
Sandman Documentation

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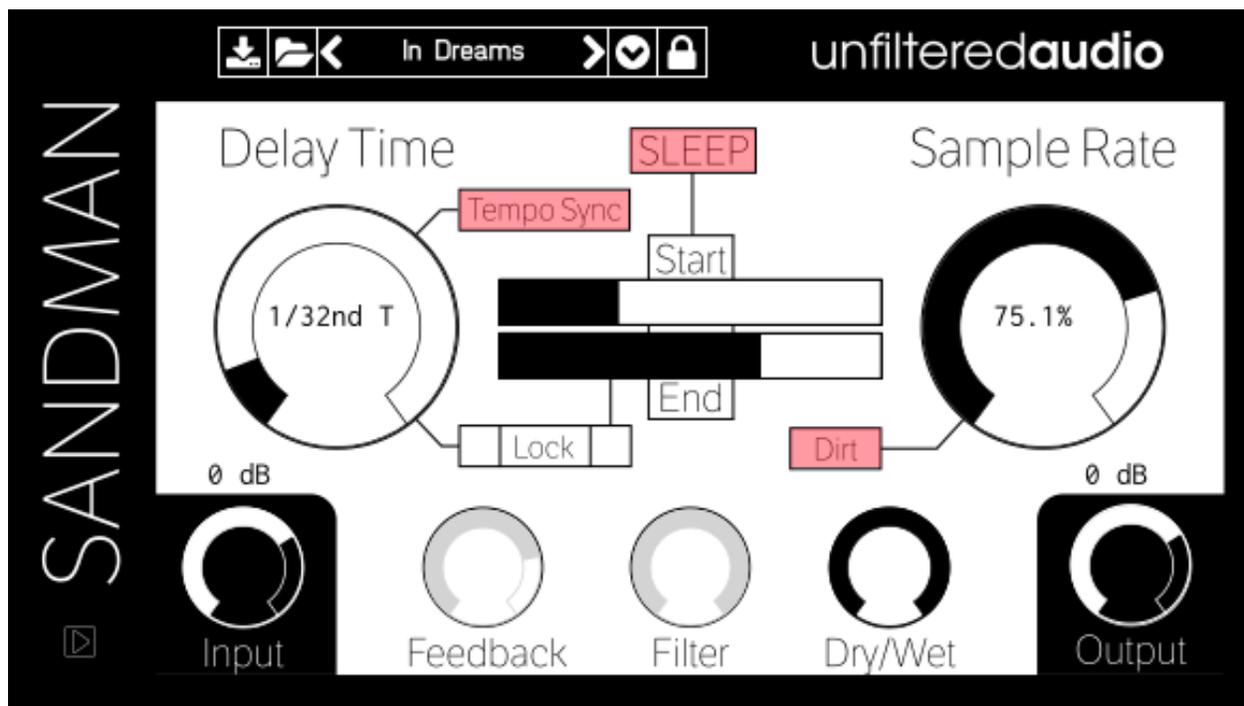
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Welcome to the Sandman manual! If you are reading this as a PDF, you can find our online version at <http://sandmanplugin.readthedocs.org/>

This is the open-source manual for Sandman, a VST/AU plug-in by Unfiltered Audio. If you find any typos, or want to add information, feel free to modify it on Github and send us a pull request.

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Introduction



Sandman is a delay and loop-mangler capable of creating beautiful, evolving ambient textures or busy, hyper-stuttered glitch beats.

1.1 Features

- “Sleep” mode freezes your delay buffer, creating locked loops. Loops can be further manipulated by changing the start and end points or manipulating the buffer size.
- Variable Sample Rate expands your delay times (up to five minutes!) while enabling amazing creative possibilities. Use it to repitch a frozen buffer, add a bit of grittiness and warmth to a delay line, or simply decimate everything.
- Tempo Sync
- Wide-ranging delay times (down to 5 milliseconds). At its smallest settings, you can use Sandman as a flanger, a wavetable oscillator, a micro-delay, or to turn percussion into string tones.

