



# **Integration Utility User Manual**

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Revision History			
Version	Date	Author	Description
1.0.0	13/03/2018	Remi P.	First release.
1.2.0	29/08/2018	Gary S.	Added support for Lutron RA2 Select and Caseta Pro
1.4.0	12/03/2019	Gary S.	Added support for Bluesound Professional CP100
1.6.1	09/03/2023	Remi P.	Changed version number
1.8.0	01/08/2023	Remi P.	Added LEAP support and known issues. Removed iPort support.

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# 1.0 Introduction

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This document describes how to use BluOS Integration Utility. This utility is a standalone program that configures BluOS players to integrate with 3rd party control devices.

The BluOS Integration Utility currently supports Lutron and Bluesound Professional.

This utility is supported on all BluOS players, except for the Node, Powernode, Pulse, Vault and M50.

## 1.1 Definitions

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**BluOS Hub** – This is the main control player that manages all communication. We recommend that you use any NAD CI720, NAD CI580, NAD M50.2, or Bluesound Vault 2 that has a wired Ethernet connection. Please make sure the BluOS Hub is on and not in 0.5 watt standby. Whichever BluOS player you upload the configuration to will become the new BluOS Hub, any previously selected player will no longer have this function.

## 2.0 Lutron

Ensure that your players are powered on and on the same network as the Lutron devices. Use the Lutron software to configure Lutron device keys as needed.

### 2.1 Add Lutron Device

There are three different tabs, depending upon the Lutron device category you are using:

- **LEAP Control.** Select this tab if you are using Lutron processors supporting LEAP protocol. There are 4 types processors supported: Caseta, RA2 Select, Homeworks QSX, RadioRA3.
- **Caseta/Ra2Select.** Select this tab for entry level systems that supports Telnet protocol. If using Caseta, you must use a Caseta Pro hub, not the basic hub. In the Lutron app, go to Settings -> Advanced -> Integration. Turn on Telnet Support, then power cycle the Caseta pro hub. You will need to use the Lutron app to generate an Integration Report. Paste that data into the BluOS Integration utility to complete the configuration.
- **RadioRa2/HomeWorks.** Select this tab if you are using a fully configurable system that supports Telnet protocol.

Make sure your players are online before using this utility.

Enter the information for your Lutron Controller (Smart Bridge, Repeater, or Processor) and select "Add Device". Click on the "+" icon beside each device to add a control. For each control, define the key, player, and action. Double-click on the trash icon to remove a control.

Select which BluOS player you would like to use as your BluOS Hub. It is best to select a player with a wired Ethernet connection. Upload the configuration to the BluOS Hub.

You can also Save and Load the configuration.

RadioRa2/HomeWorks   Caseta/Ra2Select   LEAP Control

Enter your Processor IP, select Processor Type, and then click "Add Device" to discover keypad devices.

Processor IP:    Add Device

Processor Type:

