



Clearmountain's Domain User's Guide

User's Guide v1.0 October, 2019



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Overview

Introduction

The Apogee Clearmountain's Domain plugin reproduces legendary mixer Bob Clearmountain's personalized FX signal chain for creating the cohesive spaces, expansive dimensions, and rich atmospheres where his mixes live. Clearmountain's Classic presets allow you to recreate the sonic environment of your favorite Clearmountain mixes. The Advanced view reveals Bob's decades of expertise and empower you to create your own musical mix domain.

About Bob Clearmountain

For decades, engineers, producers, and musicians have marveled at Bob Clearmountain's mixes. Recordings by iconic artists like David Bowie, Chic, Roxy Music, The Rolling Stones, Bruce Springsteen, Bryan Adams, INXS, and so many more are prime examples of how Bob's work elevated the role of "the mixer" to that of an essential creative partner in the process of making records. Bob's ability to build a soundscape and atmosphere, where voices and instruments effortlessly live in an intimate space but seamlessly blend together, set new standards for mixing. His passion to reveal the true character of the song, highlighting the emotion of the music, gets to the heart of what inspired the song to begin with.

Highlights

- Clearmountain's Personalized FX Signal Flow
 - Pre Delay/Reverb De-esser
 - Pre/Reverb EQ
 - Stereo Delay with Spin Time Compensation
 - Delay Blur (Saturation)
 - Stereo Octave Pitch Shift
 - Clearmountain Spaces Convolution Reverbs
 - FX Mixer
- Clearmountain Classics Mix Presets
- Real Time FX Visualizer

System Requirements

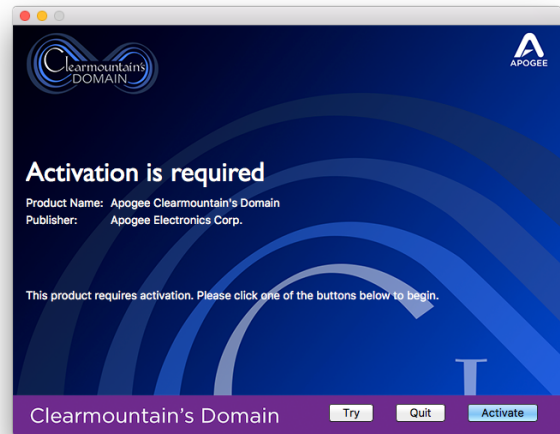
- MacOS 10.12.6 or higher
- It'll run with 4 GB RAM, but really...
- PACE iLok Account
- AAX Native, AU, VST or VST 3 Compatible Host Application

Getting Started

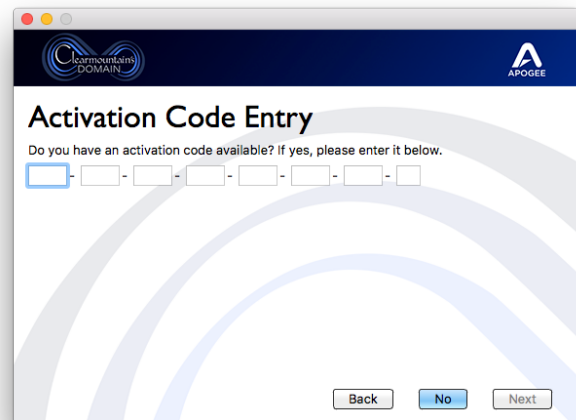
To authorize the Clearmountain's Domain plugin, you need a Pace iLok account and the Pace Activation Code that comes with the purchase of the plugin. The Activation Code deposits an iLok license into your choice of three valid license locations - a physical iLok 2 or greater, your computer's hard drive or the iLok Cloud.

To get started, double-click on the ClearmoutainsDomain.dmg file and follow the installation instructions. Once completed, open your DAW. When the "Activation is required" dialog appears, follow on-screen directions as shown below.

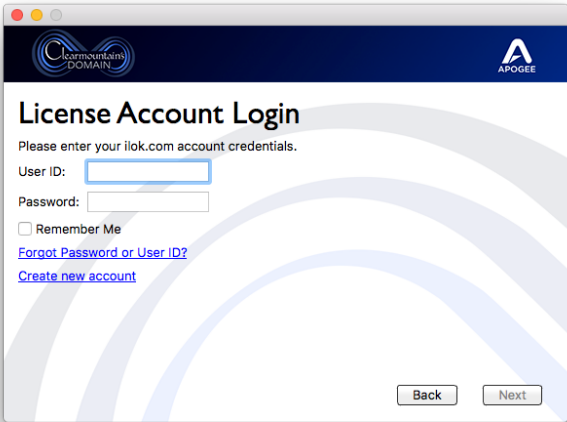
At the "Activation is required" page, click Activate if you have an Activation Code. If you don't have a code, click Try to activate with a 15-day Trial license.



