Imperial Delay

User's Manual

Intro

Thank you for installing Imperial Delay. We know you take your audio seriously, and so do we. We slaved away for a long time and went through tons of revisions to make this plugin what it is. We did everything we could to make this plugin as powerful as possible and still be user friendly. As it turns out, that is not an easy task, but we think we nailed it on this plugin. We hope you love it as much as we do.

While this plugin is designed to be simple to use, there are many options that might not make sense to you the first time you use it. We created this manual to walk you through some of these options so that you can have a better grasp on what you are doing.

System Requirements

This plugin was crafted to be as light as possible on your CPU, enabling you to put this on many tracks without eating up your processing power. For Mac, you must be running OSX 10.5 or greater. For windows, you need Windows XP or greater.

Available Formats

This plugin is available in both 32 and 64 bit versions of each format (except RTAS, which is 32 bit only). It is available in the following formats:

Mac	VST2, VST3, AU, RTAS, AAX Native
Windows	VST2, VST3, RTAS, AAX Native

The Controls

This plugin is separated into two layers. The top layer is what you see when you first open the plugin. The second (advanced) layer lets you dive deep and make changes to further customize your sound. While the advanced controls will let you adjust some of the nitty gritty details of the plugin, the top layer gives you plenty of options to dial in your unique sound quickly. You can think of the layers as Apple vs Android, or Right Brain vs Left Brain, or Bassist vs Guitarist.

Ok, that's enough of that. Let's get started.

Delay
This is the heart of the plugin. This knob controls how much delay is being applied to your incoming signal while the delay is in "Free" mode. It has a range of 0.1ms to 10000ms.

Offset
This knob controls the delay of the right channel. Instead of having to adjust the left and right channels separately, this knob controls the *difference* of the L/R delay value. For example, if you have your delay set to 100ms and your offset set to 20ms, your left delay will be set to 100ms and your right delay will be set to 120ms. This allows you to quickly change the delay of both channels while keeping the offset the same.

Sync Mode
This lets you choose between 3 options: Free, Sync and Tap. Free mode lets you set the delay in ms. When you choose Sync or Tap mode, the values on the Delay knob change from ms to beats. This lets you sync the delay to your project tempo, or in the case of nonexistent project tempo, you can sync to the Tap tempo.

Note that when you are in Tap Mode, you can click on the Tempo box to set the tempo manually instead of using the Tap button.

Tap
Use this when your project tempo does not line up with your song, or you want to set the tempo to something other than the project tempo. Just tap on the Tap Tempo button to the beat of the song, and after three taps, it will calculate the tempo. Keep in mind that if you tap on the Tap Tempo button three times when you are in Free or Sync mode, the Sync Mode will automatically change to Tap.

Delay Mode

Imperial Delay comes with 6 different delay modes. Each one gives you different feedback settings.

- **Stereo**: Standard stereo delay. Left output is fed back into the left input and the right output is fed back into the right output.
- **Swap L + R** - This mode feeds the output of the stereo delay back into the opposite channel. The stereo image will swap with each feedback tap.
- **Mono 1** - This mode sums the stereo input to mono before sending it to the stereo delay, but after that, it's treated as a standard stereo delay. This means that the Offset will give width to your output.
- **Mono 2** - This mode sums the delay's feedback to mono. This means that even if you change the Offset, the delay's output will always be mono.
- **Ping Pong** - This mode first sums the input to mono, then bounces the delay back and forth from the left channel to the right channel.
- **Ping Pong 2** - Same as Ping Pong but starts with the left channel, then the right channel.

Drive

The drive section provides some distortion and sound mangling features that are applied to the input of the delay

Drive - This knob controls how much distortion is applied to the input of the delay. Disabling the drive sends a clean signal to the delay section.

Drive Advanced Controls

Mode - The drive section includes 5 different modes: Clean, LoFi, Digital, Tubby, and Megaphone. Play with them. They're fun.

Overdrive - Enabling this adds an additional 20dB of gain to your drive.

