



GROOVE AGENT SE4

Matthias Klag, Michael Ruf

Cristina Bachmann, Heiko Bischoff, Christina Kaboth, Insa Mingers, Sabine Pfeifer,
Kevin Quarshie, Benjamin Schütte

This PDF provides improved access for vision-impaired users. Please note that due to the complexity and number of images in this document, it is not possible to include text descriptions of images.

The information in this document is subject to change without notice and does not represent a commitment on the part of Steinberg Media Technologies GmbH. The software described by this document is subject to a License Agreement and may not be copied to other media except as specifically allowed in the License Agreement. No part of this publication may be copied, reproduced, or otherwise transmitted or recorded, for any purpose, without prior written permission by Steinberg Media Technologies GmbH. Registered licensees of the product described herein may print one copy of this document for their personal use.

All product and company names are [™] or [®] trademarks of their respective holders. For more information, please visit www.steinberg.net/trademarks.

© Steinberg Media Technologies GmbH, 2014.

All rights reserved.

Table of Contents

4	Introduction	75	Acoustic Agent SE
4	Window Overview	75	Sound Editing
4	About Agents, Kits, Presets, and Groove Agent ONE Content	81	Pattern Editing
		87	Mixing
7	Getting Started	90	Mixing and Effect Handling
7	Presets	90	AUX Mixer
7	Loading a Kit Preset	91	Kit Mixer
8	Pattern and Instrument Pads, MIDI Patterns, and Styles	92	Master Mixer
9	Playing back Pattern Pads with the Style Player	92	Effect Handling
10	Creating the Different Parts of a Drum Track	94	Effects Reference
11	Recording Trigger Notes for Your Patterns	94	Reverb and Delay Effects
11	Dragging Patterns into a Project	98	EQ Effects
12	Modifying Patterns in the DAW	101	Filter Effects
13	Managing Your Sounds	105	Distortion Effects
13	Loading Kits	107	Modulation Effects
13	Kit Slot	116	Dynamics Effects
14	Kit Rack	126	Panner Effects
14	Kit Context Menu	127	Automation and MIDI Controllers
17	Common Editing Methods	127	Automation
17	Encoders and Sliders	128	MIDI Controllers
17	Multi Selection and Parameter Controls	131	Global Functions and Settings
18	Buttons	131	Plug-in Functions Section
18	Value Fields	132	The Plug-in Name and Steinberg Logo
19	Using Key Commands	132	Toolbar
20	Presets	134	Options Page
22	Working With Pads	138	Mixer Routing Diagrams
22	Common Pad Settings	140	Index
23	Pad Functions		
24	Instrument Pads		
31	Pattern Pads		
39	Beat Agent SE		
39	Sound Editing		
70	Pattern Editing		
70	Mixing		
72	Importing and Exporting Files		

Introduction

Window Overview

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



The window is subdivided into several sections:

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

About Agents, Kits, Presets, and Groove Agent ONE Content

Agents

Groove Agent SE combines the creative power of different rhythm modules: Acoustic Agent SE and Beat Agent SE.

Each of these tools offers its own approach to drums and rhythms, with special ways of creating your own inspiring beats in a huge range of styles.

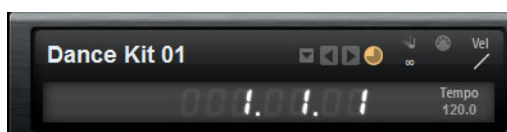
Kits

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.

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



Kit Rack



Kit Slot Section

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, the global plug-in parameters are 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.

Content Files and Folder Structure

Groove Agent SE comes with a large amount of ready-to-use sound content. This content is write-protected. You can edit files while they are loaded, but you cannot overwrite the factory content files.

To save edits to the factory content, save the files under a new name. These files get the file name extension `.vstpreset` and are referred to as user content. They can be searched and categorized in the same way as factory content.


User content is saved in a predefined folder structure on your hard disk. You can create subfolders within this structure to facilitate moving or exchanging content.

Getting Started

Presets

To be able to play a sound in Groove Agent SE, you must load a preset. This can either be a VST preset or a kit preset.


VST Presets

VST presets contain all Groove Agent SE settings, that is, all loaded kits and their settings and all settings that are made for the plug-in instance. You can load VST presets via the pop-up menus in the plug-in header and in the plug-in functions section. In the **Load** dialog and in the **MediaBay**, these presets are identified by the VST preset icon .

Kit Presets

Kit presets contain the following:

- The kit and its samples. These are used on the **Instrument** page.
- The MIDI pattern or style with the corresponding MIDI files. These are used on the **Pattern** page.
- The mixer presets. These are used in the **Mixer**.

Furthermore, kit presets contain information on the agent that the kit uses. In the **Load** dialog and in the **MediaBay**, kit presets are identified by the kit preset icon .

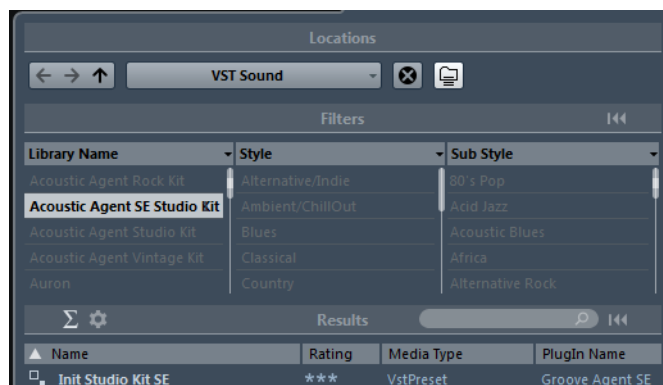
Loading a Kit Preset

PREREQUISITE

Groove Agent SE is assigned to a MIDI track in your DAW.

PROCEDURE

1. Select the kit slot in the kit rack.
2. In the DAW, open the **MediaBay**.
3. Set up the **MediaBay** to show the Attributes **Library Name**, **Style**, and **Substyle**.



4. In the **Library Name** column, select a content set for an agent, for example, **Acoustic Agent SE Studio Kit**.
 5. In the **Style** and **Substyle** columns, specify the musical style that you want to use.
 6. In the results list, locate a preset for Acoustic Agent SE and double-click it.
-

Pattern and Instrument Pads, MIDI Patterns, and Styles

In Groove Agent SE, you can edit both the sounds and the patterns relayed by your drum tracks.

Instrument sounds can be accessed through the instrument pads. The pattern that is played can be edited via the pattern pads.

- To switch between the instrument pads and the pattern pads, click the corresponding button above the pads.



Instrument Pads

If the instrument pads are shown, the pads trigger the instrument samples and you can edit the sound of the instruments. These instruments are then used by the pattern pads to play the selected MIDI pattern or style.

Pattern Pads

If the pattern pads are shown, the pads trigger the selected MIDI pattern or style.

- **MIDI patterns** contain information on notes and drum sounds and the rhythm in which they are played.
- **Styles** are complex structures of multiple patterns suited to create different parts of the drum tracks, for example, main pattern, fill, ending, and intro.


Playing back Pattern Pads with the Style Player

You can play back pattern pads using the MIDI pattern player or the style player. The MIDI pattern player allows you to play and modify one pattern. The style player offers a variety of patterns, suited to create the different parts of your drum tracks.

PREREQUISITE

You have loaded an Acoustic Agent SE preset.

PROCEDURE

1. In Groove Agent SE, open the **Pattern** page and click on an empty pattern pad.
If a pattern pad is empty, it also plays the instrument sound, that is, if you click on the empty pattern pad for C3, you will hear the same sound as if you clicked on the instrument pad for C3.
 2. To activate the pattern pad and make it play the pattern, open the **Edit** page in the right section of the plug-in panel and click the **Active** button in the **Pad** section so that it lights up.
 3. In the **Pattern** section, click the **Active** button to activate the player, activate the **Use Style** button to use the style player, and select a style from the **Style Library** pop-up menu.
 4. Adjust the tempo in the DAW to match the tempo of the style.
The original tempo of the style is indicated by the second number in the file name of the style and in the **Original Tempo** value field in the **Pattern** section next to the **Style Library** pop-up menu.
- 
- The screenshot shows a control panel with two tabs: 'STYLE' (selected) and 'MIDI'. Below the tabs, there is a 'Style Library' dropdown menu showing 'Britpop 02 - 131'. To the right of the dropdown is a field labeled 'Original Tempo' with the value '131.0'.
5. Click the **Play** button in the transport section to play back the style.
 6. In the **Performance** section, try out different settings. Move the **Complexity** slider, select a main pattern, a fill, an ending, etc., and listen to the results.
 7. Keep the settings as they are and select different styles on the **Pattern Library** pop-up menu in the **Pattern** section to compare the sound and to find the style that you want to use.
-

Creating the Different Parts of a Drum Track

To create different parts for your drum track, for example, an intro, a fill, a main part, and an ending, it is useful to start by copying the current style to other pads. Then modify the style for those pads.

PREREQUISITE

You have set up a pattern pad to play back a style.

PROCEDURE

1. To copy the settings of the current pad to another pad, hold down [Alt]/[Option] and drag the pad onto another pad.
2. Repeat this until you have 4 pads with the same settings.
3. Select the second pad. In the **Performance** section, set the dial on the left to a fill.
You can choose between 8 fills.
4. Set up the fill by using the controls in the **Performance** section. For example, change the complexity, activate half-time, try out different intensity settings, etc.
5. When the fill sounds the way you want it, right-click the pattern pad, select **Rename Pad** from the context menu, and enter a name for the pad, for example **Fill**.
6. Set up the pads for intro and ending in the same way.



AFTER COMPLETING THIS TASK

You can now record trigger notes for the pads in the DAW or transfer the patterns to the DAW by dragging them into a project.

RELATED LINKS

[Converting Intros, Main Patterns, Fills, or Endings into MIDI Patterns on page 82](#)
[Dragging Patterns into a Project on page 11](#)
[Recording Trigger Notes for Your Patterns on page 11](#)

Recording Trigger Notes for Your Patterns

When you use Groove Agent SE in a DAW project, you can record trigger notes at the positions where you want to trigger the pattern. This allows you to create the drums for your project on the fly, in the project context.

PREREQUISITE

You have created a project in your DAW to which you want to add a drum track.

You have added a MIDI track that is assigned to Groove Agent SE.

PROCEDURE

1. In Groove Agent SE, set up the MIDI patterns or styles for your drum track.
 2. In the DAW, record-enable the MIDI track and start playback of your project.
 3. Record the trigger notes at the positions in the project where you want to hear the drums.
-

RESULT

When you now play back the project, the trigger notes trigger the pattern playback. You can automate parameters like complexity and intensity from within the DAW. Any changes that you make to a pattern in Groove Agent SE are automatically reflected in all occurrences of this pattern in the project.

