



ENDLESS STUDIO



User Guide

v.1.2.0





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Welcome!

Endless Studio is a powerful cloud-connected multi-track looper with built-in performance instruments and effects, allowing you to quickly sketch out ideas and collaborate with other users around the world.

We hope you enjoy and get a lot out of using Endless Studio. This manual should help you troubleshoot and learn about the features of Studio, but if you have any open questions or problems, please don't hesitate to get in touch with us at: support@endless.fm

Getting Started

System Requirements

Currently Endless Studio is just available for MacOS, but we are working hard on a Windows version for 2021!

To run on Mac you will need the follow spec or higher:

- MacOS 10.14 (Mojave) or higher, Intel Core i5, 4GB RAM
- Digital Audio Workstation (DAW) that supports either AU-64bit or VST3 plug-ins
- An initial internet connection to Log-in

Purchasing, Downloading and Installing

To access Endless Studio you will need to purchase it from endless.fm/products/studio. Once purchased it will automatically get added to your Endless account.

You will then be able to head to the account page on endless.fm/account and download the latest version from there.

Once downloaded, please run the installer and accept the Terms of Use. Once installed, you will find a standalone version inside your Applications folder and a VST3 and AU plug-in inside your DAW of choice.

If you are having trouble finding the app or plug-ins, please check Endless Studio is installed in these folders:

- Standalone App : Mac HD/Applications/Endless Studio
- VST3 : Mac HD/Library/Audio/Plug-ins/VST3/Endless Studio.vst3
- AU : Mac HD/Library/Audio/Plug-ins/Components/Endless Studio.component

Please close your DAW when running the installer to make sure your DAW scans and picks up these new plug-ins next time it is open.

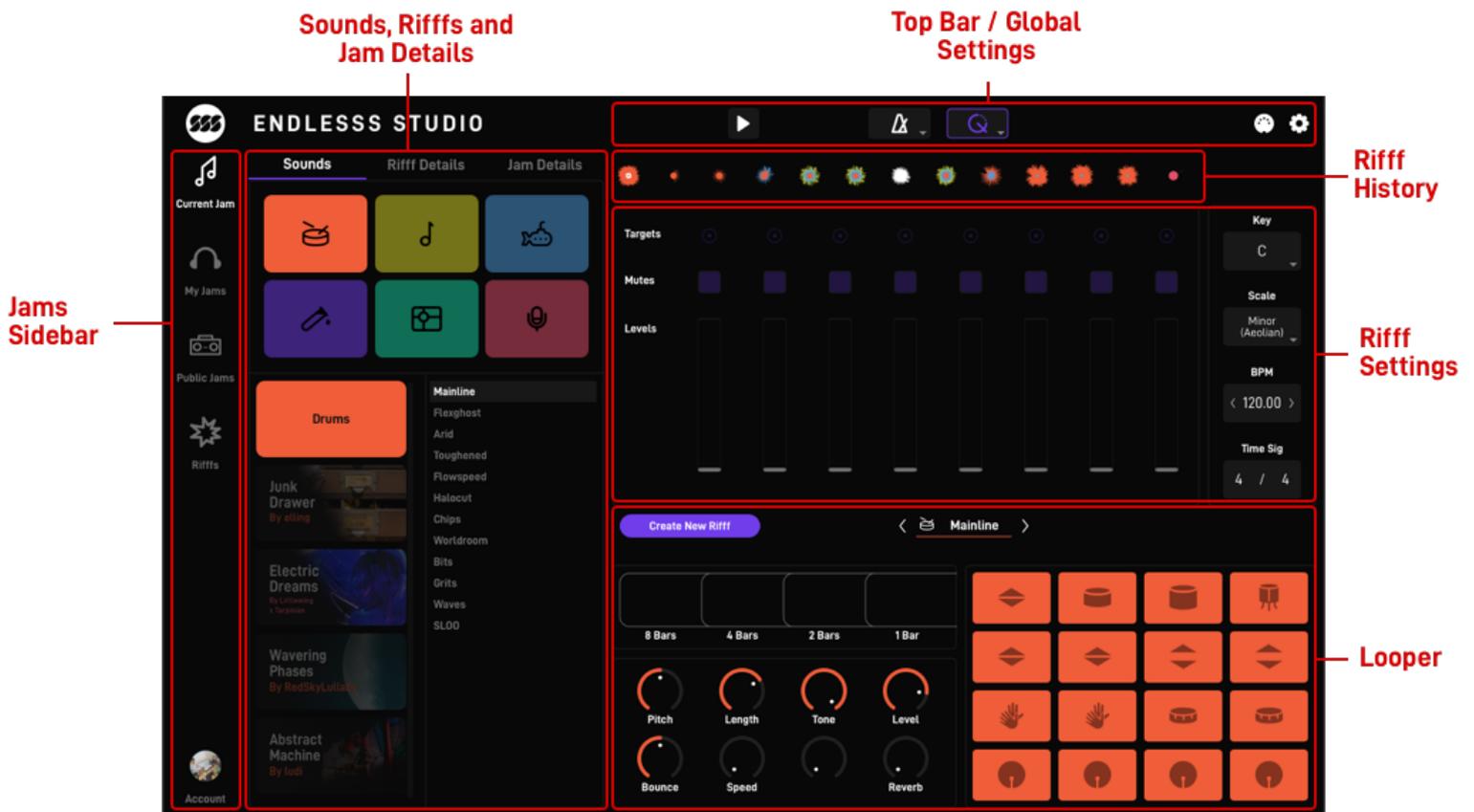


First Time Use

When you open Endless Studio, you will need to log in with the same account you purchased and downloaded it from. This is to make sure that you have access to all the great things inside Endless Studio.

