

gMV Configurator Training Guide

Version 1





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Your Resources at ELAN

In addition to the information in this Training Guide, be sure to check out ELAN's website at <u>www.elanhomesystems.com</u>. The website provides access to a wealth of documentation including *Integration Notes* for detailed information on specific systems with which the g! Software integrates.

Our **Technical Support** staff can assist you Monday through Friday from 9:00 a.m. to 7:00 p.m. EST and 6:00 a.m.to 4 p.m. Pacific at **800-622-3526**.

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Lesson 1 gMV Set Up



Overview

This lesson goes over terminology and the steps used in the g!Configurator Software for setting up a gMV unit.

You will learn:

• How to add the gMV driver.

Sample House

Our sample house will be configured with 3 A/V sources and two distributed A/V zones:

Requirements

- Windows based PC
- gMV unit, g! system controller, and g!Tools.

gMV Overview

Overview The gMV UltraMatrix series of switchers from ELAN seamlessly blend HDMI routing along with full audio distribution. The UltraMatrix switchers have been designed to easily distribute source inputs from analog, optical digital, coaxial digital, Audio Return Path (ARP), and HDMI input devices to analog, or digital, zone outputs. Zone outputs include analog, coaxial digital, HDBaseT, and HDMI. Source and zone set up is easily accomplished using ELAN's g!Configurator Software.



Using the ELAN UltraMatrix series of Audio/Video distribution systems will provide a level of convenience and ease of use never before achieved in the world of whole house audio and HDMI video distribution. For each zone in the system, you can:

- Turn the zone on and off
- Select and control a source for the zone
- Adjust the audio volume in the zone
- Change the zone settings, such as bass and treble
- Easily use TV speakers or whole house audio speakers

Terms The following terms are used in the Configurator for setup of the equipment:

- **Communication Device:** The method the g! software will use to communicate with an external device, including information about the connection type and protocol.
- Audio Zone Controller: The device used to distribute audio throughout the home.

Exercise 1: Add gMV Comm Device

Overview When using the gMV units there are two control options, RS-232 and Ethernet. When controlling the gMV unit using RS-232 a communication device is needed to bridge the gMV Zone Controller to the gSC system controller. Exercise 1 will guide you through how to add communication device for the gMV unit and how to add the gMV as a zone controller.

We will use the gMV64 for this lesson.

Note: When controlling the gMV unit using Ethernet no communication device is needed and this step maybe skipped.

How-to

- 1. Add the communication device.
 - a. Start the Configurator, click the **Media** tab, and then right-click **Communication Devices**.
 - b. Select Add New Communication Device. In the dialog box:
 - i. Enter "gMV" as the Device Name
 - ii. Communication Type select Standard Connection
 - iii. Hardware Type select Serial Port
 - iv. Select an Unassigned COM Port in the COM Port drop-down box

Note: The drop-down menu shows all COM ports and indicates if a port is in use.

v. Click OK

Add New Communication Device		×
Device Name gMV		☐ Show Unsupported Devices
Communication Type Name Marantz Marantz (D-type)(Ethernet) Marantz (D-type)(RS-232) Pioneer SC/VSX (Ethernet) Pioneer SC/VSX (Ethernet) Pioneer SC/VSX (RS-232) Sonos Standard Connection Sunfire TGR-3, TGP-5 Sunfire TGR-401, TGP-401 ViaNet SC1 Yamaha (Ethernet) Yamaha (RS-232) Yamaha YNCA (Ethernet) Yamaha YNCA (RS-232)	Version ^ 7.2 Build 192.0 Rel 7.2 Build 192.0 Rel 7.2 Build 192.0 Rel 7.2 Build 192.0 Rel	Hardware Type (IP to Serial) Global Cache (IP to Serial) JAP Serial Over IP (IP to Serial) Lantronix UDS10 (IP to Serial) SerialBrick (IP to Serial) Xantech XLIP232 Ethernet Extender COM Port MOXA 5610/5410 Port Serial Port
COM Port RS232 6 (Unassi	gned)	Cancel OK

Quick Reference: Add New Communication Device			
Device Name	Enter a name for the external device. This can be any name, but should be descriptive so that you can identify this specific device in the Configurator. DO NOT leave this field set to "New Device".		
Show unsupported devices	Select this checkbox to display legacy devices in the Communication Type window. Legacy devices have not been tested with the current version of g! and are no longer supported by ELAN. If you choose to install an unsupported device, a message will display to warn that the device is not supported by ELAN technical support.		
Communication Type	This is the protocol of the communication. See the <i>Integration</i> <i>Note</i> for the specific thermostat for more information.		
Hardware Type	The type of connection you are using, such as serial port or Ethernet.		
Device	This drop down will populate with the appropriate device for the selected Hardware Type. I.E. When Serial Port Hardware Type is selected the Device dropdown changes to COM Port.		

- 2. Add the ELAN gMV64 to the Zone Controllers node.
 - a. On the System Node Tree, right-click **Zone Controllers**. Select **Add New Zone Controller** from the menu. *The Add New Zone Controller window opens*.

Add New Zone Controller	
Name	ELAN gMV64 (RS-232)
Device Type	Show Unsupported Devices
Name	Version 🔺
ELAN gMV64 (Ethernet)	7.2 Build 192.0 Rel
ELAN gMV64 (RS-232)	7.2 Build 192.0 Rel
ELAN M86A (12 Zones)	7.2 Build 192.0 Rel
ELAN M86A (18 Zones)	7.2 Build 192.0 Rel
ELAN M86A (24 Zones)	7.2 Build 192.0 Rel
ELAN M86A (6 Zone)	7.2 Build 192.0 Rel
ELAN S1616A (Dual Chassis Mode)	7.2 Build 192.0 Rel
ELAN S1616A (Single Chassis Mode)	7.2 Build 192.0 Rel
ELAN S86A/P	7.2 Build 192.0 Rel
ELAN S86A/P (12 Zones)	7.2 Build 192.0 Rel
ELAN S86A/P (18 Zones)	7.2 Build 192.0 Rel 🗸 👻
Search For Devices Search Folder	Cancel OK

b. Select **ELAN gMV64 (RS-232)**, and click **OK** to add the gMV64. *The gMV64 is added to the System Tree and automatically connects to the COM Device.*

3. Select the **gMV64** in the System Node Tree to confirm the Communication Device and Name in the properties window are correct.

System	Communication Devices	Zone Controller : ELA	N gMV64 (RS-232)
Security	Sonos Se gMV	Name	ELAN gMV64 (RS-232)
Climate	🔹 Samsung TV	System #	8027 7.1 Build 662.0 Bal
Liahtina	Severage	Driver Version	FLAN aM/64 (PS 222)
	+ Video Displays	Device Type	
Content	Zone Controllers	Communication Device	gmv 💌
Media		Desire	No
Video	ELAN gMV64 (RS-232)	Paging Sense Input	< SELECT >
Messaging	Interface Templates Interface Groups		Lock EDID
Irrigation			
Pool Control			Clear EDID
UPS			Factory Reset the UltraMatrix
Interface			

Quick Reference: gMV Properties Pane			
Name	Editable field used to name the video display.		
System #	Unique, read-only number assigned by the g! software for internal use.		
Driver Version	Core module rev the driver was last verified in.		
Device Type	Read-only field displaying the Zone Controller Device Type.		
Communication Device	This drop down will populate with the appropriate communication device for the selected Zone Controller.		
Paging	Set to Yes to enable Paging/Doorbell and to No to disable Paging/Doorbell features on the gMV unit. Default setting is No.		
Sense Input	This setting is available only if Paging is set to Yes. Set the Sense Input used on the gSC controller to trigger the Paging/Doorbell features.		
Lock EDID	Locks the EDID table and writes the HDCP keys to the HDMI processors. If Lock EDID is not performed, or unsuccessful, you may notice up to a 30 second delay each time a display accesses a source for the first time after power on.		
Clear EDID	Unlocks the EDID's and clears out the HDMI processor's memory.		
Factory Reset the UltraMatrix	Removes all programming from the UltraMatrix and returns it to factory default settings.		

Note: Due to the amount of possible source and zone configuration options the gMV unit will only populate in the System Node Tree with 1 source and 1 zone. Additional sources and zones will need to be added manually.

Notes:

	· · · · · · · · · · · · · · · · · · ·

Lesson 2 gMV Adding Sources



Overview

This lesson goes over how to add sources to the gMV in the g! Configurator Software.

You will learn:

• About the source input options.

Sample House

Our sample house will be configured with 3 A/V sources and two distributed A/V zones:

- Source 1: Satellite TV
- Source 2: Blu-Ray Player
- Source 3: AppleTV

Requirements

- Windows based PC
- gMV unit, g! system controller, and g!Tools.

Exercise 1: Adding Sources to the gMV

Overview In a typical installation, sources are assigned to specific inputs on the zone controller. The g! software needs to know which sources are assigned to each input so that the correct signals can be sent to the zone controller based on user input in the Viewer interface. Due to the amount of possible source configuration options the gMV will only populate in the System Node Tree with 1 source. Additional sources will need to be added manually.

In Lesson 2, you will add sources to the gMV unit. We will begin by adding a DirecTV satellite box to the gMV Sources node.

Note: This exercise assumes the Satellite TV source is already created. For information on how to add a source in the Media tab please see the g!Configurator Training Guide, Lesson 6 Distributed A/V Part 1.

How-to

- Add the DirecTV Satellite Box
 - In the Media tab System Tree, locate the ELAN gMV64 (RS-232) node and click the plus (+) sign next to Sources to expand the Source List for the ELAN gMV64 zone controller added in Exercise 1.



2. Select **(Source 1)** from the list of available sources. *The properties for (Source 1) display in the window on the right.*

Audio Source:		
System #	18060	
Source Device	< NONE >	
Display Icon	Select Icon	
Source Volume	< DEFAULT >	
Display Name		
MV Inputs		
Audio Input Type	< SELECT >	
Audio Breakout	< SELECT >	Edit
2 Ch. / Multi Ch.	< SELECT >	
Bi-Wire	< SELECT >	
HDMI Input		
Audio Input	_	

a. From the **Source Device** drop-down select the Satellite TV source device for (Source 1), then click **Apply.**

Audio Source:		
System #	18060	
Source Device	Interface: Satellite TV	
Display Icon	Select Icon	
Source Volume	< DEFAULT >	
Display Name	Satellite TV	
MV Inputs		
Audio Input Type	< SELECT >	
Audio Breakout	< SELECT >	Edit
2 Ch. / Multi Ch.	< SELECT >	
Bi-Wire	< SELECT >	
HDMI Input	▼	
Audio Input		

Note: To ensure proper control, the source devices must be connected to the same physical input that is specified in the Configurator.

