



# BLUOS INTEGRATION GUIDE



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# TOTAL CONTROL 2.0

## Overview

The **BluOS** module provides two-way control and feedback of all BluOS devices including devices from BluOS and NAD.

The **BluOS** module also provides support of macro integration via two-way module commands and automation capabilities with Device Events.

## Supported Models

This module only functions with the with **all BluOS devices** as well as **BluOS** and **NAD** devices.

## URC Compatibility

This module is compatible with any **Total Control 2.0** or **Flex 2.0** system.

## Requirements

- The **BluOS/BluOS/NAD device** must be fully configured and operational prior to integrating with Total Control.
- Configure the **BluOS/BluOS/NAD device** to a **DHCP reservation** on the local router, this assures that the device maintains the same IP address.

## General Information

<b>Module</b>	: <b>BluOS</b>
<b>Developer</b>	: <b>URC</b>
<b>Communication</b>	: <b>IP</b>
<b>Category</b>	: <b>AVR's and Amplifiers</b>
<b>Module Type</b>	: <b>Core / Interface</b>
<b>Multiple Module Support</b>	: <b>Yes</b>
<b>URC Compatibility</b>	: <b>TC 2.0 &amp; Flex 2.0</b>
<b>Device Events</b>	: <b>Yes</b>
<b>Two-way Module Commands</b>	: <b>Yes</b>

BLUESOUND

# TOTAL CONTROL 2.0

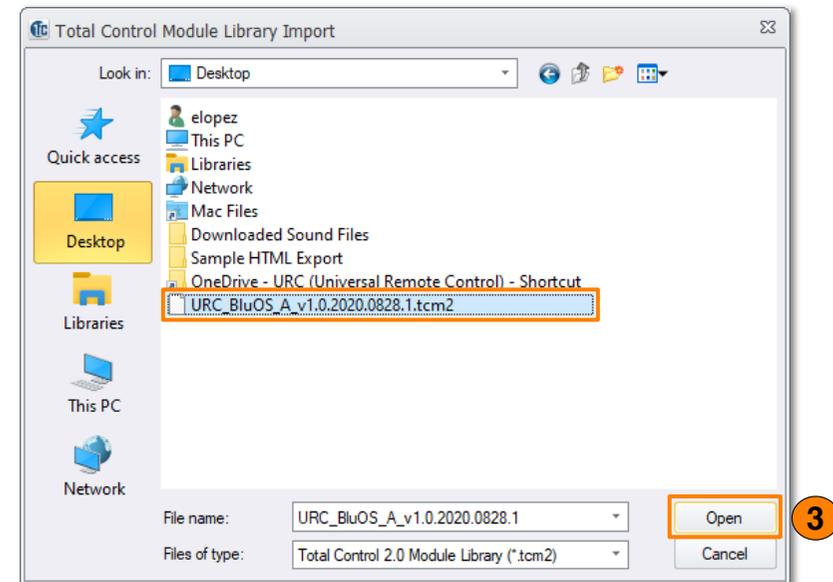
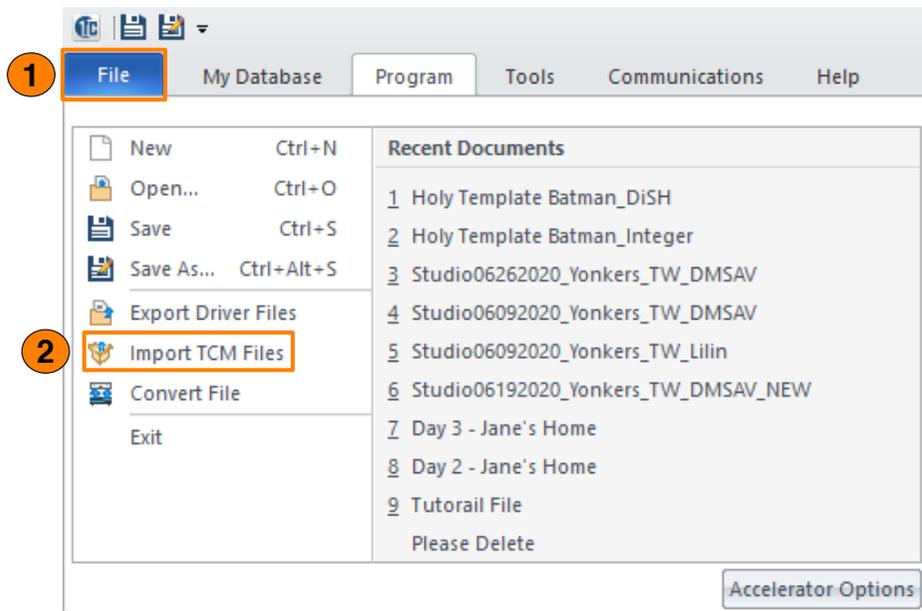
## Downloading & Importing the Module

Download the **BluOS** two-way module from the URC Dealer Portal:

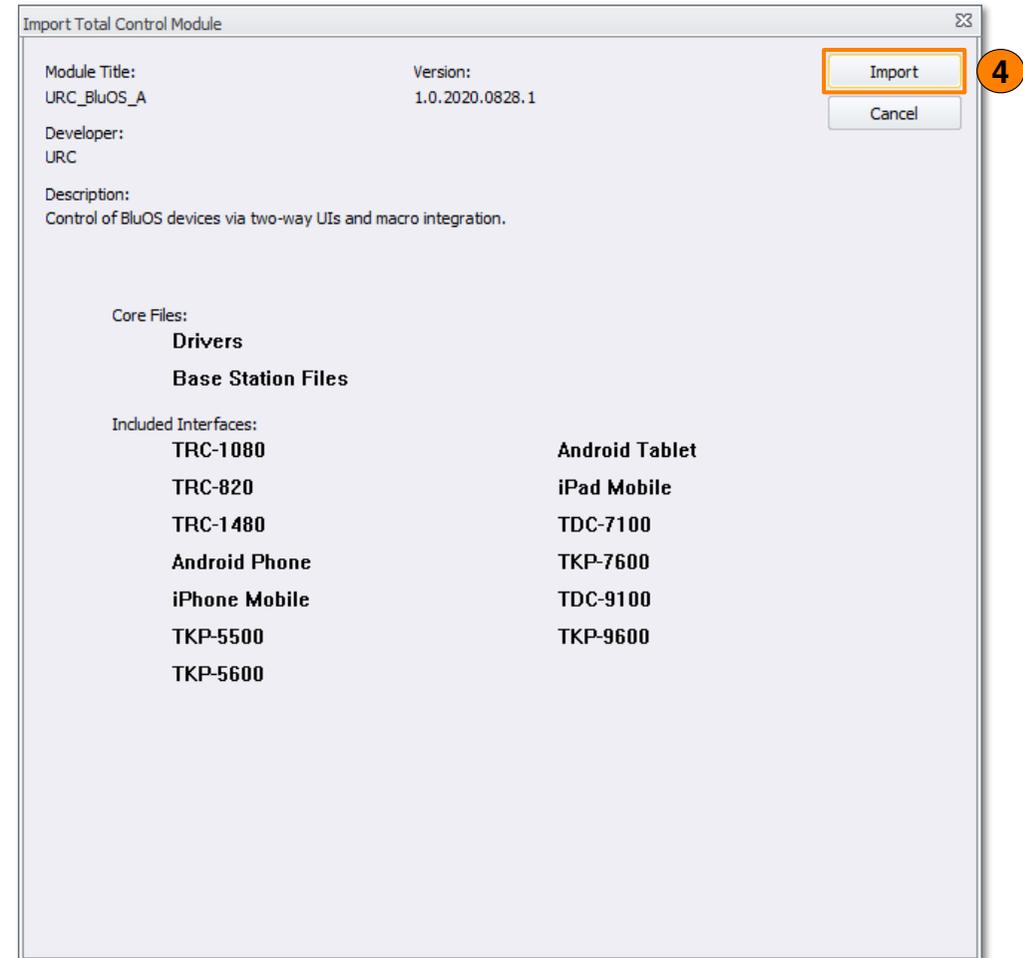
<https://urcportal.com/Main/ProductR/?ilevel1=7&ilevel2=&ilevel3=&rbox=r10>

Once the module has been downloaded, perform the following:

1. Select the **File** tab.
2. Select **Import TCM Files**.
3. Locate the **".tcm2"** file and select **Open**.



4. Select **Import**.
5. If applicable, save any work and **restart the software**.



### Adding & Configuring the Module

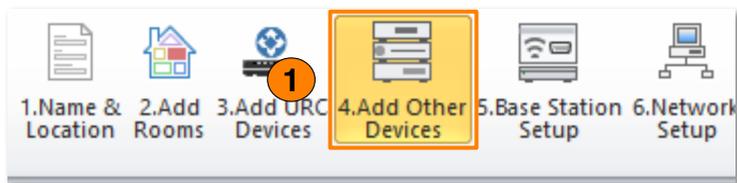
The **BluOS** module can be added to any new or pre-existing system.

#### Adding the [Core] Module

Only a **single [Core] module is supported** using the **BluOS** two-way module.

