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THE SOURCE OF PURE SOUND

Autonomic Programming Guide | 2 of 9

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1.0 Overview

The Mirage Audio System (MAS) consists of a Mirage Media Server (MMS-1e/MMS-2A/MMS-5A) and one or more Mirage digital multi-room amplifiers (M-120e/M-400/M-800). The MAS is a multi-room streaming platform designed to work with automation and control systems such as Lutron's RadioRA 2.

Lutron and Autonomic have collaborated to offer a series of device interfaces designed to allow for control of the MAS. This includes multi-room audio playback of streaming and local music content. The implementation of the Lutron RadioRA 2 interface allows for easy integration and playback of local music libraries and streaming services, such as **Pandora®**, **Spotify**, **SiriusXM**, **Napster®**, and **iHeartRadio**, in addition to many others.

The completed integration will allow your customers to:

- 1. Set and recall presets in specific rooms or groups of rooms
- 2. Control volume including mute
- 3. Control source selection
- 4. Issue transport controls including play, pause, skip previous and skip next
- 5. Power On/Off individual rooms or groups of rooms
- 6. Combine audio and non-audio functions on the same keypad
- 7. Integrate audio functions into Lutron macros or scenes

While it is possible to utilize Mirage Media Servers or Mirage Digital Amplifiers individually, the most complete and satisfying experience is achieved by using both Mirage components (MAS) in concert.

This document covers the integration of MAS with Lutron RadioRA 2 but can also serve to document the integration of the individual components for stand alone configurations. Additional information is available on our website at www.autonomic-controls.com/support.

2.0 Mirage Audio System Integration with Lutron RadioRA 2

Autonomic Mirage Media Servers and Digital Amplifiers allow control from 3rd party and mobile applications. The interface connects directly to the LAN within the residence allowing for direct integration with the Lutron RadioRA 2 system over the IP network.

Virtually all features of the Mirage Media Servers and Amplifiers are available for integration with Lutron RadioRA 2. The most common MMS commands can be easily associated to buttons on the RadioRA 2 wired keypads, wireless keypads and interfaces. The MMS will automatically discover existing RadioRA 2 controllers and keypads on your network and make them available for configuration right from the MMS config page. No additional software or hardware is necessary to get the Lutron RadioRA 2 system up and controlling the Mirage Audio System.

Commands that are available to associate with keypads are listed below:

DEVICE	COMMAND NICKNAME	DESCRIPTION
Mirage Media Server	Play Pause	Toggles between playback and pause
	Play	Discrete Play command
	Pause	Discrete Pause command
	Skip Next	Discrete Skip Next command
	Skip Previous	Discrete Skip Previous command
	Repeat On	Discrete Repeat On command
	Repeat Off	Discrete Repeat Off command
	Repeat Toggle	Toggles between Repeat On Repeat Off command
	Shuffle On	Discrete Shuffle On command
	Shuffle Off	Discrete Shuffle Off command
	Shuffle Toggle	Toggles between Shuffle On Shuffle Off command
	Thumbs Up Discreet	Thumbs Up command
	Thumbs Down Discreet	Thumbs Down command
Mirage Digital Amplifiers	Zone {1,2,3,416}, Source {1,2,3,416}	Sets specified audio zone to specified source input
	Zone {1,2,3,416}, Power Off	Powers off the specified zone
	Zone {1,2,3,416}, Power On	Powers on the specified zone
	Zone {1,2,3,416}, Volume Up	Increases the volume 4db in the specified zone
	Zone {1,2,3,416}, Volume Down	Decreases the volume 4db in the specified zone
	Zone {1,2,3,416}, Mute Toggle	Toggles between mute / un-mute in the specified zone
	All Off	Turns all zones in the system off

3.0 Discovery of a Lutron RadioRA 2 on the MMS:

- Navigate to the Mirage media Server's config page http://<IP of MMS>/config
- Select the Source Settings* tab from the config page
- Scroll down the page to the Lutron Configuration section
- Select the dropdown under the Lutron RadioRA 2 system, then select the name
 of your project. The drop down box will automatically be populated with the
 name of your RadioRA 2 system. (If you do not see your configuration in the
 dropdown then select other, and enter the IP address of the RadioRA 2 processor)

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ource Setting	gs				
Audio System					Save Changes
Select the audio system th	hat this MMS is connect	ted to.			
A Mirage Amplifier can ena control system.	able a complete multi-	room audio soluti	ion without the need fo	r an exter	undo Changes
Miraoe M-400 [M400-668]		Co	nfigure (192.168.5.95		
Mrage M-400 [M400-668]	zones for a given sour	Co rce are off.	nfigure 192.168.5.95		
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Mrage M-600 [M400-668] Clear queue when all Server Audio Outputs Each server audio output r Name [click to edit] Main Player A Player B	zones for a given sour may be mapped to one Form factor S/PDIF RCA RCA	Conce are off.	Item's inputs. Audio System Source 1 Source 2 Source 3	Input	Format Automatic Analog Analog
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*In version 5.3, 5.4 and above Control Systems tab

4.0 Adding Keypads to your Configuration:

All or several of your RadioRA 2 keypads can be system control functions of the Mirage Audio System. If the keypads have already been configured by RadioRA 2 programming to control lighting, this functionality will still remain in addition to all MMS commands associated with the buttons.

