STREAM

VERSION 1.1

USER MANUAL

STREAM, a granular sampler audio effects plugin, was created by Ricky Graham and Edwin Park between 2018 and 2020.

This manual was written by Ricky Graham in March 2020.

You can view our video tutorials on YouTube.

For general customer support, please contact: support@ilio.com
For all technical inquiries, please contact: support@deltasoundlabs.com
For everything else, please contact: connect@deltasoundlabs.com

# Installation and Plugin Authorization

View our **YouTube** tutorials.

You can use our macOS and Windows installers available from our **website.** Once you have installed the plugin on your system, you can add Stream 1.1 to any audio track. For AU users, you may need to empty your AU cache in order for your digital audio workstation to find and validate the plugin binary. Please see our **troubleshooting section** for more information on how to do that.

In order to authorize Stream, you will require an activation code from our partners **ILIO.**
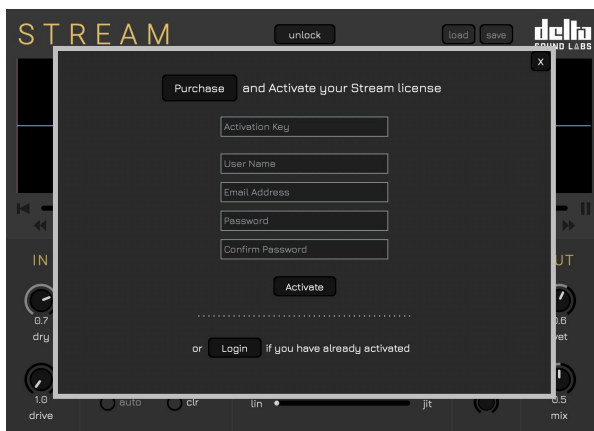
Once you have an activation code, click on the "Unlock" button at the top of the plugin UI in your digital audio workstation.

If you have activated Stream before, you shouldn't have to re-authorize the plugin.
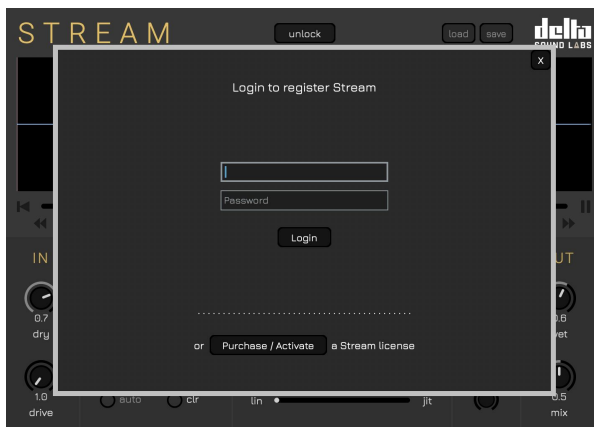
If you're reinstalling Stream on a new machine, you can simply login using your email and password that you set-up on the first activation.

Can't remember your username or password? We can help you with that. **Please consult our troubleshooting guide below.**

Basic Operation

View our **YouTube** tutorials.

Input Panel: Dry and Drive

The **IN** panel has a dedicated **Dry (dry)** and **Drive (drive)** control. Drive is a soft-clip, tan-h distortion module that allows you to drive your incoming input signal to produce a smooth distortion audio effect.

The Dry knob will control the amount of dry signal that is fed thru-put to the output stage in addition to the amount of signal that is fed to the record buffer when any record or overdub modes are engaged.

Capture Panel: Buffer Size, Record and Overdub

The **CAPTURE** panel has two capture modes. The **Record (rec)** button will record the incoming dry signal directly to the circular buffer by default. The **Auto buffer size (auto)** button will allow a user to determine the buffer size dynamically relative to when a user starts and stops the record process.

The **Overdub (ovdub)** button and the **Feedback (feedbk)** knob allow a user to continuously layer incoming audio relative to a feedback multiplier. A user can create a gradual fade to silence by activating overdub and applying a multiplier of less than one.

The **Buffer Size (buf size)** knob determines the size of the buffer in milliseconds. Currently, the maximum buffer size is limited to 20 seconds.

The **Clear (clr)** button will immediately clear the buffer.

Grains Panel: Voices, Grain Size and Spread

The **GRAINS** panel presents controls for the amount of granular voices, the grain size applied to all voices and the spread or phase relationship between granular voices.

The **Grain voices (voices)** knob allows a user to create between 1 and 16 voices. A value of zero (Voices = 0) will mute the processed output and allow the thru-put dry signal to the output stage. The **Mix (mix)** knob on the **Output** panel will still be engaged in this instance.

