# Universal Control 1.6, StudioLive<sup>™</sup> Remote 1.3, and QMix<sup>™</sup> 1.1

Addendum for StudioLive Mixers





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#### Introduction 1.1

#### 1.0 Overview

#### 1.1 Introduction



PreSonus is proud to introduce the Universal Control 1.6 update for all StudioLive<sup>™</sup>-series mixers (16.0.2, 16.4.2, and 24.4.2). This addendum provides complete information for Universal Control 1.6 (including Virtual StudioLive), StudioLive Remote 1.3, and QMix<sup>™</sup> 1.1.

We encourage you to contact us with questions or comments regarding this update. You can reach us by email at techsupport@presonus.com or call us at 1-225-216-7887 between 9 a.m. and 5 p.m. Central Time (GMT -06:00). PreSonus Audio Electronics is committed to constant product improvement, and we value your suggestions highly. We believe the best way to achieve our goal of constant product improvement is by listening to the real experts: our valued customers. We appreciate the support you have shown us through the purchase of this product.

**ABOUT THIS MANUAL:** We suggest that you use this addendum to familiarize yourself with the features, applications, and correct connection procedures for your StudioLive before trying to connect it to your computer or using an iPad, iPhone, or iPod Touch to control your mixer. This will help you avoid problems during installation and setup.

## חעבו עובש

1 Overview

#### 1.2 Summary of Virtual StudioLive Features

The Virtual StudioLive application is completely integrated with your StudioLive mixer. VSL is a highly advanced editor/librarian and control panel. Because of the continuous bidirectional communication between your StudioLive and VSL, whatever you do on the StudioLive's control surface will be reflected in VSL and vice versa.

- NEW FEATURES:
  - Smaart Spectra<sup>™</sup> Time-Frequency Spectrograph
  - Smaart Spectra<sup>™</sup> Real-Time Analyzer
  - Talkback On/Off
  - Talkback Assign
- Easy drag-and-drop workflow
- Drag presets directly to channels
- Drag parts of presets directly to components in the Fat Channel
- Adjust the Fat Channel gate, compressor, and EQ plus the graphic EQ and effects
- Quickly drop entire Scenes to the mixer for instant recall of all channel, effects, and graphic EQ settings
- Load effects quickly by simply dragging presets into the GUI
- Makes StudioLive as easy to use as Studio One
- Remote-controllable with an Apple iPad running PreSonus StudioLive Remote
- Use the mouse to quickly mute, solo, assign channels to multiple buses, etc.
- Timestamped backups of the entire board
- Preset Management
  - Store and organize presets on your computer, then transfer them to your mixer for that night's gig
  - Create presets on the road, store them to the mixer, then drag them to your preset pool the next time you're connected to the computer
  - Reorder presets in mixer memory; easily order presets to best fit your workflow for the gig
  - Share presets with friends; drag presets out of the browser and email, IM, or disk-swap presets with other StudioLive owners
- Mixer Overview
  - See all of the most-used parameters on the mixer at once
  - See the state of all Fat Channel settings at once
  - See all aux mixes at once
  - See the current effects and parameter settings
  - See graphic equalizer settings



ix Troublesh

#### 1.3 Summary of StudioLive Remote for Apple iPad Features

StudioLive Remote (SL Remote) for iPad<sup>®</sup>, available free from the Apple App Store, provides direct wireless control over PreSonus Virtual StudioLive software for Mac<sup>®</sup> and Windows<sup>®</sup>, which in turn controls any StudioLiveseries digital mixer. As long as you have a wireless connection between your iPad and a computer running VSL, SL Remote can control the console.

- NEW FEATURES:
  - Talkback On/Off
  - Talkback Assignments
  - Recall Scenes from the "On the Disk" section in the VSL Browser
- Provides wireless control over Virtual StudioLive and hence, over any StudioLive-series digital mixer
- Overview displays levels, mutes, panning, EQ curves, and Fat Channel processing for multiple channels at once
- Aux view shows the levels, panning, and Fat Channel processing for the Aux sends and internal FX buses
- GEQ view lets you adjust the graphic EQs
- Portrait view shows every parameter for a single channel
- Control any StudioLive mixer on the wireless network from one iPad
- Multiple iPads can control the same StudioLive
- Set Permissions in VSL so that StudioLive Remote on any iPad on the network controls only specified functions
- Free from the Apple App Store
- Requires iOS 4 or higher

**Note:** StudioLive Remote 1.3 or later is required for iPad control with Universal Control 1.6. Earlier versions of StudioLive Remote are not compatible with the Universal Control 1.6 update.

#### 1.4 Summary of QMix for iPhone and iPod touch Features

QMix for iPhone<sup>®</sup> and iPod touch<sup>®</sup>, available free from the Apple App Store, provides musicians with wireless control over their monitor mixes from stage or recording booth.

- Provides wireless control over Virtual StudioLive aux-mix functions, and hence, over the aux mixes on any StudioLive-series digital mixer
- Remote-control aux mixes on any StudioLive on the same network
- Using the Wheel of Me, control the levels of all of the user's channels simultaneously, with one simple control.
- Set permissions in VSL so that QMix on any iPhone on the network only controls a specified aux mix
- Requires iOS 4 or higher

**Note:** QMix 1.1 is required for Universal Control 1.6. QMix 1.0 is not compatible with the Universal Control 1.6 update.

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#### 2.0 Universal Control 1.6 with VSL



Universal Control includes two windows: the Launcher window and the Device window. For the StudioLive, the Device window is the Virtual StudioLive (VSL) application. VSL provides bidirectional control of channel, subgroup (16.4.2 and 24.4.2), aux, and main-bus levels; Fat Channel parameters; aux mixes; effects; and the graphic EQs. It also provides a visual overview of your StudioLive settings so that you can see, adjust, and organize them. VSL includes a librarian, allowing you to easily manage your presets and Scenes.

Controlling your StudioLive with VSL is as easy as drag-and-drop. Load Fat Channel presets and Scenes by simply dragging them onto the channel or mixer overview. You can load Fat Channel presets as a complete channel strip or as individual gate, compressor, or EQ presets. Through VSL, you can back up all of the Scenes and presets stored on your StudioLive. These stored settings can be loaded from disk or sent to, and stored internally on, the StudioLive. You can even drag presets out of the browser and email, IM, or disk-swap them with other StudioLive owners.

Since the control is bidirectional, fader moves and parameter changes made on the StudioLive are reflected in VSL, as well. So, for example, you can set up the StudioLive the way you want it and then save your Scene or other presets in VSL.

4

System Requirements 2.1

#### 2.1 System Requirements

rsal Control 1.6\*\*

# Control and VSL

Below are the minimum computer-system requirements for Universal Control 1.6\*\*

#### Mac®

#### **Operating Systems:**

- Mac OS X<sup>®</sup> 10.6
- Mac OS X 10.7

#### Hardware:

- Minimum: Intel<sup>®</sup> Core<sup>™</sup> Duo 1.5 GHz processor, 2 GB RAM
- Recommended: Intel Core 2 Duo, or Core i3 or better, 4 GB or more RAM
- 1280x800 Screen Resolution

#### **Windows®**

#### **Operating Systems:**

- Windows XP (SP2 or greater) 32-bit and 64-bit
- Windows Vista 32-bit and 64-bit
- Windows 7 32-bit and 64-bit

#### Hardware:

- Minimum: Intel<sup>®</sup> Core<sup>™</sup> Duo or AMD Athlon<sup>™</sup> X2 processor, 2 GB RAM
- Recommended: Intel Core 2 Duo or AMD Athlon X4 or better, 4 GB or more RAM
- 1280x800 Screen Resolution

**NOTE:** The speed of your processor, amount of RAM, and capacity, size, and speed of your hard drives will greatly affect the overall performance of your recording system. A faster processor and more RAM can reduce signal latency (delay) and improve overall performance.

Please check your software for additional system requirements.

\*\*Subject to change; check www.presonus.com for updates.

**Power User Tip:** As part of our commitment to the quality of our products, PreSonus continually updates our product drivers and software. Because of this, it is always a great idea to visit www.PreSonus.com and check for the latest driver build before installing your product.

- 2 Universal Control 1.6 with VSL
- 2.2. Installation for Windows

#### PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

#### 2.2 Installation for Windows

The Universal Control installer will take you through each step of the installation process. Please read each message carefully—ensuring especially that you do not connect your StudioLive too soon.

We made the Universal Control installer as simple and easy to follow as possible. Please read each message carefully to ensure the StudioLive driver and Universal Control with VSL is properly installed.

Before beginning the Universal Control installation setup, please close all applications, including antivirus software, and disconnect the StudioLive from your computer. After the installation is successfully completed, don't forget to re enable your antivirus protection!



Windows Vista Users: If you see any Windows Security alerts, click "Install this driver software anyway."

Follow the onscreen instructions to complete the installation. When the installer has finished, it will prompt you to reboot your computer.

Click "Finish" to automatically restart your PC. Once your computer has rebooted, connect the StudioLive. When the Found New Hardware wizard launches, follow the recommended steps. Your StudioLive is now synced to your computer and ready to use!

#### Installation for Mac OS X 2.3

The Universal Control Installer will take you through each step of the installation process. Please read each message carefully, and be especially careful that you do not connect your StudioLive too soon.

O     O	Install PreSonus Universal Control          Welcome to the PreSonus Universal Control Installer         You will be guided through the steps necessary to install this software.	1.	After launching the installer, you will be directed to the Welcome screen. Click "Continue" and follow the onscreen instructions.	0Mix StudioLive Universa
O     O	<ul> <li>Install PreSonus Universal Control</li> <li>Sector a Destination</li> <li>Sector a Control software.</li> <li>Weight Software requires 37.1 MB of space.</li> </ul>	2.	You will be directed to choose the hard drive onto which you want to install the StudioLive driver and Universal Control with VSL. You must choose your system drive. Storage drives and partitions cannot be used as hosts for the driver. Once the installation is completed, you will find the Universal Control program in your Applications folder. It is recommended that you place this in your Dock. Click "Install."	Troubleshooting
	Install PreSonus Universal Control The installation was completed successfully.	3.	When the installation is completed, you will be prompted to reboot your computer. After it has restarted, connect your StudioLive to your Mac with	



a FireWire cable and power it on. You are now ready to use your StudioLive!

- 2 Universal Control 1.6 with VSL
- 2.4 Universal Control: Launch Window

#### PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

#### 2.4 Universal Control: Launch Window

#### **Sample Rate Selector**

Sample Rate	44.1 KHz	*
Clock Source	✓ 44.1 KHz 48 KHz	
Safe Mode	Safe Mode 1	
Buffer Size	512	

#### Changes StudioLive Sample Rate.

Set the sample rate to 44.1 or 48 kHz from the Launcher window when your StudioLive is connected to a computer.

A higher sample rate will increase the fidelity of the recording. It will also increase the file size and the amount of system resources necessary to process the audio.

To ensure the safety of the audio equipment connected to it, the StudioLive will mute all post-converter outputs for two seconds when the sample rate is changed or when the mixer is connecting to a computer. This includes the main and the control-room outputs, as well as the aux and subgroup outputs. While this offers a good measure of protection to your sound system, it could put the brakes on a live show. Because of this, it is very important that the sample rate be selected and locked in prior to beginning any recording or performance.

#### **Clock Source**

Clock Source	StudioLive-Internal 🔻
Safe Mode	✓ StudioLive-Internal
Buffer Size	512 -

#### Changes the Clock Source for Chained FireStudio-family Devices.

The StudioLive cannot slave to an external clock. However, if you are cascading it with FireStudio-family products that do feature digital inputs, the clock source becomes selectable.

The clock source setting will determine where the device chain is receiving word-clock information. This keeps the chained devices in sync with other digital devices and with each other. The menu options are determined by the available digital inputs in the chain.

In general, you will want the StudioLive to be your master clock, in which case set the clock to StudioLive-Internal.

