

Loomer Sequent User Manual

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Requirements

macOS Requirements

- Requires macOS v. 10.9 or later, or macOS 11 or higher
- x86 based processor 1.0Ghz, or above, with SSE, or M1 or higher
- 512 MB RAM

Windows Requirements

- Windows Vista or above
- x86 64-bit based processor 1.0Ghz, or above, with SSE
- 512 MB RAM

Linux Requirements

- x86 64-bit based processor 1.0Ghz, or above, with SSE
- 512 MB RAM

The following shared object libraries are required:

- libfreetype
- libasound
- libXinerama

Sequent Overview

What is Sequent?

Sequent is a modular multi-effects unit, the ideal tool for mangling audio on stage or in the studio.

Sequent has eleven individual effect blocks: a beat looper; two filters, both switchable between lowpass, bandpass, and highpass modes and capable of self oscillation even without an audio input; an oversampled distortion unit; a gate with variable depth and slew; a panner; a delay unit capable of sub millisecond delay times, great for creating everything from dub, slapback, and bouncing ball style echoes, to metallic comb filters or flanger effects; an oversampled frequency shifter; a freezable reverb; a splitter to route audio to different effect; and a merge module to mix other effects.

Effect blocks can be connected in practically limitless ways by dragging virtual audio cables between them. Route effects in parallel, in series, or any other combination you can dream of.

Want variation? Each effect parameter has its own step sequencer, perfect for building interesting modulation motifs. Easily craft polyrhythmic sounds by individually setting the number of steps and speed for each effect. Cut-up and rebuild audio in realtime. Use Sequent's flexible Looper to create anything from subtle loop variations, to micro-programmed glitches.

Creative block? Let Sequent do the work. Distinct random controls for each parameter allow everything from slight variations, to complete aleatoric composition.

Combine sequencer and effect settings into patterns, which can be instantly between switched from the on-screen interface, or even using a MIDI controller.

Controls can be easily mapped to a hardware controller using the simplified MIDI Learn feature.

With optimised audio algorithms that won't overload your processor, rock-solid stability, and easy integration with any MIDI hardware controller, Sequent is ideal for live work.

With a simple and intuitive interface, flexible bank and program management, and total parameter automation, Sequent fits right into your studio environment.

Plug-in vs Standalone

Depending upon your individual studio setup, Sequent can either be used as a plug-in component of a compatible host application, or as a standalone application requiring no other dependencies. Generally, by using the host application's routing flexibility, running as a plug-in allows easier integration with existing plug-in effects and instruments. If this integration is not required, the standalone version, without the burden of the host, performs very slightly better.

Presets and MIDI mapping assignments are identical in both standalone and plug-in versions. This means any sounds created in one format can be opened in the other.

Sequent Formats

For macOS, the following formats are provided:

- Standalone application (64-bit, ARM)
- Audio Unit (AU) plug-in (64-bit, ARM)
- VST2 plug-in (64-bit, ARM)
- VST3 plug-in (64-bit, ARM)
- AAX plug-in (64-bit, ARM)

These formats are available for Windows PC:

- Standalone application (64-bit)
- VST2 plug-in (64-bit)
- VST3 plug-in (64-bit)
- AAX plug-in (64-bit)

These formats are available natively for Linux:

- Standalone application (64-bit)
- VST2 plug-in (64-bit)
- VST3 plug-in (64-bit)

Supported Channel Configurations

For maximum flexibility, Sequent can be used in one of several possible input and output channel configurations. Sequent is a true stereo effect: left and right channel separation is preserved. The following configurations are possible:

- mono to mono (1 input, 1 output)
- mono to stereo (1 input, 2 outputs)
- stereo to stereo (2 inputs, 2 outputs)

Note that some host applications may not support one or more of these configurations; consult your host's documentation for further details.

Using Sequent

Sequent can be used as either an insert or send effect. When used as an insert effect, Sequent is placed directly in a host's audio channel. As a send effect, Sequent is placed in a host's auxiliary or bus channel, and a portion of the original signal is fed into the effect. Consult your host's documentation to find out how to add a plug-in as either an insert or as a send effect.

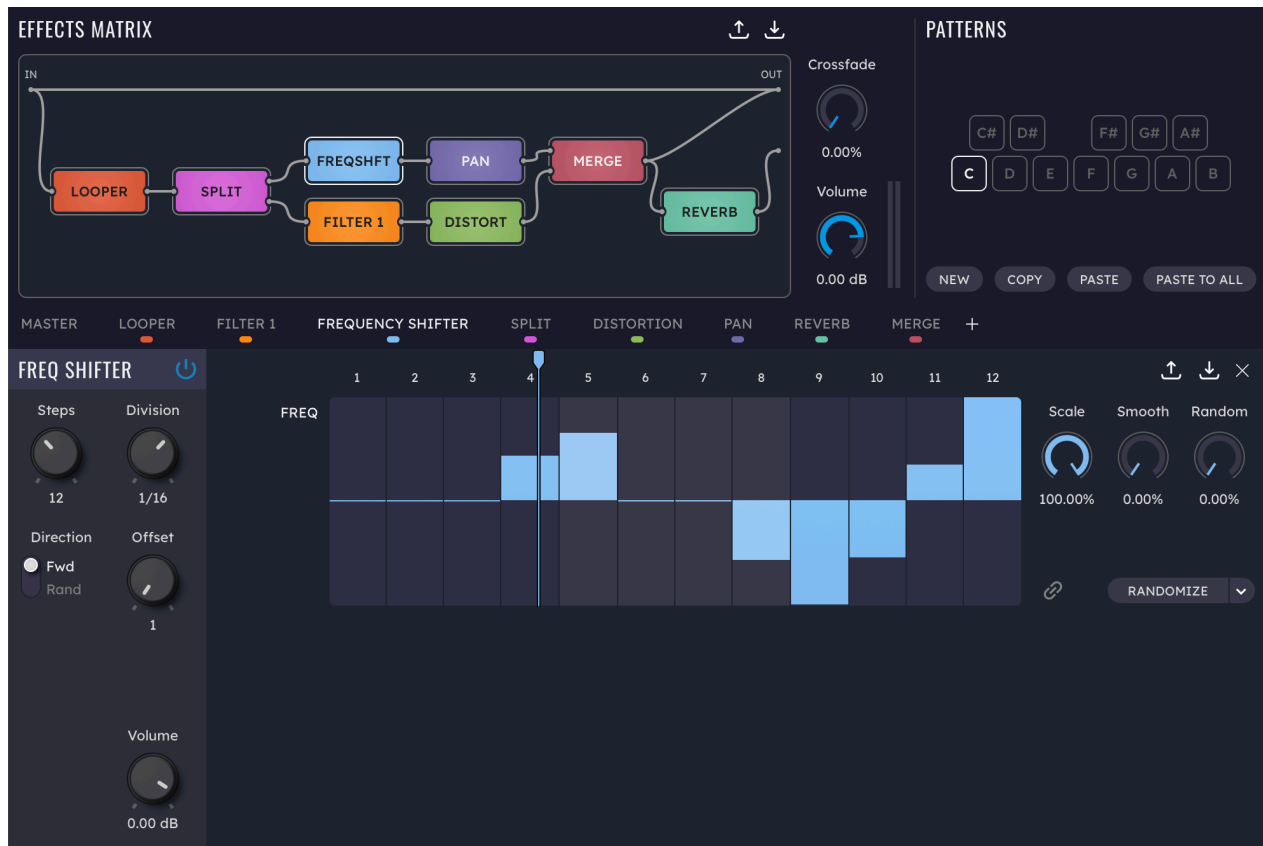


Figure 1: Sequent's Interface

Host Transport Syncing

When Sequent is hosted as a plug-in, syncing its internal sequencers with any hosting application requires the host to pass transport information (such as play or pause state, current tempo, and current playhead position) through to it. In the majority to cases, hosts will handle this transparently. However, if Sequent does not appear to be syncing to your host, several things worth checking are:

- Your host may only provide Transport information when the the host's Transport is playing, not when it is stopped or paused.
- Your host may only pass Transport information to a channel that is active. Ensure that the channel is not muted or bypassed, and that audio is routed both into and out of the channel.
- See if your host has an option to 'Configure as a tempo-based effect', or something similarly named, to a plug-in.

If you are still having syncing problems, consult your host's documentation to find out how to sync plug-ins to the host application transport.

Effects Matrix

The *Effects Matrix* panel gives an overview of the signal flow through Sequent. Audio signals enter through the input node on the left, are processed through any connected effects, and exit through the right side output nodes. For an effect, audio will enter on the left-hand side, and the processed output emerge on the right-hand side.

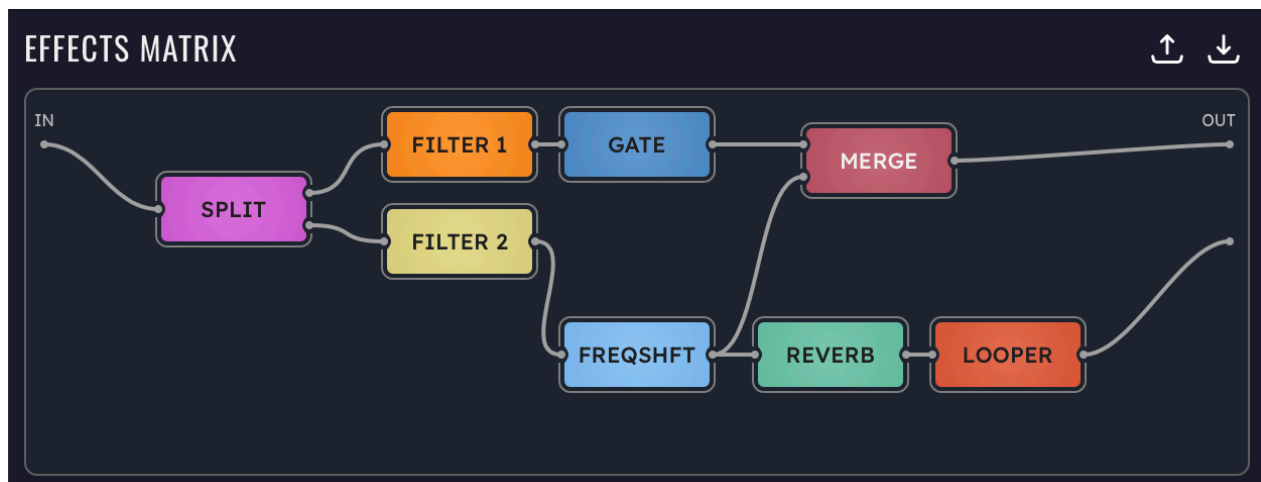


Figure 2: Effects Matrix

Sequent consists of multiple effect blocks that can be routed in practically unlimited different configurations.

To add a new effect, either:

- Right-click on the Effects Matrix panel and select the new effect.
- Or, click the + button in the [Tab Bar](#) below the effects window, and select the new effect.

To move an effect:

1. Click, and hold down the left mouse button, on any effect.
2. Drag the effect to its new position.
3. Release the mouse button.

Wires between effect blocks indicate the flow of audio through Sequent. To add a wire between two nodes:

1. Left-click on a node, either one of the main audio input/output nodes, or an effect's node, and hold the mouse button.
2. Drag the mouse to another node. When you approach another node, the wire will snap into position.
3. Release the mouse button.

Note that there are limitations in how effects can be wired. Specifically, each node can only be connected to at most four other nodes, and a connection cannot be made if it would introduce feedback.

To remove an existing wire, either:

- Left-click on the wire, and press *Delete*.
- Or, left-click on the wire, and choose *Delete* from the right-click context menu.

Effects that are not connected will not consume any CPU. Unused effects, those that have no audio running through them, should be removed from the effects window by either:

- Select an effect by left-clicking on it, and press the *Delete* key.
- Or, select an effect, and choose *Delete* from the right-click context menu.
- Or, select an effect, and click the *X* button on the right-hand side of the effect's panel.

Multiple effects and wires can be selected at once using the lasso tool. To do so:

1. Left-click on an empty space in the Effects Matrix, and hold down the left button.
2. Drag the lasso over the objects to select.
3. Release the mouse button.

Pressing *Shift* whilst using the lasso tool will add the contained selection to the existing selection, whilst pressing *Alt* will remove them from the selection. The same modifier keys can also be used when clicking directly on an audio effect or wire.

When multiple effects or wires are selected, any editing operations (such as moving or deleting) will apply to all selected objects.

Most effects (apart from the Split and Merge modules) can be bypassed by double-clicking on them. Bypassed modules are shown in grey. Most modules, when bypassed, simply pass the input audio through unprocessed. However, the Delay and Reverb modules can also be set to produce silence when bypassed. See [Delay](#) and [Reverb](#).

Effect Matrix Presets

Configuration settings for the Effects Matrix can be stored in [partial presets](#).

Output

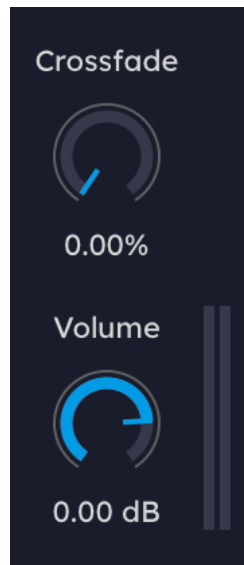


Figure 3: Output

The *Crossfade* parameter sets the relative output mix of the Effects Matrix's two outputs (see notes on [crossfading](#) below.) The *Volume* parameter controls the overall loudness of Sequent's audio output.

The VU meters can be used to provide visual cues to the current levels: the louder the signal, the higher the meter will register. Too loud of an output will produce digital clipping, a usually undesirable form of distortion. When this occurs, the meter will display a red warning indicator. Click the meter to reset the warning display.

