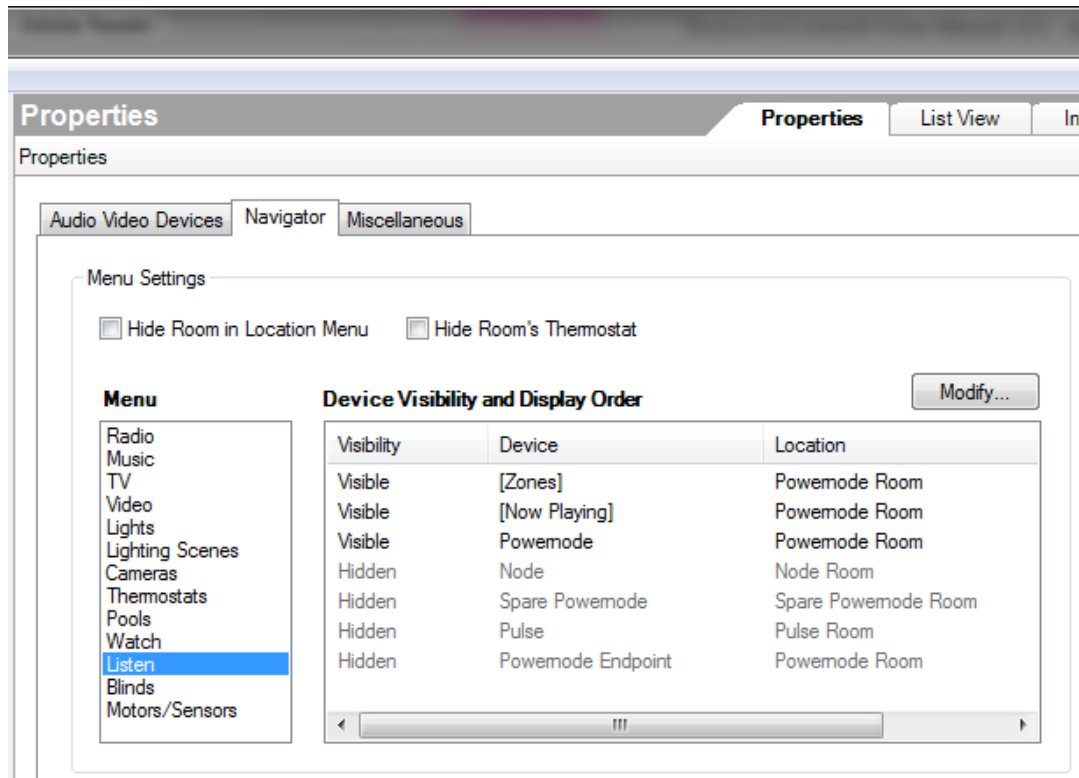
### M10-CD2D Endpoint

Name	Type	Connection	Input/Output	Connected To
<b>Audio/Video Inputs</b>				
HDMI ARC	Video	HDMI	Input	
Analog Input 1	Audio	STEREO	Input	
Optical Input 1	Audio	DIGITAL_OPTICAL	Input	
Coaxial Input	Audio	DIGITAL_COAX	Input	
Analog Input 2	Audio	STEREO	Input	
Optical Input 2	Audio	DIGITAL_OPTICAL	Input	
Local Audio	Audio	RF_BLUESOUND_MU...	Input	M10-CD2D->Local Audio
Network Audio	Audio	RF_BLUESOUND_NE...	Input	Bluesound Zone Network->Audio 4
<b>Audio/Video Outputs</b>				
HDMI Output	Video	HDMI	Output	
Audio Output	Audio	DIGITAL_OPTICAL	Output	NAD Integrated Amplifier->SOURCE 1 - Optical 1
Audio Output	Audio	DIGITAL_COAX	Output	
Audio Output	Audio	STEREO	Output	
Audio Output	Audio	SPEAKER	Output	
<b>Control Outputs</b>				
Preset1 Button Link	Control	BUTTON_LINK	Output	Configurable Keypad->Button 1 Button Link
Preset2 Button Link	Control	BUTTON_LINK	Output	Configurable Keypad->Button 2 Button Link
Preset3 Button Link	Control	BUTTON_LINK	Output	
Preset4 Button Link	Control	BUTTON_LINK	Output	
Preset5 Button Link	Control	BUTTON_LINK	Output	
Preset6 Button Link	Control	BUTTON_LINK	Output	
Preset7 Button Link	Control	BUTTON_LINK	Output	
Preset8 Button Link	Control	BUTTON_LINK	Output	
Preset9 Button Link	Control	BUTTON_LINK	Output	
Preset10 Button Link	Control	BUTTON_LINK	Output	
Preset11 Button Link	Control	BUTTON_LINK	Output	
Preset12 Button Link	Control	BUTTON_LINK	Output	
Preset13 Button Link	Control	BUTTON_LINK	Output	

## 3.4 Hide Sources in Navigator

By default all Bluesound devices in the network will appear in each room having Bluesound Player driver installed as all the players are in the same network group. In each room you should hide all the Bluesound devices which are not the current room's devices under "Listen" in "Navigator" tab of room's properties. In addition, the Bluesound Player Endpoint of Bluesound Player driver should always be hidden.

For example, the screenshot below shows the device visibility of Powernode room. The players which are not in the room are hidden. Also the player's endpoint is hidden as well.



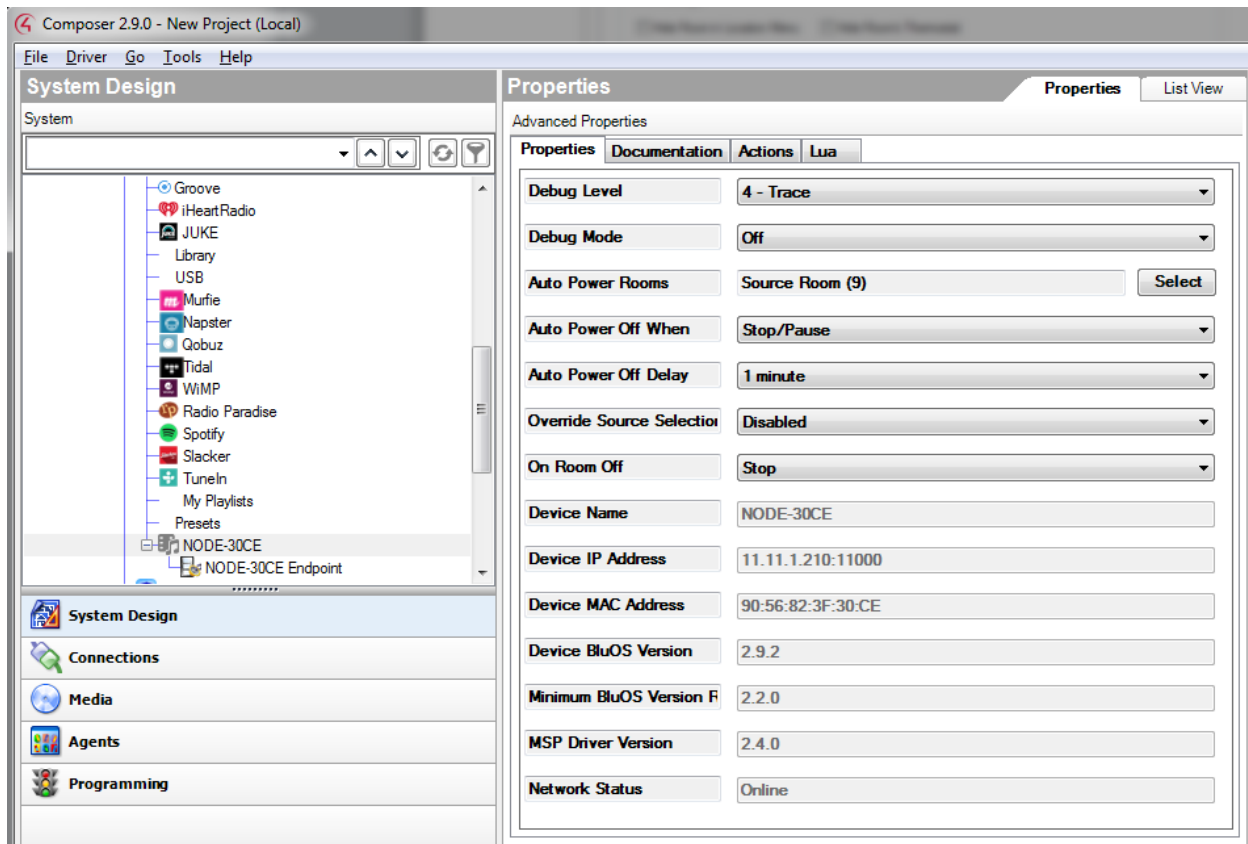
## 3.5 Configure Driver Properties

Bluesound Player driver provides several properties to configure debug level/mode, turn on/off auto power rooms, disable/enable source override, and display network status and driver information.

- To trace/debug the MSP driver in Lua output window, set the property "Debug Mode" to be either "Print" or "Print and Log". The debug mode "Print" and "Print and Log" has 45 minutes timeout.
- "Auto Power Rooms" gives users an option to turn on C4 room and select Bluesound players automatically by playing music stream in Bluesound native Apps. **For an unamplified BluOS player, ONLY select an Auto Power Rooms if the player is Not connected to a multi-room amplifier. If the player is connected a receiver or dedicated power amplifier, select the room the receiver/amplifier is in. For an amplified BluOS player, select the room the player is in.**

**Note: If Auto Power Rooms is not set up, the zone grouping will not work properly!!!**

- “Auto Power Off When” is visible when “Auto Power Room” is selected. It has “Stop, Pause, Stop/Pause, Never” options. For example, when “Stop” is selected, the room will be off when the player stops playing.
- “Auto Power Off Delay” is visible when “Auto Power Room” is selected and when “Auto Power Off When” is either “Stop”, “Pause”, or “Stop/Pause”. It has several delay options: 10 seconds, 20 seconds, 30 seconds, 1 minute, 2 minutes, 3 minutes, 5 minutes, and 10 minutes. It turns off the room after selected delay time.
- “Override Source Selection” is disabled by default when Auto Power Room is selected. If it’s disabled, Bluesound player starting to play will turn on the room in C4 and only select the Bluesound player if the room is off or a different Bluesound player is playing. If it’s enabled, Bluesound player starting to play will turn on the room in C4 and select the Bluesound player regardless of other active sources (media player, TV, DVD, Game Control, etc.).



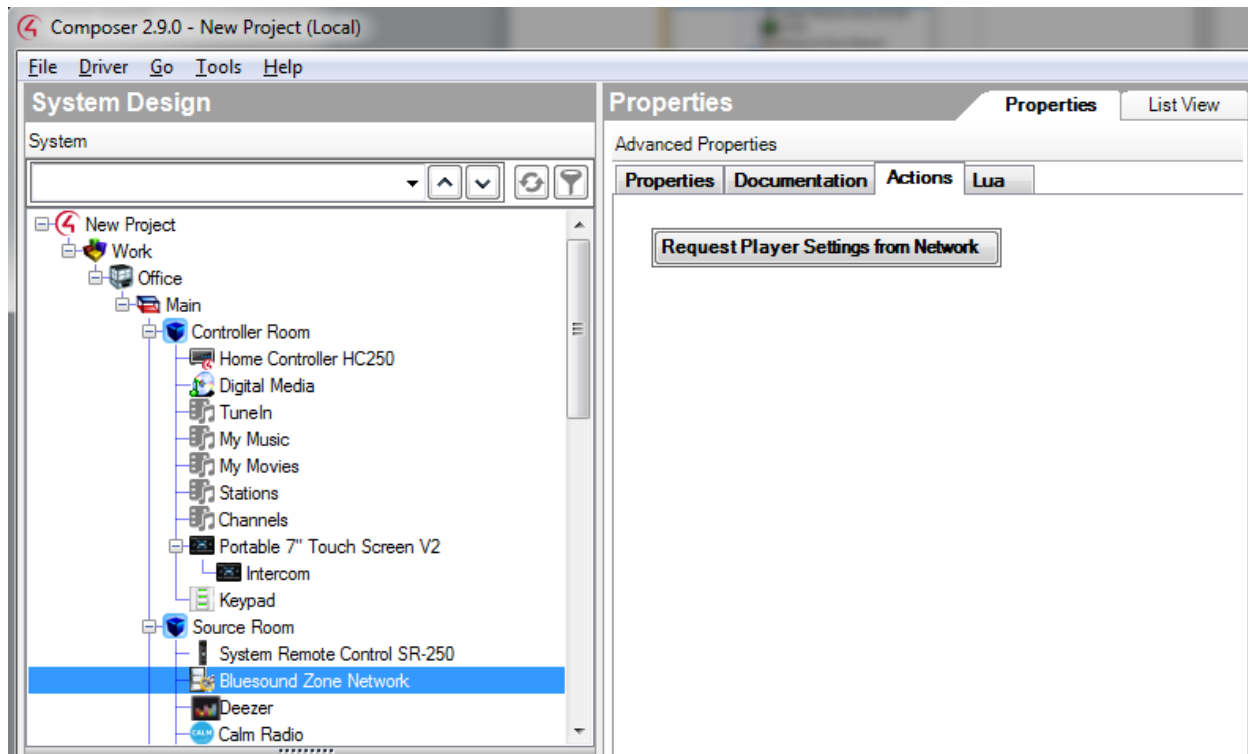
- “On Room Off” has four options “Pause, Stop, Clear Queue, Do Nothing”. It works in the way described below.  
For ungrouped players, upon room off, it does
  - Stop: stop the playing, queue stays same
  - Pause: pause the playing, queue stays same
  - Clear Queue: clear the current playlist/queue
  - Do Nothing: player keeps playing, queue stays same
- For grouped secondary player, upon room off (due to being ungrouped) it does:
  - Stop, Pause, Do Nothing: stop the playing (this is part of the firmware feature), queue remains same
  - Clear Queue: clear the current playlist/queue
- For grouped secondary player, upon room off (due to room off) it does:
  - ungroup the player from primary player, and then take On Room Off actions:
    - Stop, Pause, Do Nothing: stop the playing (this is part of the firmware feature), queue remains same
    - Clear Queue: clear the current playlist/queue

For grouped primary player, upon room off, it does:

- ungroup all players from the group, and then take On Room Off actions:
  - Stop: stop the playing, queue stays same
  - Pause: pause the playing, queue stays same
  - Clear Queue: clear the current playlist/queue
  - Do Nothing: player keeps playing
- After above steps are complete, refresh navigators by clicking Composer “File” menu and “Refresh Navigators” or simply pressing “Shift + F5” keys. With everything set up properly, Player driver’s “Properties” should show the right versions of BluOS and driver, and Network Status should be Online.

