# MASCHINE MIKRO MK3



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Document authored by David Gover, Nicolas Sidi

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Hardware version: Maschine Mikro MK3

Special thank you to all beta testers who contributed to making Maschine a better product!

# 2. Welcome to Maschine Mikro MK3

Thank you for buying Maschine!

Maschine is a groove production studio that implements the familiar working style of classical groove boxes along with the advantages of a computer-based system. Maschine is ideal for making music live, as well as in the studio. It's the hands-on aspect of a dedicated instrument, the Maschine hardware controller, united with the advanced editing features of the Maschine software.

Creating beats is often not very intuitive with a computer, but using the Maschine hardware controller to do it makes it easy and fun. You can tap in freely with the pads or use Note Repeat to jam along. Alternatively, build your beats using the step sequencer just as in classic drum machines.

Patterns can be intuitively combined and rearranged on the fly to form larger ideas. You can try out several different versions of a song without ever having to stop the music.

Since you can integrate it into any sequencer that supports VST, AU, or AAX plug-ins, you can reap the benefits in almost any software setup, or use it as a stand-alone application. You can sample your own material, slice loops and rearrange them easily.

However, Maschine is a lot more than an ordinary groovebox or sampler: it comes with an inspiring 7-gigabyte library, and a sophisticated, yet easy-to-use tag-based Browser to give you instant access to the sounds you are looking for.

What's more, Maschine provides lots of options for manipulating your sounds via internal effects and other sound-shaping possibilities. You can also control external MIDI hardware and 3rd-party software with the Maschine hardware controller while customizing the functions of the pads, knobs and buttons according to your needs utilizing the included Controller Editor application. We hope you enjoy this fantastic instrument as much as we do. Now let's get going!

—The Maschine team at Native Instruments.



Please check the Native Instruments website regularly for up-to-date and localized versions of these documents.

## Maschine documentation

Native Instruments provides various learning assets for Maschine. The main documents should be read in the following order:

- Maschine Mikro Quick Start Guide: This animated online guide provides a practical approach to help you learn the basics of Maschine Mikro MK3.
- Maschine Manual: The Maschine Mikro MK3 Manual provides a comprehensive description of all Maschine software and hardware features and is available in PDF and HTML formats.
- Support Videos: The Official Native Instruments Support Channel provides several videos on Maschine Mikro MK3.

**Other Online Resources:** If you are experiencing problems related to your Native Instruments product that the supplied documentation does not cover, there are other ways of getting help:

- Support on the Native Instruments website at the following location: https://support.native-instruments.com/hc/en-us.

Maschine documents are available in PDF. You can also access these documents from the application's **Help** menu or the following location: www.native-instruments.com.

Please check the Native Instruments website regularly for up-to-date and localized versions of these documents.

## Document conventions

In this document the following formatting is used to highlight useful information:

| | |
|---|---|
| *Italics* | Indicates paths to locations on your hard disk or other storage devices. |
| **Bold** | Highlights important names, concepts, software interface elements, and hardware controls. |
| [Brackets] | References keys on the computer keyboard. |
| ► | Denotes a single step instruction. |
| → | Denotes the expected result when following instructions. |

The following three icons denote special types of information:

The **light bulb** icon indicates a useful tip, suggestion, or interesting fact.

The **information** icon highlights essential information in a given context.

The **warning** icon alerts you of potential risks and serious issues.

# 3. Quick reference

This chapter introduces you to the main areas and concepts of Maschine. In the following sections, you will find:

- Information that will help you in your everyday work with your controller: Using your controller.
- An overview of a Maschine Project and a description of both its structure and content: Maschine Project overview.
- A basic reference of your hardware controller, naming and quickly describing each of its control elements: Maschine Mikro hardware overview.
- A basic reference of the Maschine software (Maschine software overview).

## Using your controller

This section provides useful information for your everyday work with your Maschine Mikro controller.

### Controller modes and mode pinning

Maschine Mikro MK3 has different modes of operation.

### Controlling the software views from your controller

Your controller provides you with numerous shortcuts to modify the display in the Maschine software window without having to touch your mouse.

## Maschine Project overview

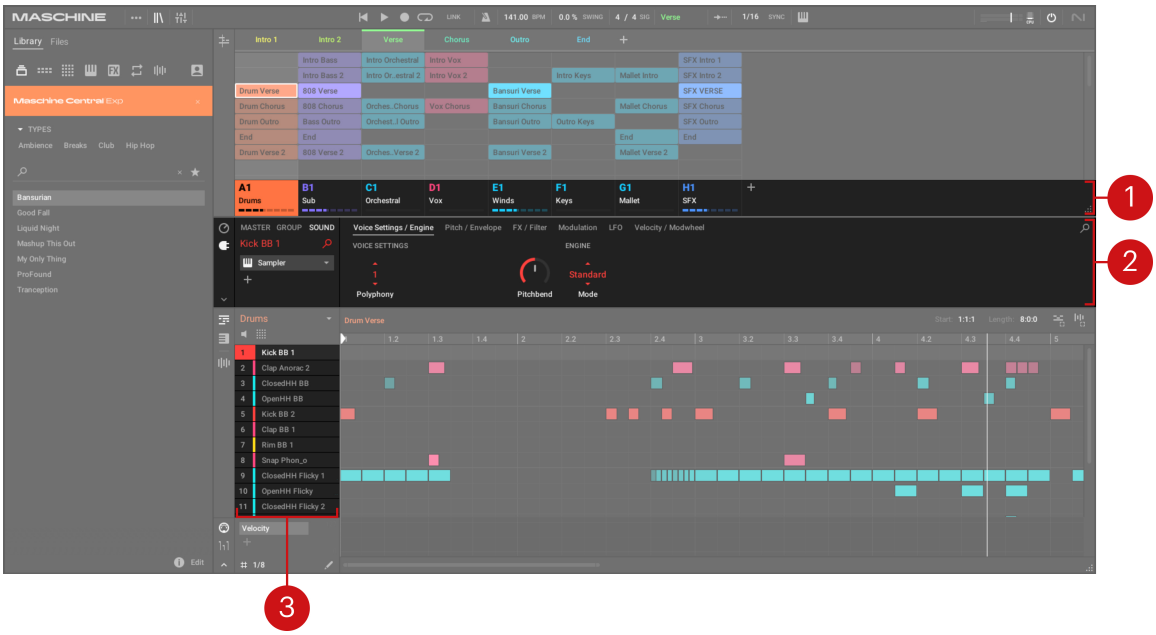
A Maschine Project contains all the information stored with a Maschine-produced piece of music.

- The Project references all the **sound content**: the instruments, sounds and samples, and all the effects that you apply to them.
- The Project also contains the **arrangement** of your song: how Patterns are built from events that trigger Sounds, and how they are arranged into a song structure using Scenes and Sections.

The following section will explain these two aspects in detail.

### Sound content

The sound content aspect of a Maschine Project includes all the instruments and effects contained in your Project file, and how these are structured.




*The sound content aspect of a Maschine Project with Ideas view selected.*

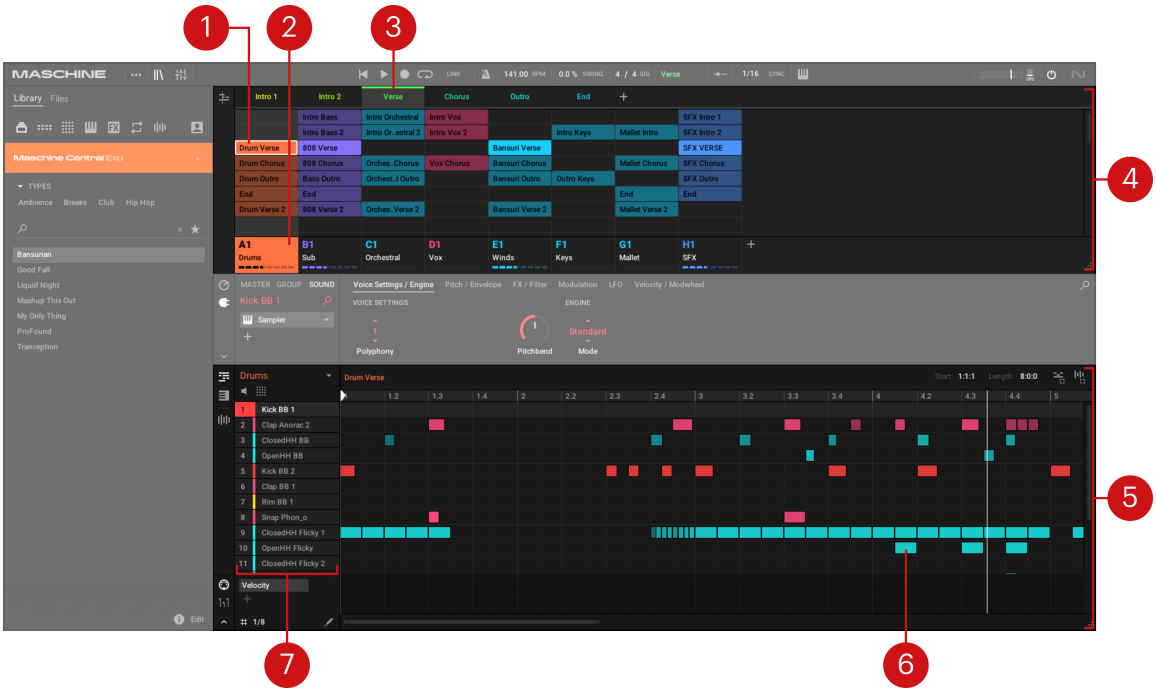
- Groups (**1**) are available in Banks. Each Bank contains up to eight Groups (**A**–**H**) and each Group contains sixteen Sound slots (**3**). Each Sound slot can be filled with samples or plug-ins.
- You can influence the sound on these three channels: the Project (or Master) channel, the Group channel, and the Sound channel. The relevant controls are situated in the Control area (**2**), which can be used for accessing Plug-in parameters or Channel properties.
- The Control area has three tabbed sections corresponding to each channel: **MASTER**, **GROUP**, and **SOUND**.
  - The controls in the **SOUND** section affect the sound of the selected Sound (**1**–**16**).
  - The controls in the **GROUP** section affect the sound of the selected Group (**A**–**H**), i.e. the sound of all its Sound slots.
  - The controls in the **MASTER** section affect the sound at the main outputs of Maschine, that is, the sound of all Groups and all Sounds.

## Arrangement

The Maschine Project is about building patterns and putting those patterns into a loop or a song structure. In Maschine, the process of creating ideas is separated from the process of arrangement to provide a more flexible and creative approach. To reflect this the Arranger is split into two views: Ideas view and Song view which you can easily switch between using your controller. The two views reflect the same content but in different ways.

### Ideas view

The Ideas view is best equipped to help you develop your Patterns and Scenes. Here you create and record your Patterns and then combine them by assigning them to Scenes. Once you have created a number of Scenes that are ready to be arranged you can add them to the Song view.



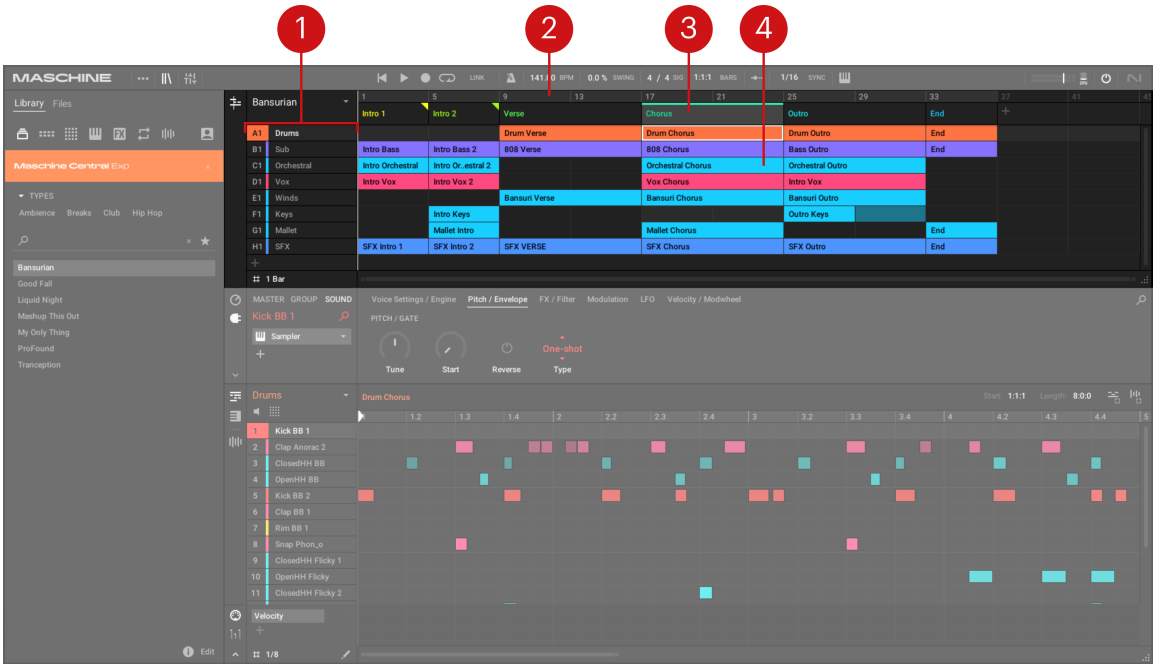

*The Ideas view of a Maschine Project optimized for creating Patterns and building Scenes.*

The workflow of creating ideas in Maschine is as follows:

- You load samples or plug-ins into the Sound slots (**7**) of the selected Group (**2**).
- You record instances of your Sounds by playing the pads. A recorded instance of a Sound is called an event (**6**).
- Together, the events add up to a Pattern (**1**) for the selected Group (**2**).
- Pattern details are shown in the Pattern Editor (**5**), where you can create several Patterns for each of your Groups.
- In the upper half of the software, the Ideas view of the Arranger (**4**) allows you to combine your Patterns (**1**) from each Group into Scenes (**3**).

## Song view

In the Song view, Scenes are assigned to Sections and placed on the Timeline of the Arranger, where you can move them around to develop an arrangement.




*The Song view of a Maschine Project.*

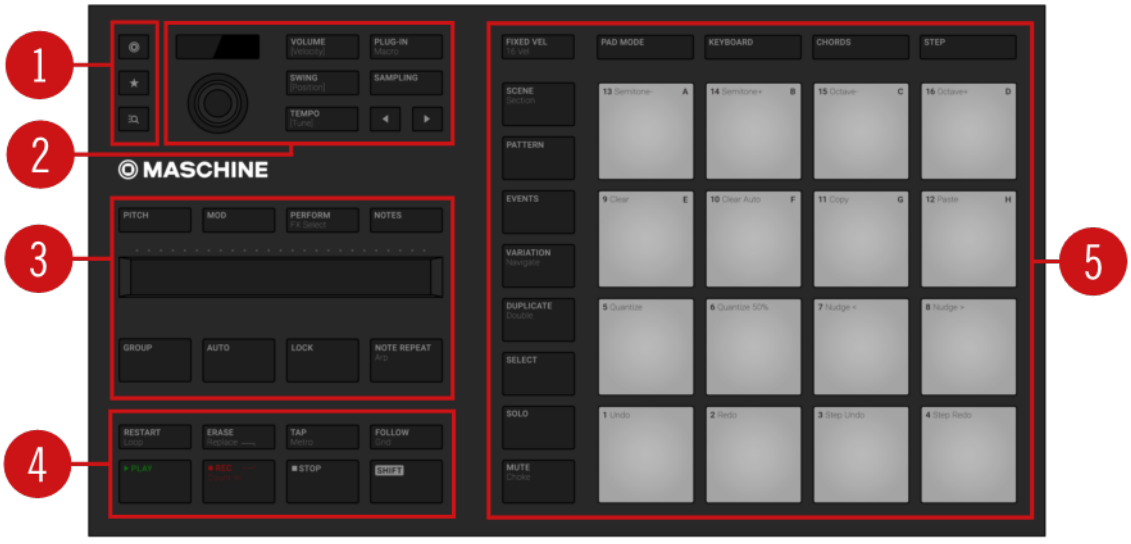
The workflow of creating an arrangement in Maschine is as follows:

- Create Sections on the Timeline of the Arranger (**2**).
- Assign a Scene to each Section (**3**). The column below the Scene name shows the Patterns (**4**) that will be played by the various Groups (**1**).
- Change the position of a Section by dragging the Section slot.

# Maschine Mikro hardware overview

This section quickly describes the areas and control elements on your hardware controller.

The top panel of your controller includes the following sections:

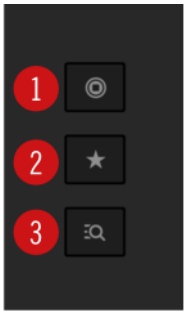



*Overview of the Maschine Mikro controller's top panel and its main sections.*

1. **Browser section**: This section contains dedicated buttons that provide access to recent Projects, the Browser, and Favorites. For more information, refer to Browser section.
2. **Edit section**: This section holds the Encoder, a multifunctional element used in various contexts with the Arrow buttons. The three Quick Edit buttons nearby allow you to adjust the volume, tempo, and swing of your Sounds, Groups, and Project. In Step mode, they let you quickly change the velocity, position, and tune of the selected events. For more information, refer to Edit section.
3. **Performance section**: The Smart Strip and the four function buttons above it make up a highly versatile and intuitive tool for enriching your performance. The **NOTE REPEAT** button provides access to the Note Repeat and Arp feature, while the **LOCK** button allows you to store and recall snapshots during your set. The Group button enables you to quickly access each Group when used in combination with the top eight pads **9**–**16**. For more information, refer to Performance section.
4. **Transport section**: Start, stop and restart playback, activate record, and tap the tempo, simply by pressing the dedicated buttons. Use **SHIFT** to access the secondary functions of your controller. For more information, refer to Transport section.
5. **Pad section**: Access the various controller modes using the column of mode buttons on the left-hand side of this section. Use the 16 pads to play your Sounds. Above the pads, the Pad Input Mode buttons let you choose how the pads will behave: e.g., they can trigger all Sounds in your Group, different notes of a single Sound, specific chords of a single Sound, or create and edit events in the step sequencer. Besides playing the Sounds, the pads provide access to many editing and selection commands depending on the selected controller mode. For more information, refer to Pad section.

## Browser section

Use the Browser section to access the Browser Results List, and open recent Projects.

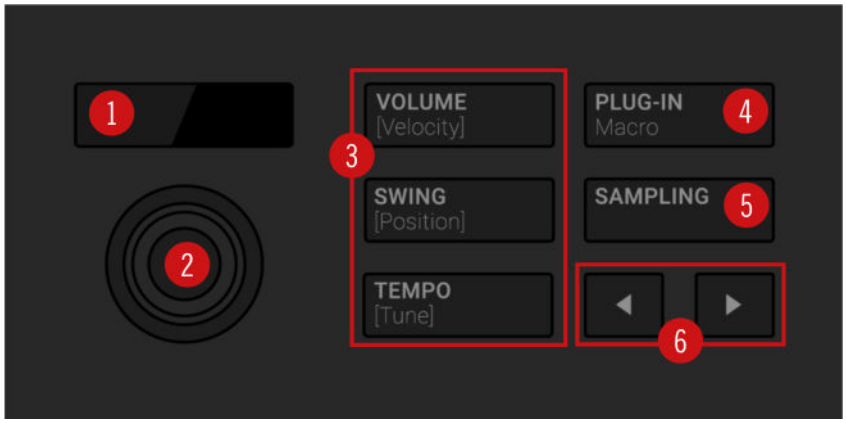



*The Browser section on your controller.*

1. **Project** button: View Projects that have been recently opened. Turn the Encoder to scroll the list, and press the Encoder to load the selected Project. Press **SHIFT** + Project button to access MIDI mode. For more information on MIDI Mode, refer to Using your controller in MIDI mode.
2. **Favorites** button: View Favorites directly using the controller. Turn the Encoder to scroll the list, press the Encoder to load the selected item.
3. **Browser** button: Access the Browser and use the Encoder to scroll the Results List, and press the Encoder to load a selected item.

## Edit section

The Edit section holds the **Encoder**, a multifunctional element to be used in various contexts with the **Arrow buttons**. The three **Quick Edit buttons** allow you to easily adjust the volume, tempo and swing of the Sounds, the Groups and the Project. This section also provides quick access to the Sample Editor.




*The Edit section on the controller.*

(**1**) **Display**: The LCD display will provide you with all essential information, no need to glance at the computer screen.

(**2**) **Encoder** : The Encoder combines the functionalities of a button, and of an endless rotary encoder. Hence, it can be pushed and rotated. These aspects make it a versatile control element that can be used for adjusting parameters, and entering values.

(**3**) **Quick Edit** buttons: Enable either **VOLUME** (**Velocity**), **SWING** (**Position**), or **TEMPO** (**Tune**) to quickly adjust the volume, swing, or tempo of your Project via the Encoder (**1**). In Step mode the Quick Edit buttons allow you to adjust the velocity, the position, and the pitch (key) of the selected events. See Adjusting the volume, swing and tempo for a practical example of how to use these features.

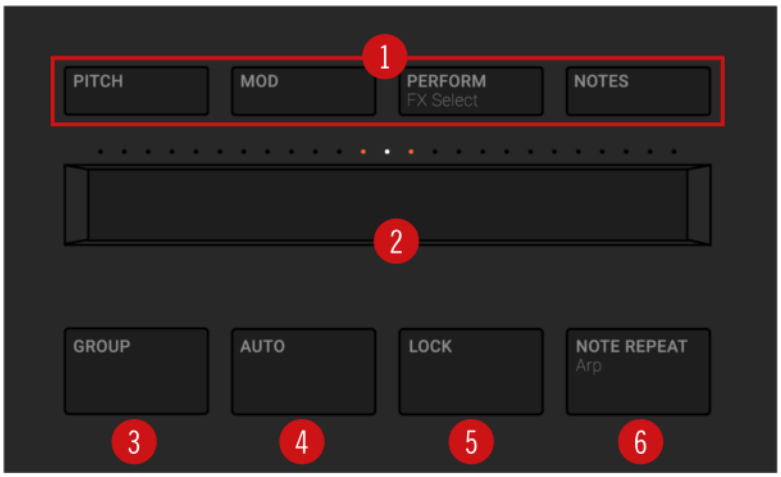
(**4**) **PLUG-IN** button: Press **PLUG-IN** (**Macro**) to access Control mode (the default mode on your controller) and directly display the Plug-in(s) loaded in the selected Sound/Group or the Master. This provides instant access to all Plug-ins' parameters via the Arrow buttons (**6**), which can be adjusted using the Encoder. Press **SHIFT** + **PLUG-IN** (**Macro**) to access Macro controls.

(**5**) **SAMPLING** button: Press the **SAMPLING** button to access the Sample Editor. To learn more about sampling with Maschine, refer to Sampling and sample mapping.

(**6**) **Arrow** buttons: The Arrows buttons are highlighted to indicate when extra pages containing features or parameters are available via the display.

## Performance section

The Performance section provides you with various tools shaped for live performance.




*The Performance section on the controller.*

(**1**) **Strip Mode** buttons: The **PITCH** , **MOD** , **PERFORM** , and **NOTES** buttons let you select the function of the Smart Strip (**2**). Press the Strip Mode buttons to enable or disable the corresponding function:

- Enable **PITCH** or **MOD** to send MIDI Pitchbend or Modulation data to the selected Sound using the Smart Strip. While doing this, press **REC** in the Transport section to record your actions as MIDI automation into your Pattern.
- Enable **PERFORM** and use the Smart Strip to control the Perform FX (if any) for the selected Group. Press **SHIFT** + **PERFORM** (**FX Select**) to quickly select and load a Perform FX for that Group. After loading an effect you can control it using the Smart Strip.
- Enable **NOTES** and use the Smart Strip to play what's loaded on the pads: Sounds, notes or chords, depending on the current Pad Input mode. If you hold certain pads, only these pads are triggered by the strip; otherwise, all pads are triggered. For example, with pads in Keyboard mode, you can touch the strip for single notes, slide your finger for progressive note strums, use two fingers for instant jumps between notes, but that's not all: You can use the Smart Strip in combination with the Note Repeat, Arp, and Chord engines for endless creative possibilities.

If no Strip Mode button is active, the Smart Strip is deactivated.

(**2**) **Smart Strip** : The Smart Strip puts control of several parameters literally at your fingertips: Depending on the Strip Mode button (**1**) selected above the Smart Strip, use it to apply pitch bend or modulation to the Sound(s) played on the pads, apply and tweak Perform FX in real time, or play Sounds by strumming on the strip, even with two fingers. Above the Smart Strip, a LED bar indicates the current value or note set on the strip.

(**3**) **GROUP** button: When you hold the **GROUP** button, the top eight pads **9**–**16** allow you to select the Group you want to work in. Dimmed blue pads show Groups, while the fully lit colored pad shows the selected Group — the name of this Group will show in the display. Unlit pads indicate Groups that do not exist. Press **SHIFT** + **GROUP** to enter **Step mode**.

If you want to use more than eight Groups in your Project, hold **SHIFT** and press the Group buttons to select and access other banks of Groups.

These buttons are also used to solo and mute Groups on the fly when **SOLO** or **MUTE** buttons are held; this is great for jamming out your Project and performing live.

If the **VOLUME**, **SWING**, or **TEMPO** button is active in the Edit section above (see Edit section), hold a Group button and turn the Encoder to change the volume, tune or swing for that individual Group. For more details on this, refer to Adjusting the volume, swing and tempo.

(**4**) **AUTO** button: In Maschine, modulation of almost any parameter on the Sound and Group level is achieved with one-touch simplicity. Press and hold the **AUTO** button while turning the Encoder to record modulation for the selected parameter.

(**5**) **LOCK** button: Press **LOCK** at any time to create a snapshot of all modulable parameters in your Project. Subsequently, change any of these parameters during your performance or studio session, then press the dim lit **LOCK** button again to recall the snapshot with the original parameter values. Lock is a powerful tool for extensive modulations, but also very useful to compare mixes, or to switch up snapshots during a live performance.

(**6**) **NOTE REPEAT** button: Note Repeat is a convenient way to play, record beats, and melodies. When your pads are in Pad Mode, the Note Repeat engine repeats the selected Sound automatically at a given rate. When your pads are in Keyboard or Chord mode, **NOTE REPEAT** provides instead access to the flexible and versatile arpeggiator to play Sounds in note sequences. The arpeggios are created according to both the pads you hold and the scale and chords you have configured. Press **SHIFT** + **NOTE REPEAT** (**Arp**) to directly switch your pads in Keyboard mode and activate the Arp engine. To use Note Repeat you must press and hold it, but in Arp mode it is automatically pinned.

## Transport section

The Transport section holds various transport tools as well as the **SHIFT** button used in various contexts.




*The Transport section on your controller.*

(**1**) **PLAY** button: Press **PLAY** to activate playback. Press **PLAY** a second time to stop playback.

(**2**) **REC** button: During playback, press **REC** to begin recording. Or when playback is off, press **SHIFT** + **REC** to begin recording with the Count-in. Press **REC** a second time to stop recording. Hold the **REC** button to access Pattern Preset mode, this allows you to select the desired Pattern Length before recording new Patterns.

(**3**) **STOP** button: Press **STOP** to stop playback. When the playback is stopped, press **STOP** to reset the play position back to the beginning of the Project.

(**4**) **RESTART** button: Press the **RESTART** button at any time to restart from the beginning of the current loop range.

(**5**) **ERASE** button: During playback, hold **ERASE** and any number of pads or Group buttons to erase the events for the corresponding Sounds or Groups on the fly. Use the shortcut **ERASE** + **EVENTS** + pad to quickly erase all events triggered by that pad in your Pattern. If you automated a parameter, hold **ERASE** and turn the Encoder to erase the automation of the selected parameter. Press **SHIFT** + **ERASE** + any pad or Group button to completely remove the Sound or Group in that slot.

(**6**) **TAP** button: Repeatedly tap the **TAP** button to set the desired tempo. Press **SHIFT** + **TAP** to quickly enable/disable the metronome.

(**7**) **FOLLOW** button: If you activate **FOLLOW**, time-related displays (like the Pattern Editor) are updated as the playhead goes beyond the current part, so that you always see where the playhead is. Press **SHIFT** + **FOLLOW** to open Grid mode and adjust the grids to define how various Maschine objects can be moved or resized: Perform grid (for transitions between Sections), Arrange grid (for Pattern length and Section length), Step grid (for events), and Nudge grid (for events as well).

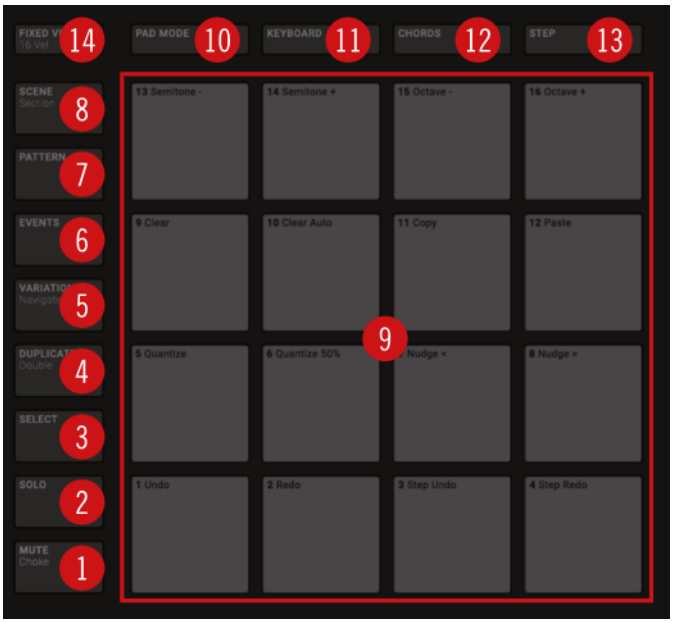
(**8**) **SHIFT** button: While the most important features are accessible through dedicated buttons, many shortcuts are available by holding the **SHIFT** button and pressing pads **1**–**16** or several other buttons. You can also use the **SHIFT** button to change parameters in finer increments when entering values with the Encoder.

## Pad section

The Pad section includes numerous features. Use the **16 pads** to play your Sounds. Above the pads, the **Pad Input Mode** buttons let you choose how the pads will react to your hits: e.g., you can trigger all Sounds in your Group, play different notes of a single Sound, specific chords of that Sound, or create and edit events in the step sequencer.

Besides playing Sounds, the pads provide access to many editing and selection commands depending on the controller mode selected from the column of **Mode** buttons left of the pads.

Additionally, when you hold **SHIFT**, the pads provide you with useful shortcuts and commands for your everyday work with Maschine.




*The Pad section on your controller: the Mode buttons (**1**) to (**8**), the pads (**9**), and the Pad Input Mode buttons (**10**) to (**14**).*

### Mode Buttons

The Mode buttons (**1**) to (**8**) are located in the column left of the pads. They switch the pads and your controller to a series of modes dedicated to specific workflows:

(**1**) **MUTE** button: Enters Mute mode. In this mode, you can instantly mute Sounds and Groups by pressing the corresponding pads and Group buttons. This is good for getting on top of your production when you have many sounds playing and especially useful for performing live. Muted Sounds/Groups are represented by half-lit pads, while audible Sounds/Groups are represented by fully lit pads.

(**2**) **SOLO** button: Enters Solo mode. In this mode, you can instantly solo any Sound or Group (equals muting all other Sounds/Groups) by pressing its pad or Group button. This is useful to tweak the Sound or for performing live. The pad of the soloed Sound or Group is fully lit, while all other pads (representing the muted Sounds/Groups) are dimmed.

(**3**) **SELECT** button: Enters Select mode. This mode allows you to select a Sound without triggering it, or select specific events of a particular Sound, which is useful for limiting quantization, nudging notes and other operations specific to the selected events. Press **ERASE** + **SELECT** + pad to quickly erase all events triggered by that pad in your Pattern or notes at that pitch when in Keyboard mode.

(**4**) **DUPLICATE** button: Enters Duplicate mode. Use the Duplicate mode to swiftly create another instance of any Sound, Pattern, Group or Scene. This can be useful for creating variations or trying out something new while preserving the current state of your work.Press **SHIFT** +**DUPLICATE** to quickly double the current Pattern.

(**5**) **VARIATION** button: Enters Variation mode. This lets you introduce "happy accidents" in your Patterns. The Variation mode provides you with two features: Humanize adds natural rhythmic fluctuations to programmed sequences, while Random provides randomly generated variations of your beats and melodies. Press **SHIFT** + **VARIATION** to enter Navigate mode. When working on large Projects, it is sometimes necessary to look at the computer screen. With Navigate mode there is no need to use the mouse and search for scroll bars or magnifying glasses. Just use the pads and the displays to zoom in and out or scroll through Patterns and Scenes. See Controlling the software views from your controller for more information.

(**6**) **EVENTS** button: Enters Events mode. This mode allows you to select particular events in your Pattern and modify their position, pitch (key), velocity and length. You can also press **EVENTS** + pad to quickly select all events triggered by that pad in your Pattern.

(**7**) **PATTERN** button: Enters Pattern mode. Pattern mode allows you to manage all Patterns in the selected Group: create new empty Patterns or duplicates of existing ones, switch between different Patterns, etc. Dimmed pads represent existing Patterns, the fully lit pad represents the selected Pattern.

(**8**) **SCENE** button: Enters Scene mode (in Ideas view) or Section mode (in Song view). Use Scene mode to access your Scenes and Section mode to arrange your song:

- Use **Scene mode** to create, select and manage Scenes to prepare them for assignment to Sections in the Arranger. During playback, you can switch Scenes for quick on-the-fly arrangement by pressing the pads; half-lit pads show existing Scenes, while fully lit pads show the selected Scene. When you are satisfied with a Scene you can append it to the Arranger.
- Use **Section mode** to create, select, and manage Sections in order to create an arrangement. Here you can create Sections, assign a Scene to Section, position a Section on the Timeline, and set the length of a Section.

Press **SHIFT** + **SCENE** to quickly toggle between Ideas view and Song view.

## Pads and Pad Input Mode Buttons

The Pad Input Mode buttons (**10**) to (**14**) allow you to choose from various behaviors for the pads (**9**) when it comes to trigger your Sounds. The four buttons directly above the pads (**PAD MODE** (**10**), **KEYBOARD** (**11**), **CHORDS** (**12**) and **STEP** (**13**)) control the four main **pad input modes** , while the **FIXED VEL** button (**14**) controls additional options for the modes.

(**9**) **Pad 1–16** : The sixteen velocity-sensitive pads can be used to play and select your Sounds. Their behavior can be configured by the Pad Input Mode buttons (**10**) to (**14**) described below. The pads also have many functions depending on the controller mode that is currently selected.

(**10**) **PAD MODE** button: Press **PAD MODE** to switch the pads to **Group mode** (the default mode). In Group mode each pad represents one Sound of the Group. Group mode is typically used for drum kits. You can adjust various parameters of the mode via the display, the Arrow buttons, and the Encoder.

(**11**) **KEYBOARD** button: Press **KEYBOARD** to switch the pads to **Keyboard mode**. In Keyboard mode the pads represent 16 pitches of the chromatic scale for the selected Sound, ascending from the selected Root Note; this way you can play the selected Sound like a melodic instrument.

(**12**) **CHORDS** button: Press **CHORDS** to switch the pads to **Chords mode**. The Chords mode is similar to the Keyboard mode (see the **KEYBOARD** button (**11**) above) with the difference that each pad triggers a whole chord instead of a single note. Use the Arrow buttons and the Encoder to configure the chord you want to play.

(**13**) **STEP** button: Press **STEP** to switch the pads to **Step mode**. Step mode turns your Maschine controller into a step sequencer. In this mode, each pad represents one step of the selected Step Grid resolution. During playback, a running light through the pads represents the current position of the step sequencer. Pressing the pads creates notes on the corresponding steps (causing them to light up) or it removes them from the Pattern.

(**14**) **FIXED VEL** button: Press **FIXED VEL** to enable/disable the **Fixed Velocity** option. By default, the pads are sensitive to velocity: The harder you hit them, the louder the sound will be. With Fixed Velocity activated, your pads play at the same volume no matter how hard you hit them. For example, this can be very handy when you are triggering slices of a loop from your pads and want to have all slices at the same volume. Fixed Velocity is available in all four pad input modes: Group, Keyboard, Chords and Step (see above for more info on these). Press **SHIFT** + **FIXED VEL** to enable/disable the **16 Velocities** option. In this mode your pads play the same note (pitch) of the focused Sound but with 16 different velocity values. This can be useful to play or program complex drum fills. The display indicates the velocity values for each pad. The pitch of the played note is defined by the Base Key. The 16 Velocities option is only available in Pad mode, i.e. when **PAD MODE** (**10**) is activated.

## Rear panel

The rear panel of the Maschine controller holds the USB, and Kensington Lock sockets.

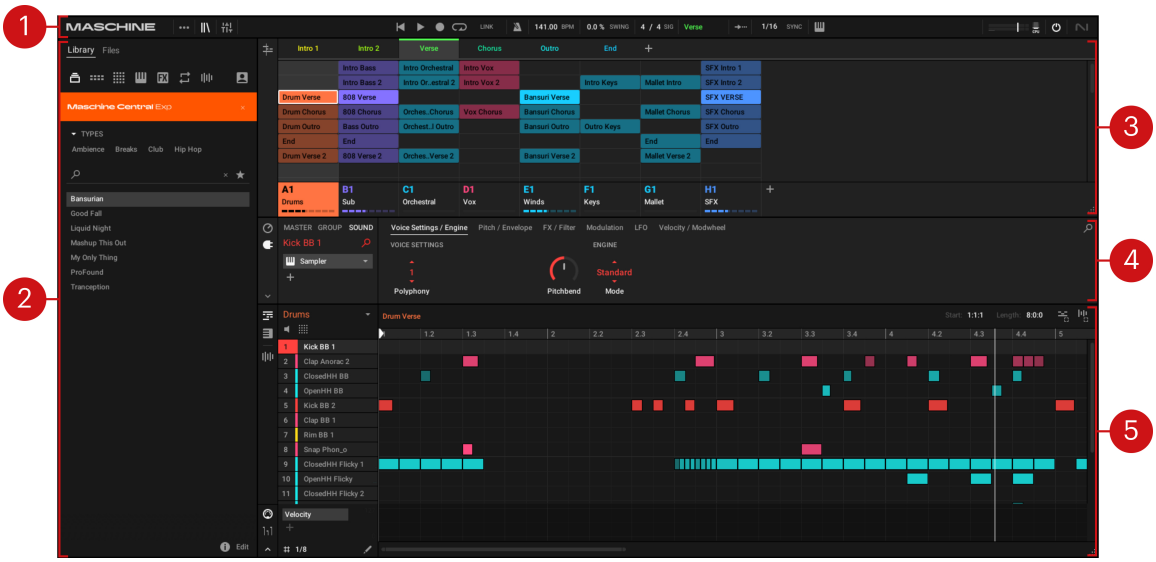



*The rear panel of the Maschine controller.*

(**1**) **USB** socket: Connects the Maschine controller to your computer via USB 2.0/3.0.