- Dual LFOs with bipolar modulation destinations. Keep your loops from going stagnant and explore some wild modulation opportunities.
- Optional de-clicking algorithm makes your loops invisible. You can automate this algorithm's state, giving you glitchy clicks and cuts when you want them.
- Feedback filtering helps you control more intense patches or add a bit of murk to your loops.
- Intelligent "Lock" modes keep your delay length and loop lengths intact, even with a modulated sampling rate.
- "Dirt" switch adds some nastiness to the heart of the delay line for that extra-vintage feel.

Getting Started

2.1 Installing Sandman

For non-Steam installations, simply run the provided installer. On Windows, you will need to select your VST directory if the installer doesn't pick the right one by default.

For Steam installations, download Sandman through your Steam Library page, under "My Software". After Sandman is downloaded, run it once through Steam to install pre-requisites and to open the Unfiltered Audio Plug-in Manager. Once the manager is opened, click "Install" to install Sandman.

2.2 Syncing Presets With Steam Cloud

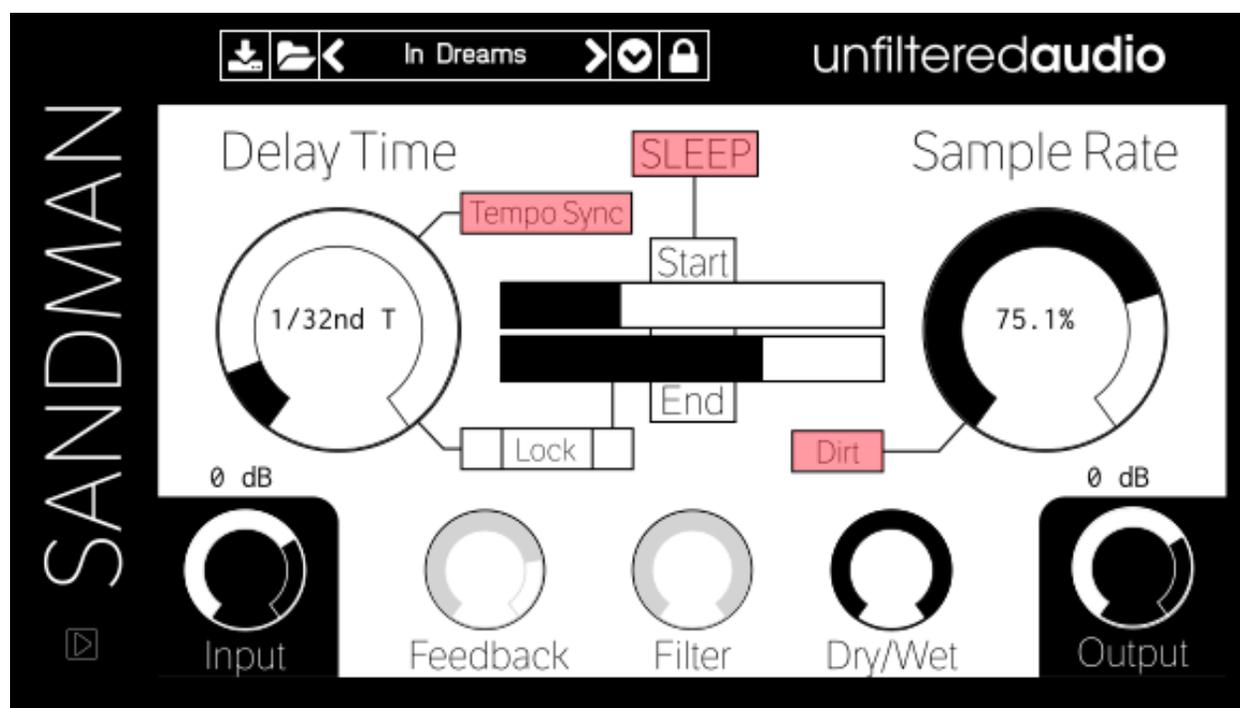
On Steam, Sandman provides the ability to store your presets on Steam Cloud. This allows you to access your presets on every computer that you install Sandman on.

To set it up, run the Unfiltered Audio Plug-in Manager through Steam by selecting "Run" on your Sandman Library Page. From there, click "Enable Steam Cloud". This will create a folder called "SteamCloud" in your user presets directory. All presets saved to this directory will be automatically backed up to the Steam Cloud every time you run the Plug-in Manager.