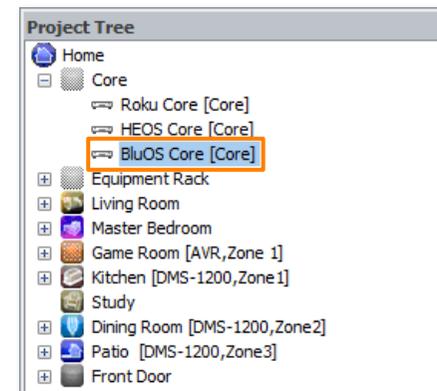
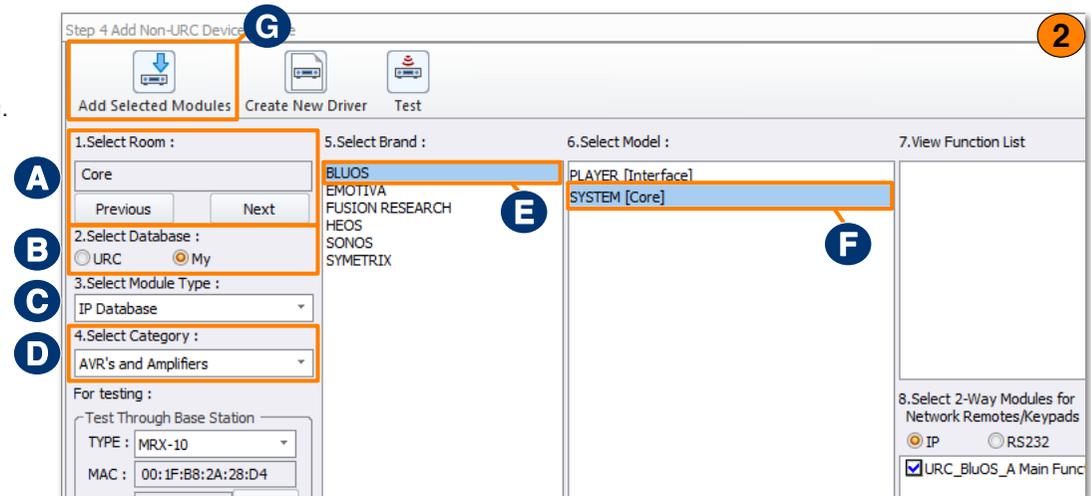
Perform the following steps to add the **[Core]**:

1. Select **Step 4: Add Other Devices**.



2. Perform the following:

- Select Room:** Choose a room to add the module (i.e. Core).
- Select Database:** My
- Select Module Type:** IP Database
- Select Category:** AVR's and Amplifiers
- Select Brand:** BLUOS
- Select Model:** SYSTEM [Core]
- Double-click** or select **Add Selected Modules**.



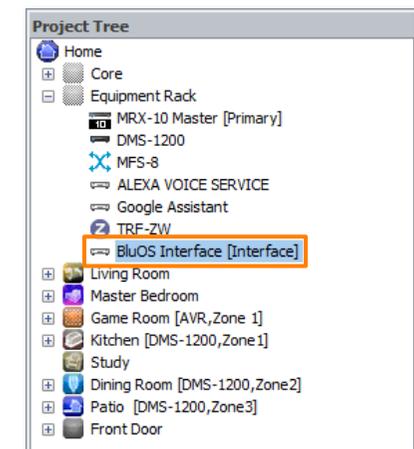
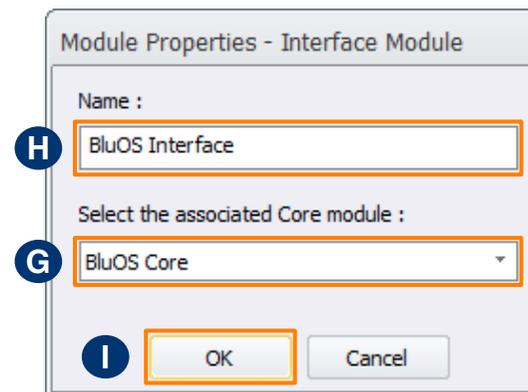
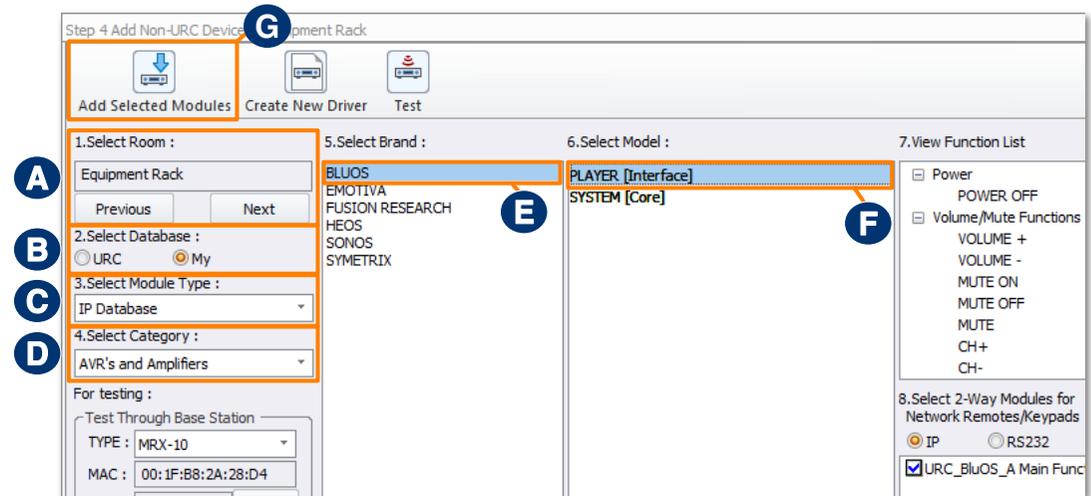
[Core] modules **do not display** on any interface. URC recommends creating a room labeled **"Core"**, hiding it, and placing all [Core] modules there for organizational purposes.

### Adding the [Interface] Module

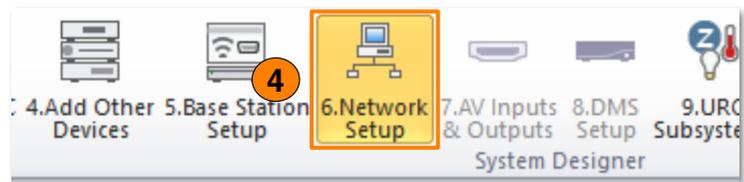
With a [Core] added, the [Interface] module must be added to a room/zone.

Add an [Interface] module to every room/zone that physically contains BluOS device or requires access for control.

3. Perform the following:
  - a. **Select Room:** Choose a room (i.e. Living Room) in the system that requires access.
  - b. **Select Database:** My
  - c. **Select Module Type:** IP Database
  - d. **Select Category:** AVR's and Amplifiers
  - e. **Select Brand:** BLUSOS
  - f. **Select Model:** Player [Interface]
  - g. **Double-click** or select **Add Selected Modules**
  - h. **Enter a custom name**, this label becomes the **button name** on the user interface.
  - i. **Select OK.**



4. Select **Step 6: Network Setup**.



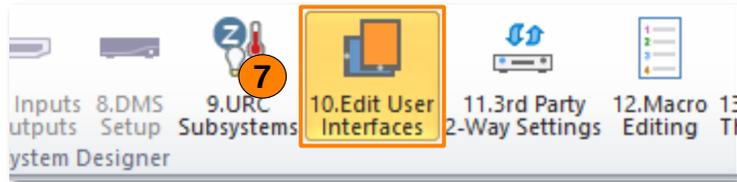
5. Select **Non URC Device**.
6. This module does not communicate using any IP address. Enter a **unique "dummy"** IP address such as 0.0.0.5.

Step 6 Network Settings: Other Devices

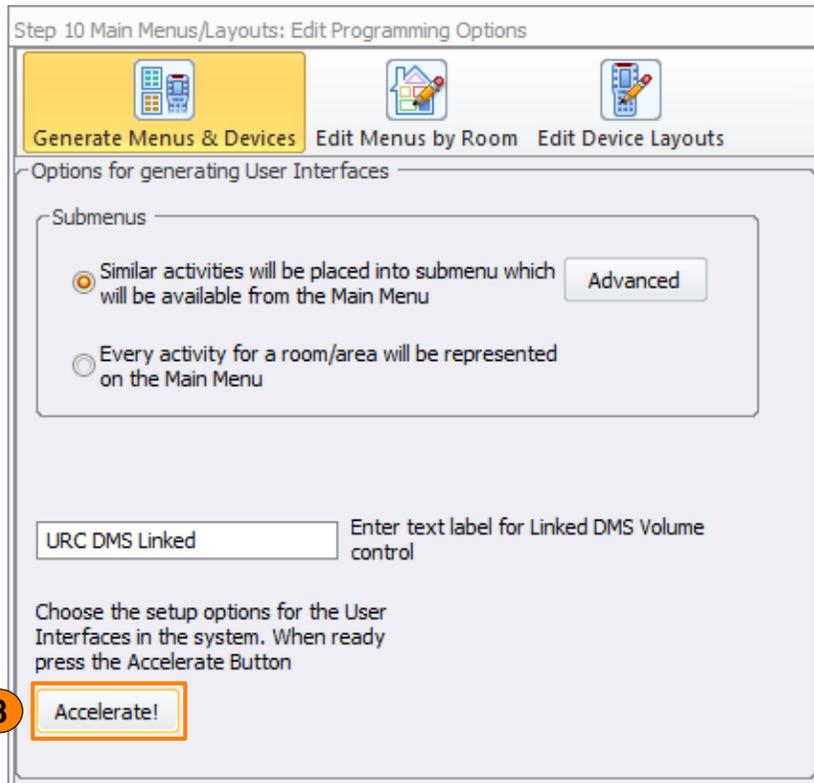
Room	Device	IP Address	Port
Core	Roku Core	192.168.22.38	8060
Core	HEOS Core	192.168.22.39	1255
Core	BluOS Core	0.0.0.5	11...
Equipment R...	ALEXA VOICE SERV...	0.0.0.2	0
Equipment R...	Google Assistant	0.0.0.3	0
Living Room	TV	192.168.22.200	20...
Living Room	Thermostat	0.0.0.4	0
Master Bedr...	Sound Bar	192.168.22.201	49...
Master Bedr...	TV	192.168.22.202	20...
Game Room	Hue	192.168.22.41	443

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7. Select **Step 10: Edit User Interfaces**.