(**2**) **Kensington Lock** slot: Attach a Kensington Lock to secure your device from theft.

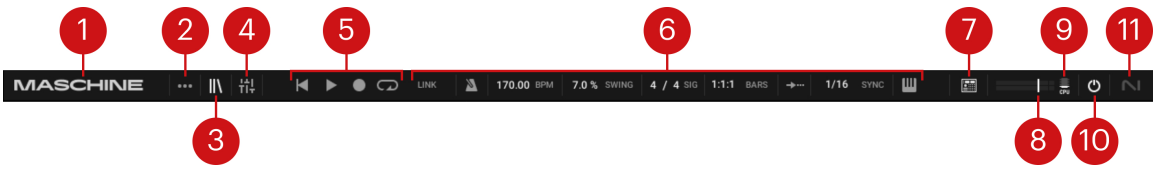
# Maschine software overview




*The Maschine software.*

1. **Header**: The Header contains the main controls for the Maschine software including the Display area, the Transport controls, and the Master Volume slider. You can also use this area to toggle the Browser, toggle the Mixer view, connect to your hardware controller and monitor the CPU usage of your computer.
2. **Browser**: The Browser is your tool for managing, finding, tagging, and categorizing Projects, Groups, Sounds, Instruments, Effects, and Samples. Using the search facility you can quickly find things and audition Samples.
3. **Arranger**: This area has two views: Ideas view and Song view. Ideas view is for creating and experimenting with musical ideas free from the timeline. Song view is for organizing your musical ideas into a song on the Timeline.
4. **Control area**: The Control area allows you to control parameters and settings for each of the Plug-in slots at each Project level (Sound, Group, and Master). This area can hold settings for Groups, Sounds, Plug-ins (internal or VST/AU plug-ins), MIDI, routing.
5. **Pattern Editor**: The Pattern Editor features both step programming and real-time recording and is the basis for each Pattern. Patterns for each Group can be created here and then assigned to Scenes in the Arranger. The Pattern Editor also lets you edit modulation for the Sound, Group, and Plug-in (Internal or External) parameters.

## Header

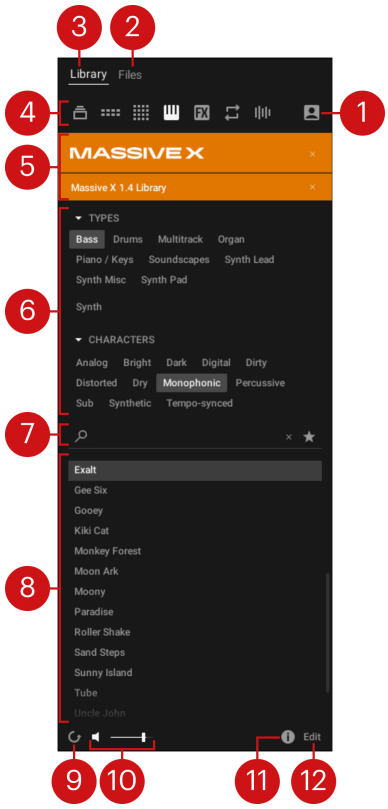



*The Header*

1. **Maschine logo**: The Maschine logo and NI logo open the About screen, which displays the version number and edition of your Maschine software.

2. **Maschine menu**: Click the Maschine menu to access the software menus. This menu is particularly useful when Maschine is used as a plug-in in a host application.
3. **Browser button**: Use the Browser button to toggle the Browser. The Browser is your tool for managing, finding, tagging, and categorizing Projects, Groups, Sounds, Instruments, Effects, and Samples. From the Browser, you can directly search your computer or an external drive to add new files. You may also audition Samples directly from the Browser and apply new tags.
4. **Mix view button**: Click the Mix view button to access the Mix view. The Mix view provides you with quick access to the level and routing settings of all your Sounds, Groups, and the Master. In addition, it provides you with an intuitive interface for adjusting the parameters of all your Plug-ins.
5. **Transport controls**: The Transport controls contain buttons such as Play, Restart, Record, and Loop.
6. **Display area**: The Display area provides controls for Ableton Link, the metronome, the tempo, the global swing, the time signature, the Follow feature, the Performance Grid and the Retrigger feature, and the use of your computer keyboard as MIDI keyboard.
7. **Controller icon**: This area displays an icon for each Maschine controller connected to your computer.
8. **Master Volume slider**: Shows and adjusts the level of the Maschine audio output.
9. **CPU meter**: The CPU meter represents the current load on your computer's processor and is constantly measured; it should not go above 70% to avoid clicks and interruptions. You can save CPU power by sampling the audio output of Maschine if necessary using export.
10. **Audio Engine button**: Click the Audio Engine button to disable the entire sound processing of Maschine.
11. **NI logo**: The NI logo and Maschine logo open the About screen, which displays the version number and edition of your Maschine software.

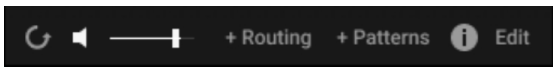
## Browser




*The Browser*

1. **Library tab**: Use the **Library** tab to access your computer's hard drives via Maschine's selectors and filters.
2. **Files tab**: Use the **Files** tab to access your computer's hard drives.
3. **File Type selector**: This contains seven icons representing the different file types of Maschine. From left to right the file types are **Projects**, **Groups**, **Sounds**, **Instruments**, **Effects**, **Loops** , and **One-shots**. Clicking one of them causes only the files of the selected type to be displayed.
4. **Content selector**: Use the Content selector to switch between Factory Content (button off) and User Content (button on).
5. **Product selector**: The Product selector allows you to browse and select any content of the same File Type as is selected in the File Type selector above.
6. **Tag Filter**: The Tag Filter allows you to search based on tags. You can quickly find files based on the **Types** and **Characters** categories by clicking the tags.
7. **Search field**: Use the search field to quickly find files based on their name or tagged attribute. Select the type of file you are looking for from the File Type selector and enter the name or category of a file into the search field to perform a search. Results are displayed in the Results list below.
8. **Results list**: The Results list displays all files that match your query.
9. **Autoload**: This button automatically loads the selected loop or one-shot in the Results list so you can listen in context and in tempo with your Project while it is playing.

10. **Audition button** (speaker icon): Allows you to quickly audition the item selected in the Results list when Preview files have been downloaded and installed using Native Access. The volume level of the file being auditioned is set by the slider. When browsing **Groups**, the **+PATTERNS** and **+ROUTING** buttons appear in the Control bar of the Browser.

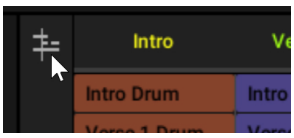



    - Use the **+ROUTING** button to load the audio and MIDI routings stored in the Group (potentially overwriting previous routings in the selected Group). When the **+ROUTING** button is off, any audio and MIDI routings saved in the Group will not be loaded, preserving any existing routings in the active Group.
    - Use the **+PATTERNS** button to load a Group with its saved Pattern. When **+PATTERNS** is selected the Sounds and Patterns of the selected Group are loaded. When **+PATTERNS** is deselected, only the Sounds of the selected Group are loaded so you can try them with your existing pattern.
11. **Information**: Click the Information icon to view the details of the selected file.
12. **Tag Editor**: Use the Tag Editor to edit Tags applied to files and to add Tags to new files. Native Instruments content is read-only, however, Types and Characters properties can be edited in User content. You can show/hide the Tag Editor by clicking the **EDIT** button at the bottom right.

## Arranger

The Arranger has two views: **Ideas view** and **Song view**. Each view has a specific purpose in the workflow of creating a song, but essentially they represent the same content. The Ideas view allows you to experiment with your musical ideas without being tied to a timeline or any kind of arrangement. Here you can create Patterns for each Group and combine them into a Scene. The Song view allows you to structure your song by allowing you to assign the Scenes you created in the Ideas view to Sections, and move them around to quickly create a larger musical structure.

### Switching between Ideas view and Song view

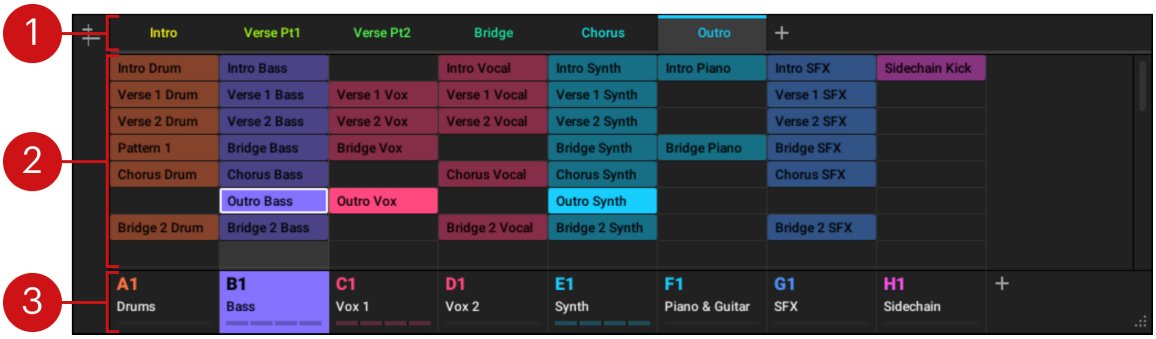



*The Arranger View button*

▶ Click the Arranger View button to switch between the Ideas view and the Song view.

→ When the button is unlit Ideas view is active, when the button is lit Song view is active.

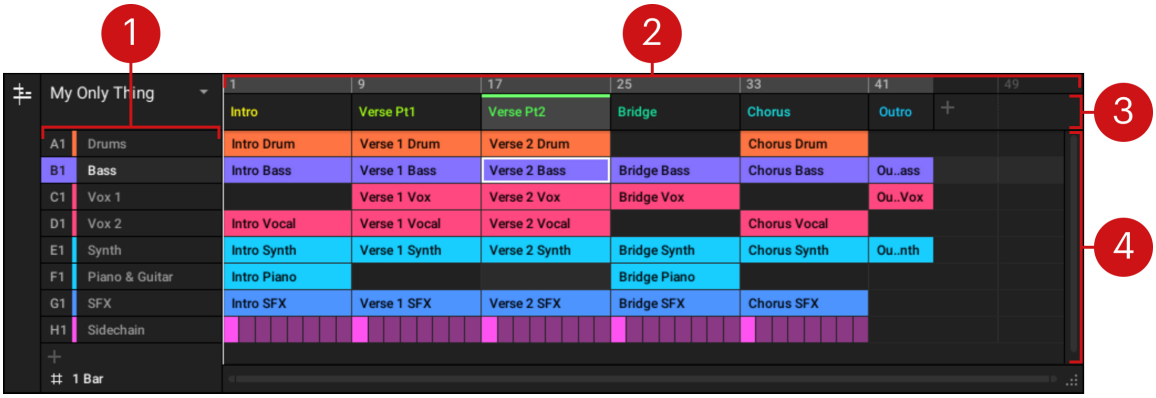
## The Ideas view




*The Ideas view for creating and experimenting with musical ideas free from the Timeline.*

1. **Scenes**: This area displays all the current Scenes in your project. After creating a Scene by clicking the **+** symbol, you can build the Scene by selecting a Pattern from each Group. By clicking each Scene name (Scene slot) you can switch between Scenes to see how your musical ideas work together. Using your mouse you can right-click the Scene slot and select to **Append to Arrangement** from the menu and then arrange your song in the Song view. You can also use the right-click menu to **Clear**, **Duplicate**, or **Delete** Scenes, as well as organize your Scenes by selecting the **Rename** or **Color** options
2. **Pattern area**: All Patterns in your Song are represented here. You can double-click a blank slot to create and new Pattern or click an existing Pattern to assign it to the selected Scene. Once assigned, a Pattern will become highlighted, click it again to remove it from the selected Scene. Using your mouse you can right-click the name of a Pattern and select to **Clear**, **Duplicate**, or **Delete** a Pattern. You can also organize your Patterns by selecting the **Rename** or **Color** options.
3. **Groups**: Select the desired Group slot to display the Group's contents (Sounds, Patterns…) in the Pattern Editor (refer to Pattern Editor) and the Group's Channel properties and Plug-in parameters in the Control area (refer to Control area). To mute a Group click the Group letter, for example, **A1**, and right-click on the letter to solo the Group. Using your mouse you can also right-click the name of a Group to access the many options available to manage them.

## The Song view

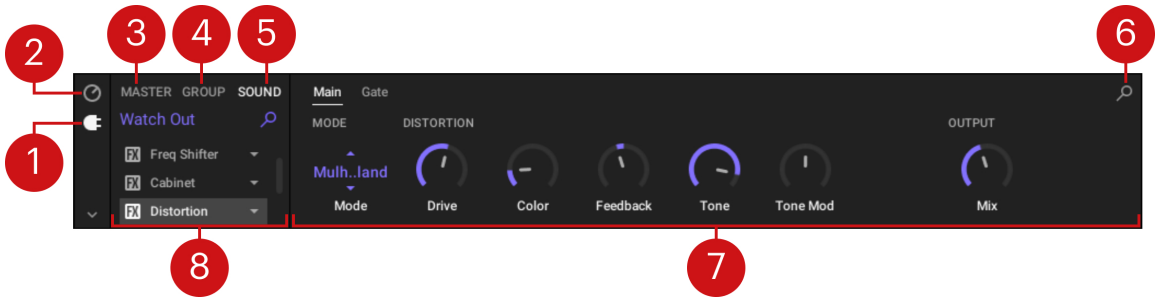



*The Song view for organizing your musical ideas into a song on the Timeline.*

1. **Groups**: Select the desired Group slot to display the Group's content (Sounds, Patterns…) in the Pattern Editor (refer to Pattern Editor) and the Group's Channel properties and Plug-in parameters in the Control area (refer to Control area).

2. **Arranger timeline**: This area displays the current position within the track and allows you to set the loop range.
3. **Section slots**: This area displays Section slots. A Section is a container for Scenes placed on the Timeline. A Section can be moved freely by clicking the name of the Section and dragging and dropping it into place. You can change the length of a Section by dragging the Section end marker to the left to shorten it, or to the right to lengthen it. Using your mouse you can right-click a Section and use **Select** in the menu to assign a Scene to a Section. It is also possible to use the menu to **Insert, Duplicate**, **Delete**, **Clear** or **Remove** Sections as well as organize them by selecting the **Rename** or **Color** options.
4. **Pattern area**: In each Section of the Arrangement, you can see the name of the Scene assigned to the Section along with the Scene's Patterns stacked vertically for each Group in the Project. The Patterns seen here are the same as those seen when viewing the same Scene in the Ideas view.

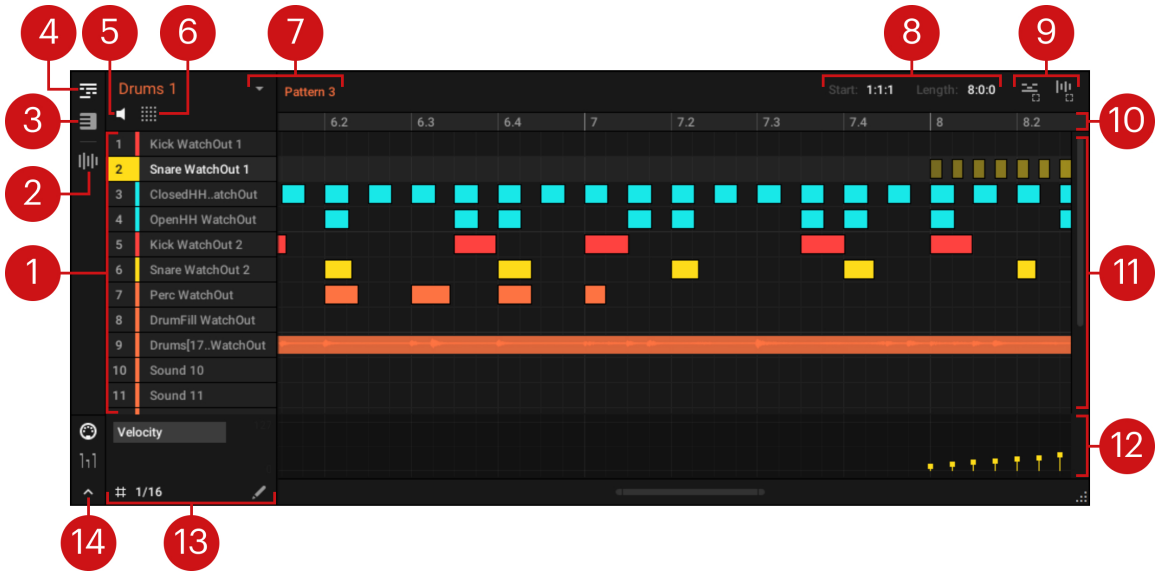
## Control area




*The Control area*

1. **Plug-in icon**: Click the Plug-in icon to access Plug-ins and their parameters.
2. **Channel icon**: Click the Channel icon to access Channel properties where you can display and adjust various properties for the selected Sound/Group or Master channel in the Parameter area.
3. **MASTER tab**: Click the **MASTER** tab to control sound at the main outputs of Maschine (including all Groups and Sounds).
4. **GROUP tab**: Click the **GROUP** tab to gain access to Plug-ins and Channel properties of the Group loaded in the selected Group slot (**A**–**H**).
5. **SOUND tab**: Click the **SOUND** tab to gain access to Plug-ins and Channel properties of the Sound in the selected Sound slot (**1**–**16**).
6. **Quick Browse icon**: Use the Quick Browse icon to recall the search query you performed to find the currently loaded file/preset.
7. **Parameter area**: Displays the parameters for the selected Plug-in or Channel properties. Depending on the number of parameters to display, these can be split into several parameter pages. In this case, click the page name in the top row to display its parameters.
8. **Plug-in list**: There are Plug-in slots on each channel level (Sound, Group, and Master). Each of them can hold one effect Plug-in. The first Plug-in slot of the Sound level can also hold a plug-in instrument. Select the desired Plug-in to display its parameters in the Parameter area.

## Pattern Editor




*The Pattern Editor*

1. **Sound slots**: Sound slots **1**–**16** of the selected Group are listed here. Click a Sound slot to bring it into focus and display its Plug-ins and Channel properties in the Control area (refer to Control area). In Keyboard view (**3**), click a Sound slot to display its events in the Event area (**11**).
2. **Sample Editor button**: Click this button to open/close the Sample Editor. Refer to Sampling and sample mapping for more information.
3. **Keyboard View button**: Click this button to switch the Event area (**11**) to Keyboard view.
4. **Group View button**: Click this button to switch the Event area (**11**) to Group view.
5. **Audition button**: Click this button to audition a Sound when when you select it from the Sound slots (**1**). When this is on, you can also audition single events when you click them in the Event area (**11**).
6. **Pad View button**: Click this button to manage the pad assignments and access the Key, Choke, and Link settings for the selected Sound.
7. **Pattern Manager**: Each Group has an unlimited number of Patterns available. Each Pattern slot can hold one Pattern. A Pattern contains the events that make up a groove or a musical phrase for the selected Group. Click the drop-down arrow to open the Pattern Manager and select a Pattern slot to display and edit its Pattern. Upon slot selection, this Pattern is also referenced for that Group in the selected Scene in the Arranger (see Arranger). Select various Patterns from each Group to form an arrangement.
8. **Pattern Start and Length controls**: Adjust the start point and the length of the Pattern, both measured in bars:beats:steps.
9. **Dragger icons**: Allow you to conveniently drag and drop audio or MIDI from your Patterns to your desktop or to your DAW.
10. **Pattern timeline**: The timeline at the top of the Event area (**11**) displays musical time units, including bars and beats. Drag the white start and end markers in the timeline to resize the Pattern, or click between the markers and drag your mouse horizontally to move the Pattern in the timeline.

11. **Event area**: Displays the content of the selected Pattern slot (**7**). Here you can see your recorded events as rectangular blocks. In Group view (**3**) these represent the Sounds of your Group. In Keyboard view (**2**) they represent musical notes of the selected Sound. The events can be edited using your mouse; they can be dragged to a new position, elongated, shortened, or deleted.
12. **Control Lane**: The Control Lane provides a visual overview and editing tools for the MIDI automation and parameter modulation.
13. **Edit controls**: Use the Step Grid controls on the left to turn the Step Grid on or off and adjust its resolution (the step size in which events can be moved/resized), and click the pencil icon on the right to toggle the Draw mode on or off when editing events with your mouse in the Event area (**11**).
14. **Control Lane button**: Shows or hides the Control Lane (**12**).

# 4. Basic concepts

This chapter will introduce you to Maschine's main elements and terminology and explain how they relate to one another. You will also learn how to set up your audio interface and connect MIDI devices.

## Important names and concepts

Here is a list (in alphabetical order) of the most important concepts and names.

### Arranger

The Arranger is the big area located in the upper part of the Maschine window, right under the Header. The Arranger has two views: Ideas view and Song view. Ideas view allows you to develop your ideas independently from the timeline. The song view will enable you to combine Sections (references to Scenes) and arrange them into a song.

### Browser

The Browser is the front end for accessing all the elements of your Maschine Projects: Projects, Groups, Sounds, instruments and effect presets, and Samples. Each of these can be stored and tagged in a way that allows you easy access to all of them. Maschine's factory library has already been completely tagged, including the factory libraries of any Native Instruments products installed on your computer. You can also import your files into the Library and tag them as well. For more information, refer to Browser.

### Effect

Maschine comes with many different effects in the form of Internal Plug-ins. You may also use Native Instruments or third-party VST/AU effect plug-ins. Each Sound, each Group, and the Master can hold any number of effects that can be applied as insert effects. The flexible routing system also allows you to create send effects, multi-effects, and side-chains. For more information, refer to Using effects. For an complete description of all internal effects, refer to Effect reference.

### Event

Events are the individual drum hits or notes that make up a Pattern. In the Pattern Editor, events are visually represented by rectangles in the Event area. Depending on the current view in the Pattern Editor, you can see events for all Sounds slots (Group view) or for the selected Sound slot only (Keyboard view). For more information, refer to Working with Patterns and Clips.

### Group

A Group contains 16 Sound slots. In addition to the Effect Plug-ins applied to each individual Sound, a Group can have its own insert effect. These affect all the Sounds in the Group. A Group can also contain any number of Patterns (grouped into banks of 16 Patterns each). For more information, refer to Managing Sounds, Groups, and your Project.

### Ideas view

The Ideas view allows you to experiment with your musical ideas without being tied to a timeline or arrangement. You can create Patterns for each Group and combine them into a Scene. Scenes can then be added to Sections in the Song view to create a larger musical structure.

### Master

This is where all audio signals from each of the Groups and Sounds come together and get mixed. The Master channel can also host any number of insert effects of its own, these effects are applied to all Groups and the Sounds within them. For more information, refer to Managing Sounds, Groups, and your Project.

### Pattern

A Pattern is a sequence that plays Sounds from a Group. It belongs to that Group and will be saved together with the Group. In every Scene you can choose for each Group which of its Patterns has to be played. For more information, refer to Working with Patterns and Clips.

### Plug-in

Each Sound, each Group, and the Master can hold any number of Plug-ins. Plug-ins can be instruments or effects, and they can be internal (included with Maschine), from other Native Instruments products (instruments or effects), or external (third-party VST/AU plug-ins). Instrument and Effect Plug-ins can be loaded in the first Plug-in slot of Sounds. The other Plug-in slots of Sounds, as well as the Plug-in slots of Groups and of the Master can hold Effect Plug-ins only. At each level (Sound, Group, and Master), Plug-ins process the audio in series, according to the order in which they are stacked up. For more information, refer to Working with Plug-ins.

### Project

A Project contains all data needed for a song: Groups with their Patterns, all Scenes and all settings, modulation, effects, routings, Sounds, and Samples. It's like a snapshot of the entire state of Maschine. Please read the Maschine Getting Started for a complete overview of the Maschine Project structure.

### Scene

A Scene is a combination of Patterns for each Group. They can be used to combine Patterns in order to create musical ideas. Scenes are created in the Ideas view and then added to Sections in the Song view to create an arrangement. For more information, refer to Using the Song view.

### Section

A Section is a reference to a specific Scene on the Timeline of the Song view. They are used to arrange the Scenes into a larger musical structure. The benefit of using Sections is that any changes made to a Scene are replicated in each Section where the Scene is referenced therefore making the process of changing parts of a song quick and easy.

### Song view

Song view will enable you to combine Sections (references to Scenes) and arrange them into a song in the Arranger.

### Sound

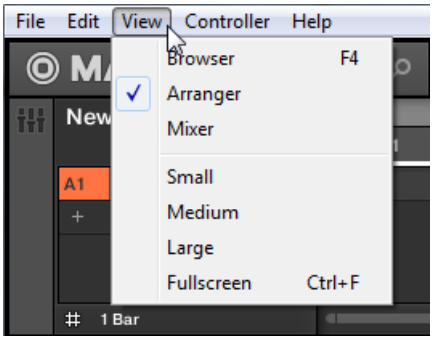
Sounds are the building blocks of all sound content in Maschine. A Sound is made up of any number of Plug-ins. Each Sound of the selected Group is mapped to one of the 16 pads on the hardware controller, so you can play the Sounds by pressing the pads. For more information, refer to Managing Sounds, Groups, and your Project.

## Adjusting the Maschine user interface

The Maschine software user interface is very flexible and allows you to display what you need so you can focus on your workflow. This section shows you how to adjust it.

### Adjusting the size of the interface

From the **View** menu in the Application Menu Bar and from the **View** submenu in the Maschine menu you can select one of four different sizes to display Maschine's software GUI:




*The View menu in the Application Menu Bar (Windows depicted)*

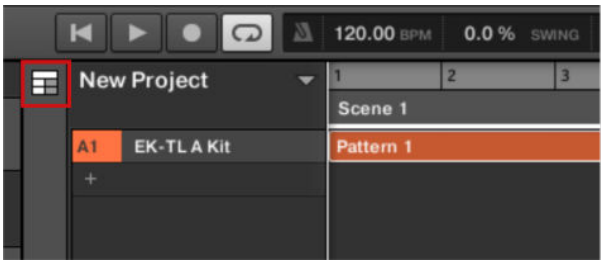



*The View submenu in the Maschine menu*

Full screen view is also available from your computer keyboard via [Ctrl]+[F] (macOS: [Cmd]+[F]).

### Switching between Ideas view and Song view

At any time you can quickly switch between the Ideas view and the Song view using the Arranger View button:




*The Arranger View button at the top left corner.*

▶ Click the Arranger View button to switch between the Song view and the Ideas view.

→ When the button is unlit the Ideas view is active, when the button is lit the Song view is active.

For more information on the using the Arranger, refer to Working with the Arranger.

## Showing/hiding the Browser

▶ Click the Browser button (with the magnifier symbol) in the Header to show and hide the Browser. You can also select **Browser** from the **View** menu in the Application Menu Bar or from the **View** submenu in the Maschine menu.




*The Browser button in the Header*

You can also show/hide the Browser from your computer keyboard via the [F4] function key.

### Showing/hiding the Browser on the controller

Press the Browser button (magnifying glass icon) on the top left-hand side to show/hide the Browser.

## Minimizing the Mixer

When Maschine is in Mix view, you can minimize/maximize the Mixer in the top part of the Maschine window:

▶ Click the arrow button at the bottom left of the Mixer to show and hide the channel details in the Mixer.

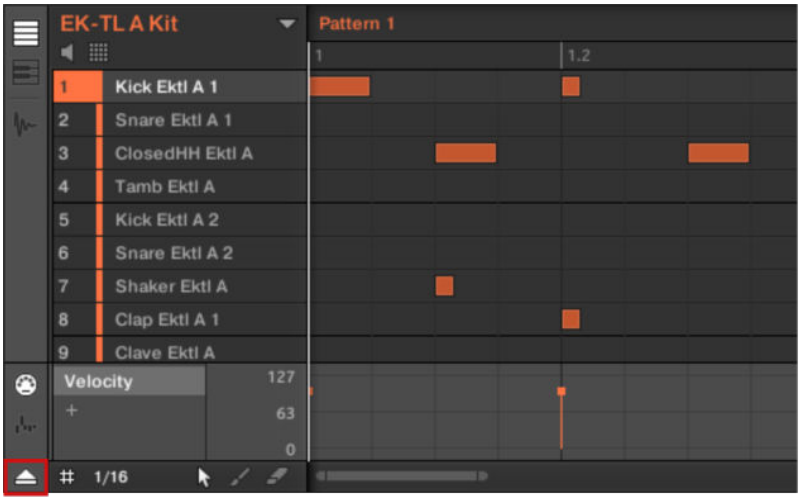



*Minimizing/maximizing the Mixer*

### Showing/hiding the Control Lane

When Maschine is in Arrange view, you can show/hide the Control Lane under the Pattern Editor:

- ▶ Click the arrow button on the bottom left of the Pattern Editor to show and hide the Control Lane.




*The arrow button at the bottom left of the Pattern Editor to show/hide the Control Lane*

## Common operations

This section introduces a few common operations in Maschine that you will encounter in numerous situations.

### Adjusting the volume, swing and tempo

At any time you can quickly adjust the volume levels, the swing, and the overall tempo of your Project.

## Adjusting the volume, swing and tempo in the software

### Adjusting the volume

▶ To adjust the overall output level, click and drag the Master Volume slider located on the right part of the Header, at the top of the window.



*Use the Master Volume slider in the Header to adjust the overall volume of Maschine.*

> You can also use Mix view to adjust your Sound and Group levels. Mix view gives you quick access to the level and routing settings of all your Sounds, Groups, and the Master. In addition, it provides you with an intuitive interface for adjusting the parameters of all your Plug-ins. More on this in section The Mixer.

### Adjusting the swing

To adjust the overall swing of your song, you can use the **SWING** display in the Header, at the top of the Maschine window:




*The **SWING** control in the Header.*

▶ To adjust the swing value of your Project, click the **SWING** value, hold the mouse button and drag vertically.

### Adjusting the tempo

To adjust the overall tempo of your song, you can use the **BPM** display in the Header, at the top of the Maschine window:




*The **BPM** control in the Header.*

▶ To adjust the tempo value (in beats per minute) of your Project, click the **BPM** value, hold the mouse button and drag vertically. You can also double-click the **BPM** value, enter the desired tempo, and press [Enter] to confirm.

> You can also use the **BPM** control to define different tempo values for specific Scenes. For more information, refer to Changing the Scene tempo.

## Adjusting the volume, swing, tempo and tune on your controller

### Adjusting the volume

▶ Press the **VOLUME** button next to the Encoder.

→ The **VOLUME** button lights up. You can now adjust the volume for your overall Project, for each Group, and for each Sound individually using the Encoder:

- To adjust the overall volume, turn the Encoder. Hold **SHIFT** to adjust the value in finer increments.
- To adjust the volume of a particular Group, hold its Group button (**A**–**H**) and turn the Encoder. Hold **SHIFT** to adjust the value in finer increments.
- To adjust the volume of an individual Sound, press and hold its pad and turn the Encoder. Hold **SHIFT** to adjust the value in finer increments.

As you adjust the volume, the display indicates the current value.



It is recommended you try this while your Pattern is playing, you will immediately hear the effect of your changes.

### Adjusting the swing

Now adjust the overall **swing** of your Project. The Swing feature shifts some of the played notes, hereby adding some “groove” to your Pattern. The procedure is similar to the one described above for the volume:

▶ Press the **SWING** button next to the Encoder.

→ The **SWING** button lights up. You can now adjust the swing for your overall Project, for each Group, and for each Sound individually using the Encoder:

- To adjust the overall swing, turn the Encoder. Hold **SHIFT** to adjust the value in finer increments.
- To adjust the swing of a particular Group, hold its Group button (**A**–**H**) and turn the Encoder. Hold **SHIFT** to adjust the value in finer increments.
- To adjust the swing of an individual Sound, press and hold its pad and turn the Encoder. Hold **SHIFT** to adjust the value in finer increments.

As you adjust the swing, the display indicates the current value.

### Adjusting the tempo

▶ Press the **TEMPO** button next to the Encoder.

→ The **TEMPO** button lights up. You can now adjust the tempo of your Project using the Encoder:

- To adjust the overall tempo, turn the Encoder. Hold **SHIFT** to adjust the value in finer increments.

As you adjust the tempo, the display indicates the current value.



You can also set different tempo values for specific Scenes. For more information, refer to Changing the Scene tempo.

It is recommended you try this while your Pattern is playing, you will immediately hear the effect of your changes.

When you are done with your volume, swing, and tempo changes, press the lit **VOLUME**, **SWING**, or **TEMPO** button to deactivate it.

## Using the metronome

The metronome will help you to keep time when recording in real-time or adjusting existing events.

▶ Click the metronome icon in the Maschine Header to enable/disable the metronome:




The metronome can be heard only when the sequencer is playing.

The metronome signal is sent to the Cue bus. To know how to use the Cue bus, refer to Using the Cue bus.

You can customize the metronome in various ways in the **Preferences** panel:

- You can adjust the metronome's volume and time signature in the Preferences' **General** page. For more information, refer to Preferences – General page.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences' **Default** page. For more information, refer to Preferences – Default page.

The time signature of the metronome can be set to differ from the time signature of your Project. This can be useful to record unusual rhythms in a Pattern. Reminder: the time signature of your Project is defined in the Maschine Header (Maschine in stand-alone mode) or by your host application (Maschine running as a plug-in).

### Activating the metronome on the controller

On the controller:

▶ Press **SHIFT** + **TAP** (**Metro**) in the Transport section to activate or deactivate the metronome.

## Undo/redo

Undoing and re-doing your last actions can be useful to cancel operations you have performed or to compare two versions before and after a change. You can undo nearly everything you did after loading or creating your Project.

Note: If you save your Project, you will no longer be able to undo or redo any actions performed before saving!

Maschine provides two different undo/redo features, each of them being suited for specific situations:

- **Step Undo** allows you to cancel your last *single action*. This is the classic undo/redo found in most applications. It cancels or re-executes each single action you have performed.
- **Take Undo** allows you to cancel your last *group of actions*. Take Undo/Redo is an extended undo/redo available while recording that allows you to cancel or re-execute a whole group of actions at once. It is the default undo/redo in Maschine. For example, suppose that you have just recorded a 16th-note hi-hat beat over four bars, but then decide to cancel it. Normally you would have to cancel the 64 notes one at a time, repeatedly calling the undo function 64 times in a row. Instead, a single Take Undo does the job.



Take Undo is available when recording in Control mode, recording in Step mode, and recording modulation. Outside of these three situations, Take Undo has the same effect as Step Undo.

**Undo/redo in the software**

Use the following keyboard shortcuts for the Step Undo/Redo and Take Undo/Redo functions:

- To cancel your last action (Step Undo), press [Ctrl]+[Shift]+[Z] ([Cmd]+ [Shift]+ [Z] on macOS). To re-execute your last action (Step Redo), press [Ctrl]+ [Shift]+ [Y] ([Cmd]+ [Shift]+ [Y] on macOS). You can also select **Undo Step** and **Redo Step** from the **Edit** menu in the Application Menu Bar or from the **Edit** submenu in the Maschine menu.
- To cancel your last group of actions (Take Undo), press [Ctrl]+[Z] ([Cmd]+[Z] on macOS). To re-execute your last group of actions (Take Redo), press [Ctrl]+[Y] ([Cmd]+[Y] on macOS). You can also select **Undo** and **Redo** from the **Edit** menu in the Application Menu Bar or from the **Edit** submenu in the Maschine menu.



The commands in the **Edit** menu additionally shows which action will be undone/redone!

**Undo/redo on the controller**

Both Take and Step Undo/Redo are also available on your controller:

- To undo a take, press **SHIFT** + pad **1** (**UNDO**).
- To redo a take, press **SHIFT** + pad **2** (**REDO**).
- To undo a step, press **SHIFT** + pad **3** (**STEP UNDO**).
- To redo a step, press **SHIFT** + pad **4** (**STEP REDO**).

## Focusing on a Group or a Sound

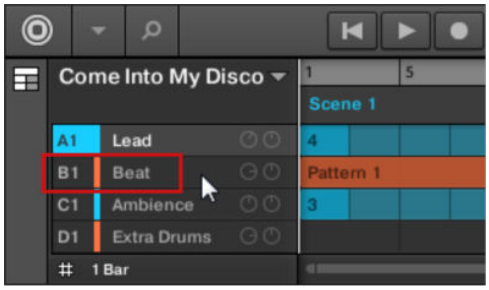
To display the content and the parameters of a particular Sound or Group, you need to bring it into focus.

Focusing on a Sound or Group is slightly different than selecting it: The focus defines the Sound or Group whose details are displayed, whereas the selection defines the Sound(s) or Group(s) affected by your edits. There is always one single Sound/Group in focus, and it is always in the selection. You can extend the selection to include additional Sounds/Groups and apply your edits to all of them at once. Refer to section Selecting multiple Sounds or Groups for more information.