- b. In the properties window, click the **Select Icon** button. *The Select Icon window opens.*
- c. Click the plus (+) sign next to the Icons folder, then select the Media subfolder. Use one of the icons that display in the window, or navigate to the Color or Gray folders to see more options. Select the icon you wish to use for the source and click OK.

- d. Change the **Display Name** entry to something more user-friendly, like "SAT TV". *The Display Name is what will appear in the Viewer.*
- e. Select Apply when finished.

System	+ 😨 Communication Devices	Audio Source: Interface: Satellite TV		
Security	🕂 🗖 Video Displays	System #	18060	٦
Climate	Zone Controllers	Source Device	Interface: Satellite TV	-
Lighting	ELAN gMV64 (RS-232)			
Lighting	Cources	Display Icon	Select Icon	
Content	+ 1 Zones		in and the second s	
Modia	+ Interface Templates	Source Volume	< DONT CHANGE >	-
weula	Interface Groups	Display Name	SAT TV	

3. Navigate to the gMV Inputs section for the SAT TV Source.

Svstem	🕂 式 Communication Devices	Audio Sourco: Interfaco: Satollito TV			
	+ Sources	Addio Source. Internat			
Security	🕂 💻 Video Displays	Svstem #	18060		
	Zone Controllers	Course Device	Interface: Setallite T/		
Climate	🕂 📼 Integra DTR-60.5	Source Device			
	💻 📟 ELAN gMV64 (RS-232)				
Lighting	🗏 📇 Sources	Display Icon	Select Icon		
Content	📥 (Source 01) Interface: Satellite				
Content	🛨 🌗 Zones	Source Volume			
Media	🕂 🚦 Interface Templates	Source volume			
	Interface Groups	Display Name	SALIV		
Video		MV Inputs			
Messaging		Audio Input Type	< SELECT >		
		Audio Breakout	< SELECT >	Edit	
Irrigation		2 Ch. / Multi Ch.	< SELECT >		
Pool Control		Bi-Wire	< SELECT >		
		HDMI Input	•		
0-3		Audio Input			
Interface					

4. Select the **Edit** button in the properties pane to bring up the **Add/Edit Source** window. *The Add/Edit Source window appears.*

Add/Edit Source	1		×
Display Name Audio Input Type Audio Breakout 2 ch. / Multi ch. Bi-Wire HDMI Input Audio Input		Input Level Gain	O db Save Save + Add Cancel O ms .
DSP Mix	Stereo 💌		
EDID Configuration			
HDMI 1	HDMI 2	HDMI 3	
🗖 HDMI 5	HDMI 6	HDMI 7	🗖 HDMI 8
🗖 HDMI 9	HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: Though items may be configured from the selected Source's properties pane it is **strongly recommended** that the **Edit** button be selected to bring up the **Add/Edit Source** window to properly configure the source device.

Quick Reference	e: Add/Edit Source
Display Name	The name of the source as it appears in the g!Viewer.
Audio Input Type	Sets where the audio is coming into the system. Choices are HDMI, Coax, Optical, ARP (audio return path), or analog.
Audio Breakout	Used with HDMI source inputs only. This setting allows the audio from the HDMI source to be available as a source to the audio outputs. The HDMI source's audio output must be set to 2 channel the gMV does not down mix Dolby digital.
2 ch./Multi ch.	This field is available when Audio Breakout for an HDMI source is set to Yes. If the source is set to 2 channel, select 2 ch and the gMV will allow the signal from the HDMI input to be routed to the analog audio outputs. If the source is set to multichannel, select Multi ch. When Multi ch is selected the Bi-Wire field will become available.
Bi-Wire	Active when Multi Ch is selected for the HDMI audio source. Allows for routing a 2ch audio signal to analog zone outputs by connecting the HDMI source with a second audio only connection from analog, coax, optical or ARP. Choices are Analog, Coax, Optical, ARP, and None. If Bi-Wire is set to None then access to the HDMI audio will not be permitted by any zone output that is analog or mirrored analog/digital.
HDMI Input	Sets the HDMI input the source device is connected to on the gMV.
Audio Input	Sets the Audio Input the source device is connected to on the gMV. The audio inputs options shown are based on the previous settings.
DSP Mix	Sets the 2ch audio inputs on the gMV to Stereo, Mono, Left only, Right only, or Swap the L/R channels.
Input Level Gain	Adjusts the input level for source devices +/- 24dB in 1dB increments. This adjustment only applies to analog, or analog/digital mirror, source devices.
Lip Sync Delay	Sets the delay of the analog and analog/digital mirror outputs for the source input in ms. A total of 170ms adjustment is available between both source input and zone output adjustments.
EDID Configuration	Extended Display Identification Data (EDID) Configuration sets which HDMI outputs will the HDMI source will be routed to. Once outputs are assigned and the system is connected the Display's video and audio EDID is added to the table for the device. When sending audio only (no video) over the HDMI outputs select the outputs that will receive the signal and the gMV sends a blank video screen along with the audio signal.
Save	Saves the source configuration.
Save + Add	Saves the sources configuration and adds an additional source. One source must exist in the gMV node tree in order for this option to be available.
Cancel	Exits the Add/Edit Source window without saving any configuration changes.

Exercise 2: Configuring the Audio Input Type

- *Overview* The gMV UltraMatrix features flexibility on the audio inputs that allows for the source's audio input type to be selected for distribution to analog or digital audio outputs.
- *How-to* Select the Audio Input Type
 - 1. In the Audio Input Type **drop-down menu** select how the **audio will be received** by the gMV unit. For this exercise select **HDMI**.

Add/Edit Source	1000		X
Display Name S Audio Input Type Audio Breakout S 2 ch. / Multi ch. S BI-Wire HDMI Input DMI Input DSP Mix S	SAT TV	Input Level Gain	0 db Save Save + Add Save + Add Cancel Cancel
EDID Configuration	HDMI 2 HDMI 6 HDMI 10	HDME 3	HDM1 4 HDM1 8 HDM1 12 HDM1 16

Note: The Audio Input Type sets what connection type on the gMV will be providing the audio signal. Choices are HDMI, Coax, Optical, ARP (Audio Return Program), or analog.

2. In the Audio Breakout **drop-down menu** select if the **audio signal** on the HDMI source device will be **broken out of the HDMI signal** for distribution out of the gMV's analog audio outputs. For this exercise select **Yes**.

Add/Edit Source	and the second se		
Display Name	SAT TV	Input Level Gain	0 db Save
Audio Input Type	Yes		Cancel
2 ch. / Multi ch. Bi-Wire	▼	Lip Sync Delay	0 ms
HDMI Input Audio Input			1 1
DSP Mix	Stereo		
EDID Configuration	1		
HDMI 1	HDMI 2	HDMI 3	HDMI 4
🗖 HDMI 5	HDMI 6	HDMI 7	HDMI 8
🗖 HDMI 9	HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: When the audio from an HDMI source is being distributed to a zone via the analog audio outputs on the gMV the Audio Breakout must be set to Yes. The gMV does not down mix the Dolby Digital track on the HDMI source to 2 channel. Please ensuere the source device's audio output is set to 2 channel when distributing audio to the analog outputs on the gMV. This option is only available when Audio Input Type is set to HDMI.

- 3. When using the Audio Breakout and distributing the HDMI audio via the analog audio outputs on the gMV the audio signal must be set to 2 ch on the source device.
 - a. In the 2 ch./Multi ch. drop-down select **2 ch.** *Proceed to step 4 when* **2 ch/Multi** *ch is set to* **2 ch**.

Display Name	SAT TV	Input Level Gain	0 db Save
Audio Input Type	HDMI 💌		Save + Ad
Audio Breakout	res 💌		Cancel
2 ch. / Multi ch.	2 Ch. 💌	Lie Curre Delau	0.ms
Bi-Wire	~	Lip Sync Delay	lo ins
HDMI Input	•		
Audio Input	Ψ.		
DSP Mix	Stereo 💌		
EDID Configuration			
HDMI 1	HDMI 2	HDMI 3	HDMI 4
HDMI 5	HDMI 6	HDMI 7	HDMI 8
HDMI 9	HDMI 10	HDMI 11	HDMI 12
E HDMT 13	HDMI 14	HDMI 15	HDMT 16

Note: The gMV does not down mix the Dolby Digital track on the HDMI source to 2 channel. Set the source device's audio output to 2 channel when distributing audio to the analog outputs on the gMV. This option is only available when Audio Breakout is set to Yes.

b. Use the 2 ch./Multi ch. drop- down and select Multi ch.

Add/Edit Source		-	
Display Name Audio Input Type Audio Breakout 2 ch. / Multi ch. Bi-Wire HDMI Input Audio Input DSP Mix	SAT TV HDMI Ves V Stereo V Stereo V	Input Level Gain	0 db Save Save + Add Cancel
EDID Configuration	HOMI 2 HOMI 6 HOMI 10 HOMI 14	HOMI 3 HOMI 7 HOMI 11 HOMI 15	HDMI 4 HDMI 8 HDMI 12 HDMI 16

Note: When Multi Ch is selected a dedicated audio connection from the HDMI source device will need to be connected to an audio input on the gMV. This audio input type will need to assigned from the Bi-Wire drop-down menu.

Display Name	SAT TV	Input Level Gain	0 db Save
Audio Input Type	iDMI 💌		Save + Ac
Audio Breakout	'es 💌		Cancel
2 ch. / Multi ch.	Multi-Ch.	Lip Sync Delay	0 ms
HDMI Input	-		
Audio Input	•	т., <u>т</u> ., т.	1. I
DSP Mix	itereo 💌		
EDID Configuration			
HDMI 1	HDMI 2	HDMI 3	HDMI 4
HDMI 5	HDMI 6	HDMI 7	HDMI 8
HDMI 9	HDMI 10	HDMI 11	HDMI 12
			HDMT 16

4. From the Bi-Wire drop-down menu select Analog.

Note: Bi-Wire is only available when 2 ch/Multi ch is set to Multi-Ch. A separate audio connection from the HDMI source device will need to be connected to an audio input on the gMV. The Bi-Wire option sets the type of audio connection being used. When Bi-Wire is set to **None** audio from the HDMI source device is not accessible from any analog, or mirrored analog/digital, zone.

Exercise 3: Assigning the Inputs & DSP Mix

- *Overview* This exercise will review how to assign the physical HDMI and Audio inputs being used for the source device connected to the gMV unit. In this exercise you will also see how to adjust the audio input for Stereo, Mono, All Left, or All Right mixes.
- *How-to* Assign the HDMI & Audio Inputs
 - 1. From the HDMI Input drop-down menu select HDMI 1.