8. Select **Accelerate!**

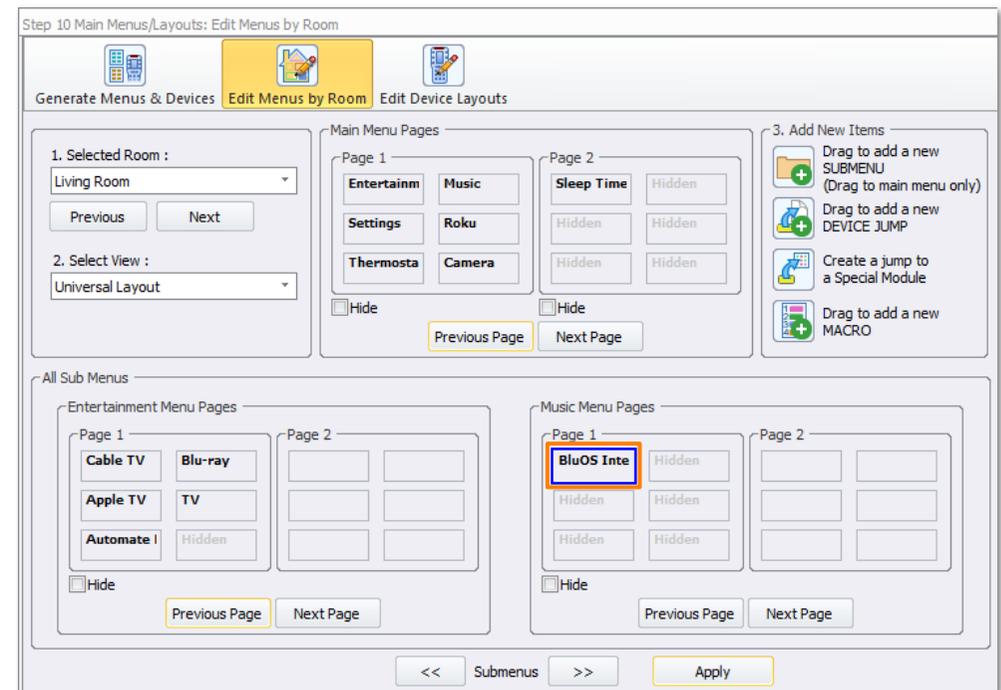


By **default**, access to this button is placed within the **Music sub-menu**.



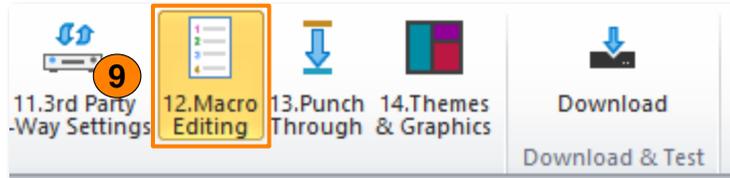
Move this button by **dragging-n-dropping** it into the desired location such as the Main Menu.

Keep in mind, if the system is **Accelerated with the ERASE option**, this button **returns to its original position** in the Settings sub-menu.



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9. Select **Step 12: Macro Editing**.



10. Select **Accelerate!**

11. Download the configuration to the system.

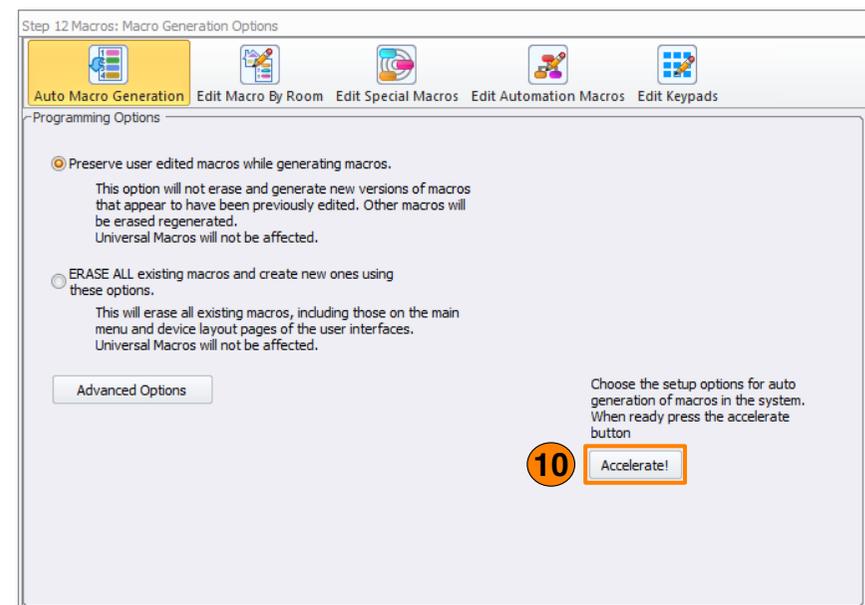
This completes all the required steps for adding a BluOS device such as a Pulse 2i Wireless Multi-Room Music Streaming Speaker.

Read the next section to learn how to **assign a default player** within the BluOS Module. Keep in mind that a default player must be assigned prior to using Two-way module commands and/or Device Events.

BluOS devices, such as a Node 2i Wireless Multi-Room Hi-Res Music Streamer can also be connected to DMS amplifiers for streaming throughout the system.

For instructions on how to add a BluOS device to **DMS**, refer to [page 12](#).

To add this kind of device as a source to a **3<sup>rd</sup> party amplifier**, refer to [page 15](#).



### Assigning a Default Player

Before the BluOS module can be used for control or macro integration, a default player must be assigned.

1. Navigate to the room/area (i.e. Living Room) where the **BluOS [Interface]** module was placed ([page 5](#)).
2. Click on the **Music** sub-menu icon.
3. Select the **BluOS [Interface]** button (i.e. BluOS Interface) within the Music sub-menu, this is the default location.



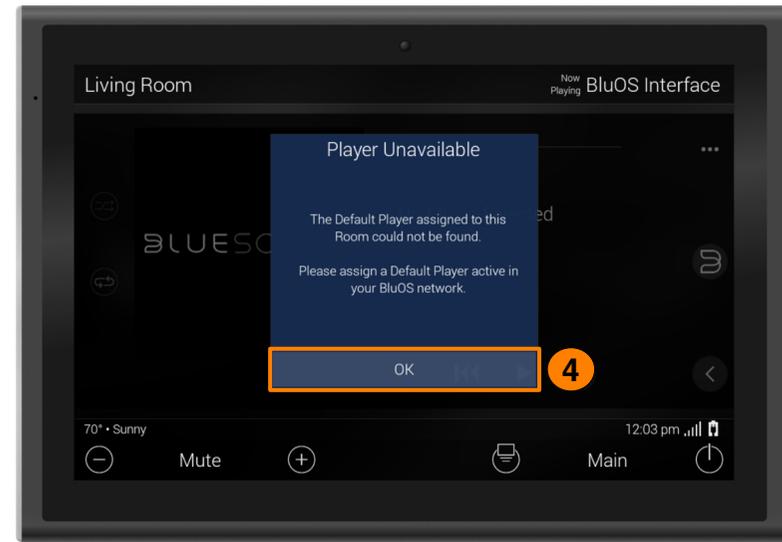
- View the “**Player Unavailable**” screen, this display by default when the module is first launched.

Select **OK**.

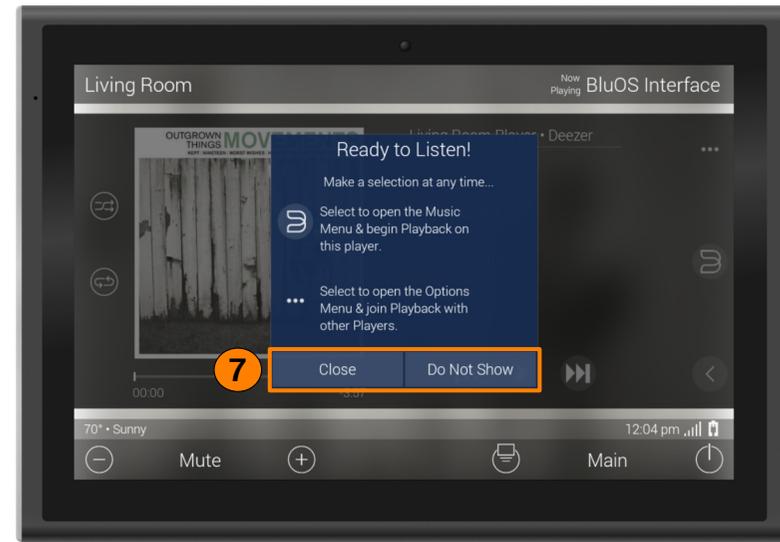
- The module displays **all supported BluOS devices** on the network. These devices are displayed with the name provided during the setup process within the BluOS mobile app (iOS/Android).

Select the **BluOS device that physically exists in that room** (i.e. Living Room Player) or the device that **requires access**.

- Click on **checkmark** to confirm.



7. View the “**Ready to Listen**” message. This provides instructions on how to use the available buttons. Click on one of the following:
  - **Close:** Exits the message and makes the BluOS module available. This message displays again when the module is relaunched.
  - **Do Not Show:** Exits the message and returns to the module for control. This message does NOT display again when the module is relaunched.
8. After exiting the “**Ready to Listen**” screen, the module can be used.