Dragging Patterns into a Project

You can drag patterns from Groove Agent SE into your DAW project and edit them there.

PREREQUISITE

You have created a project in your DAW to which you want to add a drum track.

You have added a MIDI track that is assigned to Groove Agent SE.

Before you drag your patterns into a project, make sure that the pattern pads are not mapped to the same keys as the instrument pads.

If pattern and instrument pads share keys, activate the **Use MIDI Port B for Pattern Pads** button in the lower left corner of the pattern pad section.

If you use separate MIDI ports for pattern and instrument pads, the trigger notes of the pattern pads do not interfere with the notes that are part of your patterns, even if pattern pads and instrument pads are mapped to the same keys.

PROCEDURE

1. In Groove Agent SE, set up the MIDI patterns or styles for your drum track.
 2. Select the pad that plays the pattern that you want to use and drag it onto the MIDI track at the position where you want to insert it.
 3. In the same way, drag the other pads into the project until you have assembled your drum track.
-

RESULT

The patterns are inserted as MIDI parts on the track. When you play back the project, the drum parts are played back as well.

RELATED LINKS

[Modifying Patterns in the DAW on page 12](#)

Modifying Patterns in the DAW

When you have created MIDI parts for your Groove Agent SE patterns in your project, you can further edit the parts in the DAW.

PREREQUISITE

You have assigned a MIDI track in your DAW to Groove Agent SE.

You have dragged your patterns to this track.

PROCEDURE

1. In the **Inspector** of your Steinberg DAW, open the **Drum Map** pop-up menu for the track and select **Create Drum Map from Instrument**.
This creates a drum map based on the information about the used drum sounds in Groove Agent SE.
 2. Open the part in the **Drum Editor**.
The editor displays the correct drum names in the drum names list on the left. In the event display on the right, the MIDI notes are shown.
 3. Set up the pattern by deleting or entering notes, by copying or moving notes, etc.
For information about how to edit notes and controllers in the **Drum Editor**, refer to the "Operation Manual" for your Steinberg DAW.
-

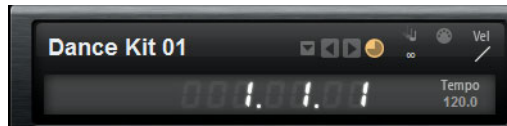
Managing Your Sounds

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 Slot



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.

Load Kit with Patterns

Activate this button to make sure that kits are always loaded together with their patterns.

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 MIDI controller 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.

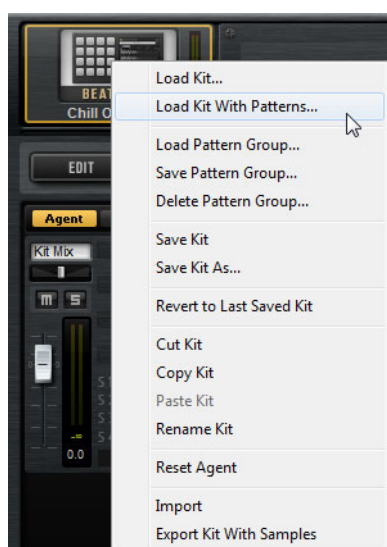
Kit Rack

The kit rack can be found to the right of the kit slot section.



It gives you an overview over the loaded kit and its agent, and allows you to perform some kit editing via the context menu.

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.

Load Pattern Group

Allows you to load a predefined set of MIDI file assignments and play parameter settings for the 16 pads of the group.

Save Pattern Group

Allows you to save the 16 pads of the group and their settings as a pattern group.

Delete Pattern Group

Allows you to delete a pattern group.

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

Reverts to the kit that was originally loaded on the slot. If the kit was loaded without patterns, only the kit and no patterns are loaded.

Cut Kit

Copies the kit and its patterns and removes it from the slot.

Copy Kit

Copies the kit and its patterns.

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

Loads the `Init` preset of the agent.

Import

Allows you to import MPC and GAK files into Beat Agent SE kits.

Export Kit With Samples

Exports the Beat Agent SE kit together with its associated samples.

NOTE

Samples that are part of protected content, such as the VST Sound content, cannot be exported.

Common Editing Methods

Encoders and Sliders

Encoders and sliders can be unidirectional or bidirectional. Unidirectional values, for example level values, start at a minimum value and go up to the maximum. Bidirectional controls start from the middle position and go to the left for negative and to the right for positive values.

Most of the editing methods are the same for encoders and sliders.

- To adjust a value, click an encoder or a fader and drag up and down, or use the mouse wheel.

If you press [Alt]/[Option] when clicking an encoder, a small fader appears, allowing you to set the parameter.
- To make fine adjustments, press [Shift] and move the encoder or use the mouse wheel.
- To restore the default value for a parameter, press [Ctrl]/[Command] and click on the control.

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 encoders, 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 encoders 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 encoder. The values for the pads are distributed within the new range, keeping their relative distances.

- To compress or expand the value range, drag the corona.
- To adjust the upper limit of the range, hold down [Ctrl]/[Command] and drag the corona.
- To adjust the lower limit of the range, hold down [Alt]/[Option] and drag the corona.

Buttons

On/Off Buttons

These controls normally have two states, off and on. If you move the mouse over an **On/Off** button, it changes its appearance to show that you can click it.

Push Buttons

Push buttons only trigger an action and then go back to their inactive state. These buttons can be found for opening menus or file dialogs.

Value Fields

To set a value, you have the following possibilities:

- Double-click in a value field, enter a new value, and press [Enter].
If the entered value exceeds the parameter range, it is automatically set to the maximum or the minimum value, respectively.
- Click in the value field and drag up or down to change the value.
- Position the mouse over a value field and use the mouse wheel to adjust the value.
- To set the parameter to its default value, [Ctrl]/[Command]-click the value field.
- To use a fader to adjust the value, [Alt]/[Option]-click a value field.
- Click the up/down triangles next to the field.

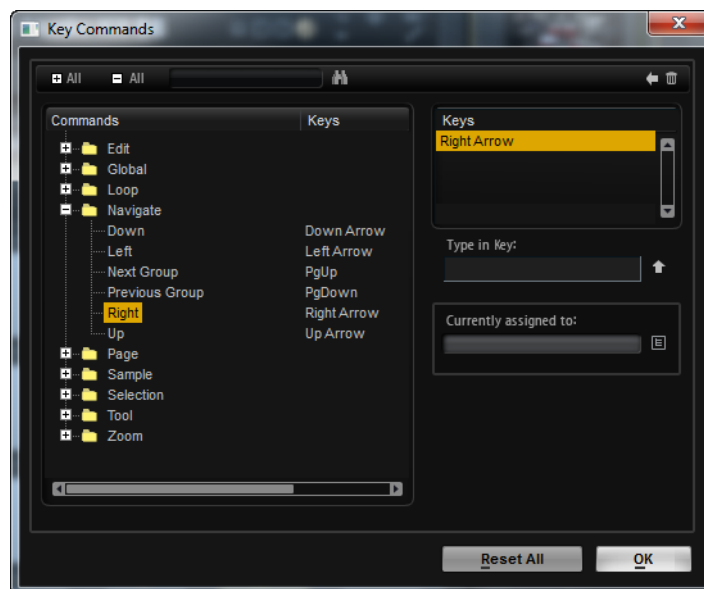
- You can adjust musical values, such as key ranges or the root key, using your MIDI keyboard.

To enter a value with your MIDI keyboard, double-click the value field, press a key on your MIDI keyboard, and press [Return].

- To navigate to the next parameter, press [Tab]. To jump backwards to the previous parameter, press [Shift]-[Tab].

If no parameter is selected inside the focused view, pressing [Tab] always jumps to the first parameter.

Using Key Commands



- To open the **Key Commands** dialog, click the **Key Commands** button.

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).
- To search for a specific function, enter its name in the search field at the top of the dialog and click the search button (the magnifying glass).

NOTE

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

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 update.

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

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

PROCEDURE

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

PROCEDURE

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

Working With Pads

Instrument and pattern pads have multiple functions and can show various information about the pads. Some pad functions are only available for specific agents. If this is the case, this is clearly stated.

The **Pad** section on the left can show the instrument pads or the pattern pads.

Instrument pads can be used to trigger samples. Pattern pads can trigger MIDI drum patterns or styles.



- To switch between the instrument pads and the pattern pads, click the corresponding button above the pads.

Transport Controls



- To start or stop playback of the selected pad, use the corresponding controls.

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 the instrument pads and the pattern 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.

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.

Below the pad section, you find several buttons. These are different for the different agents.

Showing Information about the Instrument Pads (Beat Agent SE Only)

- 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.

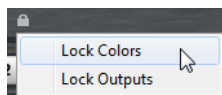
Setting the Output for the Pads (Beat Agent SE Only)

You can set the output of the samples via the pad context menu.

- Right-click the pad, open the **Assign Output** submenu, and select the output that you want to use.

This sets all samples of the pad to this output.

Locking Color and Output Settings (Beat Agent SE Only)



- 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.

Locking Pad Settings (Acoustic Agent SE Only)

You can lock the color settings for the pads by activating the **Lock Pad Colors** button. The button lights up when it is active.

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.
 - Right-click a pad, select **Trigger Notes > Assign Trigger Note** 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.
Assigned trigger notes are shown on the **Trigger Notes** submenu of the context menu.
-

Assigning Multiple Trigger Notes to an Instrument Pad

Some hardware drum controller instruments, like crash cymbals, provide several zones. These zones are sending different MIDI notes, in order to play different articulations.

If a drum kit comes with a sample mapping that contains all articulations on dedicated instrument pads, each instrument pad only requires one specific trigger note.

However, if the kit does not provide a pad for each articulation, you might need to assign multiple trigger notes to one instrument pad, so that each zone on the hardware controller triggers the same sample.

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 an additional trigger note for the pad.
 - Right-click the instrument pad, select **Trigger Notes > Add/remove Trigger Note** and select the note that you want to add from the submenus.
 - Right-click the instrument pad, select **Trigger Notes > Learn Additional Trigger Notes** and play the additional note on your keyboard.

You can specify up to 3 additional notes for each pad.

Assigned trigger notes are shown on the **Trigger Notes** submenu of the context menu.

Removing Additional Trigger Notes

You can remove additional trigger notes in the following ways:

- On the context menu for an instrument pad, select **Trigger Notes > Add/Remove Trigger Note** and deselect the note that you want to remove.
- On the context menu for an instrument pad, select **Trigger Notes > Remove Trigger Notes** and select the note that you want to remove.
- To remove all additional trigger notes and replace them with a new single trigger note, use the **Edit/Learn** option on the context menu.