Display Name SATT Audio Input Type HDMI Audio Breakout Yes 2 ch. / Multi ch. Multi- Bi-Wire Analo HDMI Input HDMI Audio Input DSP Mix Stered	V V Ch. V I V V I V V V V V V V V V V V V V	Input Level Gain	0 db Save Save + Add Cancel
EDID Configuration			
HDMI 1	HDMI 2	HDMI 3	HDMI 4
HDMI 5	HDMI 6	HDMI 7	HDMI 8
HDMI 9	HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: The HDMI Input setting is where the HDMI source device is physically connected to the gMV. Please note that if the HDMI source device is not physically connected to the assigned port the system will not function properly.

2. From the Audio Input drop-down menu select **Analog 1**. This option is only available when Audio Breakout is set to Yes and Bi-Wire is <u>not</u> set to None.

Add/Edit Source			X
Display Name	SAT TV	Input Level Gain	0 db Save
Audio Input Type	HDMI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Save + Add
Audio Breakout	Yes 💌	· · · ·	Cancel
2 ch. / Multi ch.	Multi-Ch.	Lip Sync Delay	0 ms
Bi-Wire	Analog 💌		1 1
HDMI Input	HDMI 1		() () () () () () () () () ()
Audio Input	Analog 1		
DSP Mix	Stereo 💌		
EDID Configuration	I		
HDMI 1	HDMI 2	HDMI 3	HDMI 4
HDMI 5	HDMI 6	HDMI 7	HDMI 8
HDMI 9	HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: The Audio Input setting is where the HDMI source device's separate audio cable is physically connected to the gMV. Please note that if the HDMI source device's audio cable is not physically connected to the assigned audio input the system will not function properly.

Quick Reference: Audio Input Drop-Down Menu Options			
Input Type	Available Inputs		
Analog	Analog Audio Input 1, 2, 3, 4, 5, 6, 7, 8		
Optical	Optical Digital Input 9, 10, 11, 12, 13, 14, 15, 16		
Coax	Coax Digital Input 17, 18, 19, 20, 21, 22, 23, 24		
ARP (Audio	HDBaseT ARP Input 25, 26, 27, 28*		
Return Program)	*Requires HDRE balun.		

Note: Amount of Input options shown are for the gMV64. The gMV88 and gMV1616 feature additional amounts of inputs.

3. From the DSP Mix drop-down menu select **Stereo**.

Add/Edit Source		-	×
Display Name	SAT TV	Input Level Gain	0 db Save
Audio Input Type	HDMI	and the second	Save + Add
Audio Breakout	Yes 💌		Cancel
2 ch. / Multi ch.	Multi-Ch.	Lip Sync Delay	0 ms
Bi-Wire	Analog		() ()
HDMI Input	HDMI 1		() ()
Audio Input	Analog 1 💌		
DSP Mix	Stereo 💌		
EDID Configuration			
HDMI 1	HDMI 2	HDMI 3	HDMI 4
HDMI 5	HDMI 6	HDMI 7	HDMI 8
HDMI 9	HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: The DSP Mix setting tells the gMV to set a source device's audio input to Stereo, Mono, Left Channel only, Right Channel only, or to Swap the Left and Right channels. The setting here will be output the analog and mirrored analog/digital zones.

Exercise 4: Adjusting Input Level Gain & Lip Sync Delay

- *Overview* This exercise will review how to adjust the Input Level Gain and Lip Sync Delay. The Input Level Gain helps to adjust the source volume at the input level to allow for a consistent volume when switching from source to source. The Lip Sync Delay allows for adjusting the audio to match the video in order to prevent the poorly dubbed movie effect.
- *How-to* Adjust the Input Level Gain and the Lip Sync Delay
 - 1. Set the Input Level Gain so that the source volume is consistent when switching sources.

Add/Edit Source			
Display Name Audio Input Type Audio Breakout 2 ch. / Multi ch. BI-Wire HDMI Input Audio Input DSP Mix	SAT TV HDMI Yes Multi-Ch. Analog HDMI 1 Yanalog 1 Stereo	Input Level Gain	0 db
EDID Configuration			
HDMI 1	HDMI 2	HDMI 3	HDMI 4
HDMI 5	HDMI 6	HDMI 7	HDMI 8
HDMI 9	HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: The Input Level Gain should be adjusted once the system is functioning properly. Input Gain may be adjusted from +/- 24dB in 1dB increments.

2. Set the Lip Sync Delay as needed for the analog and analog/digital mirrored outputs.

Add/Edit Source	-		×
Display Name	SAT TV	Input Level Gain	0 db Save
Audio Input Type	HDMI	ан сан с _{ан} с	Save + Add
Audio Breakout	Yes 💌		, Cancel
2 ch. / Multi ch.	Multi-Ch.	the Grane Delay	0.mc
Bi-Wire	Analog 💌	Lip Sync Delay	10 ms
HDMI Input	HDMI 1		
Audio Input	Analog 1		
DSP Mix	Stereo 💌		
EDID Configuration	n		
HDMI 1	HDMI 2	HDMI 3	HDMI 4
🗖 HDMI 5	🕅 HDMI 6	HDMI 7	F HDMI 8
HDMI 9	🗖 HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: The Lip Sync Delay should be adjusted once the system is functioning properly. Lip Sync Delay may be adjusted from 0 to 170 ms in 1 ms increments. Lip Sync Delay total for source input and zone output may not exceed 170ms.

Exercise 5: Assigning the EDID for a Source

Overview This exercise will review how to assign the EDID configuration of a video display's audio & video capabilities to the EDID table for use by the source device. This simple process must be performed for all HDMI source devices.

How-to Assign the EDID for a source

1. In the EDID Configuration check the box for each HDMI output the source device will be distributed to.

Add/Edit Source	Thingship have		×
Display Name	SAT TV	Input Level Gain	0 db Save
Audio Input Type	HDMI		Save + Add
Audio Breakout	Yes 💌		Cancel
2 ch. / Multi ch.	Multi-Ch.		0
Bi-Wire	Analog 💌	Lip Sync Delay	0 ms
HDMI Input	HDMI 1		
Audio Input	Analog 1		
DSP Mix	Stereo 💌		
EDID Configuration			
	HDMI 2	HDMI 3	HDMI 4
HDMI 5	HDMI 6	HDMI 7	HDMI 8
🗖 HDMI 9	HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: These boxes must be checked in order for the gMV to store the Display's video and audio capabilities to the EDID table. These settings also allow the gMV to send a blank video screen when audio only sources are sent.

2. Select **Save** when finished setting up the source. *The Add/Edit Source window closes* and the SAT TV source's properties pane appears.

Add/Edit Source	e		-	×			
Display Name	SAT TV	Input Level Gain	0 db	Save	iication Devices	Audio Source: Sa	tellite TV
Audio Input Type	HDMI	т. т	1	Save + Add	s, vs ntrolles	System #	18050
Audio Breakout	Yes 💌	· · · ·	1 I	Cancel	DTR-60.5 :es	Source Device	
2 ch. / Multi ch.	Multi-Ch.	Lin Sync Delay	0 ms		s gMV64 (RS-232)	Display Icon	Select Icon
Bi-Wire	Analog 👻	Lp offic bear	1 1		tes urce 01) Satellite TV	Source Nume	< DONT CHANGE >
HDMI Input	HDMI 1	· · · ·	i		s e 1	Display Name MV Inputs	antiv
Audio Input	Analog 1 💌				Templates Groups	Audio Input Type	HDMI
DSP Mix	Stereo 💌					Audio Breakout 2 Ch. / Multi Ch.	Yes Edit Hulti-Channel
EDID Configuration	on					Bi-Wire	Analog 🗨
HDMI 1	HDMI 2	HDMI 3	HDMI 4			Audio Input	Analog 1
🗖 HDMI 5	HDMI 6	HDMI 7	HDMI 8				
HDMI 9	HDMI 10	HDMI 11	HDMI 12				
HDMI 13	HDMI 14	HDMI 15	HDMI 16				
						Apply	

Exercise 6: Adding an additional Source

Overview This exercise will review how to add an additional source to the gMV for selection from the g! Viewer.

How-to Add an additional a source

1. Right click on Source 1, or select the arrow box, and select Add New Source. *The Add/Edit Source window appears with the Display Name field empty.*

System	Communication Devices Sources	Audio Source: Satellit	e TV	
Security		System #	18060	
Climate	🗏 💳 Integra DTR-60.5	Source Device	Interface: Satellite TV	<u> </u>
Lighting	Sources O Zones ELAN -MAKEL (DC 222)	Display Icon	Select Icon	
Content	Sources	Causes Maluera	< DON'T CHANCE >	-
Media	(Source 01) Satellite TV	Display Name	SAT TV	
Video	Zone 1 Templates	MV Inputs		
Messaging	Interface Groups	Audio Input Type	HDMI	<u> </u>
Irrigation		2 Ch. / Multi Ch.	Yes Multi-Channel	Edit
Pool Control		Bi-Wire	Analog	•
UPS		HDMI Input	HDMI 1	<u> </u>
Interface		Audio Input	Analog 1	
Input/Output				
Event Mapper				
		Apply		
)

2. Name the new source. For this exercise use **Blu-Ray Player**.

Add/Edit Source	Dapley Nam		X
Display Name	Blu-Ray Player	Input Level Gain	0 db Save
Audio Input Type	•	an a	Save + Add
Audio Breakout	-	· · · ·	Cancel
2 ch. / Multi ch.	_	Lin Sync Delay	0 ms
Bi-Wire	-	L Coby	1 1
HDMI Input	~	· · · ·	(
Audio Input	-		
DSP Mix	Stereo 💌		
EDID Configuration			
HDMI 1	HDMI 2	HDMI 3	HDMI 4
HDMI 5	HDMI 6	HDMI 7	HDMI 8
🗖 HDMI 9	HDMI 10	HDMI 11	HDMI 12
HDMI 13	HDMI 14	HDMI 15	HDMI 16

Note: Save + Add is now available. Use the Save + Add button to automatically save the source and add an additional source. This will speed up system configuration.

3. Repeat Exercises 1 – 5 to add Blu-Ray and AppleTV source devices using the configuration settings below.

Source	Audio Input Type	Audio Breakout	2 ch/Mult- Ch	Bi-Wire	HDMI Input	Audio Input
Blu-Ray Player	HDMI	Yes	Multi-Ch	Coax	HDMI 2	Coaxial 18
AppleTV	HDMI	Yes	Multi-Ch	Optical	HDMI 3	Optical 11

Notes:

Lesson 3 gMV Adding Zones



Overview

This lesson guides you through the Zone Configuration of the gMV outputs. In this lesson we will use our sample zone Living Room, and go over how to setup the audio and video outputs on the gMV unit.