BluOS Hub:    Upload

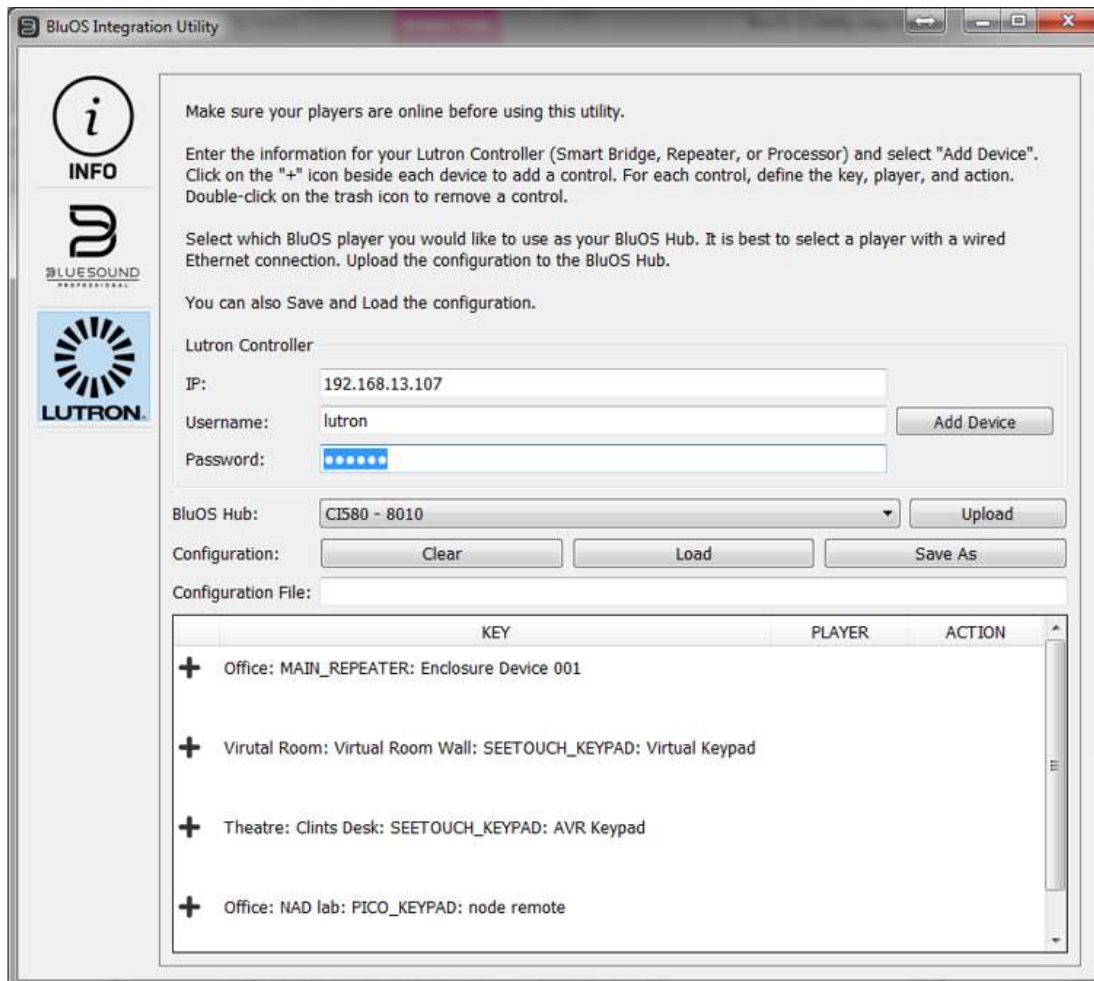
Configuration:      

Configuration File:

	KEY	PLAYER	ACTION
+ ...	Pico Keypad		
...	Button 1 (On)	Boom	Play/Pause
...	Button 2 (Medium)	Boom	Skip Forward
...	Button 3 (Low)	Boom	Volume Up
...	Button 4 (Off)	Boom	Volume Down

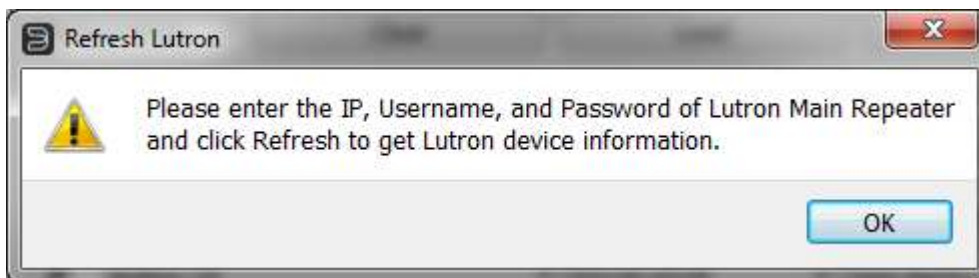
For RadioRa2/HomeWorks, follow the procedure below.

Enter the IP, Username, and Password of your Lutron Controller (information available from your Lutron setup program or certified Lutron Installer), and click on "Add Device" button to connect to the Lutron Controller. Once the Lutron Controller is added, all Lutron keypad devices should show up in the table.



**Please note:** click on "Add Device" after Lutron devices are already added will do nothing unless one of the Lutron devices is removed from network or a new Lutron device is added to the network.

If the IP Address, Username, or Password is blank, clicking on "Add Device" will pop up a warning.



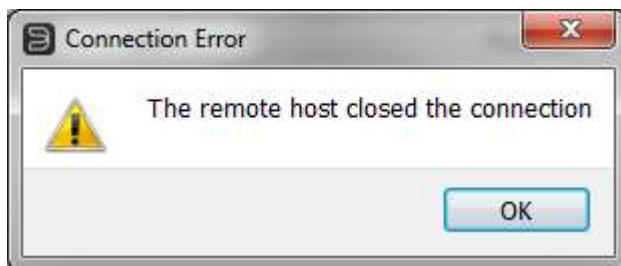
If the IP of the Lutron Controller is not correct or there is a network connection problem, a "Connection Error" warning will pop up after "Add Device" is clicked.



If the IP of the Lutron Controller is correct, but either Username or Password is wrong, a "Bad Login" warning will pop up after "Add Device" is clicked.