## 3.6 Retrieve Player Settings

After all configuration work is done, clicking the action “Request Player Settings from Network” in Zone Network driver to retrieve device information of Bluesound devices in the same zone network. Please **remember** to perform the same action every time after driver update.



## 4.0 Events Programming

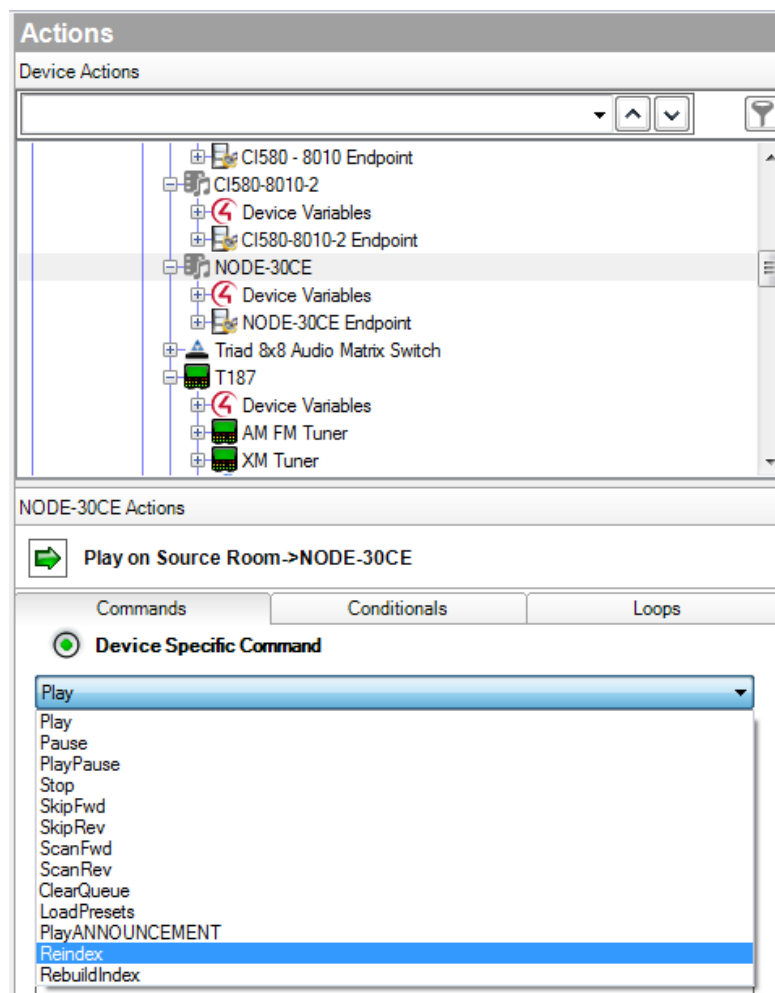
Bluesound drivers support event programming.

### 4.1 Zone Network and Player Events

Bluesound Zone Network driver output has “Input Changed” events, and Bluesound Player driver endpoint output supports “Input Changed”, “Volume Level Changed”, “Mute State Changed”, and “Any Audio Settings Changed”. **However**, due to a known Control4 director bug, these events are not working. To program zone network events or player events, please use Room Variables or Device Variables instead.

### 4.2 Device Specific Commands in Player Driver

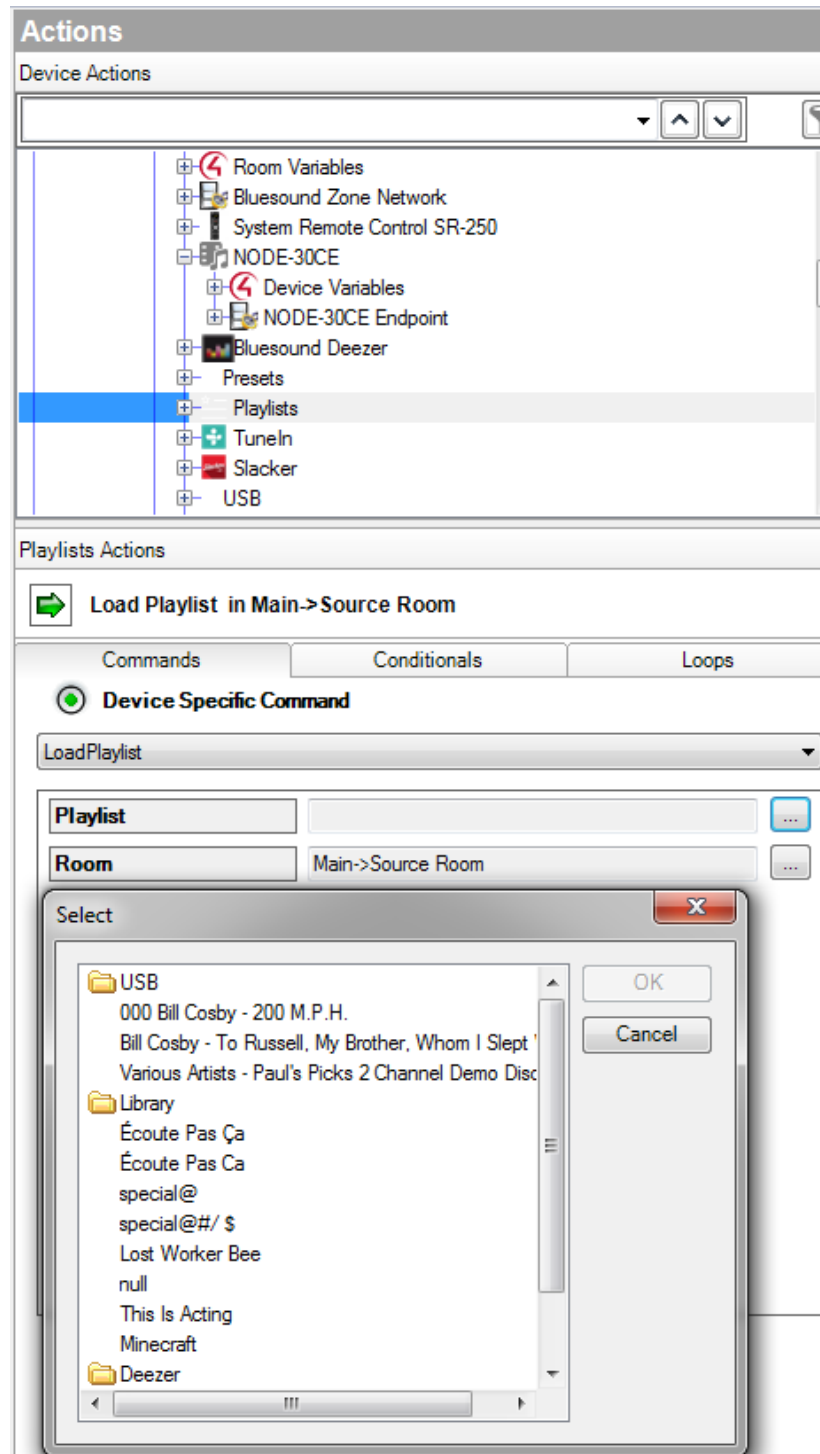
Bluesound Player driver provides few basic device specific commands for event programming. They are Play, Pause, PlayPause, Stop, SkipFwd, SkipRev, ScanFwd, ScanRev, ClearQueue, LoadPresets, PlayANNOUNCEMENT, Reindex, RebuildIndex, and PlayDirectInput





## 4.3 Device Specific Commands in My Playlists Driver

Bluesound My Playlists driver provides Load Playlist command for event programming. Choose a playlist and room to load the playlist.



## 4.4 Keypad Events

Bluesound Player driver only supports **Single Click** of C4 keypad. When programming C4 keypad in Composer, please make sure to check "Single Click" for button command.

The screenshot displays the 'Actions' panel in the Bluesound Composer software. The 'Device Actions' list on the left includes 'My Music', 'My Movies', 'Stations', 'Channels', 'Portable 7" Touch Screen V2', 'Device Variables', 'Intercom', 'Keypad', 'Source Room', 'Room Variables', 'Bluesound Zone Network', and 'System Remote Control SR-250'. The 'Keypad' item is selected, and the 'Keypad Actions' panel on the right is active. It shows a green arrow icon and the text 'Click the Button 1 button on the Controller Room->Keypad'. Below this, there are three sections: 'LED Commands' with a dropdown menu and eight radio button options; 'Button Commands' with a dropdown menu set to 'Button 1' and four radio button options, where 'Single Click' is selected; and 'Misc. Commands' with a radio button for 'Set Backlight Color' and an adjacent text input field.

**Actions**

Device Actions

- My Music
- My Movies
- Stations
- Channels
- Portable 7" Touch Screen V2
  - Device Variables
  - Intercom
- Keypad**
- Source Room
  - Room Variables
- Bluesound Zone Network
- System Remote Control SR-250

Keypad Actions

Click the Button 1 button on the Controller Room->Keypad

Commands      Conditionals

**LED Commands**

[Dropdown]

☐ Use On Color      ☐ Use Off Color

☐ Set LED On      ☐ Set All LED On

☐ Set LED Off      ☐ Set All LED Off

☐ Set LED Current      ☐ Set All LED Current

**Button Commands**

Button 1 [Dropdown]

☒ Single Click

☐ Press      ☐ Double Click

☐ Release      ☐ Triple Click

**Misc. Commands**

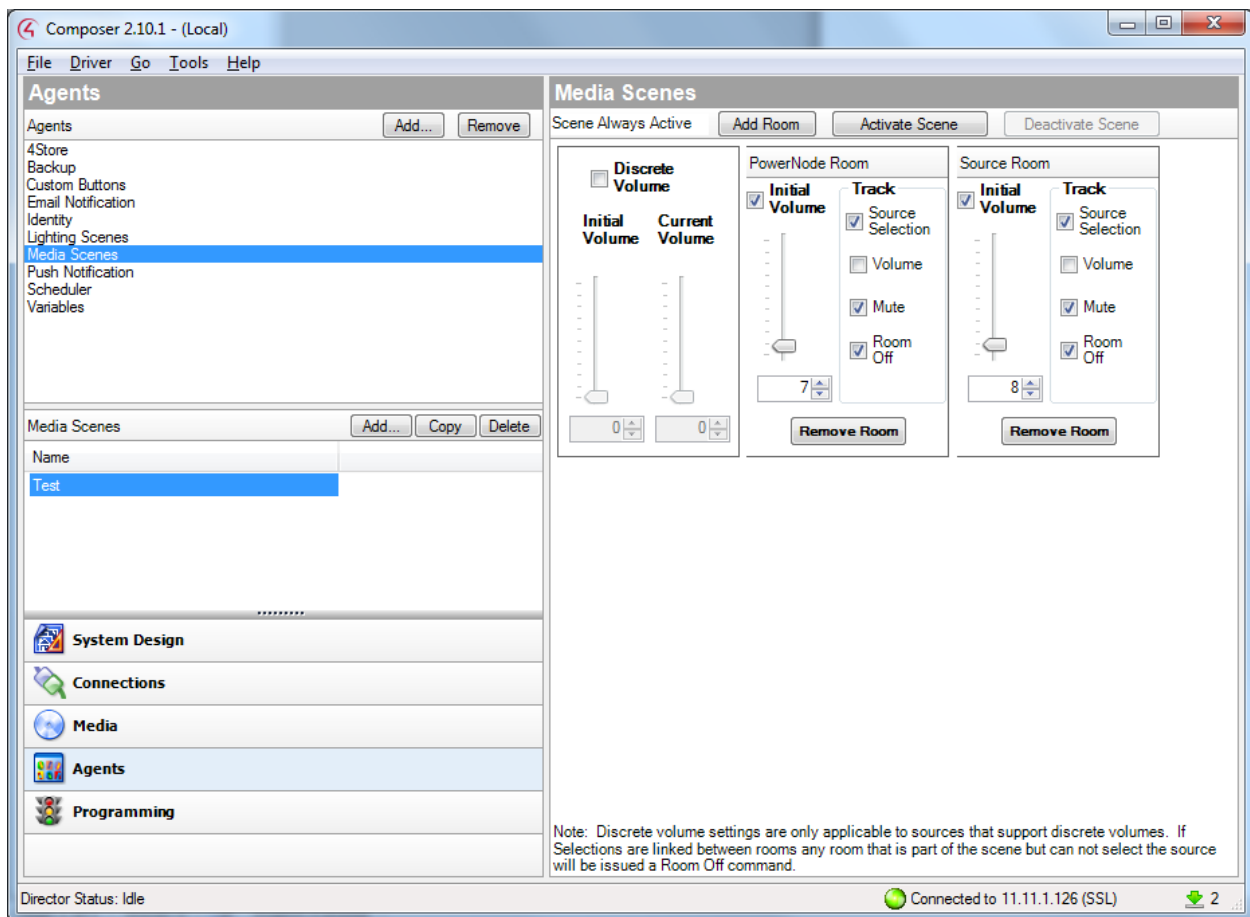
☐ Set Backlight Color      [Text Box]

## 5.0 Media Scenes

Bluesound drivers support Media Scenes. The Media Scenes in Control4 is an agent-based implementation. When a media scene is activated, all the rooms participating in the scene will have the same source and driver considers the zones grouped.

### 5.1 Media Scene Agent

A Media Scene agent can be created like below. The media scene below means PowerNode Room and Source Room will have the same source when it is activated.