Character - Though subtle, this knob adds even harmonics to your distortion. When it's all the way down, you get odd harmonics only. As you turn this up, you add even harmonics.

Tone - Adjusts the tone of the distortion.

Blend - Blends the clean input with the distorted input.

=> Dry - Enabling this applies the distortion to your Dry output as well as your delayed output. When it is disabled, only the delayed output is distorted.

Feedback

The feedback section controls how the delay is fed back into itself, for repeat delays. The advanced controls add a few options to make that feedback a little more interesting.

Feedback - This knob controls how much of the output of the delay is fed back into it's input. Note that there is a limiter built into the feedback loop, which allows you to get insane feedback without blowing out your speakers. It also makes for some fun effects.

Dyn FB - Enables dynamic feedback.

Listen closely, because this can be a little confusing. You can think of this like a gated feedback. When your input signal is above the threshold, your feedback value is set to whatever you have set on your feedback knob. When the input drops below the threshold (shown as a red line on the left of the advanced feedback panel), the feedback value changes to whatever you have set on your Feedback 2 knob.

Make sense? When your input signal is loud, the feedback is whatever you have it set to on the main panel. When the input signal is quiet, your feedback is set to the secondary feedback value. Mess with it and it may start to make more sense. Also note that when the input drops below the threshold, the Feedback 2 and Threshold knobs will light up to let you know that the feedback is set to the secondary feedback.

Feedback 2 - Secondary feedback value. See above for explanation.

Threshold - Sets the threshold for your dynamic feedback.

Polarity - There is a separate button for the polarity flip for the left and right channels. This polarity flip happens inside the feedback loop, so each time the signal is fed back, the polarity flips. You can use this to add width to your delay or create a different ringing effect with high feedback levels.

Modulation

This is a short modulated delay that takes place inside the feedback loop. At low levels, it gives a

subtle panning effect. At higher levels, it can add width to your delay.

Modulation - This knob controls the depth of the modulation.

Speed - This changes the speed of the LFO modulator, in Hz.

R Offset - This adjusts the speed of the right channel's LFO modulator, relative to the left channel. At 1.0, the LFO is the same frequency in both the right and left channels. At 2.0, the right channel is twice the frequency of the left.

Blend - Blends the modulated signal with the dry signal. This can give you a flanger effect.

Smear

The smear the sound over time, kind of like a reverb. It helps to soften the delayed signal to put it more in the background. Since the smear takes place inside the feedback loop, each feedback pass becomes more smeared than the last.

Smear - This knob is a blend knob between the dry signal and a smeared signal.

Feedback - This controls the feedback of the smears filters. This is similar to a dampening effect on a reverb, only opposite (higher feedback = less dampening).

Size - This controls the length of the smear's feedback filters. The larger the size, the more sparse the smearing. The smaller the size, the tighter the smearing.

LPF - This controls a low pass filter that takes place inside the smear's feedback loop. Bringing this down will cut down on some of the harshness of the smear.

Color

This effect is a tone shaping eq that is designed to be abused. It takes place inside the feedback loop so that with each feedback pass, the signal becomes more colored.

Color - This knob blends the colored signal with the dry signal. Don't be afraid to just crank this thing to 100%.

Slant - Just like in [T-Bone](), this is a slant filter that simultaneously boosts the high frequencies while attenuating the low (or the other way around, depending on which direction it's slanted). This lets you make drastic changes to the tone without significantly changing the level.

LPF - This is a low pass filter that can be used to tame some of the harsh frequencies.

HPF - Use this high pass filter to take out some of the low frequencies.

Pitch

This effect puts a pitch shifter inside the feedback loop of the delay. With each feedback pass, the pitch is shifted again. This opens up possibilities for some very interesting sounds.

Pitch - Pitch L and Pitch R give independent control over the pitch shifter of the left and right channels. Using subtle pitch shifting gives a "doubling" effect to a track. These knobs have a range of +/- one octave (in cents).