You will learn:

- How to name a zone
- How to Configure the Zone settings
- How to set Turn On settings
- How to Adjust Tone settings
- How to add a video display

Sample House

Our sample house will be configured with 3 A/V sources and two distributed A/V zones:

- Source 1: Satellite TV
- Source 2: Blu-Ray Player
- Source 3: AppleTV
- Zone 1: Living Room
- Zone 2: Bedroom

Requirements

- Windows based PC
- gMV unit, g! system controller, and g!Tools.

Exercise 1: Zone Name

Overview Beginning with this exercise, you will set up the Zone Name for the Zone Controller.

Giving the zones user-friendly names, such as "Living Room" and "Bedroom" for our sample house, will provide the homeowner with an intuitive interface for controlling the audio/video in their home.

Due to the amount of possible zone configuration options the gMV will only populate in the System Node Tree with 1 zone. Additional zones will need to be added manually.

- *How-to* Name a zone on the gMV and configure the zone.
 - 1. In the **Media** tab System Tree click the plus (+) sign next to **Zones** to expand the Zone List for the ELAN gMV64 zone controller added in Exercise 1.



- 2. Click on **Zone 1** in the zone list to display its properties on the right.
 - a. In the **Name** field, type the name of the first zone in our Sample House, "Living Room", and click **Apply**. The label of the zone will change in the Zone List to reflect the new name.



Exercise 2: gMV Zone Configuration

Overview The ELAN gMV UltraMatrix units feature Zone Configuration settings, Turn On settings, Zone Audio settings, Zone Feature enrollment settings, and a 5 band equalizer. This exercise explains how to configure the Zone Configuration settings.

Note: The settings described in this exercise are only available for ELAN equipment.

- *How-to* Configure zone outputs on the gMV
 - 1. In the **Media** tab System Tree click the plus (+) sign next to **Zones** to expand the Zone List for the ELAN gMV64 zone controller added in Exercise 1.
 - 2. Click on **Zone 1 (Living Room)** in the zone list to display its properties on the right. *The Zone 1 (Living Room)* settings are displayed in the properties pane on the right:

Audio Zone: Living	g Room					
Name	Living Room					
System #	18059					
Universal Receiver	< NONE >			•		
Display 1	< NONE >			-		
Display 2	< NONE >			•		
Slave Zone 1	< NONE >			•		
Slave Zone 2	< NONE >			•		
Turn On Source	< NONE >			•		
Hide Volume	No			•		
Audio Return Input	< NONE >			~		
MV Outputs						
Audio Output Type	HDMI			-		
Analog to Digital	No			-	1	Edit
Audio Output	HDMI 1			-		
Video Output	HDMI 1			-		
Source Configuration						
Source Display Name	From Zone	Show	Volume Contr			
SAT TV BDP	LOCAL	Show Show	<< this z << this z			

Note: For general information on adding video displays to a zone please see the g!Configurator Training Guide, Lesson 7 Distributed A/V Part 2, Exercise 4. Though some items may be configured from the selected Zone's properties pane it is **strongly recommended** that the **Edit** button be selected to bring up the **Add/Edit Source** window to properly configure the source device.

System	+ 😨 Communication Devices	Audio Zone: Livin	g Room	
Security	🕂 🗖 Video Displays	Name	Living Room	
Climate	- Zone Controllers	System #	18059	
Chinato	F Sources	Universal Receiver	< NONE >	
Lighting	∓ 🚯 Zones	Display 1	< NONE >	
Content	E ELAN gMV64 (RS-232)	Display 2	< NONE >	
	H Sources	Slave Zone 1	< NONE >	
Media	Living Room	Slave Zone 2	< NONE >	
Video	+ Interface Templates	Turn On Source	< NONE >	
Magazina	Interface Groups	Hide Volume	No	
Messaging		Audio Return Input	< NONE >	
Irrigation		MV Outputs		
Pool Control		Audio Output Type	HDMI 💌	
UPS		Analog to Digital	No	Edit
		Audio Output	HDMI 1	
Interface		Video Output	HDMI 1	

3. Navigate to the gMV Outputs section for the Living Room Zone.

4. Select the **Edit** button in the properties pane to bring up the **Add/Edit Zone** window. *The Add/Edit Zone window appears.*

Add/Edit Zone			×
	Zone Audio	5-Band Equalizer	
Living Room	Zone Max Volume 100	100Hz	0 db
Zone Configuration		the state of the s	1
Audio Output Type	· · · · ·	· · · · · ·	
Analog to Digital	Output Level Gain 0 db	330Hz	0 db
Audio Output		i i i i i	1 I
Video Output		· · · · ·	1 1
DSP Mix Stereo 🗸	Balance	1kHz	0 db
Subzone of None 💌		and the strength of the	1 - 1 - 1
Subzone Volume	0.00		
Turn On	Lip Sync Delay	3.3kHz	0 db
Bass C Default C Last	- · · · · ·	<u> </u>	1 I
Treble C Default C Last	- Zone Features		1
Volume Min 1 %	Group None V	10kHz	0 db
	WHM • Indude • Exclude	<u> </u>	1 I
Volumo Max	Page C Include C Exclude		1 I I
	Page Level		
· · · · ·		Save Save + Add	Cancel

Quick Reference: Add/Edit Zone – Zone Configuration						
Zone Name	The name of the zone as it appears in the g!Viewer.					
Audio Output Type	Defines the type of audio connection the zone will use. Choices are HDMI, Coax, Analog, and None.					
Analog to Digital	Enables routing of analog signals to digital outputs. Available when Audio Output Type is set to HDMI or Coax. When enabled a digital output is connected to an analog audio output, setting up a mirror. When enabled multi-channel content will no longer pass to the analog/digital mirror outputs.					
Audio Output	Sets the Audio Output connection on the gMV for the zone. The audio output options shown are based on the Audio Output Type setting.					
Video Output	Sets the HDMI Output connection on the gMV for the zone. Set to None for audio only zones.					

DSP Mix	Sets the audio outputs on the gMV to Stereo, Mono, Left only, Right only, or Swap the L/R channels.
Subzone of	Sets the master zone. When a master zone is set, all source and power selections made in either the master zone or subzone will track.
Subzone Volume	Set the subzone volume to be Independent or Synced with the master zone. This setting is only available if the Subzone of is being used.
Save	Saves the zone configuration and closes the Add/Edit Zone window.
Save + Add	Saves the zone configuration and adds an additional zone. This setting is only available after a second zone has been added.
Cancel	Exits the Add/Edit Zone window without saving any configuration changes. One zone must exist in the gMV node tree in order for this option to be available.

5. In the Audio Output Type drop-down menu select the type of connection used to output the zone audio. For this exercise select **HDMI**.

Add/Edit Zone		
Zone Name	Zone Audio	5-Band Equalizer
Living Room	20he Max Volume 100	100Hz 0 db
Zone Configuration	· · · · · · ·	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Audio Output Type		
Analog to Digital	Output Level Gain 0 db	330Hz 0 db
Audio Output		
Video Output 🗨		
DSP Mix Stereo 💌	Balance 0 db	1kHz 0 db
Subzone of None 💌		<u>, , , , , , , , , , , , , , , , , , , </u>
Subzone Volume	Lip Sync Delay 0 ms	
Turn On		3.3kHz 0 db
Bass C Default C Last		and the second
Treble C Default • Last	7 5	· · · · · ·
Volume Min 1 %	Croup None -	10kHz 0 db
	WHM Include C Evolute	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 7 · · · <u>·</u>	Page C Include C Exclude	
Volume Max 100 %	Page Level	
		Save Save + Add Cancel

6. When a zone will be distributing analog audio signals to digital outputs enable the Analog to Digital conversion. Select **Yes** in the drop-down menu for this exercise.

			Zone Audio						- 5-Band Ed	ualizer –			
Zone Name	Living Room		Zone Max V	olume				100	100Hz				0 db
Zone Configuration	,							<u> </u>					1000
Audio Output Type	HDMI	-						— J					
Analog to Digital	Yes	•	Output Lev	el Gain				0 db	33047				0 db
Audio Output	,		- C	•	·			1	550/12				1.000
Video Output			1					1	· ·				
			Balance					0 db	1				1
USP MIX	Istereo	<u> </u>	1	•	· _	1		<u> </u>	1kHz				
Subzone of	None		1		. –	1		1	<u>'</u>		<u> </u>		
Subzone Volume		~	Lip Sync De	lay				0 ms	1.1				
Turn On			1	1		1	÷.	1	3.3kHz				0 db
Bass C	Default	East	-						1		1 n 1	÷.	
Treble C	Default	East	- Zone Featu						1				
Volume Min		1 %	Group	i Co	None			.	10kHz				0 db
· [WHM		Indu	de	C	Exclude			1.4.1		
		100.8/	Page		C Inclu	de	C	Exclude			<u> </u>		,
volume max		100 %	Page Level										
		—_]		1	1		1	1	Sav	_	Save + Add		Cancel
	· ·		-					1	340	۶ I	Dave T Auu		Cancer

Note: When Analog to Digital is set to Yes an analog/digital mirror is setup and multi-channel content will not be passed to the analog/digital mirror outputs.

7. In the Audio Output drop-down menu select HDMI 1 + Analog 1.

Add/Edit Zone	-	×
Zone Name Living Room	Zone Audio Zone Max Volume 100	5-Band Equalizer
Zone Configuration Audio Output Type HDMI		
Analog to Digital Yes	Output Level Gain	330Hz 0 db
Video Output	Balance 0 db	
DSP Mix Stereo Subzone of None		1kHz 0 db
Subzone Volume	Lip Sync Delay	3.3kHz 0 db
Bass C Default G	Last	· · · · · · · ·
Volume Min	Zone Features Group None	10kHz 0 db
Volume Max	WHM C Include C Exclude	
	Page Level	Save Save + Add Cancel

Note: The Audio Output setting is where the Zone Audio Outputs are physically connected to on the gMV. Please note that if the zone's audio outputs are not physically connected to their assigned outputs the system will not function properly.

