

Operation Manual



GROOVE AGENT SE4

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Table of Contents

4	Introduction	87	Global Functions and Settings
4	Window Overview	87	Plug-in Functions Section
5	About Kits, Presets, and Groove Agent ONE Content	89	The Plug-in Name and Steinberg Logo
		89	Toolbars
6	Common Editing Methods	91	Options Page
6	Multi Selection and Parameter Controls	95	Index
7	Presets		
8	Managing Your Sounds		
8	Loading Kits		
8	Kit Context Menu		
10	Pad Section		
10	Instrument Pads		
14	Pattern Pads		
18	Common Pad Settings		
19	Pad Functions		
21	Editing Kits		
21	Editing Selection or All		
21	Absolute and Relative Editing		
22	Edit Page		
44	Importing and Exporting Files		
44	Importing MPC and GAK Files		
44	Importing REX Files and Sliced Loops		
45	Exporting Kits with Samples		
45	Finding Missing Samples		
47	Mixing and Effect Handling		
47	Mixing		
49	Effect Handling		
51	Effects Reference		
51	Reverb and Delay Effects		
55	EQ Effects		
57	Filter Effects		
62	Distortion Effects		
64	Modulation Effects		
72	Dynamics Effects		
82	Panner Effects		
83	Automation and MIDI Controllers		
83	Automation		
84	MIDI Controllers		

Introduction

Window Overview

The application interface follows a fixed-size single window concept.



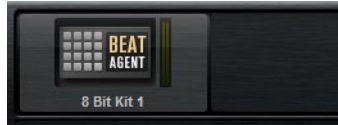
The window is subdivided into several sections:

- The pad section on the left.
- The edit display on the right. It contains the **Edit**, **Mixer**, and **Options** pages.
- The plug-in functions section at the top.
- The toolbars above the edit display.

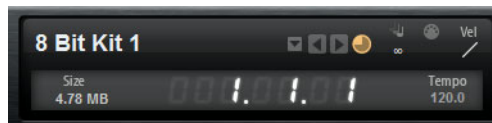
About Kits, Presets, and Groove Agent ONE Content

Kits

Kits can be saved and loaded via the kit rack or the kit slot section.



Kit Rack



Kit Slot Section

Kits contain all information about the kit or sliced loop and about the insert effects that are used on the mixer channel. Kits can also contain MIDI patterns.

Sliced Loop Kits

Instead of MIDI patterns, sliced loop kits contain the MIDI phrase that is needed to play back the loop. Other than that, sliced loop kits are similar to regular kits, in that they can use insert effects, etc.

Plug-in Presets (VST Presets)

A plug-in preset contains all information necessary to restore the complete state of the plug-in. This includes the kit, the MIDI patterns, as well as any insert and AUX effects. All of these settings are also saved with the project in your host application.

Groove Agent ONE Content

Groove Agent SE can load Groove Agent ONE presets. The presets can either be loaded as kits in the kit rack or the kit slot section or as plug-in presets via the preset management menu in the plug-in header.

If you load a Groove Agent ONE preset as a plug-in preset, global plug-in parameters such as AUX FX and master effects are removed and set to the default values.

If you load a preset as a kit, all global plug-in parameters remain unchanged.

NOTE

Groove Agent ONE presets always show the icon for a plug-in preset in the MediaBay, even if they are shown in the preset loader.

Common Editing Methods

Multi Selection and Parameter Controls

To edit multiple pad parameters at the same time, select the pads that you want to edit.

If several pads are selected and they are not set to the exact same values, most of the controls indicate this by turning red. This is true for knobs, switches, combo boxes, value fields, and text faders.

For example, if you have selected 3 pads with cutoff frequency values of 1200, 1400, and 2500Hz, the corona of the frequency knob shows a range from 1200 to 2500. The corresponding field shows the value of the focused pad in red.

NOTE

More complex controls, such as the envelope editors, only show the values of the focused pad.

Adjusting the Value Ranges

You can adjust the value range of a parameter using the corona of the knob. The values for the pads are distributed within the new range, keeping their relative distances.

- Drag the corona to compress or expand the value range.
- [Ctrl]/[Command]-drag the corona to adjust the upper limit of the range.
- [Alt]/[Option]-drag the corona to adjust the lower limit of the range.

Presets

Groove Agent SE offers two types of presets: section/module presets and VST presets. VST presets contain all information necessary to restore the complete state of the plug-in. Section and module presets store and recall the setup of a specific component on the Groove Agent SE panel.

During setup, the factory presets are installed in a dedicated folder and a user folder is created for your own presets. The handling of presets is the same throughout the program.

NOTE

Factory presets are write-protected, but may be overwritten when a software update is executed. Presets in your user folder are never changed by the software.

Handling Section and Module Presets

The preset controls can be found throughout the program. The handling is always the same.

- To save a preset, click the **Save** button (the disk icon).

NOTE

You cannot overwrite factory presets. If you want to save changes made to a factory preset, save the preset under a new name or in a new location.

- To load a preset, click the arrow icon and select a preset from the list.
- To delete a preset, click the **Delete** button (the trash icon). Note that factory presets cannot be deleted.

Handling VST Presets

Loading VST Presets

- 1) In the header of the plug-in panel, click the Preset management button next to the preset name field and select **Load Preset**.
- 2) Select a preset to load it. Double-click a preset to load it and close the preset loader.

Saving VST Presets

In the header of the plug-in panel, click the Preset management button next to the preset name field and select **Save Preset**.

NOTE

For more information on VST presets, see the Cubase/Nuendo Operation Manual.

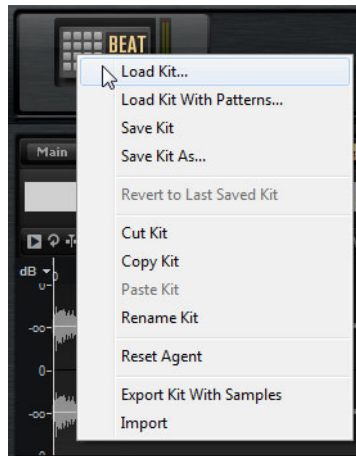
Managing Your Sounds

Loading Kits

There are several ways to load kits:

- Via drag & drop from the MediaBay or the Windows Explorer/Mac OS Finder.
- Via the context menu in the kit rack.
- By clicking the **Load Kit** button at the right of the kit name in the kit slot section.

Kit Context Menu



Load Kit

Opens a pop-up menu containing the available kits. Double-click a kit to load it.

Load Kit With Patterns

Allows you to load a kit with its MIDI patterns, if any.

Save Kit

Saves the kit. If you try to overwrite write-protected factory content, a dialog opens that allows you to save the edited kit under a new name.

Save Kit As

Allows you to save the kit under a new name.

Revert to Last Saved Kit

Select this option to discard any changes made to the kit after it was loaded.

Cut Kit

Copies the kit and removes it from the slot.

Copy Kit

Copies the kit.

Paste Kit

Pastes the copied kit into the slot. If the slot already contains a kit, it is replaced.

Rename Kit

Allows you to rename the kit.

Reset Agent

Resets the slot to the default values.

Export Kit With Samples

Exports the kit together with its associated samples.

Import

Allows you to import MPC and GAK files.

Pad Section

The Pad section on the left can show the Instrument pads or the Pattern pads.

To switch between the two displays, click the corresponding button below the pads.

Instrument Pads



The pad section provides up to 128 pads, organized in 8 groups of 16 pads. The instrument pads can be used to trigger sounds. Each pad is mapped to a MIDI note, which triggers a sample. If samples are assigned to a pad, the LED above the pad lights up.

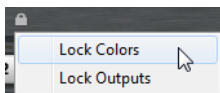
You can switch between the groups by clicking on the group buttons below the pads. The button of the active group is highlighted. If one or more pads of a group have samples mapped to them, an orange LED above the group button lights up. If a pad within a group receives a MIDI note, a green MIDI indicator LED lights up.

By default, group 3 is active when you open Groove Agent SE.

Showing Information about the Instrument Pads

- Activate the **i** button below the pad section to show the following information for the pads: the pad number, the number of samples, and the output.
- Activate the **e** button to show the exclusive group settings for the pads. If you move the mouse over a pad that belongs to an exclusive group, all pads that belong to the same exclusive group are highlighted. If a hidden pad group contains pads that belong to the same exclusive group, a red LED above the group button lights up.

Locking Color and Output Settings



- You can lock the color and output settings for the pads. For example, this allows you to lock the output configuration for the pads, and then switch between kits while keeping these outputs. You can specify which parameters you want to lock for the pads on the context menu for the Lock button below the pads. If the button lights up, at least one setting is locked for the pads.

Using an Alternative MIDI Note Assignment

If you use an external hardware drum controller that sends specific MIDI notes for specific instruments, you can specify an alternative MIDI trigger note mapping.

PROCEDURE

1. Activate the **Use Hardware Controller Mapping** button in the lower right corner of the pad section.
Now you can load, save, and delete different trigger note configurations.
 2. Specify a new trigger note for the pad.
 - Right-click a pad, select **Edit/Learn Trigger Note** and specify the new trigger note by entering it into the value field or by playing the corresponding note on your hardware controller.
 - On the pad context menu, open the **Assign Trigger Note** submenu and select the note from the submenus.
 3. Groove Agent SE jumps to the next pad. Assign a MIDI note to all the pads that you want to use and press [Enter] to stop assigning MIDI notes.
-

Drag and Drop of Audio Material

You can drag one or more samples from the Explorer/Finder and from your host application onto Groove Agent SE. Samples can be mapped to the same pad, or to different pads.

You can drag files from the following locations:

- MediaBay
- Project window
- Pool
- Sample Editor (regions)
- Audio Part Editor
- LoopMash slices

Assigning a Sample to a Pad

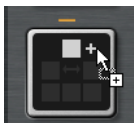
To assign a sample to a pad, drag it onto the pad.

- Drag the sample onto the topmost drop icon to add it to the pad.
- Drag the sample onto the middle drop icon to replace the current sample with the new one.

Drop Icons

When you drag one or more samples onto a pad, the drop icons are shown. These determine whether the samples are added to the pad, whether the current sample is replaced with the one you are dragging, or whether the samples that you drag are assigned to multiple consecutive pads.

- Drag samples to the topmost drop icon to add them to the pad.



- Drag one or more samples to the middle drop icon to replace the currently assigned samples with the ones that you are dragging.



- Drag several samples to the lowest drop icon to assign them to several consecutive pads.



A yellow border is shown around the pads that receive one of the samples.

Layering Samples on the Same Pad

You can assign up to 8 samples to a pad.

Drag & Drop to Several Pads

Rather than dropping several samples to the same pad, you can distribute samples across the available pads in one or several groups.

- Select the samples, drag them onto the lowest drop icon of a pad, and drop them.

The samples are mapped to the available pads.

NOTE

How many samples can be dropped to several pads depends on the number of available pads.

If Groove Agent SE cannot supply a sufficient number of free pads for the number of dropped samples, a dialog is displayed, allowing you to proceed or cancel the operation. If pads already contained samples, these are replaced.

Replacing Individual Samples

You can replace individual samples by dragging another sample on a pad or on a sample in the mapping view.

- To replace a sample for a pad in the pad section, drag the new sample onto the pad until the drop option icons are shown and drop it onto the middle of these icons.
- To replace a sample in the mapping view, drag the new sample onto a sample in the mapping view.

The sample that will be replaced is indicated by a red rectangle.

Removing Samples From Pads

- To remove a sample from a pad, right-click the pad and select **Remove Sample** from the pop-up menu.
- To remove several selected samples, right-click one of the samples and select **Remove Sample**.
- To remove all samples from a pad group, right-click the group button and select **Remove All Samples**.

Moving and Copying Samples between Pads

Samples can be moved and copied between pads.

To move the samples from one pad to another pad, drag the pad to either the top, the middle, or the bottom drop icon of the destination pad.

NOTE

To copy the samples instead of moving them, keep [Alt]/[Option] pressed when dragging the samples.

NOTE

When you copy pads that are part of a sliced loop, they are pasted as normal instrument pads, that is, they are no longer related to the loop.

Moving and Copying Samples between Groups

To move or copy the samples to pads in another group, drag the samples on the group button first to show the group, and then to the new pad.

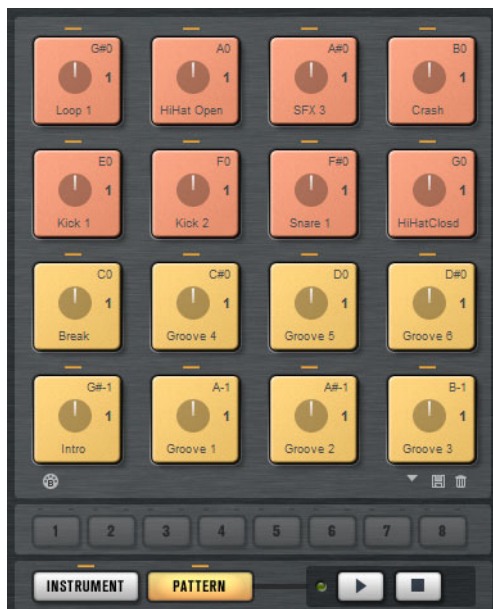
The options are the same as when moving samples between pads of the same group.

Moving Sliced Loops

You can move sliced loops with one drag and drop operation.

- Drag the first slice of the loop and move it onto the pad section.
When you start dragging, Groove Agent SE shows the pads on which the sliced loop can be dropped, that is, the pads that are followed by enough empty pads to insert all the slices. Pads on which the loop cannot be dropped are grayed out.
- Drop the slice on the pad from which you want to start inserting slices.

Pattern Pads



The pad section provides 16 pattern pads. Each pad is mapped to a MIDI note. You can assign MIDI phrases to each pattern pad, to trigger complete drum patterns or single instrument phrases, depending on the MIDI files. The pads are used to switch between patterns.

If a MIDI file is assigned to a pad, the pad shows a progress indicator and a beat counter. When the pattern is triggered, the progress indicator shows the playing progress graphically. In addition, the beat counter shows the current beat during playback. This allows you to see which patterns are currently running and at which playing position, relative to the length of the pattern. This can be particularly helpful when **Toggle** mode is selected, because it provides a quick overview of the patterns that will be stopped and those that will be triggered.

The Transport controls below the pads allow you to trigger the focused pattern pad without playing a MIDI note. Click the **Stop** button to end playback. If you switch between pattern pads during playback, the pattern changes according to the set **Restart Mode**.

Assigning MIDI files to Pads

- Drag a MIDI file from the Explorer/Finder or from the MediaBay onto a pad.
- Drag a MIDI part from the host application onto a pad.
- Select a pad to show the editor in the edit view. Click the phrase selector and choose one of the factory or user MIDI phrases.
- Drag a file from the Explorer/Finder onto the import field. The file is imported to your user phrase library and assigned to the selected pad.

Assigning Multiple MIDI Files to Pads

You can also drag and drop several MIDI files at a time.