#### **Operation Mode**



#### Changes How the StudioLive Driver's Buffer Size is Set.

Normal Mode. Input and Output buffers are both identical to the Buffer Size setting.

Safe Mode 1-3. Increases the output buffer size for added stability.

#### **Buffer Size Selector (PC only)**

Buffer Size	512	*
	64	
	128	
Studiol ive	256	
StudioLive	✓ 512	
	1024	
	2048	
	4096	

#### Changes the StudioLive Buffer Size.

You can set the buffer size from 64 to 4,096 samples. The buffer size determines the round trip time it takes audio data to be converted from analog to digital and back to analog. As a general rule, the higher the buffer size, the better the system performance, but the less playable virtual instruments and the like become. In general, 512 samples (11 to 12 milliseconds) will provide you with a large enough buffer for optimum system performance, but low enough to be unobtrusive. You should set your buffer size and sample rate prior to launching your host application.

On the Mac, the buffer size is set from inside your host application.

# Overview

### StudioLive Remote

#### **Device Window Button**



#### File Menu

File	Settings	
Close	Window	ctrl + W
Show	All Devices	ctrl + T
Close	All Devices	ctrl + Y
Quit		ctrl + Q

#### Opens the Device Window.

Click on this button to open Virtual StudioLive (VSL).

To give your StudioLive a custom name, double-click on the default label (StudioLive) to open a text field. When you have finished entering your custom name, hit the Enter key.

#### **Opens and Closes Launch and Device Windows.**

From the **File** menu of the Launch Window, you can open and close both windows, as well as quit the Universal Control application.

Close Window. Closes just the Launch window.

**Show All Devices**. Opens the Device window for all of the connected FireStudio-family interfaces.

**Close All Devices**. Closes the Device window for all of the connected FireStudio-family interfaces.

Quit. Quits the Universal Control application.

#### Settings: Check Firmware



Scans Your StudioLive and Updates the Firmware.

A firmware updater is built into the Universal Control application. Periodically, a driver update will require that the firmware on your StudioLive be updated. Whenever you install an update for the Universal Control or add a new FireStudio-family product to your system, you should use this feature to ensure that the firmware is up to date. If the firmware needs to be updated, the update application will launch automatically.

If you have presets and scenes saved in your StudioLive, updating the firmware will not overwrite them.

#### **Settings: Factory Reset**



#### Resets Your StudioLive to its Factory Default Settings.

The Factory Reset option will reset your StudioLive to factory default. All user presets and scenes will be deleted. All FX and Channel Strip presets will be reset to their factory settings.

- 2 Universal Control 1.6 with VSL
- 2.4 Universal Control: Launch Window

#### Settings: Run at Startup



## Launches the Universal Control Application Automatically on Startup (Windows Only).

When this is enabled, the Universal Control application will automatically launch each time you boot your Windows PC.

On the Mac, you can set this up first by dragging Universal Control to your dock, then by right-clicking it and selecting Options>Open at Login.

#### Settings: Always on Top



## Allows the Launch Window to Stay in View When Other Applications Are in Use.

When this is enabled, the Launch window will remain in the foreground when other applications are active, rather than being in the background behind the current application's window.

#### Settings: WDM Setup



#### Opens the WDM Channel Mapper (Windows Only).

The StudioLive features advanced WDM features. Please consult your StudioLive Owner's Manual for further details.

VSL: Virtual StudioLive 2.5

#### 2.5 VSL: Virtual StudioLive

VSL is a highly advanced editor/librarian and control application that is completely integrated with the StudioLive-series digital mixers. Because of the continuous bidirectional communication between your StudioLive and VSL, whatever you do on the StudioLive's control surface will be reflected in VSL and vice versa.



#### 2.5.1 VSL: Browser

When you first launch VSL, notice the Browser window along the right side of the screen. The Browser in VSL functions similarly to the Browser in Studio One. From the Browser, you can see all of the Scenes, Fat Channel presets, FX presets, and graphic EQ settings that are saved on your StudioLive and on your computer. You can also create new settings and can back up your entire library from this window. Simply drag-and-drop a Scene or preset to load it on your StudioLive.

**Please Note:** Your StudioLive's firmware version must match VSL's version. VSL will scan your StudioLive to verify that its firmware is compatible. If an update needs to be run, VSL will prompt you to update the firmware. VSL will not open until the update has been run successfully.

**Power User Tip:** As with any firmware update, there is a risk that all your custom settings will not be saved. Because of this, it is highly recommended that you create a backup file for your StudioLive using VSL prior to installing any Universal Control update.

- 2 Universal Control 1.6 with VSL
- 2.5 VSL: Virtual StudioLive

#### Get Button

#### Transfers All Scenes, Fat Channel, FX, and Graphic EQ Presets Stored on the StudioLive to VSL.



When you first launch VSL, you will need to create a link between your StudioLive's internal memory and your computer. To do this, click on the Get button.

A dialog will open, prompting you to click the transfer button. Any settings that are temporarily stored in the local cache (i.e., settings that are currently visible in the Device Memory section of the Browser window) will be overwritten.

#### Add to Disk Button



## Transfers all Scenes, Fat Channel, FX, and Graphic EQ Presets from Temporary Memory to the Permanent Cache.

VSL allows you to back up your Scenes, Fat Channel, FX, and graphic EQ presets and permanently store them on your computer. Each type of preset can be added separately. In this way, you can back up only what you want, when you want.

To move a Scene or preset from temporary memory into permanent memory, simply select one preset or Scene and click the Add to Disk button. To select multiple presets, hold the Shift key while making your selections.

**Note:** If you want to be able to remotely recall scenes using SL Remote, you must first transfer your Scenes to the permanent cache. Only scenes displayed in the On Disk section of the Browser will be available to recall in SL Remote.

#### **Browser Tab Buttons**

SCENE	FAT CH	FX	GEQ	BACKUP
	0.0000000000000	CALCELS	and the second	1490033200

#### Displays the Different Preset Categories on Your StudioLive and on Your Computer.

All of your Scenes and presets are contained in dedicated folders in VSL. To view a specific set of presets, simply click on its tab.

- SCENE. Displays stored Scenes.
- **FAT CH**. Displays stored Fat Channel presets.
- FX. Displays stored effects presets.
- **GEQ**. Displays graphic EQ presets.
- BACKUP. Displays any backup logs that have been created in VSL.

#### Send Button

## Transfers Designated Scenes, Fat Channel, FX, and Graphic EQ Presets from VSL to StudioLive Memory.

VSL makes reorganizing all the Scenes and presets stored on your StudioLive as easy as dragging-and-dropping a file. To load your StudioLive with new Scenes and presets, simply drag any Scene or preset from the On the Disk section of the Browser to any position in the Device Memory section of the Browser.



A dialog will open asking you to verify that you would like to overwrite the Scene or preset at the new position. This will not immediately overwrite what is stored internally on your StudioLive; it will merely overwrite what is stored in the VSL cache memory.

Once you have organized the files you wish to transfer to your StudioLive, press the Send button. When the transfer is complete, you can disconnect your StudioLive from your computer and take your chosen Scenes and presets with you.

#### **Add New Button**



#### Creates a New Scene or Preset.

In the On the Disk and Device Memory sections of the Browser, you will see the Add New button. Clicking this button will immediately create a new Scene or preset. If you want this new preset to be temporarily stored in VSL and immediately sent to the StudioLive's internal memory, add the new preset in the Device Memory section. If you would prefer to have this new preset stored in permanent memory on your computer, use the Add New button in the On the Disk section. In either case, the new preset can be sent to your StudioLive at any time.

#### **Remove Button**



#### Deletes a Stored Scene or Preset.

In the On the Disk section of the Browser, notice the Remove button. Clicking this button will delete the currently selected stored Scenes or presets.

- 2 Universal Control 1.6 with VSL
- 2.5 VSL: Virtual StudioLive

#### PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

#### Backup Tab

			-2110-000	
SCENE	FAT CH	EX	GEQ	BACKU
On Th	ne Disk		RE	STORE
G S	_ID7130	3167	_2010	-00-20

#### Creates and Restores Backups of Your StudioLive.

The Backup tab allows you to create complete timestamped snapshots of your StudioLive. This can be especially useful when completing a project that may need to be revisited in the future. To create a backup, simply click on the Backup button.

To restore any backup file, select it in the On the Disk portion of the Browser and click the Restore button. You will be warned that any Scene or preset currently loaded in the Device Memory section of the Browser will be overwritten. Once your backup is restored, you can click the Send button to transfer your Scenes and presets back to the StudioLive.

#### **Show/Hide Browser**

# Show Browser

#### Displays/Hides the Browser Window.

The Browser can be hidden from view to provide more real-estate for your mix. Simply click on the Hide Browser button to close the Browser.

To reopen the Browser, click on the Show Browser button in the upper right corner of your VSL window.

VSL: Virtual StudioLive 2.5

#### 2.5.2 VSL: Overview Tab



At the top of the VSL window, you will see four tabs: Overview, Fat Channel, GEQ, and Setup. The Overview tab provides you with a complete graphical representation of your StudioLive. As you adjust parameters on the StudioLive, you will notice that the VSL overview is also updated. If you use your mouse to adjust a parameter in VSL, the StudioLive will be updated remotely. It is important to remember that every button, knob, slider, and fader on the VSL corresponds directly to a button, knob, slider, or fader on your StudioLive.

The graphic above identifies each controller labeled with its corresponding control on the StudioLive and can be used as a map to quickly learn how to navigate the Overview tab.

#### **Aux Send View**

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5	-		5 000			5 000			1.4
Э	_		3 📖			3 🚥	_		25
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5			5			5			
5			5 400	-		5 🚥	- 100		-
٦		1.7	1=	_	-07	1=	_	1.0	5
8			8 600			9 -			te
g	_		9 600			9 000			8
10	_			-		10			W

VSL provides two views for your StudioLive aux outputs and FX buses. The Aux Send view gives you an overview of the send levels of every channel on your StudioLive to every aux output and FX bus.

Clicking on the arrow button will collapse the auxes, allowing you to view channel faders and the microviews at the same time on lower-resolution screens.

**Power User Tip:** To quickly set up an aux mix, use your mouse to set the send level for Channel 1. Right-click on the Channel 1 send level and sweep your mouse across the other channel sends for that aux. The send level will be copied to every other channel for that aux.

- 2 Universal Control 1.6 with VSL
- 2.5 VSL: Virtual StudioLive

#### **Masters View**

FIREWIRE TAPE IN AUX IN A	AUX 10	FXA	FX B MOY
AUX IN B	SOLO	MUTE	MUTE 0
FX A	POST	POST	POST
TALKBACK	SELECT	SELECT	SELECT
			928

The Masters view displays the controls for each aux output and FX bus as they appear on the StudioLive and displays a scribble strip to give each aux a custom name.

For 16.4.2 and 24.4.2 users, the Masters view also displays the send levels for the Aux Flip Mode Channels (Main FireWire Return, Tape Input, Aux In A and B, FXA, FXB, and Talkback [24.4.2 only]). From within the Masters view, you can also select each aux and FX bus to edit its Fat Channel insert.

#### Tap Tempo



VSL allows you to remotely control the Tap Tempo function for a delay loaded on either FX bus. Once a Delay FX Type (Mono, Filter, Stereo, or Pingpong) has been loaded onto FXA or FXB, the Tap Tempo button will be visible on that bus. Clicking on it repeatedly will change the Time parameter to match the tempo entered.

#### Copy Mix



Next to the main fader, and in each of the aux masters, you will see the Copy Mix handle. When clicked on, this handle lets you drag-and-drop the mix for that bus to another bus. In this way, you can drag the mainfader mix to Aux 1 to set a starting point and can quickly give the singer the same mix on two different floor wedges.

**Note:** While the main mix can be copied to any aux, aux mixes can only be copied to other aux mixes and not to the main mix.