Using MIDI Effects

For each instrument pad, you can set up MIDI effects.

To open the MIDI effects page, activate the **Instrument** button in the pad section, open the **Edit** page on the right side of the panel, and click the **MIDI Fx** tab.



Pad Mode

Pad mode determines to which pad the settings on the **MIDI FX** page are applied.

Internal

In **Internal** mode, the MIDI effects are applied to the samples on the selected pad.

Remote

In **Remote** mode, you can select to which destination pad you want to apply the MIDI effects.

This allows you to trigger an instrument with and without MIDI effects. Also, any sound editing can be performed on one pad.

NOTE

- If the destination pad also contains MIDI effects, these are not taken into account.
 - If you set up remote MIDI effects on a pad for which samples are assigned, the remote MIDI effects are applied only to the samples on the destination pad.
-

If you activate **Remote** mode for a pad, a remote icon is displayed on the pad in the pad section.



- To bypass the remote effects, click the **Disable MIDI to Remote Pad** button to the left of the remote icon.

Rudiments Section

Active

Click this to activate the articulation.

Type

Determines the rudiment type.

- **Flam** plays 2 hits very close together.
- **Drag** plays 3 hits very close together.
- **Ruff** plays 4 hits very close together.
- **Roll** continually plays drum hits to produce a sustaining drum sound.
- **Buzz** emulates the effect of a drummer pressing the stick into the drum while hitting it. The stick bounces on the drum, producing multiple hits that sound like a decaying drum roll.

Flam, Drag, and Ruff

For **Flam**, **Drag**, and **Ruff**, the following parameters are available:

Sync

Synchronizes the hits to the project tempo. The time span between the hits is set in fractions of beats.

Time

Adjusts the time span between the hits.

Note Value

If **Sync** is activated, this parameter adjusts the time span in fractions of beats.

Dynamics

Adjusts the dynamics of the hits.

- With negative values, the first hit is softer than the following hit or hits.
- With positive values, the first hit is louder than the following hit or hits.

Humanize

Use this parameter to randomize the timing, the dynamics, and the pitch of the hits.

Roll

For **Roll**, the following parameters are available:

Sync

Activate this button to synchronize the hits to the project tempo. The time span between the hits is set in fractions of beats.

Time

Adjusts the time span between the hits.

Note Value

If **Sync** is activated, this parameter adjusts the time span in fractions of beats.

Dynamics

Adjusts the dynamics of the hits. Higher values attenuate the even-numbered hits of the roll.

Humanize

Use this parameter to randomize the timing, the dynamics, and the pitch of the hits.

Buzz

For **Buzz**, the following parameters are available:

Grip

Determines how the drumstick is held. Higher settings produce less buzz.

Pressure

Adjusts the pressure on the stick. Higher settings produce a longer decay of the buzz.

Humanize

Use this parameter to randomize the timing, the dynamics, and the pitch of the hits.

MIDI Delay

MIDI Delay produces echo effects by repeating the notes that you play.

The subsequent note events can be modified, for example, you can vary the time span between the echoes with the **Distribution** parameter.

Active

Activates/Deactivates the MIDI Delay effect.

Sync

Synchronizes the echoes to the project tempo. The time span between the echoes is set in fractions of beats.

Time

Adjusts the time span between the echoes.

Note Value

If **Sync** is activated, this parameter adjusts the time span in fractions of beats.

Repeats

Determines the maximum number of the echoes.

Damping

Determines whether the echoes fade-in or fade-out with the MIDI velocity. If you set this parameter to negative values, the MIDI velocity gradually increases. If you set this parameter to positive values, the MIDI velocity gradually decreases.

NOTE

Damping shows only an effect if the sound settings of the samples use velocity.

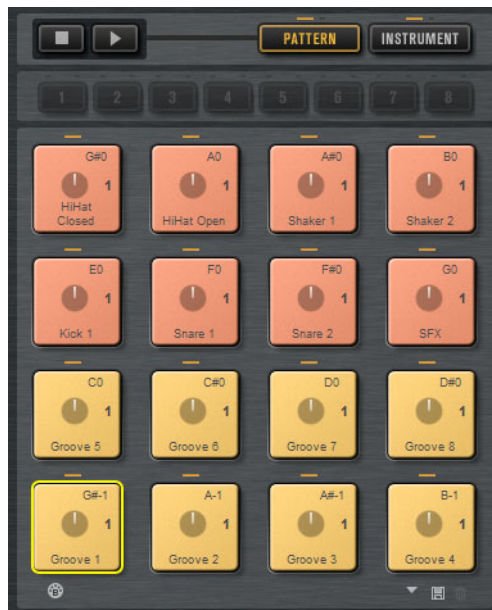
Pitch

Determines how much the pitch changes from echo to echo.

Distribution

Determines the time distribution of the echoes. If you set this parameter to negative values, the time span between echoes gets shorter, that is, the echoes speed up. With positive values, the echoes slow down.

Pattern Pads



The pad section provides 16 pattern pads. Each pad is mapped to a MIDI note. You can assign MIDI patterns to each pattern pad, to trigger complete drum patterns or single instrument patterns, 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 above 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.
- Drag a file from the Explorer/Finder onto the import field. The file is imported to your user pattern library and assigned to the selected pad.
- Select a pad and click the **Agent** tab on the **Edit** page. This opens the **Agent** page. In the **Pattern** section, open the **Pattern Library** or the **Style Library** pop-up menu and select one of the factory or user MIDI patterns or one of the available styles.

Assigning Multiple MIDI Files to Pads

You can drag and drop several MIDI files to pads at the same time.

PROCEDURE

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

A yellow frame indicates which pads receive a MIDI file.



2. Drop the files.
-

RESULT

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

Removing MIDI Files from Pads

- To remove a MIDI pattern, right-click a pad and select **Remove Pattern** from the context menu.
- To remove the MIDI patterns from all selected pads right-click one of the pads and select **Remove Pattern** from the context menu.

Using MIDI Port B for Pattern Pads

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

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.

PROCEDURE

1. To use Port B, activate the **Use MIDI Port B for Pattern Pads** button in the lower left corner of the pattern pad section.
If port B is used, MIDI data is received on all MIDI channels.
 2. In your DAW, set up two MIDI tracks and set the MIDI output of the first track to **Groove Agent SE Main** and the MIDI output of the second track to **Groove Agent SE Pattern**.
-

RESULT

You can use one MIDI track to play the instrument pads and another MIDI track to play the pattern pads.

Locking Pad Settings

The settings in the **Pad** section (**Exclusive**, **Play Mode**, etc.) are common to all slots, that is, you set them up only once. However, these settings are part of kit presets, and are replaced when you load a preset to a kit slot.

- To avoid overwriting your existing pad settings with the preset settings when loading a preset to a kit slot, activate the **Lock Pad Settings** button below the pad section.

If this button is activated, the pad settings from the preset are not applied and the existing settings remain active.
- If the **Lock Pad Settings** button is deactivated and you load kit presets to different slots, the pad settings saved in the presets overwrite the existing pad settings.

Any active pattern pads from the new preset overwrite the current pad settings on the associated pads. Inactive pads are not restored from the preset, that is, existing settings for these pads remain active.

Moving and Copying Pattern Pads

You can copy or move pattern pads with all their settings to other pattern pads of the same or a different pattern group.

- To move the active pattern pad with all its settings to another pad, drag the pad and drop it on the destination pad.
- To copy a pattern pad to another pad, hold down [Alt]/[Option] and drag the pad on the destination pad.

- To move or copy one or more pads onto other pads, use the context menu commands **Cut Pad**, **Copy Pad**, and **Paste Pad**.

This way, you can move or copy multiple pads at the same time.

NOTE

You can also move or copy pads between pad groups. To do so, first drag the pad onto the group button for the group to which you want to move or copy the pad, then drop it onto the destination pad.

Managing Pattern Groups

You can save the 16 pads with their patterns and settings as a pattern group. This allows you to quickly restore and reuse particular patterns and settings. Pattern groups include all pad settings, that is, the settings for **Exclusive Mode**, **Play Mode**, etc.

- To save the current pattern group for a kit, right-click the kit in the kit rack and select **Save Pattern Group....**
- To load a pattern group, right-click the kit in the kit rack and select **Load Pattern Group....**

NOTE

If you load a pattern group, the pad settings are only restored on empty pads. If you have assigned a pattern to a pad, your pad settings are not overwritten by the pattern group.

Agent Page

For pattern pads, the **Agent** page is available on the **Edit** page.

The **Agent** page contains the **Pad**, **Pattern**, and **Performance** sections. Depending on which agent you use, different functions and settings are available.

Pad Section

The **Pad** section on the **Agent** page contains several playback functions and settings.



Active

Activates/Deactivates playback for the pad.

Exclusive

Activates/Deactivates exclusive playback for a pad. 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.

If **Exclusive** mode is activated for a pad, this is indicated by an icon in the upper left corner of a pad.



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.
- To play a pattern completely to its end, select **One Shot**. In this mode, note-off events are ignored. Playback stops automatically at the end of the pattern. To make sure that the pattern plays from start to end, deactivate **Sync to Beat**.

Restart Mode

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

Velocity Mode

Specifies how the velocity of the notes that you play affects the notes of the pattern.

- If **Original** is selected, the notes of the pattern are played with the velocity that is saved with the pattern.
- If **As Played** is selected, the notes of the pattern are played with the velocity that you are playing on the keyboard.
- If **Original + As Played** is selected, the pattern velocity is determined by the combination of the velocity saved with the pattern and the velocity of your playing.

Pattern Section

For Beat Agent SE pattern pads, the **Pattern** section on the **Agent** page contains MIDI pattern and pattern player functions. For Acoustic Agent SE instrument pads, you can choose between MIDI pattern player and style player.

The MIDI pattern player offers the following functions and settings:



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 pattern starts to play.

End

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

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.

MIDI 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 SE 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.

RELATED LINKS

[Using the Style Player on page 82](#)

Performance Section

If the MIDI pattern player is active for a pattern pad, the **Performance** section on the **Agent** page contains MIDI pattern player settings.



Swing Grid

Determines the grid for applying **Swing**. For example, to shift the timing of every 16th note in a pattern, set this to **1/16**.

Swing

Allows you to shift the timing of notes on even numbered beats to give the pattern 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 pattern. 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 pattern. 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 pattern is running. You can choose between half, normal, and double speed.