- Move the mouse over the lower part of the pad on which you want to drop the first MIDI file.

A yellow frame indicate the pads that receive a MIDI file.
- Drop the files.

The MIDI files are imported to your user MIDI phrase library and are automatically assigned to the pads.

Removing MIDI Files from Pads

- To remove a MIDI phrase, right-click a pad and select **Remove Phrase** from the context menu.
- To remove the MIDI phrases from all selected pads right-click one of the pads and select **Remove Phrase** from the context menu.

Using MIDI Port B for Pattern Pads

By default, instrument and pattern pads share the same MIDI port. If two pads are triggered in parallel, the pattern pad always gets priority, therefore, instrument pads that use the same trigger note as a pattern pad cannot be played via MIDI.

To be able to play all instrument and pattern pads via MIDI, assign MIDI port B to the pattern pad section. This way, you can trigger instruments on one MIDI port and patterns on the other.

- To use Port B, activate the **Use MIDI Port B for Pattern Pads** button in the lower left corner of the pattern pad section.

Pattern Player

The Pattern Player is where you assign a MIDI phrase to a pad and specify how it is triggered. In addition, it provides the performance parameters, allowing you to further modify the playback of the phrase.

The Pattern Player opens when you click a pattern pad. It is divided into the sections **Pad**, **Pattern**, and **Performance**.



Pad Section

Active

Activates/Deactivates playback for the pad.

Exclusive

To activate exclusive playback for a pad, activate this button. Triggering an exclusive pad stops playback of the current pattern, according to the set restart mode. Pads for which this button is not activated can play simultaneously with other patterns.

Play Mode

- To play a pattern for as long as you hold down a key, select **Hold**.
- To start and stop playback with the trigger note for a pad, select **Toggle**. **Toggle** mode is best used for live performances. Otherwise, it can lead to unpredictable results, for example, when stopping and restarting playback in the host application or when locating to another position during playback.

Restart Mode

Determines whether a phrase starts to play immediately, at the next beat, or at the next full measure.

Sync to Beat

If **Sync to Beat** is activated, triggering a phrase starts the phrase in sync with any other phrases that are playing. For example, if you trigger a phrase and trigger the next phrase after 3 beats, this phrase starts playing at beat 3. If **Sync to Beat** is deactivated, the second phrase starts from the beginning.

Pattern Section

Pattern Library

Allows you to select a MIDI pattern. Click to select the file from the list.

To access the folder where the user MIDI patterns are saved, right-click the **Pattern Library** field and select "Show in Explorer/Finder". In this location, you can add, remove and rename files and create subfolders to organize your MIDI patterns.

NOTE

Pattern pads always contain the MIDI data and do not reference the original MIDI files.

Original Tempo

Displays the original tempo as saved in the MIDI file.

Start

Specifies the beat from which the phrase starts to play.

Length

Specifies the length of the phrase. Initially, this parameter is set to the original length of the MIDI phrase.

Import Field

To import MIDI files from your file system or MIDI parts from your host application into the user pattern library, drag them onto the MIDI import field.

You can import multiple MIDI files at the same time by dropping them on the import field. The first file is assigned to the selected pad.

Export Field

To export a pattern, click the MIDI export field and drag it onto a MIDI track in your host application. You can also drag the field to other locations and applications that support MIDI files.

Import/Export and Alternative Trigger Note Mappings

If you are working with alternative trigger note mappings, this is taken into account and the MIDI pattern is adapted automatically on import/export. This is important if you are recording MIDI with a hardware drum controller and you want to import MIDI parts from the host application or export patterns from Groove Agent to the host application during that process.

If you recorded the MIDI file with the standard trigger note mapping, deactivate alternative trigger note mapping in the Pad section.

Performance Section

Swing

Allows you to shift the timing of notes on even numbered beats to give the phrase a swing feeling. Negative values shift the timing backward, and the notes are played earlier. Positive values shift the timing forward, and the notes are played later.

Gate Scale

Allows you to shorten or lengthen the notes of the phrase. At a value of 100%, the notes play with their original gate length.

NOTE

Gate Scale has no effect on samples that are played in **One Shot** mode. They always sound until the end.

Velocity Scale

Raises or lowers the note-on velocities of the phrase. At a value of 100%, the notes are played with their original velocity.

Quantize Amount

This parameter defines how much of the quantization grid is applied. A value of 100% means the MIDI note events play back only at the specified quantize note value. Smaller values move the notes only partially towards the next Quantize note value. With a value of 0%, no quantization is applied.

Quantize Grid

This parameter allows you to set up a quantization grid, in fractions of beats. You can also specify dotted and triplet values.

Tempo Scale

Defines the speed at which the phrase is running. You can choose between half, normal, and double speed.

Common Pad Settings

- Pads show the associated MIDI note in the top right corner.
For pattern pads, you can change the MIDI note assignment. For instrument pads, you can only change this if **Use Hardware Controller Mapping** is activated.
- In the lower section, the name of the pad is displayed.
- If samples are assigned to an instrument pad, the LED above the pad lights up.
- If a MIDI file is mapped to a pattern pad, the LED above the pad lights up.
- A pad lights up if the associated MIDI note is triggered.

- A yellow frame around a pad indicates that this pad is selected for editing.

Pad Colors

You can colorize pads using up to 16 different colors. This can be used to improve the overview of instruments within your kit. For example, you can set the bass drum to one color, the snare to another, toms and cymbals to another, and so on.

- To apply a color to a pad or to several selected pads, open the context menu and select a color from the **Set Color** submenu.

Selecting Pads

Apart from the regular selection options, you can use the additional selection options on the pad context menu.

- **Select All Pads** – All 128 pads are selected.
- **Select All Pads in Group** – All 16 pads of the pad group are selected.
- **Invert Selection** – Selects all unselected pads and deselects all selected pads.
- **Invert Selection in Group** – As above, but only for the pad group.

Pad Functions

- To change the name of a pad, right-click the pad, select **Rename Pad** from the context menu, enter a new name and press [Enter].

This is useful if the names of the samples are either too long or not very intuitive. Renaming pads also allows you to indicate that more than one sample is mapped to a pad, for example.
- You can edit multiple selected pads. The first selected pad shows a yellow frame, the rest of the selected pads a lighter yellow frame.
- To select a pad without triggering a sample or pattern, [Alt]/[Option]-click the pad.
- In Instrument mode, the pads can be used to trigger sounds. You can trigger them with different velocities. Velocities are lower the further down towards the bottom of a pad you click. Clicking towards the top of the pad results in higher velocities.
- To mute or solo an instrument pad, click the corresponding icon in the upper left corner of a pad. Click again to unsolo or unmute.
- To unmute or unsolo all instrument pads, click the **Reset All Mute/Reset All Solo** buttons below the pads.
- To remove samples from an instrument pad, right-click the pad and select **Remove All Samples** from the context menu.

- To reset a pad, right-click the pad and select **Reset Pad** from the context menu. To reset all 128 pads, right-click a pad and select **Reset All Pads** from the context menu.

For instrument pads, this removes all samples and resets name, color, and trigger note for the pads to their default values.

For pattern pads, this removes the MIDI file and the name from the pads and resets color and trigger note to the default values.

Editing Kits

Editing Selection or All

You can apply your editing either to the selection (SEL) or to all samples of the pad (PAD), depending on the setting of the corresponding button on the toolbar.

Absolute and Relative Editing

When editing multiple samples, you can either change values absolutely for all the samples (ABS) or make relative changes (REL), depending on the setting of the corresponding button on the toolbar.

- When you use absolute editing and you change a parameter from 50% to 60% for one sample, all other samples are also set to 60%.
- When you use relative editing and you change a parameter from 50% to 60% in one sample, another selected sample that was set to 70% is set to 80%.

NOTE

Relative changes can be made for all parameters that can be adjusted continuously. Changes of parameters that select one of multiple modes or switch between two states are always absolute.

Edit Page

The **Edit** page is where you edit the sound of the kits.



- To open the **Edit** page, click the **Edit** button in the lower right section of the plug-in panel.

The **Edit** page contains six tabs: **Main**, **Pitch**, **Filter**, **Amp**, **Sample**, and **Slice**.

Mapping View

The mapping view shows the current sample mapping of the selected pad.



You can replace and remove samples in the mapping view and adjust their velocity ranges. The focused sample is displayed in a lighter color.

NOTE

The mapping view always shows the velocity ranges, even if they are not used to trigger samples. However, the values only have an effect in Velocity mode.

Mode

Determines the trigger mode for the samples of a pad:

- In **Velocity** mode, the incoming velocity determines which sample is played.
- In **Layer** mode, all samples are played at the same time, regardless of their velocity.
- In **Round Robin** mode, the samples are played repeatedly one after the other, from left to right.
- In **Random** mode, samples are played randomly. Repetitions can occur.
- In **Random Exclusive** mode, samples are played randomly, but repetitions are not allowed.

Poly

Sets the maximum polyphony of a pad. For example, if this is set to 4, you can trigger a pad 4 times before notes are stolen.

NOTE

The polyphony value represents the number of notes that can sound simultaneously, therefore triggering layered samples on a pad may lead to a much higher number of actual sample voices.

Fade

Specifies the time it takes for a voice to fade out when voices are stolen.

NOTE

You can specify different fade settings for the different samples of a pad.

Exclusive Group

This allows you to assign a pad to one of 32 exclusive groups. Pads within a group are never played back simultaneously. When a new note is played, the previous note stops.

Changing the Velocity Ranges of Samples

- Select the sample in the mapping view and enter new values in the **Hi** and **Lo** fields on the right.
- Position the mouse between two samples, so that a double-arrow is shown, and drag to the left or right.

NOTE

Changing the velocity range of a sample automatically adapts adjacent samples, that is, velocity ranges cannot overlap.

Editing the Mapping of a Pad

A pad can contain up to 8 samples.



- You can add samples by dropping them onto the mapping view. They can be inserted between two other samples, behind the last sample, or in front of the first sample. This is indicated by a red insert line.
- To replace a sample, drag a new sample onto an existing sample. Which sample will be replaced is indicated by a red frame.
- To change the order of the samples, drag them to a new position.
- To map a sample to another pad, drag it onto the pad.

This removes the sample from the current pad. To map the sample to another pad without losing the current mapping, hold down [Alt]/[Option] while dragging.

Main Tab

The **Main** tab gives you access to the sample mapping of the pad as well as to the most important parameters, like **Volume**, **Pan**, **Cutoff** etc.

The **Main** tab also shows a simplified sample editor. You can adjust the sample start and end markers as well as fade-in and fade-out markers and fade curves in the display.

Volume

Sets the level of the sample.

Pan

Sets the position of the sample in the stereo panorama.

Coarse

Adjusts the tuning in semitones.

Fine

Adjusts the fine tuning in cents.

Cutoff

Controls the cutoff frequency of the filter.

NOTE

Cutoff, **Resonance**, and **Distortion** are only available if a filter is used.

Resonance

Sets the filter resonance.

Distortion

Sets the amount of distortion. The effect of this parameter depends on the selected filter mode.

Output

The output to which the samples are routed.

- By default, samples are routed to the Kit Mixer, where they are also sent through the insert effects.
- You can also route samples to one of the 16 available stereo outputs. The first stereo out is always the Master output. This output is always active and can also contain insert effects.
- You can also route a pad directly to one of the 4 AUX channels, to create sub groups, for example.

NOTE

Samples that are routed to an output that is deactivated in your host application are automatically sent to the Master output of the plug-in.

Playback Quality

Sets the quality.

- **Standard:** Select this mode to play back the samples with their original bit depth and sample rate.
- **Vintage:** Select this mode to emulate the sound quality of early 12-bit drum machines. The detuning of the samples produces the typical aliasing effect. The sample rate is limited to 26040Hz.
- **Turntable** mode is similar to **Vintage** mode. The samples are played with 12bit/26040Hz. Use this mode to emulate the typical workflow of hip hop producers. Because the first digital drum machines only had a very limited amount of RAM, turntables were sampled at a speed of 45 RPM instead of 33 1/3 RPM. This way, more samples could be saved into the available RAM. During playback, the samples were tuned down, to correct for the change in pitch. This added the typical crunch and aliasing that the early drum machines are famous for.

NOTE

If **Vintage** or **Turntable** is selected for a sample, you cannot edit the sample using the AudioWarp functions on the **Sample** tab. If you try to select one of these modes for a sample that uses AudioWarp, a warning message is displayed.

Filter Type

Sets the filter type. You can choose between **Classic**, **Tube Drive**, **Hard Clip**, **Bit Reduction** and **Rate Reduction**.

To deactivate the filter, select **Off**.

Filter Shape

- LP 24, 18, 12, and 6 are low-pass filters with 24, 18, 12, and 6 dB/oct. Frequencies above the cutoff are attenuated.
- BP 12 and BP 24 are band-pass filters with 12 and 24 dB/oct. Frequencies below and above the cutoff are attenuated.
- HP6+LP18 and HP6+LP12 are combinations of a high-pass filter with 6 dB/oct and a low-pass filter with 18 and 12 dB/oct, respectively (asymmetric band-pass filter). Frequencies below and above the cutoff are attenuated. Attenuation is more pronounced for the frequencies above the cutoff.
- HP12+LP6 and HP18+LP6 are combinations of a high-pass filter with 12 and 18 dB/oct and a low-pass filter with 6 dB/oct (asymmetric band-pass filter). Frequencies below and above the cutoff are attenuated. Attenuation is more pronounced for the frequencies below the cutoff.
- HP 24, 18, 12, and 6 are high-pass filters with 24, 18, 12, and 6 dB/oct. Frequencies below the cutoff are attenuated.
- BR 12 and BR 24 are band-reject filters with 12 and 24 dB/oct. Frequencies around the cutoff are attenuated.
- BR12+LP6 and BR12+LP12 are combinations of a band-reject filter with 12 dB/oct and a low-pass filter with 6 and 12 dB/oct, respectively. Frequencies around and above the cutoff are attenuated.
- BP12+BR12 is a band-pass filter with 12 dB/oct plus a band-reject filter with 12 dB/oct. Frequencies below, above, and around the cutoff are attenuated.
- HP6+BR12 and HP12+BR12 are combinations of a high-pass filter with 6 and 12 dB/oct and a band-reject filter with 12 dB/oct. Frequencies below and around the cutoff are attenuated.
- AP is an all-pass filter with 18 dB/oct. Frequencies around the cutoff are attenuated.
- AP+LP6 is an all-pass filter with 18 dB/oct plus a low-pass filter with 6 dB/oct. Frequencies around and above the cutoff are attenuated.
- HP6+AP is a high-pass filter with 6 dB/oct plus an all-pass filter with 18 dB/oct. Frequencies around the cutoff are attenuated.

Editing the Envelope

An envelope section is available on the **Pitch**, **Filter**, and **Amp** tabs. Each multisegment envelope has up to 128 nodes with the **Time**, **Level**, and **Curve** parameters. The nodes and their parameters specify the overall shape of the envelope. You can edit one or multiple nodes in the graphical envelope editor or by entering values.