Pitch Link - This button links both pitch knobs together, so that adjusting one adjusts the other.

Chorus

This is a stereo chorus effect that takes place after the feedback loop.

Chorus - This knob blends the chorused voices with the dry sound.

Depth - This controls the depth of the chorus effect. Higher depth means higher timing variation between voices.

LPF - This is a low pass filter to give a warmer sound to the chorus.

Rate - The speed in Hz of the base chorus LFO.

Voices - Number of voices created by the chorus.

Duck

This provides a ducking compressor. The duck compressor uses the dry input as the sidechain, but compresses the delayed output. In short, it turns down the delay when there is sound present at the input. It's purpose is to prevent dense delays from getting in the way of the dry sound. It lets you have more extreme delay settings while still letting your original dry track shine through.

Duck - Controls the threshold of the duck compressor.

Attack - Controls the attack in milliseconds of the duck compressor.

Ratio - The ratio of the duck compressor.

In FB - This controls whether the ducking compression takes place inside the feedback loop or after the feedback loop. When inside the feedback loop, the delayed sound tends to be the last sound part of the incoming sound only. So if you sing "Give me some of those Cocoa Puffs" and have your duck set inside the FB loop, the result will sound like "Give me some of those Cocoa Puffs Puffs Puffs Puffs…"

Width - This knob adjusts the width of the wet output signal. It works great for getting an even wider delay.

Dry - Controls the volume of the dry signal being passed through. Disable the power button to mute the dry signal.

Wet - Controls the volume of the wet signal.

Presets

Imperial Delay comes equipped with it's own preset menu. Because there are so many options in Imperial Delay, we needed to make presets that go beyond what your normal DAW presets can do, making for more powerful preset saving, recalling and sharing. Each preset is saved as a .bdla preset file.

To save a preset, just hit the save icon next to the preset menu, type the name of the preset and hit enter. If you enter a name of an existing preset, the old preset will be overwritten.

Presets can be organized into sub menus by sorting them into folders in your finder/explorer window. Note that the preset menu only supports one layer of sub folders, so if you put presets inside a folder that is inside a folder, the preset scanner will not find them.

Presets are sharable across formats, computers and operating systems. This means that if you save a preset in your DAW in OSX, you can send that preset file to a friend who uses a different DAW on Windows and it will work exactly the same.

Next to each preset control is a "Reset" button, which resets the controls to their default settings.

Global Presets

These presets control all of the parameters in the delay plugin, including the advanced settings. These
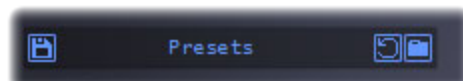
presets do not affect the state of the Dry output enable button though. This allows you to use the same presets on a parallel or series instance of the plugin.

All of the global presets are saved in the "Global" folder in your presets folder. You can open this folder by clicking on the folder icon next to the preset bar.

Advanced Section Presets

In addition to the global presets, Imperial Delay lets you set presets for each sub effect. So if you come up with, say, a chorus sound that you really like, you can save a preset for it. Loading that preset will only change the values in the chorus, leaving all the other controls untouched.
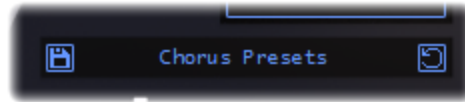
You can access each effect's preset menu by opening its advanced controls.

Credits

Plugin concept and design: Boz Millar
Graphic design: Marcus Valsecchi

Thank you

A quick thank you is in order for everybody who helped out making this plugin. Thank you to all of our beta testers who tested the zillions of updates we had. A huge thanks to the CockOS team (http://www.cockos.com/) and Oliver Larkin (http://www.olilarkin.co.uk/) and Tale (http://www.martinic.com/combov/) (I don't even know his real name) for putting together a great set of tools for creating plugins, and putting up with all our stupid questions.

Contact

If you ever run into issues or have any questions, you can send an email to support@bozdigitallabs.com.

For information on becoming an affiliate marketer, you can contact us at affiliate@bozdigitallabs.com