If you "Add Device" with wrong Username or Password too many times, Lutron Controller may lock the connection for 10 to 15 minutes. Attempt to "Add Device" after the connection is locked, you will see a connection error message.



## 2.2 Configure Lutron Device

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Once Lutron devices are connected, click on "+" will add a new row of button for the device. Double click on the trash icon will remove the row. Use the drop downs to change the key, player, and action as desired. You can add the same button multiple times allowing you to control multiple players or multiple actions from one button press.

**BluOS Integration Utility**

**INFO**

**BLUESOUND PROFESSIONAL**

**LUTRON**

Make sure your players are online before using this utility.

Enter the information for your Lutron Controller (Smart Bridge, Repeater, or Processor) and select "Add Device". Click on the "+" icon beside each device to add a control. For each control, define the key, player, and action. Double-click on the trash icon to remove a control.

Select which BluOS player you would like to use as your BluOS Hub. It is best to select a player with a wired Ethernet connection. Upload the configuration to the BluOS Hub.

You can also Save and Load the configuration.

Lutron Controller

IP: 192.168.13.107

Username: lutron

Password: ••••••

BluOS Hub: CI580 - 8010

Configuration: Clear Load Save As

Configuration File: C:/NAD/Desktop\_App/CIBranch/desktop\_app/lutronConfig\_doc.xml

KEY	PLAYER	ACTION
+ Office: MAIN_REPEATER: Enclosure Device 001		
+ Virtual Room: Virtual Room Wall: SEETOUGH_KEYPAD: Virtual Keypad		
Button 18	PULSE-0278	Play/Pause
Button 18	PULSE-0278	Skip Forward
Button 18	PULSE-0278	Skip Backward
Button 18	PULSE-0278	Preset 1
Button 19	PULSE-0278	Sleep 30
+ Theatre: Clints Desk: SEETOUGH_KEYPAD: AVR Keypad		
Button 19	M17 - 002A	Play/Pause
Button 19	CI580 - 8010	Play/Pause
Button 19	C368 - 0016	Play/Pause
+ Office: NAD lab: PICO_KEYPAD: node remote		
Button 4 (Volume Up)	CI580-8010-2	Volume Up
Button 5 (Volume Down)	CI580-8010-3	Volume Down

ACTION may be one of the following:

- Play
- Pause
- Play/Pause
- Skip Forward



- Skip Backward
- Volume Up
- Volume Down
- Mute
- Unmute
- Sleep XX (where XX is 15, 30, 45 or 60 minutes)
- Sleep Off
- Preset +
- Preset -
- Preset YY (where YY is a number from 1 to 20)

## 2.3 Save Configuration

Click on “Save As” will pop up a saving window to save the configuration as a XML file. The saved XML file path will be displayed in “Configuration File” area.

The screenshot shows the 'BluOS Integration Utility' window. On the left is a sidebar with icons for 'INFO', 'BLUESOUND', and 'LUTRON'. The main area contains instructions and configuration fields.

Make sure your players are online before using this utility.

Enter the information for your Lutron Controller (Smart Bridge, Repeater, or Processor) and select "Add Device". Click on the "+" icon beside each device to add a control. For each control, define the key, player, and action. Double-click on the trash icon to remove a control.

Select which BluOS player you would like to use as your BluOS Hub. It is best to select a player with a wired Ethernet connection. Upload the configuration to the BluOS Hub.

You can also Save and Load the configuration.

Lutron Controller

IP: 192.168.13.107

Username: lutron

Password: .....