Selecting Nodes

- You select a node by clicking on it in the graphical editor. Selected nodes turn light blue. The focused node is indicated by an orange frame. The value fields to the left of the graphical envelope editor display the parameters of the focused node.
- If multiple nodes are selected, you can use the **Node** pop-up menu to set the focus to a different node without losing the current selection.
- [Shift]-click a node to add it to the selection. Selected nodes are edited together.
- You can select multiple nodes by drawing a rectangle around the nodes with the mouse.
- If the graphical editor has the focus, you can select the next or the previous node with the left and right arrow keys.

Adjusting the Time Parameter

The **Time** parameter specifies the period of time between two nodes. Depending on the **Sync** mode, the **Time** parameter is displayed in milliseconds and seconds, or in fractions of beats.

- To set the **Time** parameter, select the nodes that you want to adjust and enter a value in the **Time** field.
- You can also adjust the **Time** parameter in the graphical envelope editor, by dragging the nodes left or right, to decrease or to increase the time span.

For a higher resolution, hold [Shift] while moving the nodes.

To limit the movement to the time axis, that is, to change only the horizontal position of a node, hold down [Ctrl]/[Command] while dragging.

Adjusting the Level Parameter

The **Level** parameter specifies the amplitude of the envelope at the position set by the **Time** parameter.

- To set the **Level** parameter, select the nodes that you want to adjust and enter a value in the **Level** field.
- You can also adjust the **Level** parameter in the graphical envelope editor by dragging the selected nodes up or down, to decrease or increase the levels.

For a higher resolution, hold [Shift] while moving the nodes.

To limit the movement to the level axis, that is, to change only the vertical position of a node, hold down [Alt]/[Option] while dragging.

Adjusting the Curve Parameter

The **Curve** parameter allows you to adjust the curvature of the envelope curve between two nodes from linear to logarithmic or exponential behavior.

- To set the **Curve** parameter, select the nodes that you want to adjust and enter a value in the **Curve** field. Positive curve values change the curvature towards logarithmic and negative values towards exponential behavior.

- You can also adjust the **Curve** parameter in the graphical envelope editor by dragging the curve between two nodes.
[Ctrl]/[Command]-click a curve to reset it to linear.

Adding and Removing Nodes

All nodes added after the sustain node always affect the release phase of the envelope.

- To add a node, double-click at the position where you want to add the node.
- To remove a node, double-click it.
- To delete several selected nodes, press [Delete] or [Backspace].

NOTE

You cannot remove the first, the last, or the sustain node.

Adding Nodes Using the Fill Function

The **Fill** function allows you to add multiple envelope nodes after the selected nodes.

- 1) On the pop-up menu to the right of the **Fill** button, select the number of nodes that you want to add.
- 2) In the graphical envelope editor, select the node after which you want to add nodes.

If several nodes are selected, the new nodes are inserted after the last selected node.
- 3) If the **Fixed** function is deactivated, the added nodes are placed with the interval specified by the Time parameter of the selected node. If multiple nodes are selected, the interval is specified by the focused node.

By activating **Sync**, you can specify the interval with the **Sync** note value. For example, if 1/4 is selected, new nodes are added at exact quarter note intervals.
- 4) If the **Fixed** function is activated, the added nodes fill the space between the last selected node and the following one.
- 5) Click the **Fill** button.

The nodes are added.

Fixed

If **Fixed** is activated, only the selected nodes are moved on the time axis. If **Fixed** is deactivated, all nodes that follow the edited nodes are also moved.

Snap

You can select a second envelope to be displayed in the background of the edited envelope. If **Snap** is activated and you change the position of nodes, they snap to the nodes of the envelope that is shown in the background.

- To specify the envelope for the background, open the pop-up menu to the right of the **Snap** button and select an envelope from the list.

Using Sync

You can synchronize the envelopes to the tempo of your host application. This allows you to set envelope times that relate to musical time intervals, regardless of any tempo changes.

- 1) Click **Sync** to activate sync mode for the envelope.

Sync is active when the button is highlighted. A grid spaced in fractions of beats is displayed in the graphical envelope editor.

- 2) On the pop-up menu located to the right of the **Sync** button, select a note value.

This sets the resolution of the grid. For example, if you specify a 1/4 note value, the nodes snap to 1/4 note steps. If the **T** button is activated, the note values correspond to triplet values.

You can also enter note values and triplets manually in the value field.

The **Time** field of a node displays times in fractions of beats. The fraction is always reduced to the smallest possible value. 2/16 is displayed as 1/8, for example.

NOTE

Envelope nodes that do not exactly match a note value display the closest note value.

NOTE

Nodes that exactly match a note value are indicated by a red dot inside the handle of the node. This can be useful if you switch the grid between triplets and normal note values, for example. The triplet nodes still indicate that they match a note value, even if the grid shows normal note values.

Selecting an Envelope Mode

You can select one of 4 envelope modes to specify how the envelope is played back each time you hit a key. These modes are selected from the Mode pop-up menu. The following options are available:

- **Sustain:** The envelope starts playback from the first node to its sustain. The sustain level is held as long as you play the note. When you release the note, the envelope continues with the phases after the sustain. This mode is ideal for looped samples.
- **Loop:** The envelope starts playback from the first node to the loop nodes. The loop is repeated for as long as the key is held. The envelope plays the phases after the sustain when you release the note. This mode is ideal for adding motion to the sustain.
- **One Shot:** The envelope is played from the first to the last node, even if you release the key. The envelope has no sustain. This mode is ideal for drum samples.

- **Sample Loop:** Preserves the natural attack of the sample. The decay of the envelope does not start until the sample has reached the sample loop start.

If you set the second node to the maximum level and use the following nodes to shape the decay during the loop phase of the sample, the envelope only affects the loop phase. The attack of the envelope is still executed.

Pitch Tab

Coarse

Adjusts the tuning in semitones.

Fine

Adjusts the fine tuning in cents.

Random

Determines how much the pitch of a sample is changed randomly with each note that is played.

Env Amnt

Determines how much the pitch is affected by the pitch envelope.

Level Velocity (Vel>Lev)

Determines how the velocity affects the level of the envelope. The level depends on this parameter and on how hard you hit a key. Positive values increase the level of the envelope the harder you hit a key. Negative values decrease the level of the envelope the harder you hit a key.

Time Velocity (Vel>Time)

Adjusts the influence of velocity on the phases of the envelope. Positive values decrease the times for higher velocity values. Negative values increase the times for higher velocity values.

Segments

Here, you can select which phases of the envelope are affected by the **Time Velocity** parameter.

- **Attack** – The velocity affects the attack only.
- **Attack + Decay** – The velocity affects all phases until the sustain.
- **Decay** – The velocity affects all phases until the sustain but without the attack.
- **Attack + Release** – The velocity affects the attack and the release phases.
- **All** – The velocity affects all phases.

Level Velocity Curve

You can select the curve type to specify how the incoming velocity translates to the level of the envelope. The characteristic of each curve is displayed by a small icon.

Filter Tab

The **Filter** tab allows you to adjust the tone color of the sound. The filter envelope controls the cutoff frequency to shape the harmonic content over time.

Filter Type

Sets the filter type. You can choose between **Classic**, **Tube Drive**, **Hard Clip**, **Bit Reduction** and **Rate Reduction**.

To deactivate the filter, select **Off**.

Filter Shape

- LP 24, 18, 12, and 6 are low-pass filters with 24, 18, 12, and 6 dB/oct. Frequencies above the cutoff are attenuated.
- BP 12 and BP 24 are band-pass filters with 12 and 24 dB/oct. Frequencies below and above the cutoff are attenuated.
- HP6+LP18 and HP6+LP12 are combinations of a high-pass filter with 6 dB/oct and a low-pass filter with 18 and 12 dB/oct, respectively (asymmetric band-pass filter). Frequencies below and above the cutoff are attenuated. Attenuation is more pronounced for the frequencies above the cutoff.
- HP12+LP6 and HP18+LP6 are combinations of a high-pass filter with 12 and 18 dB/oct and a low-pass filter with 6 dB/oct (asymmetric band-pass filter). Frequencies below and above the cutoff are attenuated. Attenuation is more pronounced for the frequencies below the cutoff.
- HP 24, 18, 12, and 6 are high-pass filters with 24, 18, 12, and 6 dB/oct. Frequencies below the cutoff are attenuated.
- BR 12 and BR 24 are band-reject filters with 12 and 24 dB/oct. Frequencies around the cutoff are attenuated.
- BR12+LP6 and BR12+LP12 are combinations of a band-reject filter with 12 dB/oct and a low-pass filter with 6 and 12 dB/oct, respectively. Frequencies around and above the cutoff are attenuated.
- BP12+BR12 is a band-pass filter with 12 dB/oct plus a band-reject filter with 12 dB/oct. Frequencies below, above, and around the cutoff are attenuated.
- HP6+BR12 and HP12+BR12 are combinations of a high-pass filter with 6 and 12 dB/oct and a band-reject filter with 12 dB/oct. Frequencies below and around the cutoff are attenuated.
- AP is an all-pass filter with 18 dB/oct. Frequencies around the cutoff are attenuated.
- AP+LP6 is an all-pass filter with 18 dB/oct plus a low-pass filter with 6 dB/oct. Frequencies around and above the cutoff are attenuated.
- HP6+AP is a high-pass filter with 6 dB/oct plus an all-pass filter with 18 dB/oct. Frequencies around the cutoff are attenuated.

Cutoff

Controls the cutoff frequency of the filter.

Resonance

Sets the filter resonance.

Distortion

Sets the amount of distortion. The effect of this parameter depends on the selected filter mode.

Velocity

This parameter determines the influence that velocity has on the cutoff frequency. If **Velocity** is set to 0%, the setting has no effect. At any other value, the cutoff frequency changes with the velocity.

Env Amnt

Determines how much the filter is affected by the filter envelope.

Level Velocity (Vel>Lev)

Determines how the velocity affects the level of the envelope. The level depends on this parameter and on how hard you hit a key. Positive values increase the level of the envelope the harder you hit a key. Negative values decrease the level of the envelope the harder you hit a key.

Time Velocity (Vel>Time)

Adjusts the influence of velocity on the phases of the envelope. Positive values decrease the times for higher velocity values. Negative values increase the times for higher velocity values.

Segments

Here, you can select which phases of the envelope are affected by the **Time Velocity** parameter.

- **Attack** – The velocity affects the attack only.
- **Attack + Decay** – The velocity affects all phases until the sustain.
- **Decay** – The velocity affects all phases until the sustain but without the attack.
- **Attack + Release** – The velocity affects the attack and the release phases.
- **All** – The velocity affects all phases.

RELATED LINKS

[Editing the Envelope on page 26](#)

Amp Tab

Volume

Sets the level of the sample.

Pan

Sets the position of the sample in the stereo panorama.

AUX 1-4

Here, you can specify the signal level that is sent to the 4 integrated AUX FX channels.

Level Velocity (Vel>Lev)

Determines how the velocity affects the level of the envelope. The level depends on this parameter and on how hard you hit a key. Positive values increase the level of the envelope the harder you hit a key. Negative values decrease the level of the envelope the harder you hit a key.

Time Velocity (Vel>Time)

Adjusts the influence of velocity on the phases of the envelope. Positive values decrease the times for higher velocity values. Negative values increase the times for higher velocity values.

Segments

Here, you can select which phases of the envelope are affected by the **Time Velocity** parameter.

- **Attack** – The velocity affects the attack only.
- **Attack + Decay** – The velocity affects all phases until the sustain.
- **Decay** – The velocity affects all phases until the sustain but without the attack.
- **Attack + Release** – The velocity affects the attack and the release phases.
- **All** – The velocity affects all phases.

Level Velocity Curve

You can select the curve type to specify how the incoming velocity translates to the level of the envelope. The characteristic of each curve is displayed by a small icon.

Sample Tab

The **Sample** tab is divided into different sections. The upper section shows the waveform display and the lower section gives you access to all relevant sample parameters.

Toolbar

The toolbar contains different tools for editing sample markers, loop markers, and slices.

Play Sample



Activate this button to play back the raw sample.

Play Selection Looped



Activate this button to play back the selection repeatedly.



Auto Scroll

If this button is activated, the waveform display is scrolled during playback, keeping the playback cursor visible.



Follow Sample Playback

Activate this button to see a play locator when triggering a sample via MIDI.



Range Selection Tool

Click and drag with this tool to create a selection.



Zoom Tool

If this tool is selected, you can click in the waveform to zoom in on the position where you click.



Play Tool

If this tool is selected, click in the waveform display to play back the sample. It is played back from this position until you release the mouse button.



Scrub Tool

If this tool is selected, you can click in the waveform and drag sideways to play back the audio. The playback speed depends on how fast you move the mouse.



Snap

If the Snap button is activated, the selection start and end points and markers snap to other markers.



Snap to Zero Crossing

If this button is activated, markers and selection start and end points are only placed at zero crossings (positions in the audio where the amplitude is zero). This helps you avoid pops and clicks that are caused by sudden amplitude changes.



Edit Loop

If this icon is activated, the editor shows the looped region repeatedly instead of the original sample data. This makes it easier to work on specific sections of long loops, for example.

If the loop mode is deactivated when you activate the **Edit Loop** icon, the loop mode is automatically set to **Continuous** and the loop markers are placed at the start and end of the sample.



Show Resulting Loop Crossfade

Activate this button to see the effect of your crossfade settings in the waveform display. If this button is activated, the resulting waveform is displayed in red.

NOTE

This button only has an effect if **Edit Loop** is activated.



Show Fades in Waveform (Sample tab only)

Activate this button to show your fade settings directly in the waveform.



Show Channel Sum

Activate this button to show the sum of the left and right channels in the waveform display.



Show Left Channel

Activate this button to show the left channel in the waveform display.



Show Right Channel

Activate this button to show the right channel in the waveform display.



Preview Volume

Click this icon to display a level slider. Use the slider to specify the level for previewing your samples.



Output

On this pop-up menu, you can specify to which plug-in output the Sample editor sends its signals.

Ruler

The ruler shows the timeline in the specified display format.

- To select the format, click the arrow button to the right of the ruler and select an option from the pop-up menu.

You can choose to display bars and beats, seconds, or samples.

If the Slice tab is selected, the ruler shows the timeline in bars and beats.

Waveform Display and Level Scale

The waveform display shows the waveform image of the sample. To the left of the waveform display, a level scale is shown, indicating the amplitude of the audio.

- To select whether the level is shown as a percentage or in dB, click the level scale label (dB or %), and select an option from the pop-up menu.
- To display the half level axes, right-click in the waveform display and select the corresponding option on the context menu.

Parameter Section

Velocity Start Range

Determines the influence of the velocity on the sample start. Move the start range marker to the right to start the sample later for lower velocities. Maximum velocity starts the sample at the original sample start.

Key On Delay

With this parameter, you can delay the playback of the zone by a specified time or a note value.

