StudioLive is covered with controls, but they are so well laid out that getting around is a breeze.

PreSonus
StudioLive 16.4.2
A powerhouse multifunction console in a compact package

— By Nick Peck —

A digital mixer/audio interface designed for both project studio and live sound applications, StudioLive is a 16-input, 4-bus console packed with a comprehensive list of features. Each channel and bus include a signal chain of audio processors known as the Fat Channel. There are six aux sends for interfacing with external processing and for creating cue mixes, two onboard stereo effects, inserts and direct outputs on every channel, 100 scenes for recalling mix setting snapshots, talkback functionality, 16 high-quality mic input preamps, individual 48-volt phantom-power switches on each channel, and separate control room and main outputs—all within a compact, easy-to-transport package.

StudioLive can operate as a stand-alone mixer, but also includes FireWire 400 ports and a Mac/PC-compatible program called Capture that records all 16 channels as separate tracks. StudioLive can also function as your computer's audio interface, using PreSonus' drivers to work with most major DAWs.

Check Out the Specs

Not a square inch of available real estate is wasted, yet StudioLive is easy to navigate. The layout is intuitive and carefully thought-out, and the large numbers of buttons, knobs and faders make for a compact—but not overly cramped—work surface. The design is so good that I was able to learn 80 percent of the desk without ever cracking open the manual. The well-marked buttons and metering all feature bright and colorful LEDs that are perfect for low-light live sound situations. And two StudioLives can be linked together to create a 32-input, 8-bus console. If you're not using the system with a computer, you can link as many as four StudioLives.

StudioLive's routing and conceptual layout should be familiar to those accustomed to analog mixers. Each channel has an input trim at the top and 100mm faders at the bottom, with Solo and Mute buttons. There are no channel-specific EQ,

pan or send knobs—instead, the centrally located Fat Channel serves all channels and sends. Dedicated LED meters, knobs and buttons make for quick adjustment of the parameters. Press a channel's Select button and the Fat Channel's controls are routed to that channel.

The master section includes the subgroup and main channel sections, and areas for monitoring, talkback, digital FX, setup, scene storage and metering. The dedicated meter block displays levels for the groups and main channels, as well as the level and gain-reduction amount of the currently selected channel. The Fat Channel's parameter meters double as level meters for all 16 channels.

All audio connections are laid out across the console's rear panel. Each of the 16 channels has an XLR mic in, ¼-inch TRS line ins and ¼-inch insert send/return jack. The six aux outs, four subgroup outs, two stereo aux inputs, control room outs and one pair of main outs are all ¼-inch TRS jacks. There's an additional pair of XLR main outs, a mono output, a talkback mic in and stereo tape in/out on RCA jacks. All connections except for the line inserts and tape in/out jacks are balanced (see **Fig. 1**).

My Big Fat Channel

The Fat Channel is truly the heart and soul of StudioLive. The effects chain is simultaneously available on all 16 channels, the subgroups, main outs, aux sends, internal FX sends and external FX returns. The chain for input channels comprises polarity (phase) reverse, highpass filter, noise gate, compressor, EQ and limiter. The subgroups, main outs and sends eliminate the phase reverse and highpass filter. The compressor includes nice touches such as a hard/soft-knee switch, and automatic or
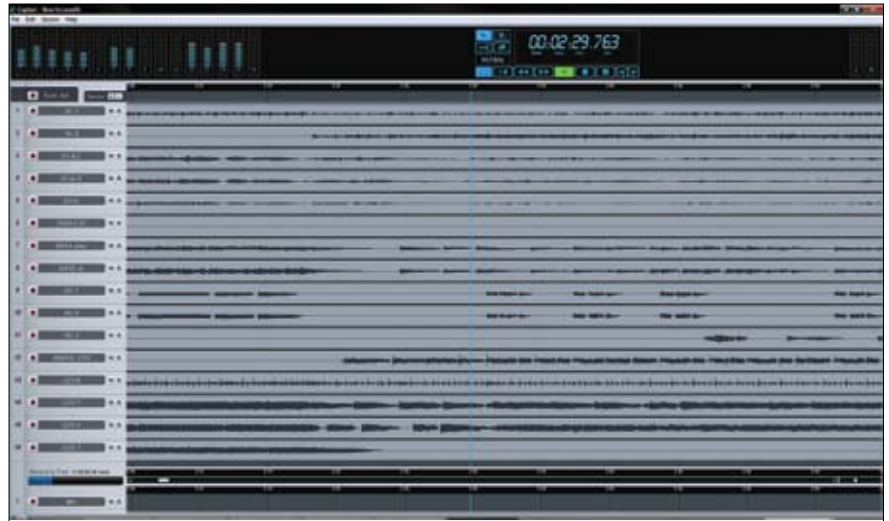
FIG. 2: Capture is a simple but effective recording program with a few rough edges.

manual attack and release times. The EQ is a classic 4-band semi-parametric (Q is high/low-switchable), with shelving options on the low and high bands, and broad/narrow bandwidth selection for the midrange. All bands have ±15dB boost/cut, and there's a generous overlap of the frequency ranges between bands. The limiter is a one-button affair, designed to brickwall signals at 0 dBFS. Every element in the Fat Channel signal chain does its job admirably, with transparent compression, surgical (if not particularly musical) EQ and effective noise gating with a smooth release.

While not in the Fat Channel itself, a recent firmware update adds a stereo 31-band graphic equalizer within one of the menus.

Capture the Spirit

Capture (Mac/Win) is a multitrack audio recording application developed specifically for

StudioLive. It's laid out similarly to many other music recording programs, yet it is not intended to replace a full-fledged DAW, although it does offer some rudimentary editing capabilities (see **Fig. 2**). Music recorded into Capture can be mixed back through StudioLive and re-recorded back into Capture, but audio files can also be exported for further work in the DAW of your choice.

Capture is a great idea, but it's very much "rev 1" software, with some rough edges in the user interface that hopefully will be addressed in future releases. For example, I couldn't get any of the key equivalents to work, forcing me to mouse through every command. There are no fades available to smooth out edit points, and I couldn't get the loop-playback function to work. [*Note: According to PreSonus, these were addressed in software V. 1.1—Eds.*] Tracks that are stereo-linked in StudioLive still must be addressed individually in Capture.

Is It Live, Or Is It Studio?

My organ trio recorded a song together in our rehearsal space by plugging into StudioLive. We recorded as a group simultaneously into Capture, with no effects or processing. We then mixed down the tune through StudioLive and back into Capture, exercising the Fat Channel and onboard effects processing. Other than Capture's rough edges, the process was as smooth as silk.

StudioLive excels in the sound-quality department. The Class-A XMAX mic preamps,

FIG. 1: StudioLive has a comprehensive set of audio connections, including direct outs on all channels.

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borrowed from the company's FireStudio and DigiMax products, are clean, fast and detailed, with plenty of headroom. The line inputs have enough gain to generate a clean, healthy level—even from instrument DI outputs. The onboard reverb and delay effects are perfectly adequate for the job, especially in a live sound context. If you are looking for a vintage vibe or a bigger-than-life sound, you won't find it here. What you will find is clean, accurate and transparent sound reproduction. That latency is so low you can use your computer DAW effects in real time for live sound gigs, so you can do all processing on a computer and fly in pre-produced tracks.

Jacob Rosenberg, a live sound mixer, took the StudioLive out as the front-of-house mixer for a weekly jazz gig. He was very impressed with the sound quality and ease of use, particularly appreciating how the Fat Channel saved him from carting his racks of analog gear.

All that glitters is not gold, and StudioLive is not without its drawbacks. While I love the buttons, I'm not a fan of the knobs and faders. The faders feel cheap, lacking the smooth movement of higher-end consoles. The knobs are a bit small and stiff for my taste. Because the faders and knobs are not motorized, scene recall is not a completely automatic process. The faders need to be manually reset by matching their position to the LED meter display above them, and mic preamp gain levels are not stored at all.

But overall, PreSonus has created a flexible, feature-rich, well-designed, good-sounding mixing desk in a manageable size and at an affordable price. While I have a few quibbles, they are relatively small potatoes in the context of the overall package. There is no doubt that PreSonus has a big winner on its hands with StudioLive. If you're involved in smaller-scale live sound or have a project studio in search of a friendly, out-of-the-box front end, StudioLive is definitely worth your attention.

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Presonus StudioLive 16.4.2 Specifications

Audio Connections:

16 XLR Microphone inputs

1 XLR Talkback microphone input

16 1/4" TRS balanced line inputs

2 DB25 Pre-insert balanced direct outputs (channels 1-16)

16 1/4" TRS unbalanced insert jacks

6 1/4" TRS balanced aux outputs

4 1/4" TRS balanced aux inputs (2 stereo pairs)

4 1/4" TRS balanced subgroup outputs

2 1/4" TRS balanced CR outputs (1 stereo pair)

2 1/4" TRS balanced main outputs (1 stereo pair)

2 XLR balanced main outputs (1 stereo pair)

1 XLR balanced mono output

2 RCA unbalanced tape inputs (1 stereo pair)

2 RCA unbalanced tape outputs (1 stereo pair)

1 1/4" TRS stereo headphone output

Data Connections:

2 IEEE FireWire 400 ports

1 S/PDIF stereo digital out, RCA format

Power: IEC connection, 90-240 VAC depending upon country of destination

Dimensions: 22x17x7 inches (DxWxH)

Weight: 23 pounds