If you clicked Activate, enter the Activation Code on this page:



Sign into (or create) your iLok account on this page:

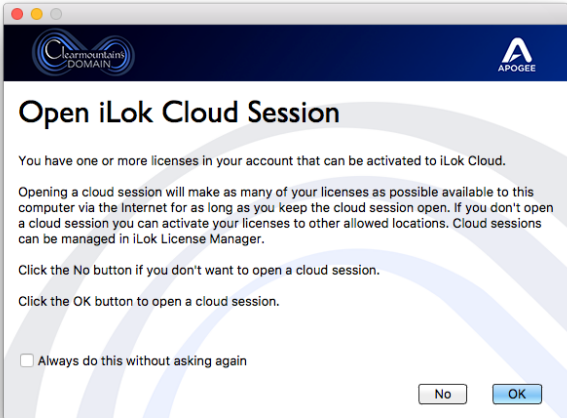


The 'License Account Login' window features the Clearmountain Domain and APOGEE logos at the top. It prompts the user to enter their iLok.com account credentials. There are input fields for 'User ID:' and 'Password:'. Below these is a 'Remember Me' checkbox and two links: 'Forgot Password or User ID?' and 'Create new account'. At the bottom right are 'Back' and 'Next' buttons.

Clearmountain's Domain supports activation to the iLok Cloud. If this is your preference, you can open an iLok Cloud Session from this page.

When activating to the iLok Cloud, you don't need a physical iLok but your computer will need a consistent connection to the internet.

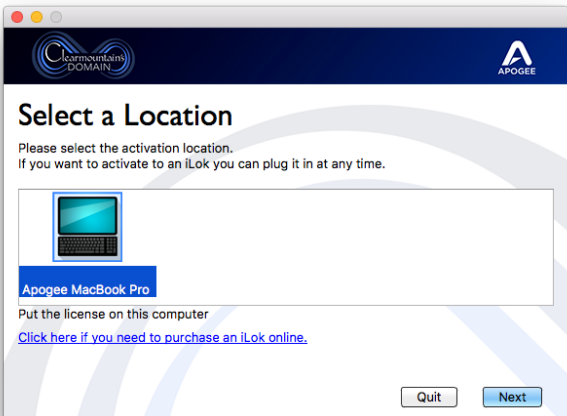
It's always possible to change the license location in the iLok License Manager app.



The 'Open iLok Cloud Session' window explains that the user has licenses available for activation to iLok Cloud. It describes how opening a cloud session makes licenses available via the Internet. It includes instructions to click 'No' if they don't want to open a cloud session or 'OK' to open one. There is also an 'Always do this without asking again' checkbox. 'No' and 'OK' buttons are at the bottom right.

If you haven't opened a Cloud session, choose a valid license location on this page. If you want to activate to your iLok 2 (or greater), connect it now:

It's also possible to activate your license from the iLok License Manager app - open the app and choose Licenses > Redeem Activation Code.