- To synchronize the delay time to the host tempo, activate the **Sync** button and select a note value from the pop-up menu.
- To change the selected note value to a triplet, activate the **T** button.

If **Sync** is deactivated, the delay is specified in milliseconds. If **Sync** is activated, the delay is specified in fractions of beats.

Loop Mode

- **One Shot** – the sample is played from start to end.
- **No Loop** – the sample is played for as long as the note is held.
- **Continuous** – the loop is played even if you release the note.
- **Until Release** – the loop is played for as long as the note is held and then continues to the end of the sample.

Reverse

Reverses the sample, so that you hear it backwards.

Sample Start

The start marker of the sample.

Sample End

The end marker of the sample.

Link Sample Start and End

If this button is activated, moving the sample start also moves the sample end, and vice versa.

Loop Start

Specifies where the loop begins. You can enter a value numerically or move the start marker in the sample display.

Loop End

Specifies where the loop ends. You can enter a value numerically or move the end marker in the sample display.

Link Loop Start and End

If this button is activated, moving the loop start also moves the loop end, and vice versa.

Loop Crossfade

Specifies the time of the crossfade.

The **Curve** parameter defines the curve of the crossfade, from linear to equal power.

Loop Tuning

Here you can adjust the frequency of the loop in cents.

Detune

Allows you to tune the sample by +/- 1200 cents.

Gain

Determines the level of the sample.

Pan

Determines the panorama position of the sample.

AudioWarp Parameters

In the **AudioWarp** section, you can apply time stretching and formant shifting to your samples.

NOTE

The AudioWarp functionality is not available if the playback quality is set to **Vintage** or **Turntable** on the **Main** tab.

Mode

On this pop-up menu, you select the mode that is used for the AudioWarp functions.

- **Solo** mode offers parameters for time stretching and formant shifting. This mode is suitable for loops and samples with solo instruments or vocals. It is highly efficient and supports polyphonic playback.
- **Music** mode offers parameters for time stretching. This mode is suitable for complex material like drum loops and samples with mixed music. It uses considerably more CPU time than Solo mode. Note that the more the sample is stretched, the higher the CPU load.
- Select **Off** to deactivate the AudioWarp functions.

Sync Mode

The **Sync** modes are used to match the playback speed of the sample to the tempo of the host application.

- If this is set to **Off**, you can specify the playback speed manually, in percent.
- If this is set to **Tempo**, the playback speed is calculated using the ratio between the original tempo of the sample and the tempo of the host.
- If this is set to **Beats**, the playback speed is calculated using the note length of the beats, the number of beats, and the tempo of the host.

NOTE

For the **Sync** modes to work properly, the loop of the sample has to be set up correctly. In Tempo mode, the original tempo must be set as exactly as possible.

Speed

This control adjusts the playback speed of the sample in percent. You can speed up the tempo by up to 800% of the original. In Music mode, the lower limit of the playback speed adjustment is 12.5%. Values below this limit have no effect.

Original BPM

If **Sync Mode** is set to **Tempo**, you can enter the original tempo of the sample in beats per minute. Groove Agent SE adjusts the playback speed of the sample to match the tempo of the host application.

NOTE

If you load a sample that contains tempo information in the file header, this information is used to set the **Original Tempo** parameter. If a sample does not contain any tempo information, the value is estimated. You can modify the parameter values manually.

Note Length and Number of Beats

When **Sync Mode** is set to **Beats**, Groove Agent SE calculates the tempo of the sample, based on the note length and the number of beats you enter. For example, if the sample is a drum loop with four quarter notes, set **Note** to 1/4 and **Beats** to 4. Groove Agent SE adjusts the playback speed of the sample to match the tempo of the host application.

NOTE

If you load a sample that contains tempo information in the file header, this information is used to set the **Note Length** and **Number of Beats** parameters. If a sample does not contain any tempo information, the values are estimated. You can modify the parameter values manually.

Formant (Solo Mode Only)

Specifies the amount of formant shifting.

Markers

You can use a set of different markers to specify important positions in a sample.

Sample Start

Defines where the sample starts to play. Audio before this marker is ignored.

Sample End

Defines where the sample stops playing. Audio after this marker is ignored.

Loop Start

Defines where the loop starts.

Loop End

Defines where the loop ends.

Velocity Start Range

Defines the attack phase of a sample, which can be used for the modulation of the sample start via velocity.

Creating Fades



- To create fades, drag the fade handles in the sample display on the Sample tab or specify the length for fade in and fade out on the Slice tab (if you created slices from the audio).
- To adjust the curvature, drag the fade line in the display up or down.

NOTE

The fades directly influence sample playback. They are not part of the amp envelope.

Zooming

- To zoom in/out on the time and level axis, use the horizontal and vertical zoom sliders.



Vertical zoom slider

- The three buttons to the right of the horizontal zoom slider allow you to zoom to the start, the end, and to the full range.



Depending on your work situation, these options refer to the sample, the selection, or a loop. Clicking several times increases the zoom level.

- To toggle between full zoom and the previous zoom setting, click the **A** button to the right of the horizontal zoom slider.
- To zoom in/out on the locator position, press [G] and [H].
- You can click and drag the ruler to zoom in/out on the position you have clicked.
- Use the options on the **Zoom** submenu of the context menu.

View Range

When changing from one sample to another, you can specify which range to show in the waveform display for the new sample.

These options can be found on the **View Range** submenu of the waveform display context menu.

Auto

Follows the visible view range of the previous sample.

Last

Each sample stores the visible range individually. When you select a sample again, its view range is restored.

Full

Shows the entire sample.

Sample

Shows the range between sample start and sample end markers.

Sample Start

Shows the sample start marker with the current zoom factor.

Sample Start Range

Shows the sample start range marker with the current zoom factor.

Sample End

Shows the sample end marker with the current zoom factor.

Loop

Shows the entire loop.

Loop Start

Shows the loop start marker with the current zoom factor.

Loop End

Shows the loop end marker with the current zoom factor.

Auditioning Samples

You can play back the sample using the **Play Sample** icon on the toolbar.

The following applies:

- If you have not made a selection, the whole sample is played back.
- If you have made a selection, this selection is played back.
- If the **Edit Loop** icon is activated, playback continues repeatedly until you deactivate the audition function.

Making Selections

PROCEDURE

1. To make a selection, click and drag with the Range Selection tool.
 - If **Snap to Zero Crossing** is activated, start and end of the selection are always placed at zero crossings.
 2. To resize the selection, drag its left or right border, or [Shift]-click at the position where you want the selection to start/end.
-

Defining Sample Start and End from a Selection

- Make a selection, right-click in the Sample editor, open the **Selection** submenu, and select **Set Sample Start/End to Selection**.

Defining Loop Start and End from a Selection

- Make a selection, right-click in the Sample editor, open the **Selection** submenu, and select **Set Loop to Selection**.

Slice Tab

On the **Slice** tab, you can slice audio loops and automatically map the slices to instrument pads. During this process, a MIDI track is created and is associated with the first empty pattern pad.

After slicing a loop, you can play back the entire loop via the pattern pad or trigger individual slices with the instrument pads.

Toolbar

The toolbar contains several tools that are also available on the **Sample** tab. In addition, the following tools are available:

Play Slice



Activate this button to play back slices when clicking on them.

Lock Slices



Activate this button to prevent slice markers from being moved. Locked slices are shown with red markers.

Jump to Previous/Next Slice



Click these buttons to jump to the next/previous slice.

BPM



Displays the tempo of the loop, as read from the sample file or calculated from the sample length.

You can adjust this value manually.

Bars/Beats

1 / 2 Bars 2

Shows the length of the sample found by the automatic tempo detection, in bars and beats. You can adjust this value manually, which has an effect on the grid and the tempo.

Parameter Section

Create/Remove Slices

Click this button to create slices for the selected loop. If slices exist, click this button to remove them.

Slice Detection Mode

The slice detection automatically sets slice markers in the sample waveform. The following modes for slice detection are available:

- **Transient** mode allows you to specify the minimum peak level that a transient needs to become a slice marker.
- **Grid** mode sets the slice markers according to a beat grid.
You can combine the **Transient** and **Grid** modes to detect slices that match both conditions.
- In **Manual** mode, no automatic slice detection is performed. Instead, you can add and remove slices manually by -clicking in the waveform.

Threshold

Determines the minimum level that a transient must have to be detected as the start of a new slice.

Min Length

Determines the minimum length of a slice. Use this to avoid creating unwanted short slices.

Grid Catch

In **Transient+Grid** mode, you can use this control to specify how close to the grid a transient marker must be.

Fade In/Out

Sets the length of the fade in and the fade out for all slices of the loop.

MIDI Export Field

You can export the MIDI phrase by dragging the MIDI export field on a MIDI track in your host application.

Slicing a loop

PREREQUISITE

To slice a loop, it is best to start with an empty kit.

NOTE

The maximum number of slices is 128. Therefore, it is recommended to start on a pad that is assigned to a lower note, so that enough empty pads are available.

PROCEDURE

1. Drop the audio loop on the instrument pad that you want to start with.
If the number of slices exceeds the number of available pads, some slices cannot be mapped to instrument pads. These slices are shown in red in the waveform display. In this case, the loop plays only with the length of the mapped slices.
 2. Open the **Slice** tab and click **Create Slices**.
 3. Adjust the parameters on the **Slice** tab to create the best set of slices.
Any changes that lead to more or less slices will create slices on or remove slices from pads.
-

Adding and Removing Slices

- To add a slice marker, [Alt]/[Option]-click in the editor.
- To remove a slice marker, [Alt]/[Option]-click it.

NOTE

The number of slices that can be created is limited to the number of available empty instrument pads.

Importing and Exporting Files

Importing MPC and GAK Files

You can import AKAI MPC 500 and MPC 1000 files and GAK files created in Groove Agent ONE into Groove Agent SE.

Importing Files Using Drag & Drop

- To import a file, drag it from the Explorer/Finder onto the slot in the kit slot section or on the kit name in the kit rack.

Importing Files via the Context menu

You can also import files via the kit context menu.

- 1) Right-click the kit in the kit rack or the kit slot section and select **Import**.
- 2) Select the file that you want to import and click **OK**.

NOTE

When importing GAK files, you will be asked to specify the folder in which to save the included files.

Importing REX Files and Sliced Loops

You can import REX files and sliced audio parts from Cubase/Nuendo into Groove Agent SE.

- To import a REX file or a sliced audio part into Groove Agent SE, drop it onto an empty pad.

The slices are automatically distributed across the pads, and a MIDI phrase is created and assigned to the first empty pattern pad.

Once the file is imported, you can trigger the slices with the instrument pads, or play back the entire loop by triggering the pattern pad.

Imported REX files and sliced audio parts are treated like audio loops that were sliced in Groove Agent SE.

Pads that are part of the sliced loop display a loop icon. The pad that contains the first slice displays a larger loop icon.

NOTE

If the number of available pads is not high enough to map all slices to pads, the slices that could not be added are shown in red on the slice edit page. You can move pads using drag and drop to free the necessary pads. As soon as enough pads are available, the slices that could not be mapped are automatically added.

NOTE

If you import a REX file, the **Slice Mode** in the slice editor is automatically set to **Manual**, to preserve the slice markers specified in the REX file. Note, however, that in some cases, the slices saved in a REX file may not represent a useful audio loop.

Exporting Kits with Samples

Groove Agent SE kits can be exported together with the associated samples.

PROCEDURE

1. Right-click the kit in the kit bar and select **Export with Samples** from the context menu.
2. In the dialog, specify a name and a location for the file.

RESULT

The kit file is created together with a folder containing the samples.

NOTE

Samples that are part of the protected factory content cannot be exported.

Finding Missing Samples

There might be situations where loaded programs cannot find the samples they use. This can happen if the referenced samples are located on a different drive and the drive name has changed, or because the program was created on a different computer system.

When this happens, the **Find Missing Sample** dialog opens, showing a list of all samples that are missing, with additional information about the format, size, and creation date. The list groups all samples that are located in the same subfolder.

Entering a Search Path

In the **Find Missing Sample** dialog, below the list of missing samples, you can enter the search path to find the missing samples.

NOTE

All subdirectories are searched before the results are displayed, therefore the search takes longer if you specify entire drives.

Starting the Search

Once you have specified the search path, click the **Start Search** button to start the search process.

If the search only finds a single result for each missing sample, the sample path is automatically corrected in the program and the sample disappears from the **Missing Files** list. If all samples are found, the dialog is closed.

Multiple Results

If sample files with the same name are found in more than one location, an additional **Found File** list appears below the **Missing File** list. This shows the available samples and their file locations.

- To select a sample or a complete folder that is to be used to resolve the missing samples, double-click it in the **Found Files** list.

Each sample or folder that is resolved this way disappears from the **Missing File** list.

Once all samples are resolved the dialog closes.

Favorite Paths

If a path might be helpful for future searches, you can add it to the search path list. The next time the dialog opens, it allows you to select one or multiple predefined paths to specify which places to include in the search.

- To add a path, click the **+** sign.

Search Options

By default, Groove Agent SE searches for samples that do not only have the same file name, but also correspond in terms of time, size, and format information. A sample is considered “found” only if all of the information is identical. However, you can exclude this information by activating the **Ignore File Time and Size** and **Ignore Audio Format** options.

Mixing and Effect Handling

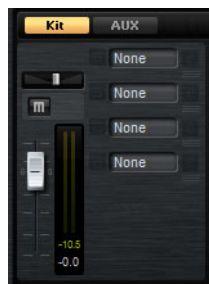
Mixing

Mixer Page

The **Mixer** page contains tabs for the **Kit** mixer, the **AUX** mixer, and the **Master** mixer.

Kit Mixer

The Kit mixer contains the channel strip for the bus that is assigned to the kit slot.



Level

The level fader allows you to adjust the volume of the slot.

Pan

Sets the position of the slot in the stereo panorama.

Mute

Activate this to mute the slot.

Meter

The meters of the mixer channel show the output level of the kit.

Peak Level Meter

The meter indicates the highest level on the bus in dB. To reset the peak meter, click on the value field.

Effect Slots

You can use the 4 slots on the right of the channel strip to add insert effects to the slot.

AUX Mixer

Groove Agent SE features 4 AUX busses that can be used to realize classic send effects. Each bus hosts up to 4 insert effects, which allows you to set up complex effects. The busses can be routed to the Master output of the plug-in or to one of the individual outputs.



Output

On this pop-up menu, you can select one of the 16 available outputs for the AUX bus.

Mute

Mutes the AUX bus.

Level

Allows you to set the level of the AUX bus.

Effect Slots

You can use the 4 slots on the right of each channel strip to add insert effects to the slot.

Master Mixer

The Master mixer shows the channel for the Master stereo output bus. It can host up to 4 insert effects, that can be used to add a global EQ or compressor to the signal chain, for example.



Level

Allows you to set the level of the Master bus.

Effect Slots

You can use the 4 slots on the right to add insert effects to the slot.