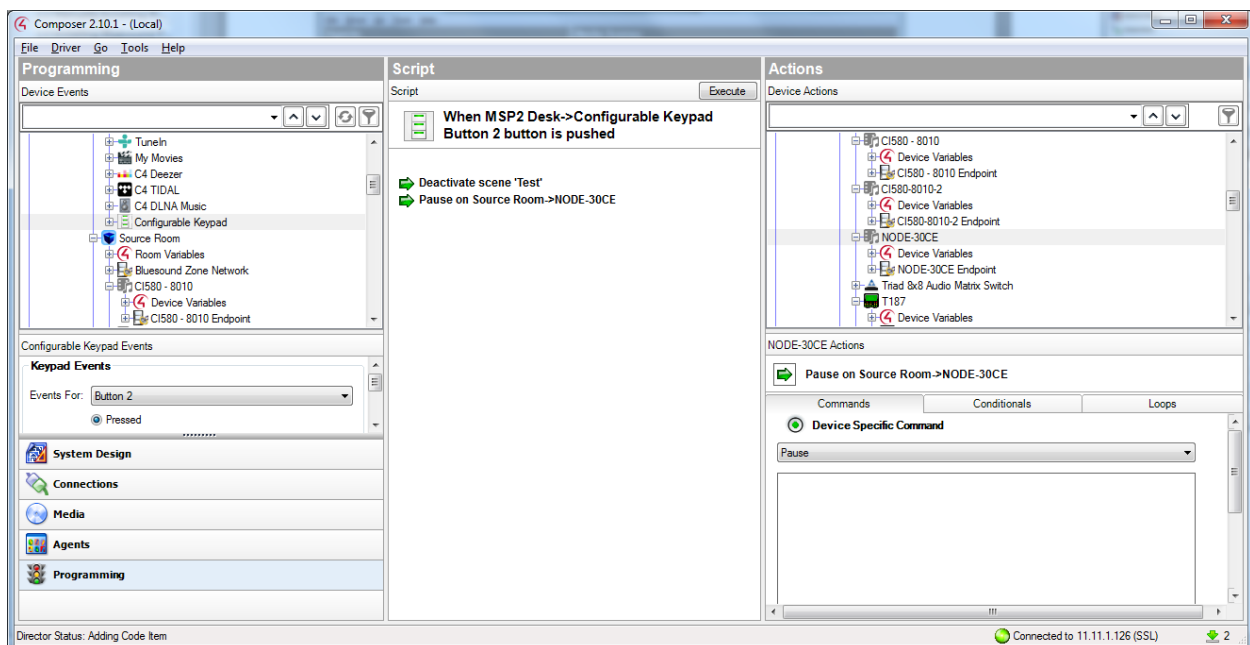
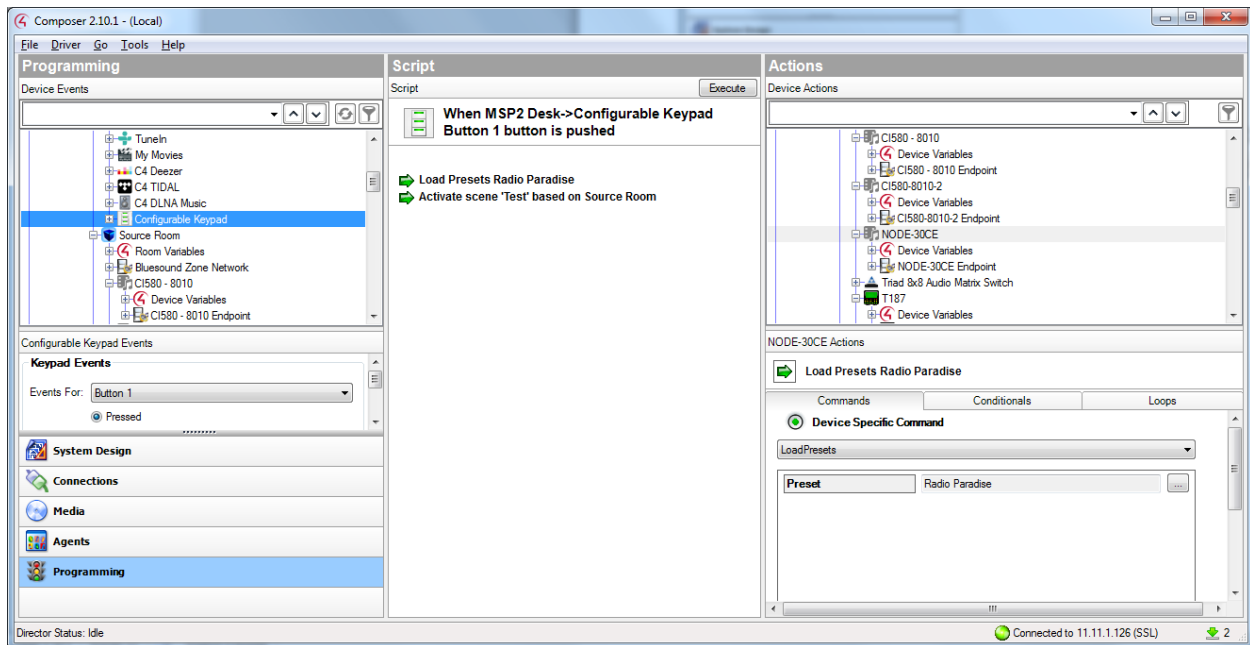


## 5.2 Event Programming To Control Media Scenes

A Media Scene can be controlled by keypad event programming or others. It's up to integrators how to control media scene. An example below shows:

Keypad button 1 press to load preset “Radio Paradise” of Source Room and then deactivate the media scene – the result of this action would load preset “Radio Paradise” of Source Room player NODE-30CE and group PowerNode Room player to Source Room player.

Keypad button 2 press to deactivate the media scene, and stop playing – the result of this action would deactivate the media scene and stop the play on both rooms. Grouping of the two rooms stays grouped. It is up to integrators what to do after the media scene is deactivated.



## 6.0 Using Bluesound

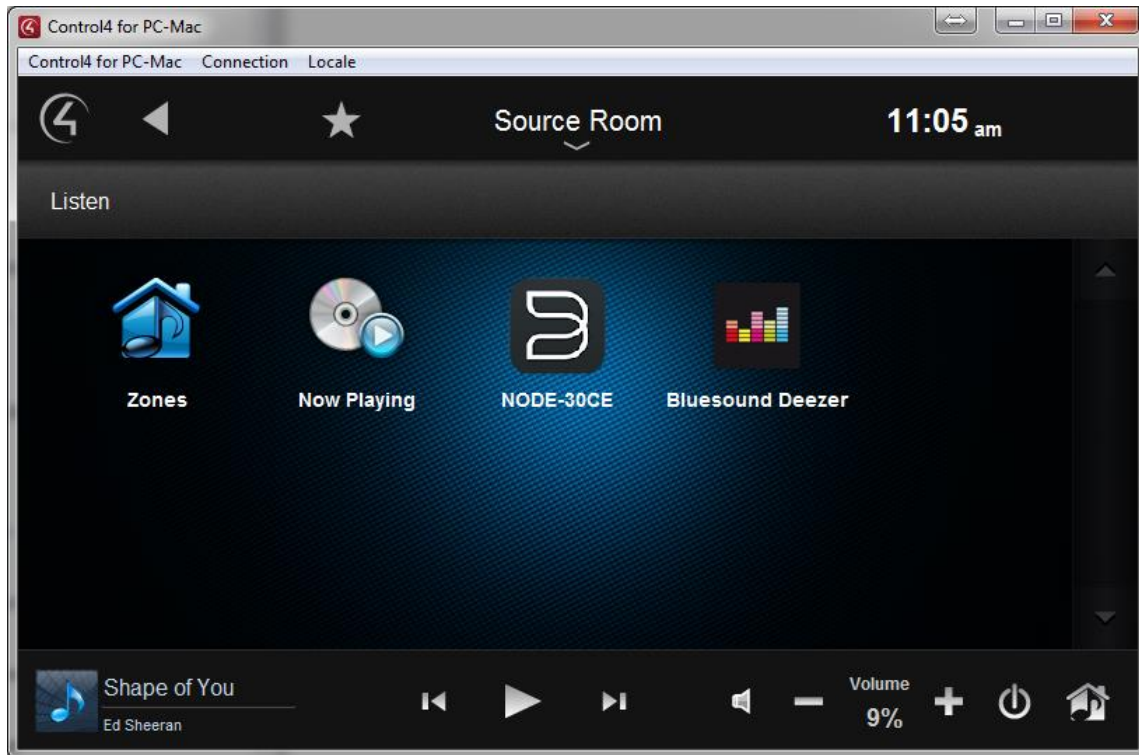
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Bluesound players and individual services are available through the Control4 Navigators.

### 6.1 Launching Bluesound

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Choose a room with Bluesound player in and locate the player (e.g. NODE-30CE) or the service (i.e. Bluesound Deezer) from the “Listen” menu. Click on “NODE-30CE” to launch the driver for all music services or on “Bluesound Deezer” for Deezer.

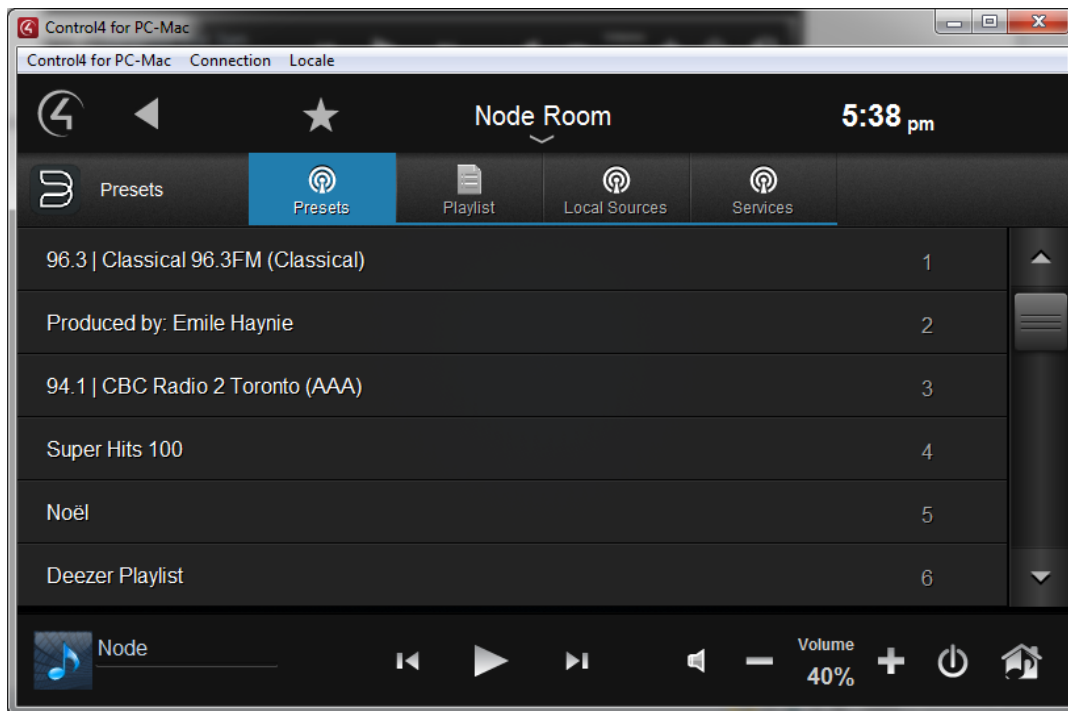


### 6.2 Presets

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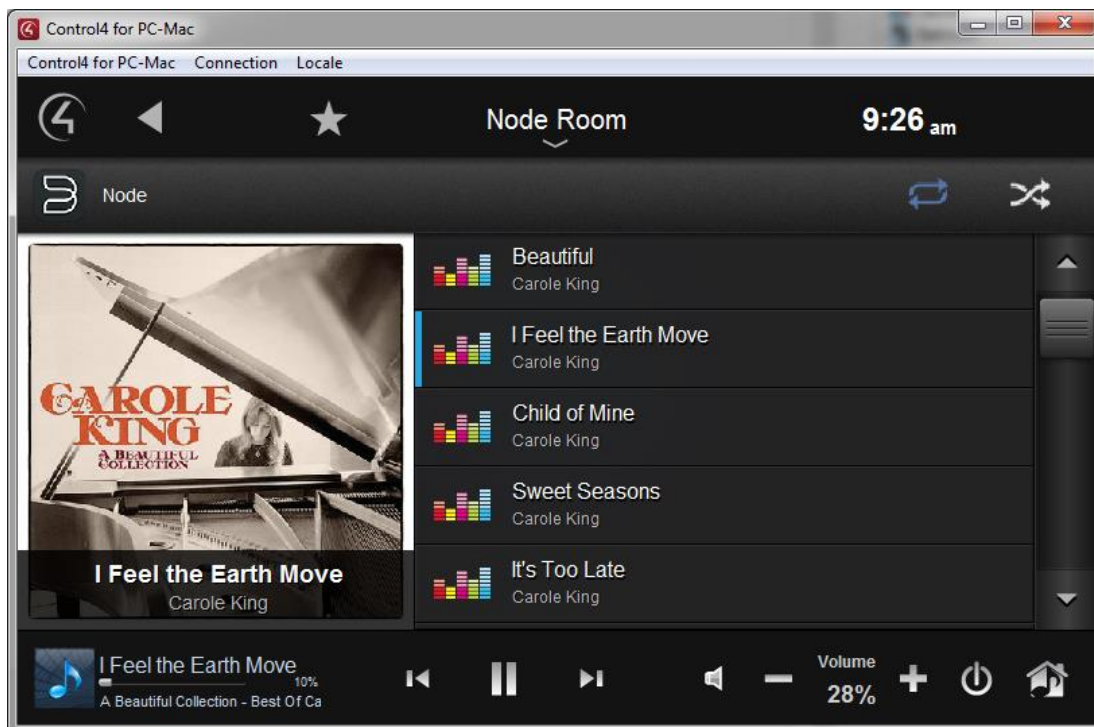
The “Presets” tab displays a list of the presets created for the device. If a C4 keypad is connected to the driver, you may press any preset key to load the preset directly.

The preset may be a radio service or a playlist. Click on any preset will load the preset and jump to Now Playing screen.

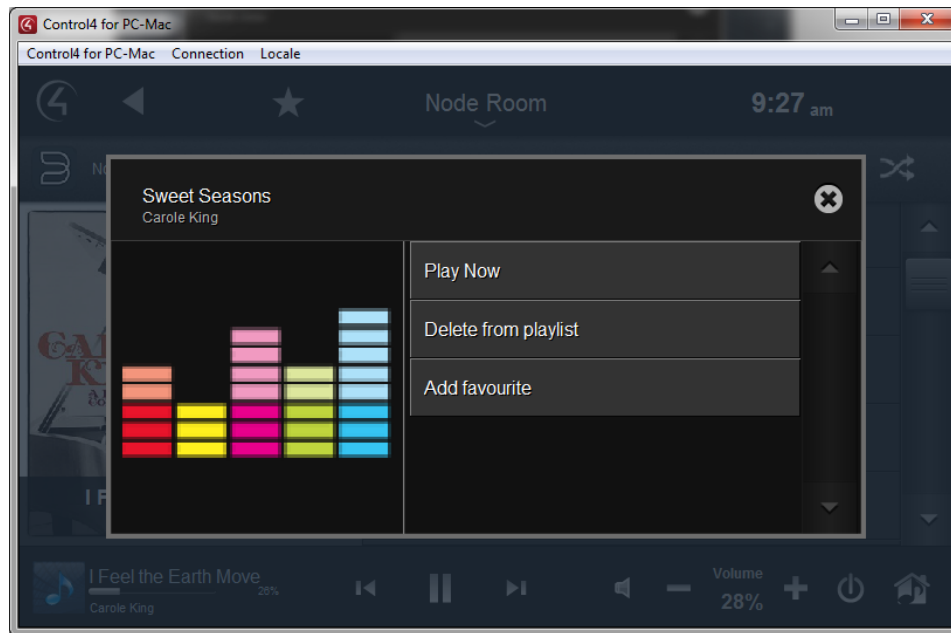


## 6.3 Now Playing

The Now Playing screen is shown below. Volume and mute controls are at the lower right.