#### Copy Channel (Drag-and-Drop)



At the top of the VSL window, you will see the Copy Channel handle. This handle follows the selected channel and lets you drag-and-drop all the Fat Channel and bus assignments for that channel onto another channel or bus.

Note: Channel bus assignments are only copied from channel to channel.

#### Copy Channel (Copy/Paste)



The StudioLive mixers give you the ability to quickly copy-and-paste a single channel or bus's Fat Channel settings onto multiple channels and buses. VSL provides the same functionality in exactly the same way. To copy a channel or bus, simply select it and click the Copy button. All the Select buttons will flash. Click the Select buttons for the channels and buses to which you want to copy the Fat Channel settings. When you are done, click Paste.

Note: Channel bus assignments are only copied from channel to channel.

erview

#### GEQ in Focus (16.4.2 and 24.4.2 only)



GEQ 3 GEQ 4

In general, graphic EQ settings are created prior to a live show and are not adjusted after that. However, sometimes minor adjustments must be made later. VSL makes this quick and easy You will have noticed that there is a GEQ above the Master section on the Overview tab. Here, you can focus any GEQ in one of three ways:

- Select a GEQ on the GEQ Tab. For example, if you leave GEQ 5/6 in focus on the GEQ tab and switch back over to the Overview tab, you will still be able to adjust GEQ 5/6 using the Focus GEQ above the Master section.
- Select the GEQ from the GEQ Focus Menu. In the upper left corner of the GEQ in Focus, you will find a pull-down menu. From this menu, you can select any of the eight GEQs to put into focus on the Overview tab.
- Click on a Focus GEQ button. Once a graphic EQ has been inserted on an aux, subgroup, or main bus, a Focus GEQ button will be displayed above that bus. (Note: For auxes, Focus GEQ buttons are displayed in the Masters view only.) Clicking on this button will pull that bus's inserted graphic EQ into focus on the Overview tab.

#### 2.5.3 VSL: Fat Channel Tab

The Fat Channel tab provides a detailed overview of the Fat Channel parameters for the selected channel. The selected channel will always be shown above the Gate section. It is important to remember that you have continuous bidirectional control. If you grab a point in the EQ with your mouse, for example, you will change the parameters both in VSL and on your StudioLive.

To access the Fat Channel for Aux Inputs A or B, press the aux input's Select button on the StudioLive. You can then load presets and make adjustments using VSL from within the Channel tab. All aux buses, FXA, and FXB can be selected using the Masters view.

**Power User Tip:** The Fat Channel tab can also be opened by doubleclicking on any of the microviews on the Overview tab.



- 2 Universal Control 1.6 with VSL
- 2.5 VSL: Virtual StudioLive

#### PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

#### 2.5.4 Loading Scenes and Presets from VSL

As stated in the previous section, the Browser window in VSL functions in much the same way as the browser in Studio One. To load a Scene or preset from the Browser window, simply select it and drag it over the mixer or channel on which you wish to load it. Scenes and presets can be dragged from either the On the Disk or the Device Memory section of the browser and dropped onto the Overview or the Channel tab.

#### Loading a Scene

Hide Browser 🗪								
SCENE FAT CH FX GEQ BACKUP								
On Th	On The Disk – 🕂							
G Ba G ge G na G te G Ze	Basic Playback     geq     naming test     test     Zero Out (Board Reset)							

To load a new Scene on your StudioLive, select it from the Browser window and drag it over the mixer in either the Overview or the Channel tab. The window will gray out, indicating that a new Scene is about to be loaded. Note that only the parameters that have been enabled for recall on the StudioLive will be recalled on the mixer.

#### **Loading Scribble Strip Labels**

SELECT	SELECT	SELECT	SELECT
SOLO	SOLO	SOLO	SOLO
MUTE	MUTE	MUTE	MUTE
Ch 😰	test <sub>Ch 13</sub>	Ch 14	Ch 15
	14		

Scribble Strip labels are stored with your Scenes. You can load just the labels by selecting the Scene from the Browser window and dragging it over the row of Scribble Strips above the Channel Faders. The Scribble Strips will gray out, indicating that the Scribble Strip labels from the Scene are about to be loaded.

#### **Loading an Entire Fat Channel Preset**

Hide Browser 🗪							
SCENE	FAT CH	FX	GEQ	BAG	CKUP		
On Th	ne Disk			-	+		
🙆 B/	AS Electri	c 1			*		
🙆 B/	BAS Electric 2						
🙆 B/	BAS Slap						
🙆 B/	BAS Upright						
🙆 D	DRM Fat Snare						
DRM High Hat							
D D	DRM Kick 1						
0 D	RM Kick 2	2					

To load every component in a Fat Channel preset (gate, compressor, EQ, etc.), select the preset from the Browser window and drag it over any part of the desired channel. If you drag it over any of the component Quick Views, it will load only that component (e.g., if you drag a preset over the gate Quick View, only the gate will be loaded).

#### Loading an FX Preset

Hide Browser 🔹							
SCENE	FAT CH	FX	GEQ	BACKUP			
On Th	ie Disk			-	+		
🙆 Ar	halog 8th						
Analog Slap							
Analog Trip							
🞑 Arena							
Bedroom							
🙆 Bi	Big Club						
🙆 Br	Brick Club						
Br	ick Hous	e					

To load an FX preset, select it from the Browser window and drag it over any part of the desired FX bus in the Master section of the Overview tab. Once it is loaded, you can use the FX Type menu to change the effect and create new presets.

**Note:** At this time, VSL does not transfer the name of the preset to the StudioLive. All FX presets loaded from within VSL will be labeled "Natural" in the FX menu on your StudioLive.

#### Loading a GEQ Preset

Hide Browser 🗪						
SCENE	FAT CH	FX	GEQ	BACKUP		
On Th	e Disk			-	+	
S S						

To load a graphic EQ preset, select it from the Browser window and drag it over any part of the focused graphic EQ. Graphic EQ presets can be loaded on the Overview tab or the GEQ tab. Once a preset is loaded, you can use the sliders in VSL, or the encoders on the StudioLive, to make adjustments. Note that you must be in the GEQ menu page for the graphic EQ you wish to control in order to use the encoders on your StudioLive to control each graphic EQ in VSL. See the next section for details.

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#### 2.5.5 VSL: GEQ Tab

The StudioLive 24.4.2 and 16.4.2 feature 4 dual-mono graphic EQs. Assignable in stereo pairs, these graphic EQs can be inserted on any of the 10/6 aux buses, the 4 subgroups, or the main bus. The StudioLive 16.0.2 features one stereo 31-band graphic EQ on the main bus. In addition to allowing you to control each graphic EQ individually, VSL automatically links each dual-mono graphic EQ to create a true stereo graphic EQ if the pair is inserted onto a stereo bus, allowing you to control both sides at once. (For example, if you insert GEQ 1/2 onto Subgroups 3 and 4 and stereo-link the subgroups, GEQ 1/2 will function as a stereo graphic EQ rather than a dual-mono graphic EQ.)

From the GEQ tab, you also have access to Smaart Spectra<sup>™</sup> analysis tools. These tools can be used to ring monitors, view the frequency spectrum of your mix, or check the overall output level of a bus.

**Note:** The GEQ menu on your StudioLive does not have to be active to make changes to a graphic EQ from VSL. If you wish to use the Fat Channel encoders to control the graphic EQs in VSL, then you must open the GEQ menu on your StudioLive.



#### Selecting a GEQ to Edit (16.4.2 and 24.4.2 only)

GEQ 1 Main L GEQ 2 Main R

Along the top of the GEQ tab, you will see another set of tabs, one for each dual-mono GEQ. To bring a GEQ in focus so that you can edit it, simply click on its tab.

**Power User Tip:** Unlike controlling the graphic EQs from the StudioLive mixer, each pair of graphic EQs in VSL follows the linked state of the bus to which it is assigned. If you link Aux 1 and 2, for example, and make a change to the GEQ assigned to Aux 1, the GEQ assigned to Aux 2 will change simultaneously. GEQs assigned to the Main bus are always stereo-linked.

#### GEQ Bus Assignment (24.4.2 only)

	Main Mix
$\checkmark$	Sub 1/2
	Sub 3/4
	Aux Send 1/2
	Aux Send 3/4
	Aux Send 5/6
	Aux Send 7/8
	Aux Send 9/10

To Insert a graphic EQ on a bus, click on the pull-down menu below the graphic EQ's number and select the pair of buses onto which you'd like to insert it.

Because the graphic EQs are dual-mono, they must be assigned in stereo pairs. However, unless the bus is stereo linked, you will have control over each GEQ individually.

#### **Enabling a GEQ**



By default, all graphic EQs are disabled. To enable them remotely via VSL, simply click on the Enable button to the left of the sliders.

#### Flattening a GEQ Curve



To zero out all curve settings on any GEQ, click on the Flatten GEQ button, which is directly below the Enable button. This will flatten all band gains to 0 dB so that they neither boost nor attenuate any of the 31 bands.

#### **Enabling Smaart Analysis**



By default, Smaart analysis is disabled. While Smaart is disabled, you have control over which bus is routed to Auxiliary Inputs 29 and 30 (StudioLive 16.4.2 and 24.4.2).

Clicking on the Spectrograph or RTA buttons will start Smaart, and VSL will take control over Auxiliary Inputs 29 and 30 (StudioLive 16.4.2 and 24.4.2).

**16.0.2 Users:** You must route your Main Mix to Flexible Inputs 15 and 16 in order to use Smaart analysis. If analog inputs 15 and 16 are patched to the Flexible Inputs, the Spectrograph and RTA buttons will not function.

For more information on the Auxiliary Inputs or Flexible Inputs Router, please see Section 2.5.6.

# GEQ 1 Main L GEQ 2 Main R GEQ 3 Aux 1 GEQ 4 Aux 2 GEQ 5 Aux 3 GEQ 6 Aux 4 GEQ 7 Aux 5 GEQ 8 Aux 6 0 1

**Time-Frequency Spectrograph** 

Clicking on the Spectrograph button will launch the Time-Frequency Spectrograph. This Spectrograph provides a three-dimensional view of your audio in which x= frequency, y=time, and color=decibel level.

Any signal below the lower dynamic-range threshold is black. Any signal above the top dynamic-range threshold is white. Within the dynamic range, colors go from blue to green to red, with blue indicating the quietest and red the loudest.

Many audio signals that are encountered in the field are highly dynamic. Musical signals, speech, and even environmental noise contain significant changes in spectral content as a function of time. The Spectrograph can be thought of as a record of multiple RTA spectra taken over time, with color representing amplitude.

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Using this function, the spectral content of the input signal is recorded as it changes in time. This allows you to view and analyze time-varying trends in the input signal.

As a troubleshooting tool, the Spectrograph is useful for finding spectral "defects" in a system or acoustical environment. Certain audio signals or acoustical events contain specific traits that can be easily detected due to their distinct time/frequency signature specifically, highly tonal sounds such as AC line noise in an electrical signal chain or the presence of electro-acoustical feedback.

#### **Dynamic Range**



In the lower left hand corner, you will see the dynamic-range sliders for the Spectrograph. These sliders set the maximum and minimum volume thresholds for the Spectrograph.

#### RTA



Clicking on the RTA button will launch the Real-Time Analyzer where *x*=frequency and *y*=amplitude. An RTA provides a close visual representation of what you are hearing. It provides a view of the long-term spectrum of the signal—for example, the one-third-octave spectrum long-term average of a musical performance.

#### Averaging



While the RTA is engaged, you can adjust its averaging speed. When using music in test measurements, it is often necessary to average the data over a brief amount of time. This is because most musical signals do not have energy at all frequencies all of the time.

Averaging is a mathematical process that takes multiple data samples and performs division to acquire a statistically more accurate calculation of the response. That's a technical way of saying that it slows down the "real-time" of a Real-Time Analyzer.