Crossfading

The Crossfade control can be used to smoothly mix a proportion of signals from both the top and bottom Effect Matrix output nodes. This has several useful applications, including:

- When used as an insert effect, you may sometimes wish to mix the original dry signal with the wet signal from Sequent. To do this, connect the input node directly to the top output node and connect any effects to the bottom output node. The ratio of original to processed signal can be decided with the crossfade control, with 0% being entirely dry, and 100% being entirely wet.
- Several different chains of effects can be connected to each output node. You can seamlessly crossfade between these effect chains with the Crossfade control.
- Whilst playing live, you can sequence Patterns and route effect blocks to the bottom output whilst listening to the mix from the top output by setting crossfade to 0%. Then by switching Crossfade to 100%, you can listen to the bottom output whilst preparing more effects or patterns on the top output. By juggling between the outputs like this, you can constantly be creating new sounds without any break in the output audio signal.

Tab Bar

The Tab Bar component shows a list of all currently added effects, and is where additional effects can be added. The effect that is currently being edited is highlighted. A small node underneath each effect will be coloured when the effect is currently processing audio.



Figure 4: Tab Bar Interface

Press the + button to add additional effects to the Effects Matrix.

Effects Settings

To view all the configuration parameters for an effect, that effect must first be selected. To select an effect, either:

- Left-click on the effect in the [Effects Matrix](#).
- Or, left-click on the effects name in the [Tab Bar](#).

Common to all effects are the sequencer controls:

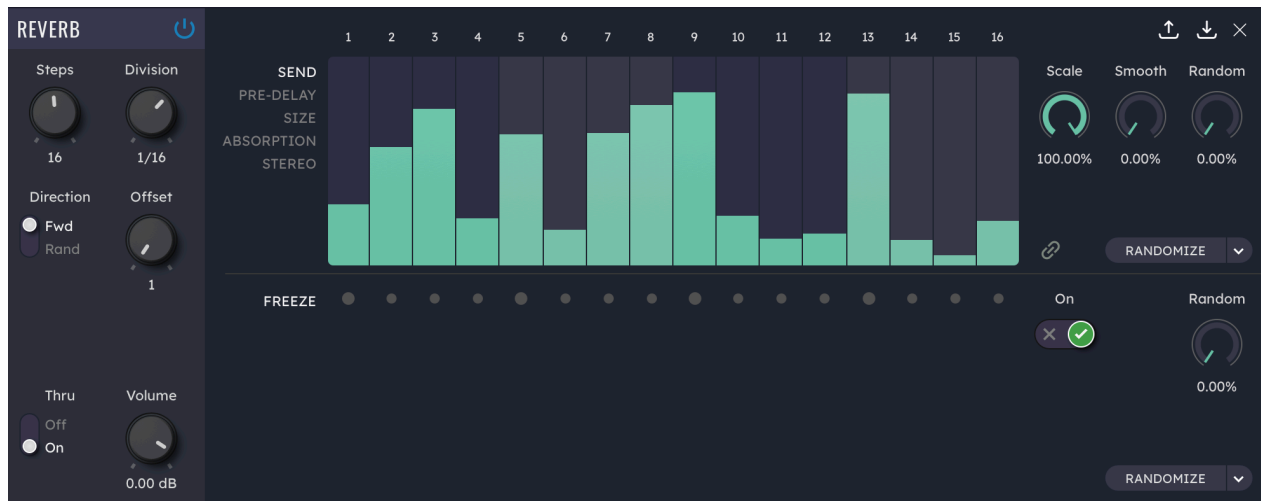


Figure 5: Effect Settings

- The *on* parameter toggles the effect between on (in which the effect processes audio), and off (in which the effect is bypassed.) Note that any effects that are part of the signal flow will always be running (and hence consuming some CPU resources), regardless of whether they are on or off. If you want to disable an effect completely, ensure that it is not connected to any other effect in the Routing Window. An Effect can also be bypassed by double-clicking it in the Effects Matrix.
- The *Steps* parameter sets the number of steps in the sequence. When the last step has been played, the sequencer will loop back round to the first step.
- The *Division* parameter controls the length of each step in the sequencer. The length is always expressed as a musical division, from 1 bar to a 128th note.
- When the *Direction* parameter is set to *Rand*, the sequencer will jump randomly between steps, as opposed to playing them consecutively. Each step has an equal chance of being played. The overall chance of any step being played is equal to: one divided by the number of steps. For example, if a sequence has twenty steps, the chance of each one playing at any particular time is five percent.
- The *Offset* parameter sets at which step the sequence will begin playing. This can be used to offset sequences, or to account for syncing in arrangements where time signature changes have meant that step 1 no longer lands on a beat.
- The *Volume* parameter controls the amount of gain of a signal leaving this effect.

Per-Effect Presets

Configuration settings for each effect can be stored in [partial presets](#).

Sequenced Parameters

The sequencers in Sequent provide time varying modulations sources for all effect parameters. The modulation depth at any time is governed by the the value of the sequencer at the current playhead position. The playhead moves in time with the current tempo, producing a varying modulation pattern.

Parameters Settings

Each effect parameter will have a number of controls. In order to see the controls for a specific parameter when an effect has more than two, you will need to click on the parameter name in the bottom left of the sequencer window.

- The *On* control (for trigger parameters) acts as a global control for a trigger sequencer. Effect triggers will only fire when both this control and the trigger sequence step are on. By assigning this to a MIDI controller, you can quickly enable and disable triggers without needing to edit the sequences.
- The *Scale* control acts as a multiplier for a sequencer. By assigning this to a MIDI controller, you can control parameters live without needing to edit the sequences.
- The *Smooth* parameter governs the rate of change of values coming from sequencer Steps. At 0%, the sequencer will instantly jump between values. As smooth increases, changes will be increasingly slide between values.
- The *Random* parameter controls the amount of random deviation added to the sequencer values. At 0%, the sequencer will play exactly as notated. As rand increases, the percent chance of a sequencer's steo value being different, as well as the amount of random change, increases.
- The link button, enables the per-sequence link mode. When turned on, all steps for a parameter will be edited at the same time.

Generators



Figure 6: Generator Control

Sequent has several random and processing functions for each sequence. Select a generative option by clicking on the drop arrow, and apply the function to the current sequence by clicking the named button.