Effect Handling

Groove Agent SE features 4 AUX busses that can be used to realize classic send effects. Each bus hosts up to 4 insert effects, which allows you to set up complex effects. The busses can be routed to the **Master** output of the plug-in or to one of the individual outputs.

The Kit Mixer provides access to the mixer channel of the kit which also features 4 inserts.

Furthermore, the Mixer provides access to the master output bus. This can be used to add a global EQ or compressor to the signal chain, for example.

Default Effect Settings

Each effect comes with factory default settings. However, you can save your own default settings for each effect as a preset.

- Set up the effect.
- Click the **Save Preset** button in the title bar of the effect section and save the preset under the name "--Default--".

The preset is saved in the presets folder of the effect and is loaded each time you load the effect.

- To return to the factory default settings, delete your default preset.

Using the Insert Effect Slots

On the **Mixer** page, you can set up insert effects for the kit channel and the the AUX busses.

Each bus provides 4 slots for insert effects.

- To assign an insert effect, click the effect slot and select the effect from the menu.
- To remove an insert effect including its current settings, click the effect slot and select **None** from the menu.
- To bypass an effect, activate the Bypass button above the slot. Bypass is active when the button lights up.
- To edit an insert effect, click the **e** button of the corresponding slot. You can edit only one effect at a time. The parameters of the insert effect are displayed in the bottom section.
- To move an effect to another slot, move the mouse below the edit button until the drag icon appears and drag it to another slot. This replaces any effect loaded in this slot.
- To change the order of the effects, move the mouse below the edit button until the drag icon appears and drag it to a new position between two slots.

- To copy an effect into another slot, hold down [Alt]/[Option], move the mouse below the edit button until the drag icon appears and drag it onto the new slot. This replaces any effect loaded in this slot.
- To copy an effect and insert it between two effect slots, hold down [Alt]/[Option], move the mouse below the edit button until the drag icon appears and drag between two slots.

Effects Reference

Reverb and Delay Effects

Reverb

This effect produces a high-quality algorithmic reverb with early reflections and reverb tail.



The early reflections are responsible for the spatial impression in the first milliseconds of the reverb. For emulating different rooms, you can choose between different early reflections patterns and adjust their size. The reverb tail, or late reverberation, offers parameters for controlling the room size and the reverb time. You can adjust the reverb time individually in 3 frequency bands.

Predelay

Determines the amount of time between the dry signal and the onset of the reverb. With higher predelay values, you can simulate larger rooms.

Early Reflections

Here, you select an early reflections pattern. The early reflections pattern contains the most important delays that deliver the key information for the spatial impression of the room.

ER/Tail Mix

Sets the level balance between the early reflections and the reverb tail. At a setting of 50%, early reflections and tail have the same volume. Settings below 50% raise the early reflections and lower the tail, as a result the sound source moves towards the front of the room. Settings above 50% raise the tail and lower the early reflections, as a result the sound source moves towards the back of the room.

Size

Adjusts the length of the early reflections pattern. At a setting of 100%, the pattern is applied with its original length and the room sounds the most natural. At settings below 100%, the early reflections pattern is compressed and the room is perceived smaller.

Low Cut

Attenuates the low frequencies of the early reflections. The higher this value, the less low frequencies are present in the early reflections.

High Cut

Attenuates the high frequencies of the early reflections. The lower this value, the less high frequencies the early reflections will have.

Delay

Delays the onset of the reverb tail.

Room Size

Controls the dimensions of the simulated room. At a setting of 100%, the dimensions correspond to a cathedral or a large concert hall. At a setting of 50%, the dimensions correspond to a medium-sized room or studio. Settings below 50% simulate the dimensions of small rooms or a booth.

Main Time

Controls the overall reverb time of the tail. The higher this value, the longer the reverb tail will decay. At a setting of 100%, the reverb time is infinitely long. The **Main Time** parameter also represents the mid band of the reverb tail.

High Time

Controls the reverb time for the high frequencies of the reverb tail. With positive values, the decay time of the high frequencies is longer. With negative values, it is shorter. Frequencies are affected depending on the **High Freq** parameter.

Low Time

Controls the reverb time for the low frequencies of the reverb tail. For positive values, low frequencies decay longer and vice versa. Frequencies will be affected depending on the **Low Freq** parameter.

High Freq

Sets the cross-over frequency between the mid and the high band of the reverb tail. You can offset the reverb time for frequencies above this value from the main reverb time with the **High Time** parameter.

Low Freq

Sets the cross-over frequency between the low and the mid band of the reverb tail. The reverb time for frequencies below this value can be offset from the main reverb time with the **Low Time** parameter.

Shape

Controls the attack of the reverb tail. At a setting of 0%, the attack is more immediate, which is a good setting for drums. The higher this value, the less immediate the attack.

Density

Adjusts the echo density of the reverb tail. At a setting of 100%, single reflections from walls cannot be heard. The lower this value, the more single reflections can be heard.

High Cut

Attenuates the high frequencies of the reverb tail. The lower this value, the less high frequencies the reverb tail will have.

Width

Adjusts the output of the reverb signal between mono and stereo. At a setting of 0%, the output of the reverb is mono, at 100% it is stereo.

Mix

Sets the ratio between the dry and the wet signal.

Multi Delay

This effect produces delays, with adjustable time, feedback, and filters.



With the **Mode** parameter, you can set up this effect as Stereo, Cross, or Ping-Pong delay effect. Depending on the selected mode, the echoes repeat in varying patterns across the stereo panorama.

Mode

Multi Delay offers three different modes:

- **Stereo** mode has two independent delay lines, one for the left and one for the right audio channel, each with a feedback path of its own.
- **Cross** mode has two delay lines with cross feedback. Cross feedback means that the delay of the left channel is fed back into the delay of the right channel, and vice versa.
- **Ping-Pong** mode mixes the left and right input channel and sends it to hard-panned left and right delays. This way, the echoes bounce like a ping-pong ball between left and right in the stereo panorama.

Time

Sets the overall time for the left and right delay. Use the **Delay L/R** parameter to shorten the time for the left or right delay. Activate **Sync** to set the delay time as a note value.

Sync

Activate **Sync** to synchronize the delay time to the host tempo. When **Sync** is activated, the time is set as a note value.

NOTE

The maximum delay time is 5000ms. If the note length exceeds this value, it is automatically shortened.

Delay L/R

Offsets the time of the left or right delay from the overall delay time. At a factor of 1, the right or left delay time has the same length as the overall delay time. At a factor of 0.5, the time is half as long as the overall delay time. To offset the left delay time, turn the control to the left. To offset the right delay time, turn the control to the right.

Feedback

Sets the overall amount of feedback for the left and right delay. Feedback means that the output of the delay is fed back to its input. At a setting of 0%, you hear one echo. At a setting of 100%, the echoes repeat endlessly.

Feedback L/R

Offsets the amount of feedback of the left or right delay from the overall feedback. A factor of 1 means that the amount of feedback corresponds to the overall feedback. A factor of 0.5 means that the amount is half the overall feedback. To offset the left feedback, turn the control to the left. To offset the right feedback, turn the control to the right.

NOTE

This parameter is only available in **Stereo** mode.

Filter Low

Attenuates the low frequencies of the delays.

Filter High

Attenuates the high frequencies of the delays.

Mix

Sets the ratio between the dry and the wet signal.

EQ Effects

Studio EQ

Studio EQ is a high-quality 4-band parametric equalizer.



With the 4 frequency bands, you can shape the tone color, to create a brighter or darker sound, for example. The two mid-range bands act as peak filters and the low and high bands act as shelving filters. All bands are fully parametric with adjustable gain, frequency, and Q factor.

Each frequency band offers the following controls:

Gain

Sets the amount of cut or boost for the corresponding band.

Freq

Sets the frequency that is cut or boosted with the **Gain** parameter.

Q (Quality)

Use this parameter to adjust the bandwidth of the mid-range peak filters from wide to narrow. By increasing the **Q** value on the low and high shelving filters, you can add a dip to their shape.

- To adjust the parameters **Gain** and **Freq** simultaneously, drag the points in the EQ curve display.

Graphic EQ

Graphic EQ is an equalizer with ten frequency bands that can be cut or boosted by up to 12 dB. In addition, you can specify the overall range and output of the equalizer.



Output

Controls the overall output level of the equalizer.

Mode

Allows you to add color or character to the equalized output. The following options are available:

- **True Response** mode uses serial filters with accurate frequency response.
- **Classic** mode uses parallel filters where the resonance depends on the amount of gain.
- **Constant Q** mode uses parallel filters where the resonance is raised when boosting the gain.

Range

Adjusts the maximum cut or boost for all frequency bands together.

Invert

Activate this to invert the EQ curve.

Flatten

Resets all frequency bands to 0 dB.

DJ-EQ

This plug-in is an easy-to-use 3-band parametric equalizer that resembles the EQs found on typical DJ mixers. This plug-in is designed for quick sound fixes.



To set the **Low**, **Mid**, and **Hi** frequency bands, you can:

- Click and drag the EQ points. Press [Shift] and drag to adjust the values in smaller steps. Press [Ctrl]/[Command] and click a parameter to set it to zero.
- Click the **Gain** values and move the mouse up or down to change them.

Low Gain

Sets the amount of attenuation/boost for the low band.

Low Kill (Activates Low Cut)

Cuts the low band.

Mid Gain

Sets the amount of attenuation/boost for the mid band.

Mid Kill (Activates Mid Cut)

Cuts the mid band.

Filter Effects

Auto Filter

Auto Filter provides 2 morphable filter shapes with distortion.



The morphing between the two shapes, as well as the cutoff, can be controlled with a manual pedal control, an LFO, or an envelope shaper.

Filter Parameters

Filter Shapes

- LP 24, 18, 12, and 6 are low-pass filters with 24, 18, 12, and 6 dB/oct. Frequencies above the cutoff are attenuated.
- BP 12 and BP 24 are band-pass filters with 12 and 24 dB/oct. Frequencies below and above the cutoff are attenuated.
- HP 24, 18, 12, and 6 are high-pass filters with 24, 18, 12, and 6 dB/oct. Frequencies below the cutoff are attenuated.
- BR 12 and BR 24 are band-reject filter with 12 and 24 dB/oct. Frequencies around the cutoff are attenuated.
- AP is an all-pass filter with 18 dB/oct. Frequencies around the cutoff are attenuated.

Input

Adjusts the gain before the filter and distortion. This parameter only affects the wet signal.

Cutoff

Specifies the cutoff frequency of the filter.

Resonance

Emphasizes the frequencies around the cutoff. At higher resonance settings, the filter self-oscillates, which results in a ringing tone.

Distortion

Adds distortion to the signal. The effect depends on the selected distortion type. At higher settings, it creates a very intense distortion effect.

NOTE

This parameter is only available for the **Tube Drive**, **Hard Clip**, **Bit Red**, and **Rate Red** types.

Type

The following options are available:

- When this parameter is set to **Off**, the filter offers no distortion.
- **Tube Drive** offers a lot of character by adding warm, tube-like distortion.
- **Hard Clip** adds bright, transistor-like distortion.
- **Bit Red** adds digital distortion by means of quantization noise.
- **Rate Red** adds digital distortion by means of aliasing.

Output

Adjusts the gain after the filter and distortion. This parameter only affects the wet signal.

Mix

Sets the ratio between the dry and the wet signal.

LFO Section

LFO Waveform and Shape

Waveform selects the basic type of waveform. **Shape** changes the characteristic of the waveform.

- **Sine** produces smooth modulation. **Shape** adds additional harmonics to the waveform.
- **Triangle** is similar in character to **Sine**. The waveform periodically ramps up and down. **Shape** continuously changes the triangle waveform to a trapezoid.
- **Saw** produces a ramp cycle. **Shape** continuously changes the waveform from ramp down to triangle to ramp up.
- **Pulse** produces stepped modulation, where the modulation switches abruptly between two values. **Shape** continuously changes the ratio between the high and low state of the waveform. At 50%, it produces a square wave.
- **Ramp** is similar to the **Saw** waveform. **Shape** increasingly puts silence before the sawtooth ramps up.
- **Log** is a logarithmic curvature. **Shape** continuously changes the curvature from negative to positive.
- **S&H 1** produces random stepped modulation, where each step is different. **Shape** puts ramps between the steps and produces a smooth random signal when fully turned right.
- **S&H 2** is similar to **S & H 1**. The steps alternate between random high and low values. **Shape** puts ramps between the steps and produces a smooth random signal when fully turned right.

Freq

Determines the frequency of the cutoff modulation.

Sync

Activate this to set the **Freq** parameter in fractions of beats.

Depth

Determines the output level of the LFO modulation signal.

Cutoff

Determines the modulation intensity of the LFO on the filter cutoff.

Morph

Determines the modulation intensity of the LFO on the filter morph.

Envelope Follower Section

The Envelope Follower traces the input signal with an adjustable attack and release time and delivers a modulation signal representing the level envelope of the signal.

Sensitivity

All input signals are mixed down to mono before they are sent to the Envelope Follower. This parameter sets the optimum input level for the Envelope Follower.

Attack

Adjusts the attack time, that is, the time the Envelope Follower needs to approach increasing input levels.

Release

Adjusts the release time, that is, the time the Envelope Follower needs to approach decreasing input levels.

Depth

Determines the output level of the modulation signal of the Envelope Follower.

Cutoff

Determines the modulation intensity of the Envelope Follower on the filter cutoff.

Morph

Determines the modulation intensity of the Envelope Follower on the filter morph.

Pedal Section

Pedal

Sets the position of the pedal.

Depth

Determines the output level of the pedal modulation signal.

Cutoff

Determines the modulation intensity of the pedal on the filter cutoff.

Morph

Determines the modulation intensity of the pedal on the filter morph.

MorphFilter

MorphFilter lets you mix low-pass and high-pass filter effects, allowing for creative morphings between two filters. You can specify the filter shapes independently for filter shape A and B.



Filter Shape B

Here, you can choose between several high-pass and band-rejection filter shapes.

Filter Shape A

Here, you can select a low-pass or a band-pass filter shape.

Morph

Lets you mix the output between the two selected filters.

Cutoff

Adjusts the cutoff frequency of the filters.

NOTE

You can also set the **Cutoff** and **Morph** parameters simultaneously by clicking in the display and dragging.

Resonance

Emphasizes the frequencies around the cutoff frequency. For an electronic sound, increase the resonance. At higher resonance settings, the filter self-oscillates, which results in a ringing tone.

Distortion Effects

Distortion

This effect offers the whole range of distortion, from low fidelity, digital distortion to high fidelity, analog sounding distortion. The available distortion types (**Rate Red**, **Tube Drive**, **Hard Clip**, and **Bit Red**) can be freely combined.



In Gain

Adjusts the input level of the sound.

Rate Red (Rate Reduction)

Rate reduction distorts the sound by means of aliasing. Enable the **Rate Red** option to activate the control that adjusts the amount of aliasing. The lower the setting, the more aliasing is added.

Tube Drive

Adds warm, tube-like distortion to the sound. Enable the **Tube Drive** option to activate the control that adjusts the amount of distortion. The higher the setting, the more distortion is added.