- Clicking on any of the tracks on the Now Playing screen will pop up a list of actions.



- Some music services provide “Shuffle” and “Repeat” capabilities. Clicking on the “Shuffle” or “Repeat” icons on the top right can shuffle the playlist tracks, and repeat the playlist, cancel repeat, or repeat the current track.
- Some streaming services such as “Slacker” has “ban” and “love” capabilities. Clicking on the “heart” icon on the top right of Now Playing screen can mark the current track as a favorite track; or clicking on the “ban” icon to block the current track. Note: if the track is marked as favorite it can’t be banned (the “Ban” icon will be greyed out). If “ban” is clicked, the current track will be skipped and next available track will start.

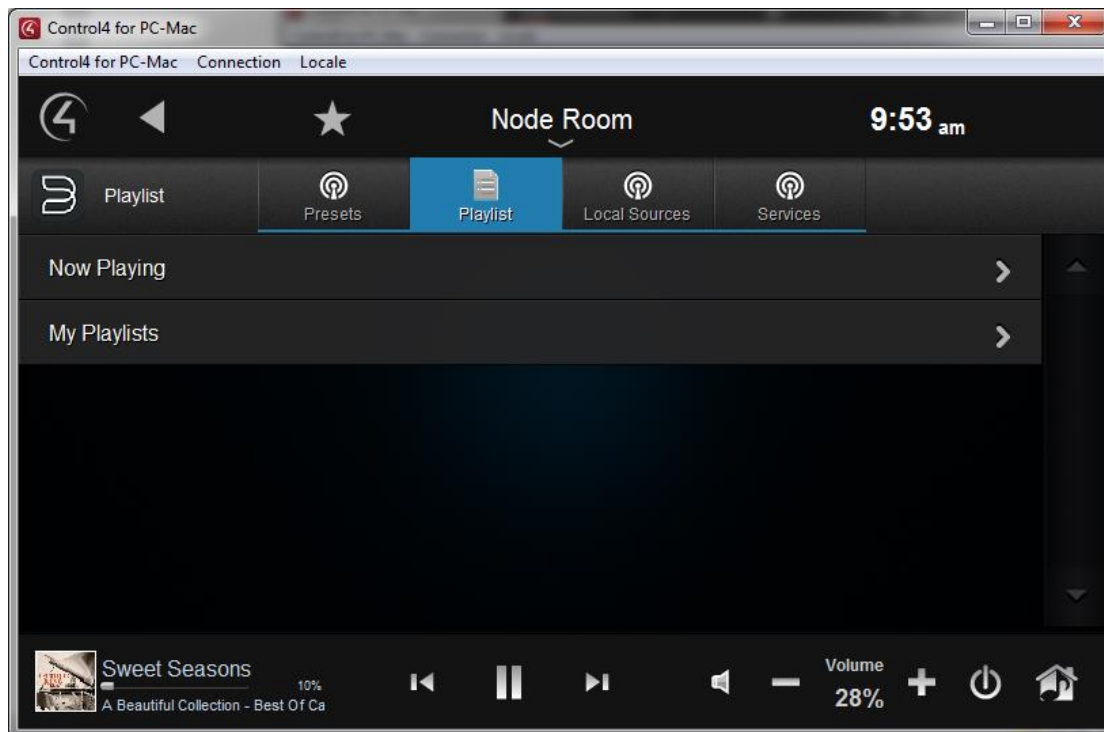






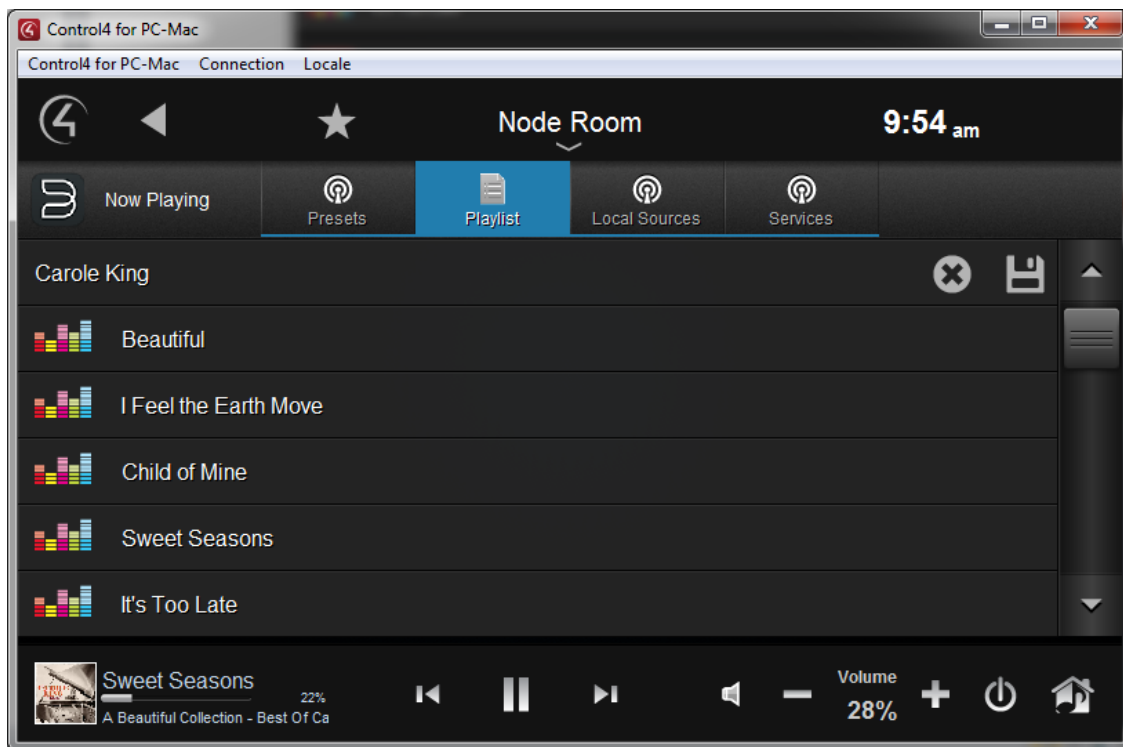
## 6.4 Playlist

"Playlist" tab lists the current playlist and playlist and the actions available for them. Selecting the "Playlist" will show items of current playlist ("Now Playing") and all playlists ("My Playlists") in the library.

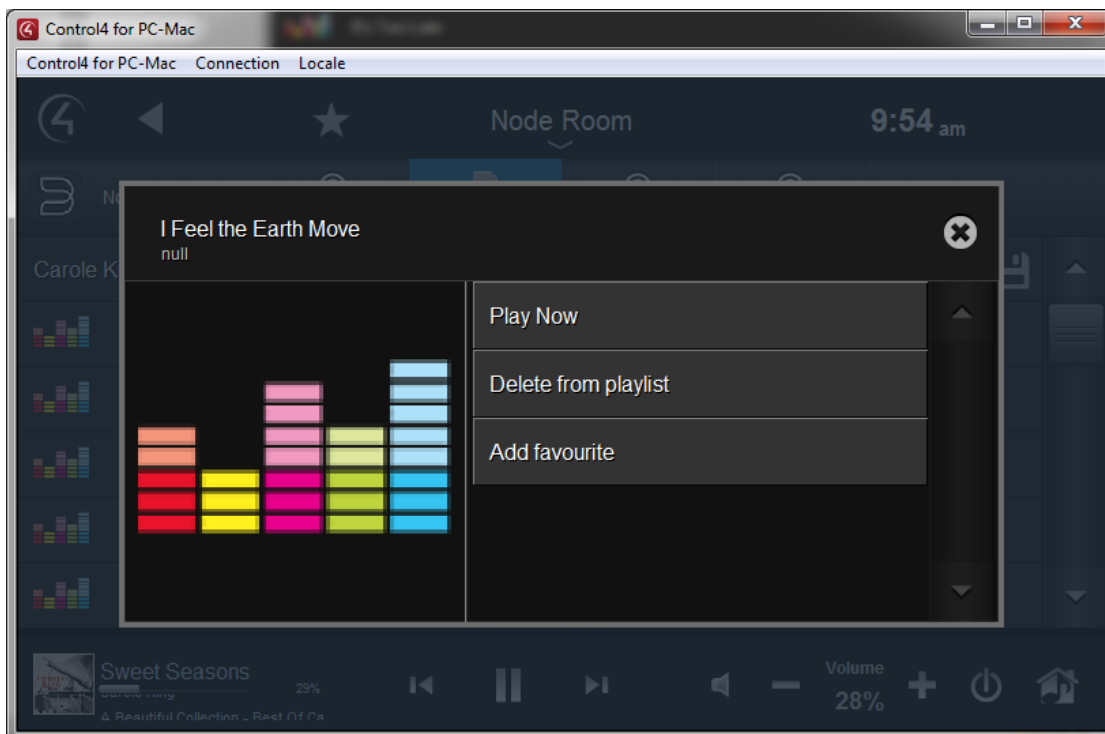




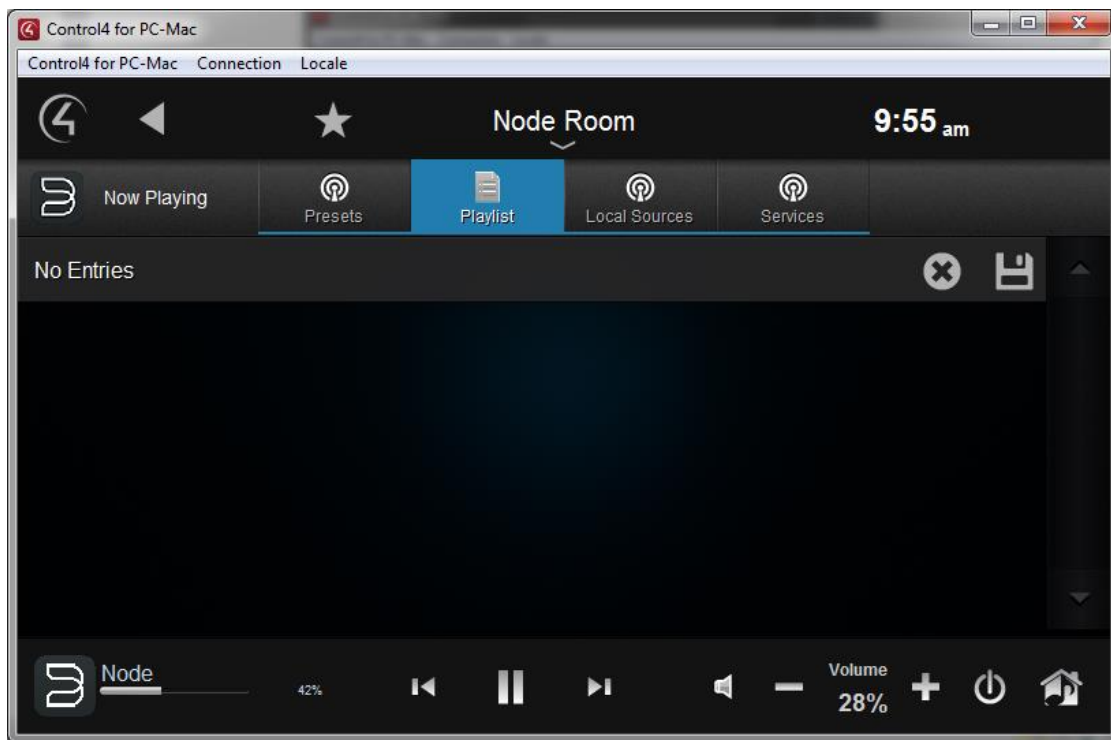
- Click on “Now Playing” to bring up all tracks of the current playlist.



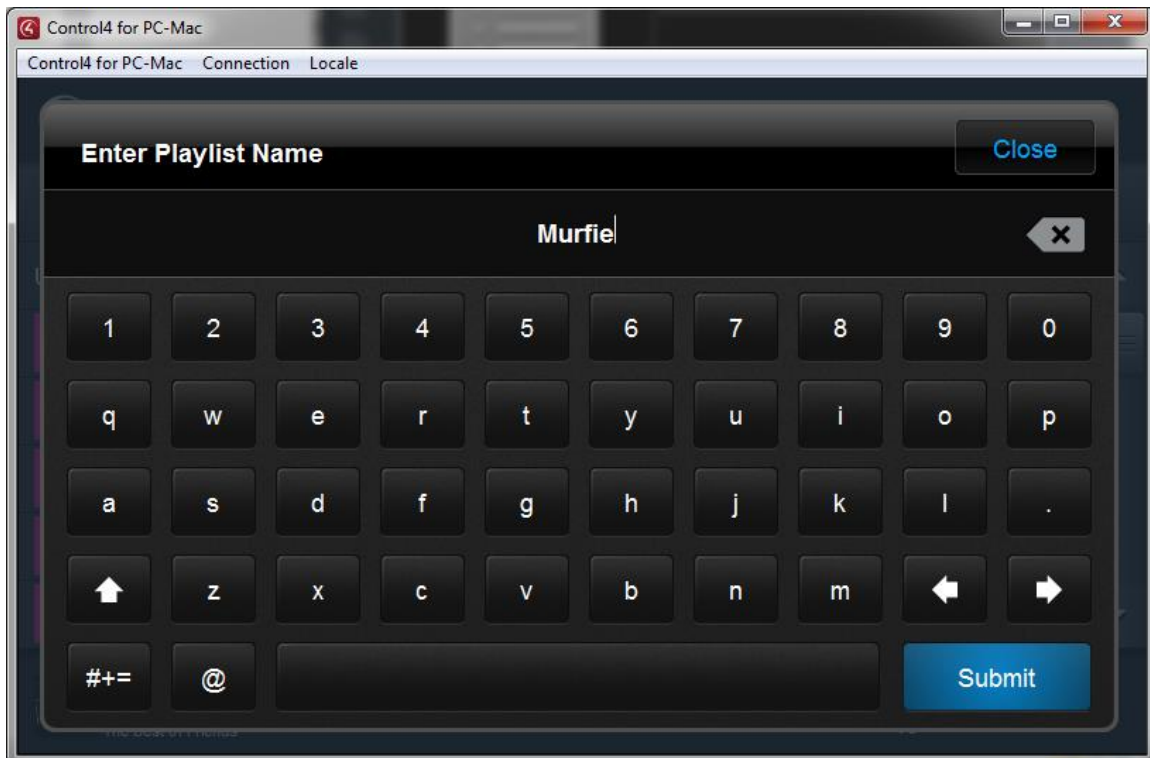
- Click on any track of the playlist and a list of the actions for the track will appear.