2.3 Browsing Presets

Sandman comes with a wide array of presets to get you started. The preset manager on the top of Sandman's interface is used to load, save, or browse presets. If you want to get a good feel for the power of Sandman, spend some time with these presets before browsing the manual.

3.1 Main Controls



Delay Time: Sets the length of Sandman’s delay buffer. This ranges from 5 milliseconds to 5 seconds. This control is exponential to allow easy manipulation of smaller delay times.

Sample Rate: Controls the sampling rate of Sandman’s DSP. Unlike “sample/bit crusher” effects, this control literally affects the speed of Sandman’s audio processor. When dropping the sampling rate, you will hear a combination of pitch-warping and lo-fi signal degradation. Without any locks enabled, changing the sampling rate will change the effective size of the delay buffer. As an example, a 400 ms delay will loop every 800 ms when the sampling rate is at 50%. If locks are disabled, the delay time’s value label will display the affected value.

Tempo Sync: Enables syncing of Sandman’s delay time to your DAW’s tempo. For instance, you can create 8th-note echoes perfectly in time with your project’s tempo. “T” means “triplet”, and “D” means “dotted”. Please note that enabling tempo sync does not prevent the sampling rate from affecting the delay time. If you want the delay buffer to always be tempo synced, you must enable both Tempo Sync and Lock Delay Time. Also please note that Sandman’s delay buffer size maxes out at 5 seconds at 100% sampling rate. If a specified time unit is longer than 5 seconds,

Sandman will default to five seconds. You will only encounter this behavior at extremely slow tempos (Whole notes at 60 BPM would take four seconds, for instance).

Sleep: Freezes the delay buffer. No new information will be written to the delay buffer. This effectively takes the contents of the delay buffer and forces it to loop until “Sleep” is disabled. Once slept, the loop is not affected by the “Filter” or “Feedback” controls, but will be affected by changes to the sampling rate.

Start/End: These controls affect the start and end points of the frozen delay buffer. If locks are disabled, changing these points will affect the playback time of the frozen buffer.

Lock Delay Time: This lock will force the delay buffer to remain the same size, no matter what the sampling rate is. As an example, a 400 ms delay buffer will still take 400 ms to loop, even at a 25% sampling rate. Use this lock if you would like to maintain a specific loop tempo, but want to explore unusual manipulations of the sampling rate.

Lock Frozen Buffer: This lock will force the frozen buffer to maintain its length, no matter where the start and end points are. As an example, a 400 ms delay buffer will always take 400 ms to complete, no matter where the start and end points are. As a side effect, moving the start and end points will affect the pitch of the frozen buffer. Enabling both locks and turning on a lot of modulation can result in some incredible, unusual effects. Try it out!

Dirt: When enabled, this adds an amount of pink noise to the delay buffer depending on the sampling rate. At 100% sampling rate, this will add no noise. At lower sampling rates, this contributes to a lo-fi feeling. With high feedback and Dirt enabled, you can get a larger accumulation of noise in the buffer.

Feedback: Affects the volume of the delay buffer written back into itself. Commonly, you would use this to control the number of echoes that you hear. With short delay times and high feedback, you can create unusual string-like sounds from percussive sources. Feedback doesn’t affect anything while the delay buffer is in Sleep mode.