If you have any problems logging in with the correct account, please contact us at support@endless.fm

The Endless Studio Interface



Main View of Endless Studio

Jams Sidebar

The sidebar on the left hand side of the interface is for navigating around the community and the Jam level features of Endless Studio. Here you can access your currently loaded Jam, a list of created or saved Jams, browse and join public Jams or just browse posted Riffs on the Riff Feed.

Top Bar / Settings

The Top bar contains all the global settings for Endless Studio, including the MIDI mapping, Audio/MIDI settings, record quantisation and metronome.



Sounds, Riff & Jam Details

In this section you control the devices you have selected and the sounds you load for a given device. Here you can also view details of your Riffs and chat with others in a collaborative Jam.

Looper Area

This section holds the retrospective looper, macro controls for the current sound and the play area with pads or XY-pads (FX).

Mixer & Riff Settings

In this area you can adjust the volume or mute layers of the selected Riff and adjust its settings like tempo, time signature, key and scale. You will also use the mixer to select which layers are routed through Endless' built-in Effects.

All elements of each of these areas will be explained in detail in the following sections.



Recording your First Loop

Endless Studio is focused around a retrospective audio looper. Depending on the device you have selected, audio will feed into the looper. Unlike a traditional looper where you may need to come up with an idea, hit record and then play it again, in Endless Studio, the looper is always recording as soon as you start playing. You then just commit the loop after playing something you are happy with.

The looper is split into 4 segments of increasing length. This lets you capture the last 1, 2, 4 or 8 bars that you played at the current bar length. You can capture at any point in time, not just at the start or end of a bar.

To create your first loop, start playing a device, such as the drums, then as soon as you are happy, tap on the looper to commit the last few bars of audio.



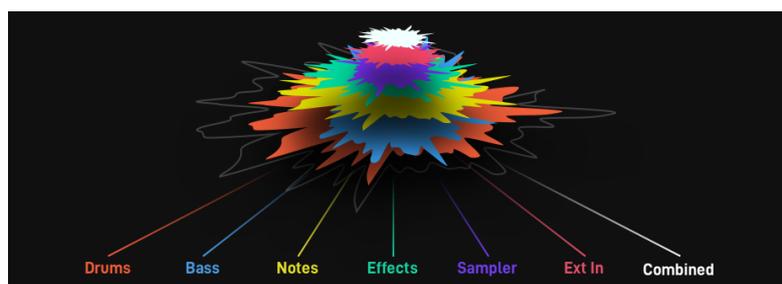
Once you have committed this loop, it will start playing back in one of the 8 Layers in the mixer. This is your first Riff.

A Riff is the state of all 8 layers, including the loop in each, the level of each and any additional settings like tempo, key/scale and time signature. Any time you add or remix a layer a new Riff is created. If you adjust the volume in the mixer or any of the additional settings, click the **Create New Riff** button to make a new Riff with these settings.

Your Riff history is always there, so you can easily revert back to a previous Riff if you want to take your ideas in a different direction or are not happy with a Riff you have created. You can access your Riff history directly in the main view or under the Riff Details tab.

Once you have created one layer, any future loops that are committed will be allocated to the next free layer. Once all layers are used up, the layer allocation algorithm will combine any older layers to make room. This way you'll never run out of layers.

When a Riff is created, the colour of the Riff icons are made up of a wrapped around waveform of each layer. The colours of each layer is determined by the device used to create each loop.



Breakdown of Riff Visualiser



Devices

Within Endless Studio there are a number of different devices to give you a broad range of music making tools. These include built in instruments, audio recording, powerful and unique samplers and expressive performance effects. Below are details on each device available:



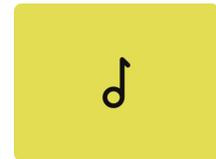
Drums

The Drums device is a sample based drum sampler, focused around kits consisting of 16 individual samples which can be globally affected by the 8 Macro controls available for each kit. These include parameters such as filter cut-off and reverb amount.

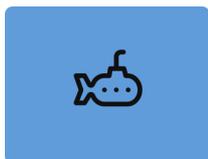
Each kit can be played on screen or played via MIDI input. The bottom left pad (which is usually a Kick) can be triggered by the MIDI Note C1 (36). It is then repeated every 16 notes, so MIDI Note E2 (52) will also trigger the bottom left pad.

Notes

The Notes device contains a collection of curated sample based sounds covering mainly polyphonic sounds including: pads, leads and keys. From each sound there is a collection of macro parameters to allow you to tweak the sounds further.



The onscreen grid follows the scale and key selected for the Riff. So the bottom left hand pad will be the root note of the scale.



Bass

The Bass device is very similar to the Notes device but is instead focused around Bass sounds. Again, each sound is a single sample with a collection of Macro controls to allow you to personalise and tweak the sound.

Despite the categories "Notes" and "Bass", sounds can be pitched up or down to be used for either purpose. The sounds were merely designed with those uses in mind. The distinction makes it easier to quickly find a specific sound while you're in the flow.

Sampler

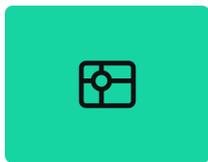
The Sampler device is another melodic instrument which allows you to sample audio from one or more layers and then play back the sample across the keyboard range, allowing you to create totally new sounds on the fly. Choose between the different Sampler sounds to get different playback articulations. For a full list of the different sounds available for the Sampler, please refer to [Appendix A](#).