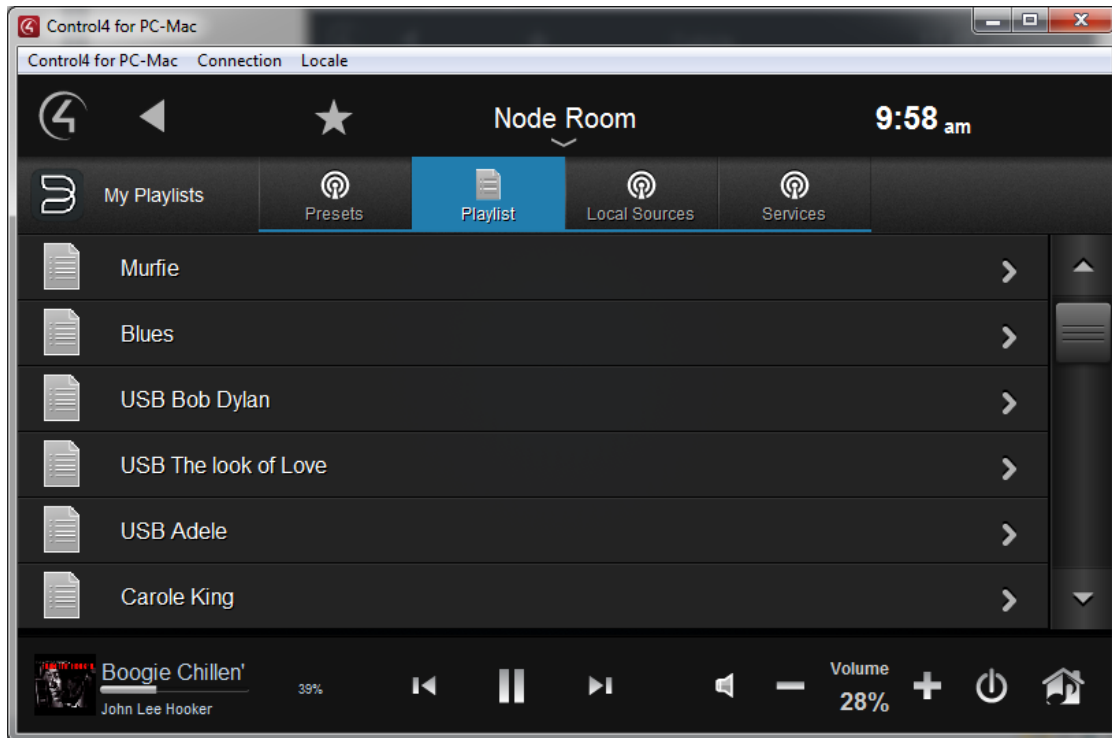
- Click on the “clear” icon on top right to clear the tracks from the current playlist



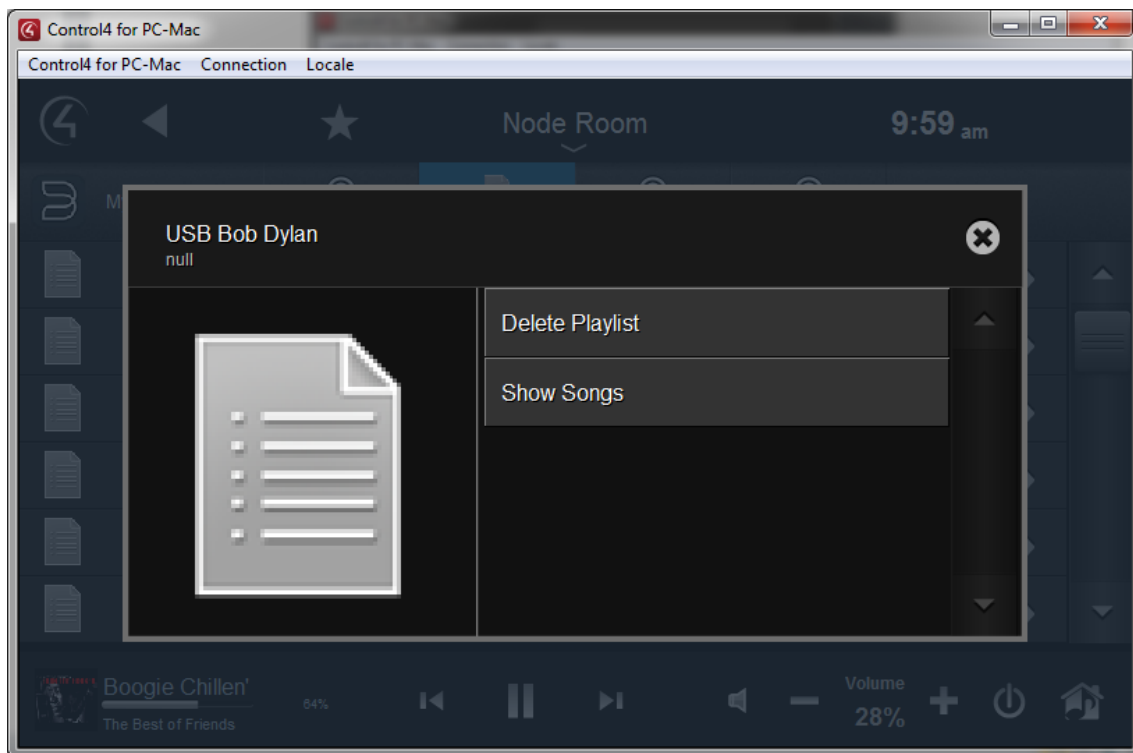
- Click on the “save” icon to save/rename the current playlist



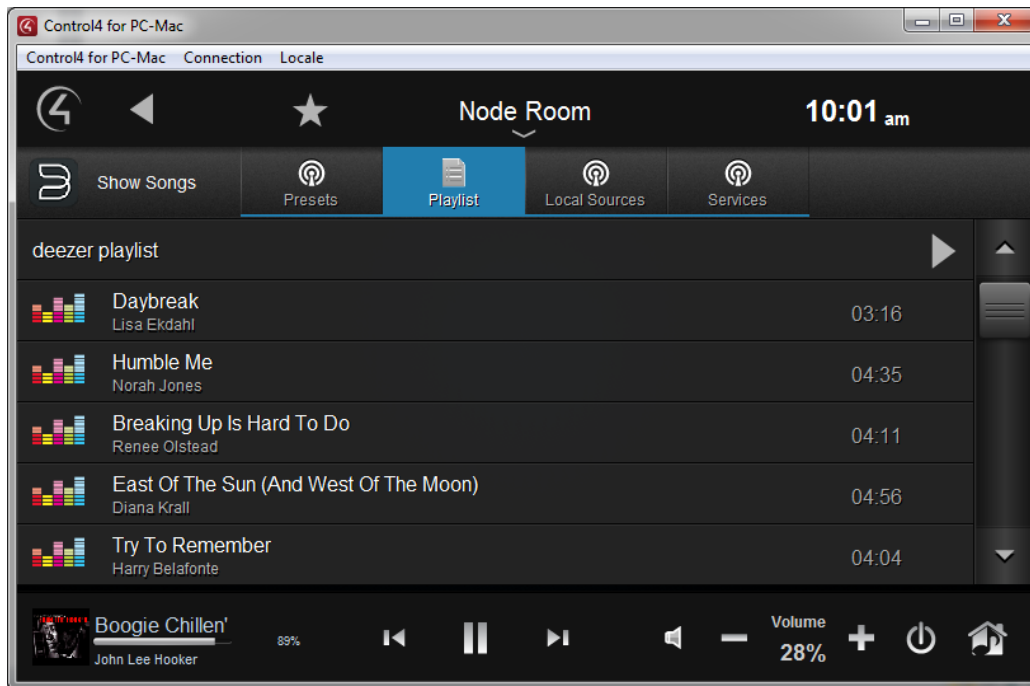
- Click on “My Playlists” under the Playlist tab to list all the Bluesound playlists. Bluesound playlists are stored locally on your Bluesound players, and can be made up of local library content and streaming service content.



- Click on any playlist to delete or display (show the tracks) or load (play) the playlist

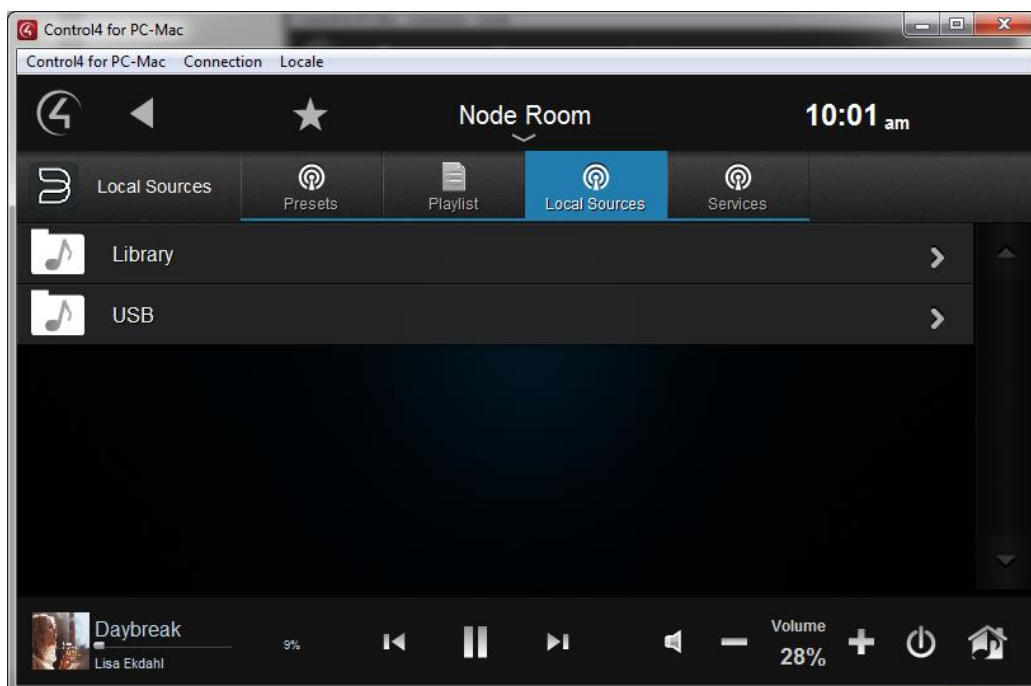


- When a playlist is showing a list of tracks, click on the “Play” icon on top right to load and play the whole playlist.

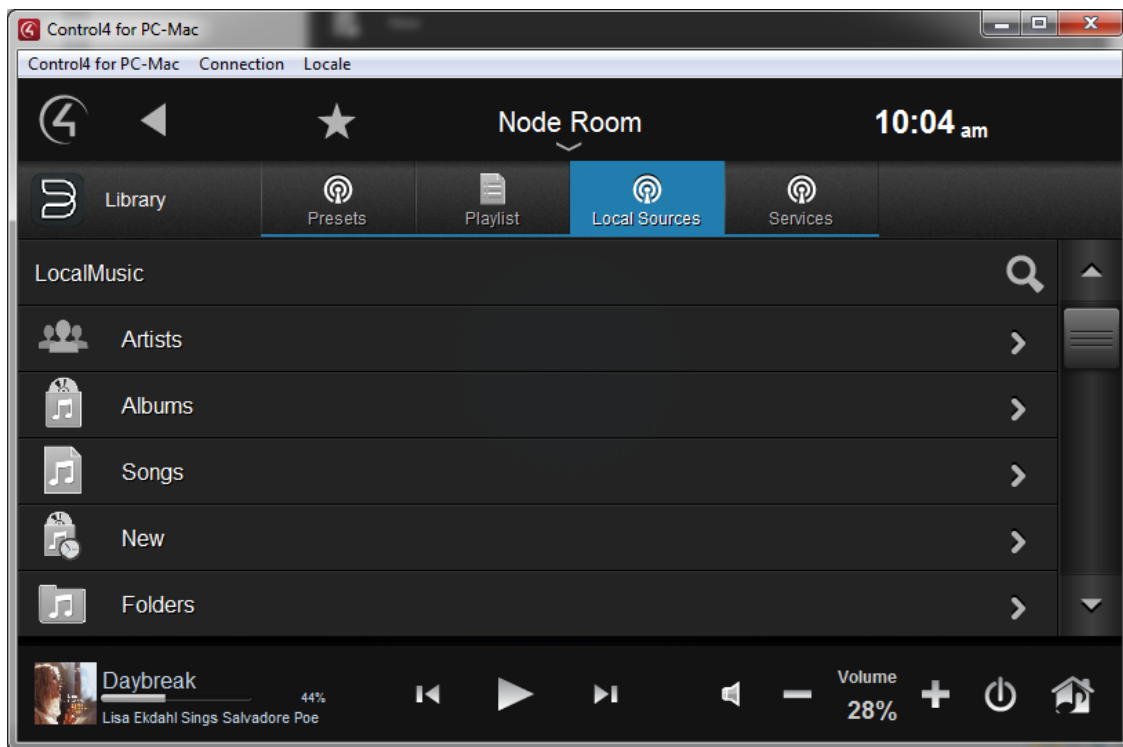


## 6.5 Local Sources

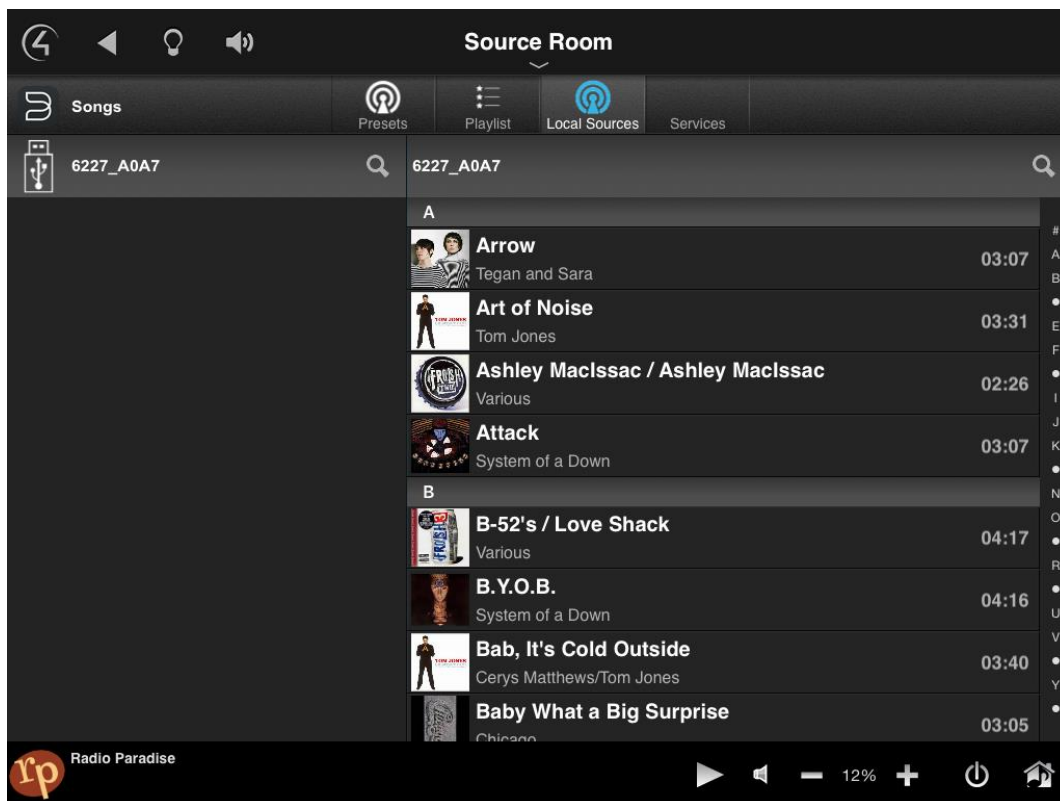
“Local Sources” provides music sources of local library, external USB, or “Optical Input” (Pulse only). Click on the tab “Local Sources” to browse music sources on the Bluesound player.