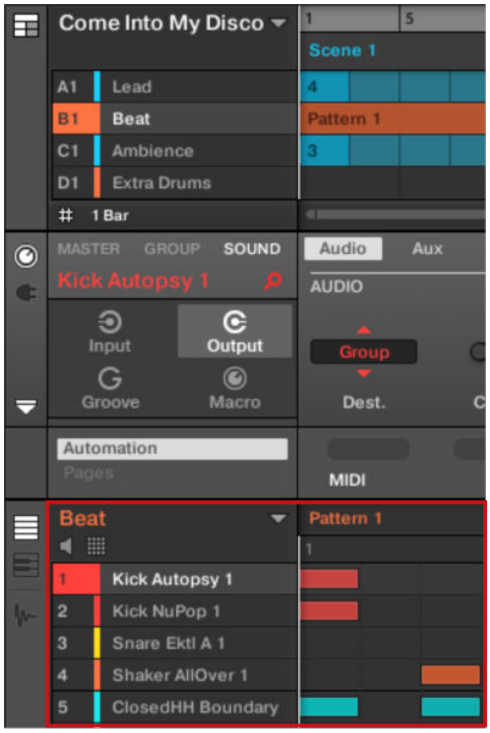
Here, we show how to bring Sounds and Groups into focus when the Maschine software is in Arrange view (default view). For instructions on bringing Sounds and Groups into focus in Mix view, please refer to Selecting channel strips.

## Focusing on a Group

▶ To put a Group in focus, click this Group in the Group List of the Arranger:




→ The focused Group is highlighted and the Pattern Editor displays its contents (Sounds and Patterns):




If the desired Group does not appear in the Group List, use the scroll bar at the right end of the Arranger or turn your mouse wheel while hovering the Arranger to display any hidden Groups. You can also extend the Arranger by dragging its lower right corner vertically with the mouse.

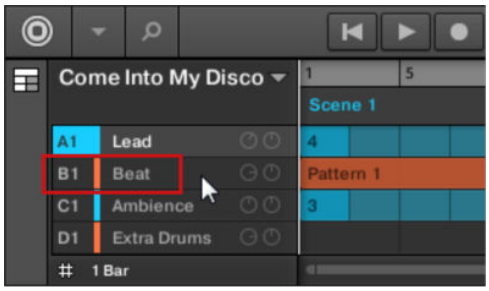


You can also select multiple Groups at once to apply changes to all of them. See section Selecting multiple Sounds or Groups for more information.

## Focusing on a Sound

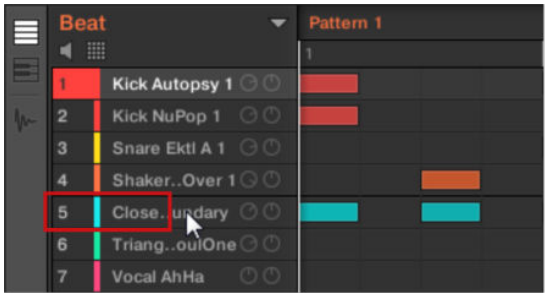
To put a Sound in focus:

1. Set the focus to the Group containing the desired Sound by clicking it in the Group List on the left of the Arranger (as described above):

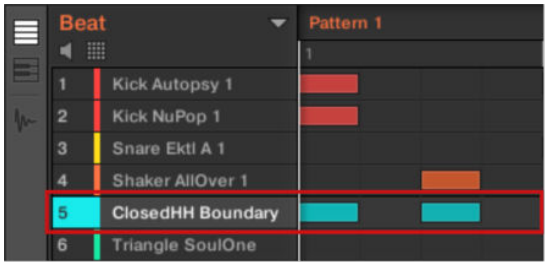



→ The focused Group is highlighted and the Pattern Editor displays its contents (Sounds and Patterns).

2. Click the desired Sound slot in the Sound List of the Pattern Editor:




→ The focused Sound slot is highlighted.






If the desired Sound does not appear in the Sound List, use the scroll bar at the right end of the Pattern Editor or turn your mouse wheel while hovering the Pattern Editor to display any hidden Sounds.



You can also select multiple Sounds at once to apply changes to all of them. See section Selecting multiple Sounds or Groups for more information.

### Focusing on a Group using the controller

1. If necessary, press **GROUP** + the Left or Right Arrow button below the display to switch to the Group bank containing that Group.
2. Press **GROUP** + the pad **9**–**16** of the desired Group.

The corresponding Group is now in focus.

### Focusing on a Sound using the controller

1. If you want to set the focus on a Sound located in another Group, first set the focus on its Group as described above.
2. Press **SELECT** + the pad of the desired Sound (or simply press its pad if pads are in Pad Mode).

→ The corresponding Sound is now in focus.

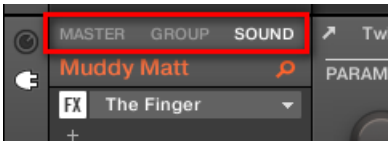
For information on how to quickly switch between the Master, Group, and Sound level in the software, refer to section Switching between the Master, Group, and Sound levels.



You can also select multiple Sounds at once to apply changes to all of them. See section Selecting multiple Sounds or Groups for more information.

## Switching between the Master, Group, and Sound levels

At any time you can quickly switch the Control area between the parameters of the Master, the focused Group, and the focused Sound.




*Click the desired tab to switch the display of the Control area.*

▶ Click the **MASTER**, **GROUP** or **SOUND** tab in the top left corner of the Control area to display the Plug-in parameters or Channel properties of the Master, the focused Group or the focused Sound, respectively.

→ The selected tab lights up. The name of your Project, of the focused Group or or the focused Sound appears under the **MASTER**, **GROUP**, and **SOUND** tabs (the **Muddy Matt** Sound in the picture above), and the rest of the Control area displays its Plug-in parameters and Channel properties.

## Navigating Channel properties, Plug-ins, and Parameter pages

We describe here how to display/edit any Plug-in parameters or Channel properties of a Sound, a Group or the Master.

To select a particular Plug-in or a particular set of Channel properties, you first need to display the parameters of the Master, the desired Group or the desired Sound.

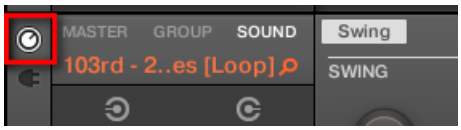
1. To display the parameters of a particular Group or Sound, put it in focus by clicking it in the Group List or Sound List, respectively (refer to Focusing on a Group or a Sound).

2. In the top left corner of the Control area, click the **MASTER**, **GROUP** or **SOUND** tab to display the parameters of the Master, the focused Group or the focused Sound, respectively.

→ The Control area now displays the Plug-in parameters and Channel properties of the Master, the focused Group or the focused Sound.

## Selecting Channel properties

1. At the far left of the Control area, click the **Channel icon** (showing a little knob) to display the Channel properties:




The button lights up. The **Channel Property selector** appears in the left part of the Control area, showing a square of four buttons representing the various sets of Channel properties available for the selected Sound, Group or the Master:

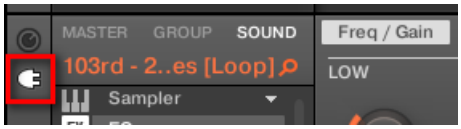



2. Click the desired button (**Input**, **Output**, **Groove**, or **Macro**) in the Channel Property selector to select that set of Channel properties.

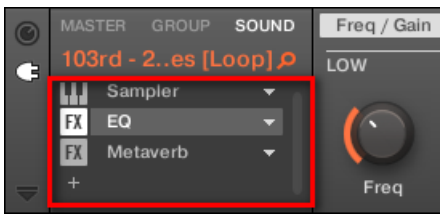
→ The selected button is highlighted and the parameters of the selected Channel properties appear in the **Parameter area** (the right and biggest part of the Control area).

## Selecting a Plug-in

1. At the far left of the Control area, click the little **Plug-in icon** to display the Plug-ins:




The icon lights up. The **Plug-in List** appears in the left part of the Control area, showing a stack of all Plug-ins loaded in the selected Sound, Group or the Master:




2. Click the desired Plug-in slot in the Plug-in List to select that Plug-in.

→ The parameters of the selected Plug-in appear in the **Parameter area** (the right and biggest part of the Control area).

If the Plug-in List only shows a "**+**" sign, it means that there are no Plug-ins loaded in this Sound, Group or the Master. Clicking the "**+**" sign allows you to load a new Plug-in: see section Loading, removing, and replacing a Plug-in for more on this.

## Navigating Parameter pages

In some situations, the selected Plug-in or Channel properties provide more parameters than the display(s) of your controller and the Parameter area in the software can show at once. Examples of this are the parameters for the Groups' or Sounds' Output properties and those for the Sampler Plug-in. In these cases, the parameters are divided into several **Parameter pages** that you can easily navigate with the hardware and software.

In the software the names of the available pages are displayed at the top of the Parameter area. The name of the page currently displayed is highlighted.

▶ Click the desired page name at the top of the Parameter area to show the corresponding Parameter page.




*The Parameter pages of the Sound's Output properties: **Audio** (currently displayed), **Aux**, and **MIDI**.*

If all page names cannot be displayed at once at the top of the Parameter area, two small arrows are displayed on the left to click through the pages:

▶ Click the left or right arrow to access additional pages.

## Adjusting the parameters

In the Parameter area, each parameter includes a control element and a label. Following types of control elements are available:

| Element | Action |
|---|---|
| | **Knob**: Click the knob and drag your mouse vertically to change the parameter value. Hold [Shift] on your computer keyboard and drag your mouse to adjust the value in finer increments. |
| | **Button**: Click the button to switch its state. When the button is activated, it shows a small colored LED. |
| | **Selector**: Click the displayed value to open the drop-down list, and click another value in the list to select it. |

## Navigating Plug-ins and Parameter pages using the controller

On the controller, do the following:

1. Set the focus on the desired Sound, the desired Group or the Master (refer to Focusing on a Group or a Sound).

2. At the top of the controller, press **PLUG-IN**.
3. If you have more than one Plug-in loaded, use the **Arrow buttons** to navigate them.
4. Press the Encoder to display the parameters of the selected Plug-in.
5. Use the Arrow buttons to navigate through each parameter, or **SHIFT** + Arrow buttons to navigate the parameter pages of the selected Plug-in.
6. Turn Encoder to adjust the value of the selected parameter. Hold **SHIFT** while turning the encoder to adjust the value in finer increments.
7. Press **PLUG-IN** again to return to the top level if you want to navigate the Plug-ins again.

## Navigating the software using the controller

You can use the controller to adjust the position and zoom factor in the software. To do this, the controller provides a dedicated Navigate mode.

To access the Navigate mode:

▶ Press **SHIFT** + **VARIATION** (**Navigate**).

### Navigating the Pattern Editor

To control the position and zoom factor in the Pattern Editor from your controller:

| Action | Shortcut |
|---|---|
| Scroll Pattern Editor left | Press pad **1** |
| Scroll Pattern Editor right | Press pad **3** |
| Zoom in to Pattern Editor | Press pad **6** |
| Zoom out of Pattern Editor | Press pad **2** |

### Navigating the Song view

To control the position and zoom factor in the Song view from your controller:

| Action | Shortcut |
|---|---|
| Scroll Arranger left | Press pad **9** |
| Scroll Arranger right | Press pad **11** |
| Zoom in (Arranger) | Press pad **14** |
| Zoom out (Arranger) | Press pad **10** |

## Using two or more controllers

If two or more Maschine controllers of different types are connected to your computer, only one controller can be used to control the Maschine software at a time.

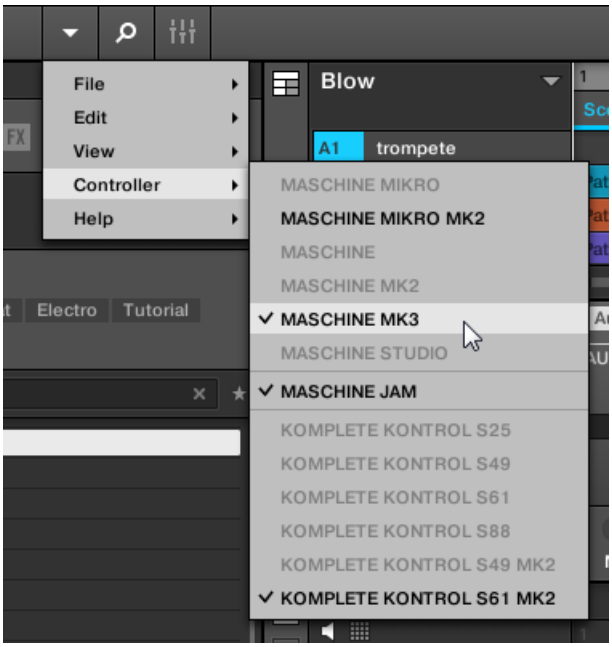


If you have more than one instance of the Maschine software running on your computer, you can control each instance with a different controller. See Controlling various instances with different controllers for more information.

A controller not connected to any Maschine software instance can be used in MIDI mode (i.e. as a MIDI controller) at the same time as the other controller(s). See the Controller Editor Manual for more information on MIDI mode.

You can choose which controller you want to use with the Maschine software. This can be done both from your controller and in the software.

You can select the desired controller from the **Controller** menu in the Application Menu Bar or from the **Controller** submenu in the Maschine menu:




*Click the Maschine menu and select the controller you want to use.*

### Selecting a Maschine software instance from your controller

On the controller you want to use with the Maschine software, do the following:

- Maschine MK3 controller: Press **SHIFT** + **PLUG-IN**, turn the 4-D encoder to select the desired instance, and press the 4-D encoder or Button 4 to load it.

## Loading a recent Project from the controller

Your controller lets you load a Project that was recently opened.

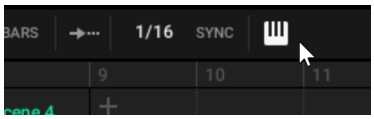
To load a recent Project using the controller:

1. Press the Project button (Maschine logo) at the top on the left-hand side of the controller.
2. Turn the Encoder to find the recent Project you want to load.
3. Press the Encoder to load the selected Project.

## Using your computer keyboard as a MIDI keyboard

You can use your computer keyboard to play MIDI notes in Maschine. This can be useful to play and record patterns even when no Maschine controller is connected. To do this:

▶ Click the Keys button in the Maschine header to activate or deactivate the use of your computer keyboard as a MIDI keyboard:




Alternatively you can use the keyboard shortcut [Ctrl] + [K] (Windows) or [command] + [K] (macOS).

When the Keys button is active, you can use your computer keyboard as follows:

- The upper two rows of letters trigger a range of 18 MIDI keys from C to F (by default from C3 to F4). When the Pattern Editor is in Keyboard view, the piano roll highlights this key range.
- The lower row of letters lets you adjust the following keyboard settings: Pressing [Z] or [X] transposes the key range downwards or upwards in octaves, and pressing [C] or [V] adjusts the velocity of the triggered notes. For both the range and the velocity settings, the new value is temporarily displayed as an overlay at the bottom of the Maschine window.

> ⓘ When the Keys button is active, you cannot use the keyboard shortcuts for the mouse edit modes in the Event area. For more information on the mouse edit modes, refer to Editing events with the mouse.

## Native Kontrol Standard

Native Kontrol Standard (NKS) is a software instrument format that allows third-party developers to integrate with Maschine and Komplete Kontrol hardware and software at the same deep level as Komplete Instruments.

The Native Kontrol Standard includes:

- Seamless integration into the Maschine and Komplete Kontrol Browser for a unified browsing experience.
- Full parameter mapping for instant hands-on control.
- Support of Komplete Kontrol S-SERIES features such as the Light Guide.

NKS instruments can be found in the Maschine Browser next to your Komplete Instruments. All of their presets are fully tagged, so filtering in the Browser gives you matching results from both Komplete Instruments and NKS instruments (refer to section Selecting Type and Character tags). And when you load a preset from an NKS instrument, its parameters are mapped to the controls on your Komplete Kontrol S-SERIES keyboard in a meaningful way, just like any preset from your Komplete Instruments.

NKS instruments are automatically added to your Library when you start Maschine or Komplete Kontrol for the first time after installing the instrument (except Kontakt instruments with NKS support, refer to below). The folders containing the preset files for NKS support can be managed in the Factory pane on the Library page of the Preferences (refer to section Preferences – Library page).

### Installing Kontakt Instruments with NKS Support

Third-party developers of Kontakt instruments provide you with a folder that contains all instrument files, including presets and samples. Instead of running an installer, this folder needs to be stored on the hard drive. The instrument can then be activated with Native Access, which also adds it to the Maschine and Komplete Kontrol Libraries. If you are using Kontakt, the instrument is automatically added to your Kontakt Browser too.

To activate your Kontakt instrument with NKS support and add it to the Maschine Library, follow the steps below:

1. Start the stand-alone version of the Maschine software.
2. In the **File** menu click on **Manage Products… .**

→ Native Access opens, showing all installed products.

3. Click on **Add a serial** in the top-left corner of Native Access.
4. Enter the serial number of the instrument and click **ADD SERIAL**.

→ Native Access asks you to browse the folder containing the instrument files. Before you do this, ensure that you have copied the folder to its final location on your computer.

5. Click **BROWSE** and open the folder containing the instrument files in the file dialog.
6. Click on **INSTALL** to add the instrument to your Maschine Library.

→ The instrument is installed. Maschine automatically scans for the new content and adds it to the Maschine Browser.

> ⓘ The Maschine, and Komplete Kontrol Libraries, and the Kontakt Browser reference the instrument files contained in the folder. It is recommended to not delete or move the folder afterward, or otherwise, Maschine, Komplete Kontrol, and Kontakt will not be able to find the instrument files. If an instrument cannot be found, use the **Rescan** function on the Preferences' **Library** page to update the Library with the correct folder location (refer to section Preferences – Library page).

## Stand-alone and plug-in operation

You can run the Maschine software as a stand-alone application or integrate it into your favorite host by loading it as a plug-in. The Maschine software is available in the VST3, Audio Unit, and AAX plug-in formats. For further information on plug-in compatibility and for a detailed description of how to use plug-ins in your host, refer to the documentation included with your host software.

## Differences between stand-alone and plug-in

### Transport functions

The most noticeable difference between using Maschine as a stand-alone application and as a plug-in relates to the interaction with Maschine's sequencer. Indeed, when Maschine is used as a plug-in within a host sequencer software (e.g., Cubase or Pro Tools), Maschine's sequencer is exclusively controlled by the host application: you cannot, for example, manually start, stop or restart the playback in Maschine, nor modify the tempo or the time signature of your Project within the Maschine plug-in itself, these are synchronized to your host's own transport functions and tempo settings. As a direct consequence, when Maschine is used as a plug-in, the Restart and Play buttons and the Tempo and Time Signature fields are grayed out and inactive in the Maschine Header. You cannot control Maschine's playback and tempo settings from your Maschine controller either.

### Audio and MIDI handling

In stand-alone mode, Maschine directly communicates with your audio and MIDI interface. You can select which physical audio/MIDI ports have to be used on your interface and configure crucial audio settings like the sample rate. All this is done via the **Audio and MIDI Settings** panel.

For more information, refer to Integrating Maschine into a MIDI setup.

When Maschine is used as a plug-in within a host application, the host manages the communication with your audio and MIDI interface. The Maschine plug-in only communicates with the host. Native Instruments' Online Knowledge Base provides howtos that will help you route the Maschine plug-in to multiple tracks/outputs in the major hosts:

- How to route Maschine to multiple outputs in Ableton Live:http://www.native-instruments.com/knowledge/questions/1705
- How to route Maschine to multiple outputs in Cubase:http://www.native-instruments.com/knowledge/questions/1707
- How to route Maschine to multiple outputs in Pro Tools:http://www.native-instruments.com/knowledge/questions/1709
- How to route Maschine to multiple outputs in Logic Pro:http://www.native-instruments.com/knowledge/questions/1711



For all details on your host application's audio and MIDI configuration, please refer to its documentation.

### Multiple plug-in instances

When using Maschine as a plug-in within a host application, you can open multiple Maschine instances. You can load as many instances of Maschine as your computer, and your host application can handle CPU-wise. In contrast to the stand-alone application, they are always synced to the host. In plug-in mode, you can also send MIDI Program Change messages from your host to switch between Maschine's Scenes or between patches of other plug-ins loaded into Maschine or record automation for Maschine parameters. For more information, refer to Triggering Sections or Scenes via MIDI and Using MIDI control and host automation.

### Switching instances

When two or more instances of the Maschine software are running (for example, as plug-ins on different tracks of your DAW), you must choose which instance you want to control from your hardware controller. You can do this both from your controller and in the software.

▶ To select your controller from a particular Maschine instance, open that instance and click the Connect button in the Maschine Header.




*Click the Connect button to connect the controller to that instance.*

### Controlling various instances with different controllers

You can use two or more Maschine controllers of different types (Maschine and Maschine Mikro) simultaneously with different instances of the Maschine software (possibly with one instance in stand-alone mode). In doing so, the following applies:

- Only one Maschine controller of any type can be connected to an instance at a time. You can choose which instance you want to control from each controller. For more information, refer to Switching instances.
- When you start a new instance of the Maschine software, it first connects to the Maschine controller (not Mikro).

## Preferences

The **Preferences** panel lets you specify various settings for Maschine.

To open the Preferences:

1. Open the Maschine menu (macOS) or File menu (Windows) of the Application Menu Bar, or the **File** submenu of the Maschine menu.
2. Click **Preferences…**.

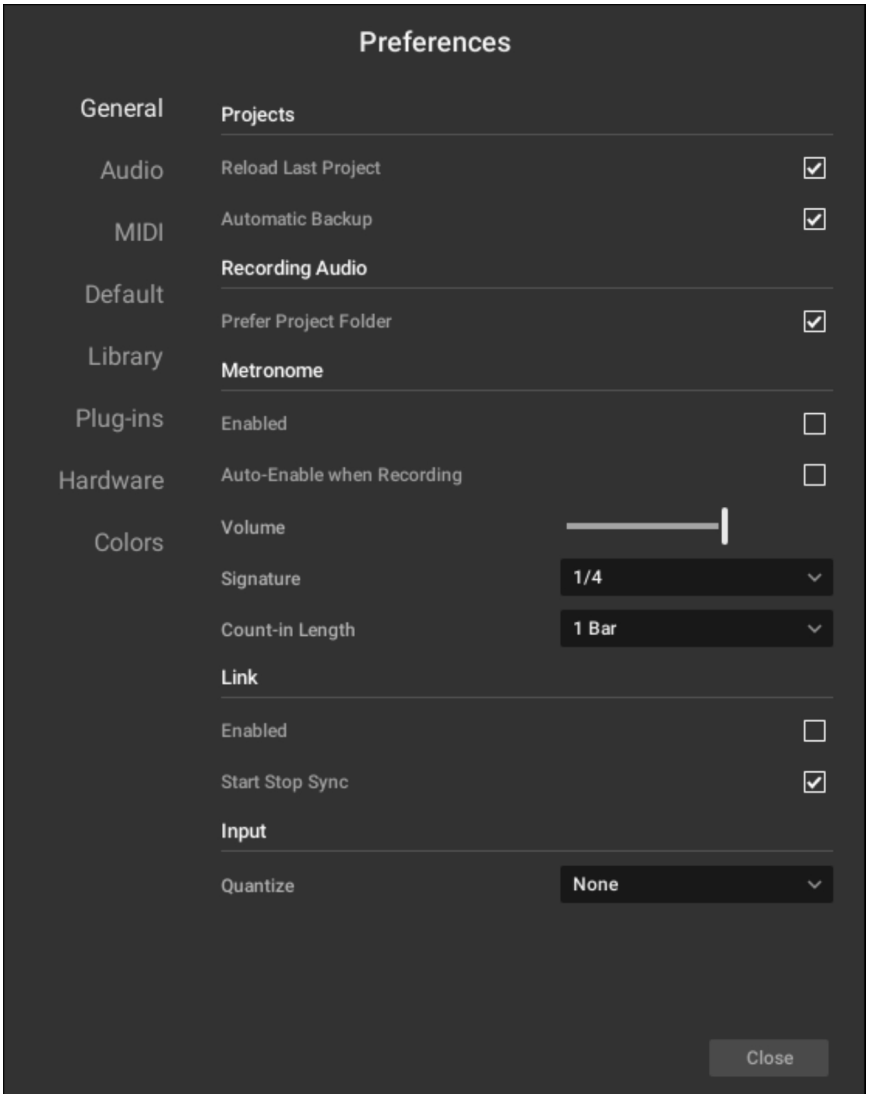
The following pages are available in the **Preferences** panel:

- **General**: Global settings for Maschine. Refer to Preferences – General page.
- **Audio**: Settings for your audio interface and audio input/output routing. Refer to Preferences – Audio page.
- **MIDI**: Settings for MIDI inputs/outputs. Refer to Preferences – MIDI page.
- **Default**: Default settings for new Projects. Refer to Preferences – Default page.
- **Library**: Settings for the locations of all your Maschine factory and user libraries. Refer to Preferences – Library page.
- **Plug-ins**: Management of the plug-ins to be used in Maschine. Refer to Preferences – Plug-ins page.
- **Hardware**: Settings specific to your controller. Refer to Preferences – Hardware page.
- **Colors**: Default colors for your Scenes, Groups, and Sounds. Refer to Preferences – Colors page.

### Preferences – General page

The **General** page holds all of the global settings for Maschine.

▶ To display the **General** page, click the **General** tab on the left of the **Preferences** panel.




*The Preferences – General page.*

| Setting | Description |
|---|---|
| **Projects** | |
| Reload Last Project | Automatically reloads the last Project on startup. |
| Automatic Backup | Automatically saves your work to prevent the loss of important changes in the event Maschine quits unexpectedly. If Maschine quits unexpectedly a dialog will appear when you restart, asking if you want to use the automatic backup version of your Project. If you choose not to use this, Maschine opens instead the last manually-saved version of your Project. |
| **Recording Audio** | |

| Setting | Description |
|---|---|
| Prefer Project Folder | Adds the samples you record to a subdirectory of the folder where your project is saved. If not, your recordings will be saved in the generic Recordings folder in your standard user directory. Refer to Preferences – Default page. |
| **Metronome** | |
| Enabled | Activates the metronome. You can also activate the metronome by clicking the Metronome button in the Maschine Header. |
| Auto-Enable when Recording | Activates the Auto-Enable option. This automatically turns on the metronome when you start recording a Pattern.<br><br>The metronome is automatically activated when you start recording a Pattern (typically by pressing REC on your controller). When you exit recording (for example, by pressing the lit **REC** button) the metronome returns to its state before the recording (this can be on or off).<br><br>The Auto-Enable option can be activated/deactivated both in the software and from your controller.<br><br>The Auto-Enable option does not affect the Count-in: Even if Auto-Enable is deactivated, the metronome turns on when you press **SHIFT** + **REC** to start the Count-in. |
| Volume | Adjusts the metronome volume. |
| Signature | Adjusts the time interval between each tick of the metronome. By default, the metronome indicates the beats (the quarter notes, **1/4**). Here you can select another note value for the ticks. |
| Count-in Length | Adjusts the duration of the Count-in, i.e. how long the metronome will sound before the recording actually starts. |
| **Link** | |
| Enabled | Joins or leaves the Ableton Link session. This check box mirrors the **LINK** button available in the Maschine header. Applications that support Ableton Link can join a Link session when connected to the same network. Refer to Syncing Maschine using Ableton Link. |
| Start Stop Sync | Activates or deactivates the synchronized start/stop commands in the Link session. Refer to Syncing Maschine using Ableton Link. |
| **Input** | |

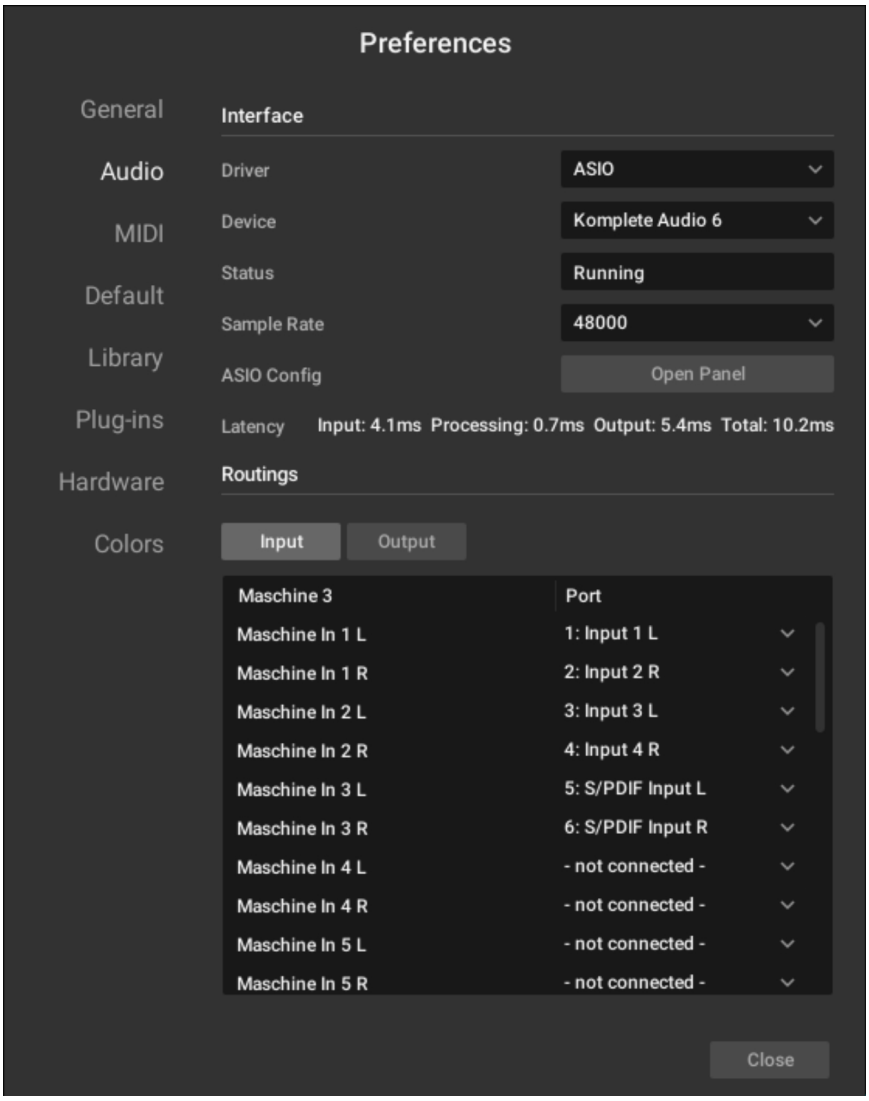
| Setting | Description |
|---|---|
| Quantize | Automatically quantizes your hits on the pads as you record. Select one of the following Input Quantization modes:<br><br>• **None**: Input Quantization is deactivated. Events you play or record on the pads are not quantized.<br>• **Record**: Input Quantization is applied only when you record the pads.<br>• **Play/Rec**: Input Quantization is applied both when you play on the pads and when you record them. In Play/Rec mode, the quantization applied while playing is slightly different from the quantization applied while recording: When recording, all events are quantized to the closest step, possibly ahead of the event. When playing, events occurring in the first half of the steps are left untouched (since you cannot bring them forward in time!) whereas events occurring in the second half of the steps are quantized to the next step. |
| **Usage Data Tracking** | |
| Allow usage data tracking | Activates or Deactivates Usage Data Tracking.<br><br>Usage Data Tracking technology allows Maschine to automatically track anonymous usage data that you choose to share with us.<br><br>All users should keep Data Tracking activated as it provides a valuable tool for understanding the performance of Native Instruments applications when they are used in real-life situations. The data sent to Native Instruments is one hundred percent anonymous and will not affect performance.<br><br>For more detailed information about Usage Data Tracking, please refer to the following Knowledge Base article on the Native Instruments website:https://support.native-instruments.com/hc/en-us/articles/209545029 |

## Preferences – Audio page

The **Audio** page holds settings related to your audio interface .

The **Routings** section allows you to configure the connections between the virtual inputs/outputs of Maschine and the physical inputs/outputs of your audio interface .

▶ To display the **Audio** page, click the **Audio** tab on the left of the **Preferences** panel.




*Preferences – Audio page.*

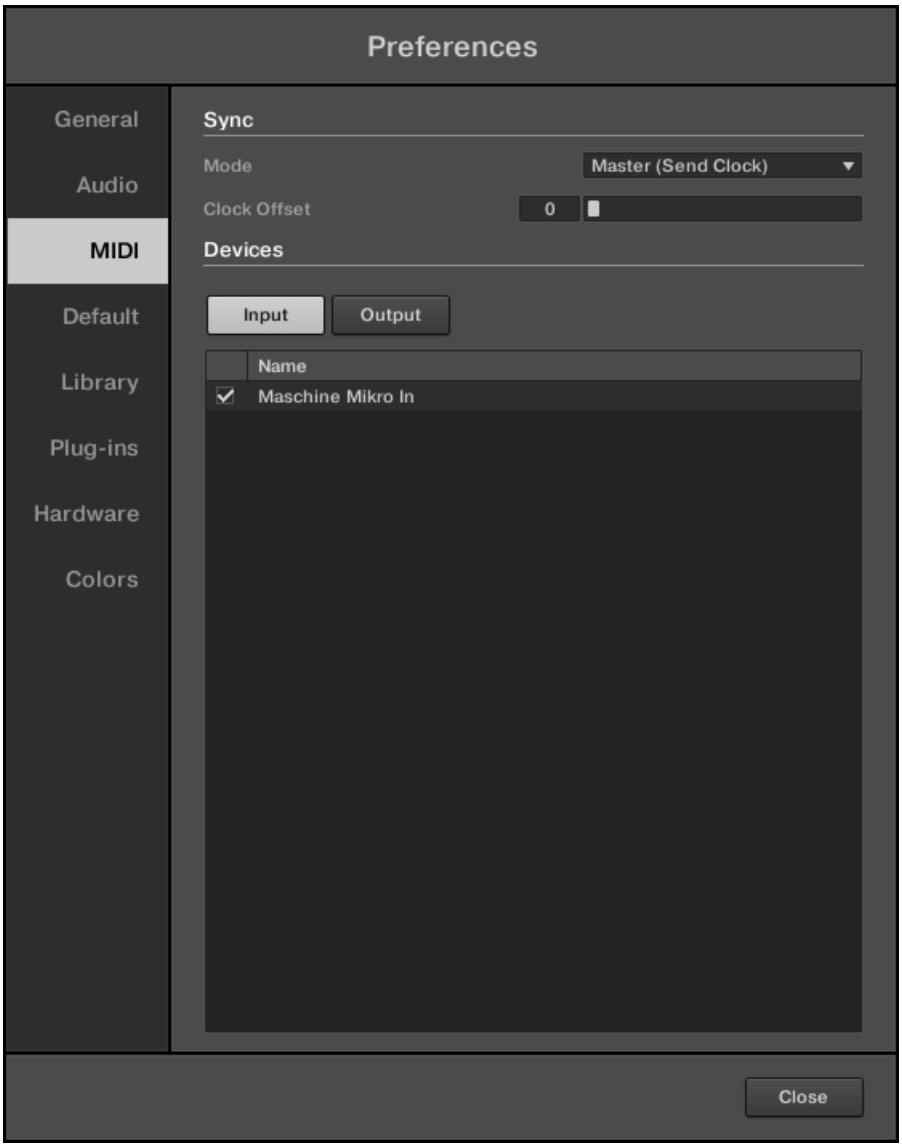
| Setting | Description |
|---|---|
| **Interface** | |
| Driver | Select your audio driver from the drop-down menu. |
| Device | Select the available devices if you have more than one audio interface connected. |
| Status | This confirms whether your audio interface is currently running. |
| Sample Rate | This displays the selected sample rate of your audio interface. Restart Maschine after changing the sample rate. |
| ASIO Config (Windows only) | Click **Open Panel** to access specific controls related to your audio interface. Please consult the documentation that came with your audio interface for more information. |

| Setting | Description |
|---|---|
| Latency | **macOS:** This slider allows you to adjust the latency of your audio interface in samples. Lower values result in a more immediate playing response but are heavier on both the CPU and the audio driver, and may result in audible clicks and pops. Larger values are easier on the CPU, but introduce a larger latency (i.e., there may be a small delay in sound playback when you play on the pads). You should therefore experiment with this setting so that it is as low as possible without overloading your CPU or introducing any audio artifacts.<br><br>**Windows:** When using an ASIO driver, the **Audio and MIDI Settings** panel displays an **ASIO Config** button instead of the **Latency** slider. Click this button to open the settings window of the selected ASIO driver. |
| **Routings** | |
| Input | Click **Input** to display the input routings. Here you can select which inputs on your audio interface should be used for each of the 16 stereo inputs of Maschine. Select the inputs of your audio interface in the right column by clicking the fields: you will be presented with a drop-down menu with all its available inputs. The choices made here will determine which inputs can be used when sampling external sources, for example. |
| Output | Click **Output** to display the output routings. Here you are presented with a list of the 16 stereo outputs of Maschine: In the right column, you can assign them to the outputs of your audio interface. Click the fields in the right column to select the desired outputs via a drop-down menu. |

## Preferences – MIDI page

The **MIDI** page allows you to set up the MIDI input and output ports you want to use with Maschine.

▶ To display the **MIDI** page, click the **MIDI** tab on the left of the **Preferences** panel.