The Effects

Looper

The Looper is a tempo-synced delay line that divides incoming audio into short slices. Each slice can be fired using a trigger, which will cause the slice to repeat a number of times. The slice playback can be configured using the Looper's sequencers:

- Slices will be repeated when an on step is hit in the *Trigger* sequencer.
- Each slice will be repeated a number of times, as specified by the *Repeats* sequencer.
- The *Length* sequencer sets the length, in musical divisions, of a slice.
- The *Offset* sequencer decides which segment of previous audio is used in the slice. When set to 0, the slice will always be the portion of audio just played. By increasing the offset, the slice can be taken from older sections of audio. Offset also takes the Length sequencer into account: the actual section of audio to be played can be calculated by multiplying the offset by the length. For example, with offset set to 3, and length to 1/8, the slice will be from 3/8th notes previous.
- When *Reverse* is turned on, the slice will play backwards.
- The *Pitch* sequencer sets the pitch of the slice in semitones.
- The *Pitch Decay* sets the change in slice pitch for consecutive repeats. For this to have an effect, the Repeats must be set to two or above.
- When *Sync* is turned on, slice repeats will play back in sync with the specified Length. When turned off, slices will instead repeat when the current slice has finished playing. Slices played at the standard pitch (0.00 semitones) are always perfectly synced to the length, so the Sync sequencer in this case will have no effect.
- The *Level* sequencer sets the volume of the repeated slices.
- Control the relative level of repeated slices with the *Level Decay* sequencer. For this to have an effect, the repeats must be set to two or above.
- Whilst Sequent's Looper tries to avoid clicks in audio, some troublesome audio sources (such as pads) may be difficult to cleanly loop in realtime. The *Fade* parameter, when enabled, adds a short fade to each repeat to remove such clicks.
- The *Mode* parameter sets how the Looper repeats are mixed with the input. For Gate mode, the input is entirely muted, and only repeats can be heard. For Mix

mode, the repeats are added to the input. In Duck mode, the input is muted ('ducked') only when repeats are playing.

Filters

Sequent's filter are accurately modelled on analogue filters.

- The *Cutoff* sequencer sets the cutoff point of the filter.
- The *Resonance* sequencer sets the resonance of the filter. Sequent's filters are based on a very aggressive filter model, and with enough resonance can be made to self-oscillate.
- The *Type* parameter sets the type of filter algorithm: lowpass removes all frequencies below the cutoff; bandpass removes the frequencies outside the cutoff; high-pass removes all frequencies above the cutoff.

Distortion

The Distortion can operate as either a saturating distortion unit - a harsh effect that models the overdriven sound of an amplifier - or as a lo-fi bitcrusher.

- *Mode* sets the operation of the distortion unit, selecting between either the saturating distortion or lo-fi bitcrusher.
- The *Drive* sequencer sets the amount of overdrive. Very aggressive tones can be produced, even with low drive settings.
- The *Bits* sequencer sets the number of bits in the bitcrusher.

Gate

The *Gate* is a controllable ducker that quickly mutes audio in a specific pattern to give a choppy stuttering sound.

- The *Trigger* sequencer decides if the step is gated. When on, the gate is active and the audio is ducked for this step.
- The *Depth* sequencer decides the level of ducked input. At 0%, the input is completely muted. Higher values can be used to lower the input, without removing it completely.
- The *Slew* sequencer controls how quickly the ducker turns on and off. At 0%, the slew is instant. Higher values can be used to add a gentle slope to the ducker: this is useful to remove clicks that can be caused by instantaneous ducking, or for creating certain effects like tremolo.

Pan

The Pan Effect controls the spread of the signal in the stereo field.

- The *Pan* sequencer specifies the placement of the audio signal in the stereo field. Values range from far left to far right. The default is centered, which maintains the stereo information of the input audio.

Delay

This flexible effect is used to either create a variety of time based effects, from echoes to flangers and comb filters.

- The *Send* sequencer controls the amount of signal sent to the delay network. At 0%, the delay network receives no audio input whatsoever.
- The *Time* parameter controls the length of time between successive echoes. When *Sync* is turned on, the time is specified in musical divisions. When *Sync* is off, time is expressed in milliseconds. Very short ms delays can be used to create effects such as flangers or comb filters.
- The *Feedback* parameter specifies how much of the delay's output is fed back into its input.
- When *Thru* is turned on, the dry audio will be passed through to the delay's output when the delay is disabled. When *Thru* is turned off, a disabled delay effect will generate silence. This is useful when routing the delay as a send or parallel effect: if the output was not silenced, the delay's destination node would receive two copies of the original signal, doubling the overall volume.



Figure 7: If *Thru* is on, *FREQSHFT* will receive two copies of the input signal: one from the *IN* node, and another passed through the *DELAY* effect

Reverb

The Reverb effect models the response of placing the signal in a location and observing the echoes of the signal reflecting off the walls.

- *Send* controls the amount of input signal that is sent to the reverb processor.

- *Pre-Delay* controls the amount of time before the early reflections of the reverb are heard.
- *Size* controls the overall size of the modelled room. Larger sizes tend to produce more prominent reverb signatures.
- *Absorption* controls how quickly the reverb echoes will be absorbed by the room. At low absorption, reverbs last a long time.
- *Stereo* controls how widely the signal will be spread across the stereo spectrum.
- *Freeze*, when enabled, keeps generating the reverb but no longer processes any additional input signal. This produces a haunting unnatural sound.
- When *Thru* is turned on, the dry audio will be passed through to the reverb's output when the reverb is disabled. See [Delay's Thru](#) parameter for more information.

Frequency Shifter

The Frequency Shifter effect changes the frequency of an input signal, but unlike a pitch shifter, does not preserve the harmonic relationship between the signal's harmonics.

- The *Freq* parameter controls the amount of shift, in Hertz, at each step.

Split

The Split effect allows the input signal to be routed at various amounts to different effects.

- *Split* controls how much of the signal is sent to either output.

Merge

The Merge effect mixes proportions of multiple input signals into a single signal.

- *Merge* controls how much of the signal is taken from either input.

Master Sequencer

The Master sequencer is used to independently control which effects are enabled. By arranging steps along the time-line, complex evolving scores, with effects turning on and off, can be produced. When a step for a particular effect lane is lit, the effect will be activated; when the step is empty, that effect will be bypassed.

When the Master sequencer is enabled, effects will be bypassed unless both their local on parameter is enabled, and the relevant step in the Master sequencer is active. The

Master sequencer can therefore be overridden for a particular effect (with, for example, a MIDI controller) by toggling the effect's on parameter.

Patterns

Sequencer settings can be grouped together into patterns, which can then be switched between live. Each pattern can have different combinations of effects enabled. Switch between patterns to quickly enable and disable specific effects.



Figure 8: Patterns Control

- Select the current pattern by clicking on a pattern button. These buttons can also be mapped to a MIDI CC controller.
- Each pattern button corresponds to a musical note, from C to B. Patterns can be changed by playing the corresponding note. Note that sending MIDI notes to an effect is not supported by all hosts. Consult your host's documentation for instructions on configuring MIDI controlled effects.
- The pattern select buttons can be mapped to a MIDI CC Controller.
- Reset a pattern to its default state by clicking on the *NEW* button.
- Copy the current pattern to the clipboard by clicking on the *COPY* button.
- Paste any pattern in the clipboard to the current pattern by clicking on the *PASTE* button.
- Paste any Pattern in the clipboard to all patterns by clicking on the *PASTE TO ALL* button.