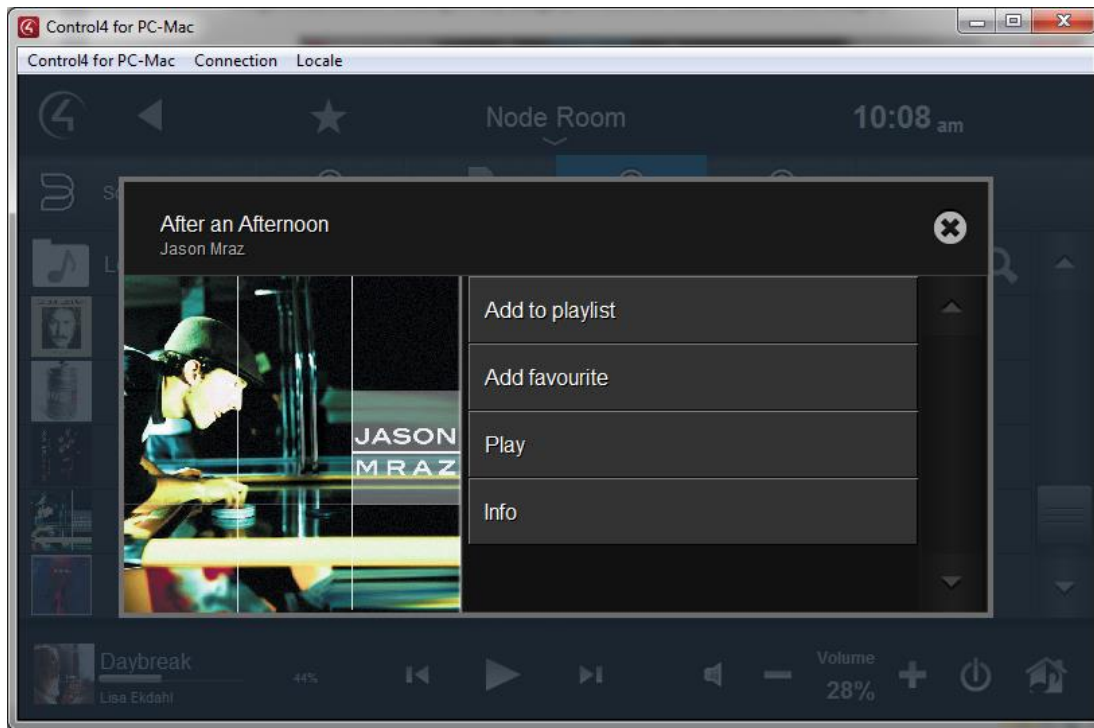
- Click on “Library” to browse local content. This will show a list of the categories.



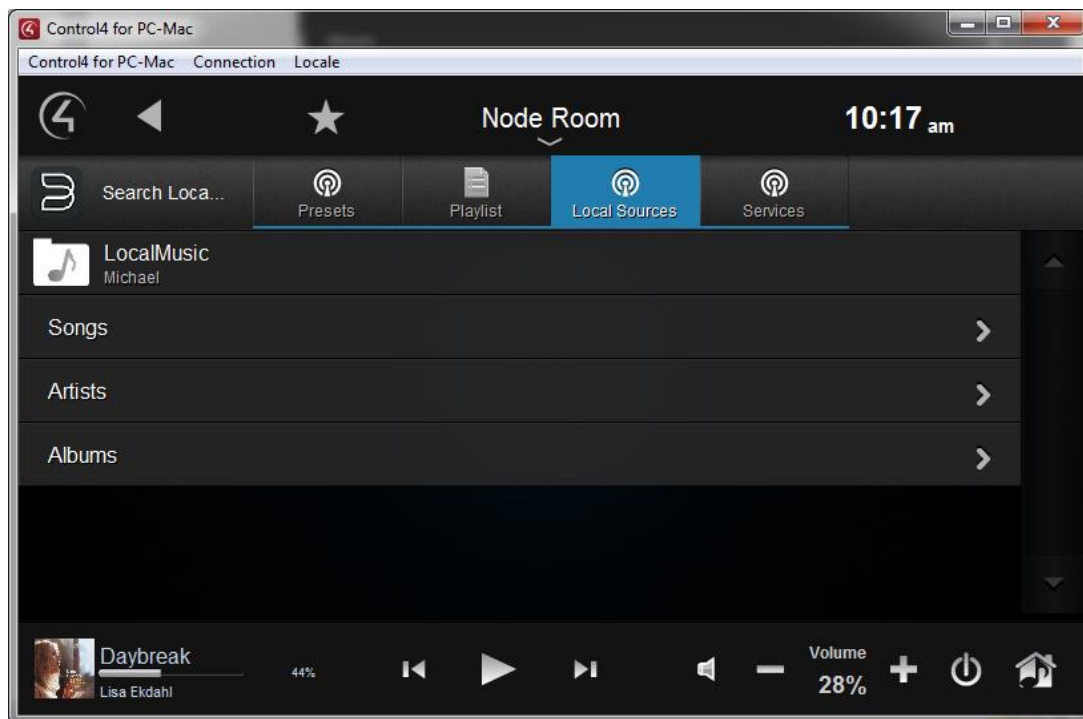
- Click on any sub-category to browse further.



- Clicking on any item will pop up a list of actions for the item. Here is an example of actions for a song.



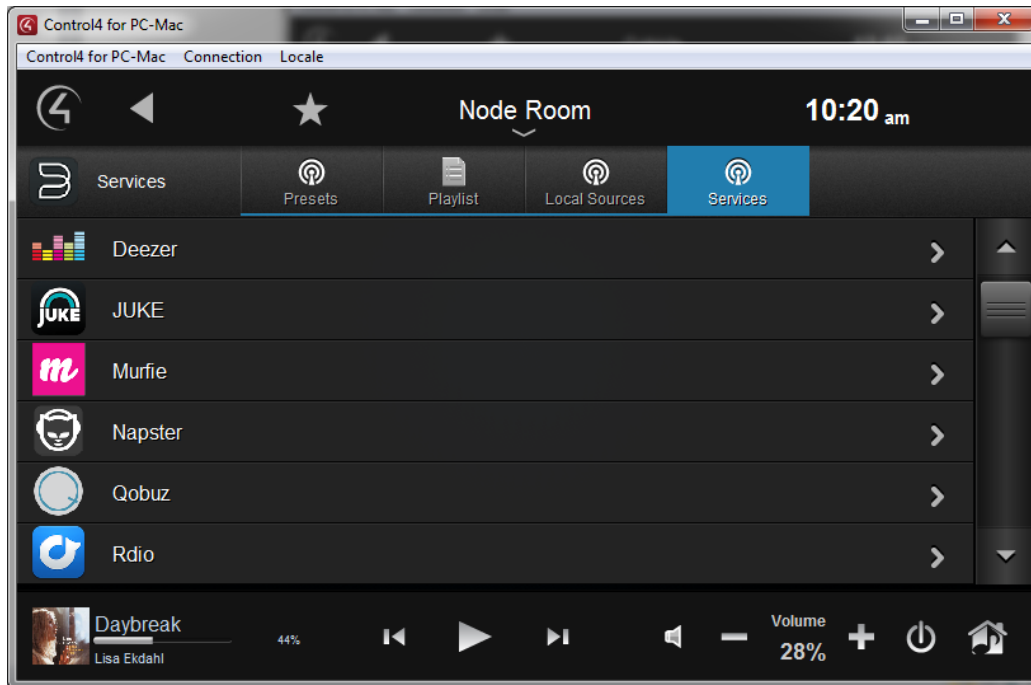
- Click on the search icon on top right and type in the keyword to search in the pop-up keyboard. The search result will be sorted as categories Songs, Artists, Albums, and/or Playlists. Clicking on any category will show the search result for that category.



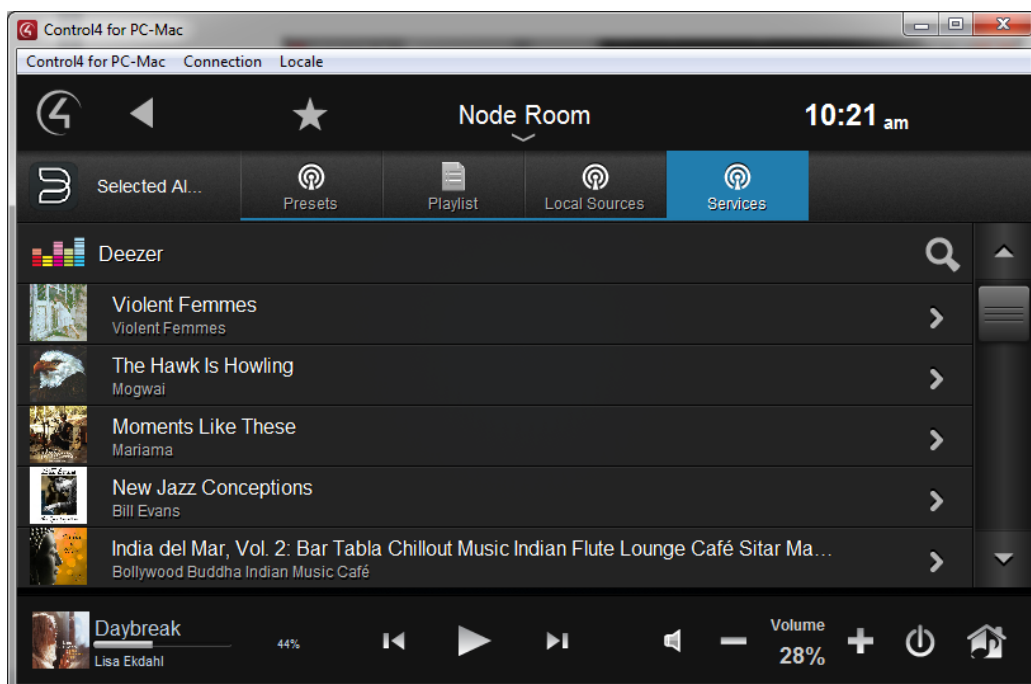
## 6.6 Music Services Within Player Driver

Bluesound Player driver provides all music services users registered for the player. Clicking on the tab “Services” will load all available music services on the player.

- Browse any service by clicking the service and its categories.



- Click on any service and its categories. Choose any category (e.g. Selected Albums of Deezer).



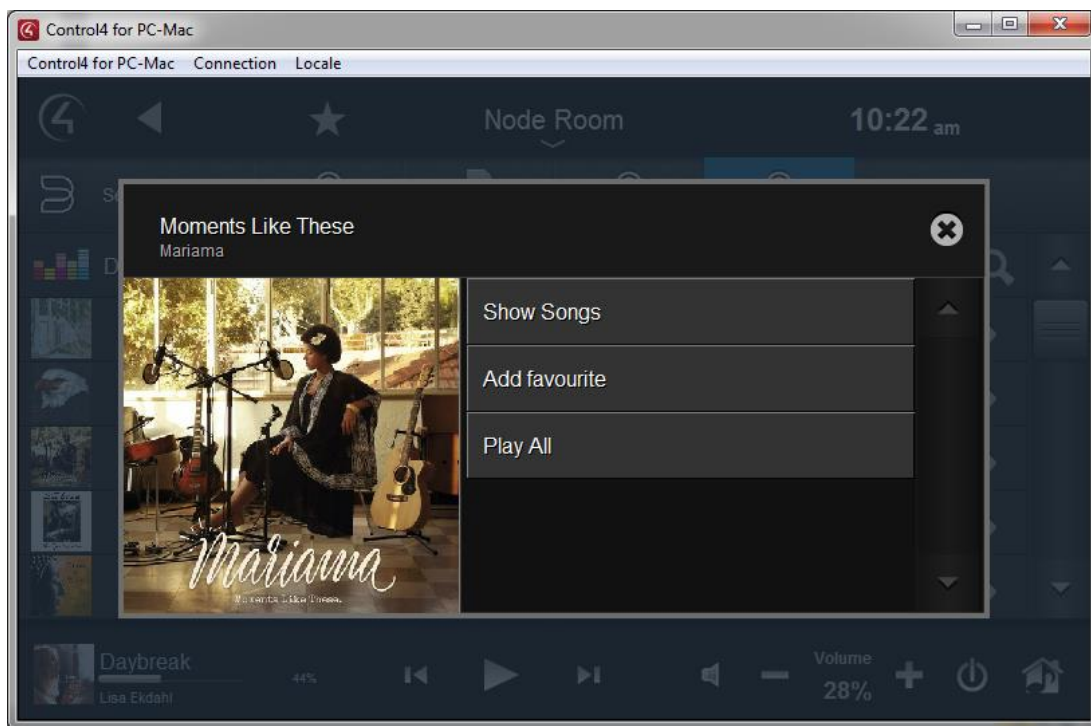


- Click on any item (e.g. album) pops up a list of the actions.

**Note 1) :** Actions may differ among different services. Supported actions are defined by the specific service. Every effort has been done to maintain compatibility across all content sources.

