boz⁻ⁿ
DIGITAL LABS

The Wall

User's Manual

Intro

Thank you for installing The Wall. We have been working for a long time to bring you a brick wall limiter that is really easy to use without sacrificing power and control. And most importantly, we wanted this thing to be able to be pushed hard without messing up your mix.

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

Background

Thank you for purchasing The Wall. The Wall is a brick wall limiter designed to allow you to push your tracks loud without sacrificing the quality of your mix. Because of the complexity of the algorithms and their parameters, we wanted to make this plugin as easy as possible to use while still having control over the complex algorithms under the hood. Our philosophy while designing this plugin was that you shouldn't have to think about the complex side of setting up a limiter while dialing in your sound.

Because of this, the controls are very simple to use, but incredibly powerful once you understand what each control does and how it affects your sound.

The Controls

For quick reference, The Wall provides a short description of each control when you hover your mouse over any knob or button. This manual will give you a more in depth understanding of what these controls do.

Header Bar

Presets
The Wall comes equipped with it's own preset menu. 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.

For convenience, you can scroll through the presets by hitting the next/previous buttons.

A/B Bank

This lets you quickly compare different settings in the plugin without losing your knob settings. As you make changes to the knobs on the plugin, those changes are saved into whichever bank is selected. Switch banks to change all the values to what is stored in the other bank. Note that when you first open the plugin, all changes are stored to both banks until you switch banks for the first time.

MFiT

This button quickly sets up The Wall to be optimized for mastering your tracks to a lossy format (mp3, aac, etc.). Because those lossy formats can tend to change the peak level, the MFiT button sets up The Wall in a way that you can be sure that your encoded track will not experience clipping.

MFiT sets the the output ceiling to -1dB and sets the Oversample to 8x in order to prevent clipping on the lossy encoded track.

Limiter Section

As we already mentioned above, this plugin is designed to be dead easy to use.
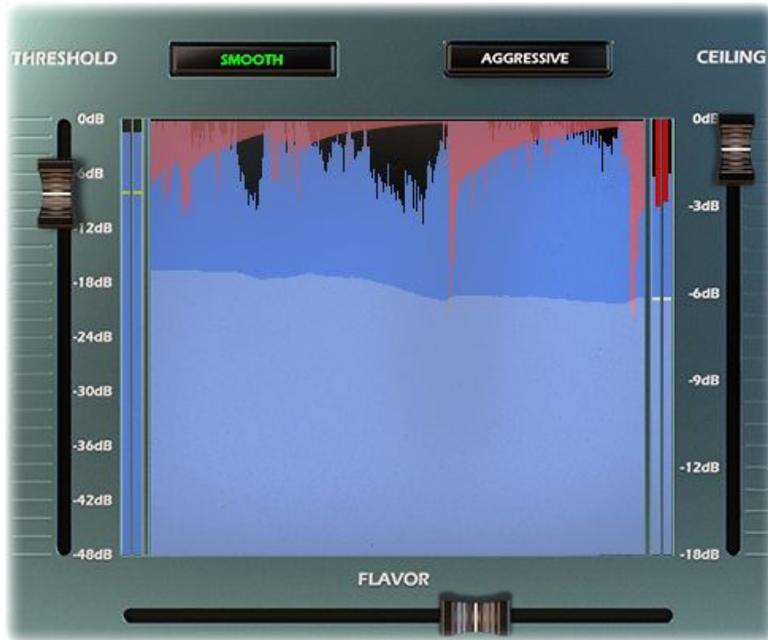
Mode

The Wall comes with two different limiter modes, Smooth and Aggressive.

- **Smooth** is best suited for music styles that aren't percussive. It will favor compression and minimize distortion. On percussive sources, this can tend to cause some pumping, but on less percussive sources, it will keep the integrity of the original sound.
- **Aggressive** is best on sources where the percussive elements of the track are the driving force behind the peak levels. The limiter will be more aggressive on the percussion, letting the transients come through without causing pumping.

Flavor

The Flavor fader lets you dial in the settings of the brick wall limiter to match your audio source. Combined with the Mode selector, this is how you really dial in your settings. Moving the Flavor fader to the left will favor heavier compression and slower release, while moving the fader to the right will favor faster release times and higher distortion.

Threshold

This fader controls the threshold of the brick wall limiter. In addition to setting the threshold, it also applies gain automatically to boost the level to maximize the output level.

Extras

In addition to limiter settings, The Wall includes a few handy options to let you better control your sound.

Stereo Link

When enabled, The Wall will apply the same amount of compression to your left and right channels. This will keep your stereo field consistent, but may apply more compression. When disabled, The Wall applies compression to your left and right channels separately. This is great for adding even more loudness without pumping, but can cause an auto-panning effect on certain sound sources.

Dither

Dither is noise applied to the effect that helps improve the dynamic range when converting your sound from a high bit depth to a lower bit depth. In order to use this setting most effectively, you should set the dither noise to whatever the output format will be.

For example, if you're exporting your track to a 16 bit wav file, you would want to set your dither to 16 bit. If you're output file is going to be 8 bits, set the dither to the 8-bit setting. Selecting "Off" will not apply any dithering.

Note: Many DAWs have dither built in. You will want to check your dither settings in your DAW. Whether you use your DAW's dither or The Wall's is up to you, but it doesn't provide any advantage to use both at the same time. Pick one or the other. The effect is extremely subtle on most material.

Sometimes it's easier to see and hear something in a video format rather than try to read about it. We have created a video to show you the effects of dither when down-converting an audio file here, and should be much easier to understand than reading about it:
https://youtu.be/zHWRnL926y8

Oversample

Oversampling is a necessary part of preventing intersample clipping. This happens when the analog signal has higher peak values than any of the samples themselves. Oversampling compresses the signal based on a closer approximation of the analog signal rather than purely the digital signal. The higher the oversampling, the better the plugin will prevent intersample clipping.

The Wall's oversampling has a couple of advantages over typical oversampling though. For

one, it doesn't require any resampling filters, which can cause pre-ringing or phase distortion (although admittedly, these effects are very subtle when done correctly, but it's not uncommon for oversampling algorithms to cause more damage than they prevent, even in expensive plugins.). This oversampling algorithm creates zero negative side effects, and it's also very light on your CPU.

Bypass
Disables the plugin.

Sanity Check
Enabling this matches the output level to the input level so that you can quickly A/B your results with the incoming audio to make sure you aren't deceived by the loudness increase. Basically, the issue is that when music gets louder, we tend to think it sounds better, so we can sometimes tend to push it louder than we should. By testing your track with the Sanity Check enabled, you can hear the difference in sound between your input and your output without having to worry about the loudness clouding your judgement.

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 had to put up with all the changes we made since the first demo. 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/) 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.

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