Beat Agent SE

Beat Agent SE is a full beat production instrument with all the tools and sounds to create amazing beats for any electronic or urban music genre.

Many amazing sounding drum kits are included, alongside all the advanced features that you need to edit existing kits and create your own ones.

Beat Agent SE also excels in manipulating samples and loops, with features like automatic loop slicing, an onboard FX rack, and much more.

Sound Editing

On the **Edit** page for instrument pads, you set up the sound of the kits.

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



The **Edit** page contains the **Main**, **Pitch**, **Filter**, **Amp**, **Sample**, **Slice**, and **MIDI FX** tabs.

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.

- If you use absolute editing and you change a parameter from 50% to 60% for one sample, all other samples are also set to 60%.
- If you use relative editing and you change a parameter from 50% to 60% in one zone, another selected zone 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.

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.

Assigning Samples to Pads

You can assign samples to pads by using drag and drop, or replace existing samples using the Mapping View context menu.

Assigning Samples to Pads using Drag and Drop

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.

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

You can drag files from the following locations:

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

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.

You can assign up to 8 samples to a 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 in one or in several groups.



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

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.

RELATED LINKS

[Mapping View on page 43](#)

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.

Changing the Order of Pads

By default, instrument pads are sorted chromatically, based on the standard mapping. However, in some cases, you may want to display pads from other groups within a particular group. Therefore, you can exchange the position of pads.

For example, often a second bass drum is mapped to B0, which can be found in pad group 2. Most of the other common drum kit instruments are, however, located in group 3. If you want to see the second bass drum together with the other instruments of group 3, exchange the B0 pad with an unused pad in group 3.

- To exchange 2 pads, hold down [Shift] and drag one pad onto another pad.
This exchanges the entire contents of the pads with all their settings.

- To see whether the order of the pads differs from the standard sorting, you can either check the trigger notes of the pads to see whether they are mapped chromatically or not, or you can click the **Info** button to see the pad index of all pads.
- To reset the order of all pads to a chromatic order, open the context menu for a pad and select **Reset Pad Order**.

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.

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.

Replacing Samples

You can replace individual samples in the Mapping View with other samples on your hard disk.

PROCEDURE

1. Right-click the sample and select **Replace Sample** from the context menu.
 2. In the file dialog, navigate to the file that you want to use instead, select it, and click **Open**.
-

RESULT

The sample is replaced.

Removing Samples From Pads

- To remove a sample from a pad, right-click it and select **Remove Sample** from the context menu.
- To remove all samples of a pad, right-click one of the samples and select **Remove Selected Samples**.

NOTE

If the **PAD/SEL** button is set to **PAD**, you cannot select individual samples and **Remove Selected Samples** removes all samples of the pad.

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.

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.

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. You can select the following outputs from the pop-up menu:

- The **Kit** mix.
- One of the 16 **Agent** mixer channels.
- One of the 16 stereo output busses of the plug-in. The first stereo out is always the Master output. This output is always active.

NOTE

These outputs can all contain insert effects.

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.

- You can also route a pad directly to one of the 4 AUX channels, to create sub groups, for example.

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 and below 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.

Fixed

- If **Fixed** is activated and you move selected nodes on the time axis, only the selected nodes are moved.
- 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.

Selecting Nodes

- To select a node, click 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.
- To add a node to a selection, [Shift]-click the node. 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.

PROCEDURE

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.
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.
If the **Fixed** function is activated, the added nodes fill the space between the last selected node and the following one.
 3. Click the **Fill** button.
-

RESULT

The nodes are added.

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.

PROCEDURE

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

Sync mode is active if 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.

NOTE

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.

3. To use triplet note values, activate the **T** button.

NOTE

- Envelope nodes that do not exactly match a note value display the closest note value.
- Nodes that exactly match a note value are indicated by a red dot inside the handle of the node. This is 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.

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

Envelope Modes

On the **Mode** pop-up menu, you can select one of 4 envelope modes, to specify how the envelope is played back each time you hit a key.

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.

Setting Up the Loop

You can set up the envelope to repeat its playback between the selected nodes.

PROCEDURE

1. Set the envelope mode to **Loop**.
 2. Adjust the loop with the graphical envelope editor.
 3. The loop is indicated by the green region in the graphical envelope editor. Specify the loop start and end by dragging the borders of the region.
The loop region can only be set up in the decay phase of the envelope.
-

Pitch Tab

Key Range

Activate this button to specify the key range of the sample, that is, the range over which it is mapped chromatically to pads.

- **Low Key** specifies the first key for the mapping.
- **High Key** specifies the last key for the mapping.

If you deactivate the **Key Range** button, the **Low Key** and **High Key** fields are reset.

Fixed Pitch

- If **Fixed Pitch** is deactivated, the sample plays chromatically within the key range.
- If **Fixed Pitch** is activated, the sample plays with its original pitch on all of the keys within the key range. This is useful if you want to layer a pad with the neighboring pads, for example.

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.

Mapping Samples Chromatically over Multiple Pads

The **Key Range** settings on the **Pitch** tab allow you to map samples chromatically over multiple pads.

NOTE

If **Edit Selected Sample or Pad (SEL)** is activated, you adjust the key range for each sample individually.

PROCEDURE

1. Set up the range with the **Low Key** and **High Key** value fields.
When you adjust the key range for chromatically mapped samples, the pads within the key range inherit the name of the pad to which the original sample is assigned. The name is only set if the corresponding pad does not have a name. The offset in semitones from the original pad is added as suffix to the name. This helps you to find the original pad more easily.

2. Optional: Set up the **Fixed Pitch** parameter.
 - If **Fixed Pitch** is activated, the sample is played with its original pitch on all the pads in the key range.
 - If **Fixed Pitch** is deactivated, the sample is played chromatically within the key range.
-

RESULT

The samples are mapped to the pads. An icon with two notes indicates which pads play a chromatically mapped sample.

AFTER COMPLETING THIS TASK

The context menu of pads that contain chromatically mapped samples offers the **Chromatically Mapped from** function, allowing you to locate the original pad for the mapped samples. The original pad itself does not contain this function.

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 24dB/oct. Frequencies below and above the cutoff are attenuated.
- HP6+LP18 and HP6+LP12 are combinations of a high-pass filter with 6dB/oct and a low-pass filter with 18 and 12dB/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 18dB/oct and a low-pass filter with 6dB/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 6dB/oct. Frequencies below the cutoff are attenuated.
- BR 12 and BR 24 are band-reject filters with 12 and 24dB/oct. Frequencies around the cutoff are attenuated.

- BR12+LP6 and BR12+LP12 are combinations of a band-reject filter with 12dB/oct and a low-pass filter with 6 and 12dB/oct, respectively. Frequencies around and above the cutoff are attenuated.
- BP12+BR12 is a band-pass filter with 12dB/oct plus a band-reject filter with 12dB/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 12dB/oct and a band-reject filter with 12dB/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 18dB/oct plus a low-pass filter with 6dB/oct. Frequencies around and above the cutoff are attenuated.
- HP6+AP is a high-pass filter with 6dB/oct plus an all-pass filter with 18dB/oct. Frequencies around and below 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.

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.

RELATED LINKS

[Editing the Envelope on page 48](#)

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.

Output

The output to which the samples are routed. You can select the following outputs from the pop-up menu:

- The **Kit** mix.
- One of the 16 **Agent** mixer channels.
- One of the 16 stereo output busses of the plug-in. The first stereo out is always the Master output. This output is always active.

NOTE

These outputs can all contain insert effects.

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.

- You can also route a pad directly to one of the 4 AUX channels, to create sub groups, for example.

Norm (Use Normalized Velocity)

- If you are working with normalized samples, keep this button deactivated.
- If you are using velocity-layered samples that are not normalized, activate this button. Otherwise, you might create unrealistic level transitions between different velocity layers when setting the **Vel<Lev** parameter.

Sample Tab

The **Sample** tab contains the **Sample** editor. The upper section of the tab 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 direction and speed depend on how far you move the mouse left or right from the position you clicked.

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 provides a better overview over the transition between loop end and loop start and allows you to set the loop markers to the best positions.

If loop mode is deactivated when you activate the **Edit Loop** icon, 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.

Trim Sample



Trims the sample, either to the selection, or to the range that is set with the sample start/end markers.

Normalize Sample



Normalizes the sample by detecting the highest peak level of the sample and adjusting the gain to reach a predefined level.

Normalize Level



Sets the level for the **Normalize** function.

Revert to Full Sample



Undoes the trimming, so that the entire sample is restored.

NOTE

After undoing the trim functions, make sure to set the start/end markers to their original positions, otherwise these parts are not included in the playback.

Show Fades in Waveform



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.

This is especially useful if the **Master** output uses insert effects that you do not want to hear while editing the samples.

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 waveform display.

Loop End

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

NOTE

When using the **Normalize** function, this parameter is set automatically.

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.
- **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.

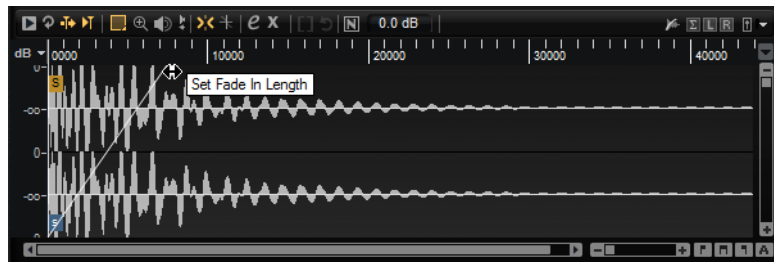
Loop End

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 waveform 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. To reset the fade curve back to linear, hold down [Ctrl]/[Command] and click on the fade line.

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.
 3. To move a selection, position the mouse pointer inside the selection and drag.
-

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**.

Assigning a Portion of a Sample to another Pad

- Make a selection, position the mouse pointer inside it, click and drag the selection to a new pad.

This assigns only the selected part of the sample to the pad.


NOTE

The sample portion that is assigned to the new pad still references the original sample, that is, no new sample is created on disk.

Normalizing Samples

The **Normalize** function detects the highest peak level of the sample, and adjusts the gain to reach a predefined level.

PROCEDURE

1. On the toolbar, in the **Normalize Level** field, specify the level that you want to normalize the sample to.
 2. Click the **Normalize Sample** button  on the toolbar, or right-click the sample and select **Normalize Sample** from the **Sample** submenu of the context menu.
-

RESULT

The **Gain** parameter of the sample is adjusted to conform with the predefined **Normalize** level. The amplitude of the waveform in the **Sample** editor changes accordingly.