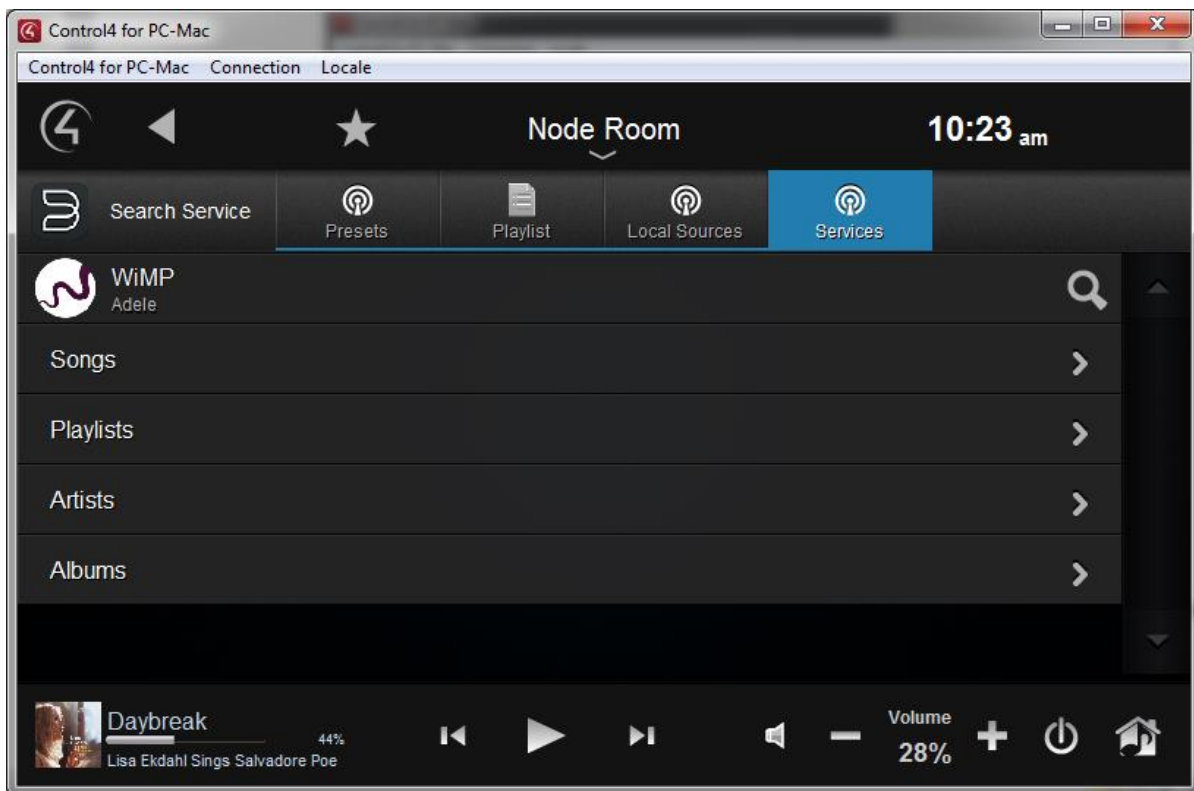
**Note 2) :** If the current playlist is empty, action “Play” or “Play All” adds the track/tracks to current playlist and starts to play from the beginning of the list; if the current playlist is not empty, action “Play” or “Play All” only appends the track/tracks to the current playlist cursor.

**Note 3) :** “Play All” of a **playlist** replaces the current playlist with the selected playlist and starts to play the first track of the playlist, regardless of whether the now playing was a stream or non-stream. Action “Play All” of an album has same behavior has action “Play” in note 2).

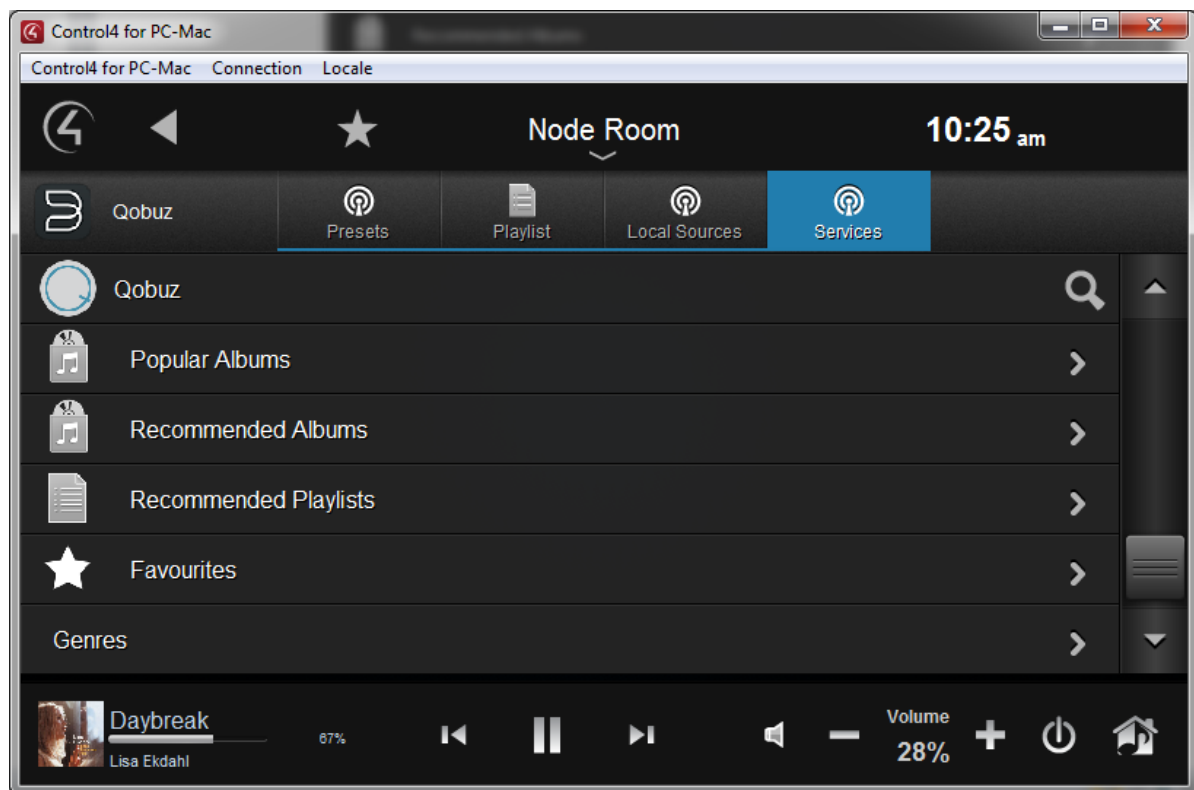


- Click on the search icon on the top right, type in the keyword for search, and click on “Submit” button on the keyboard. The search result appears on the screen under categories Songs, Playlists, Artists, and/or Albums (e.g. search for “Adele”). Click on any category will show the detailed search result for that category.

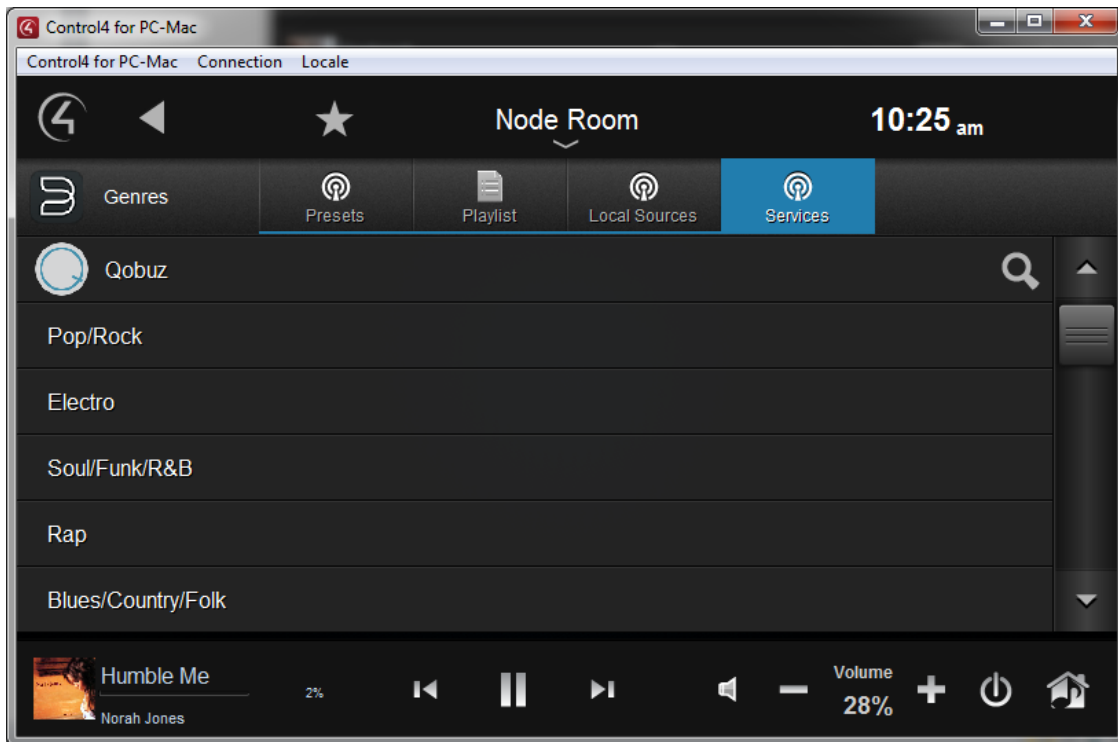




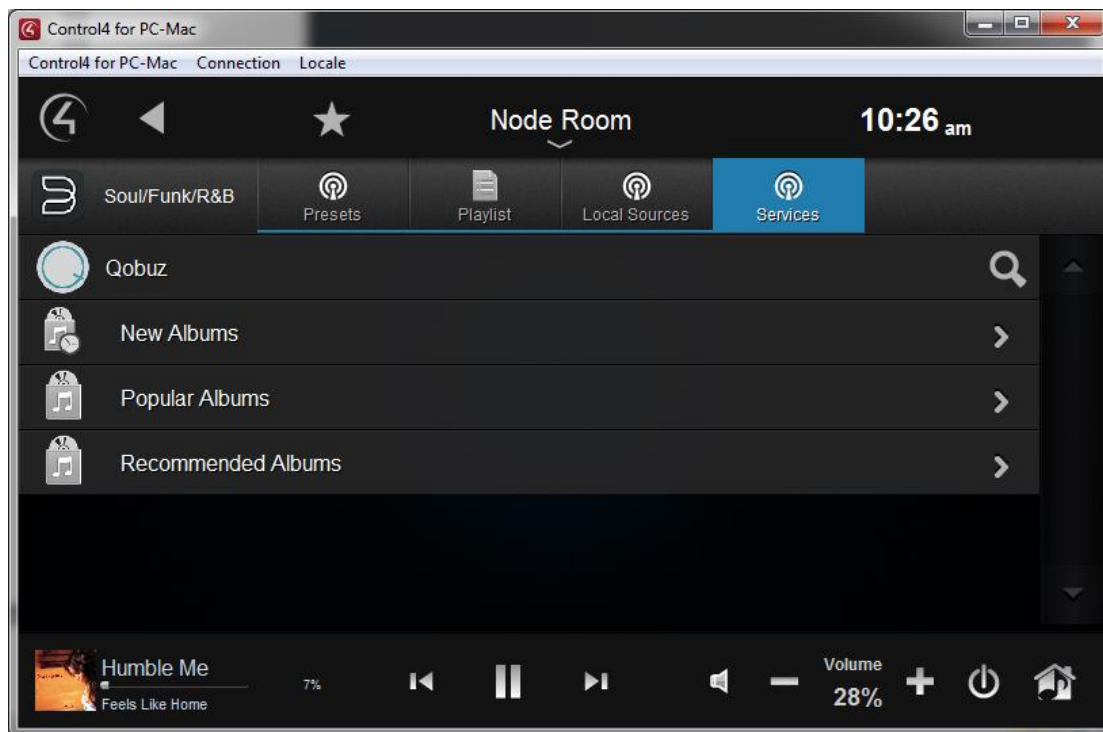
- Any service that has genres has a category called "Genre" at the bottom of the category list (e.g. Qobuz)



- Clicking “Genres” shows a list of genres for the service (e.g. Qobuz)

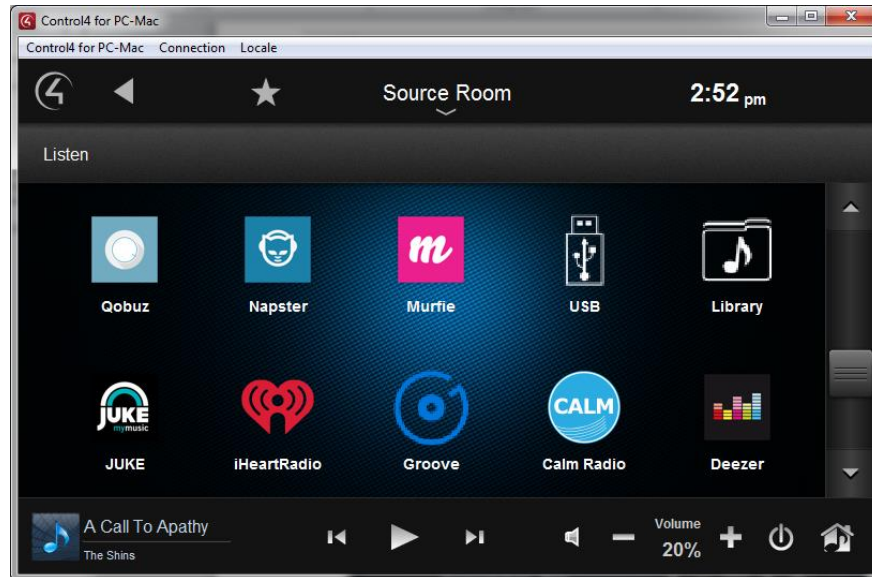


- Choosing any genre brings up the categories available for the selected genre. Further browsing the categories will show albums, songs, artists, and/or playlists within the specified genre.