*The Preferences – MIDI page.*

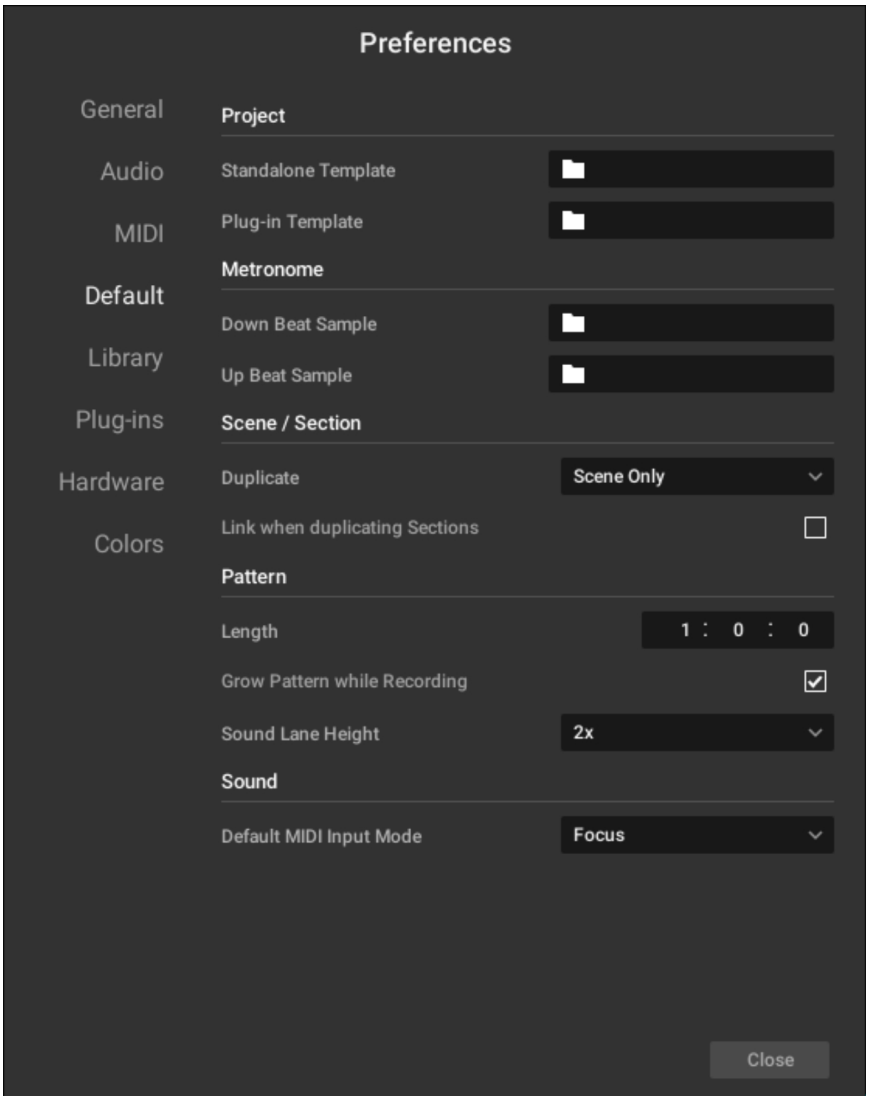
| Setting | Description |
|---|---|
| **Sync** | |

| Setting | Description |
|---|---|
| Mode | Sets the MIDI Sync mode preference for Maschine:<br><br>**Off**: No MIDI sync mode is selected.<br><br>**Master (Send Clock)**: If Maschine is running as a stand-alone application, it can also send a MIDI Clock signal to any device that is capable of receiving MIDI Clock. This could be hardware such as a drum machine, another groove box, or even another software sequencer.<br><br>**Receive (Receive Clock)**: If Maschine is running as a stand-alone application, it can be controlled externally via MIDI Clock by any device that is capable of sending MIDI Clock. This could be hardware such as a drum machine, another groove box or sequencer, or even another software sequencer.<br><br>Please note that the **Receive (Receive Clock)** option is unavailable when **LINK** is active. For more information on Link, refer to Syncing Maschine using Ableton Link. |
| Clock Offset (appears when Mode is set to Receive) | Compensates for delays that may occur during MIDI data transmission. Delayed MIDI Clock data will cause external devices to respond too late, thus making your track sound out of sync.<br><br>By adjusting the **Clock Offset** value you can set an amount of latency to be compensated (in milliseconds). Maschine will then send MIDI Clock events ahead of time as defined. |
| **Devices** | |
| Input | Displays a list of all the MIDI inputs. You can activate/deactivate each input by clicking the fields in the **Status** column, which displays the current status of the corresponding port. |
| Output | Displays a list of all the MIDI outputs of your system. You can activate/deactivate each output by clicking the fields in the **Status** column, which displays the current status of the corresponding port. |

## Preferences – Default page

The **Default** page allows you to define the default settings that will be used for each new Project.

▶ To display the **Default** page, click the **Default** tab on the left of the **Preferences** panel.




*The Preferences – Default page.*

| Setting | Description |
|---|---|
| **Project** | |
| Standalone Template | Allows you to select a Project to load automatically when you start a new Project in Maschine used as a stand-alone application. The field displays the location of the Template Project selected for use. Click the folder icon to select another Template Project. Any Project file can be used as a template; this can be from the Maschine Library, or you could create a file, for example with your preferred instruments and effects already loaded into the Plug-in slots. If you have already set a Template Project, click the cross icon to unset it and start new Projects from scratch instead. |

| Setting | Description |
|---|---|
| Plug-in Template | Selects a Project to load automatically when Maschine is used as a plug-in within a Digital Audio Workstation. The field displays the location of the Template Project selected for use. Click the folder icon to select another Template Project. Any Project file can be used as a template; this can be from the Maschine Library, or you can create a file, for example with your preferred instruments and effects loaded into the Plug-in slots. If you have already set a Template Project, click the cross icon to unset it and start new Projects from scratch instead. |
| **Metronome** | |
| Down Beat Sample and Up Beat Sample | Selects audio files to be used as upbeat and downbeat of the metronome, respectively. The fields display the locations of the audio files selected for use. Click the fields to select other files. Click the little crosses on the right of the fields to remove the custom audio files and use the default metronome sounds instead. |
| **Scene / Section** | |
| Duplicate | Select from the drop-down menu how the Duplicate function in Maschine will operate when duplicating Scenes.<br><br>**Scene Only**<br><br>Only the Scene is duplicated. The result is a new unlinked Scene with the same Patterns referenced.<br><br>**Scene and Patterns**<br><br>The Scene itself and additionally all Patterns are duplicated. The new Scene and Patterns are now completely independent from the originals. |
| Link when duplicating Sections | Click the checkbox to enable a linked copy of a Section when using the Duplicate function. By default this feature is deactivated.<br><br>When activated, the **Duplicate** function will create a linked copy of a Section. A linked copy will automatically be updated when any instance of a linked Section is edited. This way, you don't need to keep track of which Section is the "original." |
| **Pattern** | |
| Length | Enter the default length of new Patterns. The length is measured in bars, beats, and sixteenths. To adjust the value, click the desired number (bars, beats or sixteenths) and drag your mouse vertically. For more information on Pattern Length refer to Adjusting the Arrange Grid and the Pattern Length. |
| Grow Pattern while Recording | When active (default setting), you can record Patterns without any predefined length: The length of the Pattern will grow until you stop recording. Refer to Using Auto-Growing Pattern for more information. |

| Setting | Description |
|---|---|
| Sound Lane Height | Select the default height of the Sound lane in the Pattern Editor by choosing between normal **1x** or **2x** zoom from the menu. **1x** displays all sixteen sounds, and **2x** displays only the first eight Sounds of a Group, making it easier to edit events. |
| **Sound** | |
| Default MIDI Input Mode | Allows you to play your Sounds via MIDI notes, for example, from a MIDI keyboard. By default and without any configuration, incoming MIDI notes on any MIDI port and any MIDI channel will trigger the pitch of the focused Sound. In addition, you can select that a Sound receives no MIDI input, and also define the default setting for MIDI input by selecting the **Default MIDI Input Mode** preference.<br><br>Select one of the following MIDI input mode options from the drop-down menu:<br><br>**Focus**: MIDI input from any connected controller can be used to trigger the focused (selected) Sound slot.<br><br>**None**: The selected Sound will not receive MIDI data. |

## Preferences – Library page

The **Library** page lets you edit the locations of all Maschine library files (both factory and user) that appear in the **LIBRARY** pane of the Browser.

> The **LIBRARY** pane of the Browser is described in section Searching and loading files from the Library.

▶ To display the **Library** page click the **Library** tab on the left of the **Preferences** panel.

The **Factory** and **User** buttons at the top of the page allow you to switch between the Factory pane and the User pane.

### Factory pane

▶ To display the **Factory** pane, click the **Factory** button at the top of the **Library** page.




*The Preferences panel – the Library page's Factory pane.*

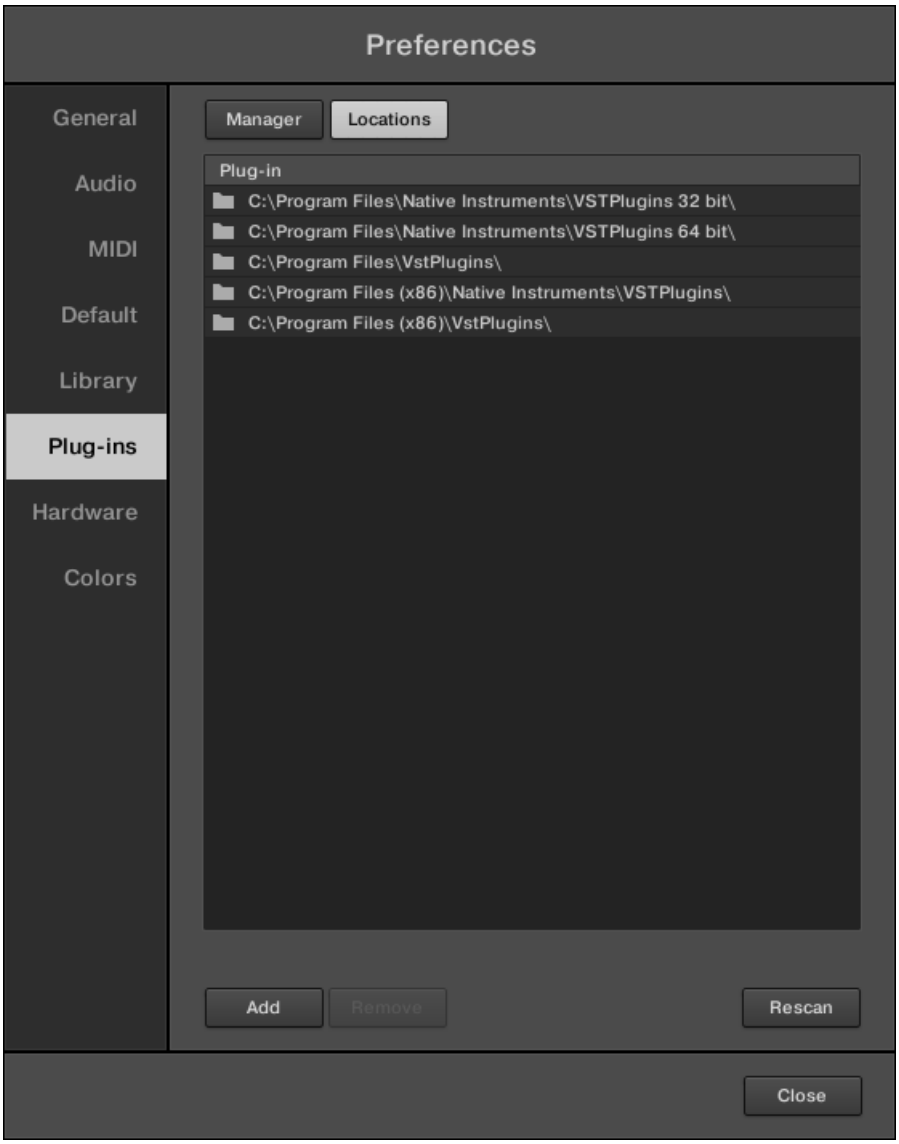
The **Factory** pane displays all factory libraries available. These include the Maschine Factory Library, libraries imported from other NI products, and installed Maschine EXPANSIONS.

These libraries will appear in the Factory view of the Browser's **Library** pane.

| Element | Description |
|---|---|
| Location column | Displays the path of each library. If you have moved any library to another location on your computer, click the folder icon on the left of that library and select its new path. |
| Product column | Displays the name of each product. These names cannot be edited. |
| Rescan button | Rescans the Library for any changes. If you have made any change to a library (for example, changed its location), select the modified item in the list and click the **Rescan** button to rescan that library. |

## User pane

▶ To display the **User** pane, click the **User** button at the top of the **Library** page.




*The Preferences panel – the Library page's User pane.*

The **User** pane displays all user libraries currently in use. This includes the standard Maschine user directory as well as any other user directory you might have defined. These libraries will appear in the User view of the Browser's **Library** pane.

| Element | Description |
|---|---|
| Location | Displays the path of each library. If you have moved any library to another location on your computer, click the folder icon on the left of that library and select its new path. |

| Element | Description |
|---|---|
| Alias | Displays the alias stored for each library. Click an alias to edit it. Defining aliases for your user folders is not mandatory, but it can be of great help when working on different computers (see description below). After adding a location (see **Add** below), click the field in the new row and in the **Alias** column to set the alias for that new location. The alias of the default user folder, **Standard User Directory**, cannot be edited, as this is the location where all your user files will be stored by default. |
| Add | Adds directories to the user library. See below for more details. |
| Remove | Removes the selected user library. Files will only be removed from the Maschine Browser, not from your hard disk. |
| Rescan | Rescans the Library for any changes. If you have made any change to a library (for example, changed its location), select the changed item in the list and click the **Rescan** button to rescan that library. |
| Scan user content for changes at start-up | Scans for changes to the User content directory during start-up. |



You can resize the **Preferences** panel at your convenience using the usual method on your operating system. You can also resize each column by clicking and dragging the border between both column headers.

### User Content folder included in Maschine's user paths

Products from Native Instruments will store user-generated content in a centralized User Content folder. In Maschine, this User Content folder is automatically added to the list of user directories in the **User** pane of the **Library** page in the **Preferences** panel. As a consequence, its files are available in the Maschine Browser.

The User Content folder can neither be renamed nor removed from the list. However, you can modify its path in the **Location** column.

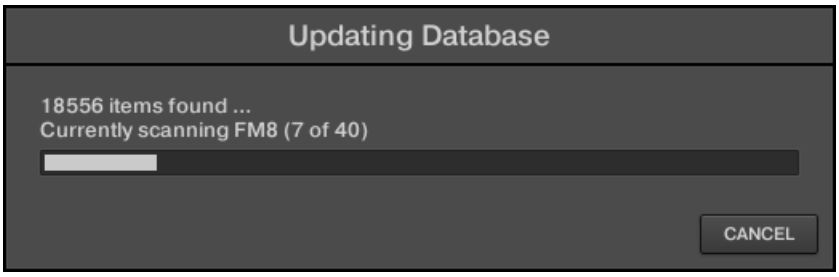
### Standard User Directory cannot be removed

The Standard User Directory can not be renamed nor removed from the list in the **User** pane of the **Library** page in the **Preferences** panel. You can modify its path in the **Location** column.

### Canceling library rescan

In the **Library** page of the **Preferences** panel, the **Rescan** button allows you to rescan the selected library (or all your libraries if none is selected) so that the Maschine Browser mirrors any changes you have made to the files. Clicking this **Rescan** button triggers the scan, and an Updating Database dialog shows you the scan's progress.

The Updating Database dialog includes a **CANCEL** button allowing you to interrupt the scanning process without harming the database permanently:




*The Updating Database dialog now includes a Cancel button.*

▶ Click **CANCEL** in the **Updating Database** dialog to interrupt the scan.

→ A **Cancel Rescan** dialog opens up, asking you to confirm that you want to cancel the scan. The dialog warns you that canceling the scan may lead to inconsistencies or missing items in your Maschine Library.

▶ If you still want to cancel the scan, click **CANCEL RESCAN** at the bottom right, and the scan will be canceled.

▶ If you prefer not to cancel the scan, click **CONTINUE** or press [Esc] on your computer keyboard, and the scan will continue.

If you cancel the scan, any inconsistencies or missing items in your Maschine Library will be resolved by re-scanning the same path(s) again (via the **Rescan** button mentioned above).

ⓘ In opposition to the rescan process described here, you cannot cancel the import of files into the Maschine Library (via the **FILES** pane of the Browser or via the **Library** page of the **Preferences** panel) nor the process of applying changes to the file tags and properties (via the Attribute Editor in the Browser).

## Using aliases

The aliases that are available in the **Alias** column act as references to the paths shown in the **Location** column. When you save a Project, the saved data includes both the path and the alias for each file used in the Project. This will allow you to use a Project on different computers even if the files used in the Project (for example, Samples) are stored in different locations on each computer: Simply define the same alias for these locations on each computer, and Maschine will replace the path saved on the first computer with the path set to the same alias on the second computer to retrieve the files on this second computer, therefore avoiding the possibility of missing Samples.

## Adding folders to the user library

In the **User** pane of the **Library** page, you can add other folders to the user content of your Maschine Library. To do this:

1. Click **Add** at the bottom of the pane.

→ A folder selection dialog opens.

2. In the dialog, navigate to the desired folder on your computer and click **OK** (**Choose** on macOS).

→ All Maschine-compatible files found in the selected folder are added to your user content in Maschine.

Furthermore, the imported files will have their attributes (product/bank/sub-bank, Type/Sub-Type/Mode tags, as well as properties) set as follows:

- For all file types, any attributes already in the files will be retained.
- For Samples, if the product/bank/sub-bank attributes are empty, they will be set to the folders in which the Samples are located:
  - The product will be set to the name of the folder you have selected.
  - If Samples reside in a subfolder of this folder, the subfolder name will be used as a bank.
  - If Samples reside in a subfolder of this subfolder, the name of the lower subfolder will be used as a sub-bank.

By adding a folder to the user content of your Maschine Library, you make their files available in the Browser's **LIBRARY** pane for quick searching and loading! For more information on how to use the **LIBRARY** pane of the Browser, please refer to section Searching and loading files from the Library.

Paths to folders added via the **IMPORT** button in the Browser's **FILES** pane will also show up here. The only difference between adding folders via the **Add** button in the **Preferences** panel described here and via the **IMPORT** button in the **FILES** pane of the Browser is that the latter allows you to directly tag the files as they are imported. See section Using the Result list for more information on how to import folders via the **FILES** pane.

Please note that the selected folder cannot contain, or be contained within, a folder already listed in the **User** or **Factory** pane. If Maschine detects such a folder as you press **OK** (**Choose** on macOS) in the folder selection dialog. In that case, a **Duplicate Location** message appears: Click **OK** to return to the folder selection dialog and select another folder on your computer.

### Removing folders from the user library

You can also remove any user folder from your library, except the default user.

## Preferences – Plug-ins page

The **Plug-ins** page lets you manage the Native Instruments and External Plug-ins you want to use in Maschine.

▶ To display the **Plug-ins** page, click the **Plug-ins** tab on the left of the **Preferences** panel.

At the top of the page, the **Manager** and **Locations** buttons allow you to switch between the **Manager** pane and the **Locations** pane.

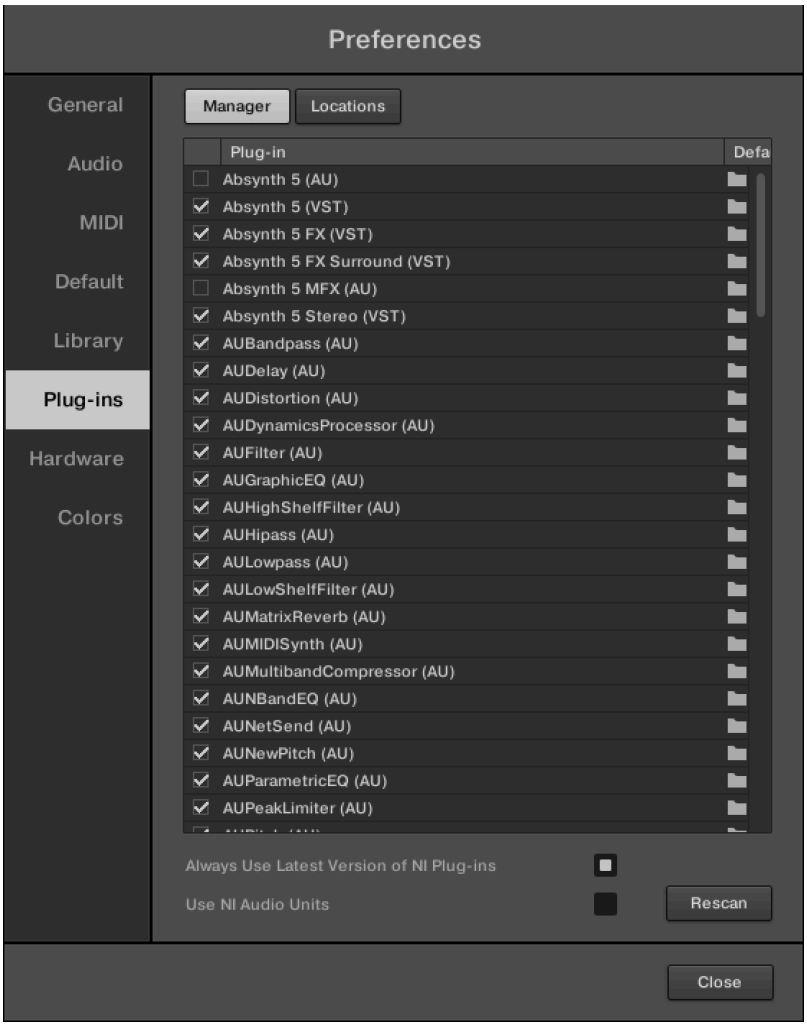
### Manager pane

▶ To display the **Manager** pane, click the **Manager** button at the top of the **Plug-ins** page.

In the **Manager** pane of the **Plug-ins** page, you can enable/disable VST/AU plug-ins, rescan their directories, and set default presets for your Native Instruments and External Plug-ins.

When a Native Instruments or External Plug-in is deactivated, it will not be available for loading (from the various Plug-in menus in the software and from the Plug-in Browser on your controller). If, for example, you do not use certain VST plug-ins in Maschine, it could be useful to disable them so that they do not overload the list of available Plug-ins.

For more information on Native Instruments Plug-ins, External Plug-ins, and other Plug-ins in Maschine, refer to Working with Plug-ins.




*The Preferences panel – the Plug-ins page's Manager pane*

| Element | Description |
|---|---|
| Plug-in | Lists all available VST/AU plug-ins from the directories specified in the **Locations** pane (see below). This includes all activated or deactivated 32-bit VST/AU plug-ins when Maschine is running in 32-bit mode, or all activated or deactivated VST/AU 64-bit plug-ins when Maschine is running in 64-bit mode.<br><br>A checkbox on the left of each plug-in in the list allows you to enable/disable this plug-in in Maschine. When a plug-in is deactivated, it will not be available for loading in Maschine. |
| Default Config | Sets a default preset for each plug-in. Click the folder icon on the left to choose a default plug-in preset. You can also save a preset as default for the plug-in via the **Save As Default…** entry in the Plug-in menu. If no default is set here, the parameters of this plug-in will be auto-mapped when loading it into a plug-in slot.<br><br>To remove a default plug-in preset, click the little cross on the right. |

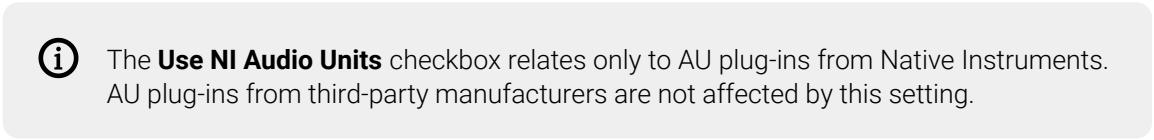
| Element | Description |
|---|---|
| Always Use Latest Version of NI Plug-ins | Sets the latest version of a plug-in as the default. If a project was saved using older plug-ins, such as older versions of Reaktor or Kontakt, the newest installed versions would be used when loading the project while this preference is activated. If the preference is off, Maschine will attempt to load using the versions originally used when creating the project. Additionally, if only the newest versions of the required plug-ins are installed on the system, the latest versions will be used even if this preference is turned off. |
| Use NI Audio Units | Shows or hides AU plug-ins in the plug-in dropdown when right-clicking a sound slot (note that loading from the Browser will always instantiate a VST plug-in) |
| Rescan | If you have changed the content of any directory specified in the **Locations** pane (see below), you should rescan your plug-in directories in order to keep the list of available external plug-ins up to date. Clicking **Rescan** will check the integrity of your plug-ins and allow you to automatically detect plug-ins that were added or removed or deselect any plug-ins that are not working correctly for any reason. Note that the scan will ignore the plug-ins that are deactivated in the list above. |

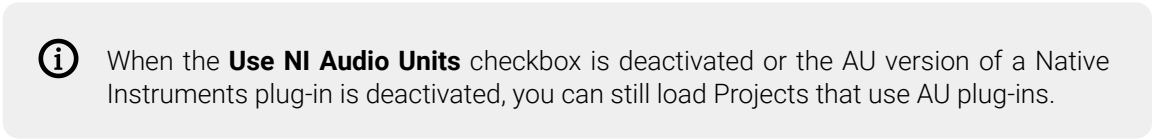
### Manager pane: use NI Audio Units checkbox (macOS only)

On macOS, the **Manager** pane contains an additional **Use NI Audio Units** checkbox. Check this box to include the Audio Units (AU) versions of your Native Instruments plug-ins in the software's Plug-in menus and in the controller's Plug-in Browser:

- If this checkbox is deactivated (default setting), the AU versions of your Native Instruments plug-ins are still listed in the list above, but they are deactivated (checkbox unchecked): These plug-ins won't appear in the **Native Instruments** submenu of the Plug-in menus (software) or in the Plug-in Browser (controller). Additionally, the remaining entries for Native Instruments plug-ins (VST) won't display the **(VST)** mention next to their name.
- If you enable the **Use NI Audio Units** checkbox, all Native Instruments' AU plug-ins are activated in the list above and are available for loading in Maschine. To distinguish them from the VST versions, plug-in entries in the **Native Instruments** submenu of the Plug-in menus and the Plug-in Browser will display either **(VST)** or **(AU)** after their name.

You can also enable or disable Native Instruments' AU plug-ins individually in the list via the checkboxes described above. As soon as you allow one of them, the **Use NI Audio Units** checkbox is automatically activated.

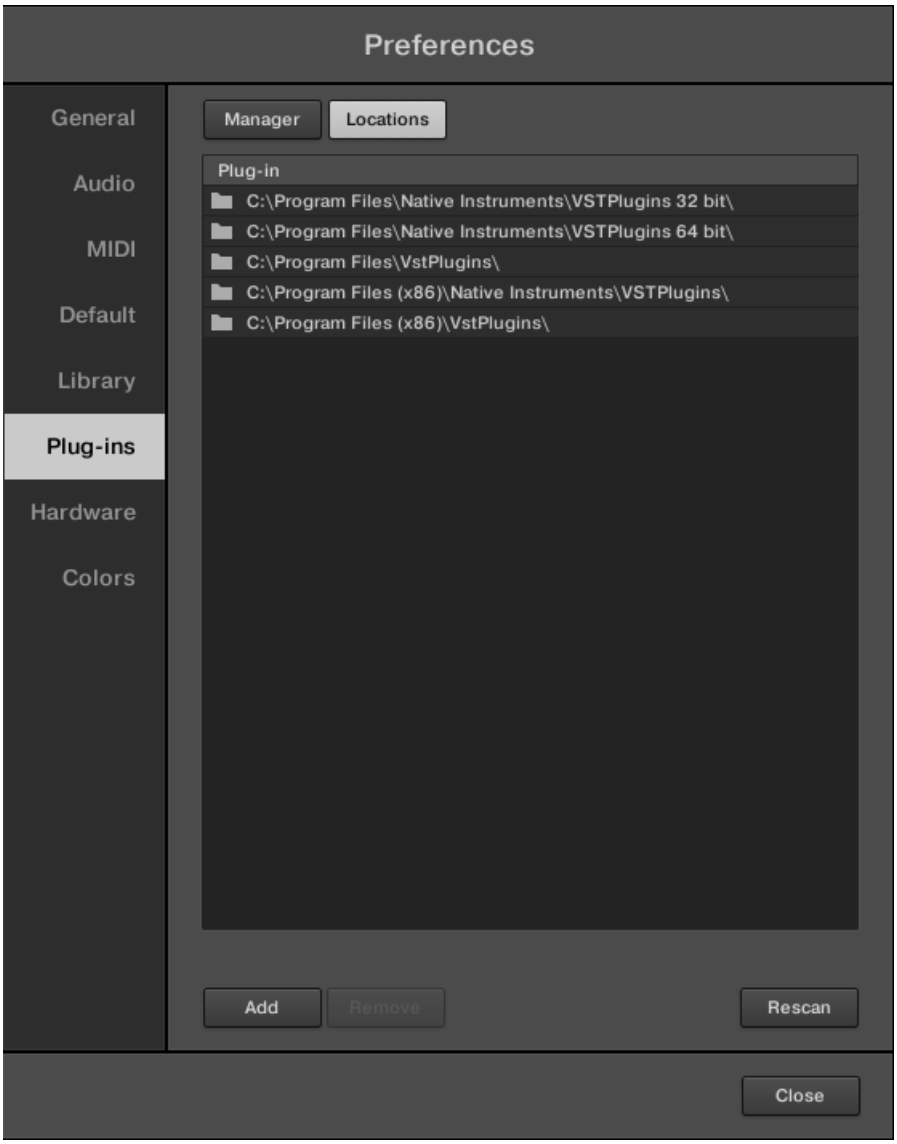



### Location pane

▶ To display the **Location** pane, click the **Location** button at the top of the **Plug-ins** page.

In the **Locations** section of the **Plug-ins** page, you can manage the various plug-in directories you want to use in Maschine.




*The Preferences panel – the Plug-ins page's Locations pane*

The **Locations** pane also contains the following controls:

| Element | Description |
|---|---|
| Plug-in | Lists all plug-in directories used in Maschine. Click the folder icon on the left of an entry to change the path of that plug-in directory. |
| Add | Adds plug-in directories. |
| Remove | Remove the selected directory. |
| Rescan | Rescans the Library for any changes. If you have changed the content of a directory (such as installed or removed plug-ins), you should rescan your plug-in directories to keep the list of available plug-ins up to date. Click **Rescan** to check the integrity of your plug-ins. This will allow you to automatically detect plug-ins that are added or removed or disable any plug-ins that are not working correctly for any reason. |

## Preferences – Hardware page

The **Hardware** page lets you customize specific features of your Maschine controller, for example, how the pads react to your playing or the brightness of the displays.

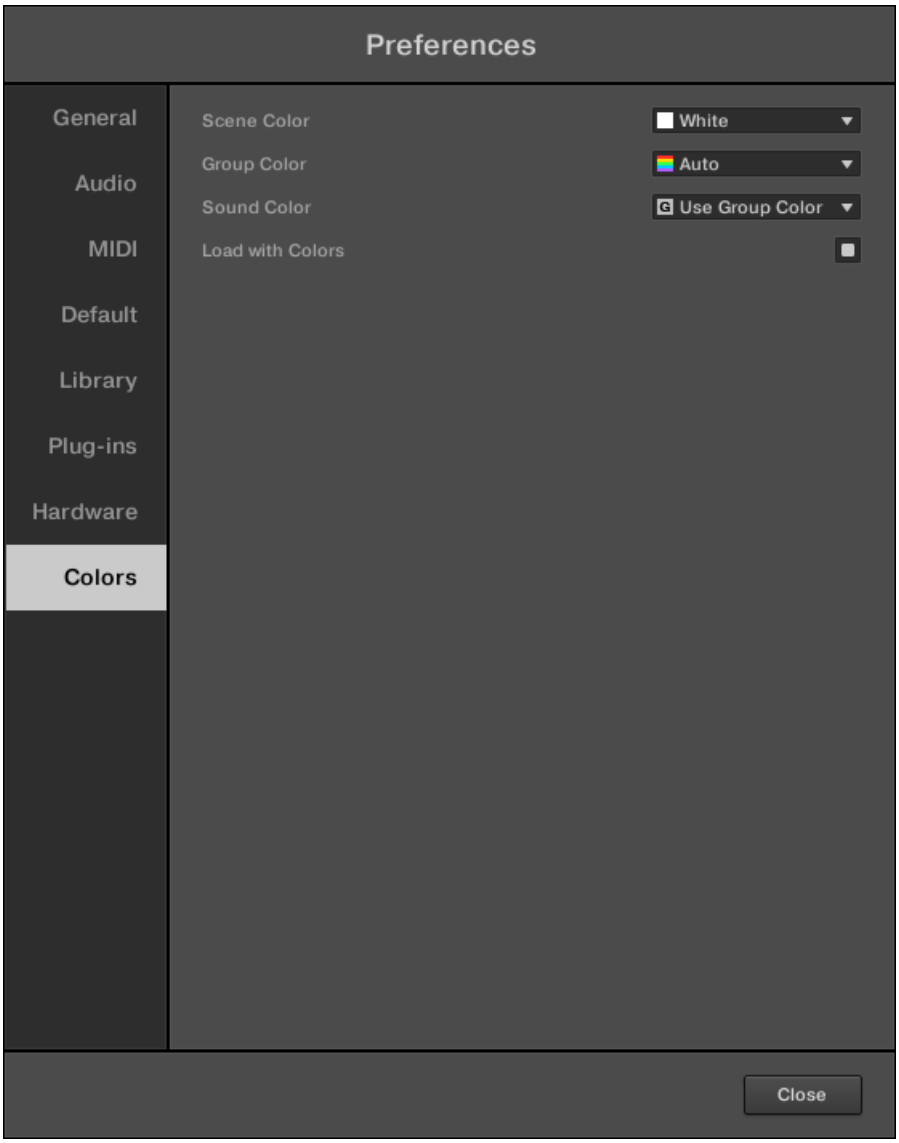
▶ To display the **Hardware** page, click the **Hardware** tab on the left of the **Preferences** panel.

The settings available on the page vary with the connected controller. If no controller is currently connected, the **Hardware** page is empty.

## Preferences – Colors page

The **Colors** page enables you to choose default colors for your Scenes, Groups, and Sounds.

▶ To display the **Colors** page click the **Colors** tab on the left of the **Preferences** panel.




*The Preferences panel – Colors page.*

| Setting | Description |
|---|---|
| Scene Default | Selects the default color for your Scenes. You can choose the desired color from the 16-color palette or **White** (default). The chosen color is displayed in the menu. If you select **Auto** each Scene will have a different default color. |
| Group Default | Selects the default color for your Groups. You can choose the desired color from the 16-color palette in the menu. The chosen color is displayed in the menu. If you select **Auto** (default), each Group will have a different default color. |
| Sound Default | Selects the default color for your Sounds. In the menu, you can choose the desired color from the 16-color palette. The chosen color is displayed in the menu. If you select **Auto** each Sound will have a different default color. If you select **Use Group Color** (default), Sounds will mirror the color of the Group to which they belong. |
| Load with Colors | Saves your Color settings with your Maschine files (Projects, Groups, Sounds, etc.). If you uncheck **Load with Colors** (checked by default), saved colors will not be used next time you load the files. The default colors set in this **Colors** page will be used instead. |



Please note that the settings in this **Colors** page define default colors: These colors will only be used when creating a new Project, resetting a Group/Sound, or when **Load with Colors** is unchecked (see above). To change the color of particular objects (Sounds, Groups, Patterns, and Scenes) in your Project, use the **Color** submenu in the object's context menu in the software. Refer to Changing the Sound color, Changing the Group color, Changing the Pattern color, and Changing the color of a Scene for more information respectively.



As long as an object (Scene, Sound, Group, or Pattern) has the default color, this color is not attached to the object but instead to its "position" in the respective list: In particular, if you move the object to another position the default color will not follow the object, the object will instead take the default color of its new position.

## Integrating Maschine into a MIDI setup

You can quickly integrate Maschine into a MIDI setup.

You can use MIDI in Maschine in various ways. Notably:

- You can synchronize a MIDI Clock signal between Maschine and other MIDI devices: Sync to external MIDI clock and Send MIDI clock.
- If you connect a MIDI keyboard to the **MIDI IN**, you can directly play the focused Sound with it without having to set anything up.
- You can let particular Sounds and Groups react to incoming MIDI data and send MIDI data to the desired port. More on these in section Using MIDI control and host automation.
- You can also switch Scenes remotely by sending MIDI Note or MIDI Program Change messages to Maschine. More on this in section Triggering Sections or Scenes via MIDI.

## Connecting external MIDI equipment

To connect your external MIDI equipment, hook it up to your MIDI interface and activate the corresponding MIDI inputs and/or outputs in the **MIDI** page of the **Preferences** panel (see Preferences – MIDI page).

## Sync to external MIDI clock

If Maschine is running as a stand-alone application, it can be controlled externally via MIDI Clock by any device that is capable of sending MIDI Clock. This could be a hardware device (a drum machine, another groovebox, etc.) or a software sequencer.



If you use Maschine as a plug-in, it is automatically synced to the host application so you don't have to activate external MIDI sync! See section Stand-alone and plug-in operation for more information on using Maschine as a plug-in.

To configure Maschine to receive MIDI Clock from an external device:

1. Select the **Preferences** entry from the **File** menu.
2. Select the **MIDI** page.
3. In the **Sync** section select **Receive Clock** from the **Mode** menu.
4. Select the **Input** button to see a list of available MIDI input devices.
5. Check the box of the port that is connected to the device sending the MIDI clock signal (the device you want Maschine to sync with).

→ Maschine can now receive MIDI Clock from this external device.



You must define at least one MIDI input device in the **Devices** section of the **MIDI** page to enable Maschine to sync.

When **Receive Clock** is selected, the Play button in the Maschine Header and the **PLAY** button on your controller are deactivated.



If you want to configure Maschine to react to other MIDI messages than MIDI Clock, in particular if you want to control Maschine notes and parameters via MIDI, please refer to section Using MIDI control and host automation, where this is described in detail.

## Send MIDI clock

If Maschine is running as a stand-alone application, it can send a MIDI Clock signal to any device capable of receiving MIDI Clock. This could be a hardware device (a drum machine, another groovebox, etc.) or a software sequencer.



If you use Maschine as a plug-in, it cannot send any MIDI Clock signal. See section Stand-alone and plug-in operation for more information on using Maschine as a plug-in.

To configure Maschine to send MIDI Clock to an external device:

1. Select the **Preferences** entry from the **File** menu.
2. Select the **MIDI** page.
3. In the **Sync** section select **Send Clock** from the **Mode** menu.

→ Maschine will send a MIDI Clock signal to any connected device that is capable of receiving MIDI Clock.

4. Select the **Output** button to see a list of available MIDI output devices.
5. Check the box of the port that is connected to the device receiving the MIDI clock signal (the device you want to sync with Maschine).



You can adjust the MIDI Clock offset in the **MIDI** page of the **Preferences** panel. See Preferences – MIDI page for more information.