NOTE

If you adjust the gain of the sample, the amplitude of the waveform in the **Sample** editor changes. This might be confounded with an adjustment to the vertical zoom of the waveform. To get a better visual feedback, set the vertical zoom to the minimum before you adjust the gain.

To play back the sample at its original level, set the **Gain** parameter to 0.0dB.

Trimming Samples

In the **Sample** editor, you can trim samples to the start and end markers, or to the selection.

- To trim the sample to the start and end markers, adjust the markers and click the **Trim**  button on the toolbar.
- To trim the sample to a selection, make a selection and click the **Trim**  button on the toolbar.

NOTE

The trim functions are also available on the context menu of the **Sample** editor.

All trim operations can be undone.

- To undo a trim operation, click the **Revert to Full Sample** button on the toolbar, or right-click the sample and select **Revert to Full Sample** from the context menu.

NOTE

After undoing the trim functions, make sure to set the start/end markers to their original positions, otherwise these parts are not included in the playback.

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.

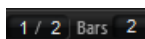
BPM



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



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 [Alt]/[Option]-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.
 2. Open the **Slice** tab and click **Create Slices**.
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.
 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.

Pattern Editing

On the **Edit** page for pattern pads, you can make settings for the MIDI patterns.

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



The pattern editing functions for Beat Agent SE are described in the chapter [Working with Pads](#).

RELATED LINKS

[Working With Pads on page 22](#)

Mixing

Each agent comes with a dedicated **Agent** mixer that contains agent-specific options and settings.

The **AUX** mixer, **Kit** mixer, and **Master** mixer are available for all agents, and are described in a separate chapter.

RELATED LINKS

[Mixing and Effect Handling on page 90](#)

Agent Mixer



In the top right corner of the **Agent** mixer, you can find the global **Mute** and **Solo** buttons.

- To reset all **Mute** buttons of the **Agent** mixer, click the global **Mute** button.
- To reset all **Solo** buttons of the **Agent** mixer, click the global **Solo** button.

You can access the busses via the numbered buttons at the top.

- Click the buttons **1**, **2**, **3**, or **4** to display the busses 1 to 4, 5 to 8, 9 to 12, and 13 to 16, respectively.
- To assign a sample to an **Agent** mixer bus, open the **Edit** page for the **Instrument** page. Then open the **Main** tab, select the pad that you want to edit, and select the bus from the **Output** pop-up menu.

Parameters

Level

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

Pan

Sets the position of the bus in the stereo panorama.

Mute

Activate this to mute the bus.

Meter

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

Peak Level Meter

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

Insert Effect Slots

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

Bus Name

At the bottom of a channel strip, the name of the bus is displayed.

- To rename a bus, double-click its name and enter a new name.

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.

You can import the files in the following ways:

- Drag a file from the Windows Explorer/Mac OS Finder onto the slot in the kit slot section or on the kit name in the kit rack.
- On the context menu for the kit, select **Import**, select the file in the dialog, 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 Kit 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.

Acoustic Agent SE

Acoustic Agent SE is a next-generation virtual acoustic drummer that offers first-class drum sounds and an integrated player that creates the perfect accompaniment for your songs.

The style player can conjure different grooves in a wealth of genres including Blues, Punk, Hip Hop, and Indie Rock – perfect for any contemporary music style. And you retain full control, both over intensity and complexity of the style player's drumming and over the sound, thanks to the included **Agent** mixer.

The MIDI pattern player is the same as for Beat Agent SE.

RELATED LINKS

[Pattern Section on page 36](#)

Sound Editing

On the **Edit** page for instrument pads, you set up the sound of the kits.



- To open the **Edit** page, click the **Edit** button in the upper section of the plug-in panel.
- To show the parameters for a particular drum instrument, click on it. Depending on the setting of the **Mute Instrument Trigger on Editor** button in the upper right corner of the **Edit** page, this also previews the instrument.

- If a drum instrument is triggered, this is shown by the instrument turning dark.

Instrument Preview

On the **Edit** page, you can specify whether you want to preview and select an instrument when clicking on it, or whether you only want to select it and show its sound parameters.

- To preview an instrument when clicking on it, deactivate the **Mute Instrument Trigger on Editor** button in the upper right corner of the **Edit** page.

Instruments that have multiple articulations play the standard articulation. For example, a snare can be played open, with a rimshot, or with sidestick. For preview, the open articulation is used. To trigger the other articulations, use the instrument pads.

- To select an instrument and show its settings when clicking on it, activate **Mute Instrument Trigger on Editor**.

Sound Parameters

If you select an instrument in the picture on the right, its sound parameters are available at the bottom of the panel.

Each instrument has its own set of parameters.

Kick Drums

Room Level

Adjusts the level of the room microphone.

Overhead Level

Adjusts the level of the overhead microphone.

Bleed

Adjusts how much the kick drum bleeds into the snare bottom microphone.

Tune

Adjusts the pitch.

Attack

Adjusts the attack time of the amplifier envelope.

Hold

Adjusts the hold time of the amplifier envelope. Turn the control all the way to the right to play the entire sample.

Decay

Adjusts the decay time of the amplifier envelope.

Snare Drums

Room Level

Adjusts the level of the room microphone.

Overhead Level

Adjusts the level of the overhead microphone.

Master Bleed

Adjusts how much the kick and the toms bleed into the snare bottom microphone. This control serves as master control by attenuating the snare bottom samples of the kick and toms.

Tune

Adjusts the pitch.

Attack

Adjusts the attack time of the amplifier envelope.

Hold

Adjusts the hold time of the amplifier envelope. Turn the control all the way to the right to play the entire sample.

Decay

Adjusts the decay time of the amplifier envelope.

Toms

Room Level

Adjusts the level of the room microphone.

Overhead Level

Adjusts the level of the overhead microphone.

Bleed

Adjusts how much the tom bleeds into the snare bottom microphone.

Tune

Adjusts the pitch.

Attack

Adjusts the attack time of the amplifier envelope.

Hold

Adjusts the hold time of the amplifier envelope. Turn the control all the way to the right to play the entire sample.

Decay

Adjusts the decay time of the amplifier envelope.

Cowbell

Room Level

Adjusts the level of the room microphone.

Overhead Level

Adjusts the level of the overhead microphone.

Tune

Adjusts the pitch.

Attack

Adjusts the attack time of the amplifier envelope.

Hold

Adjusts the hold time of the amplifier envelope. Turn the control all the way to the right to play the entire sample.

Decay

Adjusts the decay time of the amplifier envelope.

Tambourine

Room Level

Adjusts the level of the room microphone.

Overhead Level

Adjusts the level of the overhead microphone.

Attack

Adjusts the attack time of the amplifier envelope.

Hold

Adjusts the hold time of the amplifier envelope. Turn the control all the way to the right to play the entire sample.

Decay

Adjusts the decay time of the amplifier envelope.

Claps

Room Level

Adjusts the level of the room microphone.

Attack

Adjusts the attack time of the amplifier envelope.

Hold

Adjusts the hold time of the amplifier envelope. Turn the control all the way to the right to play the entire sample.

Decay

Adjusts the decay time of the amplifier envelope.

Single, Small Group, Large Group

Determines whether the D#1 key triggers a single clap, or claps from a small or a large group.

Cymbals

Room Level

Adjusts the level of the room microphone.

Overhead Level

Adjusts the level of the overhead microphone.

Choke On/Off

A choke effect for cymbals is created by hitting a cymbal, and then grabbing it with the hand, dampening the sound. If **Choke** is activated, you can choke a cymbal using poly pressure, aftertouch, or note-off events.

Choke Controller

Specifies which MIDI event triggers the choke for the cymbal.

- **Note-off:** To play the cymbal, hit the key and hold it. To choke the cymbal, release the key.
- **Aftertouch:** To play the cymbal, trigger the corresponding note. To choke the cymbal, send an aftertouch event that is greater than 64.
- **Poly Pressure:** To play the cymbal, trigger the corresponding note. To choke the cymbal, send a poly pressure event that is greater than 64.

Ride Cymbal

You can play the ride cymbal with the shoulder of the stick on the bell of the cymbal, with the tip of the stick on the bow of the cymbal, or you can hit the cymbal on the edge for a crash sound.

Room Level

Adjusts the level of the room microphone.

Overhead Level

Adjusts the level of the overhead microphone.

Bow

Adjusts the level of the **Bow** articulation that is triggered with D#2.

Bell

Adjusts the level of the **Bell** articulation that is triggered with F2.

Edge

Adjusts the level of the **Edge** articulation that is triggered with B2.

Hihat



Room Level

Adjusts the level of the room microphone.

Overhead Level

Adjusts the level of the overhead microphone.

Shank, Tip, Foot

You can play the hihat with the shoulder of the stick on the edge or with the tip of the stick on the bow of the hihat. When you close the hihat, it produces a foot chick. You can adjust the level for each of these articulations.

- **Shank** adjusts the level of the shank hihat articulation that is triggered with F#0 and A#0.
- **Tip** adjusts the level of the tip hihat articulation that is triggered with F#1 and A#1.
- **Foot** adjusts the level of the foot and pedal hihat articulation that are triggered with G#0/G#1 (Foot) and A0/A-1 (Pedal).

Hihat Open Min/Max

These controls adjust the minimum and the maximum opening state of the hihat, that is, they specify how much the hihat can be opened or closed with the corresponding hihat controller.

Controller Filter

The open state of the closed hihat on A#1 and the shank hihat on A#0 can be controlled with MIDI controller #1 (modulation wheel) or with MIDI controller #4 (foot controller). Use these buttons to filter out any incoming MIDI data for controllers #1 or #4.

For example, activate **MW** to avoid that any incoming MIDI controller #1 is received from your MIDI keyboard.

Pattern Editing

On the **Edit** page for pattern pads, you can make settings for the MIDI patterns and styles.



Agent Page

The **Agent** page contains the **Pad**, **Pattern**, and **Performance** sections.

The common pad and pattern functions are described in the chapter Working with Pads. Those functions that are agent-specific are described in the following sections.

RELATED LINKS

[Working With Pads on page 22](#)

Pattern Section

For Acoustic Agent SE pattern pads, the **Pattern** section offers functions for the style player.



Use Style

Activates the style player.

Style Library

Allows you to select a style. Click to select the file from the list.

Original Tempo

Displays the original tempo as saved in the style.

MIDI Export Field

- To export a pattern, set the dial in the **Performance** section to the MIDI pattern that you want to export, adjust the playback parameters, and 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.

If you export a main pattern, it will be 4 bars long. The lengths for intro, ending, and fill vary.