#### 2.5.6 VSL: Setup Tab

The Setup tab allows you to customize VSL and your StudioLive, route your Auxiliary FireWire inputs (StudioLive 16.4.2 and 24.4.2 only), route your Flexible inputs (StudioLive 16.0.2 only), set up MIDI Control mode (StudioLive 16.0.2 only), and enable or disable functions on connected iOS devices.

#### **Auxiliary Inputs Router**

	CAPTURE					SP	DIF ,	
	25 26	27	28	29	30	31	32	
Main Mix L/R	LR							
Sub Group 1/2		L	R					
Sub Group 3/4				L	R			
Aux Send 1/2								
Aux Send 3/4						L	R	
Aux Send 5/6								
Aux Send 7/8								
Aux Send 9/10								
Aux Send A/B								
Aux Return A								
Aux Return B								
FX Return A								
FX Return B								
2 Tracks L/R								
TalkBack L/R								

Patches Available Inputs and Buses to Auxiliary FireWire Inputs (16.4.2 and 24.4.2 only).

The StudioLive 16.4.2 and 24.4.2 mixers allow you to route to a computer the input channels and any 16 of 19 (16.4.2) or 8 of 23 (24.4.2) buses and other inputs. This is done via the Auxiliary Inputs Router on the Setup tab. To route FireWire Sends 17-32 (16.4.2) or 25-32 (24.4.2), first decide which buses and inputs you would like to record in addition to your input channels. Once you've determined your input pairs, simply patch them to a stereo pair of auxiliary inputs of your choice. Remember, all of these buses and inputs are automatically set to send their signals post-Fat Channel dynamics and post-EQ (where applicable). The inputs and buses selected in the Auxiliary Input Router will be displayed in your recording application with the name of their routing.

For instance, the routed pairs in the picture would translate as the following chart in your host recording application:

PHYSICAL	SOFTWARE
Main Mix Left	Auxiliary In 25
Main Mix Right	Auxiliary In 26
Subgroup 1	Auxiliary In 27
Subgroup 2	Auxiliary In 28
Subgroup 3	Auxiliary In 29
Subgroup 4	Auxiliary In 30
Aux Send 3	Auxiliary In 31
Aux Send 4	Auxiliary In 32



The Auxiliary Inputs Router also allows you to designate a specific bus to the S/PDIF output, as well as enabling you to select which stereo pair will be recorded on the Auxiliary Stereo Track in Capture. When the StudioLive is not connected to a computer, the S/PDIF output can be routed using the System menu. However, when your StudioLive is synced to your computer, you can route any of the 19 or 23 (depending on your mixer) available buses to the S/PDIF output by routing them to FireWire sends 31 and 32. In addition to being available for recording via Aux In 31 and Aux In 32, these sends are normalled to the S/PDIF output.

As previously mentioned, if Smaart Spectra tools are engaged, VSL will take control of Auxiliary Inputs 29 and 30. When VSL has control, these inputs will be grayed out.

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#### **Flexible Inputs Router**

Flexible Inputs Router:	
Analog Inputs 15/16 Main Mix L/R	CAPTURE I MASTER I 15 16

#### Patches Inputs 15/16 or Main L/R Mix to FireWire Inputs 15/16 (StudioLive 16.0.2 only).

The StudioLive 16.0.2 allows you to choose between recording analog inputs 15 and 16 or the main bus. This is done via the Flexible Inputs Router on the Setup tab. By default, your StudioLive is configured to record inputs 15 and 16 on FireWire sends 15 and 16. To record the main-bus mix instead, simply repatch the main bus to FireWire sends 15 and 16, using the Flexible Inputs Router.

The main bus is automatically set to send its signal post-Fat Channel dynamics processing and post-EQ (where applicable). No matter which source is selected in the Flexible Inputs Router, you will see inputs 15 and 16 in your recording application.

**Note:** In order to use the Smaart Spectra tools, you must patch the Main Mix to the Flexible Inputs. When analog inputs 15/16 are patched, the Smaart controls will not function.

Control Mode	On	*	Main Out Level	CC 0	
MIDI Channel	Ch 1	*	FXA Out Level	CC 6	
Scene Recall Channel	Ch 2	+	FXB Out Level	CC 104	
FXA Recall Channel	Ch 3	¥	FXA Mute	CC 102	
FXB Recall Channel	Ch 4	*	FXB Mute	CC 127	

**MIDI Control Mode Menu** 

#### Configures MIDI Control Mode Functions (StudioLive 16.0.2 only).

MIDI Control mode is a powerful feature that allows you to control key StudioLive 16.0.2 parameters remotely, using a MIDI controller or DAW. This menu corresponds directly to the MIDI Control mode pages in the System menu on your StudioLive.

See Section 5.5 in the *StudioLive 16.0.2 Owner's Manual* for complete details.

#### **Noise Gate Mode**

Noise Gate Mod	ie
Ch. 1/2	Expander -
Ch. 3/4	NoiseGate -
Ch. 5/6	Expander -
Ch. 7/8	NoiseGate -
Ch. 9/10	Expander -
Ch. 11/12	Expander -
Ch. 13/14	Expander -
Ch. 15/16	Expander -

#### **Scene Recall Filters**

Assigns	Yes	-
EQ & Dyn	Yes	-
Aux Mix	Yes	-
Faders	No	-
Mute	Yes	-
FX	Yes	-
GEQ	No	-
Pots	No	-

#### Sets Function of Fat Channel Noise Gate (StudioLive 16.4.2 only).

The StudioLive 16.4.2 lets you choose between an expander and a noise gate for each pair of channels. The Noise Gate Mode menu on the Setup tab corresponds directly with the Gate Type page in the System menu on your StudioLive.

#### Sets Which Parameters are Recalled with a Scene.

Your StudioLive allows you to decide which group of parameters you would like to recall with a Scene. The Scene Recall menu on the Setup tab corresponds directly with the Scene Recall menu on your StudioLive.

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Link Channel Faders Preference Links Channel Faders when Channels are Stereo Linked. When the Link Channel Faders preference is enabled, stereo linked Link channel faders channels will no longer have individual control over each fader in VSL or StudioLive Remote. This allows you to control the volume of a stereo channel pair by moving either channel's fader. **Default to Fader Locate Preference** Activates Fader Locate on StudioLive when Fader is Moved Remotely. With the Default to Fader Locate preference enabled, Fader Locate will Default to fader locate automatically engage when a fader is moved remotely in VSL or StudioLive Remote. This preference allows you to quickly sync your StudioLive when you return to the board. **Power User Tip:** If you are remotely controlling the faders on your StudioLive, it is highly recommended that you enable this preference. When Fader Locate Mode is activated, the faders on your StudioLive will not be active. By allowing this mode to engage automatically, you can avoid accidental volume jumps should you forget that a fader was adjusted up or down in VSL or SL Remote when you go back to your StudioLive. **Talkback Assignments** Enables/Disables Talkback Routing to Selected Buses. Your StudioLive's Talkback Assignments can be remotely controlled from Talkback: VSL. The Talkback on/off is controlled from the Talk button on the Overview tab (see graphic in Section 2.5.2). TB to Aux 1-2 TB to Aux 3-4 TB to Aux 5-6 TB to Main

Remote Devices Permissions	Enables/Disables Functions on Remote Devices.				
	Controlling VSL remotely with StudioLive Remote for iPad or QMix for iPhone/iPod touch allows you to move about the venue freely. However, it can also put the full power of the StudioLive in multiple hands— some more adept than others. Therefore, VSL enables you to limit each iOS device's access to the mixer features by setting permissions.				
	Once an iOS device is connected to your wireless network and has launched SL Remote or QMix, the device will be displayed in the Remote Devices list on the Setup tab in VSL. Each device will be listed using its device name so you can easily identify which device is which. This name can be changed in iTunes or in the General>About settings on the iOS device.				
	Once you have connected and configured an iOS device, the same permissions will be set for that device every time you connect it.				

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#### StudioLive Remote for iPad Permissions:

When setting permissions for SL Remote users, you will choose between giving full access to all SL Remote functions or providing limited access to just a few aux-mix functions. In most cases, one iPad will be configured as front-of-house (FOH), and the others will be configured as aux mixes.

Remo	te Devices:			
-	Scotts's i	Pad		
	IGNORE	FRONT OF HOUSE	Aux 1 👻	AUX FAT
		CH RENAME	GEQ 1	GEQ

- Front of House. Enables all SL Remote functions. When this option is disabled, SL Remote will only control a specified aux mix or all aux mixes. To select an individual aux mix or all aux mixes, click on the pull-down menu.
- Aux Fat (Aux Mixes Only). When enabled, the SL Remote user will be able to control the Fat Channel for the auxes that device has permission to control. This option is not available when Front of House is enabled.
- **GEQ (Aux Mixes 16.4.2/24.4.2 Only).** When enabled, the SL Remote user will be able to control the GEQ assigned to their aux. This option is not available when Front of House is enabled.
- Channel Rename. Allows channels, auxes, and subgroups (16.4.2 and 24.4.2 only) to be renamed remotely using SL Remote.
- **Ignore.** When Ignore is enabled, the device's installation of SL Remote will have no control over VSL.

#### QMix for iPhone/iPod Touch Permissions:

When setting permissions for QMix users, you will choose between giving full access to all aux mixes, a single aux mix, and limiting the user to just the Wheel of Me functions.

-	Dave's iPhone					
1.1	IGNORE	WHEEL ONLY	Aux 1 👻			
-		CH RENAME				

- Aux Mix Selection. Gives access to a single aux mix or all auxes.
- **Wheel Only**. Disables the Aux Mix page in QMix. When this is enabled, the user will only be able to use the Wheel of Me on a single aux to which you've given access. When Wheel Only is enabled, you cannot give access to all auxes.
- Channel Rename: Allows channels, auxes, and subgroups (16.4.2 and 24.4.2 only) to be renamed remotely using SL Remote.
- Ignore: When Ignore is enabled, the device's installation of QMix will have no control over VSL.



2.5.7 **Enabling Lockout Mode** Your StudioLive features a Lockout mode that allows you to temporarily disable nearly every feature on the StudioLive, although analog features (e.g., input-trim knobs, faders, and cue, tape-input, and monitor levels) can still be adjusted. Because of this, after unlocking your StudioLive, and before resuming mixing, you should take a quick glance at your input trims and output levels. If you have locked your fader position, you will be able to recall your pre-lockout fader positions using the Locate button in the meter section. Until you connect your StudioLive to a computer, the mixer cannot be locked, so don't worry about accidentally locking yourself out. 1. With your StudioLive connected and synced to your computer, launch Geq Setup VSL and click on the Setup tab. Click on the Lock Out button. 2. Lock Out To set your custom password, click on the box next to "Device is 3. Device Password Lockable." At this point, a cursor will appear in the password box. Enter Device is Lockable a 5-digit code using any number between 1 and 9, and click the Set Using Password: 12345 button. Your password will no longer be displayed. Should you need to rds must be 5 digits 1-9, no chara change your password, simply click on the box next to "Device is Cancel Apply Lockable." Your old password will be deleted, and you will be able to enter a new password. Once you have set your password, the Lock Out StudioLive can be locked whether it's synced to a computer or not. LR To lock your StudioLive, press the System button in the Digital Effects 4. Page 4: Lockout System Panel Status: Unlocked Master Control section and navigate to Page 5: Lockout. Your StudioLive Lockable: Faders: cannot be locked unless this page is active. If you have two StudioLive Yes Master: Aux Mixes: No mixers linked, you only need to lock the Master unit to lock both mixers Scene Recall: No in the chain. At its lowest level of security, Lockout mode allows you to freeze

the current Fat Channel and effects settings. Faders, aux mixing, master section functions like Talkback and Monitoring, and Scene recall are still functional. Each of these mix functions can be added to Lockout mode. To lock your StudioLive, press the Select buttons that correspond to the 5-digit password you have set. In this example, the password is 12345, so you would press the Select buttons for Channels 1, 2, 3, 4, and 5, in that order. The Panel Status will switch to Locked, indicating that Lockout mode is now active.