If you want Maschine to send other MIDI messages than MIDI Clock, in particular, if you want to control other MIDI-capable devices via the notes played in Maschine, please refer to section Sending MIDI from Sounds.

## Using your controller in MIDI mode

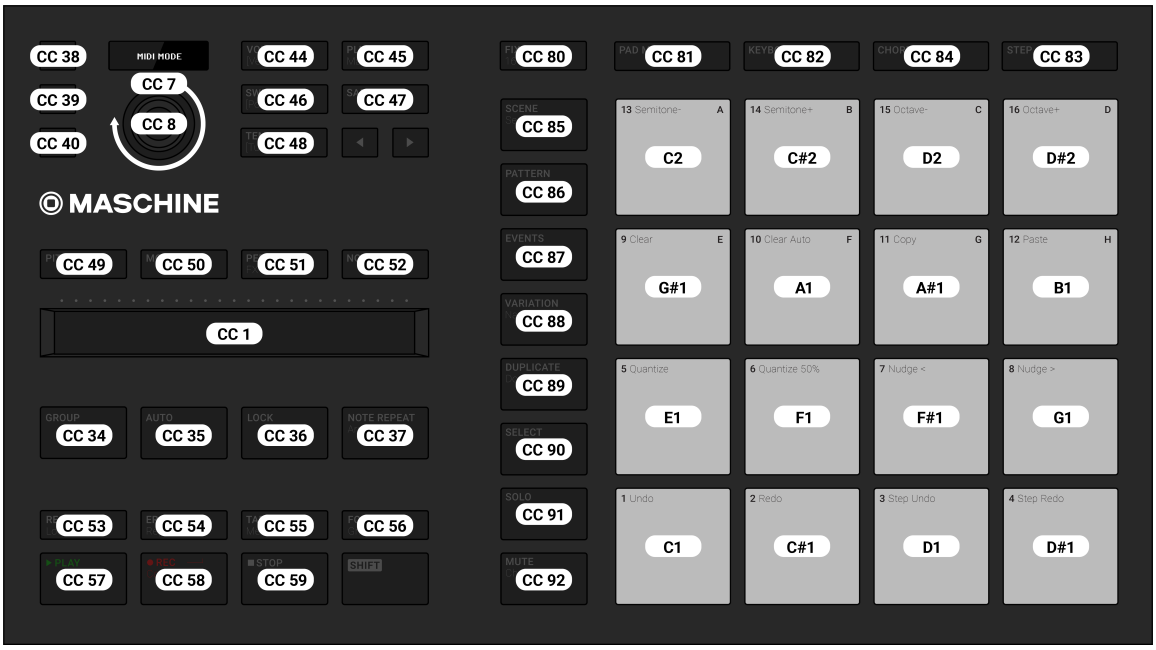
Your controller provides a MIDI mode which allows you to directly control other MIDI devices using a fixed implementation of MIDI Control Change messages.

To access MIDI mode on your controller:

▶ Press **SHIFT** + Project button (top left-hand side).

→ The controller enters MIDI mode.

In MIDI mode the controls on your device are mapped as depicted in the following image:




*MIDI mode mapping on the Maschine Mikro MK3*

# Syncing Maschine using Ableton Link

Ableton Link is a protocol that synchronizes beat, phase, and tempo of Link-activated applications on the same computer or over a shared network. This means that you can conveniently keep applications synchronized across different devices or join a group jam with others with minimal setup. Connecting applications via Link provides you with the ability to synchronize them to a shared timeline and change the tempo globally from each of the connected applications.

## Connecting to a network

Applications that support Ableton Link can join a Link session when connected to the same network. To make Link available within Maschine, make sure that your computer is connected to the same local network as the devices running other applications you want to link to. This can either be a local network or an ad-hoc (computer-to-computer) connection.

For more general information on setting up and using Link, please refer to the Link FAQs article located on the Ableton website:

https://help.ableton.com/hc/en-us/articles/209776125-Link-FAQs.

## Joining and leaving a Link session

You can join and leave a Link session at any time. Other applications and devices on the same network can also join the same session if they have Link activated. The first participant to join the session sets the initial tempo, from then on any participant in the session can change the tempo in their respective application. If multiple participants change the tempo at the same time, the last tempo change will take effect.

When Link is active, it is not possible to set Maschine to receive MIDI Clock. Link will take priority. Sending MIDI Clock from Maschine is still possible.

## Joining and leaving a Link session in the software

To start or join a Link session in the software:

▶ To start or join a Link session, click the **LINK** button in the Maschine header to activate it.




→ The **LINK** button turns on. A moving bar appears on the active **LINK** button even though the Maschine transport is not running. This bar represents the global phase of Link that all participating applications lock into. After clicking the Play button, the playback will resume on the downbeat once the moving bar is filled, and the tempo and phase of Maschine will be in sync with the other Link participants.

To leave the Link session:

▶ To leave the Link session, click the active **LINK** button in the Maschine header.

→ The **LINK** button turns off and the moving bar disappears. The playback in Maschine does not depend on the Link session anymore.

Optionally, you can also synchronize Maschine's start and stop commands with the Link session. In this case, not only the tempo and phase of the participants will be in sync, but the playback will also start/stop simultaneously for all participants with an active start/stop sync. To do this:

1. Open the Maschine menu in the Maschine header and select **Preferences…** in the **File** submenu to open the **Preferences** dialog.
2. Click the **General** tab on the left to show the General page.
3. In the **Link** section, activate the **Start Stop Sync** check box to synchronize the play state of Maschine with the other Link participants.

→ From now on, joining a Link session will also synchronize Maschine's playback state (start/stop) with the other participants with an active start/stop sync: Starting/stopping the playback in any of them will automatically start/stop the playback on all of them.

# 5. Browser

The Browser is the place where you can organize and categorize all of your Projects, Groups, Sounds, Plug-in presets, and Samples. This is done by tagging them, which means categorizing them by using keywords. Given that the Maschine software has some advantages over the hardware in this case, such as a very big screen and a QWERTY-keyboard, we will start with the software first.

## Browser basics

This section describes some general concepts about the Browser.

### The Maschine Library

To organize, find, keep track of, and provide you thousands of files at any time ready for loading, Maschine makes use of a **Library**. The Maschine Library not only contains the factory content included with Maschine, but also any other factory content (e.g., from Maschine Expansions or other Native Instruments products) as well as your own user content.

To help you find the right file quickly and efficiently, the Library implements various techniques that go far beyond the classic folder structure of your operating system. For example, each file included in the Library can be described according to following aspects:

- The **file type**: Project, Group, Sound, etc.
- The **content type** of the file, i.e. whether it originates from a product's factory library or if it was created by a user.
- The **product** which the files comes from — this can include, e.g., a hierarchical structure with a product category, a particular product, and possibly a bank and sub-bank of this product.
- A variable amount of **tags** used to describe various characteristics of the file, for example, the type of effect, the sonic character, the context in which it is used — in a word, anything that might help you find the file.



Note that the Library is the only other way to display and access your files: You could also navigate to the same files in your file system. The (substantial) difference lies in the fact that the Library organizes your files in a `musically relevant` way.

#### Which Files are Included in the Maschine Library?

The files included in the Maschine Library are all Maschine-relevant files found in the folders whose paths are listed in the **Library** page of the **Preferences** panel. For more information on how to manage these library folders, please refer to Preferences – Default page.

### Browsing the Library vs. browsing your hard disks

The **Browser** is your interface to the Maschine Library. It provides all the necessary tools to search for the files you require — and suggest other files you might not have thought of. Besides this, the Browser also allows you to navigate your file system in a classic way. Both are described in the next section.

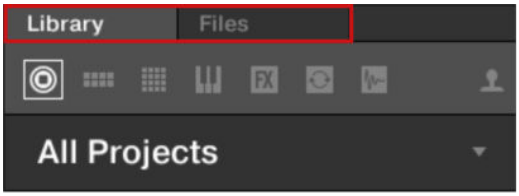
The Browser provides two operation modes, each of them providing its own tools:

- The **Library** pane allows you to browse the Maschine Library. This is the preferred way to search for files meeting particular musical requirements. This pane also allows you to tag your own files to your liking.
- The **Files** pane allows you to browse your hard disks by using the hierarchical folder structure of your operating system. For example, you can use it to navigate files that have not been imported into the Maschine Library — and you can import them from there!

> In contrast to the software, the Browser on your controller can only load files that have already been added to the Library. You cannot directly access specific directories on your hard disks with the Browser using the controller. This is why you should always import all your files to the Library and tag them using the software beforehand.

### Switching between Library and Files pane

▶ To show the **Library** pane or the **Files** pane of the Browser, click the corresponding tab at the top of the Browser.




*Click the desired tab to show the corresponding pane of the Browser.*

The **Library** pane is described in section Searching and loading files from the Library, and the **Files** tab is described in section Loading and importing files from your file system.

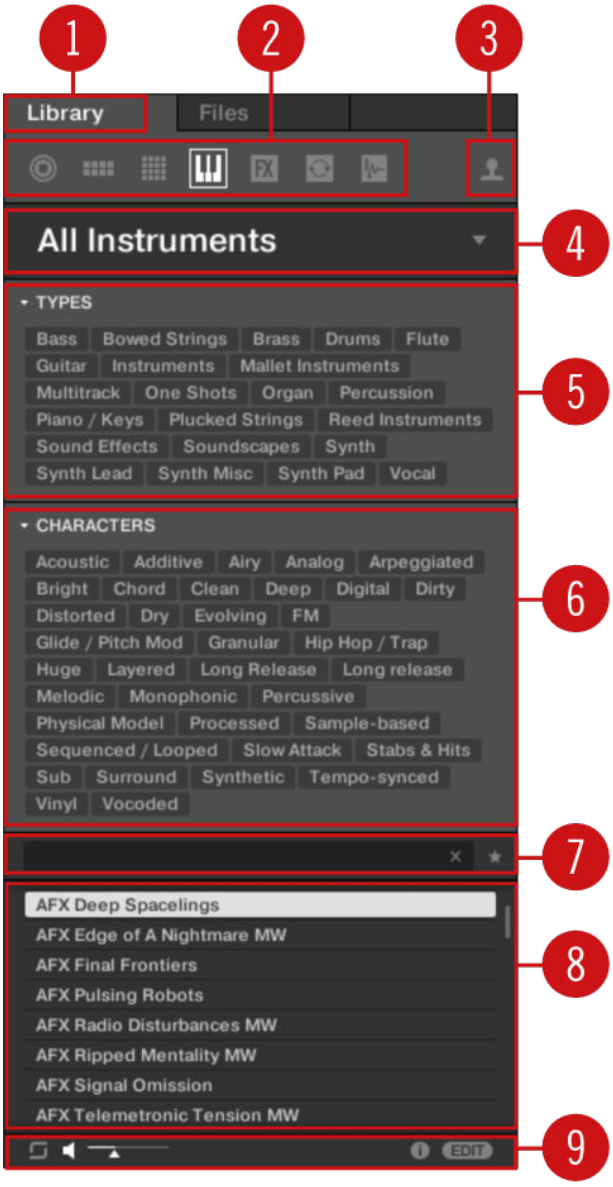
## Searching and loading files from the Library

The Browser's **Library** pane allows you to search for any file in the Maschine Library.

▶ To display the **Library** pane, click the **Library** tab in the top left corner of the Browser.

### Overview of the Library pane

The **Library** pane contains the following elements:




*The elements of the Library pane.*

(**1**) **Library tab**: Click the **Library** tab to open the **Library** pane described here.

(**2**) **File Type selector**: This contains seven icons, each representing the different files types of Maschine. From the left to right the file types are Project, Group, Sound, Instrument presets, Effect presets, Loops, and One-Shots. Only the selected file type is displayed in the Result list (**8**). See section Selecting a file type.

(**3**) **Content selector**: Select the User icon to display user content. When the User icon is lit only user content is shown in the Result list. When the User icon is unlit only factory content is shown in the Results list. (**8**). See section Choosing between factory and user content.

(**4**) **Product selector**: In the drop-down menu you can select a particular product, product category, and sometimes the bank and sub-bank of the selected product. Again, only the files matching your selection will be displayed in the Result list (**8**). See section Selecting a Product Category, a Product, a Bank, and a Sub-Bank.

(**5**) **TYPES filter**: allows you to search for files based on applied Type and Sub-Type tags. See section Selecting Type and Character tags.

(**6**) **CHARACTERS filter** (Instrument/Effect presets only): allows you to search for files based on applied Character tags. See section Selecting Type and Character tags.

(**7**) **Search field**: Enter any character string into the Search field to limit the search results to the files containing this string. See section Performing a text search.

(**8**) **Result list**: The Result list displays all files that match your query, as specified via the various tools above. See section Loading a file from the result list.

(**9**) **Control bar**: At the bottom of the Browser, the Control bar provides a few useful tools when browsing the Maschine Library, some of them depending on your selection in the File Type selector (**2**):

- For all file types except Projects, click the **Autoload button** at the far left of the Control bar to automatically load the selected file in order to hear it in context with the rest of your Project while it is playing. See section Loading the selected files automatically.
- For Instruments presets and Samples, enable the **Audition button** and adjust the volume fader next to it in order to hear the selected items directly from the Browser. See section Auditioning Samples and Auditioning Instrument presets.
- For Groups, enable the Load Patterns checkbox to load the Group's Patterns together with the Group. See section Loading Groups with Patterns.
- For all files, click the **Information button** (showing a little "**i**") to display more information on the selected file(s). See section Displaying file information.
- For all files, click the **EDIT** button to open the **Attribute Editor** and modify the tags and properties assigned to the selected file(s). See section Editing the files' tags and properties.

### Overview of the search workflow in the Library pane

When searching for files via the **Library** pane, you can progressively refine your search by following this typical top-to-bottom workflow.

The first two steps are mandatory:

1. Choose a file type in the File Type selector (**2**).
2. Select between factory content and user content in the Content selector (**3**).

The next steps are optional. They can be useful to further refine your search and limit the number of search results to a reasonable amount:

1. Choose a product category or a product in the Product selector (**4**). If you have selected a product you can further choose a particular bank and sub-bank of this product, if any.
2. Select tags in the **TYPES** filter (**5**) and the **CHARACTER** filter (**6**) for Instrument and Effect presets to describe what you are looking for.

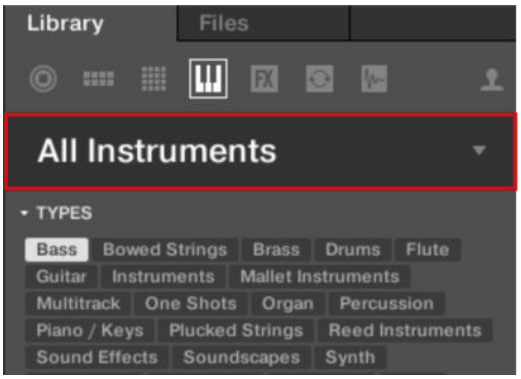
At any time in the procedure described above, you can use the Search field (**7**) to quickly perform a text search among the entries in the Result list (**8**).

The above steps are described in detail in the following sections.

## Selecting or loading a product and selecting a bank from the Browser

The Product selector allows you to limit your search to a certain product category, a particular product, or a specific bank of the product. You can also load a product along with its default preset file directly from the Product selector (see below).

By default there is no particular selection in the Product selector; it reads All Instruments:

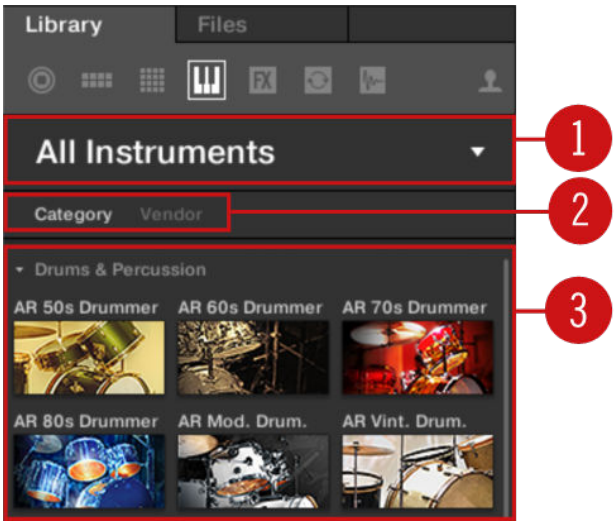



*The closed Product selector header.*

## Selecting a product category

▶ Click on the Product selector header to open it.

→ The Product selector opens up, showing you all products available in your Maschine Library.




*The opened Product selector.*

(**1**) **Product selector header**: The header shows the selected product. If nothing has been selected, a generic label (**All Instruments**) is shown. Click on the header to close the Product selector.

(**2**) **Category**/**Vendor** selector: Allows you to sort the Product list by **Category** or by **Vendor**.

(**3**) **Product list**: Shows all products that are available in your Maschine Library.

If **Category** is selected in the **Category**/**Vendor selector**, the Product list is sorted by the following categories:

- **Drums & Percussion**
- **Sampled Instruments**
- **Synthesizers**
- **Other**

If **Vendor** is selected in the **Category** / **Vendor** selector, the Product list is sorted by the names of the manufacturers.

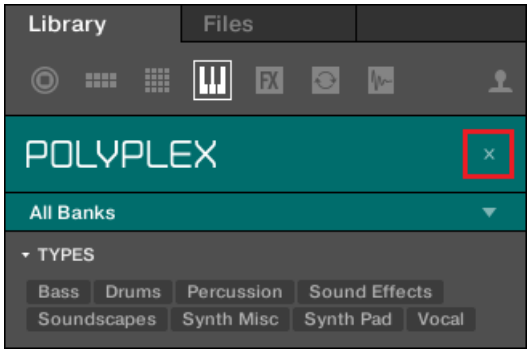
▶ To select a product and show only the preset files associated with it, click on the product in the list.

→ Upon your selection, the Product selector automatically closes, the product name and icon appear in the header, and the tag filter and results list below will be filtered accordingly.

> ⓘ Products are shown in the Product selector only if the Library contains files for them. If a particular product does not show up, make sure that you have installed the latest updates using Native Access.

## Resetting the product selection

▶ To reset the selection made in the Product selector, click the little cross at the right of the product name:




→ The product selection is cancelled. The Product selector displays the generic label **All Instruments**. The tag filter and the results list under the Product selector now include files for all products.

## Selecting a bank

When you select specific products in the Product list (see description above), an additional **Bank menu** appears under the closed Product selector:

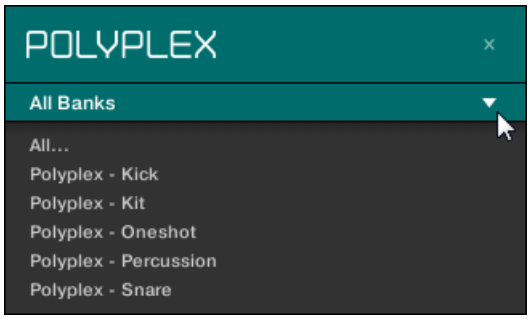



*The Bank menu showing All Banks for POLYPLEX*

The Bank menu allows you to select a particular bank of files for the selected product (POLYPLEX in the picture above).

Banks can be additional Libraries (for example Massive Expansions), different versions of the original Factory Library (for example FM7 Legacy and FM8 Factory Library), or any other content categorization specific to a particular product (for example different sets of drum sounds for POLYPLEX).

▶ To select a particular bank for the selected product, click the Bank menu under the product icon, and choose a bank from the available entries.



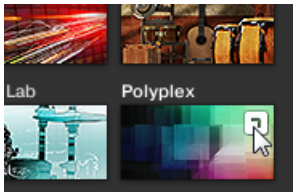

→ Upon your selection, the Bank menu closes and displays the selected bank. The tag filter and results list underneath further narrow their content accordingly.

▶ As with the product selection, you can remove the selected bank by clicking the little cross next to the bank name in the closed menu.

### Loading a product from the Product selector

If you wish to not only filter the results list by selecting a product but also load the product along with its default preset file, you can do so directly from the Product selector.

▶ To load a product with its default preset file, place the mouse over the product entry in the Product selector, and click on the arrow symbol that appears in the upper right corner of the product entry.

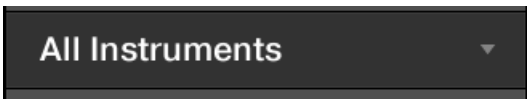



→ The product and the first preset from the results list for this product are loaded, and the result list only displays preset files only associated with this product.

## Selecting a Product Category, a Product, a Bank, and a Sub-Bank

The Product selector allows you to limit your search to a certain product category, a particular product, a specific bank of the product, or even a sub-bank in this bank.

By default there is no particular selection in the Product selector: It reads **All Projects**, **All Groups**, **All Sounds**, **All Instruments**, **All Effects** or **All Samples** according to the type of file selected in the File Type selector above (refer to Selecting a file type):

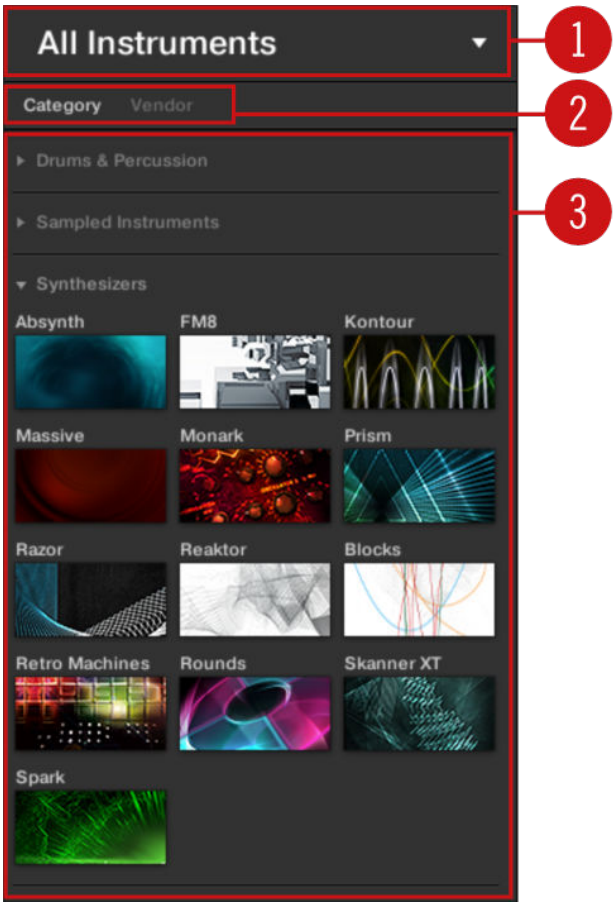



*The closed Product selector without any Instrument selected.*

### Selecting a Product or a Product Category

▶ Click the Product selector to open it.

→ The Product selector opens up and displays the following:




*The opened Product selector (for Instrument presets).*

(**1**) **Product selector header**: The header shows the product or the selected product category — if there is no selection it shows a generic label (**All Instruments** in the picture above) corresponding to the type of file selected in the File Type selector above. Click the header to close the Product selector.

(**2**) **Product Category filter**: Shows the categories of the products that have files available in the Maschine Library. Click a category of a product to select/deselect it. Selecting a category limits the number of products shown in the Product list below (**3**). Only one category can be selected at a time. You can also select a category and close the Product selector by clicking its header (**1**) again: The header (**1**) will display the category that you have just selected, and the **TYPES** filter (and **CHARACTER** filter, if present) along with the Result list will be filtered by that category.

(**3**) **Product list**: Shows the products for which files are available in the Maschine Library. Click the desired product in the list. Upon your selection the Product selector automatically closes, the product name and icon appear in the header, and the tag filter and Result list below will be filtered accordingly.




*The closed Product selector with an Instrument selected.*

Product categories and products are shown in the Product selector only if the Maschine Library contains files for them. For example, if a Native Instruments effect from the Komplete family is installed on your computer but you haven't saved any user presets for it in Maschine yet, its product icon will not be available in the Product selector when the user content is selected in the Content selector. Similarly, if you haven't updated a particular Native Instruments effect/instrument, the icon for that product might not be available in the Product selector when the factory content is selected in the Content selector — to prevent this, make sure that all your Native Instruments products are up to date.

## Resetting the Product Selection

▶ To reset the selection made in the Product selector, click the little cross at the right of the product name:




→ The product selection is cancelled. The Product selector displays the generic label corresponding to the selected file type (Project, Group, Sound, Instrument preset, Effect preset or Sample). The tag filter and the Result list under the Product selector now include files for all products.

## Selecting a Bank and a Sub-Bank

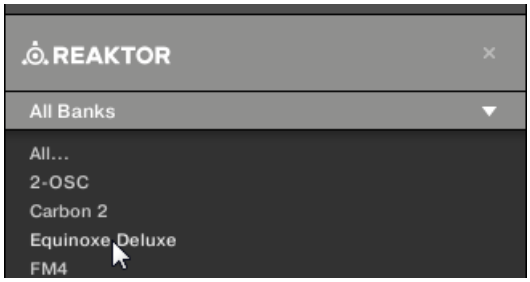
When you select specific products in the Product list (see description above), an additional **Bank menu** appears under the closed Product selector:




*The Bank menu showing All Banks for Reaktor Effects.*

This Bank menu allows you to select a particular bank of files for the selected product (Maschine in the picture above).

▶ To select a particular bank for the selected product, click the Bank menu under the product icon and choose a bank from the available entries.




→ Upon your selection the Bank menu closes and displays the selected bank. The tag filter and Result list underneath further narrow their content accordingly.

Banks can be, e.g., additional libraries (e.g., Massive EXPANSIONS), different versions of the original Factory Library (e.g., FM7 Legacy and FM8 Factory Library), or any other content categorization specific to a particular product.

Similarly, some banks are split into several sub-banks. In that case a Sub-Bank menu appears under the Bank menu and allows you to select a particular sub-bank. As with the product above, you can remove the selected bank and sub-bank by clicking the little cross at the right of the bank or sub-bank name in the closed menu.

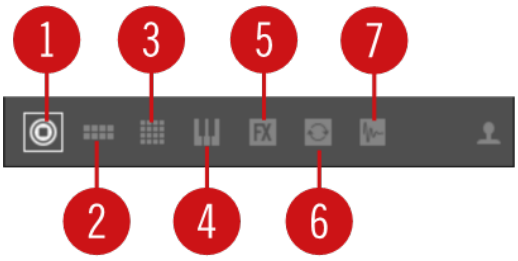
### Products and Banks for User Content

When you save your own Maschine files, they are automatically assigned to products, banks, and sub-banks as follows:

- When you save Projects, Groups or Sounds, they are automatically set to the **Maschine** product.
- When you save Instrument or Effect presets:
  - Presets for Internal Plug-ins: The product is set to **Maschine**, while the bank is set to the particular Internal Plug-in for which the preset has been saved (e.g., **Sampler**, **Kick**, **Flanger**, etc.).
  - Presets for Native Instruments Plug-ins: The product is set to the particular Native Instruments effect or instrument. The bank and sub-bank will vary with each Native Instruments product.
  - Presets for External Plug-ins: The product is set to the manufacturer of the VST/AU plug-in, and the bank is set to the particular VST/AU plug-in for which the preset has been saved. The sub-bank is left empty. In addition, the preset is assigned to the **External Plug-ins** product category.

## Selecting a file type

The File Type selector shows six icons representing the different file types of Maschine:




*The File Type selector.*

(**1**) **Project**: (.mxprj)

(**2**) **Groups**: (.mxgrp)

(**3**) **Sounds**: (.mxsnd)

(**4**) **Instrument Plug-in presets**: (.mxinst)

(**5**) **Effect Plug-in presets**: (.mxfx)

(**6**) **Loops**: (.wav, .aiff, .flac, .mp3, .mp4, .ogg)

(**7**) **One-Shots**: (.wav, .aiff, .flac, .mp3, .mp4, .ogg)

▶ Click the desired icon in the File Type selector to display only the files of that type in the Result list.

→ The selected icon is highlighted and the files are filtered accordingly.

## Choosing between factory and user content

The Content selector represents the factory content and the user content:

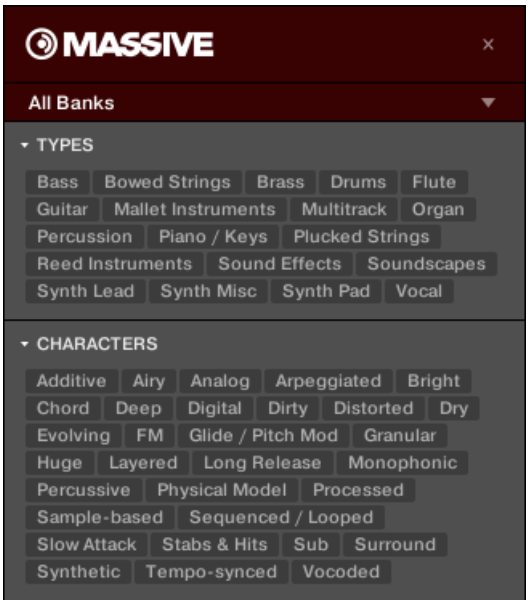


*The Content selector.*

▶ Click the Content selector (icon is lit) to browse only user content or click the Content selector again (icon unlit) to browse only factory content.

## Selecting Type and Character tags

The tag filter that appears under the Product selector allows you to search for files according to particular characteristics, effect type, sonic character, etc.




*TYPES and CHARACTERS filters for the Massive Massive Plug-in.*

▶ Click tags to filter files based on the selected type and character tags. Click the selected tags again to deselect them and broaden the search.

### Tags for Projects, Groups and Sounds: 3 Type Levels

For Projects, Groups and Sounds tags are structured into three hierarchical levels globally called Types. You can select them via the **TYPES** filter:

- At first the **TYPES** filter displays the available top-level tags only.
- As soon as you select a tag at the top level, the second level appears underneath with sub-tags of the selected tag.

- The hierarchical structure means that the sets of sub-tags are specific to each tag of the level above.

**Example**: Imagine that you are looking for a bass synth

- You have already selected the **Maschine** product in the Product selector, and the **Maschine 2.0 Library** bank of this product (for more information on this, refer to section Selecting a Product Category, a Product, a Bank, and a Sub-Bank). For now the **TYPES** filter shows only top-level tags.
- In order to find a bass, you first select the **Instruments** Type from the **TYPES** filter.
- In the second level, you select the **Bass** Sub-Type.
- Now the third level appears with Sub-Types like **Acoustic**, **Electric**, etc.
- By selecting any of these tags, say, **Electric**, you will narrow your search to this particular Sub-Type of basses.

This allows you to quickly find various Samples (even for different instruments) with similar characteristics — here, an acoustic sound.

### Tags for Instrument, Effect, and Sample Presets: 2 Type Levels and 1 Character Level

For Instrument, Effect and Sample presets, tags can be of two kinds: Type or Character. You can select them via the **TYPES** and **CHARACTERS** filter, respectively:

- The **TYPES** filter works as described above for all other file types, except that only two hierarchical levels are available. See above for a detailed description.
- The **CHARACTERS** filter provides an additional level that is independent from the Type levels:
  - In general, Character tags will rather refer to technical terms (e.g., **Arpeggiated**, **Percussive**, **Synthetic**, etc.).
  - The **CHARACTERS** filter is always displayed. You can start your search with the **CHARACTERS** filter before (or even without) using the **TYPES** filter.
  - However, the list of tags available in the **CHARACTERS** filter will vary depending on the tags selected in the **TYPES** filter. If no file contains both the Type and Character tags that you have selected, the Type tags will prevail and the Character tags will be deselected.



If you don't select any tag in the **TYPES** or the **CHARACTERS** filter, the Result list will include all files satisfying any of their tags.

### Selecting Multiple Tags from the Same Level

In both **TYPES** and **CHARACTERS** filter you can select **multiple tags** from the same level:

1. Hold [Shift] on your computer keyboard and click two tags at a particular level to select these tags and all tags in-between.
2. Hold [Ctrl] ([Cmd] on macOS) on your computer keyboard and click any number of tags at a particular level to select these particular tags.

→ The Result list will include all files satisfying at least one of the selected tags.

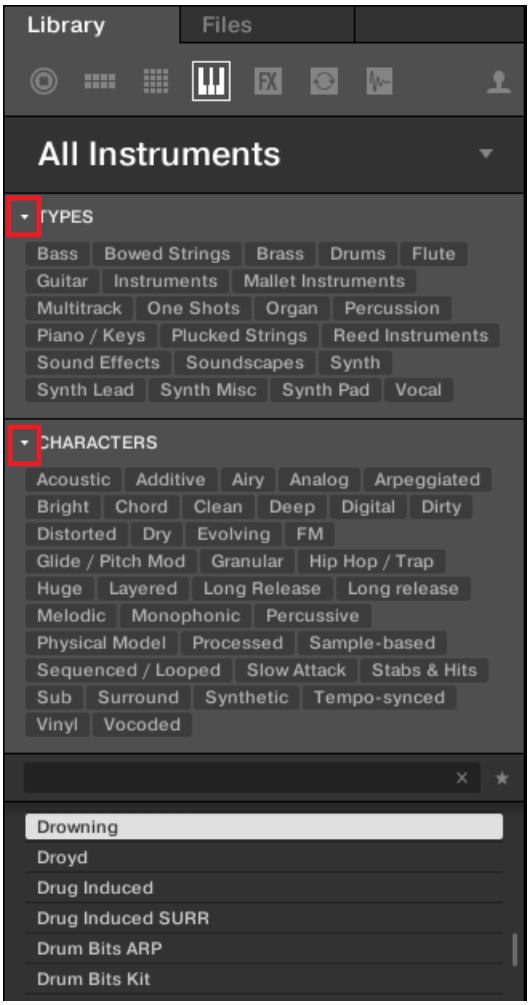
### Opening and Collapsing the Attributes Sections

The Attributes sections (**TYPES** and **CHARACTERS**) in the Browser Library can be collapsed to make more room for the results list on smaller display resolutions.

To collapse the Attributes sections:

▶ Click the small triangle located to the left of the Attributes (**TYPES** or **CHARACTERS**).

→ The Attribute sections will collapse results will be shown depending on the amount of space available. Click the triangle again to reopen the sections.




*Highlighted triangle next to the Attributes (TYPES and CHARACTERS).*

## Performing a text search

In the Search field you can enter your search query.




*The Search field.*

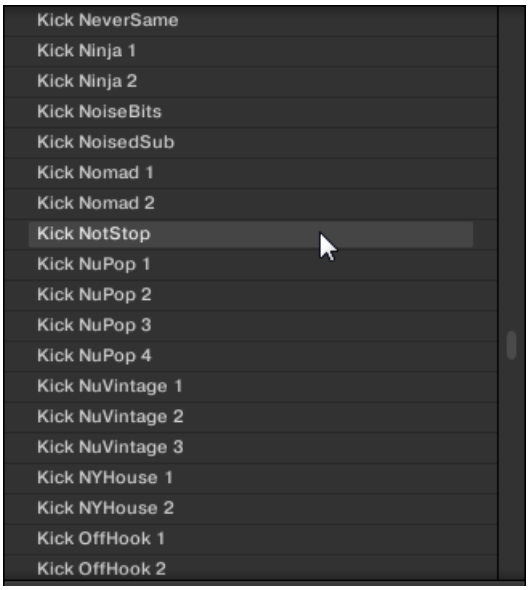
▶ Click in the Search field and type the desired text to limit the results to files containing this text.

The search will be performed on the file paths, the file names, the products/banks/sub-banks, the tags, and the properties directly as you type. If you want to search for a combination of two words (e.g. “bass” and “analog”) just enter both words in the Search field with a space in between. As you start typing, the list of matches will start narrowing in the Result list below.

On the right of the Search field, click the **Reset button** (showing a little cross) to reset both text search and tag search. The Product selection is not affected.

## Loading a file from the result list

The Result list shows all the files that match your query:




*The Result list showing kicks from the Maschine Library.*

If the list is too long to fit in the display, use your mouse wheel or drag the scroll bar on the right to show the remaining items.

The Result list allows you to:

- Select the desired file(s).
- Load the selected file(s) into your Project (or load another Project).
- Delete the selected file(s) from your hard disk and from the Library.
- Navigate to the selected file(s) in your operating system.
- See, and possibly edit, the attributes of the selected file(s) by clicking the **EDIT** button at the bottom right of the Browser. For more information on this, please refer to section Editing the files' tags and properties.

### Selecting files in the Result list

▶ To select a single file in the Result list, click its entry.

You can also select multiple files in the Result list in order to process them all at once.

To select adjacent files in the list, do the following:

▶ Hold [Shift] on your computer keyboard and click two files in the Result list to select these files and all files in-between.

To select distant files in the list, do the following:

▶ Hold [Ctrl] ([Cmd] on macOS) and click all the files you want to select.

### Loading files via double-click

Double-clicking one of the matches will load the respective file. Depending on what file type you have selected, the file will be loaded to different locations within Maschine:

- If it is a Project it will load all associated files replacing all files currently in memory. If your current Project contains unsaved changes a dialog will appear asking you if you want to save them. This is to prevent you from losing changes by accidentally loading a new Project without saving the old one.
- If it is a Group, it will be loaded into the Group currently in focus.
- If it is a Sound, it will be loaded into the Sound slot currently in focus.
- If it is an Instrument preset, it will be loaded into the first Plug-in slot of the Sound slot currently in focus.
- If it is an Effect preset, it will be loaded into the selected Plug-in slot.
- If it is a Sample, it will be loaded into the Sound slot currently in focus. The Sampler Plug-in will be automatically loaded in the first Plug-in slot in order to play the Sample. The Sample will spread over the entire velocity and note range.

ⓘ The file loaded will replace the object previously at that position or in this slot, if any! If needed, you can undo/redo your action via the shortcuts [Ctrl] + [Z]/[Y] (Windows) or [Cmd] + [Z]/[Y] (macOS).

### Loading files via drag and drop

Except for Projects, you can also load files from the Result list into the desired location via drag and drop. This notably has the following benefits:

- You can load the file into a Group or a Sound slot that is not currently focused, or into a Plug-in slot that is not selected.
- You can load a Sample into its own Zone in the **Zone** page of the Sample Editor: A new Zone will be created for that Sample. See section Adding Samples to the Sample Map for more information.

ⓘ Drag and drop of Groups and Sounds is possible only in Arrange view.