Add Device

BluOS Hub: CIS80 - 8010

Upload

Configuration: Clear Load Save As

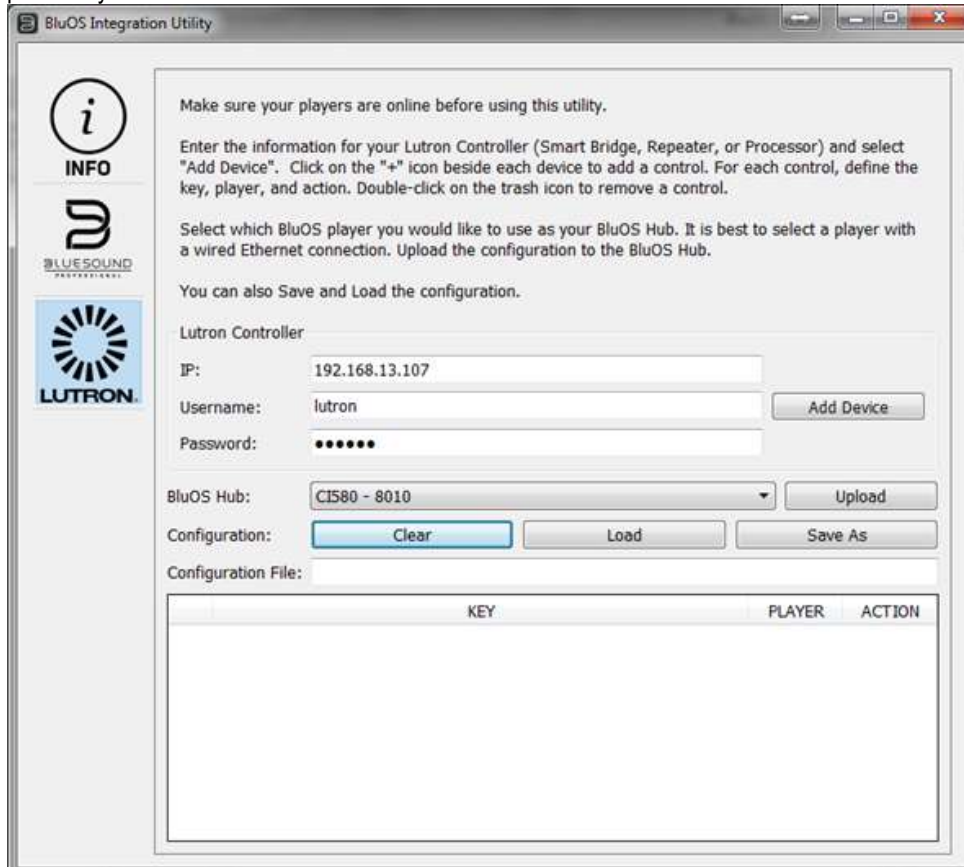
Configuration File: C:/NAD/Desktop\_App/CIBranch/desktop\_app/lutronConfig\_doc.xml

KEY	PLAYER	ACTION
+ Office: MAIN_REPEATER: Enclosure Device 001		
+ Virtual Room: Virtual Room Wall: SEETOUGH_KEYPAD: Virtual Keypad		
Button 18	PULSE-0278	Play/Pause
Button 18	PULSE-0278	Skip Forward
Button 18	PULSE-0278	Skip Backward
Button 18	PULSE-0278	Preset 1
Button 19	PULSE-0278	Sleep 30
+ Theatre: Clints Desk: SEETOUGH_KEYPAD: AVR Keypad		
Button 19	M17 - 002A	Play/Pause
Button 19	CIS80 - 8010	Play/Pause
Button 19	C368 - 0016	Play/Pause
+ Office: NAD lab: PICO_KEYPAD: node remote		
Button 4 (Volume Up)	CIS80-8010-2	Volume Up
Button 5 (Volume Down)	CIS80-8010-3	Volume Down

## 2.4 Clear Configuration

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Click on “Clear” button to clear any previously configured data, and the file path in “Configuration File” area if there is any. Any previously saved XML file will be intact.



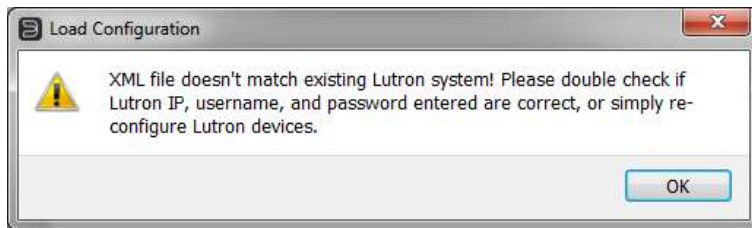
If there is saved configuration when “Clear” is clicked, a warning message will pop up..