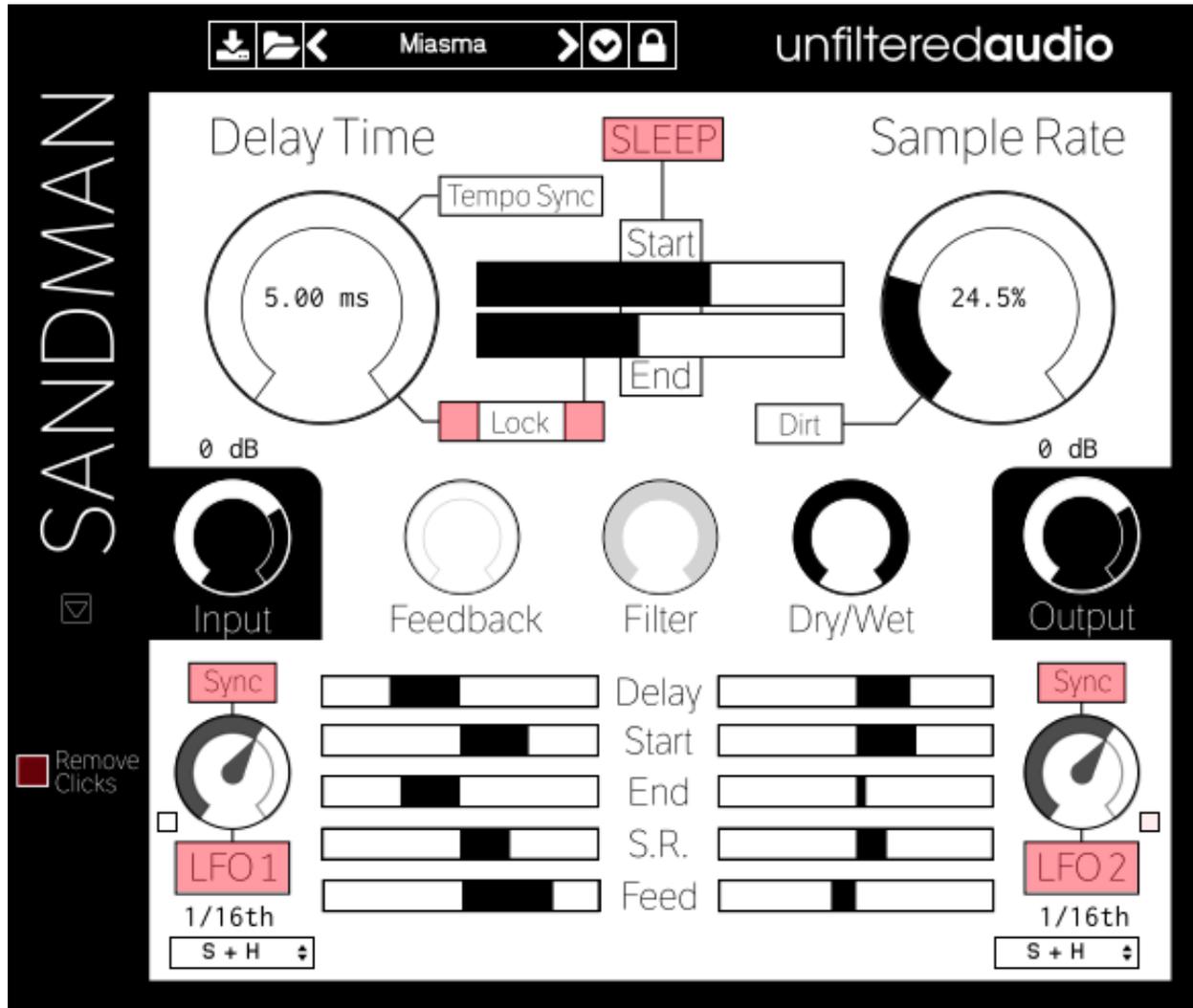
Filter: Applies a low-pass filter to the feedback path. Use this to remove a build-up of hissy high frequencies, or to give the echoes an underwater or “room next door” type of feel.

Dry/Wet: Control the balance between the unaffected “dry” signal and the delayed “wet” signal. Please note that the “gain” knobs do not affect the level of the dry signal.

In Gain: Boosts the level of the audio being written to the delay buffer.

Out Gain: Boosts the level of the output of the delay buffer.

3.2 Modulation Controls



To access the modulation menu, click the arrow on the bottom left corner of Sandman.

The modulation menu contains two LFO's with the following waveforms:

- Sine
- Triangle
- Saw Up
- Saw Down
- Sample & Hold

Each LFO is unipolar, meaning that they provide one direction of modulation only. Five sliders on each LFO allow you to set modulation destinations and depths. The center of each slider is the current knob value for each modulation destination. The LFO can add either a positive or negative modulation amount to that value.

Sync: Turns on Tempo Sync for the LFO. When Tempo Sync is on, the rate of the LFO is locked and will not be affected by the Sample Rate. When the LFO is not tempo synced, its speed will be affected by the Sample Rate.

Credits and Thanks

Sandman is written by Joshua Dickinson and Michael Hetrick.

We would like to thank Steve Westbrook for his beta testing and helpful feedback. We would also like to thank Lance Putnam for his excellent DSP library, Gamma.

<http://www.unfilteredaudio.com>