To unlock your StudioLive, navigate back to the Lockout page in the System menu on your mixer, if this page is not currently active. Press the same sequence of Select buttons. The Panel Status will change to Unlocked, and you will be able to resume your mix.

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#### PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

#### 2.5.8 Using the Smaart Spectrograph to Ring Out Monitors

The Spectrograph shows frequency data over time, so a constant frequency, such as feedback, results in a straight line in the spectrograph. Feedback is short term for a feedback loop, where a portion of the signal from the speaker returns to the microphone resulting in a constant tone at the offending frequency. "Ringing out" is a process of attenuating the frequencies that are feeding back to maximize gain before feedback in your floor monitors.

1. With the mic input gain at an appropriate level, bring the Mix level up on the mic channel you wish to ring.

If you are using one console for stage monitors and another console for front of house, set the mic input gain on the frontof-house console. Do not "gain up" the mic signal on the monitor mixer for the sake of getting more volume out of a stage monitor, as you can do that in another place: Mix level for individual channels, Aux Out level for global control, etc. Gain staging is very important in order to have a feedback-free show.

- 2. Click on the GEQ tab in VSL and select the GEQ assigned to the Aux Output of the stage monitor you are ringing out.
- 3. Enable the Spectrograph.
  - 4. Slowly bring the Aux Output level up until you hear (and see) feedback.

**Note:** Ringing out stage monitors produces feedback. If you are not careful, you can produce a lot of feedback. Do not make sudden gain boosts; go slowly and carefully to avoid causing any damage to speakers and ears.

5. Feedback will show up as a solid line on the Spectrograph and as a line peak on the RTA. Use the dynamic threshold to adjust how bright, and at what input level, the frequency information plots.



6. Lower the GEQ fader in 3 dB increments over the offending frequency to attenuate ("ring") it out of your stage monitor.





**Power User Tip:** Bring back the level on the GEQ slider to the point just before feedback, so you don't take out too much of that frequency content and sacrifice overall timbre.

Because the speaker is pointed at the mic, stage-monitor feedback typically occurs in the higher frequencies, which also is where intelligibility comes from. Maximizing your intelligibility and gain structure results in clearer-sounding **monitors**.



You can apply this process to the Main system, as well. This is especially useful with applications requiring lavalier or podium mics. These types of microphones are typically omnidirectional condensers and are very prone to feedback.

In a main system, feedback is typically in the mid to low range. The frequencies that are regenerating and creating a feedback loop are those frequencies that are wrapping around the main system due to the loss of directional control of lower frequencies.

When you are ringing out a system, and more than two or three feedback loops are happening simultaneously, you have reached the level where stability can no longer be achieved. Try bringing down the overall output level or find a physical solution, such as moving the speaker or microphone.

#### 2.5.9 Using the Smaart RTA While Mixing

The RTA and Spectrograph have useful applications beyond recognizing feedback spikes. The ability to analyze frequency content specifically, being able to visualize the exact frequencies you are hearing in order to home in on problem areas— makes the RTA a secret weapon for many a mix engineer. The Spectra tools also lend themselves very well to ear training and give you confidence that you are choosing the right frequencies when making adjustments.

Because the RTA/Spectrograph is analyzing the bus signal digitally, room and speaker anomalies are taken out of the equation. This provides a pure measurement of your mix because you are measuring what is happening inside the console.

A Spectrograph shows the broadband information of a signal, making it easy to view the fundamental frequency of a source, as well as its harmonic structure. The RTA is a view of amplitude and frequency content over a specified plane. With the Spectrograph, you can view Overviev

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what is happening in your signal now, at the same time you are viewing what happened moments before. In contrast, there is no history information for the RTA: Once an event happens, it goes away.

Both views are useful in understanding what the spectral content of an instrument is when creating space for that instrument in a mix. How you use these tools to achieve an objective is a matter of your subjective, or creative, goals. Trust your ears, and use the Spectra tools to verify what you are hearing.

Below is a mix of drums, bass, guitar, and male vocal viewed by the RTA in VSL. In the first image, you will notice a spike at 500 Hz. This correlated directly with an edgy-sounding lead guitar that was competing with the male vocal. After making some adjustments to the guitar to sit better in the mix, that spike went away.





**Power User Tip:** It should be noted that neither a Spectrograph nor an RTA can be used as a substitute for careful listening. While these tools provide a great visual analysis of your mix, critical listening must always be your main guide.

#### 3.0 StudioLive Remote for iPad

StudioLive Remote (SL Remote) for iPad provides an unprecedented level of remote control over your StudioLive. With SL Remote, you can adjust level, pan, dynamics, bus routing, FX mixes, aux mixes, and GEQ settings from an Apple iPad, via a wireless network. All you need is a computer with Wi-Fi capabilities and an Apple iPad, and you're ready to get started.

**Note:** This section describes SL Remote's operation with all three StudioLive series mixers. All images presented here are from the StudioLive 24.4.2.

#### 3.1 Networking your iPad and Computer

To use StudioLive Remote, you must first install Universal Control on, and sync your StudioLive to, a Windows or Mac computer that has a FireWire connection and a wireless card. Once you have connected and synced your StudioLive to VSL on your computer, the next step is to create an ad hoc wireless network between your iPad and your computer.

An ad hoc, or "peer-to-peer," network is a very simple network involving at least two systems—in this case, the computer to which your StudioLive is connected and an Apple iPad. Unlike the usual local area network (LAN) that you use to connect multiple computers to the Internet or to a shared file server, no server or router is needed.

Creating an ad hoc wireless network between your computer and your iPad is quick and easy. The network will allow you to remote-control VSL, and hence your StudioLive, from an iPad, using StudioLive Remote.

#### STEP 1: Creating an Ad Hoc Network on your Computer

#### **Windows Vista**

- 1. Open Start>Connect to.
- 2. Click "Set up a connection or network."
- 3. Select "Set up a wireless ad hoc network" and click Next.
- 4. Enter the new network name such as "StudioLive."
- 5. Enter a Security key or password. For the best security, include letters, numbers, and punctuation.
- 6. Check "Save this Network."

#### Windows 7

- 1. Open Start>Control Panel.
- 2. Click "Network and Internet."
- 3. Click "Network and Sharing Center."

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- 3.1 Networking your iPad and Computer

- 4. Under "Change your networking settings," click "Set up a new connection or network."
- 5. Select "Set up a wireless ad hoc (computer-to-computer) network."
- 6. Click on "Next" twice.
- 7. Enter the network name, such as "StudioLive."
- 8. Select the Security WAP (or WEP).
- 9. Enter the Security key or password. For the best security, include letters, numbers, and punctuation. Then click OK.
- 10. Check "Save this network."
- 11. Click "Turn on Internet connection sharing."

#### Mac OS X 10.6

- 1. On the Menu bar click on the Wireless Status icon.
- 2. From the pull-down menu select "Create Network...."
- 3. Give your Network a name, such as "StudioLive."
- 4. If you would like set up a password (recommended), check "Require Password."
- 5. Create your password within the guidelines and click "OK."
- 6. Once your network has been successfully created, you will see it in your list of available networks.

#### Connect your iPad to your Ad Hoc Network



STEP 2:

- 1. Tap on the Settings icon in your iPad.
- 2. Tap on "Network."
- 3. Tap on "Wi-Fi."

wi-Fi Ne	tworks
Wi-Fi	ON
Choose a Network	
Area 51	£ ₹ 0
Engineering	≙ ≑ ()
paeguest3	≙ ∓ (0
✓ StudioLive	÷ 0
Other	>

Auto-Join	ON

- 4. Under "Choose a Network," you should now see your ad hoc network in the list.
- 5. Tap on your newly created network to select it.
- 6. If you secured your network with a password, you will prompted to enter it.
- 7. Tap on the menu arrow to the right of the desired network's name to open its network settings.
- 8. Turn Auto-Join to "On." You are now ready to launch StudioLive Remote and mix on the go!

#### **Troubleshooting your Ad Hoc Network**

Every once in a while, your iPad will accept an ad hoc network even though that network is not usable. When this happens, you will see the Wi-Fi icon in the top status bar on your iPad but you will not see your StudioLive in the Devices list in SL Remote. Here's what to do if this happens:

- 1. Tap on the Settings icon in your iPad main menu.
- 2. Click on "Wi-Fi."
- 3. Make sure a check mark is visible before your ad hoc network name.
- 4. Click on the arrow next to your ad hoc network name.
- 5. The IP address should begin with 169.254.xxx.xxx.
- 6. If there is no IP (the field is blank), that's why StudioLive Remote can't connect.
- 7. Wait about 60 seconds on that screen, and a new IP (like 169.254.xxx.xxx) will be assigned automatically.
- 8. If no IP appears, click "choose Static," then enter:

IP Address 169.254.1.2

Subnet Mask 255.255.255.255

If address 169.254.1.2 is already in use by another device, replace 1 and 2 with numbers of your choice between 0 and 255.

If you are using StudioLive Remote in a venue with many wireless networks, you can create a network on a different channel. Channel 11 is the default but it's okay to use an alternative in order to ensure that your iPad's connection to your computer isn't interrupted.

**POWER USER TIP:** Network connections can occasionally require troubleshooting, especially when a lot of wireless networks are in use. Because of this, it is always a good idea to get your iPad and computer happily communicating before the pressure is on, and you have a singer trying to dial in a monitor mix while you're trying to mic the drum kit. So while the guitarist is flirting with the bartender, take a quick moment to get your iPad, computer, and StudioLive talking.

3 StudioLive Remote

#### 3.2 Connecting to Virtual StudioLive and StudioLive Mixers

Once you have created your ad hoc network and joined it from your iPad, you are ready to launch StudioLive Remote. Important: You must connect to your computer's ad hoc network each time you plan on remote-controlling your StudioLive with StudioLive Remote.

Apple's iPad offer two viewing options: Landscape and Portrait:







For the most part, you will hold your iPad in Landscape view. This will allow you to use the Start, Overview, Aux Mix, and GEQ pages. Portrait view provides you with a zoomed-in look at the currently selected channel and allows you to scroll quickly through every channel and bus on your StudioLive.

To launch StudioLive Remote, tap on the SL Remote icon on your iPad. When you launch StudioLive Remote, you will taken to the Start page.



On the Start page, you will see a list of every StudioLive mixer on the network. The Start Page also includes simulations for each of the three StudioLive mixers so you can practice your finger control away from your StudioLive. Tap on the Demo Mixers tab to view this list.

To connect to your mixer, tap on the StudioLive device icon. The text will change color to alert you that it has been selected.

Tap the Connect button to open SL Remote and control your mixer from your iPad.

#### Reconnect

At the top of the Start page, you will see the Reconnect button. This lets you quickly reestablish communication with the last mixer you were controlling (provided that mixer is still available).

#### 3.3 **Overview Page**

The Overview page in StudioLive Remote corresponds directly with most of the controls on the Overview page in VSL. The following parameters can be controlled and/or viewed from this page:

- Channel and Main Volume
- Channel and Main Select
- Channel Mute
- Channel and Master Metering
- Channel Panning
- Channel FireWire Return
- Channel and Main Gate, Compressor, and EQ overview
- Channel and Main Gate, Compression, and EQ zoom

If you have labeled your channels using the Scribble Strip on the Overview tab in VSL, you will also be able to see your channel names.

**POWER USER TIP:** Because StudioLive Remote is a wireless controller for Virtual StudioLive, the fastest way to get comfortable with StudioLive Remote is to get well acquainted with VSL.



- 3 StudioLive Remote
- 3.3 Overview Page

#### PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

#### **Bus Assignments Query**





**Fat Channel Microviews and** 

**Fat Channel Zooms** 

GATE

#### Displays the Bus Assignments for a Channel or Bus. Tap to open Bus Assignments Query page and make changes.

Above each channel, you will find the Bus Assignments view. This displays the current bus assignments (StudioLive 16.4.2 and 24.4.2 only) and FireWire Return status for each channel.