The **Polyphonic MIDI (poly)** button overrides the **Grain voices (voices)** knob and creates polyphonic granular voices based on MIDI input.

The **Grain size (grain size)** knob determines the size of each granular voice in milliseconds.

The **Sync (sync)** button allows a user to sync the grain size to the tempo of any digital audio workstation. In this instance, the grain size will automatically snap grain size to the nearest subdivision.

The **Grain spread (spread)** knob changes the amount of overlap between adjacent grains.

The **Reverse grain direction (rev)** button permits reverse playback of granular voices.

The **Linear/Jitter (lin-jit)** slider allows the user to interject randomization into the playback position of each granular voice. This is a great way to instantly create dense polyphonic textures.

## Window Panel: Triangle Window and Configurable Gaussian and Noise Windows

The **ENV** panel presents three windowing options that a user can apply across all granular voices:

1) Triangle window: this option provides smooth and denser textural playback of granular voices.

2) Gaussian window with **Q** knob control. Tighter, smooth control of granular voices. Great for creating space in dense textures.

3) Noise window with **Q** knob control. A good option for noiser, percussive textures. Great on percussion (e.g., hi-hats).

Pro Tip: you can create more space in the resulting granular texture by increasing the **Q factor (Q)** value knob. Higher values increase the narrowness of the window thus reducing density to allow space for contrasting sounds, samples or other instrumentation.

Output Panel: Wet and Mix
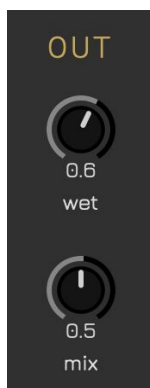
The **OUT** panel has a dedicated **Wet (wet)** and **Mix (mix)** knob to allow balance between the processed audio and the incoming dry signal pre-buffer.

Pro Tip: since all of our parameters are MIDI automatable, you can assign any CC controller message to the mix parameter to quickly crossfade between your dry / drive input stage and your processed output when you're performing live with Stream.

MIDI Repitching and Sequencing: Monophonic and Polyphonic Repitching Modes

A user can repitch buffer audio by routing properly formatted MIDI note data via a MIDI track in any digital audio workstation. **Logic users can also run Stream as a MIDI controllable audio effect.**

By default, any incoming MIDI note will repitch all the grains to a new pitch relative to middle C (original playback speed).

With the **Polyphonic MIDI (poly)** button engaged, voices can be created relative to incoming polyphonic MIDI data allowing Stream to be treated like a more conventional virtual instrument.
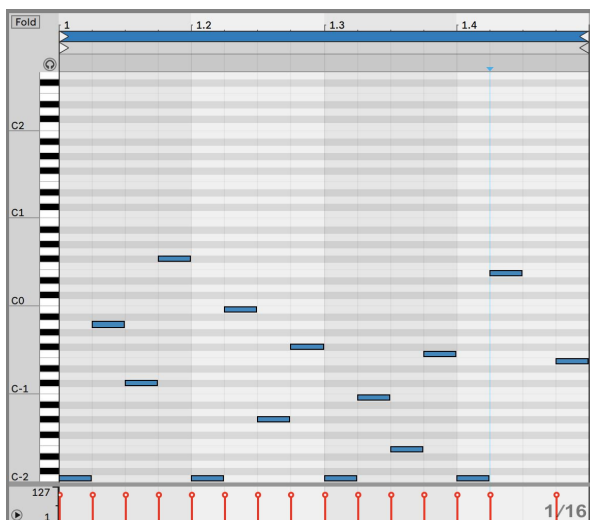
Pro Tip: you can create pretty sophisticated rhythms by using the range **C-2** through **C-0**, which allows the user to step sequencer the main playhead position across two octaves. For example, **C-2** should position the main playhead at the beginning of the buffer.

Stream View: Playback Speed and Direction and the Drag and Drop of Audio Samples

The playback bar underneath the buffer display allows the user to control the playback speed and direction up to two times the original playback speed in either direction.

A user can drop any MP3, WAV or AIFF audio file directly onto the stream buffer and immediately playback that audio. The maximum duration of that sample cannot exceed 20 seconds, currently.

Pro Tip: try setting voices at four and a short grain size under 100ms with linear-jitter and spread set at zero to more closely preserve the timbre and intelligibility of the original sampled content at different playback speeds without manipulating pitch.

Saving and Loading Presets

Presets can be loaded and saved as a ".stream" file. By default, Stream should save parameter states between sessions, too. Your last configuration should be recalled on start-up of the workstation session.

We regularly make artist presets available via the **Blog section of our website.**

Stream Troubleshooting and FAQ

View our **YouTube** tutorials.