Hard Clip

Adds bright, transistor-like distortion to the sound. Enable the **Hard Clip** option to activate the control that adjusts the amount of distortion. The higher the setting, the more distortion is added.

Bit Red (Bit Reduction)

Bit reduction distorts the sound by means of quantization noise. Enable the **Bit Red** option to activate the control that adjusts the amount of quantization noise. The lower the setting, the more quantization noise is added.

Out Gain

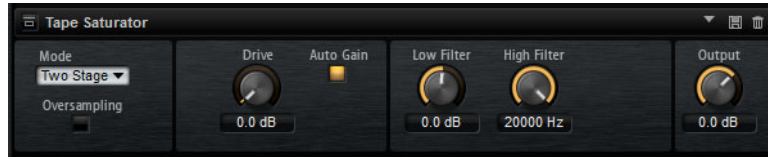
Adjusts the output level of the sound.

Mix

Sets the ratio between the dry and the wet signal.

Tape Saturator

Tape Saturator simulates the behavior of classic tape recorders. These machines produced a specific saturation when recording higher input levels, which led to a compressed signal with light distortion.



Mode

Here, you can choose between the effect of a single (**One Stage**) or two cascaded tape machines (**Two Stage**). **Two Stage** mode leads to higher saturation and compression.

Oversampling

Activate this parameter to increase the accuracy of the effect by oversampling.

NOTE

When **Oversampling** is active, the effect requires more processing power.

Drive

Determines the level of the input signal and thus the amount of saturation.

Auto Gain

Activate this option for an automatic level compensation.

Low Filter

Here, you can adjust the low frequency range below 1000Hz by +/- 3dB.

High Filter

Here, you can attenuate the high frequency range. This high-cut filter works with a slope of 24 dB/octave.

Output

Determines the level of the output signal.

Modulation Effects

Chorus

Chorus thickens and broadens the sound by means of pitch modulation.



Rate

Determines the frequency of the pitch modulation, in Hertz.

Sync

Activate this to set the **Rate** value in fractions of beats.

Depth

Sets the intensity of the pitch modulation.

Phase

Widens the sound image of the effect from mono to stereo.

Shape

Adjusts the characteristics of the modulation. At a setting of 0%, the pitch changes continuously, producing a steady modulation. At a setting of 100%, the pitch does not change all the time, producing a less steady modulation.

Mix

Sets the ratio between the dry and the wet signal.

Flanger

This effect thickens and broadens the sound by means of pitch modulation.



Rate

Allows you to specify the frequency of the pitch modulation in Hertz.

Sync

Activate this to set the Rate value in fractions of beats.

Depth

Sets the intensity of the pitch modulation.

Phase

Widens the sound image of the effect from mono to stereo. This parameter also changes the characteristic of the **Cross FB** parameter.

Shape

Adjusts the characteristics of the modulation. You hear this best when **Feedback** is activated. At a setting of 0%, the sound sweeps linearly up and down. At a setting of 100%, the sound sweeps exponentially up and down.

Mix

Sets the ratio between the dry and the wet signal.

Feedback

Adds resonances to the effect. This allows for jet-like sweeps of the sound.

Cross FB

Mixes the feedback of the left channel with the right channel, and vice versa. The effect of this parameter is influenced by the **Phase** parameter.

NOTE

This parameter only takes effect if the **Feedback** parameter is set to a value above 0%.

Tone

Adjusts the tone color of the feedback. At lower values, the feedback is less bright.

Step Flanger

The Step Flanger expands the Flanger with a Sample and Hold section that divides the modulation signal into a definable number of steps.



Rate

Allows you to specify the frequency of the pitch modulation in Hertz.

Sync

Activate this to set the **Rate** value in fractions of beats.

Depth

Sets the intensity of the pitch modulation.

Phase

Widens the sound image of the effect from mono to stereo. This parameter also changes the characteristic of the **Cross FB** parameter.

Shape

Adjusts the characteristics of the modulation. You hear this best when **Feedback** is activated. At a setting of 0%, the sound sweeps linearly up and down. At a setting of 100%, the sound sweeps exponentially up and down.

Mix

Sets the ratio between the dry and the wet signal.

Feedback

Adds resonances to the effect. This allows for jet-like sweeps of the sound.

Cross FB

Mixes the feedback of the left channel with the right channel, and vice versa. The effect of this parameter is influenced by the **Phase** parameter.

NOTE

This parameter only takes effect if the **Feedback** parameter is set to a value above 0%.

Tone

Adjusts the tone color of the feedback. At lower values, the feedback is less bright.

Type

Defines the length of the delay line that is modulated. **Short** produces a sharper and **Long** a less defined, more blurred flanger sound.

S&H Mix

Use this parameter to blend the normal modulation signal with the stepped modulation signal. At 100%, only the stepped modulation is used.

Smooth

Use this parameter to create ramps between the steps. This way, the stepped modulation signal sounds smoother.

Steps

Determines into how many steps the modulation signal is divided. You can use up to 32 steps.

Phaser

The Phaser effect thickens and broadens the sound by means of phase modulation.



Rate

Use this to specify the frequency of the phase modulation.

Sync

Activate this to set the **Rate** value in fractions of beats.

Depth

Sets the intensity of the phase modulation.

Shift

Shifts the phase modulation upwards to higher frequencies of the spectrum.

Phase

Widens the sound image of the effect from mono to stereo.

Low Cut

Attenuates the low frequencies.

High Cut

Attenuates the high frequencies.

Mix

Sets the ratio between the dry and the wet signal.

Ring Modulator

The Ring Modulator provides a sine oscillator that is multiplied with the input signal. This creates metallic, or bell-like, frequencies.

The integrated LFO modulates the frequency of the sine oscillator to vary the created frequencies over time. In addition, an envelope follower is available, which can be used to modulate the frequency of the sine oscillator depending on the level of the input signal.



LFO Waveform and Shape

Waveform selects the basic type of waveform. **Shape** changes the characteristic of the waveform.

- **Sine** produces smooth modulation. **Shape** adds additional harmonics to the waveform.
- **Triangle** is similar in character to **Sine**. The waveform periodically ramps up and down. **Shape** continuously changes the triangle waveform to a trapezoid.
- **Saw** produces a ramp cycle. **Shape** continuously changes the waveform from ramp down to triangle to ramp up.
- **Pulse** produces stepped modulation, where the modulation switches abruptly between two values. **Shape** continuously changes the ratio between the high and low state of the waveform. At 50%, it produces a square wave.
- **Ramp** is similar to the **Saw** waveform. **Shape** increasingly puts silence before the sawtooth ramps up.
- **Log** is a logarithmic curvature. **Shape** continuously changes the curvature from negative to positive.
- **S&H 1** produces random stepped modulation, where each step is different. **Shape** puts ramps between the steps and produces a smooth random signal when fully turned right.
- **S&H 2** is similar to **S & H 1**. The steps alternate between random high and low values. **Shape** puts ramps between the steps and produces a smooth random signal when fully turned right.

LFO Freq

Use this to specify the frequency of the LFO for modulating the frequency of the sine oscillator.

Sync

Activate this to set the Rate value in fractions of beats.

LFO Depth

Sets the intensity of the LFO modulation of the sine oscillator frequency.

Frequency

Determines the frequency of the sine oscillator.

Mix

Sets the ratio between the dry and the wet signal.

Envelope Follower

The Envelope Follower traces the input signal with an adjustable attack and release time and delivers a modulation signal representing the level envelope of the signal.

Sensitivity

All input signals are mixed down to mono before they are sent to the Envelope Follower. The **Sensitivity** parameter sets the optimum input level for the Envelope Follower.

Attack

This adjusts the attack time, that is, the time the Envelope Follower needs to approach increasing input levels.

Release

This adjusts the release time, that is, the time the Envelope Follower needs to approach decreasing input levels.

Depth

Determines the output level of the modulation signal of the Envelope Follower.

Frequency Shifter

A frequency shifter shifts each frequency of the input signal by a fixed amount.



Unlike pitch shifters, where the frequencies are shifted by a factor, and where the harmonic relations are kept, a frequency shifter alters the harmonic relations. Therefore, a larger frequency shift usually results in a disharmonic sound.

Furthermore, a frequency shifter alters the frequencies by adding an offset, while a pitch shifter multiplies the frequencies by a factor. The frequency shifter alters lower frequencies more than higher frequencies.

For example, if the input signal has the frequencies 100Hz, 1000Hz, and 10000Hz, and you shift the frequency by +100Hz, the resulting frequencies are 200Hz, 1100Hz, and 10100Hz.

Frequency Coarse

Here you set the amount of frequency shift.

Frequency Fine

Here you can fine adjust the amount of frequency shift.

L/R Offset Coarse

Sets an offset for the left and right channels. Positive values shift the right channel upwards and the left channel downwards, and vice versa.

L/R Offset Fine

Allows for fine-adjustments of the offset between the left and right channels. Positive values shift the right channel upwards and the left channel downwards, and vice versa.

Modulation Range Coarse

Sets the maximum amount of frequency shift via modulation from LFO and Envelope Follower.

Modulation Range Fine

Allows for fine-adjustments to the amount of frequency shift via modulation from LFO and Envelope Follower.

Feedback

Sets the amount of feedback, that is, the amount of signal that is sent from the output of the effect back to its input. The sound is similar to that of a phaser. You can control the direction and speed of this effect with the **Frequency Fine** parameter.

Notches

Here you set the number of notches the phaser effect produces when you use larger amounts of Feedback.

LFO Section

LFO Waveform and Shape

Waveform selects the basic type of waveform. **Shape** changes the characteristic of the waveform.

- **Sine** produces smooth modulation. **Shape** adds additional harmonics to the waveform.
- **Triangle** is similar in character to **Sine**. The waveform periodically ramps up and down. **Shape** continuously changes the triangle waveform to a trapezoid.
- **Saw** produces a ramp cycle. **Shape** continuously changes the waveform from ramp down to triangle to ramp up.
- **Pulse** produces stepped modulation, where the modulation switches abruptly between two values. **Shape** continuously changes the ratio between the high and low state of the waveform. At 50%, it produces a square wave.
- **Ramp** is similar to the **Saw** waveform. **Shape** increasingly puts silence before the sawtooth ramps up.
- **Log** is a logarithmic curvature. **Shape** continuously changes the curvature from negative to positive.
- **S&H 1** produces random stepped modulation, where each step is different. **Shape** puts ramps between the steps and produces a smooth random signal when fully turned right.
- **S&H 2** is similar to **S & H 1**. The steps alternate between random high and low values. **Shape** puts ramps between the steps and produces a smooth random signal when fully turned right.

LFO Rate

Specifies the frequency of the LFO in Hertz.

Sync

Activate this to set the **Rate** parameter in fractions of beats.

Depth

Determines the direction and amount of frequency shift from the LFO modulation signal.

Envelope Follower

The Envelope Follower traces the input signal with an adjustable attack and release time and delivers a modulation signal representing the level envelope of the signal.

Sensitivity

All input signals are mixed down to mono before they are sent to the Envelope Follower. This parameter sets the optimum input level for the Envelope Follower.

Attack

Adjusts the attack time, that is, the time the Envelope Follower needs to approach increasing input levels.

Release

Adjusts the release time, that is, the time the Envelope Follower needs to approach decreasing input levels.

Depth

Determines the direction and amount of frequency shift from the envelope follower modulation signal.

NOTE

The maximum frequency shift via modulation from LFO or the Envelope Follower is determined by the parameters **Modulation Range Coarse** and **Modulation Range Fine**.

Mix

Sets the ratio between the dry and the wet signal.

Vintage Ensemble

This effect emulates the sound of classic ensemble modulation effects. It is based on a delay with LFO-modulated delay times. A secondary LFO with higher frequencies is used to produce the so-called shimmer.



Rate

Sets the frequency of the LFO.

Sync

Activate this to set the Rate value in fractions of beats.

Depth

Sets the intensity of the delay time modulation by the LFO.

Shimmer

Sets the intensity of a secondary faster delay time modulation.

Shimmer Rate

Determines the relation between the speed of the primary and the secondary delay modulation. For example, with a value of 10, the secondary modulation is 10 times faster.

Low Cut

Applies a low-cut filter to the signal. Only frequencies above the set frequency are sent to the effect.

High Cut

Applies a high-cut filter to the signal. Only frequencies below the set frequency are sent to the effect.

Level

Allows you to adapt the effect signal level to compensate for level reductions caused by the low-cut and high-cut filters.

Mix

Sets the ratio between the dry and the wet signal.

Dynamics Effects

Compressor

The Compressor reduces the dynamic range of a sound. This way, the sound gains headroom. You can use this extra headroom to make the overall sound louder again.



The graphical control to the left indicates the compression curve. You can edit the **Threshold** and **Ratio** values with the handles of this control. The input and output VU meters indicate the level before and after the compression. The Gain Reduction meter indicates the current attenuation of the level.

Threshold

Sets the threshold. Sounds that are louder than the threshold are reduced in gain. Sounds below the threshold stay untreated.

Ratio

Sets the amount of gain reduction for sounds that are louder than the threshold. The higher the ratio, the more the output is lowered. For example, if the ratio is set to 2:1 and the amplitude of the sound is 4dB above the threshold, the output is lowered by 2dB. If the amplitude is 8dB above the threshold, the output is lowered by 4dB.

Soft Knee

If this button is deactivated, signals above the threshold are compressed instantly according to the set ratio. When **Soft Knee** is activated, the onset of the compression is more gradual, producing a less drastic result.

Make-Up

Raises the overall sound. This can become necessary if too much gain reduction is introduced by the **Threshold** and **Ratio** parameters. You can see the amount of gain reduction in the Gain Reduction meter.

NOTE

This parameter is not available when the **Auto** button is activated.

Auto

Sets the **Make-Up** value automatically, depending on the current **Threshold** and **Ratio** settings.

Attack

Determines how fast the Compressor reacts to sounds that exceed the threshold. The longer the attack time, the longer the time it takes to reduce the gain. With longer attack times, the onset of sounds exceeding the threshold pass through unprocessed.

Hold

Sets the time period during which the compression is applied after the sound exceeds the set threshold.

Release

Determines how fast the Compressor effect reacts to sounds that fall below the set threshold. The longer the release time, the longer it takes to return to the original level.

NOTE

This parameter is not available when the **Auto Release** button is activated.

Auto Release

Activate this to set the release time automatically. The Compressor analyzes the input sound continuously to find the optimal setting.

Peak – RMS

Determines whether the input signal is analyzed according to peak or RMS values or a mixture of both. At a setting of 0%, the Compressor uses Peak sensing only and at 100%, RMS sensing only. Peak means that the Compressor directly senses the peak level of the sound. RMS means that the Compressor senses the average power of the sound. Peak sensing responds faster than RMS sensing. Typically, Peak sensing is used for transient and RMS sensing for sustained sounds.

VintageCompressor

VintageCompressor is modeled after vintage type compressors.