8



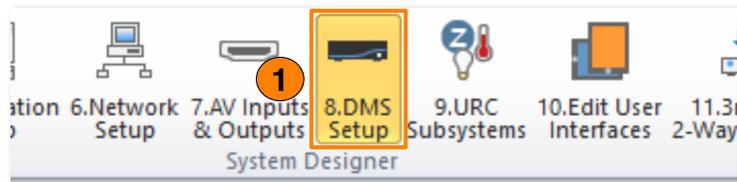
### Connecting a BluOS with DMS

BluOS devices, such as a Node 2i Wireless Multi-Room Hi-Res Music Streamer can be connected as source to a DMS amplifiers for streaming throughout the system.

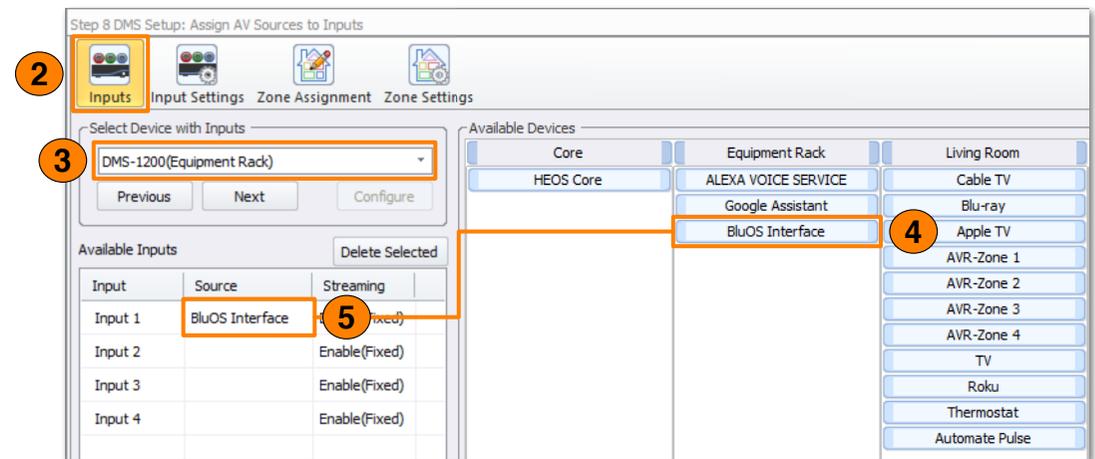
This section of the document requires the system to have a DMS device with inputs such as DMS-1200. Assure that the steps on pages 4-6 have been completed prior to reading this section.

Please follow the steps below to add a BluOS device as a streaming input:

1. Select **Step 8: DMS Setup**.

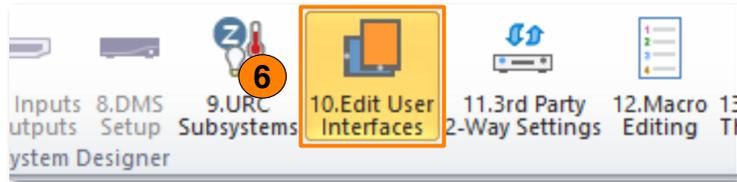


2. Select the **Inputs** sub-step.
3. Using the **Select Device with Inputs** drop-down menu, choose the **DMS device** that the **BluOS player is physically connected to**.
4. Locate and select the **BluOS [Interface]** module (i.e. BluOS Interface).
5. Drag-n-drop the **BluOS [Interface]** module onto the DMS input where it is connected (i.e. Input 1).

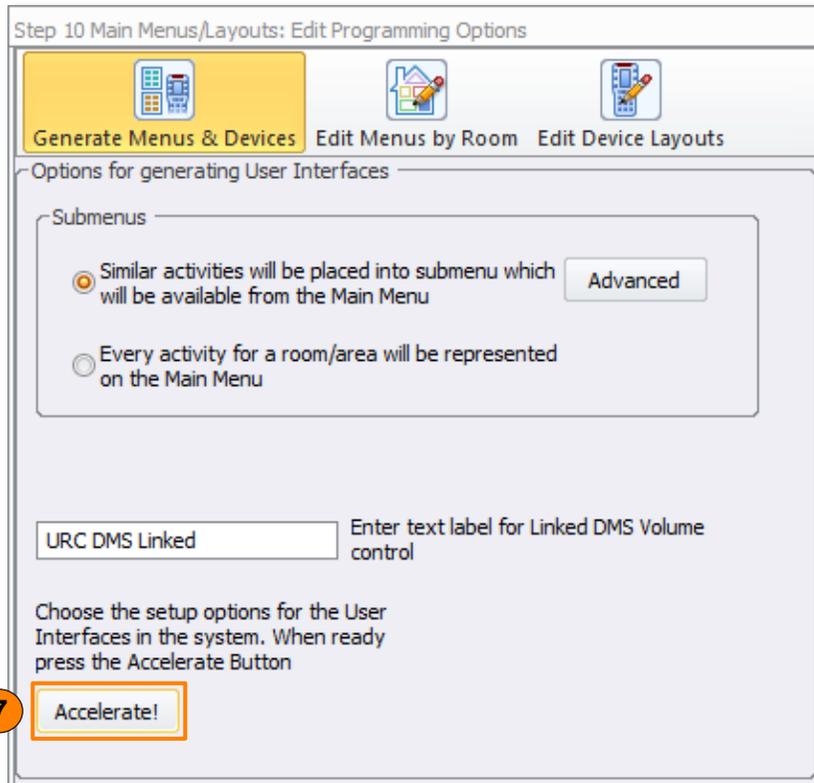


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6. Select **Step 10: Edit User Interfaces**.



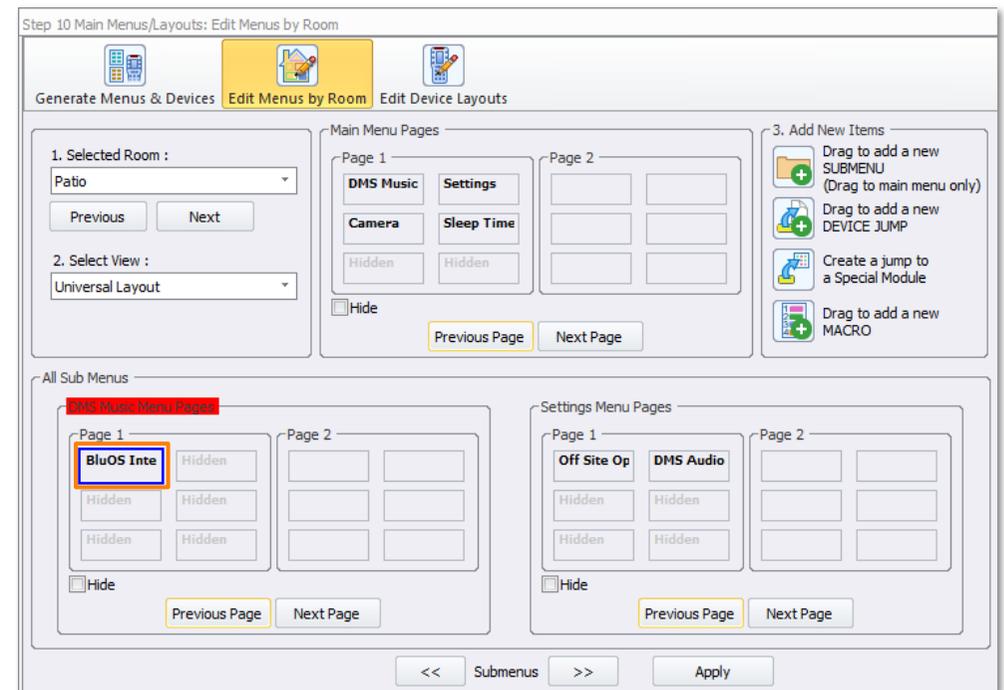
7. Select **Accelerate!**



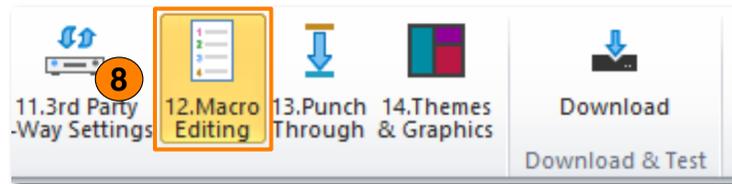
By default, Accelerator places access to the **BluOS [Interface]** module within the **DMS Music Menu** of every DMS controlled zone (i.e. Patio).

A **combined Music Menu** can be enabled by selecting the **Advanced** button located in the **Generate Menus & Device** sub-menu.

This allows the programmer to create a **single Music menu with local and DMS sources**.



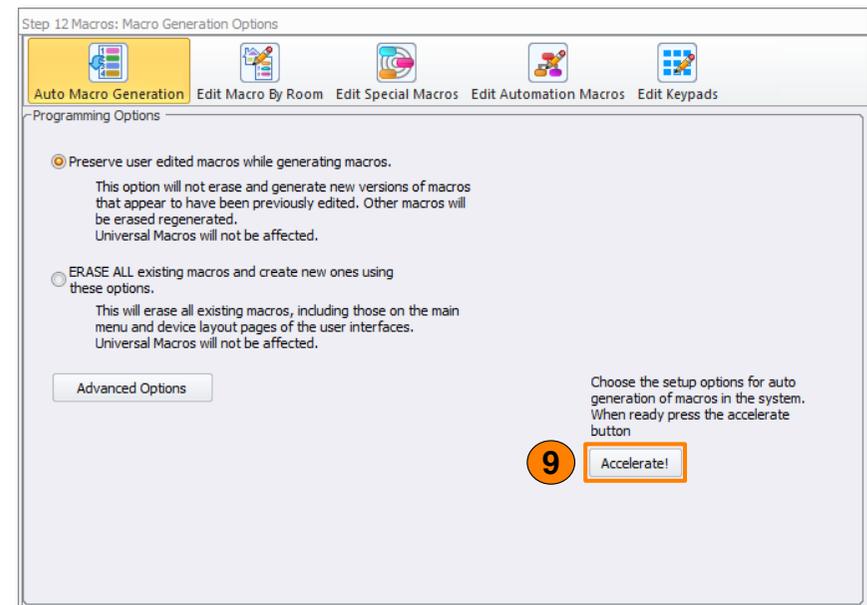
8. Select **Step 12: Macro Editing**.