To engage a particular channel's FireWire Return, or to assign it to a bus (StudioLive 16.4.2 or 24.4.2 only), tap on the display. This will open the Bus Assignments Query page for that channel. Pressing on the FireWire icon to activate the FireWire Return. Pressing on a Sub or Main Assign button will assign/unassign the channel to that bus (StudioLive 16.4.2 and 24.4.2 only). Any selection made on this page is immediately displayed in its Bus Assignment Query.

To close the page, press anywhere on the screen.

Displays a Microview of the Gate, Compressor, and EQ. *Tap to open the zoomed view and make changes*.

Each channel and bus features a Microview of the Fat Channel components. These Microviews allow you to see whether a particular channel or bus has dynamics processing enabled. If any of the dynamics processors in the Fat Channel are turned off, its Microview will be grayed out.

To make changes to the Fat Channel dynamics processing, tap on any of the Microviews. This will launch the Fat Channel zoomed view, with that component in focus; for example, if you tap on the EQ Microview, the Fat Channel zoom will open with the EQ in focus. The zoomed Fat Channel view corresponds directly to the Channel tab in VSL.

•EQ

You can switch between the dynamics components in the zoomed Fat Channel view by swiping your finger to the left or right. For example, if you launch the Gate Zoom and swipe your finger to the left, the Fat Channel Zoom will focus on the compressor; swiping to the left again focuses the EQ.



To close the Fat Channel Zoom, tap on the "x" in the upper righthand corner. This will display the normal Overview page.

Universal Control ar

StudioLive Remote 3 Overview Page 3.3

Channel Controls: Select	Selects Channel for Fat Channel Zoom and Portrait View.
CH01	When no Microview has been selected for Fat Channel Zoom, the channel Select buttons merely display the channel number or name, if one has been entered into the Scribble Strip in VSL or in the Channel Name setup in SL Remote or QMix. See Sections 2.5.2, 3.6, and 4.5.
	Once Fat Channel Zoom is launched, the channel Select buttons become active, and you can use them to select another channel so that you can view its zoomed Fat Channel settings.
Channel Controls: Pan	Controls the Panning for Each Channel.
	To pan a channel, tap and hold anywhere on the Pan control and then slide your finger right or left, while maintaining constant contact with the iPad screen. These controls correspond directly to those in VSL and on the StudioLive.
<b>POWER USER</b> have pressed of screen and mo	<b>TIP:</b> The Pan control supports off-axis movement. Once you I Pan field to select it, you can slide your finger anywhere in the Ike a side-to-side movement to control the pan position.
	The pan position is displayed numerically in the Channel Select field while the Pan control is being adjusted in SL Remote.
Channel Controls: Mute	Controls the Mute for Each Channel.
	To mute a channel, tap its Mute button. The Mute button will turn red,



#### Channel Controls: Fader and Metering

Controls the Level for Each Channel and Displays Each Channel's Metering.

indicating that the channel has been muted.

To control the volume of a channel, tap the fader and move your finger up or down while maintaining constant contact with the iPad screen.

**POWER USER TIP:** The fader supports off-axis movement. Once you have touched a fader to select it, you can slide your finger anywhere in the screen and make an up/down movement to control the fader.

The fader position is displayed numerically in the Channel Select field.

**POWER USER TIP:** As with VSL, the fader position set in StudioLive Remote is the level that you will hear. To sync the physical faders on your StudioLive with StudioLive Remote, press the Locate button on your mixer. While in Locate mode, the physical faders on your StudioLive will not be active, so you can adjust them without any changes in level. VSL gives you the option to have Fader Locate mode engage automatically when a fader is adjusted remotely. For more information, please see Section 2.5.6.

To the left of the fader, you will see the meter for the channel. The meter will follow the meter mode selected on the StudioLive or from VSL. The meter mode cannot be changed from SL Remote.

- 3 StudioLive Remote
- 3.3 Overview Page

#### PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

# Overview

Universal Control and VSL

> itudioLive Remtoe

/lix Troubleshoo

Masters Overview Masters Section Page



Displays the Metering for the Main Bus, Auxes (16.0.2), and Subgroups (16.4.2 and 24.4.2). *Tap to open the Masters Section page*.

In the upper right corner of every page in StudioLive Remote (Overview, Aux Mixer, and Graphic EQ), you will find the Masters Overview. This displays the metering for the main bus.

Tapping on the Masters Overview will open the Masters Section page.

The Masters Section page displays the fader, meter, and Fat Channel Microviews for the mains, subgroups (16.4.2 and 24.4.2) and auxes (16.0.2) as well as the FXA and FXB Mute buttons (16.4.2 and 24.4.2 only). These parameters are controlled in the same way they are controlled for channels in the Overview page.

Tapping on any of the Fat Channel Microviews will close the Masters Section page. The Fat Channel Zoom will open with the selected parameter in focus for the selected bus.

To close the Masters Section page, simply tap anywhere outside it.

• COMP • EQ	• COHP • EQ	• COMP	• COMP • EQ	• COMP • EQ
Drm bus L	Drm bus R	Sub 3	Sub 4	Main
				📕 FX A
MUTE	MUTE	MUTE	MUTE	🛒 FX B

Master Section

MASTERS

#### 3.4 Aux Mix Page

The Aux Mix page shows the send level for each channel on each Aux and FX bus. It corresponds directly to the Aux Mix tab in VSL but has been streamlined to show only the parameters you need to control when away from the StudioLive. To navigate right or left, touch anywhere on the screen and swipe your finger to the left or right. Swiping left scrolls the screen to the left. Swiping right scrolls the screen to the right.

Start Page		Aux	Mix		MASTERS
Aux 7	Aux 8	Aux 9	Aux 10	FX A	FX B POST MUTE EDIT EDIT
Aux 7	Aux 8	Aux 9	Aux 10	FX A	FX B
					Ch 11 Ch 12

- Channel Send
- Pre / Post Position
- Aux and FX Bus Gate, Compressor, and EQ Overview
- Aux and FX Bus Gate, Compression, and EQ Zoom
- Edit Effects
- Recall Effects
- Assign/Unassign Effects

- 3 StudioLive Remote
- 3.4 Aux Mix Page

#### PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1



#### Aux Mix Select and Aux Mixing



#### Displays Channel Send Levels to Aux Bus.

To create an aux mix using StudioLive Remote, tap anywhere in the Aux Mix Select tab for that aux. The selected Aux Mix tab will be highlighted to alert you that its individual channel-send levels will be displayed below.

Press the Post button to engage post-fader sends.

The Gate, Compressor, and EQ Microviews function the same for auxes as they do for channels and mains.

To adjust the send levels for any channel, tap anywhere in its send level and move your finger up or down, while maintaining constant contact with the iPad screen. These send-level displays have been designed to emulate the StudioLive Fat Channel meters while in Aux Mix mode, so they should look very familiar!

**POWER USER TIP:** The aux sends support off-axis movement. Once you have touched a send-level control to select it, you can slide your finger anywhere on the screen and make an up/down movement to control the send level.



#### FX Mix Select and FX Bus Mixing



ing Displays Channel Send Levels to FX Bus.

To create an FX mix using SL Remote, tap anywhere in the FX Mix Select tab for that FX bus. The selected FX Mix tab will be highlighted to alert you that its individual channel-send levels will be displayed below.

Press the Post button to engage post-fader sends.

Press the Mute button to mute the effect to its assigned buses.

The Gate, Compressor, and EQ Microviews function the same for auxes as they do for channels and mains.

To adjust the send levels for any channel, tap anywhere in its send level and move your finger up or down, while maintaining constant contact with the iPad screen. These send-level displays have been designed to emulate the StudioLive Fat Channel meters while in Aux Mix mode, so they should look very familiar! Addendum for StudioLive Mixers

**POWER USER TIP:** The FX sends support off-axis movement. Once you have touched a send-level control to select it, you can slide your finger anywhere in the screen and make an up/down movement to control the send level.



#### **FX Edit Button**

#### **Opens FX Editor.**

EDIT

From SL Remote, you can load new FX types and adjust their parameters. To edit an effect, tap on the Edit button in the FX Select tab for FXA or FXB. This will launch the FX Editor.



To load a new effect type, tap on the Effects Type window, and then tap on the new effect type to load it. To adjust a parameter, simply tap on it and move your finger up or down while maintaining constant contact with your iPad.

To close the Effects Editor, tap the "x" in the upper right corner.

SL Remote allows you to remotely control the Tap Tempo function for a delay loaded on either FX bus. Once a Delay FX type (Mono, Filter, Stereo, or Pingpong) has been loaded onto FXA or FXB, the Tap Tempo button will be visible on that bus. Tapping on it repeatedly will change the Time parameter to match the tempo entered.



- 3 StudioLive Remote
- 3.5 GEQ Page

PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

#### 3.5 GEQ Page

As with StudioLive and VSL, StudioLive Remote includes a Graphic EQ page so that you can tune the room from any listening position or can dial in a monitor on stage while you are actually standing in front of it. The GEQ page in StudioLive Remote corresponds directly to the GEQ tab in VSL. From the GEQ page you can control and view the following parameters:



- All 31 bands of each graphic EQ (1 main stereo GEQ for StudioLive 16.0.2, 4 dual-mono GEQs for StudioLive 16.4.2 and 24.4.2).
- GEQ insert assignments (StudioLive 24.4.2 only).
- Zoom in for fine adjustments.
- Draw the EQ curve you want rather than adjust each slider manually.

To begin making changes to a particular GEQ, you must first select it. To

#### GEQ Select Tab

#### Brings a Pair of Graphic EQs into View (StudioLive 16.4.2 and 24.4.2 Only).

do this, simply tap on the GEQ pair you'd like to edit.

#### GEQ 3&4

GEQ On/Off Button	Turns a Graphic EQ On or Off.	iew
也 GEQ1	By default, each graphic EQ is turned off. To enable a graphic EQ, tap the GEQ On button in StudioLive Remote and VSL, or use the GEQ menu on your StudioLive.	Overvi
<b>POWER USE</b> and you can't	<b>R TIP:</b> If you are making adjustments to a graphic EQ, t hear your changes, make sure it is on!	Universal
GEQ Flatten Button	Sets All Graphic EQ Band Levels to 0 dB.	
FLATTEN	To reset a GEQ to 0 dB, simply tap its Flatten button. This will return each slider to 0 dB so that no frequency band is boosted or attenuated.	StudioLive
GEQ Link Button	Links the Graphic EQ Pair.	
0 GEQ1 0 GEQ FLATTEN CO FLATTEN	When a GEQ is inserted on a stereo-linked bus, the GEQ Link button will automatically enable, and the two mono GEQs will function as a stereo graphic EQ (for instance, if you adjust Band 15 on GEQ2, Band 15 on GEQ1	ŇŎ
	will be adjusted accordingly, and vice versa). To disable this, simply tap the GEQ Link button, and each GEQ will function independently once more.	roubleshooting
Zooming In	Zooms View In to Make Fine Adjustments.	
+	Press the "+" button to zoom in on the GEQ view. Slide your finger to the left or right to access additional bands.	
	Use the Overview Map in the bottom right corner of the GEQ page to reference your current position within the 31 bands.	
Zooming Out	Zooms View Out.	
_	Press the "-" button to zoom out the GEQ view. If you have not zoomed all the way out (so that you don't have all 31 bands on your screen), you can slide your finger to the left or right to access additional bands.	
	Use the Overview Map in the bottom right corner of the GEQ page to reference your current position within the 31 bands.	
Overview Map	Provides a Reference Point for the Current Bands in View.	
	All this zooming in and out provides the ultimate control when making GEQ adjustments but it's easy to get lost and forget which bands in the GEQ you're adjusting. This is where the Overview Map comes in.	
	The Overview Map is located in the bottom right corner of the GEQ page. Whether you've zoomed in on a few bands or zoomed all the way out so that you can see all 31 bands on your iPad, the Overview Map will highlight which bands are currently in	
	view and where they are in reference to the rest of the GEQ.	