Control Types

Rotary Controls

Click on a rotary control and drag either upwards to increase the value, or downwards to decrease it. Hold down *SHIFT* and drag to make smaller and more precise changes. Hold down *CMD* (on macOS) or *CTRL* (on Windows or Linux) and click to return the control to its default value. Double-clicking a control will also return it to its default.

Rotary controls can also be changed by hovering the mouse cursor over them and scrolling the mouse-wheel up or down. Holding *SHIFT* whilst scrolling the mouse-wheel will make more finely grained changes.

Radio Button Controls

Click on a radio button control to choose a value. Hold down *CMD* (on macOS) or *CTRL* (on Windows or Linux) and click to return the control to its default value.

Setting the Interface Size

Sequent has a fully resizable interface, allowing it to be scaled to accommodate your own preferences and screen resolution. If supported by the host, Sequent can be resized by dragging the resizer on the bottom-right of the interface. Alternatively, several pre-defined size options can be selected under *options / Zoom*. See also: [configure appearance](#).

The interface size can be restored to the standard size either by choosing *options / Zoom / Default Size* or by holding *SHIFT + CMD/ALT + R* (see [key bindings](#)).

Preferences

Access *Preferences* by clicking the cog icon (on the top right of the application) and choosing *Preferences...* from the menu.

From here, you can configure the [audio and MIDI devices](#), the [application appearance](#), the [key bindings](#), the default [author name](#), and the channel used for [MIDI learn](#).

Configure Audio and MIDI

When running Sequent as a standalone application, you will need to configure your audio and MIDI devices. When running as a plug-in, this option is not available because audio and MIDI routing is provided by the hosting application; consult the host's documentation for details. To access the *Devices* configuration panel, select *Preferences...* under the *options* menu (from the cog on the top right of the application).

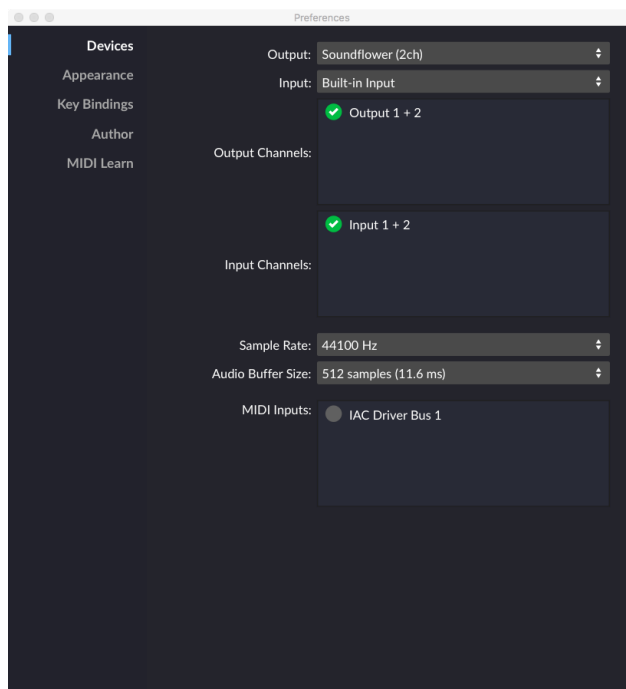


Figure 9: Devices Panel

From this dialog, the following details of your Audio and MIDI setup can be configured:

- Select the *Input* and *Output* audio device(s) you want to use from the list of available devices. Certain devices tend to perform better than others so if multiple devices are available, you should favour: on Mac, using Core Audio; on Windows, using ASIO; on Linux, using JACK.
- For devices that support multiple channels, select the required *Input Channels* and *Output Channels* by checking the box beside the channel name. The Sequent standalone application can process only stereo audio channels.
- The *Sample Rate* dictates the overall quality of the audio output. Using a lower sample rate will reduce the presence of high-frequency components. Higher sample rates should therefore be preferred. However, be aware that the CPU usage is directly proportional to the sample rate. A good compromise between quality and CPU usage is 44100Hz, which is the sample rate of CD audio. Select the sample rate you require from the available list.
- The *Audio Buffer Size* governs latency; a smaller buffer means that Sequent will respond more quickly to MIDI messages and parameter changes, and there will be less delay between input and output. However, a smaller audio buffer size will require more CPU usage. Select the required audio buffer size from the available list. Using too small of an audio buffer can overload your computer to the extent that audible clicks are heard. In this case, increase the audio buffer size until clicks are no longer present.

- Select in the *MIDI Inputs* list any external MIDI devices with which you want Sequent to listen. MIDI devices can be mapped to parameters, and Sequent can also respond to MIDI program change messages.

Configure Appearance

Changes that affect the appearance of the Sequent user interface are configured here. To access these settings, select *Preferences...* under the *options* menu (from the cog on the top right of the application), and select *Appearance* from the items on the left.

Setting the *Magnification* scales the entire user interface. Any changes made to this option will not take affect until the dialog is closed.

The *Graphics Driver* options allow you to select a different rendering driver. An efficient graphics driver means that less of your processor's CPU is used in rendering the interface, leaving more CPU free to render audio and run plug-ins. Generally, 3d accelerated drivers such as OpenGL are the most performant. On macOS, the CoreGraphics renderer also delivers good performance.

Theme

Set the colour scheme used for the main user interface. Choose between a *light* and a *dark* theme.

Configure Key Bindings

Shortcut keys allow often-used actions to be performed quickly from the keyboard using a specific combination of key presses. These actions, and their required key combinations, are listed here. To access these settings, select *Preferences...* under the *options* menu (from the cog on the top right of the application), and select *Key Bindings* from the items on the left.

Each action can have any number of shortcuts assigned to it, including none.

To add a new shortcut key combination to a specific action:

1. Click the + button beside the action to which you wish to add a shortcut.
2. In the *New Key Binding* dialog, hold the key or combination of keys that you want to assign to the action. If these keys are already bound to another shortcut, a warning will appear; despite the warning, the binding can still be made, which may result in ambiguity when the keys are pressed.
3. Press *OK* to make the binding, or *Cancel* to discard the change.

Bindings can be deleted by clicking the *X* button on the key combination that you wish to remove. Some shortcuts are hard coded into the system (such as copy and paste), and cannot be removed.

You can restore all shortcuts to their default values by pressing *Set All To Default*, or restore only some shortcuts by selecting their actions and clicking *Set Selected to Default*.

Some shortcuts may not be available in certain hosts because the hosts themselves consume the key presses. In these cases, redefine the shortcut to something that does not conflict with keys used by the host.

Configure Default Preset Author

The name entered here will be used as the author name for any newly created presets. To access this setting, select *Preferences...* under the *options* menu (from the cog on the top right of the application), and select *Author* from the items on the left.

When saving a preset, you can override this, but setting it here saves you the hassle of having to put your name into every new preset.

Configure MIDI Learn

When using an external MIDI device to control Sequent, Sequent can be set to listen to MIDI messages on all channels (*Omni mode*), or on a single channel. To access these settings, select *Preferences...* under the *options* menu (from the cog on the top right of the application), and select *MIDI Learn* from the items on the left.