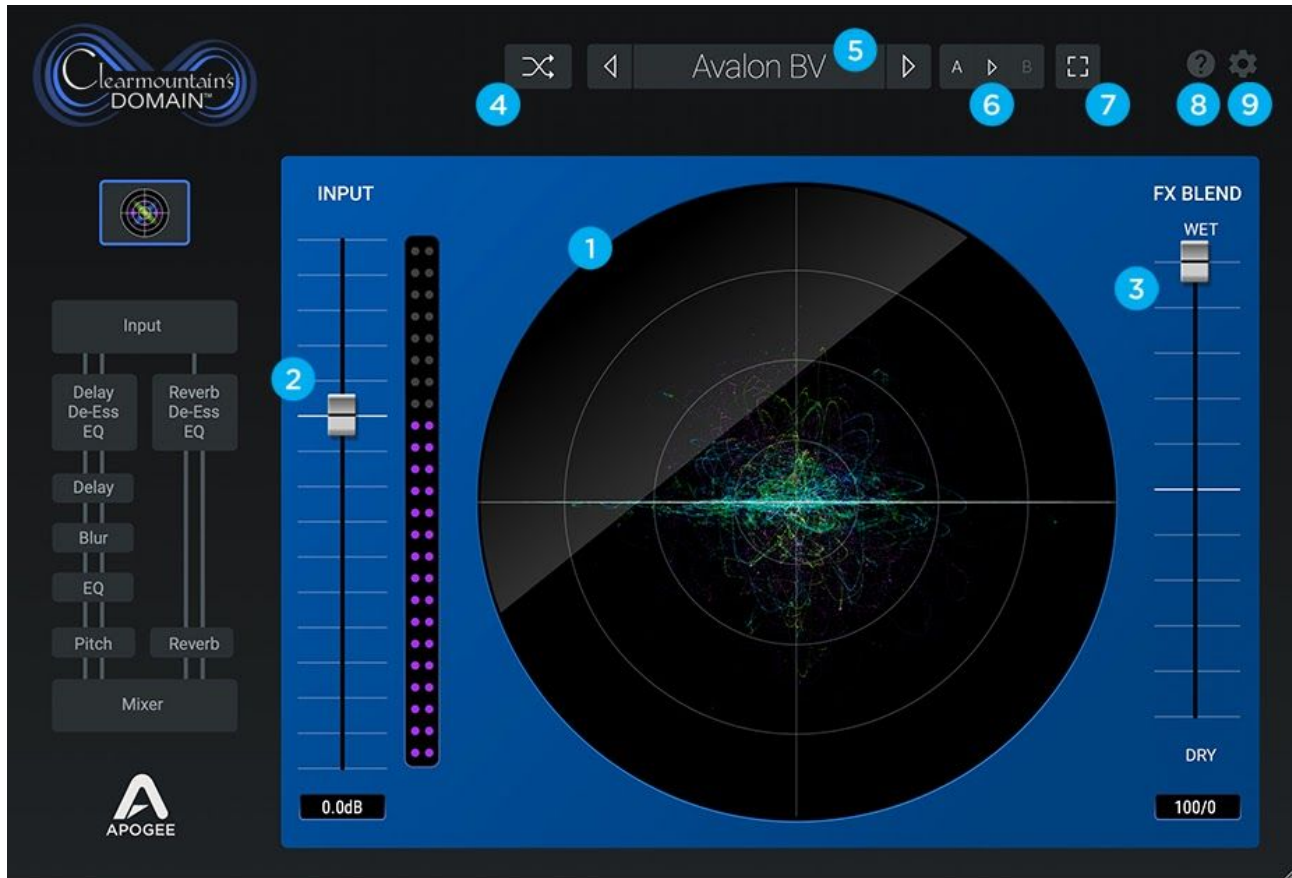


The 'Select a Location' window asks the user to select an activation location. It notes that if they want to activate to an iLok, they can plug it in anytime. A list box shows 'Apogee MacBook Pro' as the selected location. Below the list box, it says 'Put the license on this computer' and provides a link: 'Click here if you need to purchase an iLok online.' 'Quit' and 'Next' buttons are at the bottom right.

Plugin Tour

FX Visualizer View

When you first open the plugin, the FX Visualizer view is displayed. Set Input level and FX Blend, audition Clearmountain's Classics presets, and trip out to the FX Visualizer! To access the FX Visualizer view from other views, click the FX Visualizer icon in the upper lefthand corner under the logo.



Note: If you wish to skip directly to the more complex “Under the Hood” settings, click anywhere on the Signal Flow Diagram on the left side of the window.

- 1 FX Visualizer - This multi-component vectorscope displays the stereo sound field of the plugin's time domain effects - delay, pitched delay and reverb. Each effect is represented by a uniquely colored visual component, as shown in the Setup view.
 - 2 Input - Trim the plugin input from +10 to -20 dB. This setting is also found on the Input tab (Advanced view).
 - 3 FX Blend - Set the blend between the FX mix and the plugin input. This setting is also found on the Mixer tab (Advanced view).
- When using the plugin as an insert on the source material channel, start with the FX Blend around 40/60 and adjust to taste.
 - When using the plugin on an Aux return (and using an Aux send on the source material channel), set FX Blend to 100/0, then use the Aux return fader to adjust the mix between the direct source material and the plugin effects.

4 Randomizer - USE WITH CAUTION! - Set selected plugin parameters to a random value. Why would you ever want to do this? Sometimes, just a bit of random can spark inspiration. Instantiate the plugin on a vocal track and click the Randomize button a few times - you may be surprised at the results!

5 Preset Manager - Factory and User presets may be opened, saved and managed from the top toolbar.

To open Factory and User presets, click the preset title, then select the desired preset from the drop down menu. To audition presets quickly, click the Previous or Next chevron.

To create your own User presets, first find a Factory preset that's close to your desired effect, or start from scratch with the Default Factory preset. To save your changes, click the preset title, then choose Save As at the bottom of the drop down menu. Note that you can't overwrite Factory presets...you're welcome! To save changes to your User presets, choose either Save or Save As.

User presets are stored by default in the folder **Users > Yourhome > Library > Audio > Presets > Apogee > Clearmountain's Domain**. To store User presets in another location (for example, your DAW session folder), choose Save As and navigate to the desired folder. To open User presets from another folder, choose Open and navigate to the preset file, then click Open.

Note that User presets that aren't stored in the default location won't appear permanently in the plugin's preset drop down menu. When opened from another location, they appear temporarily until the DAW session is closed. To ensure that a User preset always appears in the preset drop down menu, save it to the default folder.

6 A > B - Two settings registers, A and B, offer the ability to compare settings options with the click of the mouse. Click A to make it the active register, then set parameters to your first option. Copy A to B by clicking the register arrow, then set parameters to your second option. Toggle between A and B to quickly compare the two settings options.