Your settings for **Halftime**, **Complexity**, **Intensity**, **Quantize**, **Crash Mode**, **Hihat Mode**, and **Ride Mode** are taken into account. Not taken into account are the parameters that vary the playback automatically, like **Auto Complexity** and **Auto Fill**.

Using the Style Player

If the **Use Style** button is activated and a style is selected on the pop-up menu, the style player is active and you can assign intros, fills, and endings to pattern pads by using the large dial in the Performance section.

- To do so, activate the pattern pad and set the dial to the intro, fill, or ending that you want to use.

The pattern pad plays the selected part each time you trigger it.

You can choose between 4 intros, 8 fills, and 4 endings.

NOTE

- Intros and endings are not affected by the parameters **Halftime**, **Complexity**, **Auto Complexity**, **Auto Fill**, and **Crash Mode**.
- Fills are not affected by the parameters **Halftime**, **Complexity**, **Auto Complexity**, and **Auto Fill**.

Removing a Style

- To remove the selected style, right-click the **Style Library** pop-up menu and select **Clear**.

Converting Intros, Main Patterns, Fills, or Endings into MIDI Patterns

You can convert the selected part of a style to a MIDI pattern. This allows you to edit this part in the **Pattern** editor, for example.

The conversion takes into account the playback parameters of a style, for example, **Intensity**, **Quantize**, **Swing**, and **Crash Filter** and converts them into MIDI events in the MIDI pattern. The resulting MIDI pattern for the main pattern of a style also reflects the set **Complexity**.

NOTE

Auto Complexity and **Auto Fill** are not taken into account.

You can convert styles on the **Agent** page or on the **Overview** page.

- On the **Agent** page, select a style, and select the main pattern, intro, fill, or ending that you want to convert. Set up the playback parameters, and click the **Convert Style to MIDI Pattern** button between the **Use Style** and **Use MIDI File** buttons.

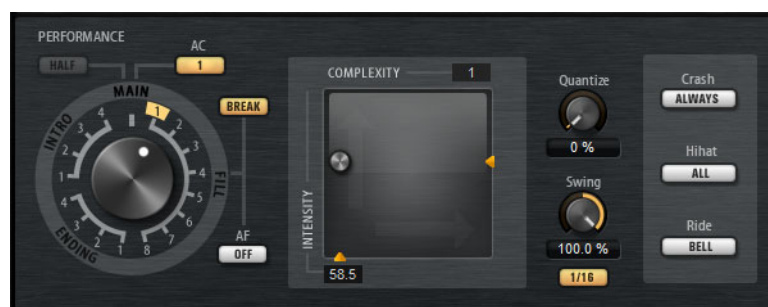


- On the **Overview** page, right-click the cell that contains the style and select **Convert Style to MIDI Pattern** on the context menu.

NOTE

Once you have converted a part of a style into a MIDI pattern, it cannot be used in the style player any longer.

Performance Section (Style Player)



Pattern Dial

Allows you to specify whether you want the style player to play a main pattern, a fill, an ending, or an intro. Depending on which part of the style you select, you can choose between different variations, for example, 8 different fills are available.

Complexity

You can modify the complexity of drum patterns. Increasing the complexity can add more notes, change from hihat to ride or from snare to toms, for example. This allows you to introduce a feel of free-style playing to a pattern. You can set the complexity in the following ways:

- Move the **Complexity** handle below the display to the right or left. Drag to the right to increase the complexity, and to the left to decrease the complexity.
- Click in the display and move the combined **Complexity/Intensity** control to the left or right.
You can modify complexity and intensity at the same time by moving the control both on the x and the y axis.
- Double-click in the Complexity value field above the display and enter a new value.

NOTE

The **Complexity** parameter is only available for main and halftime patterns, not for intros, fills, and endings.

Intensity

The intensity is controlled via the y-axis of the x/y control of the Style Player. All patterns support the **Intensity** parameter. The patterns play with their original velocity at the top position of the y-axis. Decreasing the intensity means decreasing the velocity. You can set the intensity in the following ways:

- Move the **Intensity** handle to the right of the display up or down.
- Click in the display and move the combined **Complexity/Intensity** control up or down.
You can modify complexity and intensity at the same time by moving the control both on the x and the y axis.
- Double-click in the Intensity value field below the display and enter a new value.

Half Time On/Off

Activates halftime rhythmic feel for the playback of the main pattern. This is reached by extending the normal rhythm over two bars rather than by halving the tempo. If a style does not contain halftime patterns, this parameter is not available.

NOTE

This parameter affects only the main patterns. Intros, endings, and fills do not support halftime playing.

Auto Complexity

This parameter varies the set **Complexity** randomly, creating a less static playback of the styles.

To set up the **Auto Complexity** parameter, click the **Auto Complexity** button and select an option from the menu:

- **1/1 bar** – The complexity varies randomly after a full bar.
- **1/2 bar** – The complexity varies randomly after half of a bar.

- **1** – The complexity is increased on the first beat of a bar. All other beats of the bar have the same or a lower complexity.
- **1+3** – The complexity is increased on the first and the third beat of a bar. The other beats have the same or a lower complexity.
- **2+4** – The complexity is increased on beat 2 and 4 of the bar. All other beats of the bar have the same or a lower complexity.
- **1+4** – The complexity is increased on beat 1 and 4 of the bar. All other beats of the bar have the same or a lower complexity.
- To deactivate **Auto Complexity**, select **Off**.

If **Auto Complexity** is activated, the dot in the background of the complexity/intensity display indicates which complexity is currently played.

Break

The fills from the style player do not have to cover an entire bar. For example, a fill might cover only the last two beats of a bar.

- If you want the previous pattern to play up to the start of the fill, deactivate the **Break** button. This way, no gaps occur.
If no pattern is playing when you trigger a fill, the main pattern of the style that is used by the pad is played until the fill starts. The **Complexity** setting of the pad is taken into account.
- If you want a pause before the fill starts, activate the **Break** button.

Auto Fill

With the **Auto Fill** function, the main pattern can play back a fill after a specified interval of bars. This is useful for jamming with Groove Agent SE. For example, with a setting of **4**, you get a fill every 4 bars. Each time, the fill is randomly chosen from the eight available fills.

If **Auto Fill** is activated, the number of the fill that is playing lights up in yellow.

NOTE

This setting affects only the main pattern. Intros, endings, and fills are not affected. They play back as usual, that is, they do not change into a fill after the set interval.

Quantize Amount

Adjusts the timing of the pattern, from live-played to hard-quantized timing.

- At a setting of 0%, the pattern plays with the original timing.
- At a setting of 100%, the timing is hard-quantized.

NOTE

Flams and rolls are not affected by this parameter.

Swing

Allows you to shift the timing of notes on even numbered beats to give the pattern 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.

Crash Mode

Determines whether main pattern, intro, fill, and ending play with crash cymbals.

- If **Always** is selected, the style player plays the crash cymbals of the main pattern and a crash cymbal on the first beat after the fill.
- If **Fill/Ending** is selected, the style player plays only crash cymbals that are part of the fill or the ending. For example, crash cymbals from a main pattern that are used to fill up endings that do not start at the first beat are not played.
- If **Main** is selected, the style player plays only the crash cymbals of the main pattern.
- If **Off** is selected, the style player leaves out all crash cymbals.

Hihat Mode

Specifies whether a pattern plays the hihat with all articulations, or only with the tip or the shank articulation.

NOTE

- This setting is taken into account when you export a pattern by dragging the MIDI export field to a MIDI track in your host application.
 - External MIDI input is not affected by this setting, that is, you can play all articulations.
-

Ride Mode

Specifies whether a pattern plays the ride cymbal with or without bell articulation.

NOTE

- This setting is taken into account when you export a pattern by dragging the MIDI export field to a MIDI track in your host application.
 - External MIDI input is not affected by this setting, that is, you can play all articulations.
-

Mixing

Each agent comes with a dedicated **Agent** mixer that contains agent-specific options and settings.

The **AUX** mixer, **Kit** mixer, and **Master** mixer are available for all agents, and are described in a separate chapter.

RELATED LINKS

[Mixing and Effect Handling on page 90](#)

Agent Mixer



In the top right corner of the **Agent** mixer, you can find the global **Mute** and **Solo** buttons.

- To reset all **Mute** buttons of the **Agent** mixer, click the global **Mute** button.
- To reset all **Solo** buttons of the **Agent** mixer, click the global **Solo** button.

Groups

The left section of the mixer contains dedicated group channels for kick, snare, hi-hat, toms, cymbals, and percussion.

Room and Overhead Microphones

The **Room/OH** tab contains channels for the room and the overhead microphones.

Kit Mix Channel

The **Kit Mix** tab contains the channel strip for the **Kit Mix** output.

For the **Kit Mix** output channel, you can add a **Tube Saturator** effect.

- To activate the **Tube Saturator** effect, click its **On/Off** button.
- To change the effect sound, adjust the **Drive** parameter.

Channel Parameters

The channels have the following parameters:

Level

Adjusts the volume of the channel.

Pan

Defines the position of the sound in the stereo panorama.

Mute

Mutes the channel.

Solo

Soloes the channel and mutes all other channels. Several channels can be soloed at the same time.

Peak Level

Indicates the highest level on the bus.

- To reset the peak level, click the text field.

Output

Each channel can be routed to the main output of Groove Agent SE or to one of the individual outputs.

- Click the **Output** field to open the pop-up menu with the available outputs.

AUX Sends 1-4

Use these controls to send the signal to the corresponding AUX busses of the agent.

Width (Room and Overhead Channel Strips Only)

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

Agent Mixer Equalizer and Effects

In the lower section of the **Agent** mixer, you can make equalizer and effect settings for the groups.



If a channel strip is selected, the section below the mixer channels shows the insert effects for this channel. The order of the effects can be modified by dragging the tabs. To show the parameters of an insert effect, select the corresponding tab.

- To activate an insert effect, click the corresponding **On/Off** button.

Each channel offers an equalizer, a vintage compressor, a tape saturator, and an envelope shaper for the insert effects. These effects correspond to the included effect plug-ins of the same name.

RELATED LINKS

[Studio EQ on page 98](#)

[VintageCompressor on page 118](#)

[Tape Saturator on page 106](#)

[Envelope Shaper on page 125](#)

Mixer Presets

You can create mixer presets for Acoustic Agent SE. These presets contain all **Agent** mixer, **AUX** mixer, and **Kit** mixer settings for the loaded kit.

Mixer presets can only be applied to the kit they were saved for, because the number of used instruments and mixer channels varies between the kits. Each kit comes with its own set of presets.

The controls for loading, saving, and deleting mixer presets can be found to the left of the **ROOM/OH** tab.