To sample any existing layers, select the Sampler device. In the mixer, target the layers you want to sample (see [Targets](#)) and then press the **Record into Sampler** button (which can be midi-mapped). Press it again to stop sampling. Now you can play that sample across the keyboard range.

The sampler assumes that you record a sound at the root of the key (e.g. E for a Riff in E Minor).



FXs

The FX device contains a great range of effects that can be used as both performance effects or to mix, produce and shape your layers and Riffs. The range of effects covers everything from distortion, dynamics, filters, pitch, modulation, delays and reverbs. For a comprehensive list of all the effects included, please refer to [Appendix B](#).

When loading any effect you will have access to both an XY-pad and macro dials to fine tune and set the level of the various parameters available.

When using the XY-pad, the effect will only be enabled when the onscreen pad is interacted with. When using an XY-Pad midi controller, assign both the X and Y direction as well as the **Enable** control, which the controller should send as soon as your finger touches it. Alternatively, map it to a different button to have it latched on permanently.

Like any other device, the output of the effect will be recorded into the retrospective recorder and only committed to a layer when you interact with the looper.

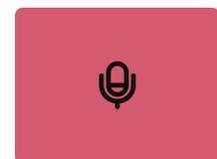
When routing just one layer through the FX device via the Targets, the resulting recorded loop will replace the original layer. When routing multiple layers through an effect, all layers that are targeted at that time will be merged into one and then replaced with the recorded loop.

Top Tip

An effect doesn't need to be actively used to do this, so you can use this technique to transparently merge layers together and make room for more, rather than letting the layer allocation algorithm take charge.

Mic / External Audio Input

As well as playing the internal instruments and effects in Endless Studio, you can also record audio directly in, allowing you to record anything from your analog synth to your Zither!



When selecting the External Audio Device, you can monitor and adjust the level of your audio input using the gain meter and the input gain knob.

You can also select if you wish to listen to the incoming audio whilst it is being recorded via the **Monitor** switch. With this on, you will hear the incoming audio whilst the retrospective



recorder is running. With this off, you will only be able to hear the recorded audio after you have committed your loop to a layer.

Top Tip

*One side effect of having the Monitor switch on is that if you have - for example - an audio loop coming into Endless, once you commit a loop recording, you will hear both the incoming audio and the recorded loop in Endless. To avoid this you can switch on **Monitor until Looped**, which will switch off monitoring as soon as you commit a loop*

Whilst running Endless as a standalone app, you can set the audio device and channel input within the App Settings.

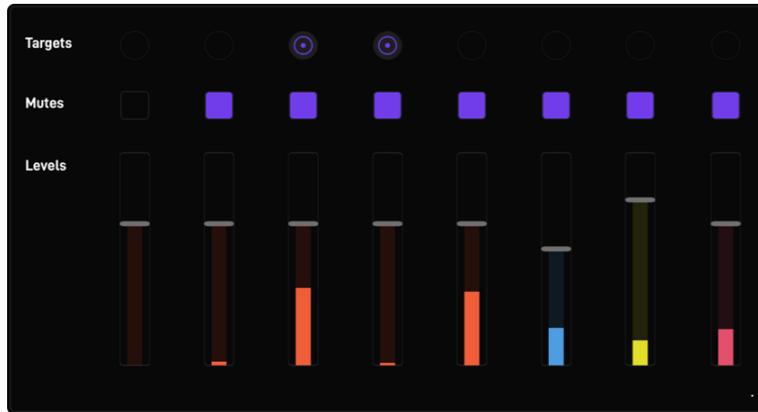
In the plug-in version you need to route audio to the plug-in. For details on how to do this, please refer to the section on [working within your DAW](#).



Mixing and Remixing Layers

Mixing

To help you balance the different layers and to also help create different variations of Riffes, Endless Studio includes a Mixer section.



When a layer is active, you can control the level and mix your different layers directly within the mixer view. Every time a new Riff is created, the level will reset to 0dB gain.

You can mute any layers to help create variations, for instance, cutting out the Kicks or Snare from your Riff.

Muting a layer doesn't completely take a layer out of the Riff, it can still be unmuted later. However, when adding new layers to the Riff, the layer allocation algorithm will pick empty or muted layers to fill first, so a muted layer could potentially be overwritten.

Top Tip

If you want a layer to be muted but not overwritten, dial down its volume completely rather than muting it.

Creating a New Riff

Mixer settings like mutes and volume are stored within a Riff and when selecting a different Riff, its settings are automatically restored.

If you change any of the levels, mutes etc. those changes won't be saved until you create a new Riff. This happens automatically whenever you add or remix a layer with instruments & effects, however, if you just want to save the adjusted mixer settings, click **Create New Riff**.

Targets

Within the Mixer you can also find the Target switches which determine the routing of the different layers to the FXs and Sampler. Endless Studio will always select the last added



layer by default. However, you can target any combination of layers to be used with the FXs or Sampler.

Note, when multiple layers are processed through the FXs or Sampler, they will be combined into a single new layer.

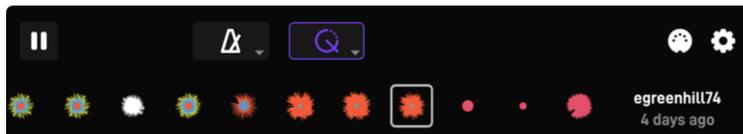


Global, Riff & App Settings

There are various settings available across Endless Studio to allow you to customise and fit Endless Studio into your workflow.

Global Settings

These settings are the same for any Jam or Riff you have playing.



Record Quantisation

Record Quantisation keeps you in time when playing any of the internal instruments (Drums, Notes, Bass and Sampler) by delaying the result of any incoming MIDI until the next step.