7 Visualizer Full Screen - Toggle the FX Visualizer full screen mode on/off.

8 Help - Open this Clearmountain's Domain User's Guide.

9 Setup - Open the Setup view, described below.

Presets

The Clearmountain's Domain Factory Presets were created by Bob himself, based on several of his best known mixes. Presets are described below in Bob's own words.

CLEARMOUNTAIN TIP - Factory Presets

Please note that, other than "Let's Dance Breakdown - Descending Stab", the pitch shift is usually either + or - 5 or 6 cents or random *along with the delays* to create a sort of spread, or doubling effect.

Also note that "Spin" is the British term for "Delay Feedback". We thought feedback had a negative connotation, plus after spending years behind British mixing desks and a fair amount of time mixing in London, I've gotten used to the term.

Default

To make a preset from scratch, start with Default. There's a basic quarter-note delay, a bit of a delay offset, and a touch of reverb to let you know the plugin's working, but most parameters are set to a default value.

Avalon BV

A rather basic ¼ note delay cross-feeding with a bit of offset and pitch-shift for spread, and some long, rich reverb. With the vocal or sax source on one side, send to the opposite input of The Domain. Hear this on Roxy Music's "Avalon" from the album of the same name.

Born in the USA Snare

That classic 80's huge gated verb on the snare. Effective but some have said obnoxious. As heard on Springsteen's "Born in the USA" from the album of the same name.

Generic Guitar Solo

A wide stereo delay, ⅛ note on one side, dotted ⅛ note on the other feeding back (spin) on to themselves with a bit of blur, EQ and reverb. Great for the shred.

Generic Wide Vocals

Similar to Avalon BV but with less Spin and shorter reverbs.

Hungry Heart Verb

That short, bright "bathroom" verb sound. Check the organ solo in Springsteen's "Hungry Heart", from *The River*.

Jungleland Live Sax Solo

Long, ¼ note sweeping stereo delay with a cocktail of reverbs. With the source on one side, pan your aux send to the opposite side. I used this on Clarence's sax solo during the "Jungleland" performance from Springsteen's *London Calling - Live in Hyde Park*.

Let's Dance

An ⅛ note ping-ponging delay that's far too dominant. Send audio to one side only. As heard, of course, on Bowie's "Let's Dance" from the album of the same name.

Let's Dance Breakdown - Descending Stab

That old spinning pitch-shifted delay trick. Use it on short horn or synth stabs, or a short guitar stab.

Let's Dance Horns

Similar to the Born in the USA Snare - gated verb for horn stabs with some EQ.

Let's Dance Snare Delay

A triplet, ping-pong delay. Send selected snare beats to one Domain input only.

Live Fogerty

A pair of short slaps with some upper mid EQ, pitch-shift & blur to add excitement to a Fogerty At Red Rocks concert video I recently mixed.

Live Rolling Stones

Similar to above but the delays are a bit longer for more of an arena or stadium sound.

Need You Tonight Guitar Delay

Similar to the $\frac{1}{4}$ note delay on Tim Farriss' guitar as heard on "Need You Tonight", found on the INXS album *Kick*.

Run To You Guitar Solo

$\frac{1}{4}$ note triplet offset & spinning delays with some pitch-shift, blur and reverb. From Bryan Adams' "Run To You" off his *Reckless* album.

Run to You Vocal Delay

$\frac{1}{8}$ note delay with the kitchen sink. This is what you hear on Bryan's "Run To You" lead vocal from the *Reckless* album.

Start Me Up KR Guitar

Hear this effect on Keith's classic guitar figure in the bathroom, from the Rolling Stones' "Start Me Up" on their *Tattoo You* album.

Start Me Up 'Verb

Pretty much the same as above.

Stereo Backing Vocals

$\frac{1}{4}$ note pitch-shifted delays with a wide offset, Mix This! Chambers and a stairwell.

Stereo Slap (Heart of Rock & Roll)

A very basic mono slap. Take a listen to Huey Lewis's "Heart of Rock & Roll" from The News album *Sports*.