			Zone Audio				5-Band Equal	izer		
Zone Name	Living Room		Zone Max Volume			100	100Hz			0 dt
Zone Configuration			p i c			4	с	· · -		
Audio Output Type	HDMI	•	1 1			— J	1			
Analog to Digital	Yes	-	Output Level Gain	C.		0 db	330Hz			0 db
Audio Output	HDMI 1 + Analog 1	•	<u> </u>	· · ·		1				
Video Output	HDMI 1	•	1 I I I I			1		<u> </u>		
DSP Mix	Stereo	•	Balance			0 db	1kHz			0 db
Subzone of	None	-	· · ·	<u> </u>						
Subzone Volume			1 1 1			1]	-	
bublone volume	1		Lip Sync Delay			0 ms	2 244-	• •		, ,
Turn On			1 i 🗀 🐪			<u> </u>	5. SKHZ			10 00
Bass C	Default	 Last 	1 7 ·	1.1.1		1.1	· · · ·	<u> </u>	1	· · · ·
Treble C	Default	• Last	Zone Features				1			<u> </u>
Volume Min		1%	Group	None		•	10kHz			0 db
·j			WHM	Include	C	Exclude	1	· · · ·	1	i 1
Volume Max		100 %	Page	C Include	C	Exclude	1	· · -		
I I			Page Level							
		— j					Save	Save ±	0.dd	Concol

8. In the Video Output drop-down menu select HDMI 1.

Note: The Video Output setting is where the Zone's Video Output is physically connected to on the gMV. Please note that if the zone's video output is not physically connected to the assigned output the system will not function properly.

9. Leave the DSP Mix setting at Stereo.

Add/Edit Zone											x
			Zone Audio				5-Band Equi	alizer			
Zone Name	Living Room		Zone Max Volun	ne		100	100Hz			0 dt	
Zone Configuration			- i			<u> </u>				1	-
Audio Output Type	HDMI	•				—_]					-
Analog to Digital	Vec		Output Level Ga	ain		0 db	22011-				<u> </u>
Ande Ontent	line and the second			·			330HZ			1000	_
Audio Output	HDML 1 + Analog 1	-					1		· · ·		
Video Output	HDMI 1	•	Palance			0 db	1		. – .		
DSP Mix	Stereo	-	Dalarice			10 00	1kHz			0 dt	5
Subzone of	None	-							·		
Subzone Volume		-									-
	,	_	Lip Sync Delay			0 ms	3.3647			0 dt	b
Turn On			1 i			<u> </u>	0101012]	-
Bass C	Default	East	7 .				· · · ·	1	<u> </u>	1.1.1	
Treble C	Default	• Last	Zone Features						. – .	- <u>- 1</u>	
Volume Min		1%	Group	None		•	10kHz			0 db	b
			WHM	Include	0	Exclude	1		- a		.
		1	Page	C Include	0	Exclude	1	· ·			-
Volume Max		100 %	Page Level								
		<u> </u>	1			· · ·					
1		-	-				Save		5ave + Add	Cancel	

10. The **Subzone of** and **Subzone Volume** settings are not available until additional zones are added to the gMV in the g!Configurator Software.

Add/Edit Zone			x
Zone Name		Zone Audio	
Long Room		20ne Max volume 100 100Hz 0 db	
Zone Configuration			<u>.</u>
Audio Output Type HDMI	•	· · · · <u>-</u> · · · - · ·	
Analog to Digital Yes	•	Output Level Gain 0 db 330Hz 0 db	
Audio Output HDMI 1 + Analo	g 1 🔻		
Video Output HDMI 1	•		
DSP Mix Stereo	•	Balance 0 db 1kHz 0 db	<u>, </u>
Subzone of None	•		
Subzone Volume	-		*
, Turn On		Lip Sync Delay 0 ms 3.3kHz 0 db	<u>, </u>
Bass C Default	(Last		
Treble C Default	⊙ Last		
Volume Min	1%	Zone Features	_
		Group None	-
		WHM C Include C Exclude	
Volume Max	100 %	Page O Include O Exclude	
1 1 1 1 1 1	<u> </u>	Page Level	_
		Save Save + Add Cancel	

Note: The **Subzone of** allows a zone to be designated as the Master Zone in a zone/subzone configuration. When a Master Zone is assigned all source and power selections made in either the Master Zone or Subzone will track.

The **Subzone Volume** sets the subzone volume control to be independent (sources and power track) or synced to the Master Zone (sources, power, and volume track).

11. If no other settings are needed select **Save** to save the configuration and close the Add/Edit Zone window. For additional zone setting information proceed to Exercise 5.

System	Sources Gommunication Devices Gources	Audio Zone: Living	g Room					
Security	Video Displays	Name	Living Room					
Climate	E Integra DTR-60 5	System #	18059					
	T Sources	Universal Receiver	< NONE >			•		
Lighting	Ŧ 🕕 Zones	Display 1	< NONE >			•		
Content	🗏 🏧 ELAN gMV64 (RS-232)	Display 2	< NONE >			•		
Content	🛨 📇 Sources	Slave Zone 1	< NONE >			-		
Media	Cones	Slavo Zono 2	< NONE >			- 1		
Video	+ Cliving Room	Turn On Source						
VIGEO	Interface Groups	Turn On Source	NINONE 2					
Messaging		Hide Volume	NO					
Internetions.		Audio Return Input	< NONE >			~		
imgation		MV Outputs						
Pool Control		Audio Output Type	HDMI			-		
UPS		Analog to Digital	Yes			-	E	dit
		Audio Output	HDMI 1 + Ana	ilog 1		•		
Interface		Video Output	HDMI 1			-		
Input/Output		Source Configuration						
Event Manner		Source Display Name	From Zone	Show	Volume Contri			
		SAT TV	LOCAL	Show	<< THIS Z			
		BDP	LOCAL	Show	<< THIS Z			
		Apply						
		C Shirt						

Exercise 3: gMV Zone Turn On Settings

Overview The gMV UltraMatrix units feature Turn On settings for each zone to adjust Bass, Treble, and Turn On volume. When set up, the Turn On settings ensure that an end user will have the best possible sound when a zone is turned on. Exercise 3 will go over how to set up the Turn On setting for a gMV zone.

Note: The Turn On settings should be performed after the system is operational in order to properly test bass, treble, and turn on volume settings.

How To Set the Turn On Tone and Volume settings

- Add/Edit Zone Zone Audio 5-Band Equalizer Zone Name Living Room Zone Max Volume 100Hz 100 0 db Zone Configuration i. Audio Output Type HDMI -. . Output Level Gair 0 db • 0 db Analog to Digital Yes 330Hz HDMI 1 + Analog 1 • Audio Output 1 . HDMI 1 -Video Output Balance 0 db 0 db DSP Mix Stereo -1kHz • Subzone of . Subzone Volume . Lip Sync Delay 0 ms 0 db 3.3kHz Turn Or C Default Bass • Last . Treble C Default • Last Zone Features 1% 0 db Volume Min 10kHz None • Group Include WHM Exclude C . Page 100 % Volume Max Page Level Save Cancel
- 1. Locate the Turn On settings section in the Add/Edit Zone window.

Quick Reference: Add/Edit Zone – Turn On						
Bass	Default – returns the Bass setting to 0dB, or flat					
	Last – leaves the Bass setting as set in the g!Viewer					
Treble	Default – returns the Treble setting to 0dB, or flat					
	Last – leaves the Treble setting as set in the g!Viewer					
Volume Min	The minimum volume level for a zone when it is turned on. If the zone is turned off with the volume below this point, it will return to this level when reactivated.					
Volume Max	The maximum volume level for a zone when it is turned on. If the zone is turned off with the volume above this point, it will return to this level when reactivated.					

- 2. Click the desired Bass Turn On setting. For this exercise leave set to Last.
- 3. Click the desired Treble Turn On setting. For this exercise leave set to Last.
- 4. Set the Turn On Volume Minimum to a comfortable level. For this exercise set to 30%.
- 5. Set the Turn On Volume Maximum to a comfortable level. For this exercise set to **40%**. *When finished your screen should look similar to the below image.*

Add/Edit Zone		×.
	Zone Audio	- 5-Band Equalizer
Zone Name Living Room	Zone Max Volume 100	100Hz 0 db
Zone Configuration	, , , , <u>,</u>	
Audio Output Type HDMI 🗸	· · · · · · ·	· · · · · ·
Analog to Digital Yes 💌	Output Level Gain 0 db	330Hz 0 db
Audio Output HDMI 1 + Analog 1		1 1 1 1 1 1
Video Output HDMI 1		
DSP Mix Stereo 💌	Balance 0 db	1kHz 0 db
Subzone of None 💌		the state of the s
Subzone Volume		· · · · · · ·
Turn On	Lip Sync Delay	3.3kHz 0 db
Bass C Default 🤆 Last		<u> </u>
Treble C Default C Last	Zana Fasturas	
Volume Min 30 %	Group None -	10kHz 0 db
	WHM © Indude O Exclude	
	Page C Include C Exclude	
Volume Max	Page Level	
		Save Save + 0dd Cancel
]	

Exercise 4: gMV Zone Audio Settings

Overview The gMV UltraMatrix units feature adjustable settings for Maximum Zone Volume, Output Level Gain, Balance, and Lip Sync Delay. These settings are used to ensure that the audio played in a zone will provide an enjoyable listening experience. Exercise 4 will go over how to set up the Zone Audio settings for a gMV zone.

Note: The Zone Audio settings should be performed after the system is operational in order to properly test Zone Max Volume, Output Level Gain, Balance adjustments, and Lip Sync Delay.

How To Adjust the Zone Max Volume and Lip Sync Delay settings

Add/Edit Zone			x
	Zone Audio	5-Band Equalizer	_
Zone Name Living Room	Zone Max Volume 100	100Hz 0 db	
Zone Configuration	<u>.</u>	the state of the s	
Audio Output Type HDMI 🗸	· · · · · ·	· · · · · ·	-
Analog to Digital Yes 💌	Output Level Gain 0 db	330Hz 0 db	5
Audio Output HDMI 1 + Analog 1 💌			
Video Output HDMI 1	· · · · · · · · ·		-
DSP Mix Stereo 💌	Balance 0 db	1kHz 0 db	5
Subzone of None 💌			
Subzone Volume		· · · · ·	
Turp On	Lip Sync Delay	3.3kHz 0 db	5
Bass C Default @ Last			
Treble C Default @ Last			
Volume Min 30 %	Zone Features	10kHz 0 db	5
	Group None		
	Page C Include C Exclude		-
Volume Max 40 %	Page Level		
		Course Course Add Course	
	- · · · ·	Save Save Add Cancel	

1. Locate Zone Audio settings in the Add/Edit Zone window.

Quick Reference: Add/Edit Zone – Zone Audio						
Zone Max Volume	Sets the maximum volume level for a zone. This setting may not be lower than 40.					
Output Level Gain	Adjusts the output level for the zone +/- 24dB in 1dB increments. This setting is useful when sub-zoning and the subzone volume levels need to be quieter or louder than the main zone.					
Balance	Adjusts the gain between the left and right channels to set the playback position in the stereo field.					
Lip Sync Delay	Sets the delay of the analog and analog/digital mirror outputs for the zone output in ms. A total of 170ms adjustment is available between both source input and zone output adjustments.					