To enable record quantisation, tap the icon in the top bar. The size of these steps can be set by clicking on the arrow underneath the Quantise Icon, and then adjusting the slider.

Metronome

The metronome guides you with a click so you can hear the tempo.

The volume of the metronome can be adjusted so you can hear it over loud Riffs or played quietly if you are starting from scratch. To adjust this, click on the arrow underneath the Metronome symbol.

Top Tip

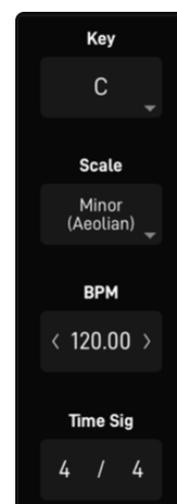
If you are using record quantisation, it is useful to enable the metronome when you start a Riff from scratch to make sure you easily stay with the beat and quantisation doesn't shift the timing of notes.

Riff Settings

These settings are specific to the Riff you currently have loaded and any changes made here will be embedded in the next Riff you make (either by adding or remixing layers, or by clicking the **Create New Riff** button) and shared with others.

Tempo

To adjust the tempo, you can drag up and down on the value or click and type it in. If you have already created some layers, any adjustments to the tempo will affect the pitch of the recorded layers. This can be useful for modulating the key between Riffs and so you can nudge the tempo up and down using the





arrow which will change the pitch by semitones, adjusting the key of the Riff accordingly.

Time Signature

You can also change the time signature (looper bar length) of the current Riff. The number on the right is the note value that will represent one beat and is always set to a quarter note (quaver). The left number changes how many of these beats are in a bar.

Top Tip

If you are wanting to extend the loop range of Endless to longer than 8 bars, you can set the left number to be higher than the right number. For instance, if you create a time signature of 8/4, the maximum loop length will double to 16 bars.

Key/Scale

You can change the key of the Riff by selecting the root note (tonic) to be used while playing Endless. This will be reflected across the note grids for the Bass, Notes and Sampler devices.

Tap the Scale label to open a menu of all available scales. Your selection also changes the notes of the pads for Bass, Notes and the samplers.

App/Plug-in Settings

In the top right corner you will find the App / Plug-in Settings for Endless Studio. These include:

Looper Mode

By default the looper is set to record either the last 1, 2, 4 or 8 bars that you played. There are however two further modes available which give you simplicity or flexibility. All the modes are:

Simple Mode: Retrospective looper for capturing 2 bars only.

Advanced Mode: This is the default mode and lets you create loops of either 1 bar, 2 bar, 4 bar or 8 bars in length. When running, you can tap on any of the segments to loop the specific number of bars. The individual segments are midi-mappable.

Punch In Mode : In this mode, the looper acts like a classic loop-pedal style looper where you tap to start recording a loop, and tap again to end.



To avoid any timing errors in how multiple loops play together, the loop end will quantise to the nearest 1/16 note.



Ableton Link

This is only available in the Standalone version of Endless Studio. If you are using any other software on your network that supports Ableton Link, you can keep them all in sync with each other so they all play in time. For more details on Ableton Link, please see [here](#).

New Riffs Adopt Current Tempo

Especially when jamming with others you may find that you want to stick to a specific tempo and not allow it to jump about. With this enabled, the tempo is not recalled when a Riff is loaded and so it plays back at the fixed tempo you have selected.

When running Endless Studio as a plugin in your DAW, if you have **Host Controls Tempo** enabled your DAW will control the tempo regardless of this setting.

Auto-play

With Auto-play turned on, an incoming Riff from other jammers will automatically be selected and start playing. This always keeps you on the latest Riff and reduces the chance that two or more jammers will branch out from one Riff, keeping the Riff history nice and linear.

It helps to turn auto-play off if you want to quickly browse back through the Riff history, for example to record an older layer into the Sampler, without automatically being switched to incoming Riffs.

Note Names

If you are using a device that uses the melodic grid (Bass, Notes or Sampler) with this option enabled you will see the notes of each pad. These are based on the scale and key selected and so can be useful to familiarise yourself with your scales.

Push 2 Control

This is only available in the Standalone version of Endless Studio. This toggles the control of the whole of Endless Studio via an Ableton Push 2 controller. You may wish to turn this off when working with Ableton Live simultaneously as the two applications can clash around which app is controlling the hardware.

More details on the Push 2 integration, see [here](#).

Clock Source

This is only available when running the plug-in version of Endless Studio. When this is set to external, Endless Studio will be locked to hosts tempo. The tempo will automatically update based on the tempo of your host and will not be able to be set with-in the plug-in.

Host Controls Tempo

This is only available when running the plug-in version of Endless Studio. When this is enabled, Endless Studio will be locked to the Host's (DAW's) transport. Endless Studio will play / pause based on the host's transport state.

Please note, if the transport is running in your host, you can manually play / pause within Endless Studio, however the host's transport will need to be running to do this when this option is enabled.



Audio / MIDI Settings

These settings will only show up when using the Standalone version of Endless Studio.

Here you can set the audio device you are using, which channels to use, the sample rate and the buffer size.

The audio input of Endless Studio is stereo. If only one input channel is selected, it will be audible on both the left and right channel. If two input channels are selected they are treated as left and right.