9. Select **Accelerate!**

10. Download the configuration to the system.

For instructions on how to **assign a default player** please refer to [page 9](#).



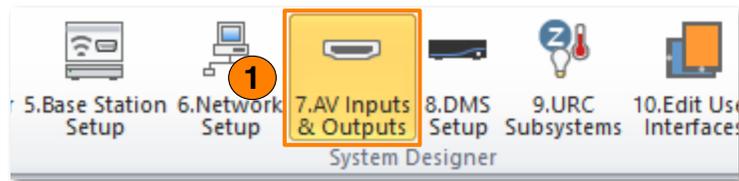
### Connecting a BluOS with a 3<sup>rd</sup> Party Audio Device

BluOS devices, such as a Node 2i Wireless Multi-Room Hi-Res Music Streamer can be connected as source to 3<sup>rd</sup> party audio device such as an AVR.

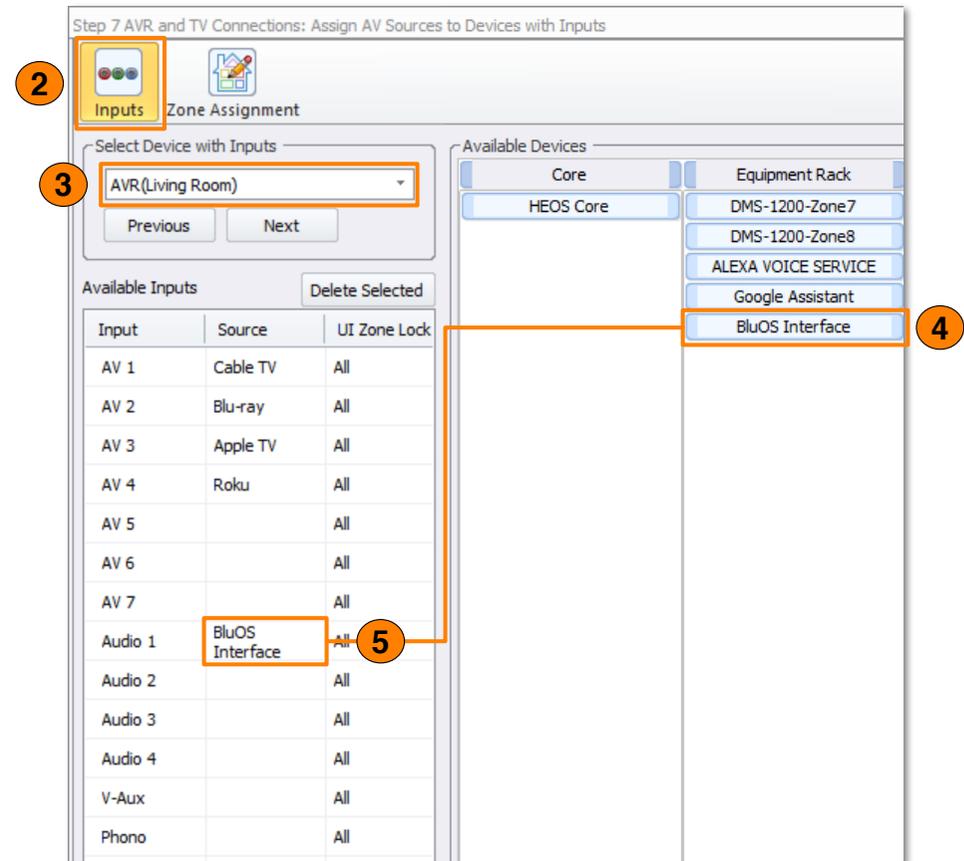
This section of the document requires the system to have an output device with inputs such as an AVR, Amplifier, or Sound Bar.

Please follow the steps below to add a BluOS device as an input:

1. Select **Step 7: AV Inputs & Outputs**.

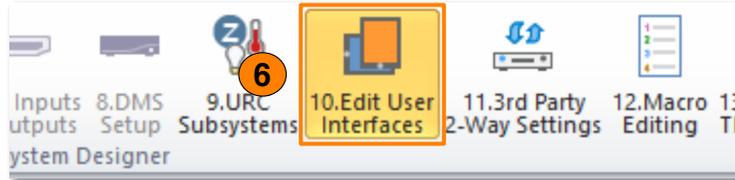


2. Select the **Inputs** sub-step.
3. Using the **Select Device with Inputs** drop-down menu, choose the **audio device** (i.e. AVR) that the **BluOS player is physically connected to**.
4. Locate and select the **BluOS [Interface]** module (i.e. BluOS Interface).
5. Drag-n-drop the **BluOS [Interface]** module onto the input where it is connected (i.e. Audio 1).

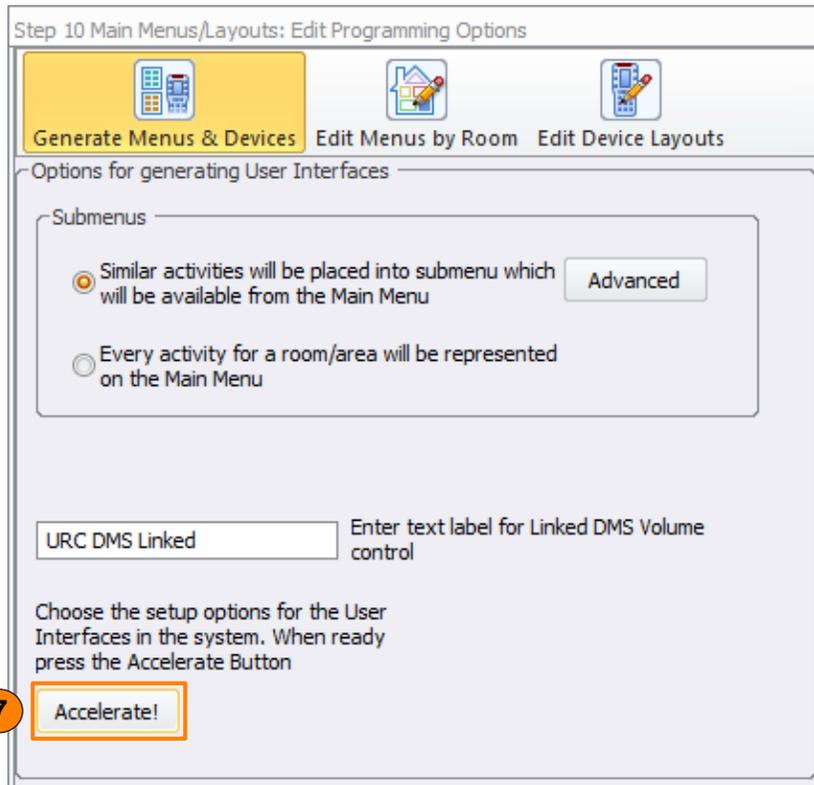


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6. Select **Step 10: Edit User Interfaces**.



7. Select **Accelerate!**

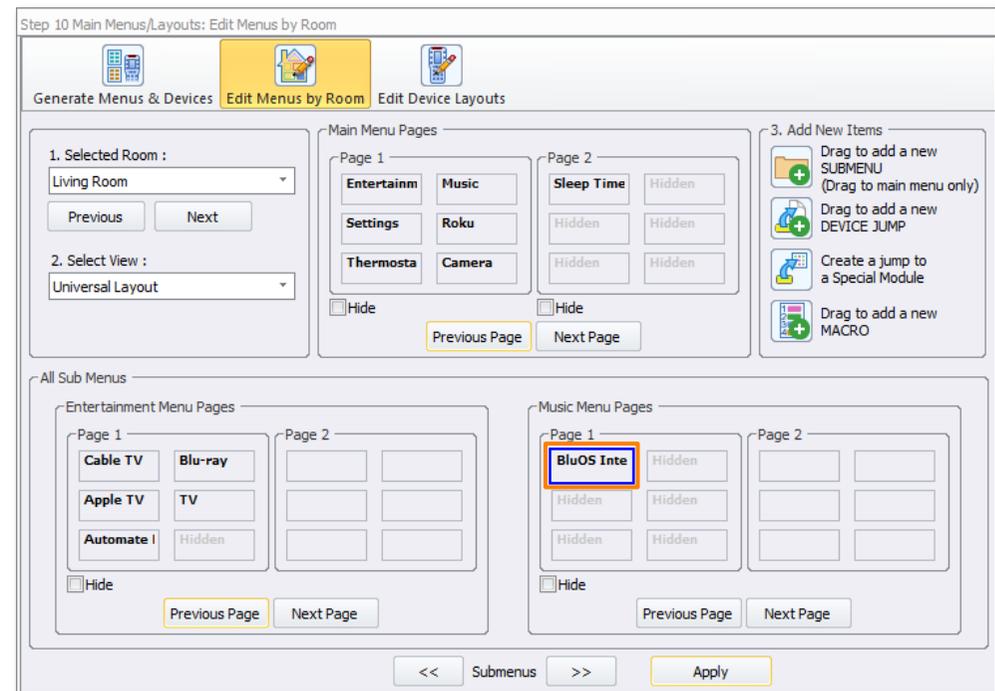


By **default**, access to this button is placed within the **Music sub-menu**.