- 2. Set the Zone Max Volume as desired for the zone. For this exercise leave at 100.
- 3. Set the Output Level Gain as desired for the zone. For this exercise leave at 0 dB.
- 4. Set the Balance as desired for the zone. For this exercise leave at 0 dB.
- 6. Set the Lip Sync Delay to sync the audio with the video signal in the zone. For this exercise **leave** at **0 ms.** *When finished your screen should look similar to the below image.*



Note: The Lip Sync Delay setting will not exceed 170 ms. This includes both source input Lip Sync Delay and Zone Lip Sync Delay. Lip Sync Delay should be performed in the zone with an active video source to ensure best results.

Exercise 5: gMV Zone Feature Settings

- *Overview* The gMV UltraMatrix units have adjustable Zone Features that include Zone Grouping, WHM inclusion, Page/Doorbell Inclusion, and Page/Doorbell Level adjustments. These settings are used to make the system easier to navigate in the g!Viewer and thus become more user friendly. Exercise 5 will go over how to set up the Zone Features settings for a gMV zone.
- *How To* Set up the Zone Groups, WHM, and Paging/Doorbell Features
 - 1. Locate Zone Features in the Add/Edit Zone window.

Add/Edit Zone	
	Zone Audio 5-Band Equalizer
Zone Name Living Room	Zone Max Volume 100 100Hz 0 db
Zone Configuration	
Audio Output Type HDMI 💌	
Analog to Digital Yes 💌	Output Level Gain 0 db 330Hz 0 db
Audio Output HDMI 1 + Analog 1	
Video Output HDMI 1	
DSP Mix Stereo 💌	Balance 0 db 1kHz 0 db
Subzone of None 💌	
Subzone Volume	
Turn On	Lip Sync Delay 0 db
Bass C Default @ Last	
Treble C Default 🕫 Last	
Volume Min 30 %	Zone Features
	WHM C Indude C Exclude
1	Page C Include C Exclude
Volume Max	Page Level
	Save Save + Add Cancel

Quick Reference: Add/Edit Zone – Zone Features					
Group	Assigns a zone group to a zone. Any zone not sub-zoned maybe part of a zone group. Zones may be part of WHM and 1 zone group.				
	gMV64 – 2 zone groups				
	gMV88 – 4 zone groups				
	gMV1616 – 8 zone groups				
WHM (Whole House Music)	Set to Include or Exclude a zone from WHM mode. Default setting is Include.				
Page	Set to Include or Exclude a zone from Page/Doorbell features. Default setting is Exclude.				
Page Level	Set the volume level in the zone when a Page or Doorbell is initiated. Default setting is 75%.				

- 2. In the Group drop-down menu select 1.
- 3. Click the desired WHM setting. For this exercise leave set to Include.
- 4. Click the desired Page setting. For this exercise set to Include.
- 5. Set the **Page Level** to **75%**. When finished your screen should look similar to the below image.



Note: The Page and Page Level settings are only available when Paging is set to Yes in the ELAN gMV properties pane. Page Level adjustments should be performed after the system is operational in order to properly test the level settings.

Exercise 6: gMV EQ Settings and Zone Settings Page

Overview The gMV UltraMatrix units have a 5-Band Equalizer per zone's analog, or analog/digital mirrored, output. The 5-Band EQ's adjustable frequencies are 100Hz, 330Hz, 1kHz, 3.3kHz, and 10kHz. Each band may be adjusted +/- 20dB in 1dB increments. Bass and Treble adjustments, made from the g!Viewer, do not permanently effect the EQ settings. Exercise 6 will go over how to set up the gMV EQ.

The optional Settings interface gives the user access to less commonly used functions, such as bass, treble, Whole House Audio, Do Not Disturb, and loudness.

Note: The EQ settings are only available in the g!Configurator Software and should be performed after the system is operational, while in the audio zone, in order to ensure optimum performance.

How To Set the EQ for the zone and add the zone settings page

Add/Edit Zone												
			Zone Audio				5-Band Eq	ualizer —				
Zone Name	Living Room		Zone Max Volun	ne	10	00	100Hz					0 db
Zone Configuration			() ()			4	- C			. · ·		<u> </u>
Audio Output Type	Coax	•	1 1			-	1					,
Analog to Digital		•	Output Level Ga	ain	0 d	b	330Hz					0 db
Audio Output		Ŧ	<u> </u>	<u> </u>		1						· · ·
Video Output	HDMI 1	•	1.1.1.1.1.1	. – .	· · _	·				<u> </u>		
DSP Mix	Stereo	-	Balance		0 d	b	1kHz					0 db
Subzone of	None			<u> </u>		-						<u> </u>
Subzone Volume			1	. – .		<u> </u>	. <u> </u>			<u> </u>		
	1		Lip Sync Delay		0 m	ns	3 3647		·			0 db
Turn On				· · ·		-	5.51312					1
Bass C	Default	• Last				·	<u> </u>		<u> </u>	<u> </u>		
Treble O	Default	• Last	Zone Features				1	1	. –	· ·		1
volume Min	- i - i - i - i - i - i - i - i - i - i	1 30 78	Group	1		-	10kHz					0 db
			WHM	Include	C Exdu	ude	<u> </u>			<u> </u>	1	<u>'</u>
Volume Max		40 %	Page	Include	CExdu	ude	1.1			· ·		1.1
1 1	, i i		Page Level		75	%		_	-		-	
	· · ·					-	Save		Save +	+ Add	C	Cancel
											_	

1. Locate the 5-Band Equalizer in the Add/Edit Zone window.

Quick Reference:	Add/Edit Zone -	– 5-Band	Equalizer
------------------	-----------------	----------	-----------

5-Band	Adjusts the EQ for a zone from +/- 20dB in 1dB increments.
Equalizer	Available adjustment bands are 100Hz, 330Hz, 1kHz, 3.3kHz,
	and 10kHz. EQ settings are unaffected by the user interface bass
	and treble settings.

2. Adjust the EQ to compensate for null, or hot, spots in the room.

3. When finished select Save.

System	+ 😴 Communication Devices	Audio Zone: Livin	g Room			
Security		Name	Living Room			
Climate	📕 📼 Integra DTR-60.5	System #	18059			
	🖪 🥌 Sources	Universal Receiver	< NONE >		-	
Lighting	T () Zones	Display 1	< NONE >		-	
Content	ELAN gMV64 (RS-232)	Display 2	< NONE >		-	
Madia	🗐 🛈 Zones	Slave Zone 1	< NONE >		-	
	🔠 🐧 Living Room 🕨	Slave Zone 2	< NONE >		•	
Video	+ Interface Templates	Turn On Source	< NONE >		•	
Messaging	Interface Groups	Hide Volume	No		*	
		Audio Return Input	< NONE >		~	
Irrigation		MV Outpute				
Pool Control		Audio Output Type	HDMI		-	
		Analog to Digital	Yes		•	
UPS		Audio Output	HDMI 1 + Analog 1			Edit
Interface		Video Output	HDMI 1		-	
Input/Output						
inputOutput		Source Configuration				
Event Mapper		Source Display Name	From Zone Show	Volume Contri		
		BOP	LOCAL Show			
		Contraction of the second seco				
		Apply.				

4. To add the optional Zone Settings page, right-click the Living Room zone and select **Create Settings Page for this Zone**.

System	+ 😨 Communication Devices + 🥌 Sources	Audio Zone: Livin	g Room			
Security	💻 🗖 Video Displays	Name	Living Room			
Olimate	E Living Room LG TV	System #	18059		-	
Climate	Bedroom LG TV Sharp Theater TV	Universal Receiver	< NONE >		-	
Lighting	F IR Display	Display 1	< NONE >		•	
Contract	🔳 💻 Projector	Display 2	< NONE >		•	
Content	Zone Controllers	Slave Zone 1				
Media	🕂 🥅 Integra DTR-60.5	Slave Zone 1				
5.P.1	ELAN gMV64 (RS-232)	Slave Zone Z	< NONE >			
Video	Sources (Source 01) Satellite TV	Turn On Source	< NONE >		*	
Messaging	Source 02) BDP	Hide Volume	No			
	Source 03)	Audio Return Input	< NONE >		*	
Irrigation	🗏 📢 Zones	MV Outputs				
Pool Control	I Living Room	Add New Zone			-	
	+ Interface Croups	Create Event Man Ec			-	
UPS	intenace Groups	Create Event Map 10				dit
Interface		Show Virtual Zone				
an anna an an		Create Settings Page	For this Zone			
Input/Output		Source Conliguration				
Event Mapper		Source Display Name	From Zone Show V	olume Cor		
		SAT TV	LOCAL Show	<< THIS		
		BDP	LOCAL Show	<< THIS		

5. A new entry is added the Living Room zone in the System Tree called Living Room: Settings. Click the plus (+) sign to the left of **Living Room: Settings** to expand the list. a. Select Large Format, and then select Large Landscape(WIDE) to display a representation of the settings page for this zone.

System	+ Communication Devices + Communication Devices	Page Layout	: Living Room: Se	ttings	
Security	Video Displays Gone Controllers				
Climate	Integra DTR-60.5				
Lighting	T (Zones	8			
Content	ELAN gMV64 (RS-232)				
Media	(Source 01) Satellite TV (Source 02) Interface: BDP			8200	
Video	Source 03)			Tate	
Messaging	E (Living Room				
Irrigation	Large Format				
Pool Control	I Small Format			Giolp Ox/Off	0N0
UPS	Interface Templates Interface Groups				
Interface					
Input/Output					
Event Mapper					
			CAPE (STANDARD)	LARGE LANDSCAPE (WIDE)	LARGE PORTRAIT (STANDARD)
		A A	ply		
		<i>8</i>)

b. Select **WHM** on the left of the Interface Layout. *The control is highlighted in yellow and the Audio Mode Control Properties window opens.*

System =	Communication Devices	Page Layout : Living Room:	Settings	
Audio Mode Control P	roperties	Picture		
Text Color 🔽 Default Face Color 🔽 Default				
Radius Cofeut			im.	
Shading Default			Tradie	
Style Text Size T Default Options Connect To	WHM Border 12 pt Uliya Align Universal Function Living Room	VIAN	Soup De Diff	DND
Event Mapper				
		LARGE LANDSCAPE (STANDAR)	D) LARGE LANDSCAPE (WIDE)	LARGE PORTRAIT (STANDARD)
		Apply		

- c. Note the following in the Audio Mode Control Properties window:
 - The Name field is set to "WHM". This corresponds to the label on the control.
 - The Style drop-down is set to WHM.
 - The **Connect To** drop-down is set to "Living Room", indicating that this is the zone the toggle controls:

Audio Mod	e Control Pro	operties		2
Name	WHM			Picture
Text Color	✓ Default			
Face Color	✓ Default			
Radius	🗖 Default			
Shading	🗖 Default			
Shading	🔲 Default			
Style		I VVHM	Border	<u> </u>
Text Size	Default	12 pt	Align	–
Options			Function	~
Connect To		Living Room		-
🔽 Default	Behavior			

Note: The Settings page is fully customizable and any of the objects on this page can be moved and resized so that controls can be added if needed.