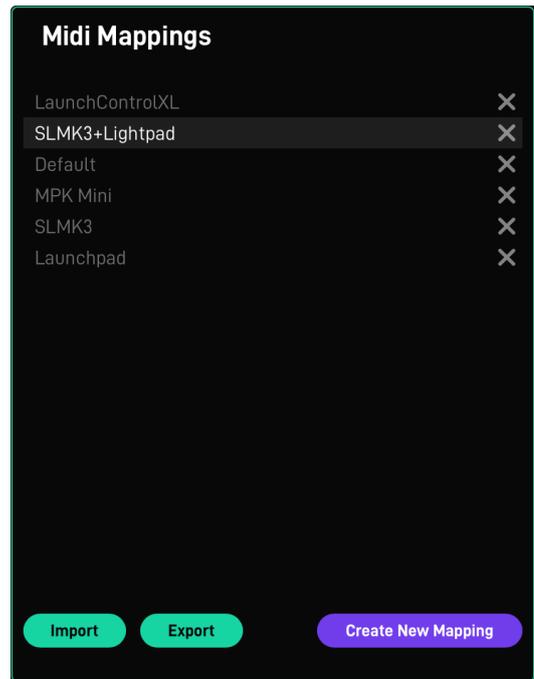
MIDI Mapping

To allow quick and easy control of Endless Studio and to be able to use it as a performance tool, you are able to create and save MIDI Mappings for all your favourite MIDI controllers. For many parameters you are able to create a MIDI Assignment between it and a MIDI CC or MIDI note. You can then save and recall any collections of these as a MIDI Mapping.

To access this, click on the MIDI Icon in the top right corner. Once in MIDI Mapping mode, the Sounds Browser will change to the MIDI Mappings Browser where you can create a new mapping and open or remove an existing one.

When you load or create a new mapping, any changes you make to any MIDI Assignments will be automatically saved to that mapping.

When in MIDI Mapping Mode, any parameter that can have a MIDI assignment will be highlighted with a green box. To create an assignment, just click on the parameters and then move the MIDI hardware you wish to assign. Once it has been assigned, you will be able to view the MIDI CC/Note and Channel number being used.



Top Tip

When working with a MIDI Controller with buttons, you may find it behaves as a Toggle (Toggles between On and Off with every press) or Momentary (On when pressed, Off when released). In Endless, some parameters are toggles and some are Triggers, so you may need to adjust the modes of the buttons on your hardware to accurately mimic the control in software.

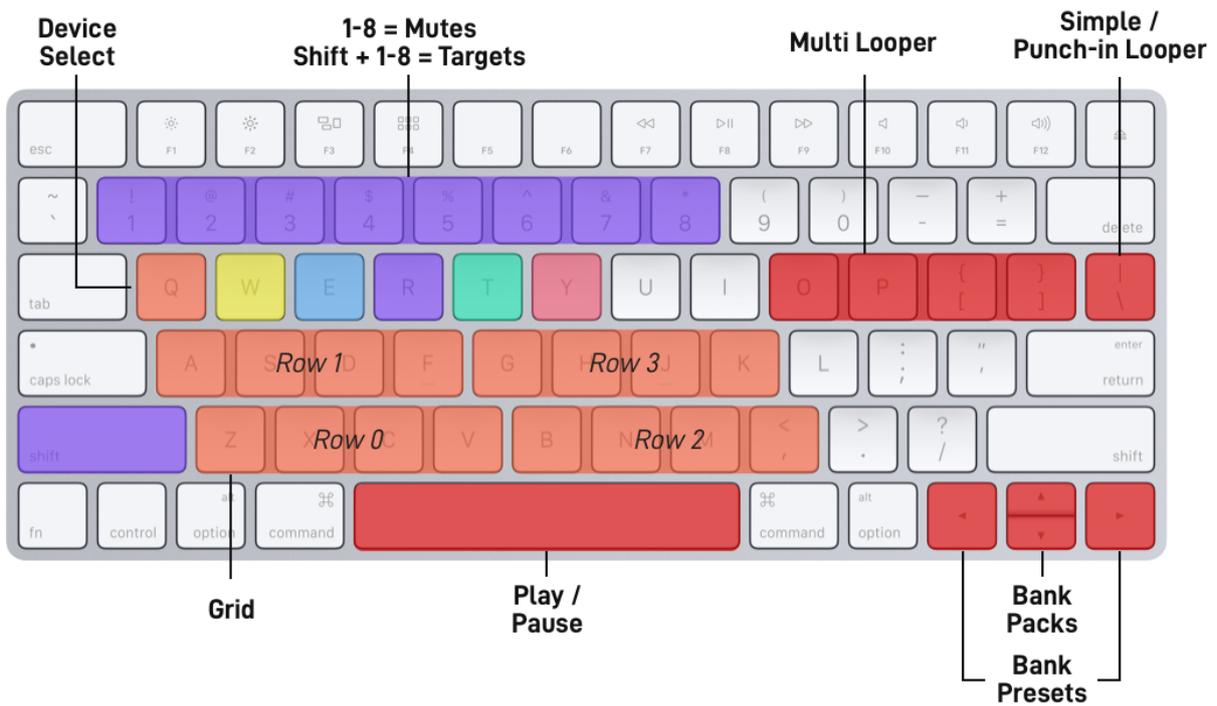
If you come up with a MIDI Mapping for an external controller and wish to share it with other users, or wish to use a shared Mapping from another user, you can do so by using the Import/Export feature. For a loaded MIDI Mapping, just click **Export** and choose where to save it to. It



will then create a .midiprofile file that you can then share with others. To import that back in, simply select **Import** and choose the .midiprofile you want to use..

Keyboard Mapping

To make it quick to control all Endless even without a MIDI Controller. Your computer keyboard comes automatically mapped to Endless. Please see the diagram below for how it is mapped.