If you are planning on dedicating keypads for audio control only, do not add any lighting functionality to the keypad in the RadioRA 2 configuration.

- In the Room dropdown menu choose the room where the keypad resides
- Choose the keypad you would like to configure from the room's list of available keypads

Select Lutron Radio RA2	System:		
Lutron House - 000FE7(Reset	Clear	192.168.3.236
Living Room	Keypa	ds	0 +

5.0 Configuring keypads with Mirage Media commands

Once a keypad is added to your configuration, all available keys with their engraving text will be displayed. To confirm the physical button you would like to program matches the the keypad button displayed, simply tap the button on the RadioRA 2 keypad for a blue check box to appear next to its matching button in the configuration.

- Select the button you would like to program and click the [+] button
- Choose the button press event that will fire the actions. These events are:
 - Press: A button is pressed and quickly released
 - Hold: A button is pressed and held for roughly 2 seconds
- A button can be configured with either a press event, a hold event, or both. Each button press event can trigger one or more actions.
- To add an action click the [+] below the actions area and choose the MMS action you would like to associate with that button press
- Select the MMS output or zone you would like that action to be available in
- IF the selected action has any additional parameters, select them in the last drop down menu
- Click Action [+] to add more actions to the same button press event
- Additional button press events can be added as described above

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Lutron House - 000FE7(Reset Clear	192.168.3.236						
Living Room	Keypada	0 +						
Living Room	Buttons		,	Actions				
Keypad2	Preset 1	+ Press	0	+ Recall Preset	0	Living Room	Preset 1	0
Default - Reset Clear	Preset 2	+ Event	0	+ Action	0			
	Preset 3	•						
	Preset 4	•						
	Zone Off	+						
	۳-	+						
	1							

6.0 Typical Example Configuration:

In this example scenario we will have a 5 button RadioRA 2 keypad engraved in the following way:

Preset 1, Preset 2, Preset 3, Preset 4, Zone off, and Arrow buttons for volume increase and decrease

Setting up Recall Preset button

- 1. Click the [+] under the first Preset 1 button, and select the Press event
- 2. Click the [+] under the Actions column and select the action Recall preset
- 3. Select the Living room zone (Zone 1)
- 4. Select Preset 1

Setting up Store Preset button

- 1. Click the [+] under the first Preset 1 button, and select the Hold event
- 2. Click the [+] under the Actions column and select the action Store preset
- 3. Select the Living room zone (Zone 1)
- 4. Select Preset 1

Repeat these steps for the remaining presets 2 to 4, incrementing the preset number under each button action.

Setting up zone off

- 1. Click the [+] under the Zone off button, and select the Press event.
- 2. Click the [+] under the Actions column and select the action Zone off
- 3. Select the Living room zone (Zone 1)

Setting up Volume Down and up

- 1. Click the [+] under the down arrow button, and select the Press event
- 2. Click the [+] under the Actions column and select the action Volume
- 3. Select the Living room zone (Zone 1)
- 4. Select Preset 1



Converge with a higher standard.

7.0 Preset Groups:

A **Preset Group** is a group of keypads sharing the same presets in the Mirage amplifier web configuration page. Each keypad is a member of a particular Preset Group. For example, all 1st Floor keypads can be configured for Preset Group 1, which may be stored or recalled on any keypad in the group. All keypads are part of the same default Preset Group, until changed.

If you would like keypads to have their own presets, configure them to be members of a different Preset Group on the amplifier's configuration page.

To select a preset group for a keypad button click the preset group drop down to the left of the keypad buttons.

8.0 Saving the RadioRA 2 Configuration

Click the **Save** button on the top right of the config page. Leaving this page without saving will cause any unsaved changes to be lost.

9.0 Clearing the RadioRA 2 Configuration from the MMS

Clicking the **Clear Configuration** button next to the project name configuration dropdown will clear all commands associated with keypad buttons.

For more information, please visit our Website: www.autonomic-controls.com, and our Youtube channel: https://www.youtube.com/user/AutonomicControls for how to videos on RadioRA 2 and other configurations.