Tougher Than The Rest LV Delay

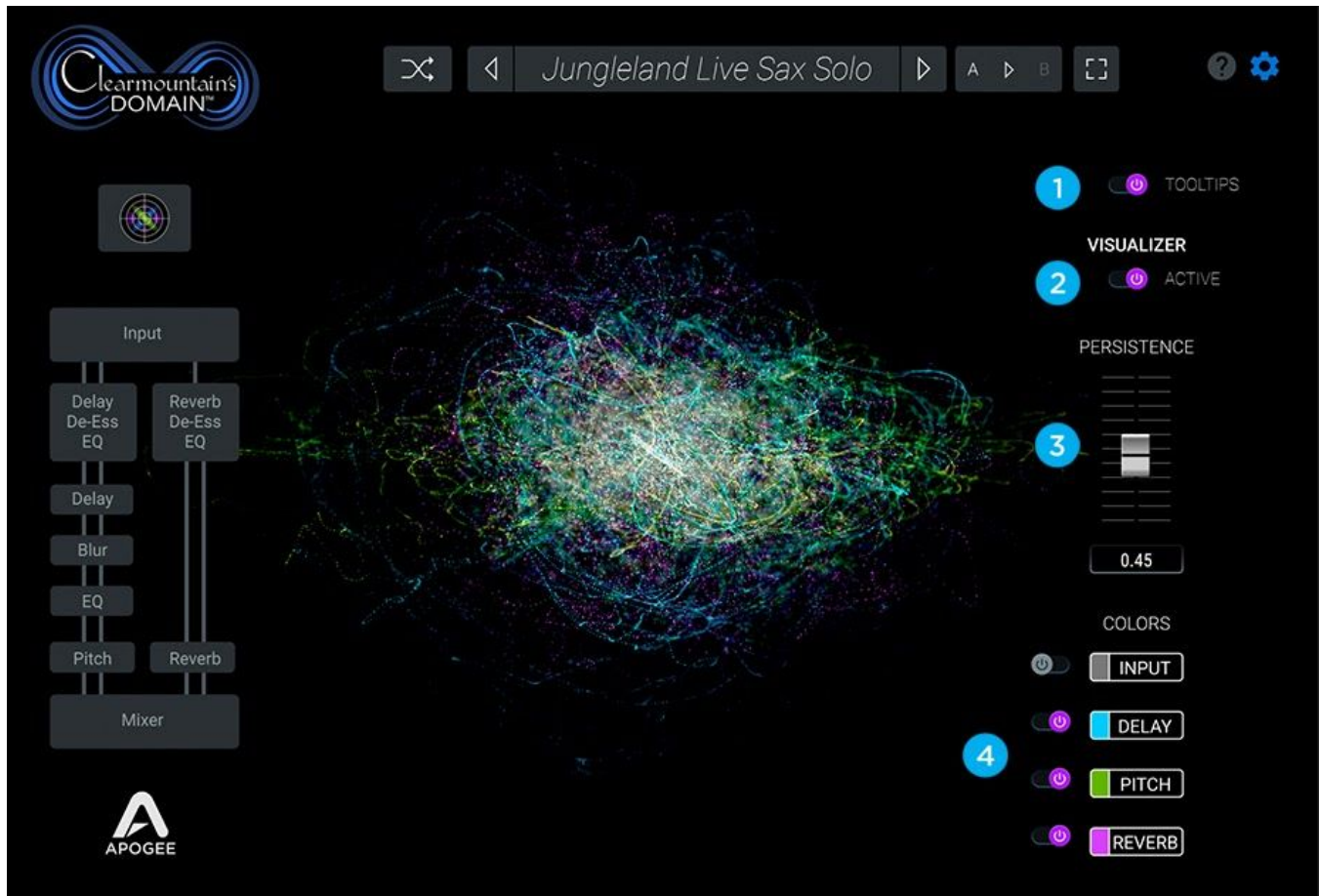
Two $\frac{1}{4}$ note triplet delays with some random pitch shift. As heard on Springsteen's "Tougher Than the Rest" from the album *Tunnel of Love*.

Wide Vocals

$\frac{1}{4}$ note & dotted $\frac{1}{8}$ note delays with pitch-shift into the Stairwell reverb.

Setup View

Configure the plugin's visual display options. To access the Setup view, click the Gear icon in the upper righthand corner.