Exporting your Riffs and Layers

Endless Studio is a great sketchpad for ideas but you may want to take your ideas further by working on them inside a DAW, arranging and producing them into full tracks. To make this easy, you can simply click on your currently selected Riff and then drag it into a folder on your Mac or directly into the timeline of your DAW. The files exported are .aiff audio files.

You can also select a single layer in a Riff from the mixer and drag this out if you wish to export individual parts.

Working with your DAW

As well as running as a Standalone application, Endless Studio also runs as a VST3 and AU plug-in allowing you to run it in the majority of DAWs, such as Ableton Live, Logic Pro, Bitwig Studio, Reaper, FL Studio and many more. By running it as a plug-in you may find it easier to export audio files, routing external audio tracks, routing other plug-in instances or just capturing ideas you have.

Top Tip

When exporting audio directly from Endless Studio into Ableton Live, by default, the tracks will be stacked in a single audio track in Live. To instantly add them to individual audio tracks, whilst dragging them in, hold down CMD on your computer keyboard.

Please note, you can currently only run a single instance of Endless Studio as plug-in in a DAW. When opening a second instance, the plug-in will be disabled.

When running as a plug-in, the functionality is nearly identical, with the only real difference being how you route audio to the External Input Device. To support being able to input MIDI directly from your DAW and to also support the External Input Device with Audio input, the Endless Studio plug-in is an Instrument plug-in with an Audio Side-chain input.

Below are some examples of how to route audio to the plug-in in two major DAWs:

Audio Input - Ableton Live

To input audio into the plug-in in Live, you have two options:

Option 1:

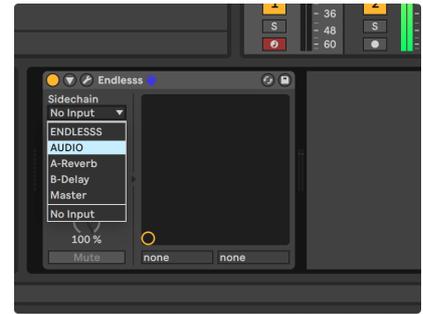
- Create a separate track for either your direct audio input, audio playback or plug-in instrument
- Route the output (Audio To) to the track which Endless Studio is running in





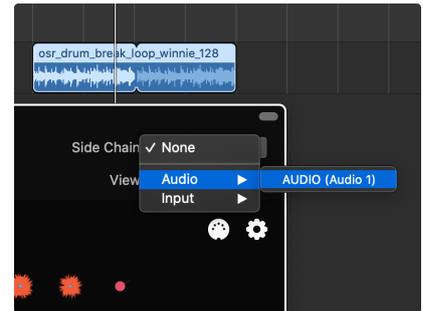
Option 2 :

- Create a separate audio track for either your direct audio input, audio playback or plug-in instrument
- In the track you are running Endless Studio, go to the Device view for the plug-in and change the Sidechain input to be the audio track you are wanting to route into Endless



Audio Input - Logic Pro X

- Create a separate audio track for either your direct audio input, audio playback or plug-in instrument
- Open up the Endless Studio plug-in and go to the top right hand corner and select the side chain input to be the track the audio is coming from





Managing Jams and Collaborating with others

The next section will explain how you manage your Jams and can start collaborating live with others.

A Jam can either be private to you or shared with others, allowing anyone who you share it with to add and remix Riffs within the Jam. You can create jams for specific song ideas or projects or to have a permanent group of friends to jam with.

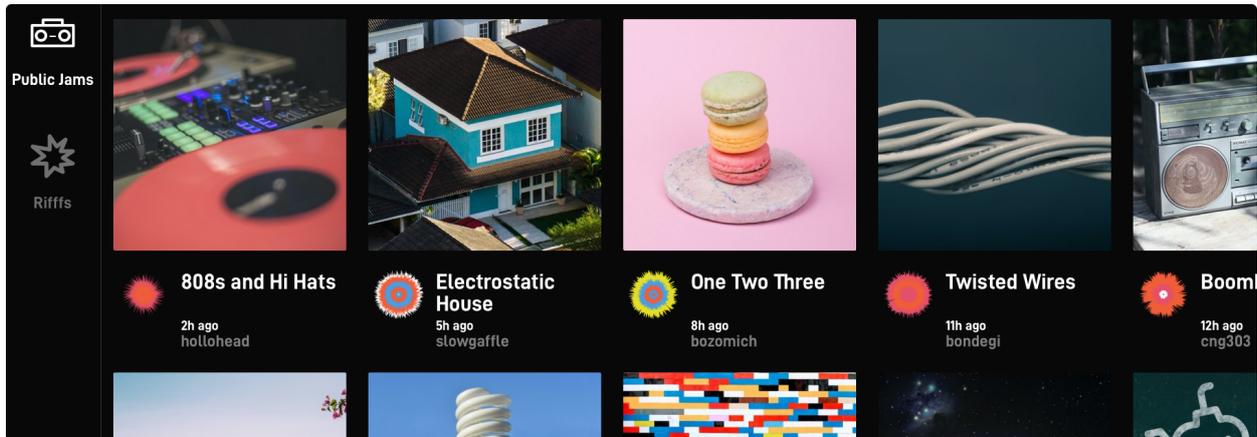
When you first use Endless, by default you start creating Riffs in your own personal Jam, which is called your **Solo Jam**. Your solo Jam is also private to you and so can't be shared and always stays linked to your account.

My Jams

This is where you can create a new Jam for yourself or to start sharing with others. If you click on **Start New Jam** you will be asked to add a name and then this will show up in your list.