MIDI Control

MIDI Controllers

Instead of configuring a preset using a mouse, you can change any parameter value using a MIDI keyboard or control surface. This is done by mapping each parameter to a MIDI continuous controller (CC). Each parameter can only be mapped to a single MIDI controller; the same MIDI controller can, however, be mapped to several different parameters.

MIDI controller mappings are global; once defined, the same mapping assignments will be used by all Sequent Programs. This means that you only need define mappings once for your particular controller, and it will be usable in all your projects.

Display Current MIDI Controller Mappings

To view the current MIDI controller mappings:

1. Enter *MIDI Learn Mode* by choosing *Start MIDI Learn* under the options menu. Each parameter's mapped MIDI controller will now be displayed on an overlay. If room allows, the channel will also be displayed, or X for omni-channel mappings.
2. When you have finished viewing the MIDI controller mappings, choose *Stop MIDI Learn* under the options menu.

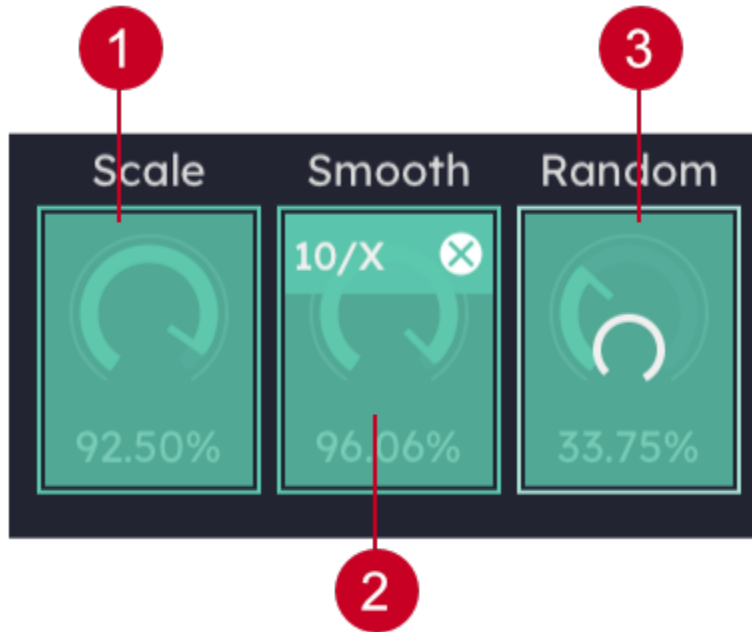


Figure 10: MIDI Mapping. (1) Unmapped Control; (2) Mapped Control; (3) Control Currently Being Mapped

Assign MIDI Controllers to Controls

To map a MIDI controller to a parameter:

1. Enter *MIDI Learn Mode* by choosing *Start MIDI Learn* under the options menu.
2. Click on the parameter you wish to map to a MIDI controller.
3. Turn your MIDI controller. The parameter will now be labelled with the MIDI CC number of this controller.

You can now either:

- Map another parameter by repeating these steps from Step 2.
- Finish mapping parameters by choosing *Stop MIDI Learn* under the options menu.

Remove MIDI Controller Mappings From Controls

To remove a mapped MIDI controller from a parameter:

1. Enter *MIDI Learn Mode* by choosing *Start MIDI Learn* under the options menu.
2. Click on the close button of the parameter from which you wish to remove the

mapping. This parameter will become unmapped, and the CC number label on the parameter will disappear to reflect this.

You can now either:

- Remove the mapping from another parameter by repeating these steps from Step 2.
- Finish removing parameter mappings by choosing *Stop MIDI Learn* under the options menu.

MIDI Program Change Lists

You can change presets by using *MIDI program change* commands. This requires a MIDI keyboard or a control surface with the ability to send such MIDI messages; consult your controller's documentation for details. If using *Sequent* as a plug-in, this functionality is dependent upon the host correctly forwarding MIDI messages to the plug-in; check the documentation provided with your host for details.

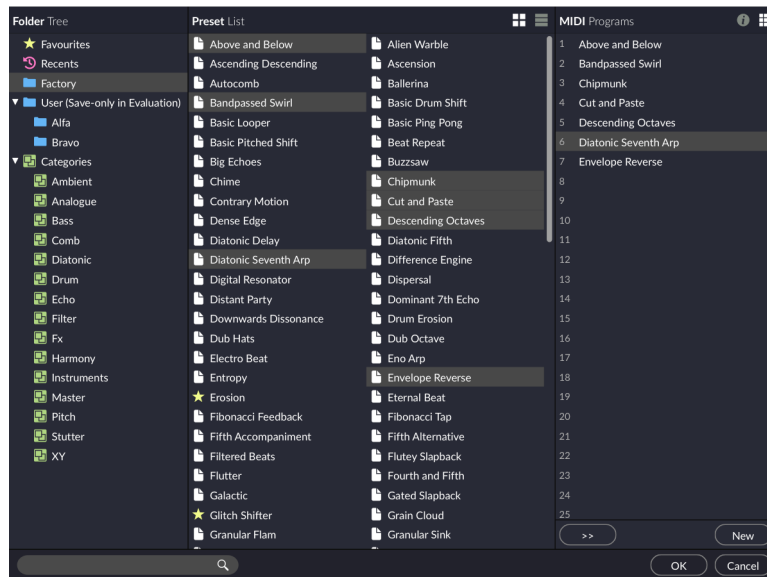


Figure 11: MIDI Program Change List

To select which presets are loaded in response to MIDI program change commands, you will need to create a MIDI program change list. Select *Edit MIDI Program Change List...* from under the options menu to display the MIDI program change list editor.

To add presets to the MIDI program change list, either double-click on a preset, or select a Preset and click the » button. Use the *info* and *list* button on the top-right of the window to toggle between viewing the list, and information on the selected preset.

Any presets in the MIDI program change Lists are automatically loaded and cached in memory. This means that Preset changes can be instant. There may be a slight pause after editing the MIDI program change list whilst the presets within it are loaded. When a preset is saved, any entries in the MIDI Program Change List are saved alongside it. Note that setting a preset with a MIDI Program Change List as the [default preset](#) will cause all presets within the list to be loaded when a new instance of Sequent is loaded.

Restricting MIDI Input Channels

You can restrict input to specific MIDI channels using the options described [here](#).

Preset Management

Parameters and Presets

You can modify the type of sound that Sequent produces by setting the values of parameters. Each parameter will affect a specific element of the sound. The state of all parameters is collectively called a preset. Presets are given a suitable name, and the name of the currently selected preset is shown in the menu bar. If the preset has been modified without being saved, a * appears beside the name.