## 2.5 Load Existing Configuration

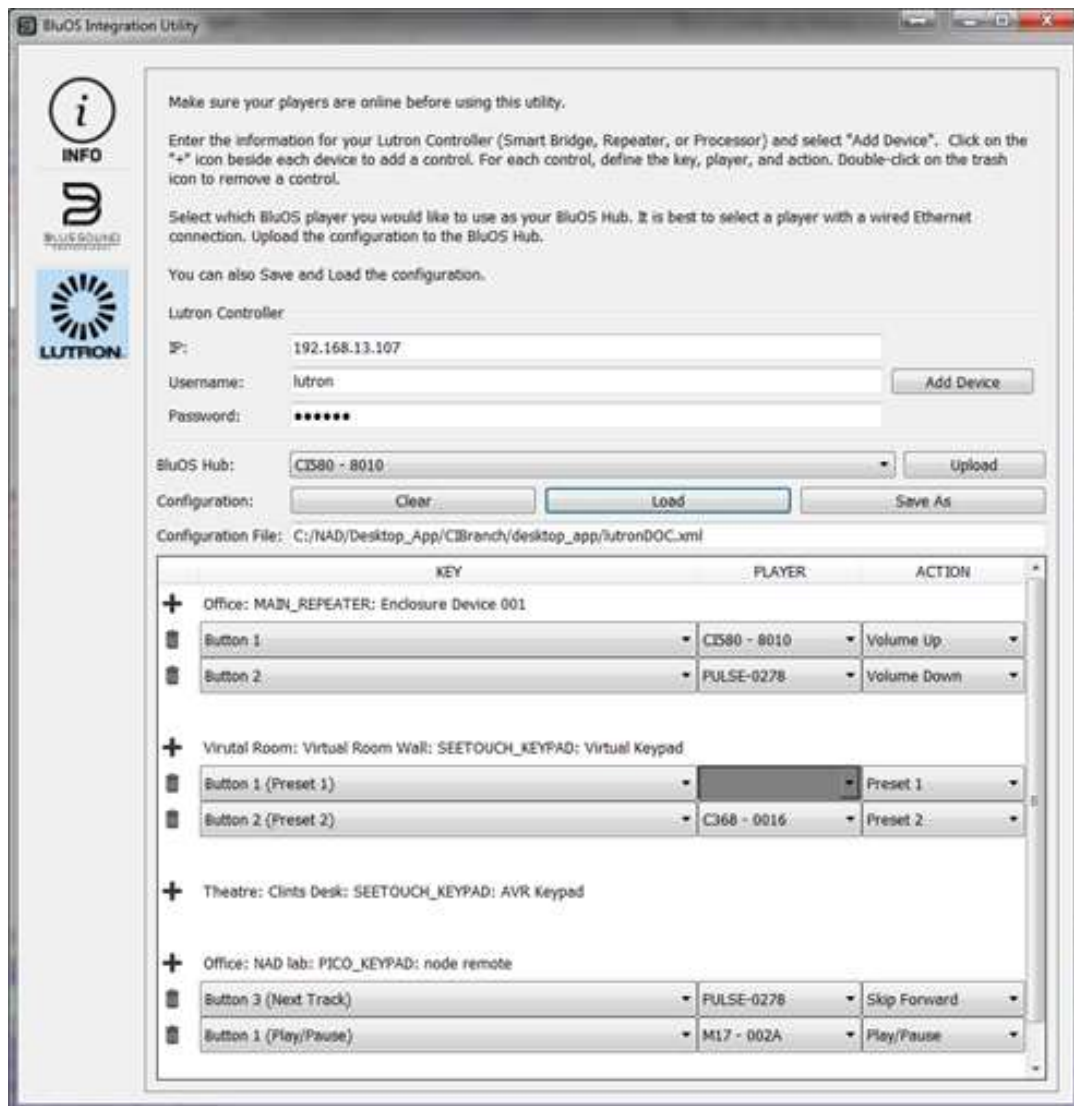
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If a configuration XML file already exists, it can be loaded to the utility directly. If any of IP, username, password, or GUID in the XML file does not match the currently connected Lutron main repeater, the file won't be able to load and a warning message window will pop up.



If the existing XML file is valid, "Load" will display the XML on UI in the table as below. Meanwhile, the XML file path will be displayed in "Configuration File" area.

If a player previously configured for a control is no longer in the same network after loading XML file, the "PLAYER" of the control will be blank with highlighted background. Select a new player from the drop-down box to complete the configuration.



## 2.6 Upload Configuration to BluOS

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Click on “Upload” to transfer the configured XML file to the player you selected (which now becomes the BluOS Hub). If any configuration is changed before “Upload”, a “Save As” window will pop up to save the change to a XML file and then upload it to selected BluOS Hub.

The BluOS Hub should be a player with a wired Ethernet connection. The program will automatically select a NAD CI720, NAD CI580, NAD M50.2 or Bluesound Vault 2 if present. Otherwise, the first player discovered on the network is selected.

When the configuration file is empty, “Upload” will clear any existing configuration XML file from BluOS players on the network. This is useful if you no longer want to do any Lutron integration with BluOS.

If a player is removed from network while the utility is running and the player happens to be the BluOS Hub, a warning window will pop up and the BluOS Hub will be set to the default player.



## 3.0 Bluesound Professional

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Instructions for installing and configuring a CP100 are contained in the CP100 Owners Manual.

## 4.0 Known Issues

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The following issues are known to exist.

Version	Issue	Workaround
1.8.0 MacOS build	After clicking “Add Device” and discovering all keypad devices, clicking “Add Device” again may cause utility crash.	Close the utility and open it again.