### Loading multiple files at once via drag and drop

Once you have selected multiple files from the Result list (see description above), you can drag and drop them to the relevant locations in Maschine. By doing this, please keep in mind the following:

- When dragging **several Groups** onto the Group List, you have following options:
  - If you drop the Groups between two existing Groups (where the insertion line appears), the dropped Groups will be inserted between these two Groups.
  - If you drop the Groups onto an existing Group, the dropped Groups will replace that Group and the following ones.
  - If you drop the Groups onto the "**+**" at the end of the Group List, the Groups will be appended to the existing Groups in the Group List.

- When dragging **several Sounds**, you have following options:
  - If you drop the Sounds onto an existing Group, the Sounds will be loaded in the empty Sound slots of that Group — if there are not enough empty Sound slots, the Sounds will be loaded in the first Sound slots of the Group, replacing the Sounds previously loaded in these slots.
  - If you drop the Sounds onto the "**+**" at the end of the Group List, the Sounds will be loaded in a new Group appended to the existing Groups.
  - If you drop the Sounds onto the Sound List, the Sounds will be loaded in adjacent Sound slots, starting from the slot onto which you dropped them.
- When dragging **several Instrument presets**, you have the same options as when dragging several Sounds (see above). Each Instrument preset will be loaded into in its own Sound, and the Sound will take the name of the preset.
- When dragging **several Effect presets**, you have following options:
  - If you drop the Effect presets onto a Group in the Group List or onto a Sound in the Sound List, they will be appended to the existing Plug-ins in the Plug-in List of that Group or Sound.
  - If you drop the Effect presets between two existing Plug-ins in the Plug-in List of any channel, they will be inserted between these two Plug-ins.
  - If you drop the Effect presets onto an existing Plug-in in the Plug-in List of any channel, they will replace that Plug-in and the following ones.
- When dragging **several Samples**, you have following options:
  - If you drop the Samples onto an existing Group, onto the "**+**" at the end of the Group List, or onto the Sound List, you have the same options as when dragging several Sounds (see above). Each Sample will be loaded in its own Sound with a Sampler Plug-in in the first Plug-in slot in order to play the Sample. The Sample will spread over the entire velocity and note range.
  - You can also drop the Samples onto the **Zone** page of the Sample Editor. In that case all Samples will be loaded in the focused Sound and a Zone will be created for each Sample. For more details, refer to section Adding Samples to the Sample Map.



You cannot load multiple Projects at once.



Drag and drop of Groups and Sounds is possible only in Arrange view.

## Deleting files in the Result list

You can delete user files directly from the Result list:

1. Right-click ([Ctrl]-click on macOS) the desired user file and select **Delete** from the context menu. If you want to delete several files at once, first select them as described above, and right-click ([Ctrl]-click on macOS) ([Ctrl]-click on macOS) any of them.A warning dialog opens to inform you that the file will be not only removed from the Maschine Library but also deleted from your hard disk.
2. Click **OK** to confirm the deletion (or **Cancel** to keep the file).

→ The file is deleted from the Maschine Library and from your hard disk.

When browsing factory content, the **Delete** entry is not available in the context menu.

### Navigating to the files in your operating system

If you want to find out the location of a particular file shown in the Result list, do the following:

▶ Right-click ([Ctrl]-click on macOS) any file shown in the Result list and select **Find in Explorer** (**Find in Finder** on macOS) from the context menu to open an Explorer/Finder window pointing to the folder containing that file on your operating system.

### Loading a file from the result list on the controller

▶ Press the Browse button (magnifying glass on the top left-hand side).

→ A list of files corresponding to the settings you chose in the Browser appear in the software and on the controller.

1. Turn the Encoder to select an entry in the list.
2. Press the Encoder to load the selected entry.

→ The selected file is loaded in the focused Group, the focused Sound, or the selected Plug-in slot (if it's an Instrument Plug-in, it will be loaded in the first Plug-in slot of the focused Sound).

Check that the desired Group or Sound slot is focused and/or the desired Plug-in slot is selected before loading the file from the Browser to avoid loading it at the wrong place! To set the focus to a Group or a Sound slot, you can use Group buttons **A**–**H** and the pads without leaving Browse mode (refer to Focusing on a Group or a Sound to know how to do it). To select a particular Plug-in slot, you will need to temporarily leave Browse mode and select the right slot (refer to Switching between the Master, Group, and Sound levels and Navigating Channel properties, Plug-ins, and Parameter pages for more information). In any case, don't hesitate to press **SHIFT** + pad **1** / **SHIFT** + pad **2** to undo/redo your actions.

## Additional browsing tools

At the bottom of the Browser, the Control bar provides various useful tools that will help you quickly find and check the files you need.




*The Control bar at the bottom of the Browser.*

Some of the tools are available only for specific file types. The next sections describe each of these tools.

The **EDIT** button (**Library** pane) or **IMPORT** button (**Files** pane) at the far right of the Control bar allows you to edit the attributes of the files selected in the Result list above (in the **Files** pane, these are the files being imported to the Library, whereas in the **Library** pane these are files already in the Library). Please refer to section Editing the files' tags and properties for more information!

## Loading the selected files automatically

▶ Click the Autoload button to enable/disable Autoload.



*The Autoload button.*

When Autoload is activated, any item that you select in the result list of the **Library** pane or **Files** pane is automatically loaded into the focused Group or Sound slot or into the selected Plug-in slot, replacing any content currently in that location. This allows you to listen to this item in context with the rest of your Project while it is playing.

Autoload is not available when browsing Projects.

Autoload is not available when browsing Samples with Audition activated. For more information, refer to Auditioning Samples.

Autoload is not only helpful when looking for an appropriate Sound, Group, Plug-in preset or Sample, but can also be very inspiring: With a Pattern playing, browse through your Library with Autoload activated and listen to Sounds and Samples you usually would not use in that context.

## Auditioning Instrument presets

When you are browsing Instrument presets, a Audition button and Audition Volume slider appear next to the Autoload button.



*The Audition controls.*

▶ Click the Audition button (showing a little speaker icon) to enable/disable Audition.

When Audition is activated, you can directly hear Instrument presets as you select them in the Result list of the **Library** pane or **Files** pane.

▶ Drag the Audition Volume slider next to the Audition button to adjust the volume of the Instrument presets you are pre-listening to.

The Audition signal is sent to the Cue bus of Maschine. This allows you to pre-listen to Instrument presets on a distinct output pair (e.g., in your headphones) without affecting Maschine's main output. For more information on the Cue bus, refer to section Using the Cue bus.

## Auditioning Samples

When you are browsing Samples, a Audition button and Audition Volume slider appear next to the Autoload button.



*The Audition controls*

▶ Click the Audition button (showing a little speaker icon) to activate/deactivate Audition.

When Audition is activated, you can directly hear Samples as you select them in the Result list of the **Library** pane or **Files** pane.

▶ Drag the Audition Volume slider next to the Audition button to adjust the volume of the Samples you are pre-listening to.

The Audition signal is sent to the Cue bus of Maschine. This allows you to pre-listen to Samples on a distinct output pair (for example, in your headphones) without affecting Maschine's main output! For more information on the Cue bus, refer to section Using the Cue bus.

ⓘ Audition and Autoload are mutually exclusive: only one of them can be active at a time. For more information on the Autoload feature, refer to section Loading the selected files automatically.

## Loading Groups with Patterns

Every Group from the factory library includes a set of Patterns that illustrate possible uses of that Group. Similarly, when you save a Group of your own to the Library for later use, all Patterns you have created for that Group will be saved with the Group.

When browsing Groups, you can choose to load each Group with or without its Patterns. This is done by clicking the **+ PATTERNS** button at the bottom of the Browser:

- **+ PATTERNS** button activated: Groups will be loaded together with their Patterns. This allows you to use the Patterns you have saved with the Groups. Upon loading, all Patterns of the focused Group will be replaced, and a Clip referencing the first Pattern will be created in the selected Scene.
- **+ PATTERNS** button deactivated: Groups will be loaded without their Patterns. This allows you to load another set of Sounds while keeping your current Patterns. Notably, this can be very useful to try another drum kit with your current Patterns.

ⓘ **+PATTERNS** is only available when browsing Groups.

## Loading Groups with routing

When the file type Groups is selected, the **+ROUTING** button is available in the Control bar of the Browser. When the **+ROUTING** button is activated the audio and MIDI routings stored in the Group are also loaded (potentially overwriting previous routings in the selected Group). When the **+ROUTING** button is off, any audio and MIDI routings saved in the Group will not be loaded, thus preserving any existing routings in the active Group.

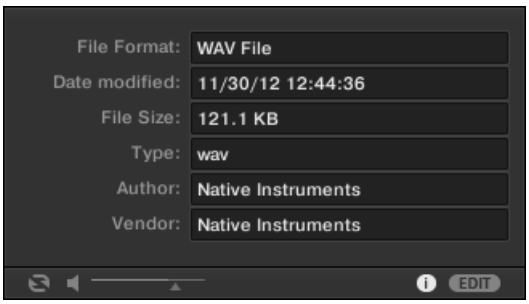
## Displaying file information



*The Information button*

▶ Click the Information button (showing a little "i") next to the **EDIT** button in the right part of the Control bar to display information on the file(s) selected in the Result list.

→ A box appears above with various information on the selected file(s): **File Format**, **Date modified**, **File Size**, **Type**, as well as the **Author** and **Vendor** properties, if any (refer to Editing the files' tags and properties).




*The Information box provides various information on the selected file(s)*

If the selected files have different characteristics, the corresponding fields in the Information box will read **multi**.

## Using Favorites

Favorites in the Maschine Browser allow you to quickly view and browse your most frequently used items. This includes Projects, Groups, Sounds, Instrument presets, Effect presets, Loops and One-shots. You can assign any of these items as Favorites. The Favorites serve as an additional filter in the Browser: When activated, the Result list will only show items that have been marked as Favorites and also match all other selected filters, including the search query entered into the search field. Favorites are available for both the factory content and the user content.

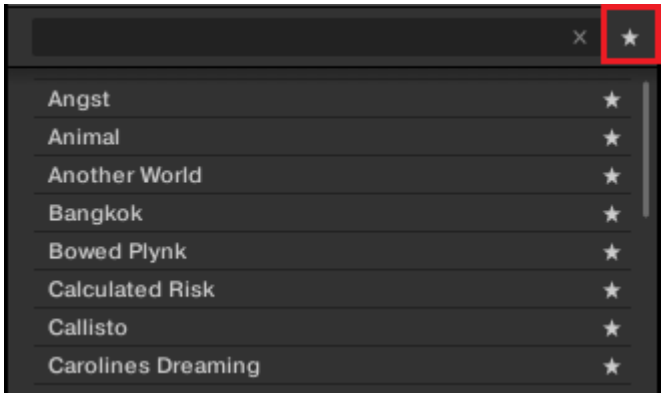
Here are some important notes regarding Favorites:

- Favorites are automatically shared across Maschine and Komplete Kontrol browser databases on one computer.
- Favorites are independent of the file's location: If a file is moved, it retains its Favorite tag.
- Favorites are persistent: If a file location is rescanned or deleted and later added again to the database, all files retain their Favorite tag.

**Using Favorites in the software**

To activate the Favorites filter:

1. Click the Filter Favorites button showing a little star next to the search field to filter the results by Favorites:



2. The star lights up and the Result list below only shows Favorites matching the search criteria.

**Using Favorites on the controller**

You can view Favorites directly using your controller. This lets you access your most frequently used items without touching the computer's mouse and keyboard.

To activate the Favorites filter from your controller:

1. Press the Favorites button (star icon on the top left-hand side).
2. The Favorites filter is now active and the Result list in the software only shows Favorites matching the search criteria.

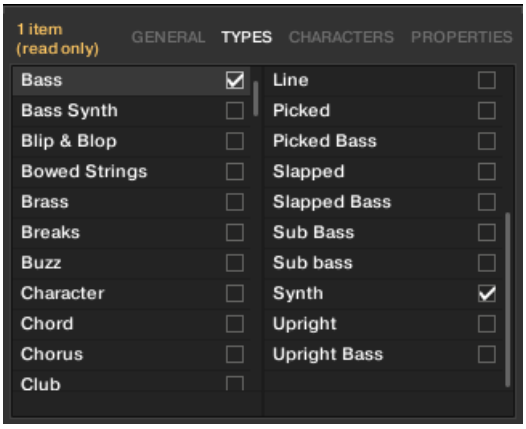
# Editing the files' tags and properties

The Attribute Editor allows you to assign or edit tags and properties to your Maschine files to make them easier to find when browsing the Maschine Library (refer to Searching and loading files from the Library).

## Attribute Editor basics

The Attribute Editor is used in the following situations:

- At any time you can edit the tags and properties of user files already in the Library by selecting them in the Result list of the **Library** pane and clicking the **EDIT** button at the bottom right of the Browser. After you have finished editing, click **APPLY** to apply your changes to the selected files, or click the lit **EDIT** button again to cancel your changes and close the Attribute Editor. See section Searching and loading files from the Library for more information on the **Library** pane.
- When importing folders to the Maschine Library using the Browser's **Files** pane, clicking **IMPORT** at the bottom right of the Browser automatically opens the Attribute Editor so you can tag the files being imported. After you have finished tagging, click **OK** to import the files to the Library and apply the selected tags, or click **CANCEL** to cancel the import. See section Loading and importing files from your file system for more information on the **Files** pane.




*The Attribute Editor (here showing the **TYPES** page).*

The Attribute Editor affects the files selected in the Result list of the **Library** pane (refer to Loading a file from the result list) or the files within the folders selected for import in the **Files** pane (refer to Loading and importing files from your file system).

The Attribute Editor is organized into various pages:

- In the **Library** pane of the Browser, all pages are available: **BANK**, **TYPES**, **CHARACTERS** (Instrument/Effect presets only), and **PROPERTIES**.

- In the **Files** pane of the Browser, only the **TYPES** and **CHARACTERS** pages are available.

▶ Click the desired tab at the top right of the Attribute Editor to show the corresponding page.



You can adjust the overall height of the Attribute Editor by dragging its upper border.

The number of items selected appears in yellow in the upper left corner of the Attribute Editor.

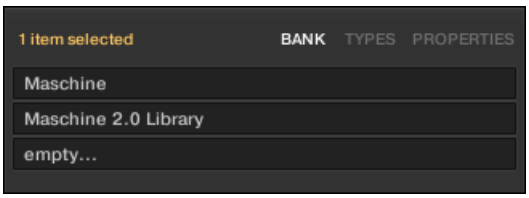
### Displaying attributes of factory files

When browsing in the **Library** pane, if the files selected in the Result list are factory files (i.e. files from any factory content) this will be indicated by a yellow **(read-only)** label.

The Attribute Editor will display the various attributes for these files but you won't be able to modify them.

## BANK page

The **BANK** page is only available when opening the Attribute Editor from the **Library** pane.




*The **BANK** page of the Attribute Editor.*

The **BANK** page shows you (from top to bottom) the product, bank, and sub-bank(s) of the file(s) selected in the Result list above. If any of these attributes are not set the corresponding fields read **empty…**.

You cannot modify the attributes shown on the **BANK** page as they are automatically assigned by Maschine.

## TYPES and CHARACTERS pages

The **TYPES** and **CHARACTERS** pages display and let you modify the tags assigned to the file(s) selected in the Result list above.

- The **TYPES** page is available for all file types when opening the Attribute Editor both from the **Library** pane and the **Files** pane. Various columns are displayed, depending on the file type selected (refer to Selecting Type and Character tags):
- The **CHARACTERS** page is available when opening the Attribute Editor from the **Library** pane to edit the tags of Instrument and Effect presets. When opening the Attribute Editor from the **Files** pane to import new files, the **CHARACTERS** page is always available, however, it will be taken into account only if Instrument or Effect presets are imported. The **CHARACTERS** page shows only one column:

### Displaying tags

- On both **TYPES** and **CHARACTERS** pages, tags assigned to the selected files are marked with a checkmark right of their name.

- On the **TYPES** page, click the name of a tag to select it and display its Sub-Types in the next column to the right. Only one tag can be selected in each column.

### Assigning tags

▶ Click the empty check box right of the desired tag name to assign this tag to the selected files.

→ A checkmark appears in the check box.

Additionally, when you check a tag on the **TYPES** page:

- If another column is available on the right the tag you check is automatically selected and its Sub-Types appear in the next column (if any), allowing you to directly refine your description by checking the desired Sub-Types in this next column.
- If you check a Sub-Type tag whose parent tag was not checked in the previous column on the left, this parent tag will be automatically checked as well.



Be as precise as possible when tagging your files in order to be able to find what you are looking for later.

### Unassigning tags

▶ Click the checkmark right of the desired tag to unassign this tag from the selected files.

→ The checkmark disappears.

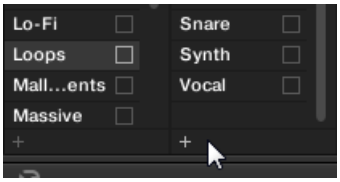


In the **TYPES** page, if you uncheck a tag for which some Sub-Type tags were selected in the columns on the right, these will automatically unassigned as you unassign their parent tag.

### Creating new tags

You can also create your own tags both in the **TYPES** and **CHARACTERS** pages:

▶ To create a new tag in any column, click the "**+**" symbol at the bottom of the column, enter the desired tag name with your computer keyboard, and press [Enter] to confirm.



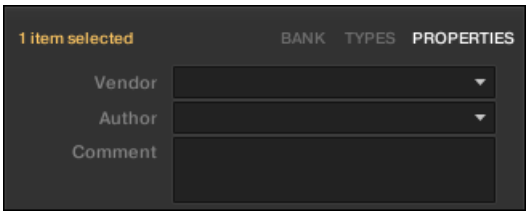

*Adding a new Sub-Type for the Loops Type.*

### Deleting tags

Tags in the **TYPES** and **CHARACTERS** pages cannot be deleted manually. However, if a tag is not assigned to any file anymore, it will be automatically removed from its column.

## PROPERTIES page

The **PROPERTIES** page is only available when opening the Attribute Editor from the **Library** pane.




*The **PROPERTIES** page of the Attribute Editor.*

The **PROPERTIES** page displays three additional attributes of the selected files:

- **Vendor**: Use this field to indicate the manufacturer of the selected files. Click the down-pointing arrow on the right to quickly select any Vendor attribute already in use in other files of the Library.
- **Author**: Use this field to indicate the author of the selected files. Click the down-pointing arrow on the right to quickly select any Author attribute already in use in other files of the Library.
- **Comment**: Use this field to add any other information about the selected files.

ⓘ As with the other pages of the Attribute Editor, the fields in the **PROPERTIES** page can be modified only if you have selected user files in the Result list. The attributes of factory files cannot be edited.

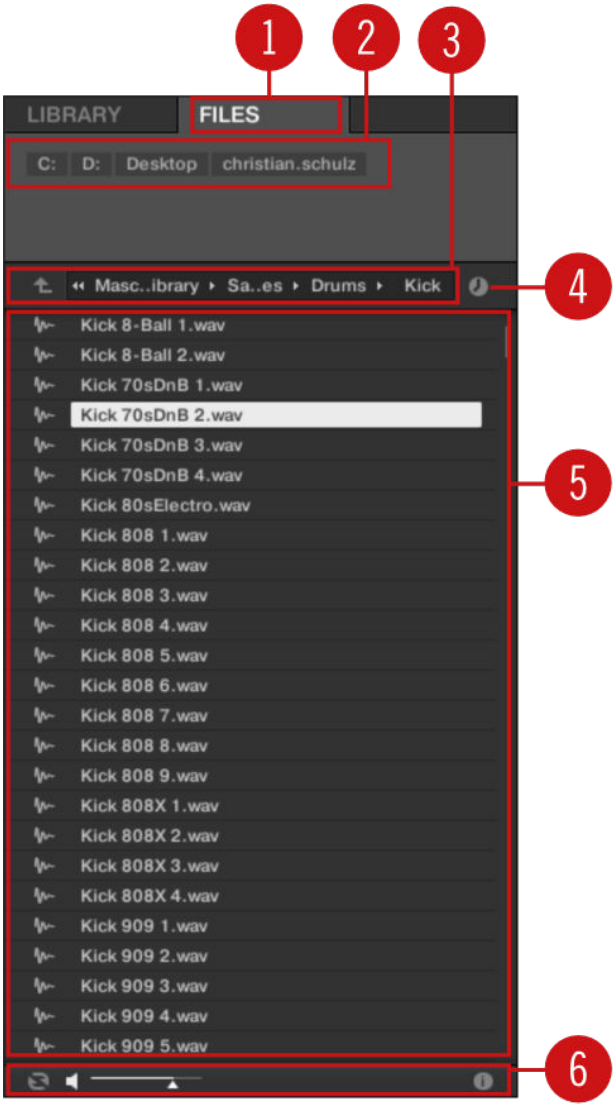
# Loading and importing files from your file system

The Browser's **Files** pane allows you to browse your file system and import the desired folders to your Maschine Library, making them available in the **Library** pane.

▶ To display the **Files** pane, click the **Files** tab at the top of the Browser.

## Overview of the Files pane

The **Files** pane contains the following elements:




*The elements of the **Files** pane.*

(**1**) **Files tab**: Click the **Files** tab to open the **Files** pane described here.

(**2**) **Favorite bar**: Displays all your Favorites. Click any Favorite to directly jump to that particular path and display its content in the Result list (**5**). See section Using Favorites.

(**3**) **Location bar**: Displays the selected path. The Location bar provides various tools to quickly navigate your file system. See section Using the Location bar.

(**4**) **Recent Locations button**: Click this button to see a list of the last visited locations and quickly jump to any of them. See section Navigating to recent locations.

(**5**) **Result list**: The Result list displays the content (files and folders) of the folder loaded in the Location bar (**3**). Only Maschine-compatible files are displayed. See section Using the Result list.

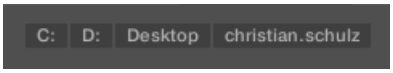
(**6**) **Control bar**: At the bottom of the Browser, the Control bar provides a few useful tools when browsing your file system, some of them depending on the type of files selected in the Result list:

- For all file types except Projects, click the **Autoload button** at the far left of the Control bar to automatically load the selected file in order to hear it in context with the rest of your Project while it is playing. See section Loading the selected files automatically.
- For Samples, enable the **Audition button** and adjust the volume fader next to it in order to hear the selected Samples directly from the Browser. See section Auditioning Samples.

- For Groups, enable the Load Patterns checkbox to load the Group's Patterns together with the Group. See section Loading Groups with Patterns.
- For all files, click the **Information button** (showing a little "**i**") to display more information on the selected file(s). See section Displaying file information.
- When a folder is selected, click the **IMPORT** button to import the selected folder to the Maschine Library. Clicking the **IMPORT** button will open the **Attribute Editor** so you can assign tags to the selected files about to be imported. See section Editing the files' tags and properties.

## Using Favorites

Located at the top of the **Files** pane, the Favorite bar displays all your Favorites.




*The Favorite bar, at the top of the **Files** pane.*

Favorites are shortcuts to specific locations in your file system.

▶ Click any Favorite in the Favorite bar to jump to that location.

→ The selected location is loaded in the Location bar and its content appears in the Result list.

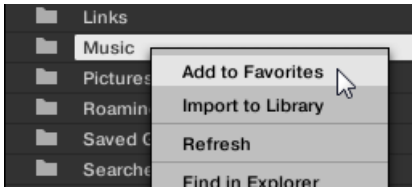
Favorites can be useful if you often return to the same location while browsing your file system in the **Files** pane: Save this location as a Favorite, and at any time you will be only one click away from that location!

The default Favorites are the roots of each of your hard disks, your desktop folder, and your user folder.

### Adding and removing Favorites

You can add your own Favorites to the Favorite bar. This is done in the Result list:

1. Navigate to the parent folder containing the folder you want to add as a Favorite, so that this folder appears in the Result list.
2. In the Result list, right-click ([Ctrl]-click on macOS) the desired folder and select **Add to Favorites** from the context menu.

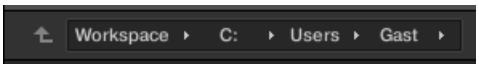



You can also remove any Favorite from the Favorite bar:

▶ To remove a Favorite, right-click it ([Ctrl]-click it on macOS) in the Favorite bar and select **Remove from Favorites**.

## Using the Location bar

The Location bar shows and lets you modify the selected path. At any time the Result list will display the content of the path shown here.



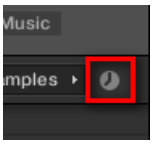

*The Location bar.*

The Location bar provides the following tools:

- **Up arrow**: Click the Up arrow on the left to go one level up in your file system.
- **Selected path**: Within the path displayed, you can:
  - Click any **folder name** to jump to that folder.
  - Click any **right-pointing arrow** after a folder name to open a list of its sub-folders, and select any entry in the list to jump to that folder.
  - If all the levels cannot be displayed in the path, click the double left-pointing arrow left of the path to display a list of the remaining higher levels (up to the **Workspace**, which represents the highest level in your file system), and select any entry from the list to jump to that location.

## Navigating to recent locations

The Recent Locations button shows a clock icon at the right of the Location bar:




*The Recent Location button.*

The last 10 locations that you have visited are stored by Maschine and available here:

▶ Click the Recent Locations button and select any recently visited location from the list.

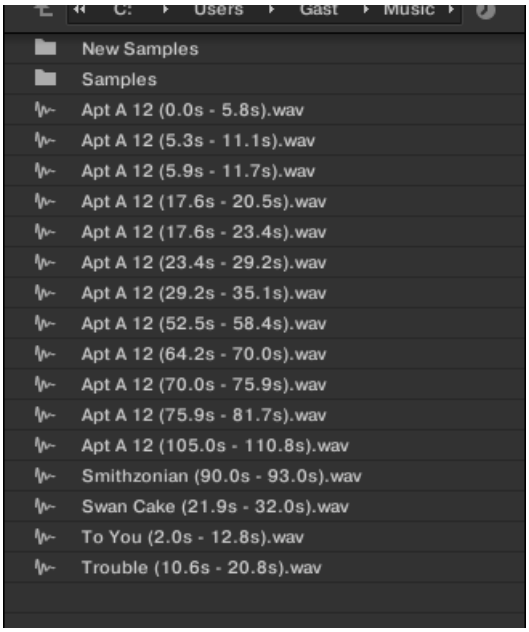
→ This location is loaded in the Location bar and its content displayed in the Result list.

Clicking **Clear** at the bottom of the Recent Locations list will remove all entries from the list.

## Using the Result list

The Result list of the **Files** pane shows the files and folders found in the path loaded in the Location bar above (refer to Using the Location bar).

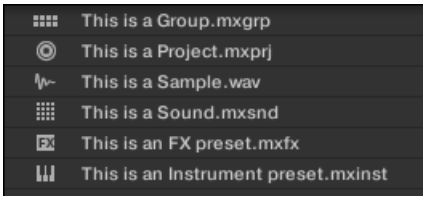
ⓘ Only Maschine-compatible files are shown in the Result list.




*The Result list of the **Files** pane.*

If the list is too long to fit in the display, use your mouse wheel or drag the scroll bar on the right to show the remaining items.

In front of each file, an icon indicates the type of the file:




*Icons for various file types.*

## Navigating your file system in the Result list

You can further browse your file system in the Result list by opening any of the displayed folders:

▶ Double-click a folder to display its content.

To return to the previous folder or to select any folder outside the folder currently displayed, use the various tools located above the Result list:

- Favorites: Using Favorites.
- Location bar: Using the Location bar.
- Recent Locations button: Navigating to recent locations.

## Selecting files and folders in the Result list

▶ To select a single file or folder in the Result list, click its entry.

You can also select multiple files and folders in the Result list in order to process them all at once.

To select adjacent files in the list, do the following:

▶ Hold [Shift] on your computer keyboard and click two files in the Result list to select these files and all files inbetween.

To select distant files in the list, do the following:

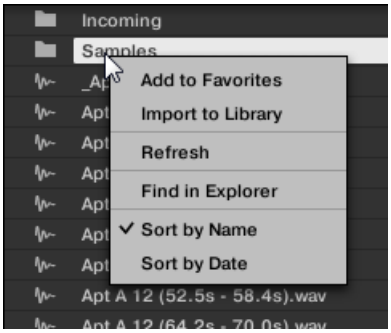
▶ Hold [Ctrl] ([Cmd] on macOS) and click all the files you want to select.

### Loading files from the Result list

You can load files from the Result list using the same methods as in the Result list of the **Library** pane: via double-click or via drag-and-drop. For all details, please refer to section Loading a file from the result list.

### Additional features in the Result list

▶ Right-click ([Ctrl]-click on macOS) any entry in the Result list to open a context menu with additional commands.




*The context menu in the Result list of the **Files** pane (Windows depicted).*

Following commands are available:

| Command | Description |
|---|---|
| **Add to Favorites** (folders only) | Adds the selected folder to your Favorites. See section Using Favorites for more information. |
| **Import to Library** (folders only) | Imports the selected folder(s) into the Library. See section Using the Result list for more information. |
| **Refresh** | Refreshes the display of the list, in case items have been modified in that folder. |
| **Find in Explorer** / **Find in Finder** | Opens an Explorer/Finder window pointing to the selected folder. |
| **Sort by Name** | Sorts the Result list according to the item names. |
| **Sort by Date** | Sorts the Result list according to the item dates. |

## Importing files to the Maschine Library

Apart from the huge Maschine factory library, you might want to use your own samples or any Maschine files you received from other users. As described previously, you can load them directly from the **Files** pane. If this can come in handy, e.g., to quickly check received files in a Maschine context, it can get tedious when using the files on a regular basis. Furthermore, you won't be able to find and load them from your controller nor from the **Library** pane (refer to Searching and loading files from the Library). For this, you have to import the files into the Maschine Library first.

Importing files does not mean they will be moved from their current directory, they will only be referenced by the Browser. That's why whenever you move files, make sure to update the paths to their respective directories in the **Library** page of the **Preferences** panel, as described in section Preferences – Library page.



This section describes how to import files into the Maschine Library. When working on a Project, you can also save individual objects (Project, Groups, Sounds, Plug-in presets, or Samples) of the Project to the Library for later use. This will be described in each object-specific section, later in this manual.



Maschine supports .wav, .aiff, .flac, .mp3, .mp4, and .ogg sample formats at a sample rate of 44.1 kHz or greater and a bit depth of 16 bits, 24 bits or 32 bits float. When you load these formats into your Sound slots, the audio is kept in its original format until you modify the Sample using the audio editing functions in the Edit page of the Sample Editor, in which case the audio material is converted to the .wav format.

The **Files** pane allows you to import whole folders. All Maschine-compatible files found in the selected folder(s) will be imported.

To import a folder, do the following:

1. Click the **Files** tab at the top of the Browser to open the **Files** pane.
2. In the **Files** pane, navigate to the folder containing the folder you want to import. To do this, use the various tools described in the previous sections.
3. Right-click the desired folder and select **Import to Library** from the context menu, or select the desired folder and click the **IMPORT** button at the bottom right of the Browser.

→ You will be presented with the Attribute Editor.

4. In the Attribute Editor, tag the files you are about to import to the Library as described in section Editing the files' tags and properties.
5. When you are done, click **OK** at the bottom right of the Browser to import the files to the Library.

→ All Maschine-compatible files found in the selected folder(s) are imported to your Library. They are added as user content (User icon selected in the Content selector of the **Library** pane, refer to section Choosing between factory and user content). Furthermore, the paths of the imported folders are added to the list of user libraries in the **User** pane of the **Library** page in the **Preferences** panel, refer to section Preferences – Default page for more information on this.



If the folder(s) you are importing contain different types of files (e.g., Samples, Sounds, and Groups), the various imported files will be available by selecting the corresponding types in the File Type selector (refer to Selecting a file type).



You can also edit the files' tags at any time after the folder have been imported. However, it may be best to tag files on import, since it will make it easier to find them later.

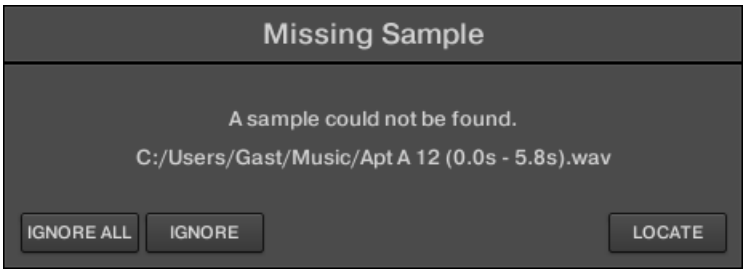
### Other attributes set during import

In addition to the Type (and possibly) Mode tags that you can manually assign to the files being imported as described above, other attributes are automatically set as follows:

- For all file types, any attributes already assigned to the files will be retained.
- For Samples, if the product/bank/sub-bank attributes are empty, they will be set to the folders in which the Samples are located:
  - The product will be set to the name of the folder you have selected.
  - If Samples reside in a subfolder of this folder, the subfolder name will be used as a bank.
  - If Samples reside in a subfolder of this subfolder, the name of the lower subfolder will be used as a sub-bank.

## Locating missing samples

If you are loading a Maschine Project and one or more referenced Sample(s) cannot be found for any reason, a dialog will appear in which you can locate the missing Samples .




*The **Missing Sample** dialog allows you to locate missing Samples.*

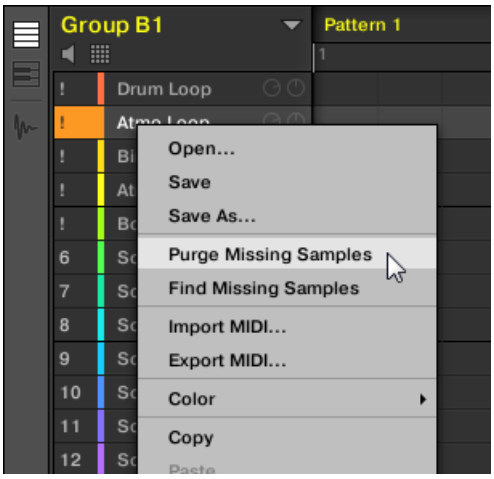
Sounds referencing missing Samples are marked with an exclamation mark. Additionally, their Groups are also marked with an exclamation mark when selected.

The **Missing Sample** dialog shows you which Sample cannot be found. Three buttons at the bottom of the dialog let you choose between the following actions:

- **IGNORE**: Click this button to continue loading your Project without locating the missing Sample. You will be able to locate it at a later time (refer to below).
- **IGNORE ALL**: Click this button to ignore the missing Sample as well as all other missing Samples, if any. You will be able to locate them at a later time (refer to below).
- **LOCATE**: Clicking this button opens a Locate selection dialog in which you can manually locate the missing Sample. Navigate to the desired Sample in your file system and click **Open**. Consequently, your Project uses the newly selected Sample in place of the missing one. If other Samples are missing, Maschine tries to trace their path starting from the path you just indicated.

### Locating or purging missing samples at a later time

When Sample references cannot be resolved, two additional **Purge Missing Samples** and **Find Missing Samples** appear in the context menu of the affected Sound(s) in the Sound List.




*The **Purge Missing Samples** and **Find Missing Samples** entries in the context menu of a Sound whose Sample is missing.*

1. Select **Purge Missing Samples** from the Sound slot's context menu to remove the missing Sample(s) from that Sound.
2. Select **Find Missing Samples** from the Sound slot's context menu to open the **Missing Sample** dialog again and locate missing Samples for that Sound.

The same commands also appear in the context menu of the parent Group in the Group List, as well as in the **File** submenu of the Maschine menu (in the Maschine Header):

- In the context menu of the parent Group, these commands will affect all Sounds with missing Samples in that Group.
- In the **File** submenu of the Maschine menu, these commands will affect all Sounds with missing Samples in your Project.

## Using Quick Browse

Quick Browse is a feature that allows you to quickly recall a search query you performed to get to a given file. Let's say you have loaded a kick Sample after browsing the Library, then loaded a snare Sample to another Sound slot and now you realize you are not satisfied with that kick Sample, but you heard a nice kick Sample just before you chose the current one. Normally you would now have to try to remember the name or the tags you used to find it, or browse all kick Samples (given that the Maschine Library already has several hundreds of kick Samples, this may take a considerable amount of time). With Quick Browse you can restore the query with just one click.

Quick Browse is available for Samples, Plug-in presets (Instruments and Effects), Sounds, and Groups.

Depending on the type of file that you are looking for, the Quick Browse function is activated by clicking the magnifying glass in either of the following locations:

- **Quick Browse for Groups and Sounds**: Click the magnifying glass right of the colored file name appearing in the upper left part of the Control area to recall the search query that was used for that file. That file will be:
  - The focused Group if the **GROUP** tab is selected above:
  - The focused Sound if the **SOUND** tab is selected above:

- **Quick Browse for Instrument presets, Effect presets, and Samples**: Click the magnifying glass in the upper right corner of the Control area to recall the search query that was used for the Plug-in in the selected slot:
  - If a Sampler Plug-in is selected, it will recall the search query used for the Sample loaded in that Sampler. If several Samples are loaded in the Sampler, it will recall the search query for the Sample in the selected Zone in the Zone List.
  - If any other Instrument or Effect Plug-in is selected, it will recall the search query used for the Plug-in preset loaded in that Plug-in (the preset name appears next to the magnifying glass):

Upon your click on the magnifying glass, the search query for the corresponding file will be restored in the **Library** or **Files** pane of the Browser (depending on which of both panes was used to find the file). The file will be shown in the Result list — if necessary, the list will be scrolled to display the file. You can then choose other results for that query from the Result list.

### If no search query was used for a file…

If a file of your Project was not loaded using a search in the Browser, obviously there is no search query to be retrieved! Nevertheless, Quick Browse will try various techniques to find out where the file "comes from." For example, if you have loaded a file via drag and drop from your desktop or any other location on your computer, Quick Browse will display the **Files** pane pointing to that location.