This compressor features separate controls for input and output gain, attack, and release. In addition, there is a **Punch** mode which preserves the attack phase of the signal and a program-dependent Auto feature for the **Release** parameter.



Input (-24 to 48dB)

In combination with the **Output** setting, this parameter determines the compression amount. The higher the input gain setting and the lower the output gain setting, the more compression is applied.

Output (-48 to 24dB)

Sets the output gain.

Attack (0.1 to 100ms)

Determines how fast the compressor responds. If the attack time is long, more of the early part of the signal (attack) passes through unprocessed.

Punch (On/Off)

If this is activated, the early attack phase of the signal is preserved, retaining the original punch in the audio material, even with short **Attack** settings.

Release (10 to 1000ms or Auto mode)

Sets the time after which the gain returns to its original level. If the **Auto** button is activated, Vintage Compressor automatically finds an optimal release setting that varies depending on the audio material.

VU Meter

Shows the amount of gain reduction.

In/Out Meters

Show the highest peaks of all available input and output channels.

Tube Compressor

This versatile compressor with integrated tube-simulation allows you to achieve smooth and warm compression effects. The VU meter shows the amount of gain reduction. Tube Compressor features an internal side-chain section that lets you filter the trigger signal.



Drive (1.0 to 6.0)

Controls the amount of tube saturation.

Input (-24.0 to 48.0)

Determines the compression amount. The higher the input gain setting, the more compression is applied.

Limit

Increases the ratio of the compressor for a limiting effect.

Output (-12.0 to 12.0)

Sets the output gain.

Attack (0.1 to 100.0)

Determines how fast the compressor responds. If the attack time is long, more of the initial part of the signal passes through unprocessed.

Release (10 to 1000ms or Auto mode)

Sets the time after which the gain returns to the original level. If the **Auto** button is activated, Tube Compressor automatically finds an optimal release setting that varies depending on the audio material.

Mix (0 to 100)

Adjusts the mix between dry and wet signal preserving the transients of the input signal.

In/Out Meters

Show the highest peaks of all available input and output channels.

VU Meter

Shows the amount of gain reduction.

Side-chain

Activates/Deactivates the internal side-chain filter. The input signal can then be shaped according to the filter parameters. Internal side-chaining is useful for tailoring how the compressor operates.

Filter section (LP, BP, and HP)

If the **Side-Chain** button is activated, you can use these buttons to set the filter type to low-pass, band-pass, or high-pass.

Side-chain section

Center

Sets the center frequency of the filter.

Q-Factor

Sets the resonance or width of the filter.

Monitor

Allows you to monitor the filtered signal.

Limiter

The Limiter effects prevents the sound from exceeding the set output level. This can be used to avoid clipping in following effects, for example.



The input and output VU meters indicate the level before and after the Limiter. The Gain Reduction meter in the middle indicates the current attenuation of the level.

Input

Adjusts the input level of the sound. By increasing the input level, you can drive the sound more and more into limiting.

Output

Sets the maximum output level of the sound.

Release

Sets the time that the gain needs to return to its original level. The longer the release time, the longer it takes to return to the original level.

NOTE

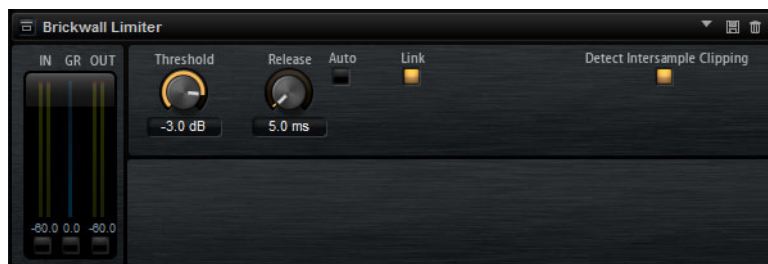
This parameter is not available if the **Auto** button is activated.

Auto

Activate this to set the release time automatically. The Limiter analyzes the input sound continuously to find the optimal setting.

Brickwall Limiter

Brickwall Limiter ensures that the output level never exceeds a set limit.



Due to its fast attack time, Brickwall Limiter can reduce even short audio level peaks without creating audible artifacts. However, this plug-in creates a latency of 1 ms. Brickwall Limiter features separate meters for input, output, and the amount of limiting. Position this plug-in at the end of the signal chain, before dithering.

Threshold (-20 to 0 dB)

Only signal levels above the set threshold are processed.

Release (ms)

Sets the time after which the gain returns to the original level when the signal drops below the threshold. If the **Auto** button is activated, Brickwall Limiter automatically finds the optimal release setting, depending on the audio material.

Link

If this button is activated, Brickwall Limiter uses the channel with the highest level to analyze the input signal. If the button is deactivated, each channel is analyzed separately.

Detect Intersample Clipping

If this option is activated, Brickwall Limiter detects and limits signal levels between two samples to prevent distortion when converting digital signals into analog signals.

NOTE

Brickwall Limiter is designed for the reduction of occasional peaks in the signal. If the Gain Reduction meter indicates constant limiting, try raising the threshold or lowering the overall level of the input signal.

Maximizer

This plug-in raises the loudness of audio material without the risk of clipping. Optionally, there is a soft clip function that removes short peaks in the input signal and introduces a warm tube-like distortion to the signal.



Output (-24 to 6dB)

Determines the maximum output level. Should normally be set to 0 to avoid clipping.

Optimize (0 to 100)

Determines the loudness of the signal.

Soft Clip

If this button is activated, Maximizer starts limiting or clipping the signal softly, at the same time generating harmonics which add a warm, tube-like characteristic to the audio material.

Expander

Expander reduces the output level in relation to the input level for signals below the set threshold. This is useful to enhance the dynamic range or reduce the noise in quiet passages.



The graphical control to the left shows the expansion curve. You can edit the **Threshold** and **Ratio** values with the handles of this control. The input and output VU meters indicate the level before and after the expansion. The Gain Reduction meter indicates the current attenuation of the level.

Threshold

Sets the threshold. Sounds that are softer than the threshold are reduced in gain. Sounds above the threshold stay untreated.

Ratio

Sets the amount of gain reduction for sounds that are softer than the threshold. The higher the ratio, the more the output is lowered. For example, if the ratio is set to 2:1 and the amplitude of the sound is 4 dB below the threshold, the output is lowered by 2 dB. If the amplitude is 8 dB below the threshold, the output is lowered by 4 dB.

Soft Knee

If this button is deactivated, signals above the threshold are compressed instantly according to the set ratio. When **Soft Knee** is activated, the onset of the expansion is more gradual, producing a less drastic result.

Attack

Determines how fast the Expander reduces the gain when the sound falls below the set threshold. The longer the attack time, the longer it takes to reduce the gain.

Hold

Sets the time period during which the expansion is applied after the sound falls below the set threshold.

Release

Determines how fast the Expander effect raises the gain after the sound exceeds the set threshold. The longer the release time, the longer it takes to raise the gain.

NOTE

This parameter is not available when the **Auto Release** button is activated.

Auto Release

Activate this to set the release time automatically. The Expander analyzes the input sound continuously to find the optimal setting.

Peak – RMS

Determines whether the input signal is analyzed according to peak or RMS values or a mixture of both. At a setting of 0%, the Expander uses Peak sensing only and at 100%, RMS sensing only. Peak means that the Expander directly senses the peak level of the sound. RMS means that the Expander senses the average power of the sound. Peak sensing responds faster than RMS sensing. Typically, Peak sensing is used for transient and RMS sensing for sustained sounds.

Gate

The Gate effect passes sound only to its output if the input sound exceeds the set threshold. Sounds below the threshold are silenced.

An internal side-chain filter allows you to analyze a filtered version of the input sound instead. This way, the gate detects only certain frequencies of the input sound.



Threshold

Determines the level that activates the gate. Signal levels above the set threshold trigger the gate to open, and signal levels below the set threshold close the gate.

Filter

Activates the internal side-chain filter. If this button is activated, the input sound is filtered before it is analyzed. The gate opens only if the filtered sound exceeds the set threshold. When the **Filter** button is deactivated, the filter controls are not available.

Filter Type

Sets the filter type for the side-chain filter. Select high-pass (**HP**) to detect high frequencies, band-pass (**BP**) to detect mid frequencies, and low-pass (**LP**) to detect low frequencies only.

Monitor

Activate this button to listen to the sound of the side-chain filter. The gate is inactive when the **Monitor** button is activated.

Center

Sets the center frequency of the side-chain filter.

Q-Factor

Activate this button to adjust the bandwidth of the band-pass filter from wide to narrow.

Attack

Determines how fast the gate opens when the sound exceeds the set threshold. The longer the attack time, the longer it takes for the sound to fade in.

Hold

Sets the time period during which the gate is applied after the sound falls below the set threshold.

Release

Determines how fast the gate closes after the sound falls below the set threshold. The longer the release time, the longer it takes for the sound to fade out.

NOTE

This parameter is not available when the **Auto** button is activated.

Auto

Activate this to set the Release time automatically. The Gate analyzes the input sound continuously to find the optimal setting.

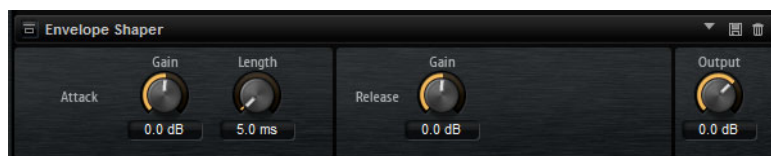
Peak – RMS

Determines whether the input signal is analyzed according to peak or RMS values (or a mixture of both). At a setting of 0%, the Gate uses Peak sensing only and at 100%, RMS sensing only. Peak means that the Gate directly senses the peak level of the sound. RMS means that the Gate senses the average power of the sound. Peak sensing responds faster than RMS sensing. Typically, Peak sensing is used for transient and RMS sensing for sustained sounds.

Envelope Shaper

This effect can be used to attenuate or boost the gain of the attack and release phase of audio material.

Be careful with levels when boosting the gain and, if needed, reduce the output level to avoid clipping.



Attack – Gain

Changes the gain of the attack phase of the signal.

Attack - Length

Determines the length of the attack phase of the signal.

Release - Gain

Changes the gain of the release phase of the signal.

Output

Sets the output level.

Panner Effects

Stereo Pan

This effect allows you to set the stereo position and width of the signal.



Input Swap

Swaps the stereo channels.

Pan

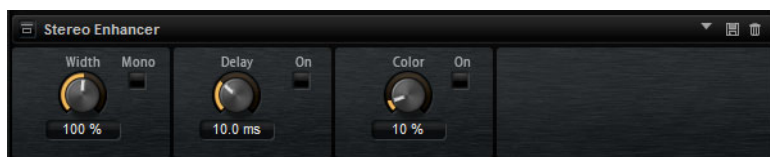
Sets the pan position of the signal. The panning is available for mono and stereo input signals.

Width

Adjusts the stereo width of the signal from stereo to mono.

StereoEnhancer

This plug-in expands the stereo width of (stereo) audio material. It cannot be used with mono files.



Width

Controls the width or depth of the stereo enhancement. Turn clockwise to increase the enhancement.

Delay

Increases the amount of differences between left and right channels to further increase the stereo effect.

Color

Generates additional differences between the channels to increase the stereo enhancement.

Mono

Switches the output to mono, to check for possible unwanted coloring of the sound which sometimes can occur when enhancing the stereo image.

Automation and MIDI Controllers

Automation

You can automate most of the Groove Agent SE parameters from within your host application, whether these are kit parameters or global parameters such as AUX effects.

Groove Agent SE provides 512 automation parameters that can be addressed from the host application. You can assign Groove Agent SE parameters to one of these automation parameters, and even assign multiple parameters to the same automation parameter, to control these parameters at the same time.

Automated parameters always control the parameters of whole pads and not of single samples. Therefore, individual settings of samples are overwritten. For example, if the samples of a pad have different cutoff values, and you start automating the cutoff parameter, the samples are all set to the same cutoff value.

Setting Up Automation

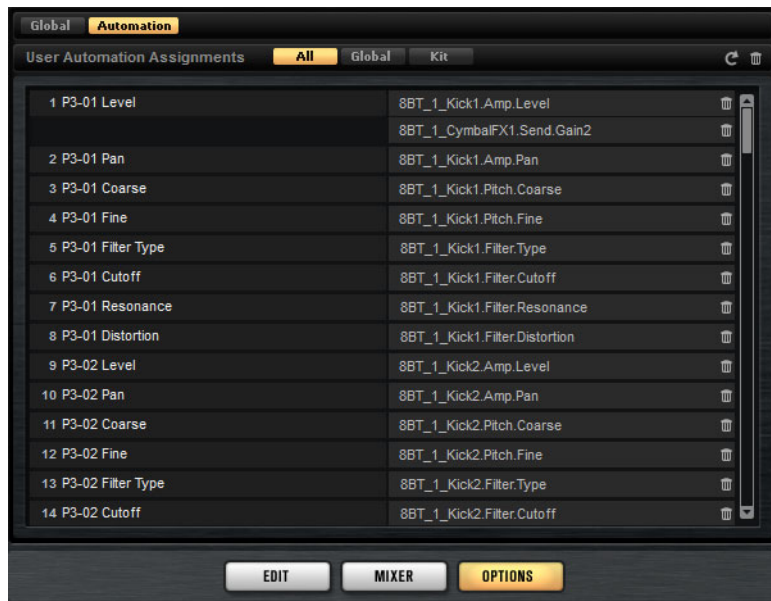
By default, the most important parameters for the 16 pads of group 3 are already assigned to automation parameters.

- To assign a parameter to an automation parameter, right-click the parameter control and select **Assign to New Automation**.
The automation parameter is created on the first free automation parameter.
- To add a parameter to an existing automation parameter, right-click the control, select **Add to Automation** and select the automation parameter.
- To remove a parameter from the automation, right-click an automated control and select **Forget Automation**.

Automation Page

All assigned automation parameters are shown on the **Automation** page.

To open this page, open the **Options** page and activate the **Automation** tab at the top.



With the tabs at the top of the **Automation** page, you can specify whether you want to show automation parameters for the kit, the global parameters, or all automation parameters.

On the left, the name of the automation parameter is shown, and on the right, the name of the assigned Groove Agent SE parameter. If multiple Groove Agent SE parameters are assigned to one automation parameter, these are listed below each other on the right.

- To remove an automation parameter, click the trash icon to the right of the parameter name.
- To remove all automation parameters, click the trash icon at the top of the page.
- To rename an automation parameter, double-click the parameter name and enter the new name. This name is then used in your host application.
- To replace the names for all automation parameters with the names of the pads, click the **Refresh All Parameter Names** button on the toolbar.

MIDI Controllers

You can assign Groove Agent SE parameters to MIDI controllers. This also includes the parameters for the AUX FX.

Some parameters are assigned to controllers by default, but you can customize this factory controller mapping. This way, you can adapt the mapping to your MIDI keyboard or controller.