**POWER USER TIP:** The Overview Map always follows your current position. So if you scroll left or right while you are zoomed in, the Overview Map will scroll with you.

- 3 StudioLive Remote
- 3.5 GEQ Page



#### Allows You to Draw an EQ Curve with Your Finger.

SL Remote provides flexible control over your graphic EQ settings. You can control each band individually, or several bands at once, via the sliders, or you can simply draw in an EQ curve and fine-tune from there.

To enable EQ-curve drawing, tap the Draw button and slide your finger over the graphic EQ bands. Each band's slider will snap to your finger as you pass over it.

#### Inserts Each GEQ on an Aux, Subgroup, or Main Bus Output Pair (StudioLive 24.4.2 Only).

Like VSL and the StudioLive 24.4.2, SL Remote allows you to choose onto which output pair you'd like to insert each graphic EQ. To change an assignment, simply tap on the Assign menu; then choose the output pair by tapping it.

StudioLive 16.4.2 users: Each of your graphic EQs is already assigned to either your main output or one of your auxes. These assignments cannot be changed.

StudioLive 16.0.2 users have a graphic EQ available for the Main bus only.

#### 3.6 Scenes Page

The Scenes page allows you to remotely recall Scenes that have been stored on the computer to which you are networking SL Remote. These Scenes are displayed in the On Disk section of the Scenes tab in the VSL Browser.

START PAGE	Scenes	TALK MASTER	s 🔢 🕇
	DVD Audio only		
	Full Gospel		
-	Memorial Service		
	Offertory		
	Praise Band-1st service		
	Praise Band-2nd service		
	Processional		
LOAD	Solo		

#### **Scene List**

#### **Displays Stored Scenes**



You can use the Scene list to scroll through the Scenes you have stored on the computer to which you are networked. Tap on a Scene to select it. A box will be drawn around it, indicating that it is selected to load. The Scene that is currently loaded will be highlighted.

#### Load Button



#### Loads Currently Selecte Scene

Once you have selected the Scene you would like to load, tap the Load button. The Scene will be highlighted in the Scene list, indicating that it is active.

#### Scroll Up/Down

#### Navigates Up or Down through the Scene List,

Use the Up and Down arrows to navigate through your Scene list one scene at a time.



- 3 StudioLive Remote
- 3.7 Settings Page

#### 3.7 Settings Page

The Settings page allows you to set scrolling and metering functions as well as create custom names for each channel, aux, and subgroup (16.4.2 and 24.4.2 only) in your mix.

iPad 穼		2:05 PM	6% 🐑
START PAGE	s	Settings	TALK MASTERS
M	1R	Setup: Studio	oLive
		Ch 1:	Ch 1
PreSonus S	SL-Remote 1.3	Ch 2:	Ch 2
n	ev.5217	Ch 3:	Ch 3
Scroll by Page	<b>A</b> 11	Ch 4:	Ch 4
Overview Mixer		Ch 5:	Ch 5
Aux Mixer		Ch 6:	Ch 6
Metering			01.7
Peak Hold	ON ON	Ch 7:	Ch 7
		Ch 8:	Ch 8
Talkback		Ch 9:	Ch 9
Talkback to Aux 1-2	OFF	Ch 10:	Ch 10
Talkback to Aux 3-6	OFF	Ch 11:	Ch 11
Talkback to Aux 7-10	OFF	Ch 12:	Ch 12
	<u> </u>		
	Overview Aux Mixer	Graphic EO Scenes Settings	

#### **Scroll by Page**

Scrolls Through Channels by Page.

Scr	oll by Page	
	Overview Mixer	ON O
	Aux Mixer	ON O

When the Scroll by Page option is enabled, the mixer will scroll to through channels by entire pages, rather than by individual channels. Turning this option off will allow you to scroll over by a single channel and offer more granular control.

Scroll by Page can be enabled/disabled for both the Mixer and Aux pages.

#### **Peak Hold Metering**

Displays the Most Recent Signal Peak.

Mete	ring	
	Peak Hold	ON O

When Peak Hold Metering is enabled, each meter in SL Remote will continue to display the most recent signal peak. This allows you to keep an eye on the average loudness of each channel's signal.

#### **Talkback Bus Assignments**

#### Engages/Disengages Talkback Assignments.

Tall	dack	
	Talkback to Aux 1-2	OFF
	Talkback to Aux 3-4	OFF
	Talkback to Aux 5-6	OFF
	Talkback to Main	OFF

Use these switches to remotely engage/disengage the Talkback bus assignments on your StudioLive mixer.

Link	Channel	Faders
	Cildinici	i aaci s

#### Links Channel Faders when Channels are Stereo Linked.

Oth	er	
	Link Channel Faders	OFF

When Link Channel Faders is enabled, stereo-linked channels will no longer have individual control over each fader in SL Remote or VSL. This allows you to control the volume of a stereo channel pair by moving either channel's fader.

#### **Default to Fader Locate**

Activates Fader Locate on StudioLive when Fader is Moved Remotely.

Default to Fader Locate

With the Default to Fader Locate preference enabled, Fader Locate will automatically engage when a fader is moved remotely in VSL or StudioLive Remote. This preference allows you to quickly sync your StudioLive when you return to the board.

**Power User Tip:** If you are remotely controlling the faders on your StudioLive, it is highly recommended that you enable this preference. When Fader Locate Mode is activated, the faders on your StudioLive will not be active. By allowing this mode to engage automatically, you can avoid accidental volume jumps should you forget that a fader was adjusted up or down in VSL or SL Remote when you go back to your StudioLive.

OFF

#### **Channel Naming**

#### Creates Custom Names for Channels, Auxes, and Subgroups.

dioLive Ch 2 Ch 3 Ch 3 Ch 4 Ch 4 Ch S Ch 5 a R U 0 a w ï a ŝ D Done ŵ Z x C N N ŵ 7123 7123

To create a custom name for any channel, aux, or subgroup in your mix, simply tap on the text field next to it. This will launch the iPad keyboard. After you have entered the new name, tap the Done button. The channels' default name will be replaced with its new custom name in SL Remote, VSL, and QMix.

Note: Channel Naming can be disabled in Universal Control. If you are unable to change channel names from QMix, verify your device's permissions in the Setup tab in Universal Control. See Section 2.5.6 for details.

## Overvie

- 3 StudioLive Remote
- 3.7 Settings Page

#### 3.8 Channel Zoom Page

The Channel Zoom page opens automatically when you turn your iPad to the Portrait view. This page provides you with a look at every controllable parameter for a channel or bus. It also allows you to quickly scroll through every channel and bus on your mixer by sliding your finger down the right side of your screen.



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Universal Control and VSL

#### 4.0 QMix for iPhone and iPod Touch

QMix for iPhone and iPod touch puts each musician's monitor mix in their own hands. With QMix, you can adjust each channel's send level to taste and can create a group of channels that you simultaneously control with the amazing Wheel of Me. All you need is a computer with Wi-Fi capabilities and an iPhone or iPod touch and you're ready to take control of your own destiny.

Note: This section describes QMix's operation with all three StudioLive series mixers. All images presented here are from the StudioLive 24.4.2.

#### 4.1 Networking your iPhone or iPod Touch and Computer

To use QMix, you must first install Universal Control on, and sync your StudioLive to, a Windows or Mac computer that has a FireWire connection and a wireless card. Once you have connected and synced your StudioLive to VSL on your computer, the next step is to create an ad hoc wireless network between your iPhone or iPod touch and your computer.

An ad hoc, or "peer-to-peer," network is a very simple network involving at least two systems—in this case, the computer to which your StudioLive is connected and an Apple iPhone or iPod touch. Unlike the usual local area network (LAN) that you use to connect multiple computers to the Internet or to a shared file server, no server or router is needed.

Creating an ad hoc wireless network between your computer and your iPhone/iPod Touch is quick and easy. The network will allow you to remote-control VSL, and hence your StudioLive, from an iPhone/iPod touch, using QMix.

#### STEP 1: Creating an Ad Hoc Network on your Computer.

#### **Windows Vista**

- 1. Open Start>Connect to.
- 2. Click "Set up a connection or network."
- 3. Select "Set up a wireless ad hoc network" and click Next.
- 4. Enter the new network name such as "StudioLive."
- 5. Enter a Security key or password. For the best security, include letters, numbers, and punctuation.
- 6. Check "Save this Network."

#### Windows 7

- 1. Open Start>Control Panel.
- 2. Click "Network and Internet."
- 3. Click "Network and Sharing Center."

Over

4 QMix

- 4. Under "Change your networking settings," click "Set up a new connection or network."
- 5. Select "Set up a wireless ad hoc (computer-to-computer) network."
- 6. Click on "Next" twice.
- 7. Enter a network name, such as "StudioLive."
- 8. Select the Security WAP (or WEP).
- 9. Enter the Security key or password. For the best security, include letters, numbers, and punctuation. Then click OK.
- 10. Check "Save this network."
- 11. Click "Turn on Internet connection sharing."

#### Mac OS X 10.6 / 10.7

- 1. On the Menu bar click on the Wireless Status Icon.
- 2. From the pull-down menu select "Create Network...."
- 3. Give your Network a name, such as "StudioLive."
- 4. If you would like set up a password (recommended), check "Require Password."
- 5. Create your password within the guidelines and click "OK."
- 6. Once your network has been successfully created, you will see it in your list of available networks.

#### Connect your iPhone/iPod Touch to your Ad Hoc Network.



STEP 2:

- 1. Tap on the Settings icon in your iPhone/iPod touch.
- 2. Tap on "General."
- 3. Tap on "Network."
- 4. Tap on "Wi-Fi" making sure it is set to "On."

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- 5. Under "Choose a Network," you should now see your ad hoc network in the list.
- 6. Tap on your newly created network to select it.
- 7. If you secured your network with a password, you will be prompted to enter it.

#### **Troubleshooting your Ad Hoc Network**

Once in a while, your iPhone might not be able to establish an ad-hoc Wi-Fi connection with your computer, or it might have intermittent problems. This can be due to a compatibility problem with the Wi-Fi module on your computer. The problem may be resolved by simply rebooting your computer or trying a different Wi-Fi channel.

Once your iPhone and your computer have established a proper Wi-Fi connection, the DNS IP on your computer should start with 68.28. If this field is empty or has a different range, you will need to reconnect to your network.

The best way to reconnect to your network is to select it on your iPhone and tap "Forget this network." Wait several seconds and then reconnect to the network from your iPhone.

**Windows users only:** If your iPhone doesn't see the adhoc network you created on your computer, verify that the Wi-Fi adapter is not in power-saving mode.

If you use multiple iOS devices and have difficulty keeping them connected to your computer's ad-hoc network, consider purchasing a wireless router. A wireless router will provide you with a more stable network-generator and a wider connection range.

**POWER USER TIP: POWER USER TIP:** Network connections can occasionally require troubleshooting, especially when a lot of wireless networks are in use. Because of this, it is always a good idea to get your iPad and computer happily communicating before the pressure is on, and you have a singer trying to dial in a monitor mix while you're trying to mic the drum kit. So while the guitarist is flirting with the bartender, take a quick moment to get your iPhone/iPod touch, computer, and StudioLive talking.

#### 4.2 Start Page

Once you have created your ad hoc network and joined it from your iPhone/iPod touch, you are ready to launch QMix. *Important: You must connect to your computer's ad hoc network each time you plan on remote-controlling your StudioLive with QMix.* 

The iPhone and iPod touch offer two viewing options: Landscape and Portrait:



These two orientations open two different windows. When you hold your iPhone/ iPod touch in Landscape view, the Aux Mix window will open. When you hold your iPhone/iPod touch in Portrait view, the Wheel of Me window will open.