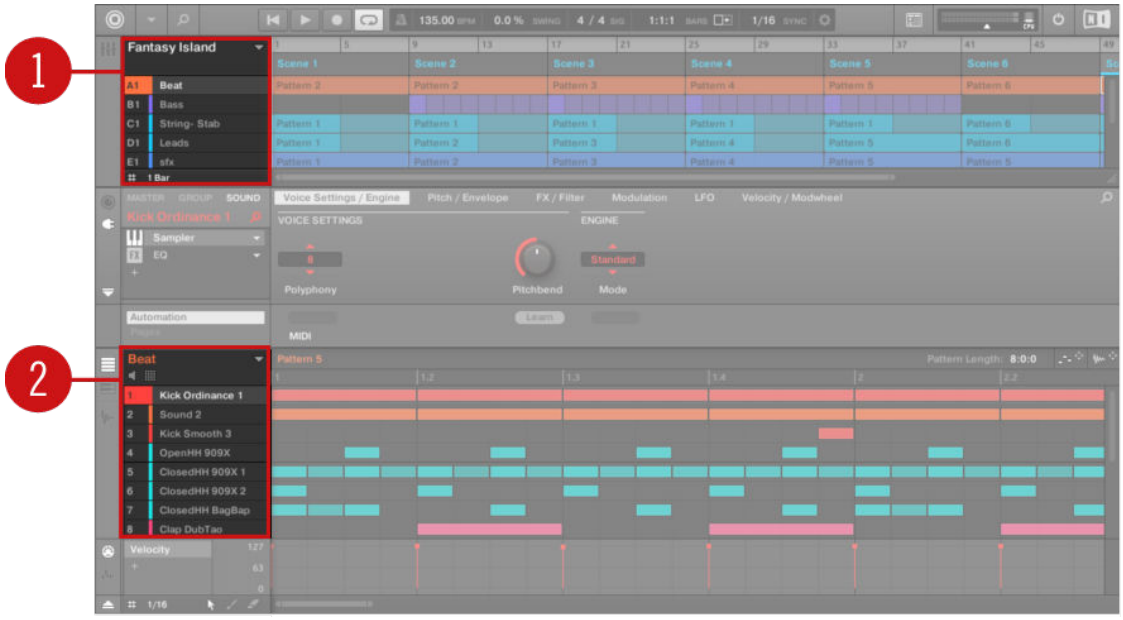
# 6. Managing Sounds, Groups, and your Project

This chapter explains how to handle the various objects that structure any Maschine Project: Sounds, Groups, and the Master.

## Overview of the Sounds, Groups, and Master

In a Maschine Project, objects are organized into three hierarchic levels, from the lowest to the highest:

- **Sounds** are played by the pads. They are loaded into Sound slots. In the software, in Arrange view Sound slots are displayed in the column at the left of the Pattern Editor: the **Sound List** (**1**). Each Sound of the selected Group is by default mapped to one of the 16 pads on the Maschine hardware controller, so you can play all Sounds of a Group by pressing the pads. Sounds are made up of any number of Plug-ins that process the audio in series. Sounds are the only objects in Maschine that can accept Instrument Plug-ins — these go in the Sounds' first Plug-in slot. The type of the Plug-in (Instrument or Effect) loaded in this first Plug-in slot will define the Sound's role (audio source or bussing point, respectively). For more information on Plug-ins and how they define the Sound's role, please refer to section Plug-in overview.
- **Groups** contain 16 Sound slots each with all their parameters. The 16 pads on your controller can play one entire Group at a time. In the software, in Arrange view Group are displayed in the column at the left of the Arranger: the **Group List** (**2**). A Maschine Project can have any number of Groups, which are organized in banks of eight Groups each. Each Group can have any number of insert effects, which will globally apply to all Sounds contained in that Group, as well as any number of Patterns organized in banks of 16 Patterns each. More on Patterns in chapter Working with Patterns and Clips.
- The **Master** is the place where all signals from the Groups are being mixed together. Just like the Groups and Sounds, the Master can host any number of insert effects.



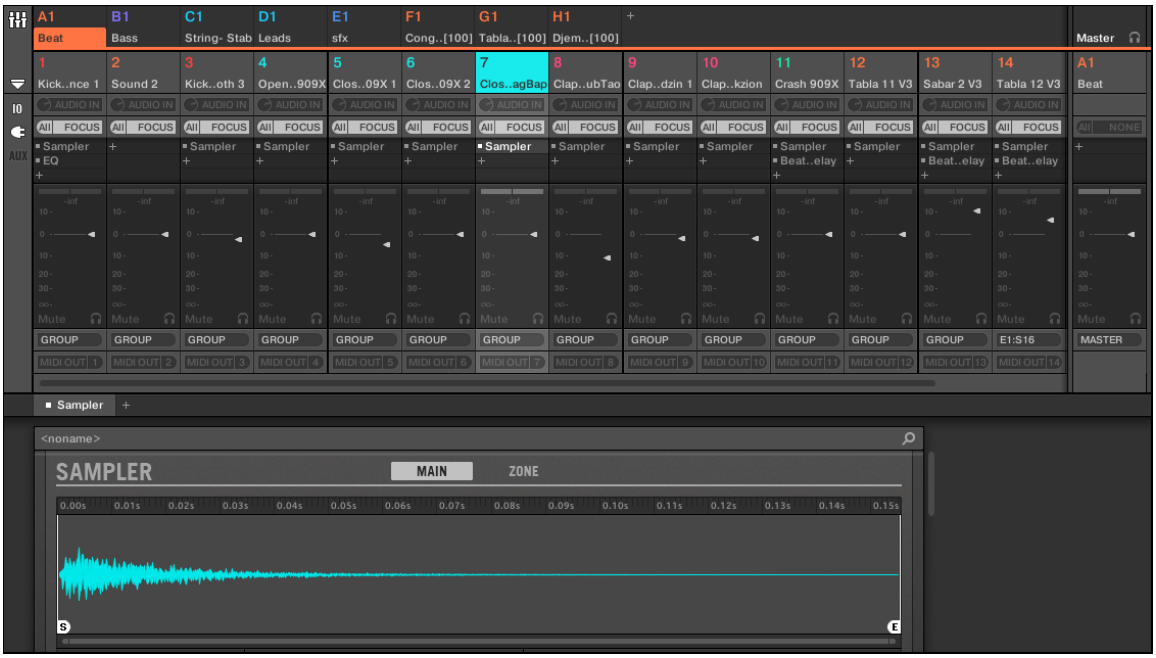

*The Group List (1) and the Sound List (2) in the Arrange view of the software.*

## The Sound, Group, and Master channels

From an routing point of view, each Sound, each Group, and the Master represents a distinct **channel** in Maschine. The channels of the 16 Sounds in a Group are mixed together and sent to the Group channel, where their sum will be processed by the Group's Plug-ins, if any. Similarly, the channels of all Groups in your Project are mixed together and sent to the Master channel, where their sum will be processed by the Master's Plug-ins, if any. The resulting signal is sent to Maschine's audio outputs.

Each channel provides various set of Channel properties that adjust the input, output, groove, and Macro Control settings for that particular Sound, Group, or for the Master, independently of the Plug-ins it contains. Please refer to chapter Audio routing, remote control, and Macro Controls and section Groove for more details on these.

When the software is in Mix view, Sounds, Groups, and the Master are represented by channel strips in the Mixer. This view provides you with an intuitive control on both the audio and MIDI routings of any Sound, Group, and the Master. Please refer to section The Mixer for more information.




*The Mixer displaying the channel strips for all Sounds in a Group.*

## Similarities and differences in handling Sounds and Groups

Sounds and Groups are handled in very similar ways — see section Managing Sounds and Managing Groups below for all details. These are the main differences between both:

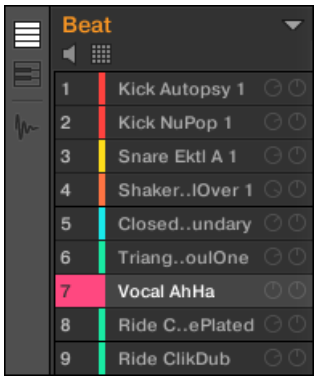
- In each Group you always have a **fixed number of Sound slots** — namely 16. Some of these Sound slots might be empty, and you can have gaps in your slots (i.e. some empty Sound slots between other slots containing Sounds), depending on how you prefer to play your Sounds from your pads. You cannot create Sound slots, but instead you can load/unload Sounds to/from the 16 existing Sound slots in each Group.
- In your Project you can have **any number of Groups**. You can create, fill up, and delete Groups as you see fit. If you delete a Group, all following Groups are shifted up in the Group List to fill the gap. If you use more than eight Groups, another Group bank is automatically created.

## Selecting multiple Sounds or Groups

In Maschine **you can select multiple Sounds or multiple Groups at once**. This notably allows you to change a parameter value for all selected Sounds/Groups at a time.

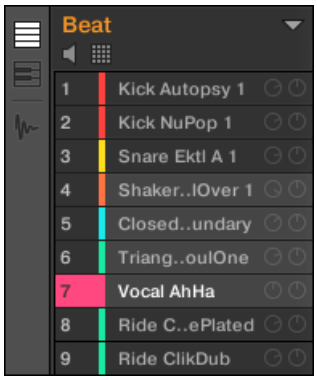
To achieve this, Maschine distinguishes the "focus" from the "selection":

- The **focus** determines what is displayed in the Control area and on your controller. For example, by clicking a Sound in the Sound List you are putting the focus on that Sound, and the Control area and your controller will display its parameters (Channel properties, Plug-ins, etc.). For the focus, the following rule applies:**At each level (Sound and Group) there is always one object, and only one, in focus.**The focused object is highlighted in the Sound/Group List, and the background of its leading letter and/or number has the color of the object itself.




*The Sound **Vocal AhHa** is focused (and selected).*

- The **selection** determines what will be affected by your actions (e.g., adjusting a parameter). For example, the focused Sound (the one you clicked in the Sound List) is implicitly selected — nothing special here: This just means that the Sound whose parameters are currently displayed will be affected by the changes you do on these parameters. But you can select additional objects on top of the focused object, thereby extending your selection. Selected objects are highlighted in the Sound/Group List, but their leading letter and/or number stays gray if they are not in focus.




*Other Sounds were added to the selection (but they are not in focus).*

> ⓘ You cannot select Sounds and Groups simultaneously.

Each Group remembers its own Sound selection and focus.

When setting the focus to a new Sound or Group, following rules apply:

- If you set the focus to a Sound or Group which is not selected, both the focus and the selection are moved to this new Sound or Group.
- If you set the focus to a Sound or Group which is already included in the current selection, the focus is moved to this new Sound or Group but the selection is preserved. This notably allows you to check the parameters of any selected Sound or Group while keeping the ability to modify parameters for the entire selection.

### What is affected by the multiple selection, and how?

When multiple Sounds or multiple Groups are selected, the following changes to the focused Sound or Group will be mirrored in the other selected Sounds or Groups, respectively:

- **Channel properties**: Parameter adjustments apply to all selected Sounds/Groups for any parameter in any set of Channel properties. Refer to Audio routing, remote control, and Macro Controls for more information on the Channel properties.
- **Plug-ins**: Parameter adjustments apply to all selected Sounds/Groups that have the same Plug-in loaded in the same Plug-in slot. Refer to Working with Plug-ins for more information on Plug-ins.
- **Pad view**: Base key, Choke group, and Link group settings apply to all selected Sounds. Refer to Adjusting the Sound trigger and playback for more information on these settings.
- You can **change the color** of multiple Sounds or Groups at once. Refer to Changing the Sound color and Changing the Group color for more information.
- You can **cut/copy/paste** multiple Sounds or Groups. Refer to Copying and pasting Sounds and Copying and pasting Groups for more information.
- You can **move** multiple Sound slots or multiple Groups at once. Refer to Moving Sounds and Reordering Groups for more information.
- You can **reset** multiple Sound slots and **delete** multiple Groups at once. Refer to Resetting Sound slots and Deleting Groups for more information.

> ⓘ The adjustments made in the Assignment area are never mirrored in any other selected Sound/Group.

Furthermore, the exact influence on the equivalent parameter in the affected Sounds/Groups depends on the type of parameter:

- Continuous parameters (knob): the values in all selected Sounds/Groups are incremented/decremented by the same amount as the value in the focused Sound/Group. Values are clipped when they reach their range limit.
- Discrete parameter (button or selector): the values in all selected Sounds/Groups are set to the value of the focused Sound/Group.

### Selecting multiple Sounds or Groups in the software

To select multiple Sounds or multiple Groups in the Maschine software, simply use the common keyboard shortcuts of your operating system: in the Sound List or the Pad view for Sounds, and in the Group List for Groups. Following actions are available:

| Action | Function |
|---|---|
| **Selecting Objects (Sounds or Groups)** | |

| Action | Function |
|---|---|
| Click unselected object | Selects the object and sets the focus to it. |
| Click selected object | Sets the focus to this object while retaining the selection. |
| [Ctrl]-click ([Cmd]-click on macOS) unselected object | Adds the object to the selection. |
| [Ctrl]-click ([Cmd]-click on macOS) selected object | Deselects the object — except for the focused object, which cannot be deselected. |
| [Shift]-click object | Selects all objects between the focused one and the [Shift]-clicked one. |
| [Ctrl] + [A] ([Cmd] + [A] on macOS) if some objects are not selected | Selects all objects in the list. |
| [Ctrl] + [A] ([Cmd] + [A] on macOS) if all objects are selected in the list | Deselect all objects except the focused one, which cannot be deselected. |

The shortcuts mentioned in the table above are valid in following areas of the Maschine window:

- To select multiple Groups, use these shortcuts in the Group List.
- To select multiple Sounds, use these shortcuts in the Sound List or in the Pad view (refer to The Pad view).

# Managing Sounds

This section describes how to manage the Sounds and Sound slots in the focused Group.

## Sound List or Pad view

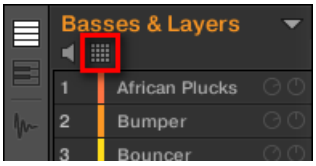
Most of the procedures described in the following sections are available both in the Sound List and in the Pad view. The **Pad view** is an alternative representation of your Sound slots that puts emphasis on their relationship with the pads on your controller. You can select Sound slots in either the Sound List or the Pad view as you see fit, both selections are strictly equivalent. For more information, refer to The Pad view.

> The Pad view provides additional settings affecting the playback behavior of the Sound slots. For more information, refer to Adjusting the Sound trigger and playback.

## The Pad view

The **Pad view** provides an alternative, pad-oriented view of your Sound slots. In addition it lets you adjust the triggering and playback behavior of the Sound slots.

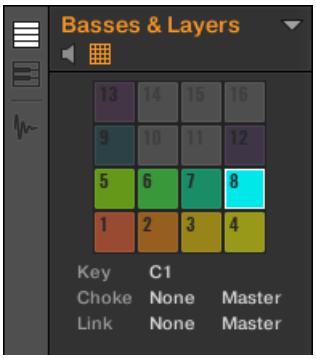
The Pad view is activated via the Pad View button above the Sound List in the Pattern Editor:




*The Pad View button.*

▶ Click the Pad View button to show or hide the Pad view.

When you turn on the Pad View button, the Pad view replaces the Sound List below:




*The Pad view replaces the Sound List.*

At the top of the Pad view, the **grid of pads 1–16** gives you access to all Sound slots of the current Group. The focused pad is fully lit; other pads containing a Sound are dim lit; empty pads are off. The following actions are available in the grid:

- Click any pad to select the corresponding Sound slot. Each pad mirrors the Sound slot's color. Grayed out pads indicate empty Sound slots. The parameters below show the settings for the selected Sound slot(s).
- Drag and drop a pad to move it to another location in the grid. This is strictly equivalent to moving Sound slots in the Sound List. For more information, refer to Moving Sounds.
- Right-click ([Ctrl]-click on macOS) any pad to open the same context menu as in the Sound List. For more information on the available commands, refer to Managing Sounds.

> ⓘ You can select multiple pads in the grid of pads as you can in the Sound List, and adjust parameters in the Pad view and in the Control area for all of them at once. For more information on multiple selection, refer to Selecting multiple Sounds or Groups.

Under the grid of pads, a few parameters let you modify how the Sound slots' playback should react to your input and to other Sound slots. Refer to Adjusting the Sound trigger and playback for more information.

## Loading Sounds

You can load a ready-made Sound from the Browser or from your operating system. The Sound can be included in the factory library of Maschine or any Expansion, but it can also be a Sound you have created yourself and saved for later use.

You have many methods at your disposal to load a Sound in the software:

- **Drag and drop**: Select the desired Sound in the Browser or in your operating system and drag it onto the desired Sound slot in the Sound List (or the corresponding cell of the pad grid in Pad view, refer to above) to load it in that Sound slot. Any Sound previously loaded in that slot will be replaced.
- **Double-click**: Double-click the Sound in the Browser or the Sound file in your operating system to replace the focused Sound in the Sound List.

- **Context menu**: Right-click ([Ctrl]-click on macOS) the desired Sound slot in the Sound List or the corresponding cell of the pad grid in Pad view, and select **Open…** in the context menu. In the Load Sound dialog that opens, navigate to the desired Sound file on your computer and click **Open** to load it. The loaded Sound will replace the current Sound loaded in that slot.



You can also recall the search query that was used to find the Sound loaded in the focused Sound slot. Refer to Using Quick Browse for more information.



In your operating system, Sound files have the extension ".mxsnd".

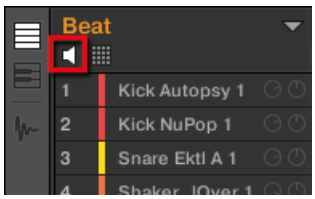


Refer to Browser for more information on the Browser.

## Auditioning Sounds

You can audition the Sounds of the focused Group as you bring them into focus in the software. To do this:

▶ Click the speaker button above the Sound List (or the Pad view) to activate or deactivate Sound auditioning in the focused Group:




→ When the speaker button is active, each time you set the focus on a Sound by clicking it in the Sound List or in Pad view, this Sound will be played back. This is useful as quick reminder of the various Sounds loaded in the Group.



Sounds cannot be moved within the Sound List when Audition (speaker button) is switched on.



The speaker button also controls the note preview in the Pattern Editor's Event area. For more information, refer to Auditioning notes.

### Auditioning Sounds on the controller

On your controller, auditioning Sounds actually is the default behavior: With the pads in Group mode, when you press a pad you both trigger its Sound and bring it into focus at once. Hence, you don't need to enable anything, auditioning Sounds in the focused Group is working out of the box.

### Setting the focus on Sounds without triggering them

You can also set the focus on any Sound in the current Group without triggering it. This comes in handy if you are in a live situation and don't want to trigger every single Sound that you select. To do this, use the Select mode:

▶ Press **SELECT** + the pad containing the desired Sound.

→ The Sound is focused without being triggered.

## Adjusting the Sound trigger and playback

You can modify how the Sound in each slot should react to your input, to the events in your Patterns, and to other Sound slots' playback:

- The **base key** defines the default pitch of the Sound(s). Refer to Adjusting the base key.
- **Choke groups** let you selectively cancel Sounds when other Sounds are triggered. Refer to Using Choke groups.
- **Link groups** let you trigger multiple Sounds by hitting only one pad or from single notes in your Patterns. Refer to Using Link groups.

### Adjusting the base key

The **base key** defines the default key (or pitch) of a Sound:

- In the software, this is the key of the events that you create in the Group view of the Pattern Editor.
- On your controller with the pads in Group mode, this is the key at which the Sounds are played when you hit the pads. For more information on Group mode, refer to Playing the entire Group.
- On your controller in Step mode, it sets the pitch of the events that you create in the step sequencer. Refer to Step mode basics for more information.



When the pads are in Keyboard mode, the pitches triggered by the pads don't depend on the base key value but instead on the **root note** value, which defines the pitch of pad 1. For more information on Keyboard mode, refer to Playing melodies and selecting scales.

By default, the base key of every Sound slot is C3 (i.e. middle C in the Maschine convention).

Changing the base key only affects the events created afterwards: The events already recorded in your Patterns are not affected. For more information on adjusting the key of the events in Patterns, refer to Editing events.



You can select multiple Sound slots and quickly change the base key for all of them at once. Refer to Selecting multiple Sounds or Groups for more information.

### Adjusting the base key in the software

To change the base key of the selected pad(s) / Sound slot(s) in the software:

1. Click the Pad View button above the Sound List in the Pattern Editor to show the Pad view for the focused Group.

2. Click the **Key** value and drag your mouse vertically, or double-click it, enter a new value on your computer keyboard, and press [Enter] to confirm.

For more information on the Pad view, refer to The Pad view.

### Adjusting the base key on your controller

To change the base key of the selected Sound slot(s) on your controller:

1. Press **PAD MODE** above the pads to access the Sound slots' settings.

→ The display indicates the current base key.

2. Turn the Encoder to adjust the base key in semitones, or hold **SHIFT** and turn the Encoder to adjust it in octaves.

→ The display indicates the new base key.

## Using Choke groups

**Choke groups** allow you to build sets of "mutually exclusive" Sounds: For Sounds within a Choke group, each newly triggered Sound will mute the audio of the other Sounds already playing. This is a behavior that you can find in vintage drum machines (typically used to "choke" the open hi-hat with the closed one), but also in monophonic synthesizers that are only capable of playing one note at a time.

Within a Group, each Sound slot can be assigned to one of eight Choke groups. When you assign a Sound slot to a Choke group, you can set it to Send or Receive:

- A Sound slot set to **Send** (default setting) will mute the other Sounds in the Choke group.
- A Sound slot set to **Receive** will not mute any other Sound in the Choke group, but it will be muted by other Sound slots set to Send within the Choke group.

You may set more than one Sound slot to Send or Receive within the same Choke group. You can also select multiple Sound slots and quickly assign them to a particular Choke group at once.

Choke groups modify the Sounds' playback behavior relative to other Sounds in the Group. For this reason, their configuration is saved together with the Group and not within each individual Sound.



Choke groups affect the notes you play on the pads, the notes triggered by the Patterns, and the MIDI notes controlling your Sounds.



The Hi-hat is an ideal candidate for making use of Choke groups: By setting the closed and open hi-hat Sounds to the same Choke group with the closed hi-hat set to Send mode, any sounding open hi-hat will be interrupted by the next closed hi-hat, as on a real drum set.

### Creating Choke groups in the software

To assign the selected Sound slot(s) to a Choke group and set its/their Choke mode (Send or Receive), do the following:

1. Click the Pad View button above the Sound List in the Pattern Editor to show the Pad view for the focused Group.

2. In the **Choke** section click the **Group** value (left value) and select the desired Choke group **1**–**8** from the list, or choose **None** (default setting) to remove the Sound slot(s) from its/their current Choke group.
3. In the same **Choke** section click the **Mode** value (right value) to set the Choke mode of the Sound slot(s) to **Send** (default setting) or **Receive**.

For more information on the Pad view, refer to The Pad view.

## Using Link groups

**Link groups** allow you to link Sounds with each other, so that you can trigger multiple Sounds from single notes or by hitting only one pad.

Within a Group, each Sound slot can be assigned to one of eight Link groups. When you assign a Sound slot to a Link group, you can set it to Send or Receive:

- A Sound slot set to **Send** (default setting) will trigger other Sounds in the Link group.
- A Sound slot set to **Receive** will only trigger itself, but it will be triggered by other Sound slots set to Send within the Link group.

You may set more than one Sound slot to Send or Receive within the same Link group. You can also select multiple Sound slots and quickly assign them to a particular Link group at once.

Link groups modify the Sounds' triggering behavior relative to other Sounds in the Group. For this reason, their configuration is saved together with the Group and not within each individual Sound.

ⓘ Link groups affect the notes you play on the pads, the notes triggered by the Patterns, and the MIDI notes controlling your Sounds.

ⓘ Link groups are a "live" feature: They only affect the note *triggers*. In Record mode, Link groups don't create additional notes in your Patterns: the notes will not be recorded for the linked Sounds. This allows you to modify your Link group assignments after recording. If you want to copy the notes from one Sound to another Sound in Patterns, refer to Editing events.

### Creating Link groups in the software

To assign the selected Sound slot(s) to a Link group and set its/their Link mode (Send or Receive), do the following:

1. Click the Pad View button above the Sound List in the Pattern Editor to show the Pad view for the focused Group.
2. In the **Link** section click the **Group** value (left value) and select the desired group **1**–**8** from the list, or choose **None** (default setting) to remove the Sound slot(s) from its/their current Link group.
3. In the same **Link** section click the **Mode** value (right value) to set the Link mode of the Sound slot(s) to **Send** (default setting) or **Receive**.

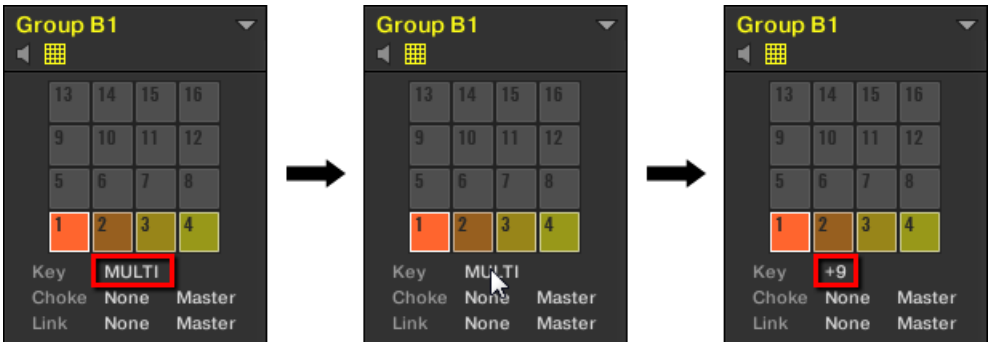
For more information on the Pad view, refer to The Pad view.

## Adjusting the Key, Choke, and Link parameters for multiple Sounds

You can adjust these parameters for the selected Sounds as described below.

### Adjusting the base key for multiple Sounds with different Key values

▶ Click and drag the **MULTI** label next to **Key** to transpose the base key of all selected Sounds. While dragging, the field displays a **+**/**-x** value indicating the transposition that will apply to all Sounds as you release the mouse button.

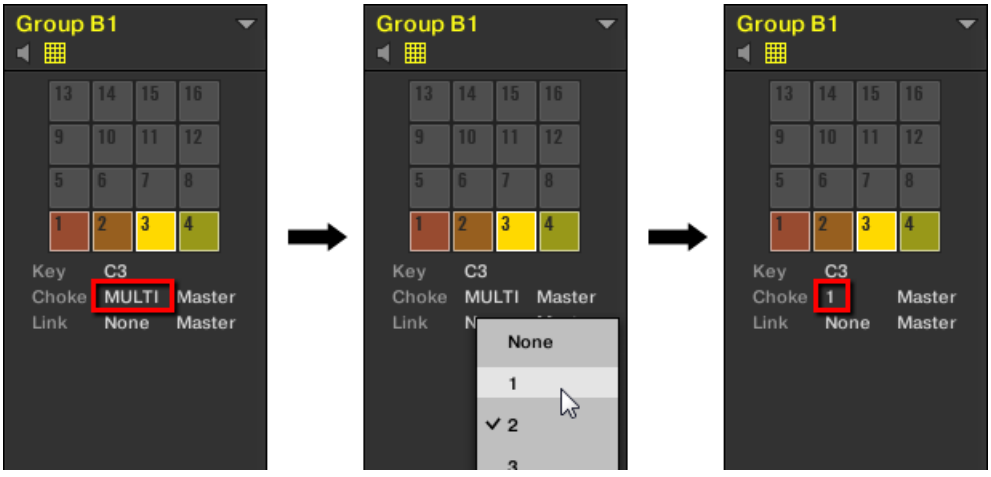



*Sound slots 1 to 4 are selected. If they have different Key values, a **MULTI** label appears (left). When you drag it (middle), a transpose value appears (right) that will be applied to all selected Sounds when you will release the mouse button.*

This is also true when adjusting the parameter from your controller.

### Adjusting the Choke or Link group for multiple Sounds with different Choke or Link groups

▶ Click the **MULTI** label next to **Choke** or **Link** and select the desired value from the list to set all selected Sounds to that same Choke or Link group, respectively. This also applies to the Send/Receive setting next to it.




*Sound slots 1 to 4 are selected. If they have different Choke values, a MULTI label appears (left). When you click it and select a new Choke or Link group from the list (middle), this new group is applied to all selected Sounds.*

This is also true when adjusting the parameter from your controller.

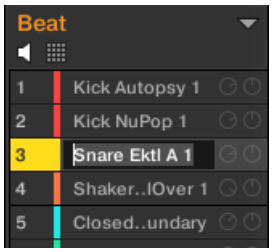
## Renaming Sound slots

By default, Sound slots are named **Sound 1**–**16**. If you load a Sound, a Plug-in preset or a Sample (e.g., from the Browser) into the Sound slot, the Sound slot takes the Sound's, preset's or Sample's name. You can rename Sound slots to your liking.

Naming is only available from within the software, but any changes will also show up on your controller.

To rename a Sound slot:

1. Double-click the name of the desired Sound slot or right-click ([Ctrl]-click on macOS) the Sound slot and select **Rename** from the context menu.The Sound slot's name is now highlighted and editable.




2. Modify the name of the Sound slot via your computer keyboard. Press [Enter] on your computer keyboard to confirm.

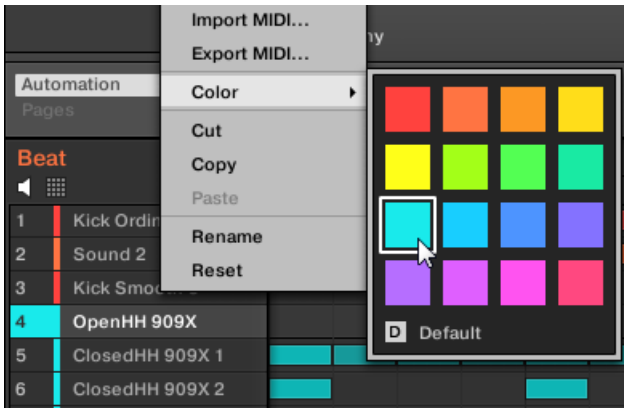
> If you use Maschine as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the Maschine plug-in window to confirm the name you have entered.

## Changing the Sound color

You can change the color of each individual Sound.

To change the color of a Sound:

1. Right-click ([Ctrl]-click on macOS) the desired Sound slot in the Sound List or in the Pad view and select **Color** from the context menu. A Color Palette appears. In the Palette, the current color of the Sound is highlighted.




2. Select the desired color in the Palette. You can also choose to set the Sound back to the default color corresponding to its position in the list by selecting **Default** in the Color Palette.

### Changing the color of multiple Sounds

When multiple Sounds are selected and you open the Color Palette in order to choose a new color for the selected Sounds:

- If the selected Sounds have the same color (any particular color or the default color), this color is highlighted in the Color Palette.

- If the selected Sounds have different colors, no color is highlighted in the Color Palette.

Refer to Selecting multiple Sounds or Groups for more information on multiple selection.

By default Sounds inherit the color of their Group. But you can choose another default color for Sounds in **Preferences > Colors > Sound Default**. See section Preferences – Colors page for more information.

Once you have set a custom color for a Sound, the Sound will retain its color when you move it in the Sound List, and the color will be stored with the Sound when you save the Sound for later use. Note that you can select the same color as the one used by default: In that case the color (even unchanged) will be considered as a custom color and will follow the Sound as you move it.

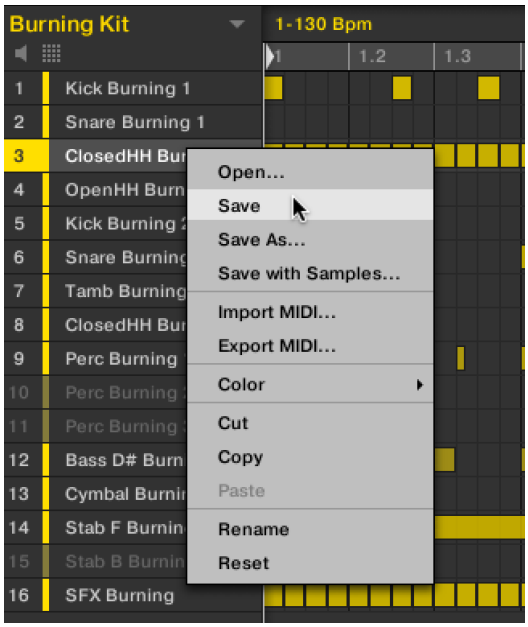
## Saving Sounds

You can save your Sounds as individual files (extension ".mxsnd"). This can be only done in the software.

### Saving your modifications into the original Sound file

If you have made changes to a Sound loaded in your Project, you can save your modifications as follows:

▶ Right-click (on macOS: [Ctrl]-click) the Sound slot in the Sound List or in the Pad view and select **Save** from the context menu:




→ Your modifications are saved to the Sound file.



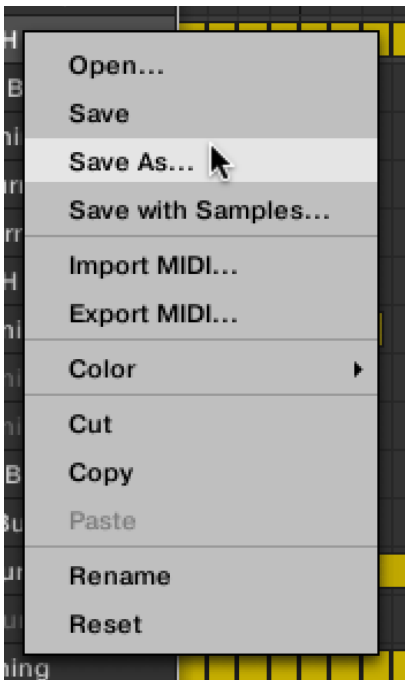
Even if you don't save a Sound individually, its current settings will still be saved with your Project. But once a Sound is saved and tagged, it is available in the Browser for use in other Groups and Projects.

You cannot save changes to factory files as these files are read-only. If you run the **Save** command on a factory file, it automatically turns into the **Save As…** command: a **Save Sound** dialog opens and lets you save your modified Sound to your user library. Refer to the next paragraph for more details. The same happens with Sounds you have built from scratch.

## Saving your modifications as a new Sound

If you want to save the modifications you have made to a Sound originating from a factory library, or if you don't want to overwrite the original Sound with your modified version, or if there is no original version of your Sound (i.e. you built it from scratch), you can save it as a new Sound file:

1. Right-click (on macOS: [Ctrl]-click) the Sound slot in the Sound List or in the Pad view and select **Save As…** from the context menu:




→ A **Save Sound** dialog appears. By default, the Sound file inherits the name of its Sound slot and it will be saved in your Standard User Directory (as defined in **Preferences > Library > User**, refer to Preferences – Library page for more information).

2. If you wish, choose another path and/or type another name with your computer keyboard.
3. Press [Enter] to confirm and close the **Save Sound** dialog.

→ Your Sound is now saved. The Sound will be added to the user library and is ready to be tagged in the Browser. Refer to Editing the files' tags and properties for more information.



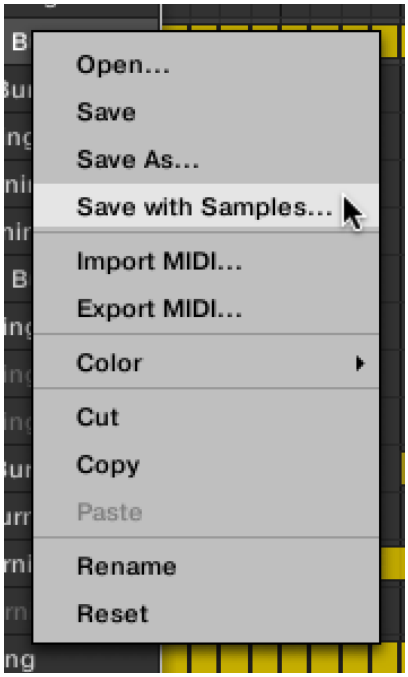
Even if you don't save a Sound individually, its current settings will still be saved with your Project. But once a Sound is saved and tagged, it is available in the Browser for use in other Groups and Projects.

### Saving your Sound with its Samples

You can save your Sounds with Samples. This is very useful if you want to save Sounds for use in other Projects or share Sounds including their Sample files with other Maschine users. It can also be beneficial to save Sounds with Samples when creating instruments using the Auto Sampler. Refer to Auto Sampler.

To save a Sound with its Samples:

1. Right-click (on macOS: [Ctrl]-click) the Sound slot in the Sound List or in the Pad view and select **Save with Samples...** from the context menu:




→ A **Save Sound** dialog appears. By default, the Sound file inherits the name of its Sound slot and it will be saved in your Standard User Directory (as defined in **Preferences > Library > User**, refer to section Preferences – Library page for more information).

2. If you wish, choose another path and/or type another name with your computer keyboard.
3. Press [Enter] to confirm and close the Save Sound dialog.

→ Your Sound is now saved. The Sound will be added to the user library and is ready to be tagged in the Browser. Refer to Editing the files' tags and properties for more information.

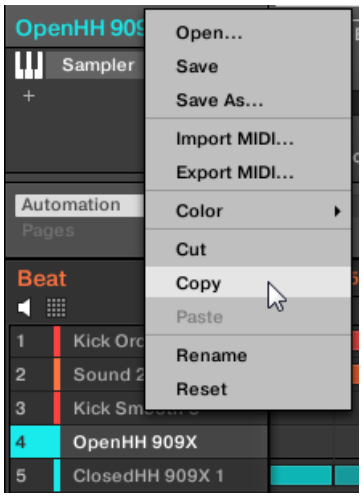
## Copying and pasting Sounds

You can copy and paste Sounds across Sound slots (and thereby across pads) and across Groups in your Project.

To copy and paste Sounds in the software:

1. Right-click (on macOS: [Ctrl]-click) the Sound slot (in the Sound List or in the Pad view) containing the Sound you want to copy.

2. In the context menu, choose **Cut** to cut the Sound or **Copy** to copy it.




3. To paste the Sound, right-click (macOS: [Ctrl]-click) another Sound slot (this can also be in another Group, in this case first click the desired Group in the Group List of the Arranger) and select **Paste** from the context menu.

→ All parameters of the Sound will be copied except for the source's Pattern content. The Sound previously loaded in that Sound slot will be replaced.



If you want to copy a Sound more than once, just keep on choosing **Paste** from the context menu on other Sound slots: the source Sound stays in the clipboard, ready for the next use!