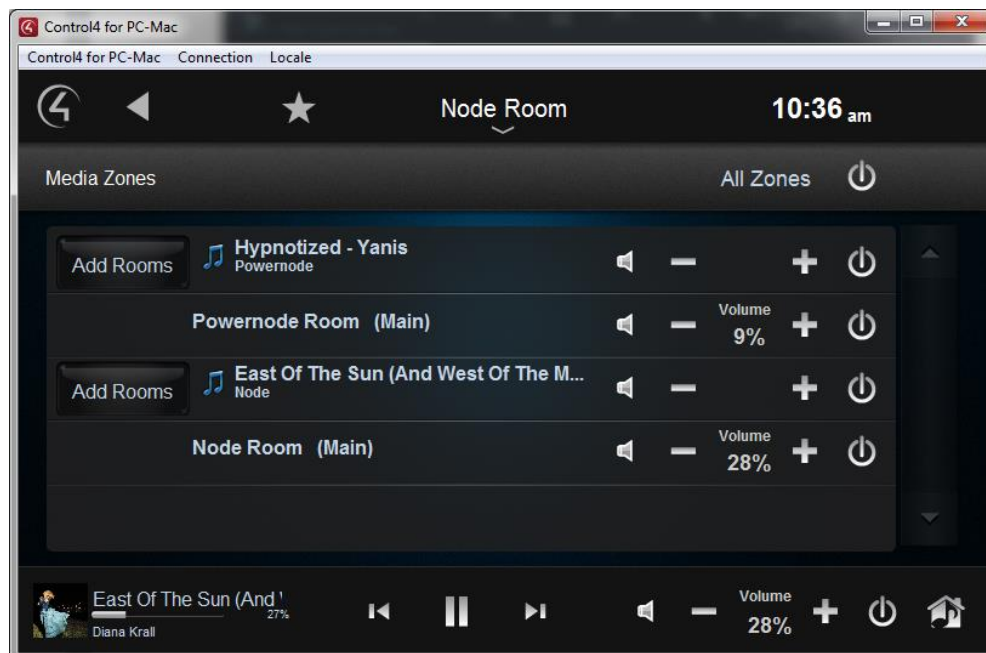
## 6.7 Direct Accessed Music Services

With mini drivers available, accessing music service is more direct and easy. As long as its mini driver is installed, the music service can be accessed directly under “Listen” page.

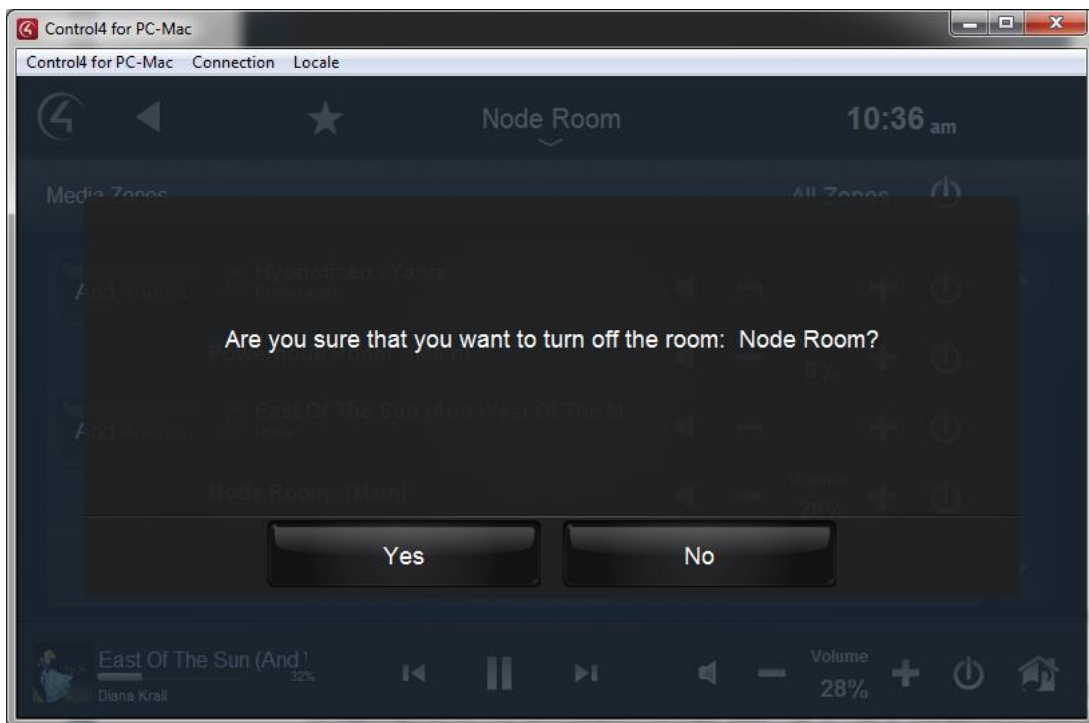


## 6.8 Media Zones and Multi-zone Grouping

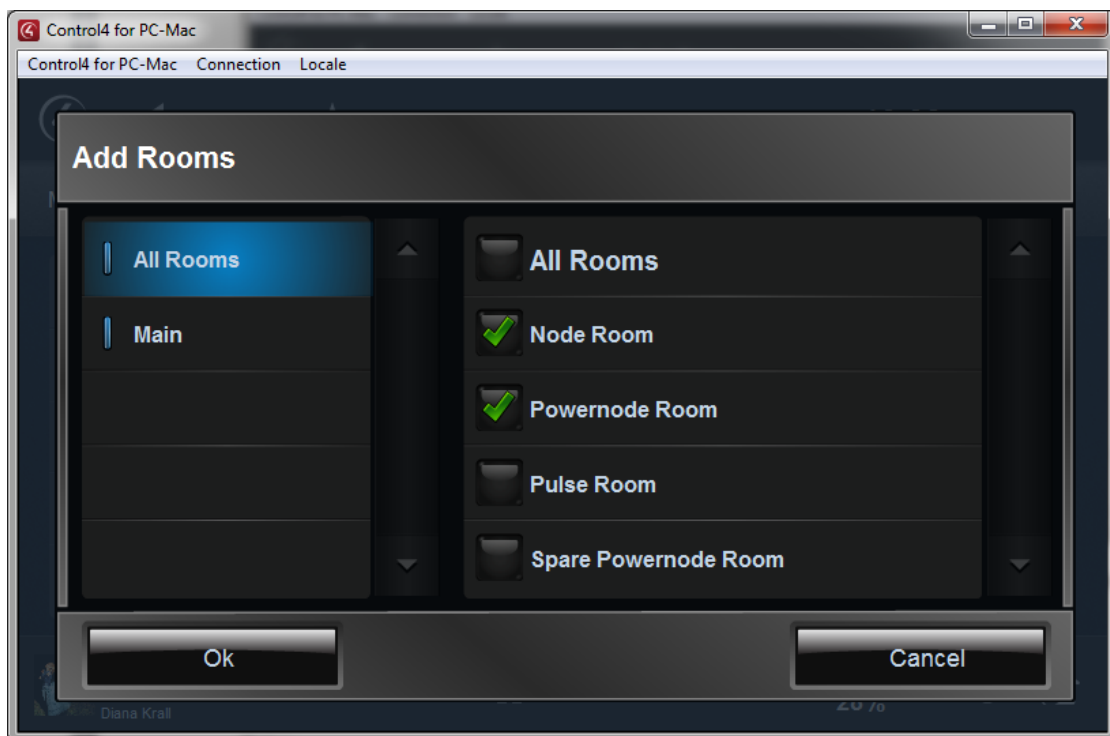
In Media Zones users can control the zone/room volume, turn off zone/room, and group / ungroup players in different rooms.



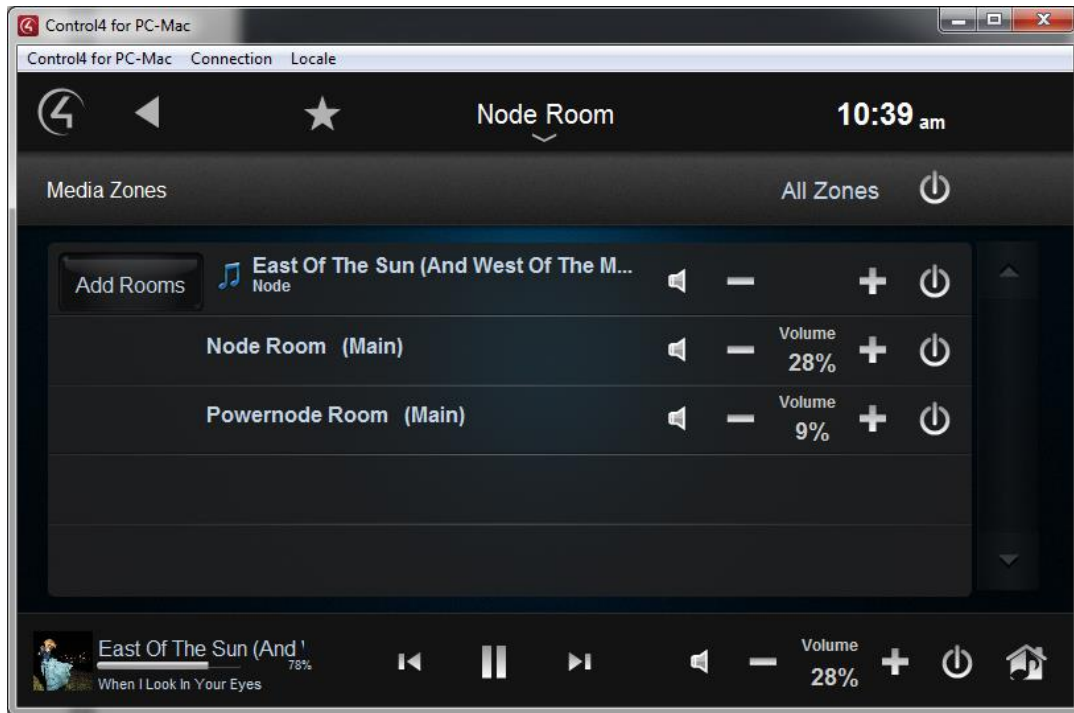
- Click on the “power” button for the room or zone will turn off a room.



- Click “Add Rooms” button to add a slave player(s) to be grouped with by checking the rooms the player(s) is located in.



- Here is the result after players grouping. Clicking on “Add Rooms” to uncheck the room where a player is in will ungroup the player.



- Multi-zone grouping

The driver supports regular temporary grouping and ungrouping.

The driver does NOT support permanent grouping UI but can ungroup players that are permanently grouped from BluOS native apps.

If a group has more than two players, ungrouping the primary player or turning off the main zone will only turn off the main zone and ungroup the primary player from the group. The rest players will form a new group with the first selected secondary player in the previous group as the primary player of the new group. **Make sure the secondary players of the initial group have “On Room Off” set as “Do Nothing”. Otherwise, the newly formed group may not continue playing.** This is because BluOS ungroups the secondary players of the initial group and then re-forms a new group of these ungrouped secondary players. The driver instance of the initial master may take action “On Room Off” later than the driver instance of new master reforming a new group.

**If a player does not have “Auto Power Rooms” set up, its zone grouping will not work properly!**

# 7.0 Troubleshooting

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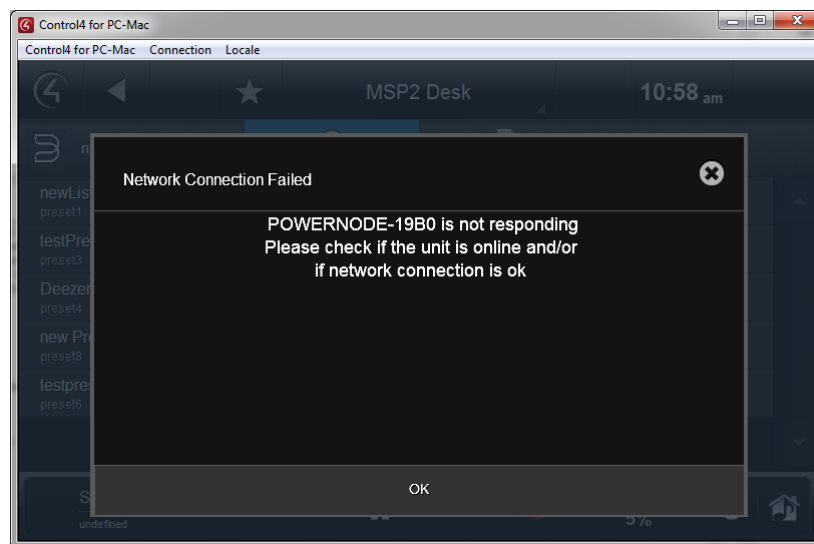
## 7.1 Notifications

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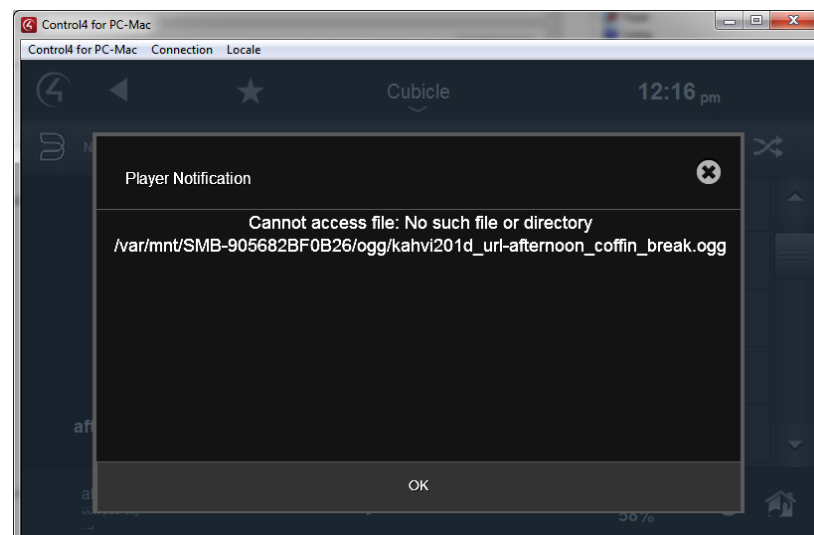
The driver supports notifications from the player. These are helpful for troubleshooting issues.

Note that many notifications are delivered by the streaming music services.

- The driver uses long polling mechanism. When there is no response from Bluesound device for more than 200 seconds, it's considered disconnected from Control4 system, and a failure notification window will pop up in the user interface. Click "OK" button to close the notification.



- When there is any player notification such as player upgrade or source unavailable, a screen pops up to show the notification.



## 8.0 Support

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For technical support issues, contact Bluesound technical support at <http://support.bluesound.com> or email [support@bluesound.com](mailto:support@bluesound.com).

## 9.0 Known Issues

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The following issues are known to exist.

Driver Version	Issue	Workaround
All	Not all Spotify functions are available (e.g. browse, search). This is because Spotify only supports the Spotify Connect connectivity model.	You must use the Spotify app for browsing and searching.
All	Available events in Zone Network Driver and Player Endpoint output do not work.	None. It's a known bug of C4 director.