The AU component is not showing up on macOS 10.14 or higher. How do I fix that?
You should ensure any and older binary files of Stream have been deleted before running our installers and that you have restarted your computer after running our installer on macOS. You may have to empty your AU caches by clearing the contents of your /**Users/<user>/Library/Caches/AudioUnitCache** directory:
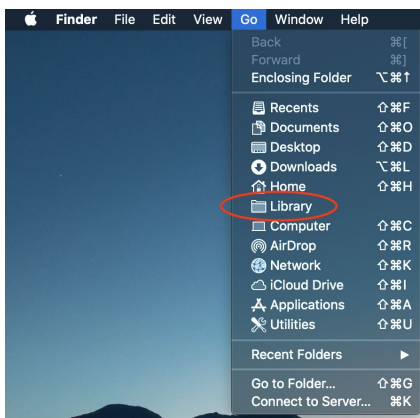
In the Finder menu, open the **Go** menu and select **Library**. You may need to hold down the **Option (⌥)** key to see the **Library** menu item.

Navigate to the **Library/Caches/AudioUnitCache** directory and delete all files in this directory.

Once the files have been deleted, please restart your computer and rescan AU components in your digital audio workstation. Here's a useful article about working with the **AU Validation Tool**.

The installers flag a message about an unknown or unidentified developer. What should I do?
Our software is digitally signed (Apple certified) and notarized for macOS but some operating system versions may not recognize the certificate once it has been uploaded and downloaded from our web server. On macOS, simply right-click and open the installer. On Windows, simply click more information and run anyway.

How do I activate my plugin?
Install the Stream 1.0 binaries to your machine using our **macOS** (restart may be required for AU formats) or **Windows** installers. Load up your digital audio workstation of choice and add Stream to a **stereo** audio track.
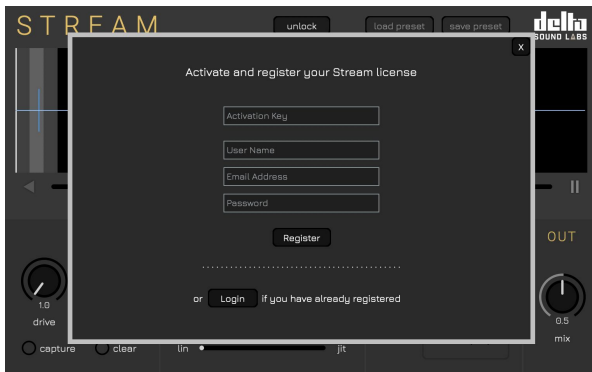
Load the UI and click on the **Unlock** button located in the top-center of the main component window.

Click **Activate** and enter your email, username and password along with your issued activation code.

If you have already activated the plugin, simply login again using your registered email address and password.

Is my username and password associated with the Delta Sound Labs website?
No. Your username and password is unique to the Stream plugin only.

Is there a demo version of Stream?
For right now, you're welcome to try our installers for **macOS** and **Windows**, pre-activation, with the following limited feature-set: **one** grain window, a fixed buffer length of **two** seconds, and **two** grain voices. This gives you access to the baseline functionality of Stream. To purchase a license, please visit our partners, **ILIO.**

Does Stream have presets?
You have the ability to make your own presets using the load and save preset buttons located at the top-right of the user interface. We aim to have some artist-made presets in the near future. **Please check our Blog section of our website regularly.**

Does Stream store parameter values and buffer audio when I close a session?
Yes. Parameter values are stored between sessions. You can also save your preset values to a ".stream" preset file and then recall those values manually on the next start-up. You can record automation data directly to your automation lanes in your digital audio workstation.

I want to print or record the output of Stream to an audio file. How do I do that?
You have to route and print the audio output of the audio track containing your instance of Stream to another audio track. For example, in Live, create a new audio track and set your input source to the track containing Stream (Post FX) and print. In Ableton Live, you can also use the *Resample* function or *Freeze* and *Flatten*. There is no magic button to save processed output from Stream and actually when you really think about it, it doesn't make any sense either given that the plugin's core strength is that it continuously produces disparate audio content.

Can I use Stream as a MIDI controlled audio effect in Logic Pro?

Yes! You can add Stream to a MIDI track as a MIDI controllable audio effect and send it MIDI data. Then, simply pull your audio from the side-chain selector in the top-right of the plugin user interface. If you need a demo of how to do that, have a look at this **tutorial.** You can re-pitch your grain voices using any MIDI pitch-based device and you can also step-sequence the buffer across two octaves using the often underutilized **C-2** to **C-0** MIDI note range.

This specified MIDI range is equally distributed across the buffer size. For example, **C-2** should position the main playhead at the beginning of the buffer.

How do I reset my password?
Send us an email and we'll reset your account: **support@deltasoundlabs.com**