To provide more control, you can set the minimum and maximum range for each assignment separately.

NOTE

The controller assignments for the parameters Volume (CC 007) and Pan (CC 010) are fix and cannot be edited or removed.

Assigning MIDI Controllers

To assign a MIDI controller to a parameter, proceed as follows:

PROCEDURE

1. Right-click the control that you want to control remotely.
 2. On the context menu, select **Learn CC**.
 3. On your MIDI keyboard or controller, use the potentiometer, fader, or button.
-

RESULT

The next time you right-click the control, the menu shows the assigned MIDI controller.

NOTE

You can assign the same MIDI controller several times to different parameters. However, you cannot assign different MIDI controllers to the same parameter.

RELATED LINKS

[Options Page on page 91](#)

Unassigning MIDI Controllers

PROCEDURE

- To remove a MIDI controller assignment, right-click the control and select **Forget CC**.
-

Setting the Parameter Range

You can set the minimum and maximum values for the parameter for each assignment separately. This gives you more control over the parameter, for example, when you are performing live on stage.

PROCEDURE

1. Set the parameter to the minimum value.
2. Right-click the control and select **Set Minimum** from the context menu.

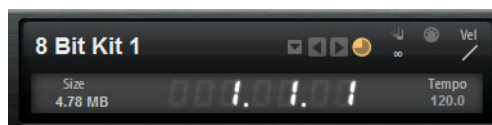
3. Set the parameter to the maximum value.
 4. Right-click the control and select **Set Maximum**.
-

Global Functions and Settings

Plug-in Functions Section

The plug-in functions section contains the kit slot section, the master section, and the performance displays.

Kit Slot Section



This section shows the name of the loaded kit. In addition, the following global controls are available:

Load button



Click this button to show the list of available kits.

You can also click the kit name to open this list. Right-click the kit name to open the kit context menu.

Load Previous/Next Kit



Click these buttons to load the previous/next kit from the list of available kits.

Size



Shows the size of all loaded samples.

Polyphony



Adjusts the polyphony of the kit.

MIDI Input Indicator



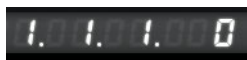
The MIDI symbol starts blinking if incoming MIDI signals are detected.

Velocity Curve



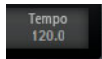
Sets the velocity response curve of the kit. This allows you to adapt the kit to your hardware or playing style.

Song Position Counter



The song position counter shows the current song position in bars, beats, and 16th notes. If you activate the **Play** button in Groove Agent SE, the song position counter always starts at 1.0.0.0 and runs until you click stop.

Tempo Display



The tempo display next to the position counter shows the tempo of the host application.

Master Section

The master section can be used to set volume and tuning of the plug-in.

Master Volume

Adjusts the overall volume of the plug-in.

Master Tune

You can set the **Master Tune** slider from 415.3 Hz to 466.2 Hz, which equals -100 cents to +100 cents.

Performance Displays

The meters and text displays indicate the system load of the plug-in.



CPU

This meter shows the processor load during playback. The more voices you play, the higher the processor load. If the red overload indicator lights up, reduce the **Max Voices** setting on the **Options** page.

Disk

This meter shows the hard disk transfer load during the streaming of samples or when loading presets. If the red overload indicator lights up, the hard disk is not supplying data fast enough. In such a case, adjust the **Disk vs. RAM** slider on the **Options** page towards **RAM** or decrease the **Max Voices** setting on the **Options** page.

Polyphony (Mono Voices)

This display indicates the number of samples that are currently played back, to help you trace performance problems. For example, if you have to reduce the **Max Voices** setting on the **Options** page, you can verify your settings by monitoring the number of voices currently playing.

MEM (Memory)

This display indicates the overall amount of RAM currently used. The number refers to the streaming buffer and the preloaded samples. The **MEM** display helps you trace performance problems. For example, if you need to free up memory for other applications, you can do so by adjusting the **Disk vs. RAM** slider on the **Options** page towards **Disk**. You can verify your settings by monitoring the **MEM** display.

The Plug-in Name and Steinberg Logo

To get information regarding the version and build number of the plug-in, click the plug-in logo. This opens the About box. To close the About box, click it or press [Esc] on your computer keyboard.

If you click the Steinberg logo in the top right corner of the plug-in interface, a pop-up menu opens.

- Select one of the options to navigate to Steinberg web pages containing information on software updates, troubleshooting, etc.

Toolbars

The two toolbars above the edit display contain useful global functions.

MIDI Follow



Activate this button to automatically show the triggered sample in the editor.

Controller Selector



By default, incoming velocity values determine which sample is played. You can use another controller instead. This allows you to select the sample via the modulation wheel, for example.

- To use another controller, activate this button, right-click it and select the controller that you want to use from the list.

NOTE

You cannot change the controller for sample playback if **Fix Velocity** is activated.

Fix Velocity



To trigger all pads with the same velocity, activate this button. Use the button to the right to set the velocity value. This velocity is used for incoming MIDI notes, as well as for notes that are triggered by clicking a pad.

Global insert, AUX, and Pattern Player buttons



Use these buttons to switch off all insert effects, AUX effects, and pattern player for the whole plug-in at once. You can use this to compare sounds with and without effects or to use a preset without the pattern player, for example.

Undo/Redo



You can undo or redo the last 20 operations. To undo or redo a single operation, click the **Undo** or **Redo** buttons. To undo or redo multiple operations, click the arrow next to the button to open the history and select the step to which you want to return.

MIDI Reset



Click this button to stop playback and reset all MIDI controllers to their default values.

RAM Save



The RAM Save function scans the playback of your project and unloads unused samples.

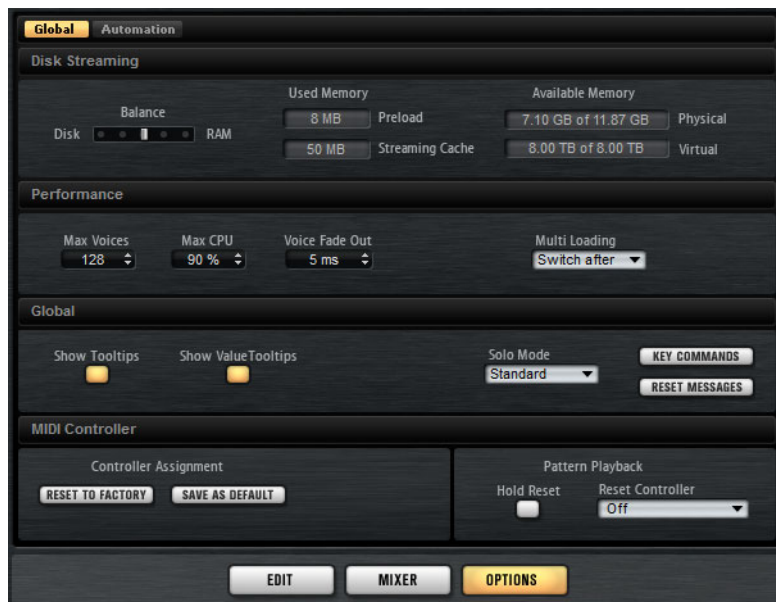
- Click the **RAM Save** button.
In the dialog, click **Yes** to start collecting the necessary samples. The **RAM Save** button starts blinking.
- Play back the project in your host application from the beginning to the end or to the point where no new notes are played.
- Click the **RAM Save** button again. In the dialog, click **Yes** to unload the unused samples.

To deactivate **RAM Save** and reload the unused samples, click the RAM Save button again.

RAM Save mode always keeps samples that are within the range of the highest and lowest note of the played programs.

Options Page

The Options page contains global settings regarding performance issues, global functions, and MIDI controllers.



Disk Streaming

Some of the programs come with a large amount of data. Ideally, the computer would load all the program data into the RAM for fast access. However, this would leave less RAM for other applications. Also, your computer may not be able to handle this kind of load. Therefore, Groove Agent SE loads only the initial milliseconds of each sample into RAM. You can specify how much RAM should be used and how much Groove Agent SE should rely on accessing the hard-disk.

Balancing Disk vs. RAM

Use the **Balance** slider to balance the hard disk versus the RAM usage.

- If you need more RAM for other applications, drag the slider to the left towards the **Disk** setting.
- If your hard disk is not supplying data fast enough, drag the slider to the right towards the **RAM** setting.

NOTE

The Disk vs. RAM setting always applies to all plug-in instances. It is not saved with the project. You set it up only once for your computer system.

Used Memory and Available Memory

These displays provide information of the memory load in MB according to the current balance slider setting.

Performance

The performance section contains settings to optimize the overall CPU performance of the plug-in.

Max Voices

Determines the total number of voices that a plug-in instance can play back. As soon as this limit is reached, Groove Agent SE starts stealing voices.

Max CPU

To avoid clicks from CPU overloads, you can specify a maximum limit for the CPU load of the plug-in instance. Groove Agent SE steals voices automatically when this limit is exceeded. At a setting of 100%, this parameter is deactivated.

NOTE

Because of the reaction time of the plug-in, it is possible that you get CPU peaks that exceed the set limit. This can lead to artifacts, such as audio drop-outs. Therefore, it is good practice to set the **Max CPU** setting at a value a bit lower than actually needed.

Voice Fade Out

Sets the time to fade out voices that need to be stolen because the **Max Voices** setting or the **Max CPU** setting have been reached.

Global

NOTE

The settings in this section are not saved with a project, but affect the plug-in as a whole.

Show Tooltips

If this is activated, a tooltip is shown when you move the mouse over a control.

Show Value Tooltips

If this is activated, parameters without a value field display their value in a tooltip when using the corresponding control.

Solo Mode

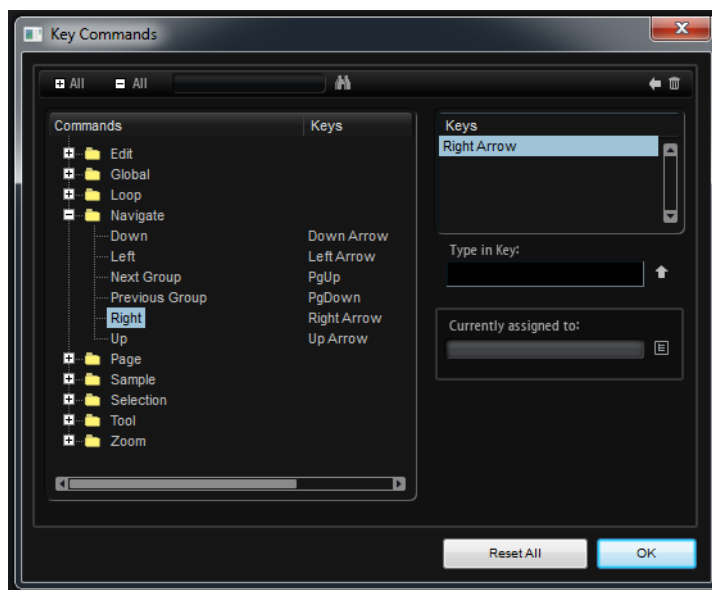
- In **Standard** mode, you can solo multiple instrument pads to hear them combined.
- In **Exclusive** mode, only one instrument pad can be soloed at a time.

Reset Messages

Click this button to see all message dialogs again that have been suppressed with the **Don't Show Again** option.

Key Commands

Click the **Key Commands** button to open the Key Commands dialog.



The commands are arranged in a hierarchical folder structure on the left. When you open a category folder, the items and functions are displayed with any currently assigned key commands.

- To set up a key command, select the function in the list, enter the key command in the **Type in Key** field and click the **Assign** button to the right of the field. If this key command is already used for another function, this is displayed in the field below.
- To delete a key command, select the corresponding command, select the key command in the **Keys** list and click the **Delete** button (the trash icon).

NOTE

You can search for a specific function by entering its name in the search field at the top of the dialog and clicking the search button (the magnifying glass button).

NOTE

You can set up several key commands for the same function.

MIDI Controller

Controller Assignment

With the two buttons in this section, you can save your customized MIDI controller assignments as default or restore the factory MIDI controller assignments.

NOTE

Save as Default does not include any of the MIDI controller assignments of the AUX FX.

The current MIDI controller mapping is also saved with each project. This way, you can transfer your settings to other systems. The project includes the MIDI controller assignments of the AUX FX as well.

Pattern Playback

The **Hold Reset** button sends a global Hold Reset message to all patterns that are used.

The **Reset Controller** pop-up menu allows you to assign a dedicated MIDI controller to the Hold Reset button for remote-controlling it.

Index

A

ABS button [21](#)
Absolute Editing [21](#)
Automation
 About [83](#)
AUX Mixer [47](#)

C

Compressor [74](#)

D

Delay Effects [51](#)
Distortion Effects [62](#)
Dynamics Effects [72](#)

E

Edit Page [22](#)
 Amp Tab [32](#)
 Filter Tab [31](#)
 Main Tab [24](#)
 Mapping View [22](#)
 Pitch Tab [30](#)
 Sample Tab [33](#)
 Slice Tab [41](#)
Effect Slots [49](#)
Effects
 About [49](#)
 Auto Filter [57](#)
 Chorus [64](#)
 Compressor [72](#)
 Distortion [62](#)
 Envelope Shaper [81](#)
 Envelope Stereo Pan [82](#)
 Expander [78](#)
 Flanger [64](#)
 Gate [80](#)
 Graphic EQ [56](#)
 Limiter [76](#)
 MorphFilter [61](#)
 Multi Delay [53](#)
 Phaser [67](#)
 Ring Modulator [67](#)
 Step Flanger [65](#)
 Studio EQ [55](#)
 Tape Saturator [63](#)
 Using [49](#)
 Vintage Ensemble [71](#)
Effects Page [49](#)

Envelopes

 Editing [26](#)
EQ Effects [55](#)
Exporting
 Kit with Samples [45](#)

F

Filter Effects [57](#)
Finding Missing Samples [45](#)

G

GAK Files
 Importing [44](#)
Groove Agent ONE Content [5](#)

K

Kit Context Menu [8](#)
Kit Mixer [47](#)
Kit Slot [87](#)
Kits
 About [5](#)
 Loading [8](#)

M

Macro Pages
 About [5](#)
Master Section [88](#)
MIDI Controllers
 About [84](#)
 Assigning [85](#)
 Parameter Range [85](#)
Missing Samples
 Finding [45](#)
Mixer Page [47](#)
Modulation Effects [64](#)
MPC Files
 Importing [44](#)
Multi Selection [6](#)
Multis
 About [5](#)
O
Options Page [91](#)
P
Pad Section [10](#)
 Instrument Pads [10](#)
 Pattern Pads [14](#)
Panner Effects [82](#)

Presets

 About [5](#)
 Module Presets [7](#)
 VST Presets [7](#)
Programs
 About [5](#)

R

REL button [21](#)
RelativeEditing [21](#)
Reverb Effects [51](#)
REX Files
 Importing [44](#)
Routing Effects [82](#)

S

Sliced Loops
 Importing [44](#)

V

Value Ranges
 Adjusting [6](#)