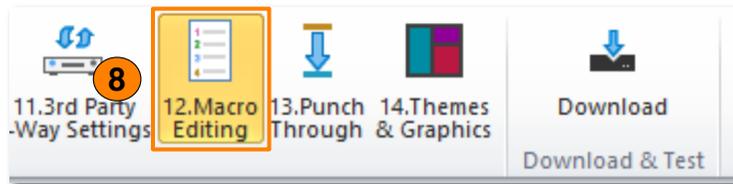


Move this button by **dragging-n-dropping** it into the desired location such as the Main Menu.

Keep in mind, if the system is **Accelerated with the ERASE option**, this button **returns to its original position** in the Settings sub-menu.



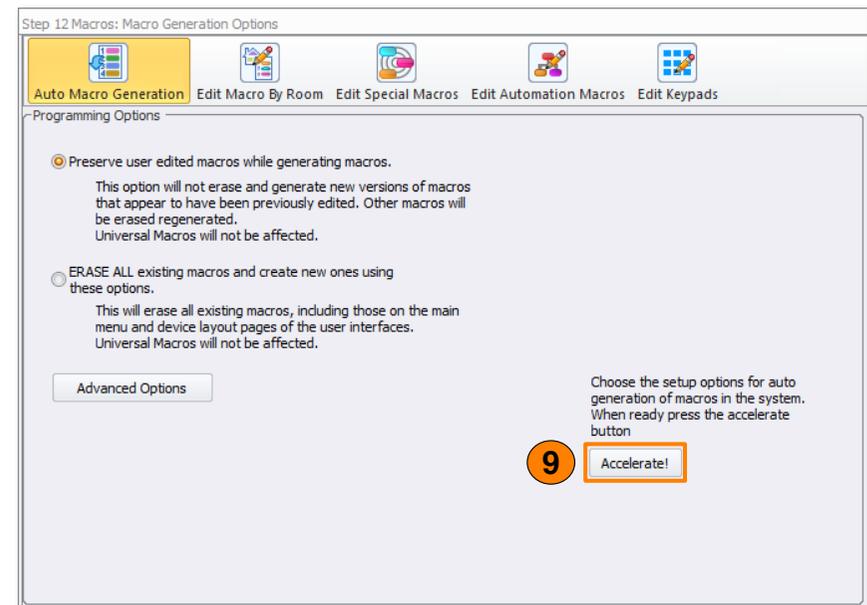
8. Select **Step 12: Macro Editing**.



9. Select **Accelerate!**

10. Download the configuration to the system.

For instructions on how to **assign a default player** please refer to [page 9](#).



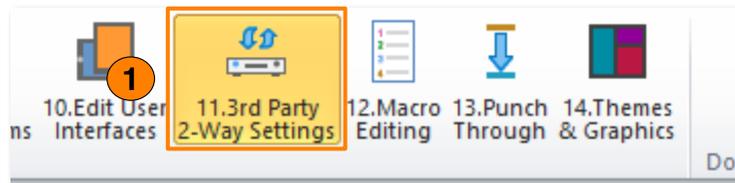
# TOTAL CONTROL 2.0

## Hiding BluOS Control Options

The BluOS module provides programmers with the option to hide certain functions from the BluOS module such as hiding the Volume, Groups, and Change Player buttons.

To hide these control options, perform the following within Accelerator:

1. Select **Step 11: 3<sup>rd</sup> Party Two-way Settings**.

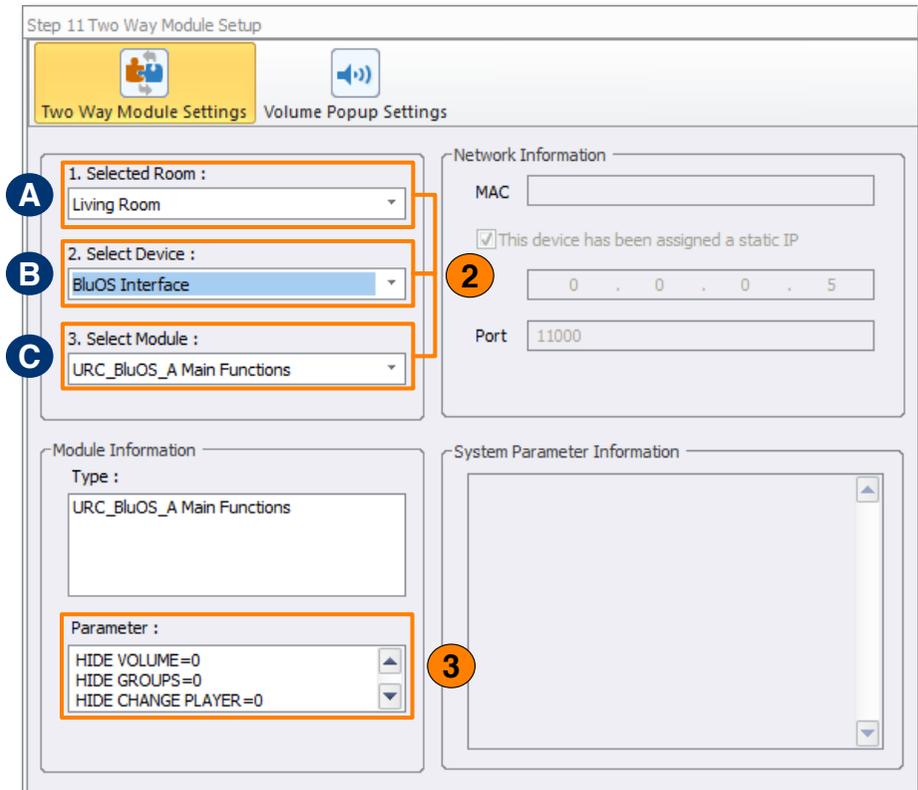


2. Perform the following:

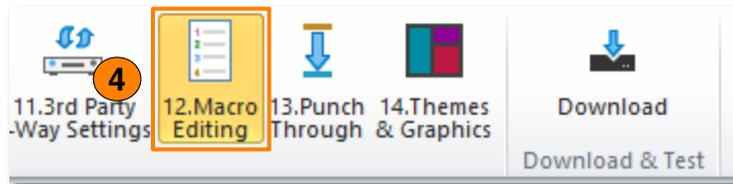
- Select Room:** Use the drop-down menu and choose the room where the BluOS [Interface] module exists.
- Select Device:** Choose the BluOS Interface
- Select Module:** URC\_BLUOS\_A Main Functions auto populates

3. **Parameter:** Below are descriptions of what can be hidden from the user interface:

- **Hide Volume:** Enter the value 1 to hide "Volume" from the Options Menu of the BluOS module.
- **Hide Groups:** Enter the value 1 to hide "Groups" from the Options Menu of the BluOS module.
- **Hide Change Players:** Enter the value 1 to hide "Change Player" from the Options Menu of the BluOS module.



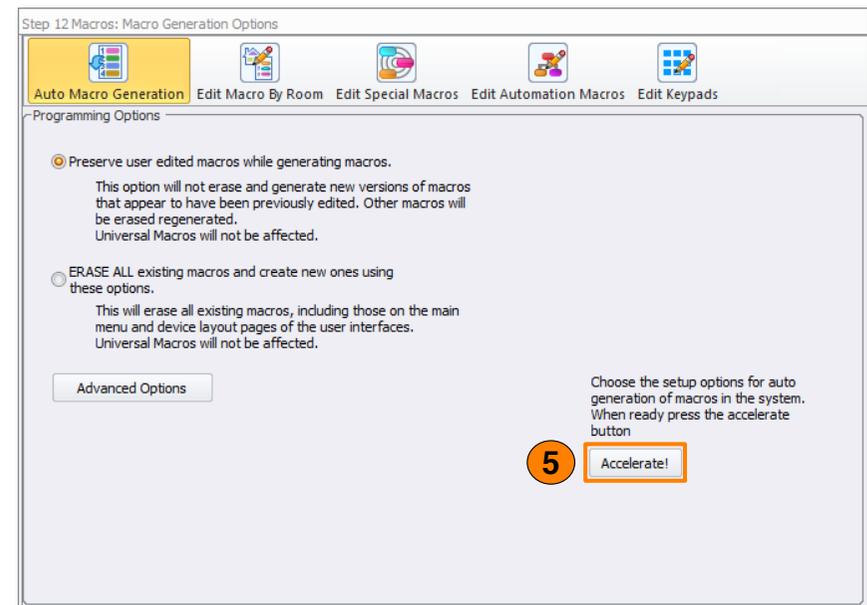
4. Select **Step 12: Macro Editing**.



5. Select **Accelerate!**

6. Download the configuration to the system.

For instructions on how to **assign a default player** please refer to [page 9](#).