If you wish to jump back into your Solo Jam, just click on **Play Solo**

If you have been shared a link to a Jam that you wish to join, you can select Join a Jam and you can paste in the URL to join.

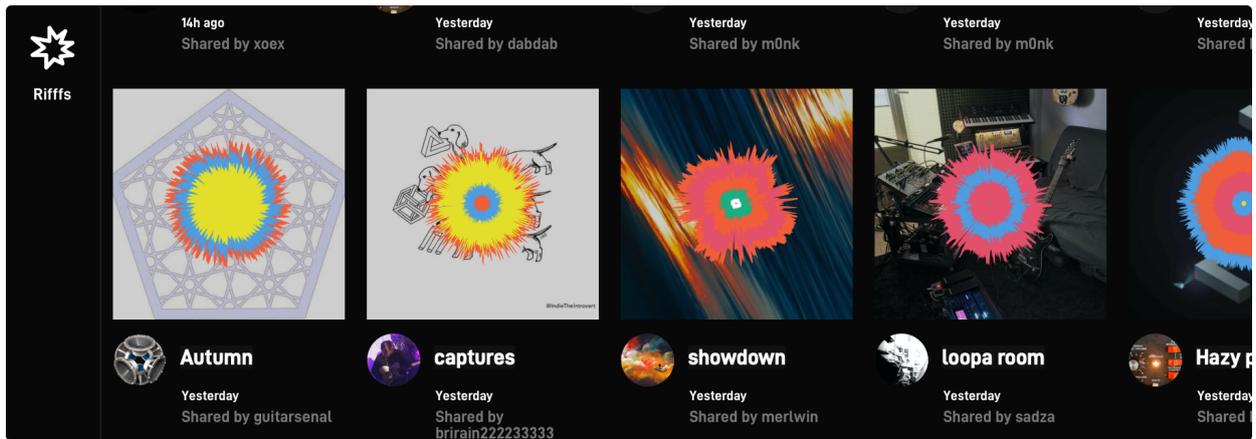


Public Jams

By selecting Public Jams you can view all of the most recent public Jams available. If you select any of them you will immediately jump into the Jam and can start chatting and creating Riffs with other users.



Riff Feed



Here you will find a comprehensive collection of Riffs users have shared. You can order them by the latest, most popular, just your Riffs or just the ones you have liked.

For any Riff you can click on the tile to find out more details about it, like it and even Remix it. By Remixing it, you bring the whole Riff into your Solo Jam and you can start taking it further and in new directions! Then you can post the results back to the Riff feed for others to do the same.

Riff Details

If you switch to the Riff Details tab whilst Jamming you will find a full history of all your Riffs for the Jam which you can browse through and play.

Here you can also delete any Riffs you are no longer happy with.

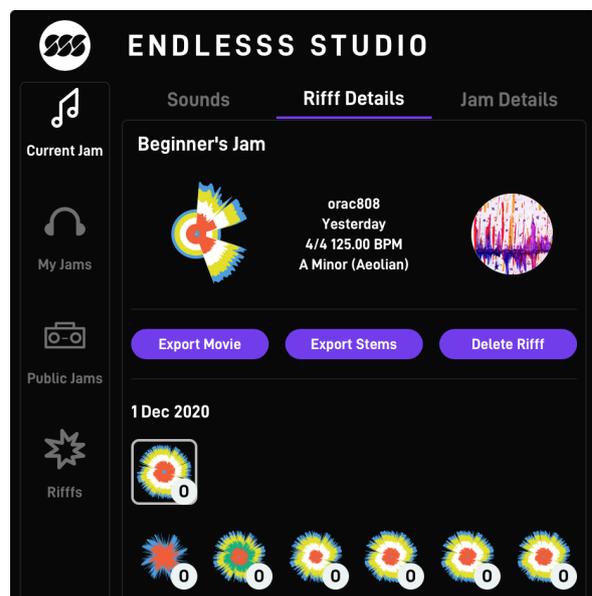
Exporting Riffs

In this view you can export the currently selected Riff as stems of .aiff audio for each layer to a location on your computer. This is the same but a more manual approach to dragging and dropping your Riffs directly from the UI.

You can also export the current Riff as a Movie which will create a video based on the stacked Riff Waveform and any artwork you have chosen for your Jam. This is useful if you wish to share your creation on any social media platforms.

Sharing a Riff

Across the Endless platform there is the Riff Feed which shows all the latest and most popular Riffs users have shared. If you wish to share your great work, you can do so here.





When you share a Riff, you can add a custom title and background image. You can also set if it just saves to your personal feed or if it is public for all Endless users.

Jam Details

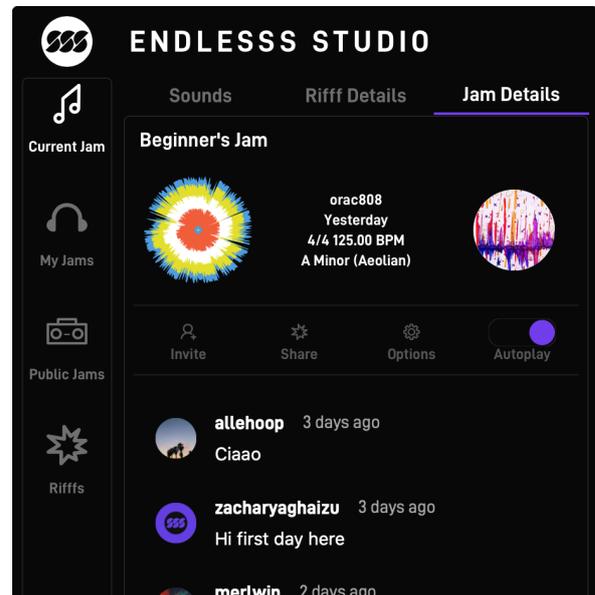
Here you can invite users to join your jam and chat directly with other users in the Jam whilst you collaborate and make music together.