PreSonus Universal Control 1.6, StudioLive Remote 1.3, and QMix 1.1

To launch QMix, tap on the QMix icon on your iPhone. When you launch QMix you will be taken to the Start page.

On the Start page, you will see a list of every StudioLive mixer on the network. You can also view QMix using three different Demo Mixer simulations (StudioLive 16.0.2, 16.4.2, and 24.4.2). These offline simulations enable you to practice your finger control away from your StudioLive.

To connect to your mixer, tap on the StudioLive device icon. The text will change color to alert you that it has been selected.

Tap the Connect button to open QMix and control your mixer from your iPhone.

The Reconnect button at the top of the page allows you to quickly reestablish communication with your mixer when you launch QMix (provided your mixer is still available on the network).

#### 4.3 Aux Mix Page

The Aux Mix page shows the send level for each channel on each aux to which your iOS device has access. It corresponds directly to the aux mixes in VSL and has been streamlined to show only the send levels. To open the Aux Mix page, simply hold your iPhone/iPod touch in Landscape view.

ull AT&T 🤤		9:15 AM 🔳				
Start Page	ge Auxes		•			
Aux 1		Aux 2	Aux	3	Aux	4
Ch 1 C	Ch 2 Ch	3 Ch 4	Ch 5	Ch 6	Ch 7	Ch 8

#### **Aux Mix Select**

# Aux 1 9:15 AM Aux 2 Aux 3

#### Displays Channel Send levels to Aux Bus.

To create an Aux Mix using StudioLive Remote, tap on the Aux Mix Select tab for that Aux. The selected Aux Mix tab will be highlighted to alert you that its individual channel send levels will be displayed below.

To navigate right or left, touch anywhere in the Aux tabs and swipe your finger to the left or right. Swiping left scrolls the screen to the left. Swiping right scrolls the screen to the right.

**Please Note:** Your device's access to the aux mixes is determined from within VSL. If you only have access to one aux mix, verify your device's permissions on the Setup tab in VSL. See Section 3.6 for details.

#### **Channel Send Levels**



#### Sets the Channel Send Levels to the Selected Aux Bus.

To adjust the send levels for any channel, tap anywhere in the channel's level control and move your finger up or down while maintaining constant contact with the iPad screen. These send-level displays have been designed to emulate the StudioLive Fat Channel meters while in Aux Mix mode, so they should look very familiar!

To navigate right or left, touch anywhere in the channel sends, and swipe your finger to the left or right. Swiping left scrolls the screen to the left. Swiping right scrolls the screen to right.

To the left of each channel send is a meter that displays the channel's current signal level. Use this meter to determine if a particular channel has signal and to see how hot a signal is before you set the send level.

**POWER USER TIP:** The aux sends support off-axis movement. Once you have touched a send-level control to select it, you can slide your finger anywhere in the screen and make an up/down movement to control the send level.

#### **Lock Orientation**



#### Locks Device in the Landscape View.

Enabling the Lock Orientation button will lock your iPhone/iPod touch in Landscape view. While this button is enabled, you cannot open the Wheel of Me.

Locking the view will also remove the Start Page button. Until this option is disabled, QMix will launch in this view when connected to the current mixer. Overvie

- OMix 4
- 4.4 Wheel of Me



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4.4	wheel of Me	
uul. AT&T 🤿	9:15 AM	
Start Page	Aux 1	ME

#### Lock Orientation

ME



#### **Me Button**





QMix's Wheel of Me provides you with an easy and powerful way to control all of the channels that contain your voice and instruments. To open the Wheel of Me, turn your iPhone/iPod touch to the Portrait view. The Wheel of Me will open for the currently selected aux mix (so if you have Aux Mix 3 selected on the Aux Mix page, Aux Mix 3 will still be selected when you open the Wheel of Me).

To begin, you must set up your monitor mix using the Aux Mix page in QMix, VSL, or your StudioLive. Once you have your monitor mix dialed in to taste, you simply need to identify which channels are yours. After this, the Wheel of Me will control the volume of all your channels as a group, preserving the volume of each channel relative to the others.

#### Locks Device in the Portrait View.

BAND

Enabling the Lock Orientation button will lock your iPhone/iPod touch in Portrait view. While this button is enabled, you cannot open the Aux Mix page.

Locking the view will also remove the Start Page button. Until this option is disabled, QMix will launch in this view connected to the current mixer.

#### Opens the Me Page.

From the Me page, you can identify which channels are yours in any aux mix. For example, if you sing backup vocals and play bass, you probably want to hear more of those channels. As a bass player, you might also want the kick drum level to increase in proportion to your bass.

Once you've identified these channels as your "Me" channels, the Wheel of Me will increase or decrease the level of these channels concurrently, allowing you to create a subgroup of your most critical channels in your monitor mix.

To return to the Wheel of Me, tap the Aux button in the upper left-hand corner.

#### Wheel of Me



#### Controls the Level of the Me Channels

The Wheel of Me increases or decreases the level of your Me Channels as a mix relative to the rest of the channels. If you increase the level of your Me Channels beyond the top level, the rest of the channels will decrease in volume.

On either side of the Wheel of Me, you will find Me and Band Mix Indicators. These level displays show the balance between the Me channels and the Band channels. The Band channels consist of any channels *not* identified as Me channels. These indicators will adjust automatically as you move the Wheel of Me up or down.

4.5 Settings Page



To open the Setting page, tap on the Settings button on the Aux Mix page or Wheel of Me page. From the Settings page, you can customize your QMix scrolling and create custom names for each channel and aux mix.

#### Scroll by Page

Scroll by Page	
r	
Aux Mixer	ON
<b>L</b>	

#### **Peak Hold Metering**



#### Scrolls through Channels by Page.

When the Scroll by Page option is enabled, the mixer will scroll through channels by entire pages, rather than by individual channels. Turning this option off will allow you to scroll one channel at a time, offering more granular control.

#### Displays the Last Signal Peak.

When Peak Hold Metering is enabled, each meter in QMix will continue to display the most recent signal peak. This allows you to keep an eye on how loud each channel's signal is averaging.

#### Channel Naming

I. AT&T Inputs Ch 1: Vocals Ch 2: Ch 2 w Е R т Υ υ L 0 Ρ Q S D F G н J κ A L х v z С в Ν M  $\diamond$ X .?123 Done space

Creates Custom Names for Channels, Auxes, and Subgroups.

To create a custom name for any channel, aux, or subgroup (16.4.2 and 24.4.2 only) in your mix, simply tap on the text field next to it. This will launch the iPhone/iPod touch keyboard. After you have entered the new name, tap the Done button. The default name will be replaced with the new custom name in SL Remote, VSL, and QMix.

**Note:** Channel Naming can be disabled in Universal Control. If you are unable to change channel names from QMix, verify your device's permissions in the Setup tab in Universal Control.

## Overvi

#### 5.0 Troubleshooting

Many technical issues can arise when using a standard computer as a digital audio workstation (DAW) and when networking wireless devices. PreSonus can only provide support for issues that directly relate to the StudioLive mixer and interface, Universal Control control-panel software, Virtual StudioLive mixer-control software, StudioLive Remote, and QMix. PreSonus does not provide support for computer hardware, iOS hardware, wireless networks, operating systems, and non-PreSonus hardware and software, and it may be necessary to contact the manufacturer of these products for technical support. Please check our Web site (www.presonus. com) regularly for software information and updates, firmware updates, and support documentation for frequently asked questions. You can get individual technical assistance by calling PreSonus at 1-225-216-7887, Monday through Friday, between the hours of 9 a.m. and 5 p.m. Central Time. PreSonus technical support is available via email during the same hours at techsupport@presonus.com.

#### 5.1 Universal Control: Driver and General Connectivity

#### StudioLive Will Not Connect to Computer.

Verify that the FireWire cable is properly connected to the StudioLive and to your computer. Disconnect unnecessary peripheral FireWire devices. StudioLive 24.4.2 users: Navigate to Page 3 of the System menu on your StudioLive and verify that the Link ID is set to "0."

#### StudioLive Control Panel Will Not Launch.

The StudioLive Control Panel will not launch if the StudioLive is not connected and synced to your computer. Verify that your FireWire cable is connected both to your computer and to your StudioLive. Navigate to Page 3: Digital in the StudioLive System menu and verify that the FireWire status is locked.

#### 5.2 Universal Control: VSL

#### Tap Tempo is Not Available on an FX Bus.

Make sure that a delay has been loaded on that effects bus. The Tap Tempo button will not appear if a reverb is loaded.

#### Aux Mix Copies Fat Channel Settings Only and Not Mix (or Vice Versa).

Verify that you are using the correct Drag Handle. The Drag Handle that is available at the top of the VSL window when an aux is selected copies the Fat Channel settings only. The Drag Handle that is available from the Aux Masters copies only the aux mix.

#### Remote Devices Are No Longer Available.

When a remote device goes to sleep or the iOS application (SL Remote or QMix) is closed, the device will no longer be available in the VSL Setup tab. Once the application is active again, the remote device will become available.

#### 5.3 StudioLive Remote

#### **Cannot Edit Channel Labels.**

Verify, in the VSL Setup Tab, that the device has permission to edit channel labels.

#### Tap Tempo Is Not Available.

Make sure that a delay has been loaded on that effects bus. The Tap Tempo button will not appear if a reverb is loaded.

#### Cannot Connect to VSL.

Verify that the computer running VSL is not connected to a wireless router or to another network with an Ethernet cable. VSL does not support connections to two networks at the same time.

#### 5.4 **QMix**

#### **Cannot Edit Channel Labels.**

Verify, in the VSL Setup Tab, that the device has permission to edit channel labels.

#### Cannot Open the Wheel of Me or Aux Mix Page.

Verify that the Orientation Lock button is not enabled on the current page.

#### Wheel of Me Indicators Do Not Show Level for "Me" or "Band."

The "BAND" indicator will not show any level until you create an aux mix on the Auxes page. The "ME" indicator won't show any level until at least one channel is selected on the Me Channels page. If all channels in the aux mix are selected on the Me Channels page, level will only be shown in the "ME" indicator, and no level will be shown in the "BAND" indicator.

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## Added bonus: PreSonus' previously Top Secret recipe for...

## **Redfish Couvillion**

#### Ingredients:

- 1/4 C Vegetable oil
- ¼ C flour
- 1 onion diced
- 1 clove garlic minced
- 1 green pepper diced
- 3 celery stalks diced
- 1 14oz can diced tomatoes
- 1 bottle light beer
- 2 bay leaves
- 1 tsp thyme
- 2 lbs Redfish fillets

#### **Cooking Instructions:**

- 1. In a heavy saucepan or large skillet, heat oil on medium high and slowly add flour a tablespoon at a time to create a roux. Continue cooking the roux until it begins to brown, creating a dark blond roux.
- 2. Add garlic, onions, green pepper, and celery to roux.
- 3. Sauté vegetables for 3-5 minutes until they start to soften.
- 4. Add tomatoes, bay leaves, thyme, and redfish. Cook for several minutes.
- 5. Slowly add beer and bring to a low boil.
- 6. Reduce heat and simmer uncovered for 30-45 minutes until redfish and vegetables are completely cooked, stirring occasionally. Break up redfish into bite size chunks and stir in. Add pepper or hot sauce to taste. Do not cover.
- 7. Serve over rice

#### Serves 6-8

While not one of Southeast Louisiana's more famous dishes, Redfish Couvillion is a favorite way to serve our favorite Gulf fish. Also known as Reds or Red Drum, Redfish is not only fun to catch, it's also delicious!

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# Universal Control 1.6, StudioLive<sup>™</sup> Remote 1.3, and QMix<sup>™</sup> 1.1

Addendum for StudioLive Mixers



# **₩ PreSonus**<sup>™</sup>

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Part# UC-ADDENDUM-1.6