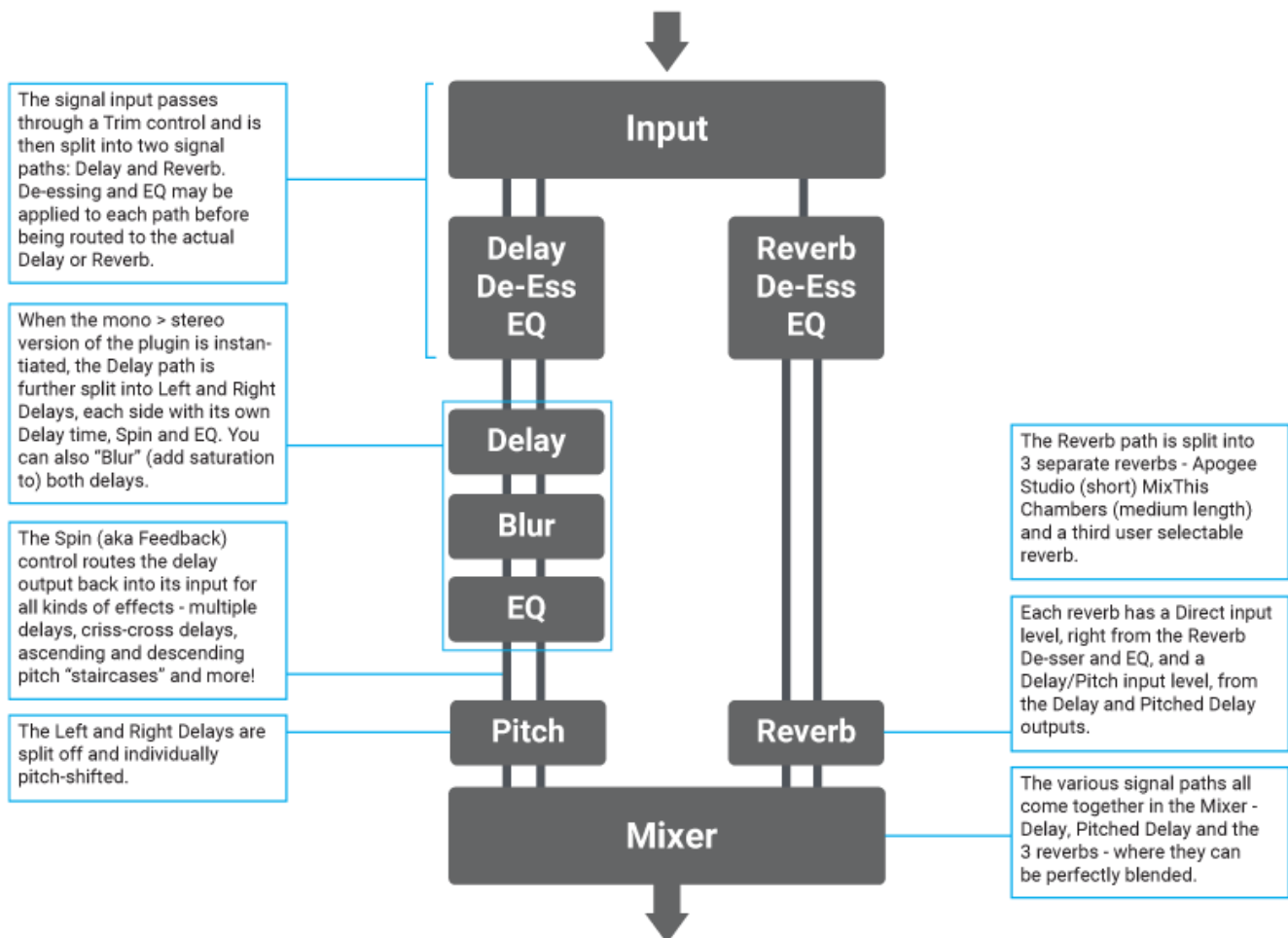
- 1 Tooltips - Toggle Tooltip display on/off. To display Tooltips, hover your mouse over parameters to display a brief description of the parameter.
- 2 Visualizer Active - toggle the Visualizer on/off.
- 3 Persistence - set the decay time of the Visualizer's visual components
- 4 Input, Delay, Pitch, Reverb - Toggle each visual component of the Visualizer on/off.

Advanced View

Once you've heard what's possible with Bob's Classic Presets, go under the hood with the Advanced view to understand exactly how he achieves these sounds.

The key to the Advanced view is the sidebar Signal Flow diagram, which simultaneously displays the plugin's signal path and allows you to navigate to each tab. To access the Advanced View tabs, click anywhere on the Signal Flow diagram.

A basic understanding of the plugin's signal flow is the key to building your own mix domain. Here's the sidebar Signal Flow diagram with a few additional details:



Armed with the general idea of the signal flow, let's take a closer look at each tab of the Advanced view.

Input Tab



- 1 Input - Trim the plugin input from +10 to -20 dB.
- 2 Input Meter - Displays the plug input level from -60 to 0 dBfs.
Purple LEDs display level from -60 to -7 dBfs;
Yellow LEDs display level from -6 to -1 dBfs;
First red LED displays a 0 dBfs level;
Second red LED displays digital Over.
- 3 Delay & Reverb Input De-ess - De-ess the input signal (the send to the Delay/Reverb) before actual Delay and Reverb processing is applied.

De-essing is the process of reducing sibilance sounds (the “s” sound in human speech) that can become overbearing when recording with modern techniques (close mic’ing, EQ, compression).

When adding delay or reverb to vocals, you may want to de-ess the delay/reverb send even more than the direct channel so the “s” sounds aren’t too prominent in the delay/reverb. The de-esser helps to “melt” the delay/reverb into the mix. This technique can also be applied to drums with too-prominent cymbals or acoustic guitars with too-prominent picking noise.

- 4 Freq - Set the frequency above which the de-esser detects excessive high frequency signals. As a general rule, the frequency should be set as high as possible while still removing the excessive high frequency signals. Try a lower frequency to “de-ess” harsh drums.