If you select **Invite** you will be given a specific URL that you copy and share with anyone else.

Once anyone has joined the Jam you can start chatting by typing in the bottom text field.

If at any point you wish to edit your Jam's name, description or image, select the 'Edit Jam' icon. Here you can also remove it from your Jams list.

Please note, the Jam Details view is only available in a shared/public Jam. For your Solo Jam, which is private to you, you do not have these options.





Appendix A - Sampler Presets

Sample Type	Description
Straight	This default preset doesn't change the sample from the way it was recorded
Short	Reduces the decay time of the sample
Looped	Loops a short portion of the sample with a cross over
Pad	Adds a slow attack time on a filter envelope to the looped sample
Low	Like Straight but pitched down two octaves
Zap	A fast low-pass filter fades the sample out whilst also having a quick pitch envelope
Up	The sample is pitched up over time. Going up over an octave and then falling back to original pitch
Bubble	The sample slides up quickly and settles on a loop point
High	Like Straight but pitched two octaves up with loop points to sustain the sample
Pick	A highly resonant filter fades the sample out quickly with a touch of reverb
Growl	Contains a downward filter sweep and upwards pitch sweep
Wave	A super short section of the sample is looped at the beginning of the sample, creating an almost wavetable like effect.



Appendix B - Effect Types

Effect	Description	X Axis Control	Y Axis Control
Lowpass / Highpass	Typical filters to sculpt your sounds with. Reduce high frequencies using Lowpass or cut out low frequencies using Highpass. Increase the Resonance for a more pronounced effect. Both can be turned into a Bandpass filter using the Type dial	Frequency	Resonance
Reverb	Simple algorithmic reverb. Simulate a small room or create longer, ethereal tails	Reverb Mix	Reverb Size
Gate	Chops up the sound in rhythm, like a tremolo at 100% depth	Length	Size
Buzz	A super fast repeater that glides between speeds	Speed	
GoTo	Keep looping the same part of the audio buffer starting at the buffer position. Tempo determines whether to repeat in 16th, 8th, dotted 8ths or quarter notes	Buffer Position	Tempo
Saturator	Add grit, glue together layers together or make darker sounds cut through the mix	Saturation	Mix
Delay	Simple time-synced echo effect	Time	Feedback (and Mix)
Comb	Delay with short delay times. Useful for resonators or flanger like effects. Works well on rhythmic content. At maximum Y values it freezes the sound.	Pitch	Feedback (and Mix)
Distortion	Add even more grit and high frequency content for dark sounds	Distortion Amount	Mix
Smudge	A slightly weird reverb effect. Symmetry controls stereo spread. Infinite feedback / freeze at full Y values	Size	Diffusion
Channel	Simple channel strip with Pan, Gain, Stereo width and one parametric filter.	Pan	Gain (Attenuation)
Keymasher	Combination of several effects + some that are unique to keymasher, many buffer related effects	XY Control replaced with 3x4 grid. See below for details	
Ripper	Very heavy distortion	Amount	Symmetry
Ringmod	Auto panner or stereo tremolo. Turn percussion into texture at high values.	Frequency	Amount
Bitcrusher	Reduces the sample rate and bit rate of the sound. Caution: Can get loud at high Y values.	Sample Rate	Bit Rate



Degrader	Chops off the bottom and top of the waveform and turns them into silence. Like a hypersensitive noise gate that causes its own distortion. Needs to be finely tuned to the material it's used on. Create crackly distortion for vintage feel. Creates new harmonics.	Min	Max
Pitchmod	Stereo vibrato. Use for chorus-like effects or to create bell-like texture at high values	Frequency	Amount
Multicomb	Multiple combs in one. Warp changes the pitch relation of the delays. Even more resonator fun. Use on percussion and turn it into rhythmic chord machines	Pitch	Feedback
Freezer	A very resonant reverb effect that is prone to long diffusion times. Network of diffusor delays	Size	Feedback
Zap Delay	Classic tape delay that adjusts to new speeds over time. Adjust using slip	Time	Feedback
Dub Delay	Another classic delay that adjusts to new speeds over time. Adjust using slip	Time	Feedback
Compressor	Standard compressor. Glue stuff together or add punch. Apply parallel compression by using Mix knob	Ratio	Threshold

Keymasher Effects

- **Repeat** : Adjustable repeater with pitch bend when changing the speed using the **Repeat** dial.
- **Pitch Down / Rst / Up Pitch** : Pitches the sound down or up then allows you to restore it to regular pitch. Adjust step size using the **Pitch** dial.
- **Reverse** : Reverse sound, in chunks (one bar, dependent on time signature)
- **Gate** : Like the standalone gate effect
- **Scratch** : Tape stop. When held, four of the other keys turn into scratch specific pads:
 - **Back** : for reverse scratch
 - **Hold** : Retrigger to continuously repeat the scratch
 - **Forward** : To repeat the same scratch
 - **Fast** : For the same but faster.
- **Buzz** : Like standalone buzz. The dial **Buzz TF** adjusts how quickly the speed adjusts to the X-Position on the mini pad.
- **Stutter** : Like repeat but resets for every bar (dependent on time signature). Y sets the repetition length.
- **Go To & Go To 2** : Like GoTo but for the start and halfway point of the bar.
- **Buzz** : Slip is like Buzz but the way it adjusts to new speeds (X-Position) is even more erratic.