6. Repeat Exercises 1 – 6 to add the Bedroom zone. Use the settings below for setting up the Bedroom zone.

Zone	Audio Output Type	Analog to Digital	Audio Output	Video Output
Bedroom	Analog	N/A	Analog 2	HDMI 2

Exercise 7: Display Setup

Overview Once all the Zone settings have been configured the video displays may be added to a zone.

This exercise will demonstrate how to assign video display(s) for the Zone Controller. This step is performed after the gMV zone has been configured.

Note: The exercise assumes that display devices have already been created in the g! Configurator. For information on how to add a video display in the Media tab please see the g!Configurator Training Guide, Lesson 7 Distributed A/V Part 2.

How-to Assign a video display.

1. Select the Living Room Zone and locate the **Display 1** drop-down field.



a. In the **Display 1** drop-down menu select the TV being used in the zone. *This step* will use a **previously created** display labelled **Living Room TV**.

System	+ Communication Devices	Audio Zone: Livin	g Room		
Security	Video Displays	Name	Living Room		
Climate	H Bedroom TV	System #	18059		
Lighting	E Cone Controllers	Display 1	Living Room TV	· · · · · · · · · · · · · · · · · · ·	
Content	🗐 📕 Sources 🗐 🕼 Zones	Display 2	< NONE >	<u>·</u>	
Media	ELAN gMV64 (RS-232)	Slave Zone 1 Slave Zone 2	< NONE >	-	
Video	(Source 01) Satellite TV	Turn On Source	< NONE >		
Messaging	(Source 03) AppleTV	Hide Volume Audio Return Innut	No ARP 1 (new source)	• •	
Irrigation	Cones	MV Outputs			
Pool Control	Living Room: Settings Bedroom	Audio Output Type	HDMI	•	
UPS	+ Interface Templates	Analog to Digital	Yes	<u> </u>	Edit
Interface		Video Output	HDMI 1 + Analog 1 HDMI 1	<u> </u>	
Input/Output		Source Configuration			
Event Mapper		Source Display Name	From Zone Show	Display ODisplay 1 Audio	VolVolume Contro
		BDP	LOCAL Show	Don't Don't	<< THIS Z
		AppleTV	LOCAL Show	Don't Don't	<< this z
		Apply	_		
		Арріу			

b. Select **Apply** to add the Video Display to the zone. *Notice the Audio Return Input populates and the gMV Sources node adds a source.*

System	+ 😴 Communication Devices	Audio Zone: Livin	g Room				
Security	Video Displays	Name	Living Room				
Climate	Elving Room TV	System #	18059				
Lighting	E Integra DTR-60.5	Display 1	Living Room	TV	<u>·</u>		
Content	F Sources	Display 2	< NONE >		•		
Media	ELAN gMV64 (RS-232)	Slave Zone 1 Slave Zone 2	< NONE >	_			
Video	Gource 01) Satellite TV	Turn On Source	< NONE >		- -		
Messaging	Source 02) BDP	Hide Volume Audio Return Innut	No (Source 04) 4	RP 1	-		
Irrigation	Gource 04) Audio Return from:	MV Outputs	(course ou)				
Pool Control	Iving Room Iving Room: Settings	Audio Output Type	HDMI		<u>.</u>		
UPS	Bedroom Interface Templates	Analog to Digital	Yes	alog 1	<u> </u>	Edit	
Interface	Interface Groups	Video Output	HDMI 1	alog i	<u> </u>		
Input/Output		Source Configuration					
Event Mapper		Source Display Name SAT TV BDP AppleTV AppleTV	From Zone LOCAL LOCAL LOCAL LOCAL	Show Show Show Show	Display ODisplay 1 Audio 1 Dont Dont Dont Dont Dont Dont	/olWolume Contr << THIS Z << THIS Z << THIS Z	
		1)

Note: When adding a Video Display to a zone a Source is automatically added to the ELAN gMV Sources node for the Audio Return Program (ARP). A Source Device will need to be added to the ARP source in order for it to be visible/selectable in the g!Viewer Below lists the amount of ARP sources available with each gMV unit:.

- gMV1616 16 ARP Source Options Available
- gMV88 8 ARP Source Options Available
- gMV64 4 ARP Source Options Available
- 2. Locate the Source Configuration section at the bottom of the Living Room Zone properties pane.

System	+ 😴 Communication Devices + 🥌 Sources	Audio Zone: Living	g Room					
Security	Video Displays	Name	Living Room					
Climate	Eving Room TV Bedroom TV	System #	18059					
	Zone Controllers	Universal Receiver	< NONE >			-		
Lighting	📰 🚥 Integra DTR-60.5	Display 1	Living Room	TV		•		
Content	Sources Gones	Display 2	< NONE >			•		
Media	ELAN gMV64 (RS-232)	Slave Zone 1	< NONE >			-		
	E Sources	Slave Zone 2	< NONE >			-		
Video	Source 01) Satellite 1V	Turn On Source	< NONE >			-		
Messaging	Source 03) AppleTV	Hide Volume	No			-		
Imagina	(Source 04) Audio Return from: L	Audio Return Input	(Source 04) A	RP 1		Ÿ		
inguton	E Cliving Room	MV Outputs	-					
Pool Control	III III Living Room: Settings	Audio Output Type	HDMI			-		
UPS	() Bedroom	Analog to Digital	Yes			-	Edit	Shine and the second
Interface	Interface Templates	Audio Output	HDMI 1 + Ana	log 1		-		
intendee		Video Output	HDMI 1			-		
Input/Output		Source Configuration						
Event Mapper		Source Display Name	From Zone	Show	Display ODisplay 1 A	udio Vol	Volume Contro	
		SAT IV	LOCAL	Show	Don't Don't		<< THIS Z	
		AppleTV	LOCAL	Show	Don't Don't		<< THIS Z	
		Apply						

a. For the SAT TV source, right click in the Display On/Off column.

Source Lontiduration						
Source Display Name	From Zone	Show	Display On/Off	Display 1 Input	Audio Volume	Volume Control
SAT TV	LOCAL	Show	Don't Change	Don't Change		<< THIS ZONE >>
DUP	LUCAL	Snow	Don't Change	Don't Unange		<< THIS ZONE >>
AppleTV	LOCAL	Show	Don't Change	Don't Change		<< THIS ZONE >>

b. Select **Turn On** in the pop-up menu.

Source Configuration						
Source Display Name	From Zone	Show	Display On/Off	Display 1 Input	Audio Volume	Volume Control
SAT TV	LOCAL	Show	Turn On	Don't Change		<< THIS ZONE >>
BDP	LOCAL	Show	Don't Change	Don't Change		<< THIS ZONE >>
AppleTV	LOCAL	Show	Don't Change	Don't Change		<< THIS ZONE >>

c. In the **Display 1** Input column right click and **select the appropriate input** being used on the video display. For this step use **Input HDMI 1**.

Audio Volume	Volume Control
	<< THIS ZONE >>
	<< THIS ZONE >>
	<< THIS ZONE >>
	Audio Volume - -

d. Repeat Steps A – C for the BDP and AppleTV source devices. When finished the Source Configuration section should look similar to the image below. Use these settings for the BDP and AppleTV sources:

```
BDP –
Display On/Off = Turn On
Display 1 Input = Input HDMI 2
AppleTV –
Display On/Off = Turn On
Display 1 Input = Input HDMI 3
```

e. When finished click **Apply** to save the configuration settings made.



Notes:

Lesson 4 gMV in the g!Viewer



Overview

This lesson goes over terminology and the steps used in the g!Configurator Software for setting up a gMV unit.

You will learn:

- How to add gMV zones to the g!Viewer
- To check the gMV operation from the g!Viewer

Sample House

Our sample house will be configured with 3 A/V sources and two distributed A/V zones:

- Source 1: Satellite TV
- Source 2: Blu-Ray Player
- Source 3: AppleTV
- Zone 1: Living Room
- Zone 2: Bedroom

Requirements

- Windows based PC
- gMV unit, g! system controller, and g!Tools.

Exercise 1: Adding Zones to the Viewer

- *Overview* At this point, you have added in a Zone Controller with a total of 2 zones. However, only two of those zones will actually be used—the Living Room and the Bedroom. The next step is to remove the unused zones from the Viewer so that the homeowner sees an uncluttered and intuitive interface.
- *How-to* To remove the unused zones from the Viewer interface:
 - 1. Select the **Interface** tab in the Configurator.
 - Under Interface Devices (TouchScreen) near the top of the System Tree, click the plus (+) sign to the left of the Windows option to expand the list.
 - 3. Select **Tab Config: Media System**. The list of available/visible zones for the media system display in the properties window on the right.

System	Communication Devices	Tab Layout My PC: Media	System	
Security	SELAN KP7	Default Tab	< SELECT >	•
	See HHR	Navigation Mode	Horizontal List	•
Climate	Interface Devices (TouchScreen)	Navigate to Default Page First	No	
Liahtina		Navigate to Delaute Page First		
99	Power Schome			
Content	Liser Interface	Available Tabs		Visible Tabs
	Advanced Settings	Theater		<< NO TABS >>
iviedia	Tab Config: Security System	Zone 2		
Video	Tab Config: Lighting System	Zone 3		
	📕 Tab Config: Media System	Living Room		
Messaging	🔒 Tab Config: Climate System	Bedroom		
1	📌 Tab Config: Messaging		Add Tab >>	
ingation	👷 Tab Config: Irrigation System		Aut Tab >>	
Pool Control	🔰 Tab Config: Video System		<< Remove Tab	
	Tab Config: Pool Control		Chellen internet internet internet	
UPS	Lab Config: Photos			
Interface	TP7 Living Room		Move Up	
intenace	Robert's iPad3			
Input/Output	- Interface Devices (OSD)		Move Down	
	🕂 🗖 OSD	-		
Event Mapper	Interface Devices (TS2)			
	Interface Devices (HHR)			
	🕂 💶 Living Room@192.168.0.10			
	Interface Devices (KP7)			
	Bedroom@F8:57:2E:00:3D:B6			
	HHR Zone Headers			
	Remote Users			
		Apply		
)

Visible Tabs= zones that appear in the Viewer for the homeowner to use.