Navigation Controls

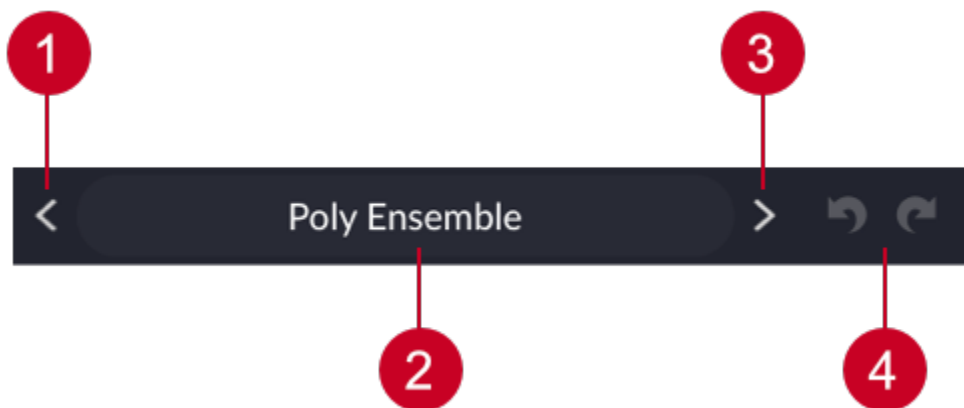


Figure 12: Navigation Controls. (1) Previous Button; (2) Preset Name; (3) Next Button; (4) Undo/Redo Buttons

If you wish to browse quickly through the presets, you can do so using the the *previous* and *next* controls. These controls are context sensitive, only displaying presets that are relevant to the last [search](#) you made. For example, if you had most recently searched for “analogue, bass”, only presets that match this will be selected. Scrolling the mouse-wheel when the mouse cursor is over the *preset name* will also load the next or previous preset, depending on the scroll direction.

Clicking on the *preset name* opens the [preset browser](#). By pressing *undo*, you can take back the most recent change made to a preset. *Redo* will re-apply the last undo changes. Note that only changes made via the Sequent interface can be undone; changes made externally (such as from a host application, or from a MIDI controller) are not undoable.

Creating a New Preset

Select *New* to create a new preset. This preset will be in the default initialised state. If you've made a sound worth keeping, be sure to save the preset before you create a new one, as the undo history will be discarded when the preset state is reset.

Comparing a Changed Preset to the Original Preset

Often you'll want to compare a preset that you have amended to see if it is actually an improvement on the original. Pressing the *AB* button temporarily reverts a changed preset back to its original state. Pressing the *AB* button a second time returns to the changed preset. This method allows you to easily contrast the preset changes you have made to the original preset state.

Opening Presets

To select a preset from within your preset library, click on the preset name in the menu bar to open the preset browser.

Saving Presets

Click *Save* to save the current preset. Choose the location in which to save the preset in the folders window within the [preset browser](#). Click *OK* to actually save the preset.

The Preset Browser

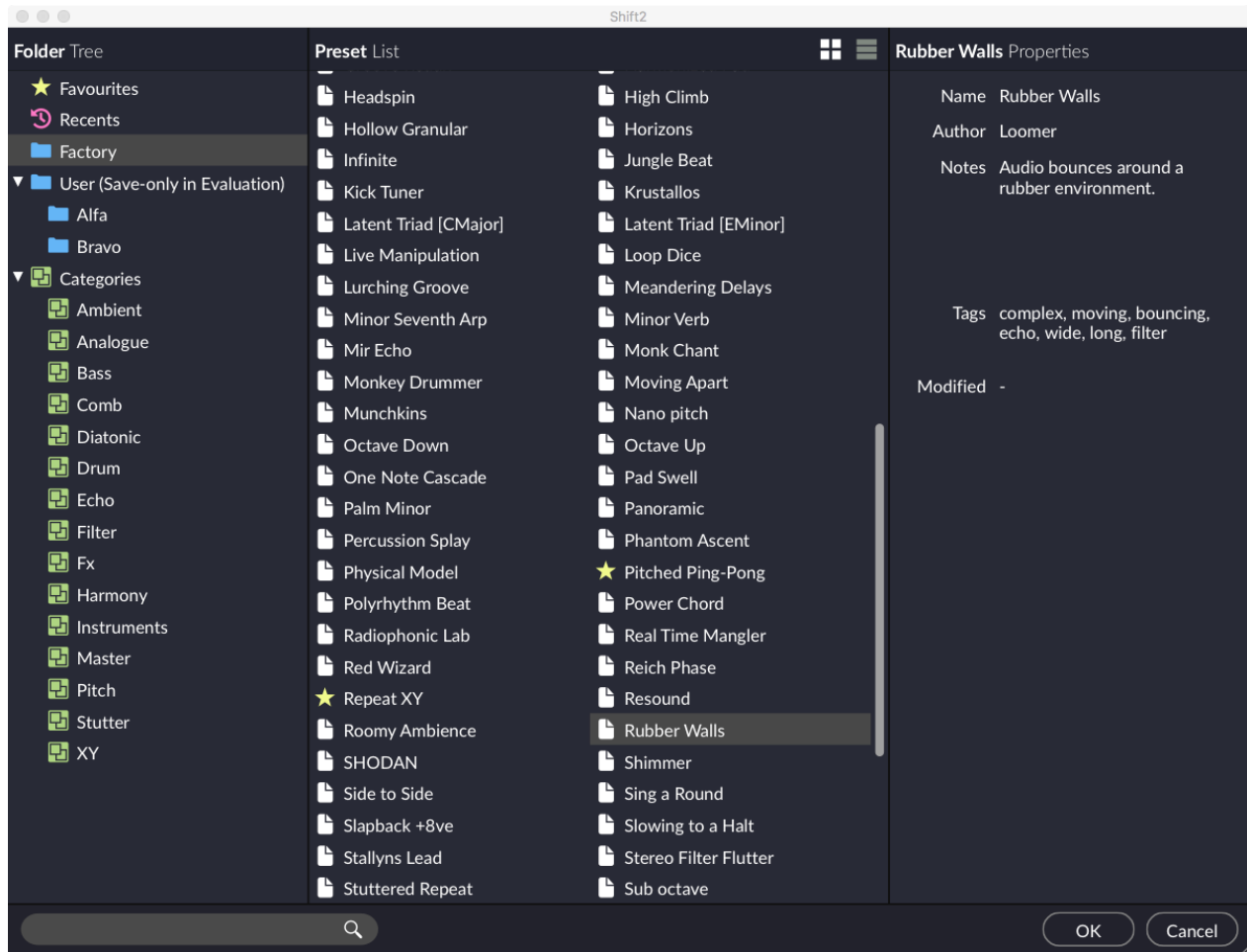


Figure 13: Preset Browser

Presets can be divided into two groups; factory, and user. Factory presets are a collection of example presets built into Sequent. Factory presets can't be overwritten, although you can, of course, edit and save your own presets derived from factory presets.

User presets are stored as individual files on your computer's hard drive. They are found in the following locations:

- **macOS:** `~/Library/Application Support/Loomer/Sequent/Presets`
- **Linux:** `$XDG_DATA_HOME/Loomer/Sequent/Presets`
- **Windows:** `Documents\Loomer\Sequent\Presets`

Only registered users can open user presets. Unregistered versions of Sequent are limited to the factory presets. Unregistered versions of Sequent can, however, still save presets. Any presets created in the unregistered evaluation of Sequent can be opened by purchasing a licence for Sequent.