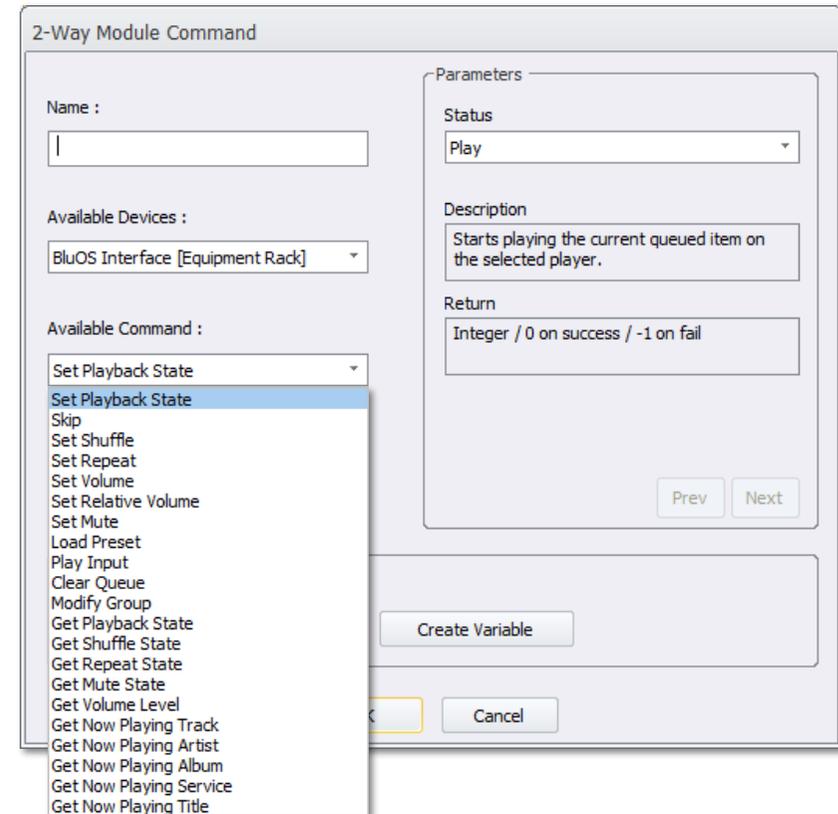
# TOTAL CONTROL 2.0

## Two-way Module Commands

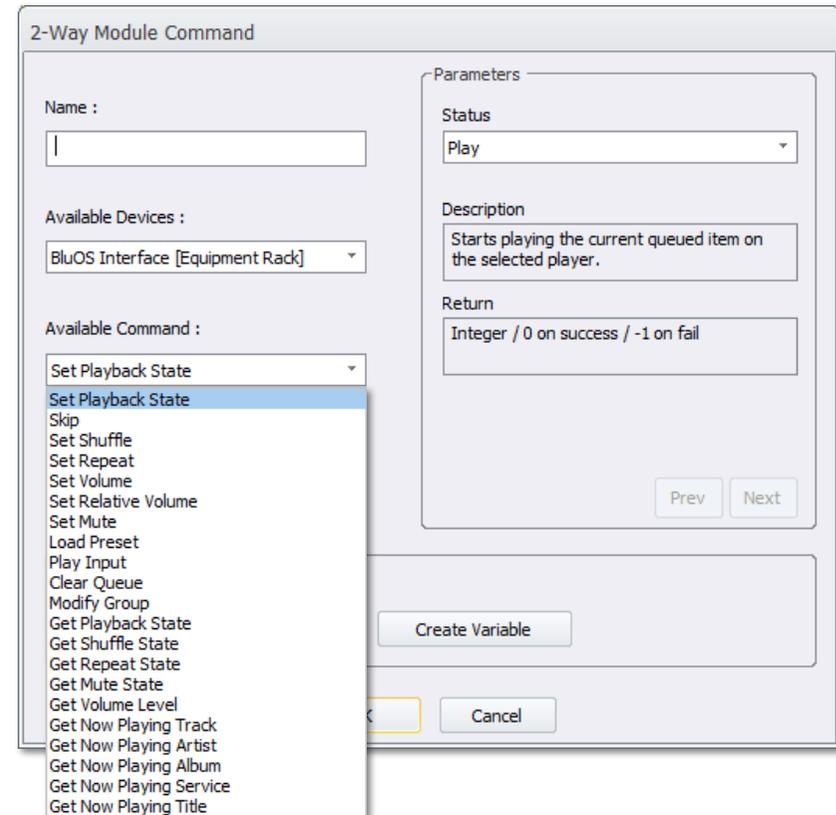
Two-way module commands are special one-way functions that are derived from the two-way module and the only way to send discrete commands BluOS devices.

Below are the available two-way module commands:

- **Set Playback State:** Adds a command to the macro that sets the playback (play / pause stop) status of the selected BluOS [Interface].
- **Skip:** Adds a command to the macro that skips the current song of the selected BluOS [Interface].
- **Set Shuffle:** Adds a command to the macro that sets the Shuffle (on / off) status of the selected BluOS [Interface].
- **Set Repeat:** Adds a command to the macro that sets the Repeat (one / all / off) status of the selected BluOS [Interface].
- **Set Volume:** Adds a command to the macro that sets the current volume selected BluOS [Interface] or Group.
- **Set Relative Volume:** Adds a command to the macro that set the relative volume level for the selected BluOS or group that the BluOS belongs to.
- **Set Mute:** Adds a command to the macro that sets the mute condition (mute / unmute / toggle) of the selected BluOS [Interface] or Group.
- **Load Preset:** Adds a command to the macro that loads a BluOS Preset based on its number, retrieve this preset number from the BluOS mobile app.
- **Play Input:** Adds a command to the macro that changes the input of the select BluOS [Interface]. This command only works on BluOS devices with inputs.



- **Clear Queue:** Adds a command to the macro that clears the current queue.
- **Modify Group:** Adds a command to the macro that modifies the selected BluOSs group based on provided settings (create / add / remove).



### Training Resources:

For additional information on using two-way modules and/or query commands, refer to the following self-paced tutorial:

- [Making the Most of Two-way Modules](#)

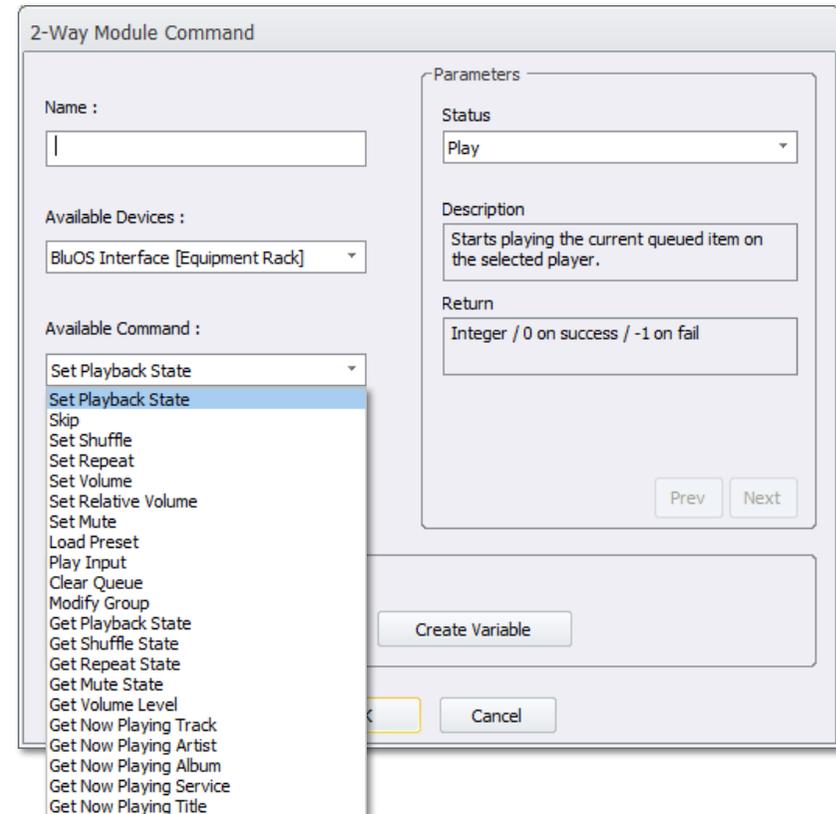
# TOTAL CONTROL 2.0

## Query Commands:

Allow the Total Control system to “ask a question”. Programmers can save the result (value) of that question as a variable. This variable can then be polled and used with conditional logic to create advanced macros.

Below are the Query Commands that are available for the BluOS module:

- **Get Playback State:** Retrieves the current playback status (play / pause / stop) of the selected BluOS [Interface] module.
- **Get Shuffle State:** Retrieves the current mute status (on / off) of the selected BluOS [Interface] module.
- **Get Volume Level:** Retrieves the current volume level of the selected BluOS [Interface] module.
- **Get Now Playing Track:** Retrieves the name of the track that is currently playing on the selected BluOS [Interface] module.
- **Get Now Playing Artist:** Retrieves the name of the artist that is currently playing on the selected BluOS [Interface] module.
- **Get Now Playing Album:** Retrieves the name of the album that is currently playing on the selected BluOS [Interface] module.
- **Get Now Playing Service:** Retrieves the name of the music service that is currently playing on the selected BluOS [Interface] module.
- **Get Now Playing Title:** Retrieves the name of the title that is currently playing on the selected BluOS [Interface] module. Title corresponds with what is displayed on the user interface.