Available Tabs= zones that are not currently displayed in the Viewer.

Since the Living Room and Bedroom zones are active in our Sample House, we need these zones to be in the **Visible Tabs** list. All of the remaining zones can be put in the Available tabs column hiding them from the viewer interface.

4. In the **Available Tabs** list, select **Living Room**, then press and hold your keyboard shift button for multi-select and click **Bedroom** to select all zones to be added to the selected viewer.

System	Se VIANet	Tab Layout My PC: Media System			
Security	😨 ELAN KP7	Default Tab	SELECT >	-	
· · · · ·	🤹 HHR	Nexiseties Made			
Climate	📃 🗖 Interface Devices (TouchScreen)	Navigation Mode	Holizofital List		
1 interior	🕂 🗖 Default	Navigate to Default Page First	No		
Lighting	🖃 🔲 My PC				
Content	Power Scheme User Interface	Available Tabs		Visible Tabs	
Media	Advanced Settings	Theater		Living Room	
media	Tab Config: Security System	Zone 2		Bedroom	
Video	🐤 Tab Config: Lighting System	Zone 3			
	📕 Tab Config: Media System				
Messaging	🛔 Tab Config: Climate System				
Irrigation	🐔 Tab Config: Messaging		<< deT bbA	1	
ingation	Tab Config: Irrigation System		Add Tab >>		
Pool Control	Iab Config: Video System		<< Remove Tab		
	The Config: Pool Control		~		
UPS					
Interface	TP7 Living Room		Move Up		
intenace	+ Robert's iPad3			1	
Input/Output	Interface Devices (OSD)		Move Down		
	🗐 🗖 OSD	-			
Event Mapper	Interface Devices (TS2)				
	📃 🔲 Interface Devices (HHR)				
	🕂 🔲 Living Room@192.168.0.10				
	📃 🗖 Interface Devices (KP7)				
	Bedroom@F8:57:2E:00:3D:B6				
	HHR Zone Headers				
	E Remote Users				
	Admin	Apply			
		(C			

5. Click the **Add Tab >>** button then click **Apply**. Your screen should look similar to below.

Notes about adding and removing tabs:

- Working with tabs on the Interface tab in the Configurator only adds/removes the zone from the Viewer on a per-screen basis. The zone is not deleted and can be added back into the Viewer at any time if the homeowner would like to expand their system.
- 2) Multiple zones can be added or removed at one time. Press and hold the **CTRL** key on your keyboard and click to select the desired zones then click the Add Tab, or Remove Tab, button.
- 3) Each touch screen must be configured separately. In an actual system, each touch screen will have its own listing beneath the Default listing, and zones will need to be removed from each one individually. See the later lesson, *GUI and Interfaces* for more information.

Exercise 2: Check the Viewer

- *Overview* In the previous lessons and exercises you used the Configurator to set up the ELAN Media system and interfaces. In this exercise you will finally check your configuration in the Viewer.
- How-to1. Click the Restore button in the upper-right corner of the Configurator window to exit Full Screen Mode.



- 2. On the **Media** tab, right-click the **Living Room** zone on the **ELAN gMV64** and select **Show Virtual Zone**. *The Living Room Virtual Zone will be displayed.*
- 3. From the g!Tools My Systems screen, click the **Viewer** button. The Viewer interface displays the **Home** page.
- 4. Click the **g!** button in the upper right to access the main systems menu, then click **Media** to view the available media zones.

g!	💿 All Media							
		Living Room	Bedroom					
		- ∇ Δ	- ⊽ ∆					
		∆ ⊽	∆ ⊽					

5. Click the **Living Room** icon to view the Living Room user interface, click Source at the bottom of the screen to display the sources.

g!	0		3						
🔳 Sour	Source								
				ć					
		SAT TV	BDP	AppleTV					
					_				
OFF		SOURCE	*	X	V	Δ			

6. Arrange the Viewer and the Virtual Zone on your desktop so that both are visible at the same time:

Living Room	<u>g!</u>	O		iving Roon	n 🕨		<u>نې</u>
Power Off On Source Source 1 Source 2 Source 3 Source 4 Source 5 Source 6 Source 7 Source 8	Sour	rce	SAT TV	Eiving Room	Apple TV		
	OFF		SOURCE		X	V	Δ

On this screen notice:

- The Sources are listed in the center of the Viewer.
- The Source Names and Icons match those selected in previous exercises.

7. Click the **SAT TV** source button. The SAT TV interface displays.

Notice that the icon selected for the source indicates that this source is selected in this zone. Also note that the Living Room Virtual Zone switches to "On".



8. Click the **Source** button at the bottom, select the **BDP** source. *The BDP interface displays, the Living Room Virtual Zone changes to "Source 2", and the source indicator (icon and name) to the right of the Living Room heading changes.*

Living Room	🥑 🥑 🚽 Living	g Room 🕨	<u>نې</u>
Off On Source 5 Source 1 5 Source 2 5 Source 3 5 Source 5 5 Source 6 5	Home Pop Up Menu Menu Options		
Source 7	T Menu OK Return OK Option	1 2 4 5 7 8 Clear 0 Er	3 6 9 1ter
	OFF 😔 BDP	▼ X1	Δ

 Click the Source button at the bottom, select the AppleTV source. The AppleTV interface displays, the Living Room Virtual Zone changes to "Source 3", and the source indicator (icon and name) for the Living Room changes.

Living Room X	g!	-	Living Room	3
Off On Source Source 1 Source 2 Source 4 Source 5 Source 6 Source 7 Source 8				
	OFF	🔹 AppleT	v ▼ ¥ ⊽	Δ

10. Click the **Settings** button . The settings interface opens, providing access to Bass, Treble, Whole House Music, Group On/Off, and Do Not Disturb functionality.

g!	0		Living	Room	•		ŝ		
සි Settings									
			Ba	•					
			Tret	le					
	WHM	3 6	Group	On/Off		DND			
OFF	🍵 Apple	тv		•	X	V	Δ		

11. Click the **Settings** button again to return to the Living Room Theater page.

Notes:

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Lesson 5 gMV Commissioning



Overview

This lesson goes over how to complete the gMV installation by commissioning the video sources with the video displays.

You will learn:

- How to lock the EDID
- How to replace an EDID
- How to clear the EDID

Sample House

Our sample house will be configured with 3 A/V sources and two distributed A/V zones:

- Source 1: Satellite TV
- Source 2: Blu-Ray Player
- Source 3: AppleTV
- Zone 1: Living Room
- Zone 2: Bedroom

Requirements

- Windows based PC
- gMV unit, g! system controller, and g!Tools.

Exercise 1: Commissioning

- *Overview* Once all zones and sources are configured the UltraMatrix switcher must be commissioned, negotiating the EDID and HDCP keys for all displays and sources. This exercise will walk you through locking EDID information.
- *How-to* Lock the EDID information
 - 1. Select an HDMI source in a zone. Wait for a picture to appear on the video display in the zone and select the next HDMI source in the zone.

Note: In a new installation, the first time a source is routed to a display the EDID and HDCP negotiation can take up to **30 seconds** per source.

- 2. Repeat step 1 in each zone for each additional HDMI source.
- 3. Proceed to the next zone and repeat steps 1 and 2. Once all the HDMI sources in each zone have been commissioned proceed to step 4.
- 4. Open the **g!Configurator** and navigate to the **ELAN gMVXXXX (RS-232)** node in the Media Tab's System Node Tree.
- 5. In the properties pane **locate and select** the **Lock EDID** button. *The Lock EDID button changes to Unlock EDID.*



Note: Once Lock EDID is selected the gMV locks the EDID table and writes the HDCP keys to the HDMI processors.

6. Verify operation in each zone and backup your project when finished.

3

Exercise 2: Replacing an HDMI Device

- *Overview* When an HDMI device is replaced the system will need to be re-commissioned. The steps below will walk you through how to re-commission a device to the gMV.
- *How-to* Replace an HDMI device
 - 1. Open the **g!Configurator** and navigate to the **ELAN gMVXXXX (RS-232)** node in the Media Tab's System Node Tree.
 - 2. In the properties pane locate and select the Unlock EDID button.

System	+ 😴 Communication Devices + de Sources	Zone Controller : ELA	N gMV64 (RS-232)	
Security	🕂 🗖 Video Displays	Name	ELAN gMV64 (RS-232)	
Climate	Zone Controllers	System #	8027	
	F Sources	Driver Version	7.1 Build 662.0 Rel	
Lighting	🔳 🛈 Zones	Device Type	ELAN gMV64 (RS-232)	
Content	ELAN gMV64 (RS-232)	Communication Device	gMV	<u>-</u>
	Sources Cones			
Media	Living Room	Paging	No	-
Video	Bedroom	Sense Input	< SELECT >	
	🕂 🚦 Interface Templates			
wessaging	intenace Groups		Unlock EDID	
Irrigation				
Pool Control			Clear EDID	L
UPS			Factory Reset the UltraMatrix	
Interface				
Input/Output				
Event Mapper				
		6 Annie		
		Арру		

 The Clear EDID button is now available. Select the Clear EDID button to erase all EDID and HDCP table information from the gMV unit.

System	+ Sources	Zone Controller : ELA	N gMV64 (RS-232)
Security	Video Displays Zope Controllers	Name	ELAN gMV64 (RS-232)
Climate	E Integra AVR	System # Driver Version	8027 7.1 Build 662.0 Rel
Lighting	THE COULCES	Device Type	ELAN gMV64 (RS-232)
Content	ELAN gMV64 (RS-232)	Communication Device	gMV 👤
Media	 Cones Living Room 	Paging	No
Video	Bedroom	Sense Input	< SELECT >
Messaging	Interface Groups		
Irrigation			Lock EDID
Pool Control			Clear EDID
UPS			Factory Reset the UltraMatrix
Interface			
Input/Output			
Event Mapper			
		Apply	

4. Repeat steps 1 - 6 in How-to Lock the EDID information above.

4

Exercise 3: Factory Reset gMV

Overview In some instances it may be necessary to Factory Reset the gMV unit, such as if you move a gMV unit from one project to another. A factory reset of the gMV unit removes all configurations previously made to the unit and restores the unit to its factory default settings.

How-to Factory Reset the gMV

- Before removing the gMV from a project, open the g!Configurator and navigate to the ELAN gMVXXXX (RS-232) node in the Media Tab's System Node Tree.
- 2. In the properties pane locate and select the Unlock EDID button.



3. Select the **Factory Reset the UltraMatrix** button to restore the gMV unit to its factory defaults.



4. Once the factory reset is complete the gMV unit is ready for installation in the new project. Repeat Exercise 1 to commission the gMV when ready.

Notes:
