2016 STEREO ROOM
User Guide

Eventide®

Contents

Chapter 1

Introduction

1.1 About This Product

2016 Stereo Room plug-in is a powerful audio engineering plug-in for Avid AAX, Apple Audio Units, and Steinberg VST formats. 2016 Stereo Room brings you the legendary Stereo Room reverb algorithm from the Eventide SP2016, a multi-effects box still prized today.

2016 Stereo Room features:

- Recreation of the Eventide SP2016 Stereo Room algorithm
- Reverb parameter controls including Predelay, Decay, Diffusion, and a unique Position control
- Low-pass and High-pass EQ controls
- Intuitive, easy to use GUI

1.2 About This Manual

While we're very confident you'll be able to use your new plug-in without reading this manual, we urge you to have a quick look. There are several unique features and interesting options presented in 2016 Stereo Room and a cursory glance will illuminate any features you may overlook. We'll try to keep it all relevant and highlight any tips or cool tricks for you. We also won't cover much at all about the operation of your plug-in host or the Macintosh or Windows environments, as their owner's manuals or online help should provide you with the answers you need. We've made every attempt to integrate the standard controls and features from the major plug-in hosts into our 2016 Stereo Room plug-in so that you don't have to learn anything new. If you find the need to get more information from us than this manual can provide, please visit our support forum available via our website (http://www.eventideaudio.com).

Chapter 2

Registration, Activation, and Installation

Eventide uses PACE's ilok.com licensing system, with or without an iLok hardware dongle, to license our plug-in products. Each license provides two activations which can reside on either your computer or on an iLok license dongle. Once you've purchased your plug-in, you'll need to register it on Eventide's website, activate your license, and install the plug-in on to your computer.

2.1 Registering Your Plug-in

When you purchase an Eventide Native plug-in, you'll receive a Serial Number and License Key. The Serial Number will be two letters followed by 6 numbers. If you have an individual 2016 Stereo Room license, the Serial Number will start with SR (i.e. SR-######). The License Key will be 3 sets of 4 characters, a letter or a number, each; like XXXX-XXXX-XXXX.

Once you've received these codes, you can register your plug-in on the Eventide website. To do so, please log in to http://www.eventideaudio.com, navigate to My Account in the top right corner, and select Register a New Product. Then, fill out the form by selecting Native Plug-in (VST, AU, AAX) in the Product Category field, select 2016 Stereo Room or the applicable group license in the Product list, and enter your Serial Number, License Key, and iLok.com account name. If you don't yet have an ilok.com account, you can create one for free at http://www.ilok.com. Once you've done so, press Register.

Once you've entered this information and pressed the Register button, Eventide will send the applicable plug-in license to your ilok.com account, which you will need to activate to your computer or iLok dongle.

2.2 Activating Your License

To activate and manage your plug-in licenses you'll need to install PACE's iLok License Manager software which you can download from http://www.ilok.com. If you don't have this software installed, please download and install it now.

Once you have installed and launched iLok License Manager you should be able to log in to your account by clicking the large Sign In button in the upper left hand corner of the application. Once you have, you should be able to see available licenses by choosing the Available tab at the top of the iLok License Manager application. If you have successfully registered your plugin, your 2016 Stereo Room Native license will be available in this list. Please activate this license by dragging it to either your computer or iLok dongle listed on the left. When you do so, you will be asked to confirm the activation, and you will be able to see it by clicking on the location you have chosen. At this point your license is activated.

2.3 Installing Your Plug-In

You should have been given a link to the Eventide Native plug-in installer when you purchased your plug-in, but if you haven't, you can find downloads for all of Eventide's Native Plug-Ins at http://

www.eventideaudio.com/products/plugins. Please download and launch the correct installer for your system.

Once you've launched the plug-in installer, it will take you through several pages of options. We have tried to choose defaults for these options which will best serve the majority of users, but it is worth a minute to make sure you understand these options before clicking through to the next page. Once you have followed through the installer, your plug-ins and presets should be in your chosen locations, and you can hit finish to end the installer application.

At this point, you should be ready to use your Eventide 2016 Stereo Room Plug-In.

2.4   Moving or Removing an Activation

If at any point, you decide to move your plug-in activation, you can do so in iLok license manager. To move an activation between an iLok dongle and your computer, simply plug in the iLok, locate the license in its current location, and drag it to its new location. To deactivate a license, find it in its location, right click on it, and choose deactivate.

Remember that each Eventide Native Plug-In License comes with two activations, which can be used on either a computer or iLok dongle, meaning you can use 2016 Stereo Room in two locations at the same time.

Chapter 3

2016 Stereo Room

3.1   About Reverb

Creating a reverb algorithm is part art and part science.

The science bit is all about the naturalness of the sound – whether the simulation convincingly conveys the feel of a real room. Some digital reverbs don't have the horsepower to run a sufficiently complex program to achieve naturalness. Without enough processing power, the effect will suffer from low echo density or unnatural density growth with time or comb filter effects, etc. As Einstein is alleged to have said "things should be as simple as possible, but no simpler." This principle certainly applies to reverb algorithms.

The art of reverb algorithm design begins with simulating a "room" that actually sounds good. Needless to say, rooms that sound awful exist in the real world. The structure of the reverb algorithm combined with the choices of delay lengths, interconnects, filter placement, early reflections, etc., all contribute to the overall sound. The final element of the art of reverb design is the designer's choice of the ways in which, and the extent to which, the artist/engineer/producer is permitted to modify the effect. What are the parameters and what do they do?

The degrees of freedom available to the designer guarantee that no two (sufficiently complex) reverb algorithms will sound the same. Each will be unique. There are a number of popular digital reverberators for good reason. Each has a distinctive sound; each has a particular set of possibilities. The SP2016 reverbs have attracted a loyal user base because of a particular blend of art and science. They sound natural. They sound distinctive. And, while they allow the user to vary the effect dramatically, the controls can't be set in a way that will create an unnatural sounding effect.

The algorithms naturally simulate every aspect of the sound of a real enclosure – from the complex early reflections, to the natural way in which the echo density increases with time, to the smooth Gaussian decay of the reverb tail. It's a powerful simulation that lends itself to parametric control.

3.2   Control Overview

Operating the plug-in is simple and intuitive. The controls visually indicate their setting with a single segment, a continuous array of segments, or a fan-out appearance (whichever is appropriate for the particular parameter that's being controlled). Click and drag up-down to change a knob's setting. Don't try to turn them in a circle.

You can hold down the Option key prior to click-dragging the knob to have the knob turn more slowly and get a finer degree of control over the parameter. The parameter value for the control is displayed underneath the knob and is updated in real time.

The controls are divided into five main sections:

- Level Displays and Digital Clip LED
- I/O Block and Kill Button
- Reverb Control Block

- EQ Block

- Preset Bar

3.3 Level Displays and Digital Clip LED

3.3.1 Level Display

The Level Displays comprise one or two stacks (depending on input channels) of green, yellow, and red LEDs that indicate the input level to the reverb. The input to the displays is driven from the output of the INPUT control.

3.3.2 Digital Clip LED

The Digital Clip LED illuminates when the internal reverb "matrix" is overdriven into digital clipping. This may occur (and usually will) even if the Level Displays are nowhere near a maximum level indication. Digital clipping will commonly occur if the Decay knob is at its most clockwise setting, or if you add gain at low frequencies using the Low-Frequency gain knob. The remedy is simple: lower the input level using the Input knob. This is a normal operating scenario; it is not a defect.

3.4 I/O Block and Kill Button

3.4.1 Input Level

The Input Level control can be used to attenuate the input so as not to overdrive the reverb and produce distortion. Like most audio gear, and digital gear in particular, you want to keep the attenuation as low as possible (i.e., the knob should be turned as far clockwise as possible before inducing distortion) while still keeping the reverb from being overdriven into distortion as indicated by the Clip LED lighting up.

3.4.2 Mix

The Mix control is used to control the mix between the unprocessed input and the reverberated output. This is especially useful when some pre-delay is added.

3.4.3 Mix Lock

Mix Lock allows for flexible preset browsing. When Mix Lock is illuminated, the current Mix value will remain unchanged as new presets are loaded. This is especially useful on an effect return track where the mix should always be set to 100.

3.4.4 Kill

The Kill button is a quick way to remove the input from the reverberator so that you can listen to the tail (reflections) caused by your input. Note that this button lights up when it is depressed, so that you can tell that the input is interrupted. This button also kills the input to the Dry side of the Mix control.

3.5 Reverb Control Block

3.5.1 Predelay

Predelay introduces a delay before the reverb effect. If you want to control the delay change more accurately, hold down the command key before you click and drag this knob.

3.5.2 Decay (RT60)

Decay (RT60) sets the time (in seconds) for a full amplitude signal to decay by 60 dB. In other words, this control sets the reverb time.

3.5.3   Position

Position is used to move your "listening position" from the front of the "room" to the rear. A simplified explanation: it changes the mix between the early and late reflections. Actually, what happens in the algorithm is more complex than this. You'll find that Position is one of the most useful controls

3.5.4   Diffusion

Diffusion alters the character of your space – from the sharp reflections of flat, hard surfaces (Low) to the diffused reflections from rough, irregular ones (High). Note that this can often be a subtle difference and may be difficult to hear with some types of program material and/or with long Decay times.

3.6   EQ Block

These four controls can be used to change the internal frequency characteristics of the reverberator.

Important: Boosting the low frequencies when the Decay (RT60) control is set for a long decay time can cause the effect to "run away". Additionally, It's usually easy to hear the effect of attenuating the high frequencies; it's usually less easy to hear the difference when changing the low frequency adjustment. These controls affect parameters deep within the reverberator and the effect may be subtle or dramatic depending on the program material and other reverb settings such as Decay, Position, or Diffusion.

3.6.1   Low/High Gain

These controls provide gain (low frequencies only) and attenuation for each band. The Low Gain can be set between -8 and +4dB, and the High Gain between -8 and 0dB.

3.6.2   Low/High Frequency

These controls set the corner frequency for each filter. The Low Frequency can be set between 50 and 500Hz, and the High Frequency between 1000 and 8000Hz.

3.7   Preset Bar

When 2016 Stereo Room is installed, a library of settings is placed into the
<user>/Music/Eventide/2016 StereoRoom/Presets folder (Mac) or
<user>/Documents/Eventide/2016 StereoRoom/Presets folder (Windows). These presets have a .tide extension and can be saved or loaded from the 2016 Stereo Room preset bar in any supported DAW. In Pro Tools there is an additional generic preset bar that saves .tfx presets to a separate location. This is a Pro Tools format that can only be loaded from a Pro Tools session. We recommend saving your presets using the Eventide preset bar to ensure that your presets will be accessible from any type of session.

Chapter 4

Conclusion

We hope you enjoy the 2016 Stereo Room plug-in and put it to good use in all of your mixes. Please be sure to check over Eventide's other Native Plug-In offerings for more unique and interesting effects.