Mixing and Effect Handling

You perform your mixing operations on the **Mixer** page.

For each agent, a specific **Agent** mixer is available. The **Agent** mixer functions are described in the separate chapters for the agents.

The **Mixer** page contains tabs for the **Agent** mixer, the **AUX** mixer, the **Kit** mixer, and the **Master** mixer. The order of the tabs represents the signal flow.

AUX Mixer

The **AUX** mixer 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. Each agent has its own **AUX** mixer. This means that you can use different Reverb send effects for the different agents, for example. All settings of the **AUX** mixer are saved in kit presets.

Parameters



Output

On this pop-up menu, you can select one of the 16 available outputs for the AUX bus or you can route the signal to the **Kit** mixer.

Level

Allows you to set the level of the AUX bus.

Pan

Sets the position of the AUX bus in the stereo panorama.

Mute

Mutes 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.

Kit Mixer

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

Parameters



Output

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

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

Mutes the slot.

Solo

Solos the slot.

Meter

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

Peak Level Meter

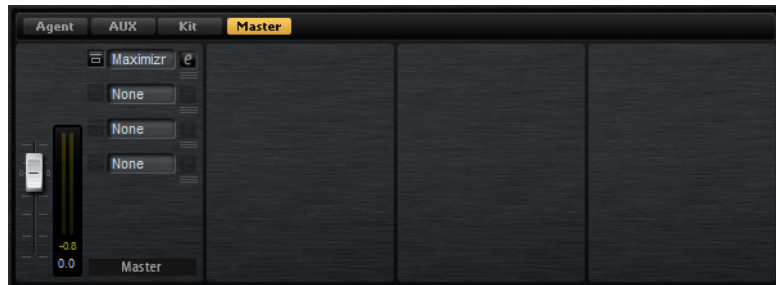
The meter indicates the highest level on the bus in dB. To reset the peak meter, click on the value field.

Effect Slots

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

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

Each agent in Groove Agent SE features an **AUX** mixer with 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 of 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, click the drag icon below the edit button and drag it to another slot. This replaces any effect loaded in this slot.
- To change the order of the effects, click the drag icon below the edit button and drag it to a new position between two slots.
- To copy an effect into another slot, hold down [Alt]/[Option], click the drag icon below the edit button and drag it onto the new slot. This replaces any effect loaded in this slot.

NOTE

You can also copy effects between the different mixers. First drag an effect to the corresponding mixer tab. Then drag it to the position where you want to insert it.

- To copy an effect and insert it between two effect slots, hold down [Alt]/[Option], click the drag icon below the edit button and drag between two slots.

NOTE

You can also copy effects between the different mixers. First drag an effect to the corresponding mixer tab. Then drag it to the position where you want to insert it.

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.

Pre-Delay

Determines how much time passes before the reverb is applied. This allows you to simulate larger rooms by increasing the time it takes for the first reflections to reach the listener.

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 level balance between the dry signal and the wet signal. If the effect is used as a send effect, set this parameter to the maximum value as you can control the dry/effect balance with the send.

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 0dB.

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, click and drag the EQ points.
- To fine-adjust the **Low**, **Mid**, and **Hi** frequency bands, press [Shift] and drag the EQ points.
- To set a parameter to zero, press [Ctrl]/[Command] and click it.
- To change the **Gain** values, click them and move the mouse up or down.

Low Gain

Sets the amount of boost or attenuation 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.

Output meter

Indicates the level of the output signal.

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

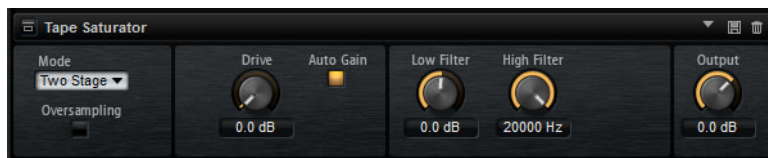
Adjusts the output level of the sound.

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

If this parameter is activated, 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.

Tube Saturator

This effect enriches the sound by adding the characteristic harmonics of a saturated tube to the audio signal.

Oversampling

Increases the accuracy of the effect by oversampling.

NOTE

If this parameter is activated, the effect requires more processing power.

Drive

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

Low Filter Gain

Allows you to reduce the low frequency range by up to 6 dB before saturation.

High Filter Gain

Allows you to adjust the high frequency range by ± 6 dB before saturation.

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 4 dB above the threshold, the output is lowered by 2 dB. If the amplitude is 8 dB above 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 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

Determines the compression amount. The higher the input gain, 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 initial part of the signal passes through unprocessed.

Punch

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, the plug-in automatically finds the best release setting for 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

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

Limit

Increases the ratio of the compressor for a limiting effect.

Output (-12 to 12dB)

Sets the output gain.

Attack (0.1 to 100ms)

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 its original level. If the **Auto** button is activated, the plug-in automatically finds the best release setting for the audio material.

Mix

Adjusts the mix between dry signal 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 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 gate operates.

Filter buttons (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 (50 to 20000Hz)

If the **Side-Chain** button is activated, this sets the center frequency of the filter.

Q-Factor

If the **Side-Chain** button is activated, this 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

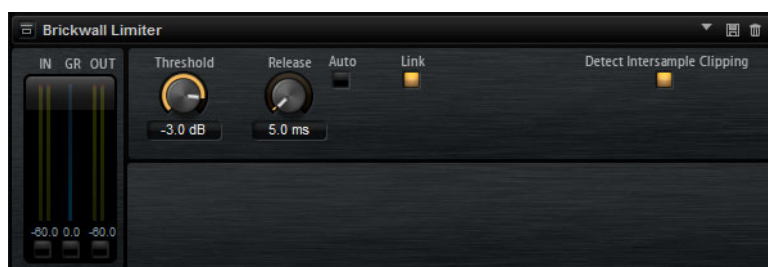
This parameter is not available if the **Auto** button is activated.

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)

Determines the level where the limiter kicks in. Only signal levels above the set threshold are processed.

Release (ms or Auto mode)

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, the plug-in automatically finds the best release setting for 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.



Output (-24 to 6dB)

Sets the maximum output level.

Optimize

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, harmonics are generated, adding 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 4dB below the threshold, the output is lowered by 2dB. If the amplitude is 8dB below 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 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.

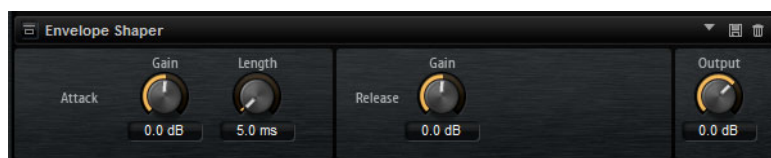
Peak – RMS

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 the 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 you 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.

If you are working with Beat Agent SE kits, 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**.

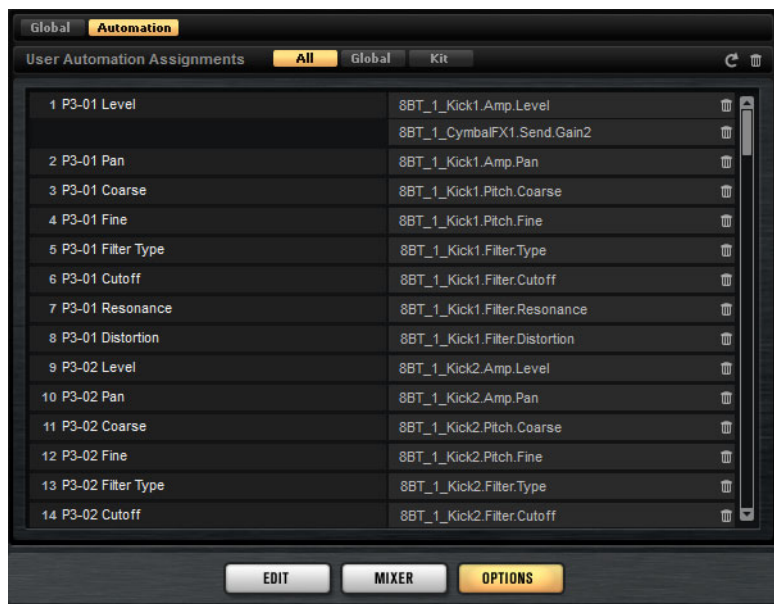
The automation parameter is created on the first free automation parameter.

- 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 access 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.

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 fixed and cannot be edited or removed. To change volume or pan of a kit slot, send CC#7 or CC#10 messages on the corresponding MIDI channel of the slot.

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

[MIDI Controller on page 136](#)

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.

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

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 samples that are 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

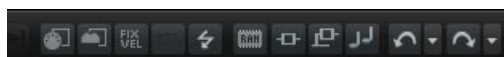
To get information regarding the version and build number of the plug-in, click the plug-in logo. This opens the About box. To close the About box, click it or press [Esc] on your computer keyboard.

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.

Toolbar

The toolbar contains useful global functions.



MIDI Follow



If this button is activated and you trigger a sample or play an instrument via the keyboard, they are automatically shown in the corresponding editor, that is, the sample is automatically shown in the **Sample** editor, and the instrument is automatically shown in the **Pattern** 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 players for the entire 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



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.

NOTE

How many undo/redo operations are available depends on the **Number of Undo Steps** setting on the **Options** page.

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

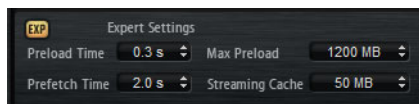
These displays provide information of the memory load in MB according to the current balance slider setting.

Max Preload

Determines the maximum amount of RAM that Groove Agent SE uses for preloading samples. In most cases, the default values are sufficient. However, it may become necessary to reduce this value, for example, when working with other applications or plug-ins that require a lot of memory.

Expert Mode

Activate this button if you want to adjust the **Disk Streaming** settings in greater detail.



- **Preload Time** defines how much of the start of the samples is preloaded into the RAM. Larger values allow for more samples to be triggered in a short time.
- **Prefetch Time** determines the read-ahead capacity into the RAM while streaming samples for a voice that is playing. Larger values allow for better transfer rates from disk, and usually for more voices. However, this requires larger streaming cache in RAM. If you increase the **Prefetch Time**, it is a good idea to also increase the **Streaming Cache**.
- **Streaming Cache** determines the amount of RAM that is reserved for prefetching. The actually needed size depends on the prefetch time, the number of simultaneously streaming voices and the audio format of the samples. For example, higher sample and bit rates need more RAM.

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.

Number of Undo Steps

Specifies the number of available undo steps.

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.

Key Commands

Opens the **Key Commands** dialog, where you can view and assign key commands.