<Continued next page>

- 5 Range - Set the maximum amount of gain reduction that occurs when excessive high frequency signals are detected.
- 6 Delay & Reverb Input EQ - EQ the input signal before actual Delay and Reverb processing is applied. To create space in your mix, it can be helpful to EQ the delay/reverb send more radically than the direct channel. For example, roll off the send's low end to avoid reverb "boom". Try boosting the delay send's mid-highs while filtering the high end for a sound that's present but not grating.
- 7 Low Filter (High Pass) - The Low filter is an 18dB/octave high pass filter with adjustable cutoff frequency. To adjust the frequency 1) click on the Low filter handle and drag it horizontally 2) click on the handle then click on the Low Frequency parameter and type in a frequency value.
- 8 Mid Peak - The Mid Peak filter is a parametric peak filter with adjustable frequency, gain and Q (Bandwidth). To adjust the frequency, click on the Mid handle and drag it horizontally; to adjust the gain, click the handle and drag it vertically; to adjust the Q (Bandwidth), command-click on the handle and drag vertically. Like the Low and High Filters, settings may be entered by typing the desired value.
- 9 High Filter (Low Pass) - The High filter is a 12dB/octave low pass filter with adjustable cutoff frequency. To adjust the frequency 1) click on the High filter handle and drag it horizontally 2) click on the handle then click on the High Frequency parameter and type in a frequency value.

Delay Tab



6

Left & Right Spin - Set the amount of Spin (feedback for you Yanks) to mix the left and right Delay output back into its own input, as shown in figure 1. When a small amount of Spin is added, the delay is repeated until it decays into silence. Add more Spin, and the number of repeats increases. At higher Spin settings, the sound repeats infinitely and can quickly, uh, spin out of control for crazy and chaotic sounds!

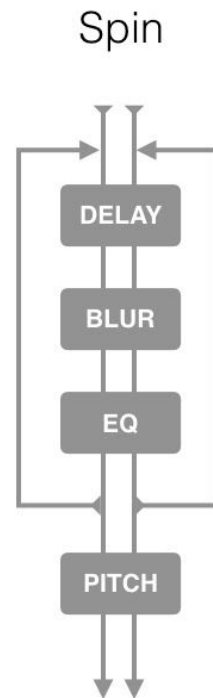


Figure 1

7

Link Spin - Link the left and right Spin faders. If Link Spin is engaged without Spin Crossfeed, then Spin Compensation is automatically engaged.

CLEARMOUNTAIN TIP - Spin Compensation

One technique I've employed for decades is to manually adjust the amount of Spin of stereo delays so that, even when each side's delay times are different, the sound decays to silence at the same time.

For example, if you have a quarter note delay on the left and an eight note delay on the right, adding the same amount of Spin will result in the left side decaying more slowly. I've always increased the right side Spin until both sides decay to silence at the same time. In Clearmountain's Domain, this adjustment is made automatically with Spin Compensation.

By the way, I've sat behind an SSL for 40 years, where this function is called "Spin" - so that's what I call it.

8

Spin Crossfeed - Click Spin Crossfeed to alter the Spin routing so that the Left delay output is routed to the Right input and visa versa, as shown in figure 2. With this altered routing, delays dance across the stereo spectrum in a rhythmic and compelling way!

Spin Crossfeed

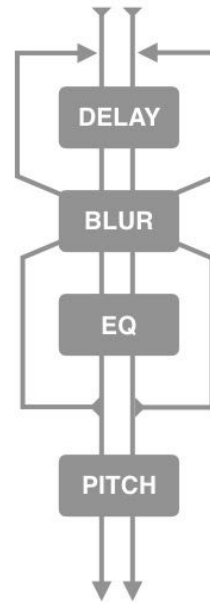


Figure 2

9

Pitch Pre Spin - Click Pitch Pre Spin to insert Pitch Shift before the point in the signal path where the Delay output is routed back to an input, as shown in figure 3. Now, each time the signal passes from output back to input, it passes through Pitch Shift. For example, if Semitone pitch shift is set for 1 half step, each delay repeat is shifted up a half step. With a bit of imagination, one can create all sorts of evolving soundscapes.

Pitch Pre Spin

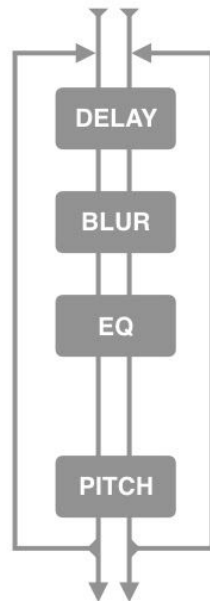


Figure 3

- 10 Left & Right EQ - EQ the left and right delays after the actual delay, but before the Spin feed (where the delay is routed back to the input). The characteristics of this EQ are identical to the Delay/Reverb Input EQs on the Input tab.
- 11 Link EQ - Link the left and right EQs.
- 12 Delay Blur - Add increasing amounts of distortion to the left and right delays. Blur is added to the signal after the delay but before the EQ and pitch.

CLEARMOUNTAIN TIP - Delay Blur

When adding Blur to the delays, I imagine how it sounds hearing an overdriven PA bounce off the walls of a live club or arena - tends to add a live feel to a studio recording and a bit of additional excitement to a live recording. If I'm mixing a live concert video, I'll put short, blurred delays in the rear channels of the 5.1 mix.