Preset Hot-swap

Selecting a preset in the browser will automatically load the preset: this functionality is called *preset hot-swap*. Preset hot-swap allows you to quickly preview presets in the context of the current project. If you decide to use the selected preset, close the browser by pressing *Return* or by clicking *OK*. To return to the preset you had open before you accessed the browser, close the browser by pressing *Escape* or by clicking *Cancel*.

Preset Meta Data

Presets can have meta data attached to them. Meta data doesn't influence the sound of the preset, but is used in categorizing, searching, or annotating them. The following meta data is available:

- **Author:** The name of the preset creator. You can enter your name into the [preferences dialog](#), and that name will automatically be used as the default author for all new presets.
- **Notes:** Any additional notes about the preset, such as influences, playing tips, description, etc.
- **Tags:** Tags are short words that describe the preset. Examples are: "bass", "distorted", "monophonic", "trance", "quiet", etc. Tags are used to help quickly search for a specific sound.

Searching for Presets

Type keywords into the search field to locate all presets that match this description. The search will match the keywords in the Preset Name, Author, and Tags fields, and parent folder name.

Categories

Categories allow you to quickly access a subset of your presets. Categories are listed under the categories node in the preset browser. A category is simply a shortcut to searching for the category name; a category called "Bass" will list all presets that match the search criteria "Bass". You are not limited to create categories based on the type of sound: you can, for example, create categories for preset authors, or indeed for any other search term. Provided you tag your own presets, they will automatically be added to the correct category (or categories: presets can belong to multiple categories; a preset could be both a "Bass" and "Lead" sound, for example.)

Preset Formats

Presets in the user presets folder need to be in either native .xml format, or VST .fxp or .fxb format. Standalone, AAX, and Audio Unit versions can also open .fxp or .fxb files within the browser. Please ensure any files in the user presets folder have the correct file extension. As a general rule, you should prefer saving presets in Sequent's native .xml format over any proprietary host format, as this can make it easier to share presets with users on other hosts.

Copying and Moving Presets

Presets can be moved or copied to another folder by dragging and dropping a preset onto the destination folder. By default, presets will be moved. You can instead copy the preset by holding shift whilst dragging. Note that presets inside banks (either .xml or .fxb banks), can only be copied, not moved. Multiple presets can be moved or copied at once by selecting more than one preset.

The Default Preset

The default preset is automatically opened when a new instance of Sequent is created. To specify the default preset, right-click on a preset and choose *Set as Default*. Note the AAX plug-ins do not support default presets: a new instance of Sequent as an AAX plug-in will always begin with an initial preset state equivalent to a new preset.

Restoring Deleted Factory Presets

To reinstate any deleted factory presets, right-click on the factory branch in the [preset browser](#) and choose *Restore Factory Presets*.

User Folder Management

Folder management is performed by right-clicking on a user folder, and selecting an option from the pop-up menu. From here, you can create a *New Folder*, *Rename Folder*, or *Delete Folder*. On Windows or macOS, you can also quickly locate this folder in Finder or Explorer by choosing *Show In Finder / Explorer*.

Favourites

Favourite presets can be quickly located under the *Favourites* node in the preset browser. A preset can be added to or removed from the favourites list by right-clicking and choosing *Add to Favourites* or *Remove from Favourites*, respectively.

Partial Presets

As well as full presets containing the entire state of Sequent, you can also create partial presets (known as *partsets*). Partsets contain only the settings for a specified component of Sequent. User partsets are stored as individual files on your computer's hard drive. They are found in the following location:

- **macOS:** `~/Library/Application Support/Loomer/Sequent/Partsets`
- **Linux:** `$XDG_DATA_HOME/Loomer/Sequent/Partsets`
- **Windows:** `Documents/Loomer/Sequent/Partsets`

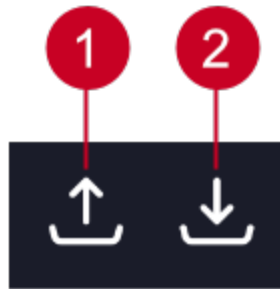


Figure 14: (1) Load Partset; (2) Save Partset

To save the current settings for a component into a partset template, click on the save icon next to the component. Give the partset an identifying name, and click *OK* to save it.

To load the current settings for a component from a Partset template, click on the open icon next to the component, and select the required partset from the browser list. Selecting a partset in the browser will automatically load it: this functionality is called partset hot-swap. Partset hot-swap allows you to preview a partset in the context of the current project. If you decide to use the selected partset, close the browser by pressing *Return* or by clicking *OK*. To return to your original partset, close the browser by pressing *Escape* or by clicking *Cancel*.

To reinstate any deleted factory partsets, right-click on the root branch node in the component's partset browser, and choose *Restore Factory Partsets*.

Status display

Status display information is displayed at the bottom right area of the Sequent interface:



Figure 15: Status Display. (1) Tempo; (2) MIDI Input

Tempo

The *tempo control* only appears when running Sequent as an application; when running as a plug-in, the host application will provide the tempo for Sequent. The tempo control displays the current tempo, in beats per minute (bpm). It can be changed by either:

- Double-clicking the tempo control, typing the required bpm and pressing *Return*.
- Clicking on the tempo control and dragging either upwards to increase the tempo, or downwards to decrease the tempo.

MIDI Input

The *MIDI input monitor* flickers to show that a MIDI message has been received. You can use this to confirm that your MIDI controller is configured correctly for Sequent.

MIDI Channel

The status bar shows the current *MIDI input channel*. Clicking the channel name will allow others channels to be selected. Only MIDI messages on the selected channel(s) will be accepted. Selecting *Omni* (the default) will accept MIDI messages on any channel. This setting will be persisted in projects (but *not* saved to presets directly.)

Sequent 1 Compatibility

Sequent 2 is 100% backwards compatible with presets created for Sequent 1 in terms of sound and automation. Sequent 2 add several improvements to the ranges of parameters to allow for a wider palette of sounds: these changes, however, are not 100% compatible with Sequent 1. As such, when an older preset is loaded, Sequent will load the preset in compatibility mode. This will be indicated by the appearance of an upgrade button at the top of the UI. Pressing this button will upgrade the preset, perhaps causing minor changes to the sound. Choosing to not upgrade a preset means that this preset will not have access to the improved range of parameters.

Upgrading a preset can be undone, but once saved, you cannot go back to a Sequent 1 compatible format. It is recommended to back up existing presets and projects before upgrading.

If you wish to create a new preset using the parameter ranges from Sequent 1, Sequent's factory preset selection has a preset called "Initial-v1" that should be used as a template for these purposes.

Contact Details

Online

Website: www.loomer.co.uk

Support and FAQ: www.loomer.co.uk/support.htm

Email

Sales information: sales@loomer.co.uk

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