Reset Messages

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

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.

NOTE

The controller assignments for the parameters Volume (CC 007) and Pan (CC 010) are fixed and cannot be edited or removed. To change volume or pan of a kit slot, send CC#7 or CC#10 messages on the corresponding MIDI channel of the kit slot.

Pattern Playback

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

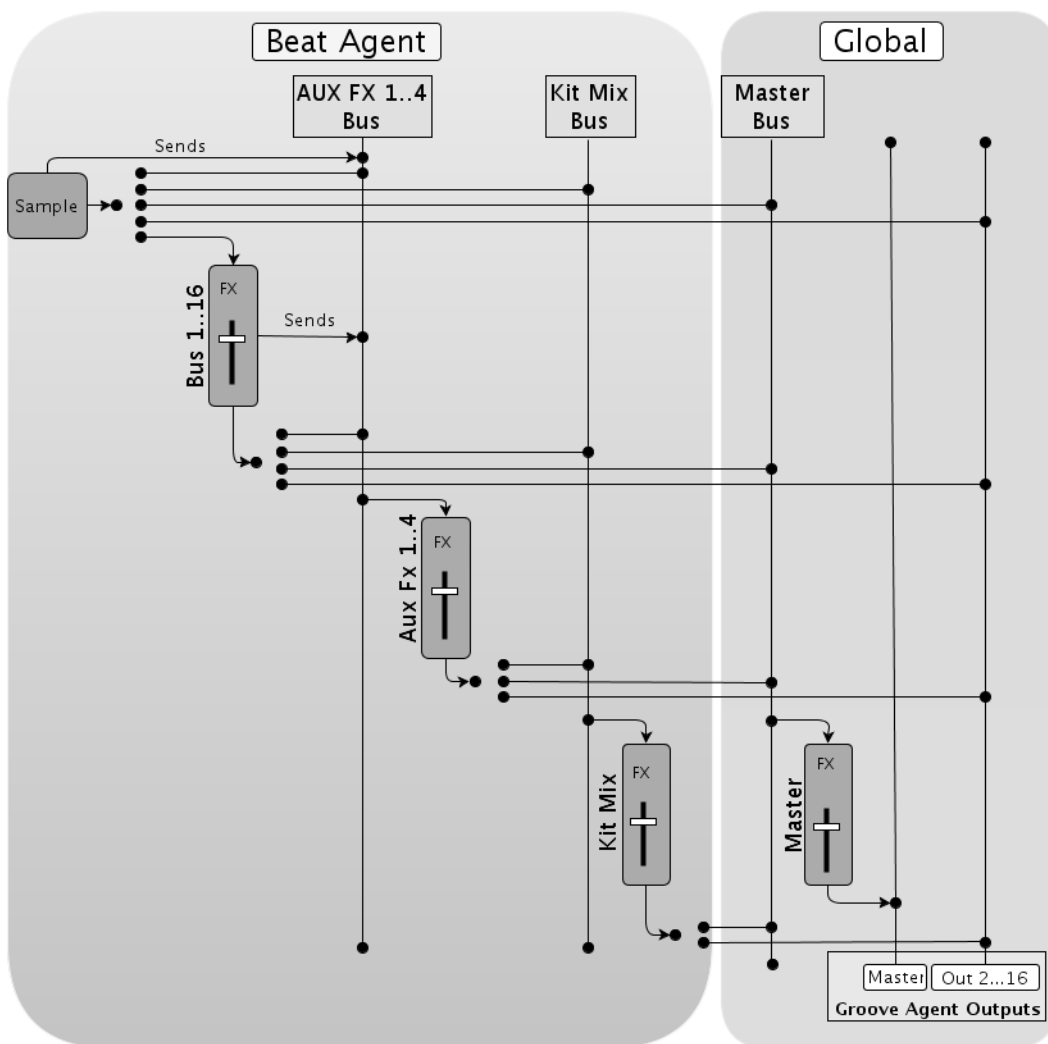
The **Reset Controller** pop-up menu allows you to assign a dedicated MIDI controller to the **Hold Reset** button for remote-controlling it.

RELATED LINKS

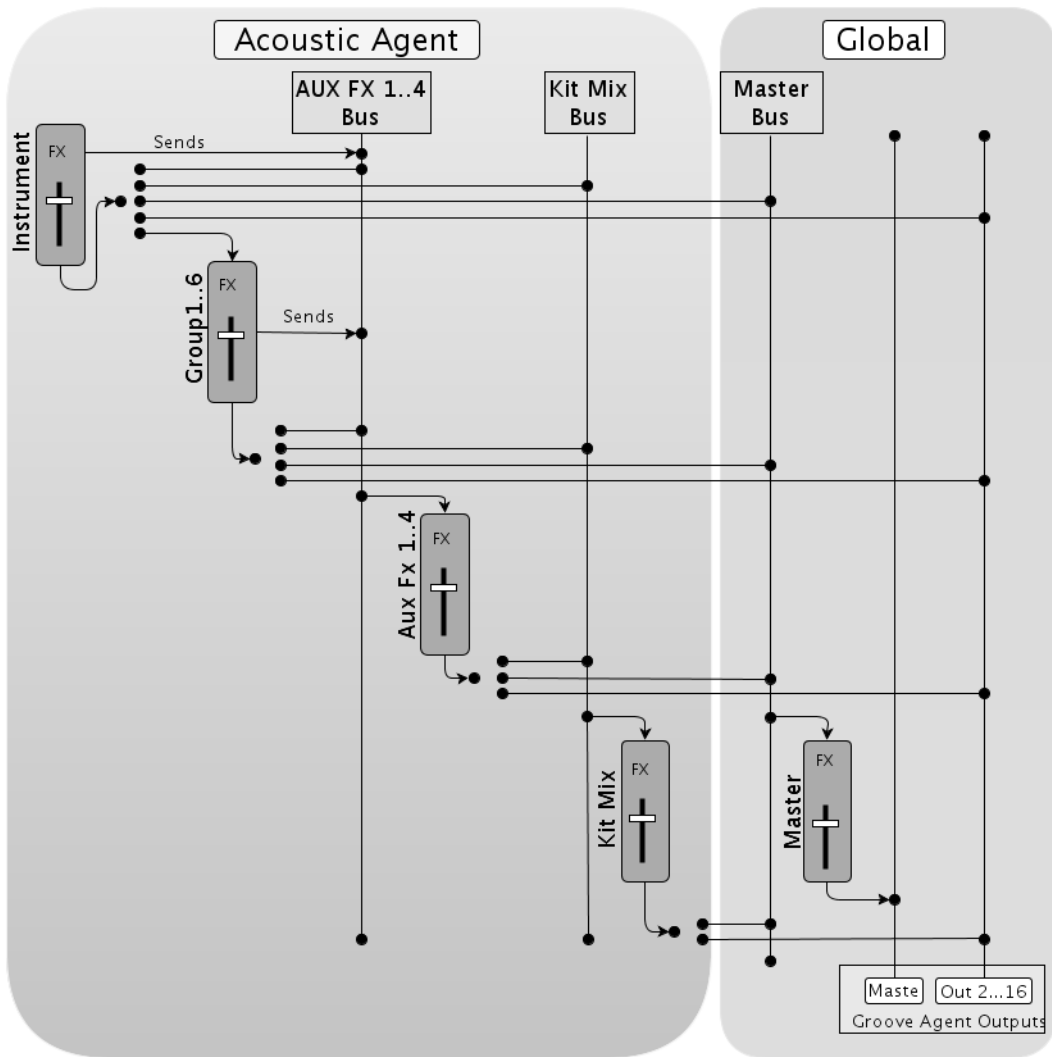
[Automation and MIDI Controllers on page 127](#)

Mixer Routing Diagrams

Beat Agent SE Routing



Acoustic Agent SE Routing



Index

A

ABS button [40](#)
Absolute Editing [40](#)
Acoustic Agent SE [75](#)
 Pattern Editing [81](#)
 Sound Editing [75](#)
Automation
 About [127](#)

B

Beat Agent SE [39](#)
 Exporting Files [72](#)
 Importing Files [72](#)
 Mixing [71](#)
 Pattern Editing [70](#)
 Sound Editing [39](#)

C

Compressor [118](#)

D

Delay Effects [94](#)
Distortion Effects [105](#)
Dynamics Effects [116](#)

E

Edit Page
 Amp Tab [56](#)
 Filter Tab [54](#)
 Main Tab [44](#)
 Mapping View [43](#)
 Pitch Tab [52](#)
 Sample Tab [57](#)
 Slice Tab [68](#)
Effect Slots [93](#)

Effects [90](#)

 About [92](#)
 Auto Filter [101](#)
 Chorus [107](#)
 Compressor [116](#)
 Distortion [105](#)
 Envelope Shaper [125](#)
 Envelope Stereo Pan [126](#)
 Expander [122](#)
 Flanger [108](#)
 Gate [124](#)
 Graphic EQ [99](#)
 Limiter [120](#)
 MorphFilter [104](#)
 Multi Delay [96](#)
 Phaser [110](#)
 Ring Modulator [111](#)
 Step Flanger [109](#)
 Studio EQ [98](#)
 Tape Saturator [106](#)
 Using [93](#)
 Vintage Ensemble [115](#)

Effects Page [93](#)

Envelopes
 Editing [48](#)
EQ Effects [98](#)
Exporting
 Kit with Samples [73](#)

F

Filter Effects [101](#)
Finding Missing Samples [73](#)

G

GAK Files
 Importing [72](#)
Groove Agent ONE Content [4](#)

I

Instrument Pads [24](#)
 MIDI Effects [27](#)

K

Kit Context Menu [14](#)
Kit Rack [14](#)
Kit Slot [13](#)

Kits

 About [4](#)
 Loading [13](#)

M

Master Section [131](#)
MIDI Controllers
 About [128](#)
 Assigning [129](#)
 Parameter Range [129](#)
Missing Samples
 Finding [73](#)
Mixing [90](#)
Modulation Effects [107](#)
MPC Files
 Importing [72](#)
Multi Selection [17](#)

O

Options Page [134](#)

P

Pad Section [22](#)
 Instrument Pads [24](#)
 Pattern Pads [31](#)
Panner Effects [126](#)
Pattern Pads [31](#)
Presets
 About [4](#)
 Module Presets [20](#)
 VST Presets [20](#)

R

REL button [40](#)
RelativeEditing [40](#)
Reverb Effects [94](#)
REX Files
 Importing [72](#)
Routing Effects [126](#)

S

Sliced Loops
 Importing [72](#)

V

Value Ranges
 Adjusting [17](#)