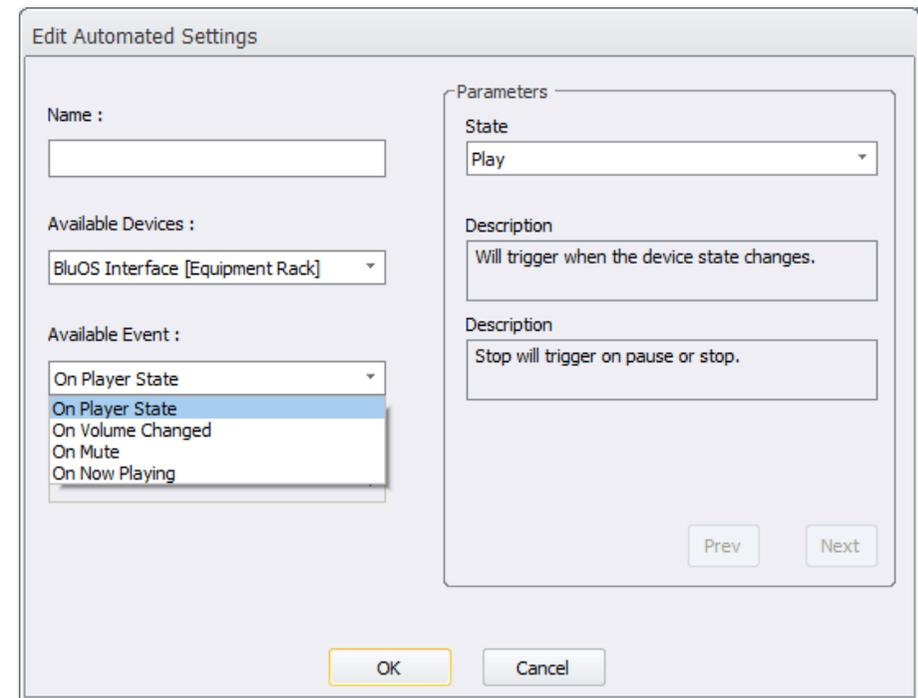


### **Automation Capabilities (Device Events)**

Device Events allow Total Control to trigger macros based on changes within the subsystem of a supported two-way device.

Below are the available Device Events supported by this two-way module:

- **On BluOS State:** Triggers a custom macro when the selected BluOS [Interface]’s BluOS state changes (play / pause / stop).
- **On Volume Changed:** Triggers a custom macro when the selected BluOS [Interface]’s volume changes according to the parameters.
- **On Mute:** Triggers a custom macro when the selected BluOS [Interface]’s mute status changes (on / off / toggled).
- **On Now Playing:** Triggers a custom macro when the selected BluOS [Interface]’s now playing item matches or includes the entered name.



### Using the BluOS Module

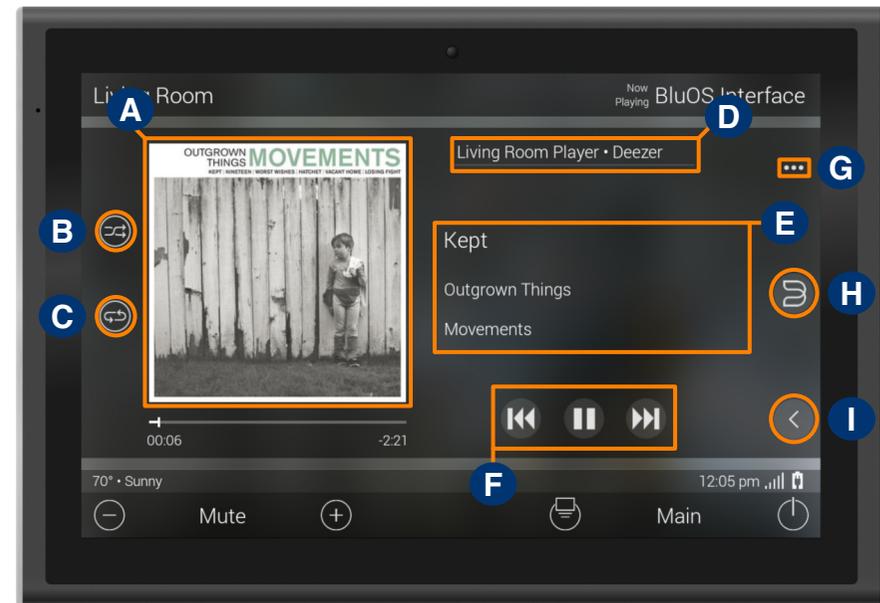
This section of the document explains how to operate and navigate the BluOS module from any user interface.

#### Launching the Module:

1. Navigate to the room/area (i.e. Living Room) where the **BluOS [Interface]** module was placed ([page 5](#)).
2. Click on the **Music** sub-menu icon.
3. Select the **BluOS [Interface]** button (i.e. BluOS Interface) within the Music sub-menu, this is the default location.



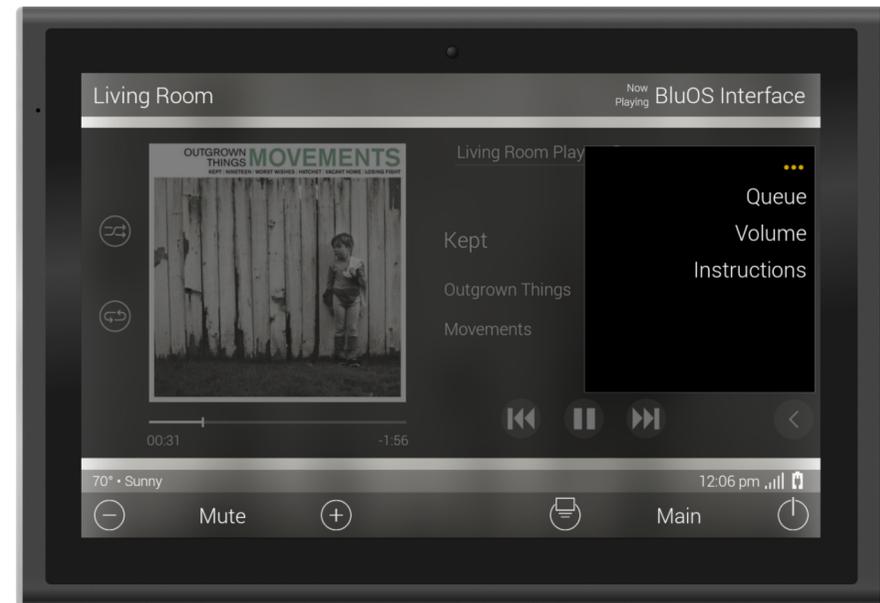
4. The following options are available to the end-user:
- a. **Now Playing Album Artwork:** Displays the artwork of the song that is currently playing.
  - b. **Shuffle:** Select to enable shuffle on the current music service, this only functions if supported by the music service.
  - c. **Repeat:** Select to toggle through the repeat options. This only functions if supported by the music service.
  - d. **Now Playing Name & Service:** Displays the name of the BluOS [Interface] module as labeled in Accelerator as well as the music service currently playing .
  - e. **Now Playing Track Info:** Displays the name of the track, artist, and album as seen on the BluOS mobile app.
  - f. **Transport Commands:** Skip Previous, Play/Pause, and Skip Next.
  - g. **Options Menu:** Select the "... " to display this menu.
  - h. **Music Sources:** Select the BluOS icon to display the available streaming music sources.
  - i. **Back:** This button returns the user to the previous screen. This button is dynamic and changes depending on the menu the user is in.



### Options Menu

The following is displayed within the **Options Menu**:

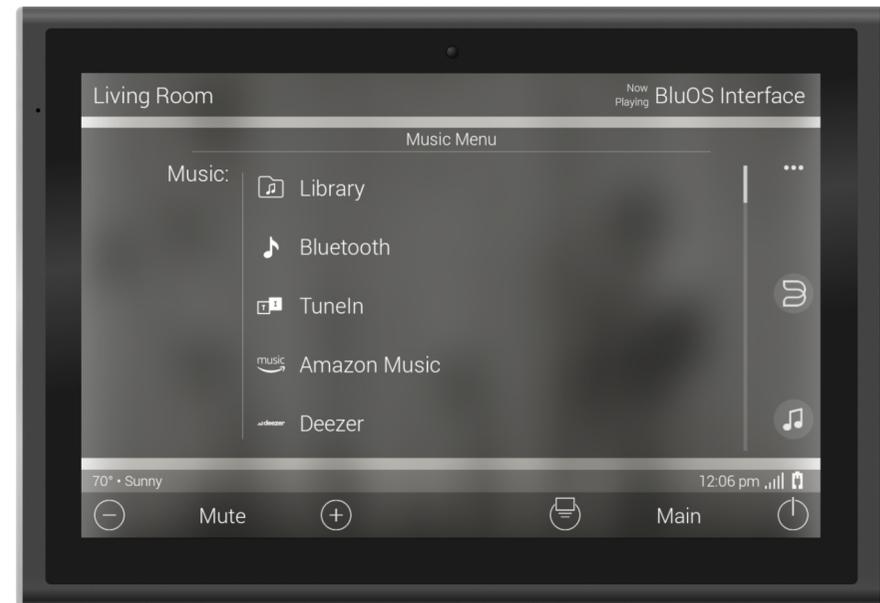
- **Queue:** Select this button to view the current queue (only on supported music services)
- **Volume:** Select to display the Volume Page which allows the user to adjust volume of all BluOS devices integrated into the system.
- **Groups:** Only displays when there is more than one (1) BluOS device in the system, allows two (2) or more BluOSs to be linked together. The Volume menu can be used to control volume for grouped BluOS devices simultaneously or individually.
- **Change Player:** Allows the end-user to temporarily change which HEOS device is being controlled.
- **Assign Player:** Select re-assign a Default Player. Only select this option if the Default Player must be re-assigned.
- **Instructions:** Select to view the basic instructions for navigating the BluOS module.
- **Now Playing:** This option only displays within the **Music Menu**, it returns the user to module's primary screen.
- **Browsing Popup:** This option only displays within the first page of the **Music Menu**. When enabled, the module provides **contextual popup messages** with dynamic functionality.



### Music Menu:

Click on the BluOS logo to enter this menu and select a streaming music service. Below are descriptions of the available buttons:

- **Preset Button:** Select to view the presets that have been configured via the BluOS mobile app.
- **Options Menu:** Select to display the Options Menu.
- **BluOS Button:** Select to return to the first page of the Music Menu.



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