Keep in mind that Spin, EQ, Blur and Pitch Shift can work interactively for powerful and sometimes chaotic effects! For example, try the following: add a mid-high peak with the EQ plus a good bit of Blur, then slowly raise the Spin level. The higher the Spin, the more the sound is Eq'ed and Blurred, to the point where it becomes a gyrating cloud of sound.

Pitch/Reverb Tab

The left side of the Pitch/Reverb tabs is dedicated to the Delay path, where the Left and Right Delay outputs are pitch-shifted, then routed to a separate stereo fader on the Mixer tab.



- 1 Left & Right Cents fader - The Cents fader has two operating modes, Fixed and Random.
 1. In fixed mode, the pitch is shifted by a fixed value between + and - +/- 50 cents.
 2. In Random mode, the pitch is shifted up and down from 0 cents randomly, with the maximum amount of shift set by the Cents fader. For example, if Cents is set to 10, the delay pitch is shifted to a random value between + and - 10 cents. This can create a very realistic automatic double-track effect on the delays.
- 2 Left & Right Semitone Pitch Shift - The Semitone controls set the amount of pitch shift in semitones, from -12 to 12 semitones, or +/- one octave. The Semitone pitch shift is in addition to the Cents faders.
- 3 Pitch Delay - Set the amount of extra delay added to both sides of the Pitched Delay. For example, if a Delay is set to 50ms and Pitch Delay is set to 25ms, the Pitched Delays will be delayed a total of 75ms from the original sound.
- 4 The right side of the Pitch/Reverb tabs is dedicated to the Reverb path, where signals may be processed through 3 separate convolution reverbs representing a wide variety of acoustic spaces from Clearmountain's decades of mixing.

The convolution reverbs are driven by custom impulse responses - digital files that capture the acoustic signature of a physical space. The impulse response for reverbs 1 & 2 are fixed, while the 3rd reverb offers user selectable options.

- 5 Reverb 1 - Apogee Studios - A short and warm ambience from Apogee's in-house recording studio and development lab!
- 6 Reverb 2 - Mix This! Chamber - A medium length, bright reverb from the physical echo chambers at Clearmountain's Mix This! studio in Los Angeles.
- 7 Reverb 3 -User Selectable

Concrete Stairwell - A long, bright and colored reverb inspired by the legendary "Stairwell" chamber that Bob used at his New York base of operations.

Marble Bathroom - A medium length bright reverb inspired by the legendary "Ladies Room" chamber from Bob's New York days as well.

MixThis! Shower - A short and colored reverb from the shower at Mix This! Studios

Roscoe Chamber 1 - An extra long and rich reverb from a legendary studio's physical echo chamber. The impulse response was captured with AKG 451 condenser mics.

Roscoe Chamber 2 - The same chamber as above, but captured with AEA ribbon mics for a warmer, low mid-rich sound.

Gated Plate - A gated reverb sound using the Roscoe Chamber 1 and... a gate. Hello 80s, my old friend.

Each reverb has the following parameters:

- 8 Direct Send Level - Set the level of the Direct sound (i.e. directly from the Input tab Reverb Input EQ) sent to the reverb.
- 9 Direct Send Mute - Mute the Direct send to the reverb.

<Continued next page>

- 10 Direct Send Pre Delay - Set the time in milliseconds that the Direct signal is delayed before sending to the reverb.
- 11 Delay/Pitch Send Level - Set the level of the Delay/Pitch sound (i.e. from the output of the Delay and Pitched Delay) sent to the reverb.
- 12 Delay/Pitch Mute - Mute the Delay/Pitch send to the reverb.
- 13 Input Config MixThis1 Chambers only. Set the stereo input to the reverb to stereo, summed mono or inverted stereo.

Mixer Tab

All the separate processing signal paths - Delay, Pitched Delay and 3 Convolution Reverbs - come together in the Mixer tabs, where you can create the perfect blend.



Each signal path appears in the Mixer as a stereo input with the following controls:

- 1 Level Fader - Set the stereo level of the effect
 - 2 Stereo Pan - Set the stereo pan
 - 3 Mute - Mute the signal
- <Continued next page>
- 4 Solo - Solo the signal
 - 5 FX Blend - Set the blend between the FX mix and the plugin input.
 - When using the plugin as an insert on the source material channel, start with the FX Blend around 40/60 and adjust to taste.
 - When using the plugin on an Aux return (and using an Aux send on the source material channel), set FX Blend to 100/0, then use the Aux return fader to adjust the mix between the direct source material and the plugin effects.
 - 6 Output - Set the overall level of the plugin.

Additional Information

For more information

- Apogee KnowledgeBase and FAQs
- Informational Videos
- Apogee Product Registration
- How to contact Apogee Technical Support

Please visit:

www.apogeedigital.com/support