When you copy/paste Sounds in the software, the entire content of the copied Sound(s) is pasted, including their events. Notably, pasting a Sound into a Sound slot of a different Group will create the needed Patterns if they do not exist, and replace the events for that Sound slot in any existing Patterns.



In the sentence above, "existing Patterns" means the Patterns with the same IDs (i.e. the same position in the Pattern List) as in the source Group. For example, if the source Sound contains events in Pattern 1, 2, and 3 of its Group and you paste that Sound into another Group that only has Pattern 1 and 4, Pattern 2 and 3 will be automatically created to host the events of the pasted Sound.

## Cutting, copying, and pasting multiple Sounds

When you cut multiple Sounds, they are placed into the clipboard and removed from the Sound List. Their Sound slots are reset to their default state.

When you copy multiple Sounds, they are both placed into the clipboard and kept in the Sound List.

When you paste multiple Sounds onto a Sound slot, the pasted Sounds replace the current Sound in that slot and in the following slots — if the last Sound slot is reached, the remaining copied Sounds will not be pasted at all. Note that this is not affected by any multiple selection you might have made when pasting. For example, if you paste the Sounds 1, 2, 4, and 7 onto the Sound slot 14, the duplicates of the Sounds 1, 2, and 4 will replace any existing Sounds in the Sound slots 14, 15, and 16, respectively, while the Sound 7 won't be pasted at all.

Refer to Selecting multiple Sounds or Groups for more information on multiple selection.

### Duplicating Sounds on your controller

On your controller in Control mode, do the following to copy a Sound from one pad to another:

1. Press and hold **DUPLICATE**.
2. If you want to duplicate a Sound including its Pattern content, turn the encoder to enable the **Copy Events** option.
3. Press the pad of the Sound you want to copy. The pad of the Sound starts blinking.
4. Press the pad of the target Sound slot (this can also be in another Group, in this case first press **GROUP**, then the pad of the desired Group, then **GROUP** again to deactivate it).

→ All parameters of the Sound will be copied (including the Pattern content for that Sound if you have activated the **Copy Events** option). The copied Sound will replace any Sound previously loaded in the target Sound slot.

## Moving Sounds

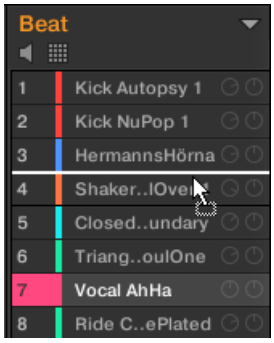
You can reorder Sounds via drag-and-drop in the software. It can be helpful to organize your Sounds more conveniently. Notably, this allows you to move your Sounds to other pads, and create a Group that is easier to play from the pads.



You can select multiple Sounds to move them all at once. See Selecting multiple Sounds or Groups for more information.

To move one or more Sounds:

1. Click and hold the desired Sound slot(s) in the Sound List or in the Pad view.
2. While holding the mouse button, drag your mouse toward the desired location in the Sound List or in the Pad view. As the mouse cursor moves an insertion line appears at the potential places where you can drop the Sound slot(s).




3. When the insertion line appears at the desired location in the Sound List or in the Pad view, release the mouse button.

→ Each Sound takes its new place in the Group. On your controller, the Sounds will be triggered by the pads whose numbers appear left of the Sound slots in the Sound List or on the cells in the Pad view.

You can also drag Sounds to another Group in the Group List of the Arranger: The Sounds will be inserted in the first empty Sound slots of that Group, and that Group will automatically get the focus. However, in that case the Pattern content of the Sounds will not be moved.

Sounds cannot be moved within the Sound List when Audition (the speaker button) is switched on.

If you drag the Sound(s) to the "**+**" at the end of the Group List, a new Group is automatically created and your Sound(s) will be moved to the first Sound slot(s) of that Group.

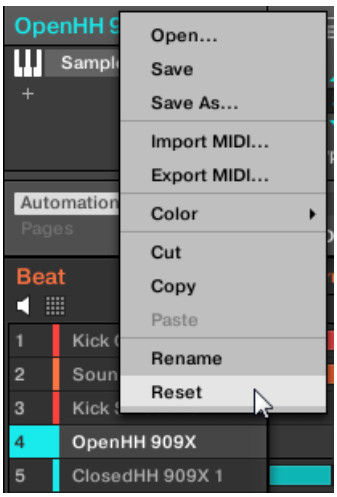
## Resetting Sound slots

Resetting a Sound slot will remove the Sound it contains and reset all its settings (Channel properties, name, color…) back to their default values.

You can select multiple Sound slots to reset them all at once. See Selecting multiple Sounds or Groups for more information.

▶ To reset a Sound slot, select it in the Sound List or in the Pad view and press [Del] on your computer keyboard, or right-click (on macOS: [Ctrl]-click) the Sound slot and choose **Reset** from the context menu.

→ The content of the Sound slot is removed and the Sound slot is reset to its default settings and name.




*Resetting a Sound slot.*

### Resetting a Sound slot on the controller

▶ To reset a Sound slot, hold **SHIFT** + **ERASE** and then press the pad related to the Sound you want to reset.

→ The Sound is removed from the pad and the pad turns off.

## Bouncing Sounds in place

You can bounce individual Sound slots in place. Bouncing a Sound slot will render its Pattern contents into audio. This can save CPU resources but also lets you apply further audio edits to the Sound.

Bouncing Sounds in place is available only when the Arranger is in Ideas view. For more information, refer to Arranger basics.

When you bounce a Sound slot, the following happens:

- In each Pattern playing this Sound, the note sequence of the Sound is rendered into an audio sample.
- The Plug-ins loaded in the Sound are replaced with an Audio Plug-in.
- The rendered samples are loaded as Takes in the Audio Plug-in, each Take being triggered by its originating Pattern.

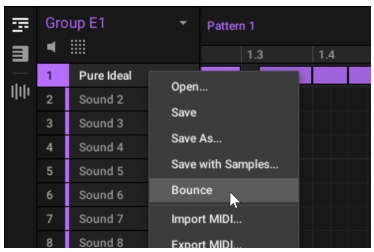
Bouncing a Sound will also remove its MIDI events from the Clips, if any. Once it has been bounced, this Sound will remain silent in Clips. The other Sounds stay unaffected.

Bouncing Sounds in place is a destructive operation. You can undo it by using the Undo command within the session. Once the Maschine application has been closed and re-opened, you cannot restore the original Sound anymore.

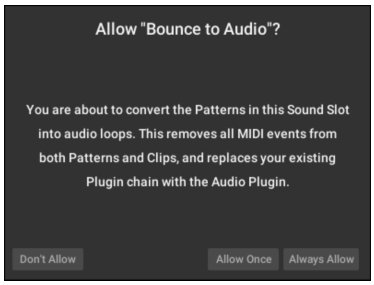
## Bouncing Sounds in the software

To bounce a Sound in place in the software:

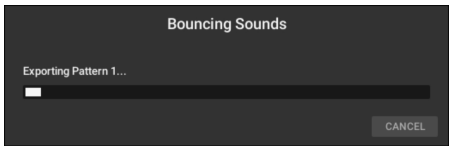
1. Right-click the Sound slot in the Sound List or in the Pad view and select **Bounce** from the context menu.



2. In the confirmation dialog that shows up, click **Allow Once** to confirm or **Always Allow** to confirm and prevent this dialog from reappearing. You can also click **Don't Allow** to cancel the operation.




→ A progress dialog appears until the bouncing is complete. While the bouncing is running, you can click **Cancel** to cancel the operation.




You can also bounce multiple Sounds at once by selecting their slots, right-clicking any of them, and clicking the **Bounce** entry. For more information on selecting multiple Sounds in the Group, refer to Selecting multiple Sounds or Groups.

# Managing Groups

This section describes the global editing functions available for Groups.

## Group menus

Many of the functions described in the following sections are available in the following two context menus:

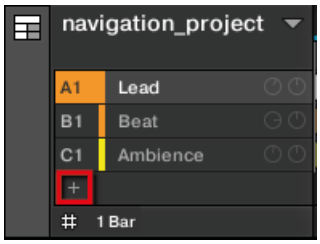
- The context menu of the Groups in the Group List, opened via a right-click ([Ctrl]-click on macOS) on the desired Group:
- The context menu of the focused Group in the Pattern Editor, opened via a right-click ([Ctrl]-click on macOS) on the Group name in the top left corner of the Pattern Editor:

Both context menus are equivalent: Use either menu as you see fit.

## Creating Groups

Creating a Group will add a new empty Group at the end of the Group List. You can then fill this Group with the Sounds of your choice.

▶ To create a Group, click the "**+**" at the end of the Group List.




→ A new empty Group is created at the end of the Group List with the default name and color.

### Creating Groups on the controller

On your controller:

▶ Press and hold the **GROUP** button.

→ Existing Groups are indicated by the lit pads **9**–**16**:

- The focused Group is indicated by the fully lit pad.
- The other Groups of your Project are indicated by half-lit pads, each pad showing the color of the corresponding Group.
- In the last Group bank, the last half-lit pad is white: It does not correspond to any existing Group, but instead allows you to create another Group in your Project.

To create a new Group:

▶ While holding **GROUP**, press the dimmed white pad **9**–**16**.

→ A new empty Group is created after the existing Groups with the default name and color.

### Automatic Group bank management

In Maschine, Group banks are managed automatically so that you don't have to create or delete them manually. Groups are always adjacent in the Group List: you cannot have any gap in the Group List — nor in any Group bank. When you create a new Group, the following happens:

- As long as the last Group bank contains less than eight Groups, the new Group is created in that bank.
- If the last bank already contains eight Groups, a new Group bank is automatically created after the existing bank(s) and the new Group is created in that new bank.

## Loading Groups

You can load a ready-made Group from the Browser or from your operating system. The Group can be included in the factory library of Maschine or any Expansion, but it can also be a Group you have created yourself and saved for later use.

You have many methods at your disposal to load a Group whether you are in Ideas view or Song view:

- **Drag and drop**: Select the desired Group in the Browser or Group file in your operating system and drag it onto the Group List:
  - Drag it onto an existing Group to replace this Group in the Group List.
  - Drag it between two Groups to insert it between both.
  - Drag onto the "**+**" at the end of the Group List to append it to the existing Groups.

- **Double-click**: Double-click the Group in the Browser or the Group file in your operating system to replace the focused Group in the Group List.
- **Context menu**: Right-click ([Ctrl]-click on macOS) the desired Group in the Group List or the Group name in the top left corner of the Pattern Editor and select **Open…** in the context menu. In the Load Group dialog that opens, navigate to the desired Group file on your computer and click **Open** to load it. The loaded Group will replace the current Group in the Group List.



You can also recall the search query that was used to find the Group currently loaded in the focused Group slot. See section Using Quick Browse for more information.



In your operating system, Group files have the extension ".mxgrp".



Refer to Browser for more information on the Browser.

## Renaming Groups

By default, new Groups are named **Group Ax**–**Hx**, where "**x**" indicates the bank number (**Group A1**–**H1**, **Group A2**–**H2**, etc.). You can rename Groups to your liking.

Naming is only available from within the software, but any changes will also show up on your controller.

To rename a Group:

1. Double-click the name of the desired Group in the Group List or right-click ([Ctrl]-click on macOS) the Group and select **Rename** from the context menu.The Group name is now highlighted and editable.




2. Modify the name of the Group. Press [Enter] on your computer keyboard to confirm.



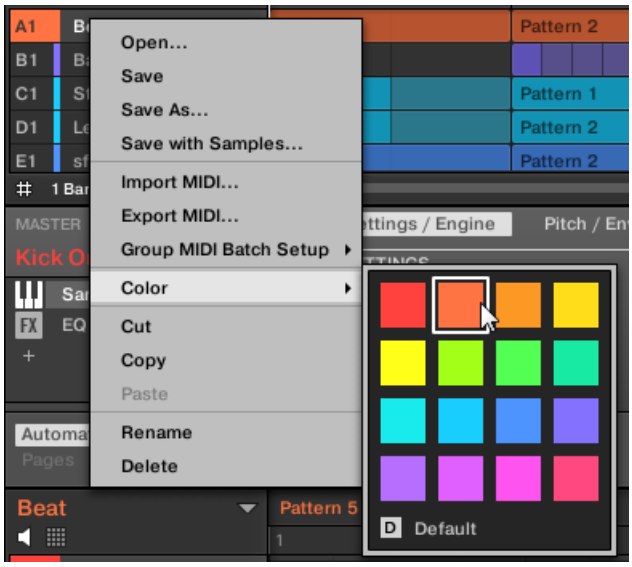
If you use Maschine as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the Maschine plug-in window to confirm the name you have entered.

## Changing the Group color

You can change the color of each individual Group. To do this:

To change the color of a Group:

1. Right-click ([Ctrl]-click on macOS) the desired Group in the Group List or the Group name in the top left corner of the Pattern Editor and select **Color** from the context menu.A Color Palette appears. In the Palette, the current color of the Group is highlighted.




2. Select the desired color in the Palette. You can also choose to set the Group back to the default color corresponding to its position in the list by selecting **Default** in the Color Palette.

→ The Group buttons of the Maschine MK3, Maschine Studio, Maschine MK2 controllers, and the pads of the Maschine Mikro MK3, Maschine Mikro MK2 controller (when you hold the **GROUP** button) mirror the Group colors you have selected.

By default each Group has a different color. But you can choose a common default color for Groups in **Preferences > Colors > Group Default**. See section Preferences – Colors page for more information.

Once you have set a custom color for a Group as described above, the Group will retain its color when you move it in the Group List, and the color will be stored with the Group when you save the Group for later use. Note that you can select the same color as the one used by default: In that case the color (even unchanged) will be considered as a custom color and will follow the Group as you move it.

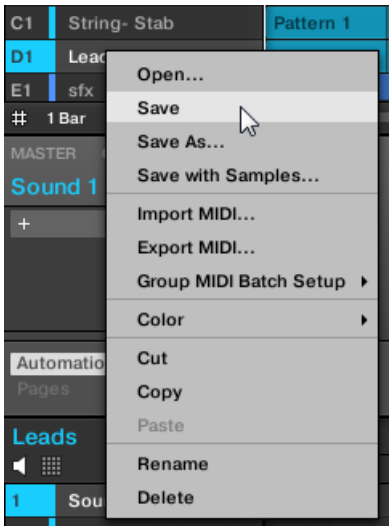
## Saving Groups

You can save your Groups as individual files (extension ".mxgrp"). This can be only done in the software.

### Saving your modifications into the original Group file

If you have made changes to a Group loaded in your Project, you can save your modifications as follows:

▶ Right-click (on macOS: [Ctrl]-click) the Group in the Group List or the Group name in the top left corner of the Pattern Editor and select **Save** from the context menu:




→ Your modifications are saved to the Group file.



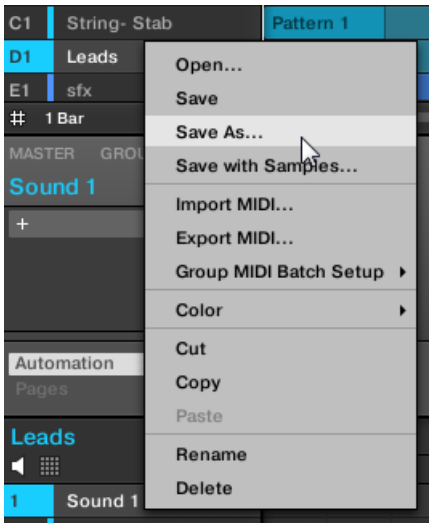
Even if you don't save a Group individually, its current settings will still be saved with your Project. But once a Group is saved and tagged, it is available in the Browser for use in other Projects.

You cannot save changes to factory files — these files are read-only. If you run the **Save** command on a factory file, it automatically turns into the **Save As…** command: a Save Group dialog opens and lets you save your modified Group to your user library. See next paragraph for more details. The same happens with Groups you have built from scratch.

## Saving your modifications as a new Group

If you want to save modifications you have made on a Group originating from a factory library, or if you don't want to overwrite the original Group with your modified version, or if there is no original version of your Group (i.e. you built it from scratch), you can save it as a new Group file:

1. Right-click (on macOS: [Ctrl]-click) the Group in the Group List or the Group name in the top left corner of the Pattern Editor and select **Save As…** from the context menu:




   A Save Group dialog appears. By default, the Group file will be saved in your Standard User Directory (as defined in **Preferences > Library > User**, refer to section Preferences – Default page for more information).
2. If you wish, choose another path and/or type another name with your computer keyboard.
3. Press [Enter] to confirm and close the Save Group dialog.

→ Your Group is now saved. The Group will be added to the Library and is ready to be tagged in the Browser. Refer to Editing the files' tags and properties for more information on this.



You can also save a Group together with all the Samples used in the Group. This can be useful to use a drum kit on another computer or share it with other users. Refer to Saving a Group with its Samples for more information.

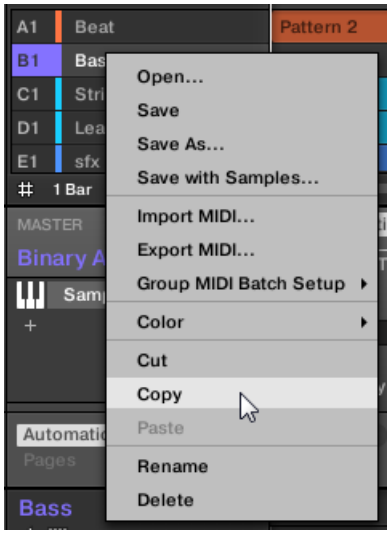
## Copying and pasting Groups

You can copy and paste Groups in your Project.

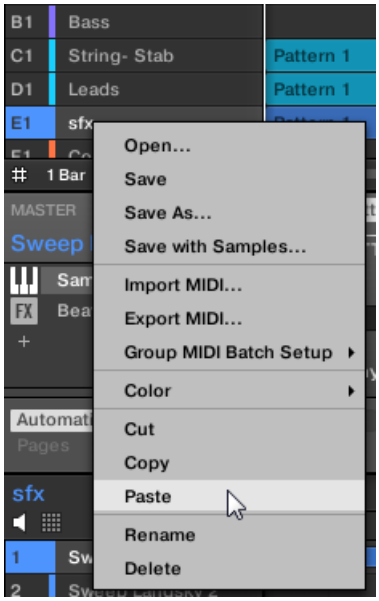
To copy and paste Groups in the software:

1. Right-click (on macOS: [Ctrl]-click) the Group you want to copy in the Group List or the Group name in the top left corner of the Pattern Editor.

2. In the context menu, choose **Copy** to copy the Group.




3. Right-click (macOS: [Ctrl]-click) any Group in the Group List and select **Paste** from the context menu to replace that Group with the copied one. If you want to paste the Group without affecting the existing Groups, first click the "**+**" under the last Group to create a new empty Group and paste the Group there.




→ All parameters of the Group will be copied. The Group previously in that position in the Group List will be replaced.



If you want to duplicate a Group more than once, just keep choosing **Paste** from the context menu on other Groups: the source Group stays in the clipboard, ready for the next use.

When you copy/paste Sounds or Groups in the software, the entire content of the copied Sound(s) or Group(s) is pasted, including their events and Patterns. Notably, pasting a Sound into a Sound slot of a different Group will create the needed Patterns if they do not exist, and replace the events for that Sound slot in an existing Patterns.

In the sentence above, "existing Patterns" means the Patterns with the same IDs (i.e. the same position in the Pattern List) as in the source Group. Example: If the source Sound contains events in Pattern 1, 2, and 3 of its Group and you paste that Sound into another Group that only has Pattern 1 and 4, Pattern 2 and 3 will be automatically created to host the events of the pasted Sound.

You can also duplicate a Group in Ideas view and Song view by clicking the Group slot while holding the [Alt] key (or [Ctrl] key on PC), and dragging the mouse. After the mouse is released a duplicate copy of the Group is created.

### Cutting, copying, and pasting multiple Groups

When you cut a selection of Groups, they are placed into the clipboard and removed from the Group List. All following Groups in the list are shifted up to fill the gap.

When you copy a selection of Groups, they are both placed into the clipboard and kept in the Group List.

When you paste a selection of Groups onto an existing Group, the pasted Groups replace that Group and the following Groups. Example: If you paste the Groups A1 and B1 onto the Group E2, the duplicates of A1 and B1 will replace the Groups E2 and F2, respectively (if, say, F2 did not exist it is automatically created).

Refer to Selecting multiple Sounds or Groups for more information on multiple selection.

### Duplicating Groups on your controller

On your controller in Control mode, do the following to copy a Group to another:

1. Press **DUPLICATE**.
2. Press and hold **GROUP**.
3. If you want to duplicate a Group including its Patterns, turn the Encoder to enable the **Copy Patterns** option.
4. Press the pad of the Group you want to copy.The pad starts blinking.
5. Press the pad of your target Group (this can also be in another Group bank, in this case first press the Left/Right Arrow button under the display to select the Group bank). If you want to paste the Group without affecting the existing Groups, press the dim white pad after the last colored pad to create the new Group and automatically paste the copied Group there.

→ All parameters of the Group (all included Sounds, Group effects, Group's Channel properties) will be copied (including its Patterns in the Arranger if you have activated the **Copy Pattern** option). The copied Group will replace the Group previously at that position in the Group List.

You will notice that once you have pasted the Group, the target pad starts blinking itself, indicating that it is ready to be pasted again: Therefore, to duplicate a Group more than once, once you have pressed the source pad you just have to press all the desired target pads in a row.

## Reordering Groups

You can reorder Groups via drag-and-drop in the Ideas view or Song view of the software. For convenience it can be helpful to organize your Groups.

You can select multiple Groups to reorder them all at once. See Selecting multiple Sounds or Groups for more information.

To reorder Groups:

1. Click and hold the desired Group(s) in the Group List.
2. While holding the mouse button, drag your mouse horizontally in Ideas view or vertically in Song view toward the desired location in the Group List.

→ As the mouse cursor moves, an insertion line appears at the potential places where you can drop the Group.

3. When the insertion line appears at the desired location, release the mouse button.

→ The Group takes its new place in the Group List.

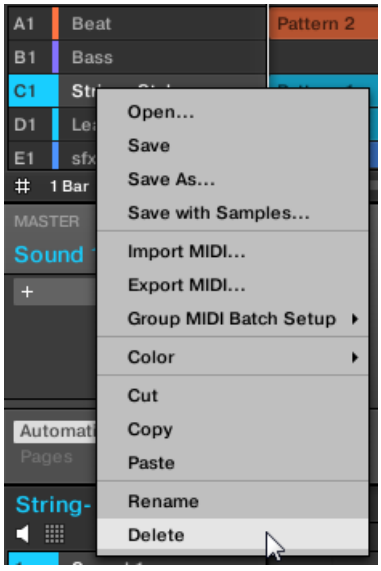
## Deleting Groups

Deleting a Group will remove it from the Group List.

It is not possible to have a Project without any Groups: Attempting to delete the last remaining Group in a Project will reset the Group to the default values.

You can select multiple Groups to delete them all at once! See Selecting multiple Sounds or Groups for more information.

▶ To delete a Group, select it in the Group List and press [Del] on your computer keyboard. You can also right-click (on macOS: [Ctrl]-click) the Group in the Group List or the Group name in the top left corner of the Pattern Editor and choose **Delete** from the context menu.




→ The Group is removed. All following Group are shifted up in the Group List to fill the gap. If the last Group bank is empty after the Groups have been shifted, the bank is deleted.

### Deleting a Group on your controller

On your controller in Control mode, do the following to delete a Group:

▶ To delete a Group, hold **SHIFT** + **ERASE** + **GROUP** and press the pad **9**–**16** of the Group you want to delete. If the Group is in another Group bank, first press the Left/Right Arrow buttons under the display to select the Group bank.

→ The Group is removed. All following Group are shifted left to fill the gap.

## Exporting Maschine objects and audio

This section describes how to save single Groups or whole Projects for use in another Maschine installation, and how to export audio from various sources in your Project.



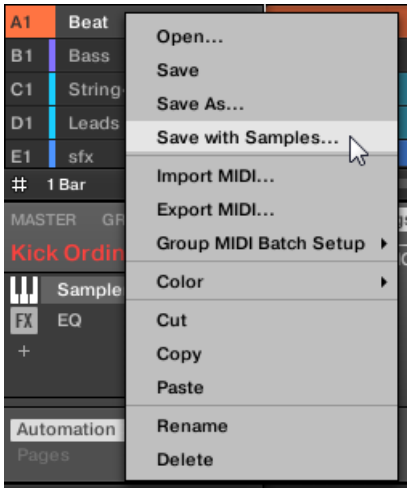
You can also export your Patterns as audio or MIDI files via drag and drop. This is described in section Exporting audio from Patterns and Exporting MIDI from Patterns.

### Saving a Group with its Samples

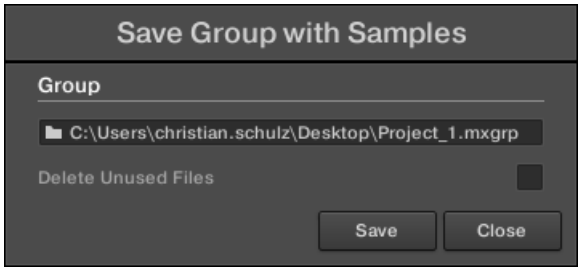
Sometimes it is useful to have the ability to save a Group with its Samples outside of the Maschine Library. If you want to take a Group to another studio or if you want to backup or share a custom drum kit with all the related files, this comes in handy.

To save a Group with its Samples:

1. Right-click (on macOS: [Ctrl]-click) the Group in the Group List left of the Arranger and select **Save with Samples…** from the context menu:




You will be presented with the **Save Group with Samples** panel:



2. In this panel, adjust the settings (see table below) and click **Save** to confirm or **Close** to cancel the operation.

| Controls | Description |
|---|---|
| **Group** | Displays the name and location of the Group file to be created. The Samples will be put in a folder with the same name in the same location. By default, the Group file inherits the name of the Group in the Project and it will be saved in the "Groups" subfolder of your Standard User Directory (as defined in **Preferences > Library > User**, refer to Preferences – Default page for more information). Click the folder icon on the right to choose another name and/or path. |
| **Delete Unused Files** | Enable this checkbox to delete unused files, thereby minimizing the amount of audio data to be exported. |



This command is also available from the Group menu opened by right-clicking ([Ctrl]-clicking on macOS)) the Group name above the Sound List, in the top left corner of the Pattern Editor.

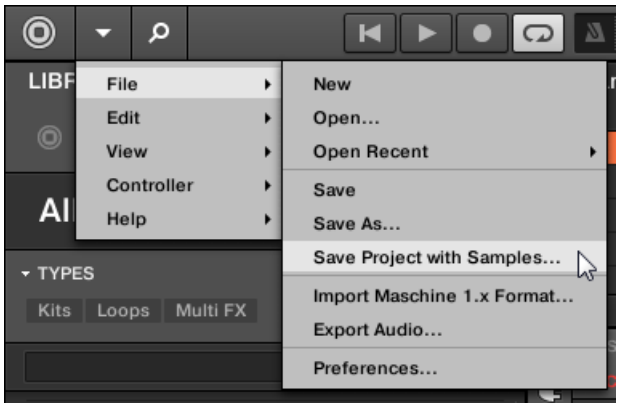


You can also save your whole Project with its Samples. See section Saving a Project with its Samples.

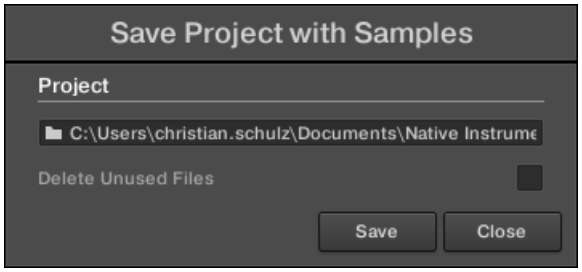
## Saving a Project with its Samples

Sometimes it is useful to have the ability to save all Samples used in your Project outside of the Maschine Library. If you want to take a Project to another studio or if you want to backup a production with all the related files, this comes in handy.

1. Choose **Save Project with Samples…** from the **File** menu or the **File** submenu in the Maschine menu:




   You will be presented with the **Save Project with Samples** panel:




2. In this panel, adjust the settings (see table below) and click **Save** to confirm or **Close** to cancel the operation.

| Element | Description |
|---|---|
| **Project** | Displays the name and location of the Project file to be created. The Samples will be put in a folder with the same name in the same location. By default, the Project file inherits the name of the Project and it will be saved in the "Projects" subfolder of your Standard User Directory (as defined in **Preferences > Library > User**, refer to section Preferences – Default page for more information). Click the folder icon on the right to select another name and/or path. |
| **Delete Unused Files** | Enable this checkbox to delete unused files, thereby minimizing the amount of audio data to be exported. |



You can also save single Groups with their Samples. See Saving a Group with its Samples.

## Exporting audio

Use the **Export Audio** panel in the software to export the complete song or the current loop as an audio file from the Song view, or to export individual Scenes as audio files from the Ideas view.



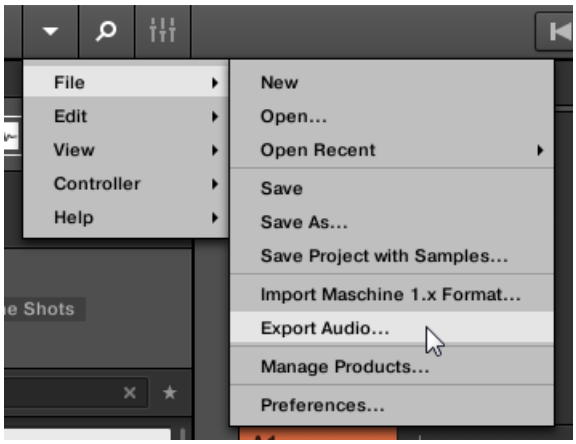
You can also export the audio of particular Patterns via drag and drop. The audio will be exported according to the settings described here, except for the exported region, the particular Sound/Group exported, and the name of the exported audio file. Refer to Exporting audio from Patterns for more information.

The **Export Audio** panel is available from both the Ideas view and Song view of the Arranger:

- In the Ideas view the **Export Ideas as Audio** panel can be used to export individual Scenes or all Scenes at once.
- In the Song view, the **Export Song as Audio** panel can be used to export your complete Project arrangement or individual Sections of the arrangement depending on the Loop Range.

To export audio from Maschine:

1. If the Arranger is in Song view, set the Loop Range to the region that you want to export. If you want to export the entire song, you can ignore this.
2. Choose **Export Audio…** from the **File** menu or from the **File** submenu in the Maschine menu.




   Depending on whether the Arranger is in Song view or Ideas view, you will be presented with the **Export Song as Audio** or **Export Ideas as Audio** panel, respectively (refer to picture below).
3. Set the desired settings in the **Source**, **Destination**, and **Options** sections (refer to description below).
4. At the bottom of the panel, click **Export** to start the export process, or **Close** to cancel the operation and close the panel without exporting anything.

## Export Ideas as Audio / Export Song as Audio panel

The **Export Ideas as Audio** / **Export Song as Audio** panel allows you to select the source and destination as well as make various settings for the audio you want to export from the Ideas view or Song view.




*The **Export Ideas as Audio** panel.*

The panel is split into three distinct sections: **Source**, **Options**, and **Destination**.

## Source section

The **Source** section allows you to define exactly what will be exported.

| Element | Description |
|---|---|
| **Range** | Available only in the **Export Song as Audio** panel. The **Range** menu lets you define the range of the audio to be exported. The following options are available:<br>• **All**: Exports the entire song as an audio file.<br>• **Loop**: Exports the Loop Range as an audio file. |
| **Scenes** | Available only in the **Export Ideas as Audio** panel. The **Scenes** menu lets you select the Scene(s) to be exported. The following options are available:<br>• **All**: Exports all Scenes as individual audio files.<br>• **Selected**: Exports the selected Scene as an audio file. |

| Element | Description |
|---|---|
| **Source** | Selects what you want to export. The content of the Output list under the menu depends on your selection in the menu:<br><br>• **Master**: Select this to export the Master output signal (including all Groups and Sounds and their effects) to one audio file. The Output list underneath contains only one entry: Master Output. This entry is checked and grayed out (you cannot uncheck it).<br>• **Group**: Select this to export the output signals of specific Groups to individual audio files. The Output list underneath shows all Groups available for exporting. Empty Groups (i.e. Groups containing only empty Sound slots) are not listed. Click the checkboxes of the desired entries in the list to include/exclude the corresponding Groups. Only Groups with a checkmark will be exported.<br>• **Sound**: Select this to export the output signals of specific Sounds to individual audio files. When this entry is selected, the Output list underneath shows all Sounds available for exporting. Empty Sound slots are not listed. The entries are organized as a tree with Groups at the root and Sounds within each Group. By default, all Groups are collapsed and all Groups and Sounds are checked. Click the little arrow left of a Group to show/hide its Sounds. Click the checkboxes of the desired entries in the list to include/exclude the corresponding Sounds. Only Sounds with a checkmark will be exported. The check box of Group entries allow you to check/uncheck all Sounds of the Group at once. If some of the Sounds only are checked in a Group, the Group is "dimmed checked." |

## Options section

The **Options** section allows you to make settings related to the quality of the audio export.

| Element | Description |
|---|---|
| **Normalize** | Check this option to normalize your audio as it is exported, i.e. the exported audio will be brought to the highest possible level without clipping (0 dBFS). |
| **Loop Optimize** | Optimize the audio file for use as a loop:<br><br>Check **Loop Optimize** to keep the exact Loop Range when exporting audio. Any effect tail will be rendered into the beginning of the audio file. Additionally, the file metadata will include the tempo (in BPM) and length (in bars).<br><br>Uncheck **Loop Optimize** to prolong the audio file when exporting audio, for example, to keep the tail of a reverb. The end of the exported audio will always correspond to a bar division. |
| **Split By Section** | Available only in the **Export Song as Audio** panel. Check this option to export audio within the loop braces. If the loop spans multiple Sections, individual audio files for each Section within the selected area will be created. Please note, if you only select one Section and export, you will not gain any advantage by using this feature. |

| Element | Description |
|---|---|
| **Type** | Select the desired audio format : uncompressed **WAV**, uncompressed **AIFF**, or compressed **MP3**. The MP3 format is only available in standalone mode, not when Maschine is running as a Plug-in. If you select **WAV** or **AIFF**, your choice will also affects the audio exported using the Audio Dragger icon available in the Pattern Editor. |
| **Sample Rate** | Select from five different sample rates for the exported audio file(s): **44100 Hz** (this is the sample rate of the audio CD format), **48000 Hz**, **88200 Hz**, **96000 Hz**, and **192000 Hz**. |
| **Bit Depth** | Available only when **Type** is set to **WAV** or **AIFF**. You can select from three different bit depths (or bit resolutions) for the exported audio file(s):<br>• **16 Bit** is the bit depth of the audio CD format.<br>• **24 Bit** is well suited for mastering.<br>• **32 Bit float** is the bit depth used internally by Maschine's audio processing engine. Choose this setting if you plan to further process the exported audio using other high-end digital audio devices or applications that support this bit depth. This setting will allow greater headroom, however, note that the exported files will be significantly larger. |
| **Bit Rate** | Available only when **Type** is set to **MP3**. You can select here the bit rate of the exported mp3 files. The available bit rate values are 96, 128, 192, and 320 kbps. The bit rate affects the mp3 compression ratio: Lower bit rate values will produce smaller mp3 files with a lower audio quality. |

## Destination section

The **Destination** section allows you to define where to save your audio and how it is named.

| Element | Description |
|---|---|
| **Folder** | Displays the folder on your hard disk where the exported audio file(s) will be saved. To change the destination folder, click the field and select the desired folder in the navigation dialog that opens. |
| **Name** | Displays the name of the destination audio file which by default will take the name of the Project. Click into the field if you want to rename the destination file. |

## Names of the exported audio files

The exported audio files are named according to the following rules:

- If **Master** is selected in the **Source** menu the audio file will be named as follows:**[Project name] - [BPM].wav/aiff**
- If **Group** is selected in the **Source** menu the audio files will be named as follows:**[Project name] - [Group order number] [Group index (letter + number)] [Group name] - [BPM].wav/aiff**The Group order number is a two-digit number indicating the "order of appearance" of the Group in the Group List. This ensures that an alphabetical listing of the exported files will reflect the structure of your Project.
- If **Sound** is selected in the **Source** menu the audio files will be named as follows:**[Project name] - [Sound name] - [BPM].wav/aiff**

In addition, if the name of the file about to be exported is already used in the destination folder, a hyphen followed by an index number is added to the name (e.g., " - 1," " - 2," " - 3,") to avoid any file being overwritten.

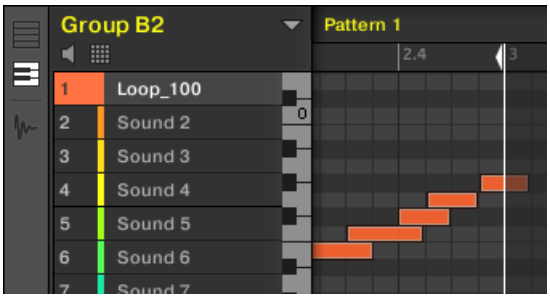
# Importing third-party file formats

## Loading REX files into Sound slots

Maschine supports REX (ReCycle) files to be loaded. REX files are loops that are already sliced and mapped to MIDI notes.

Only REX2 files are currently supported.

- The Samples are loaded into the Sound slot. A new Pattern is created in that Group and directly loaded in the Pattern Editor (switch the Pattern Editor to Keyboard view to better see the Pattern — see section Group view and Keyboard view). This Pattern contains the sequence data of the REX file. For each REX file you import a Pattern will be created and added.




*A REX file loaded in the first Sound slot.*

## Importing MPC Programs to Groups

Maschine allows you to import Drum Program files (.PGM and .AKP) from the Akai MPC series to Groups. Supported models include the MPC4000, MPC3000, MPC2000, MPC500, MPC1000 and the MPC2500.

### Supported parameters from MPC Programs

Since Maschine has a different approach to handling and naming parameters, please refer to this list to find out how MPC Program settings are being translated into Maschine settings.

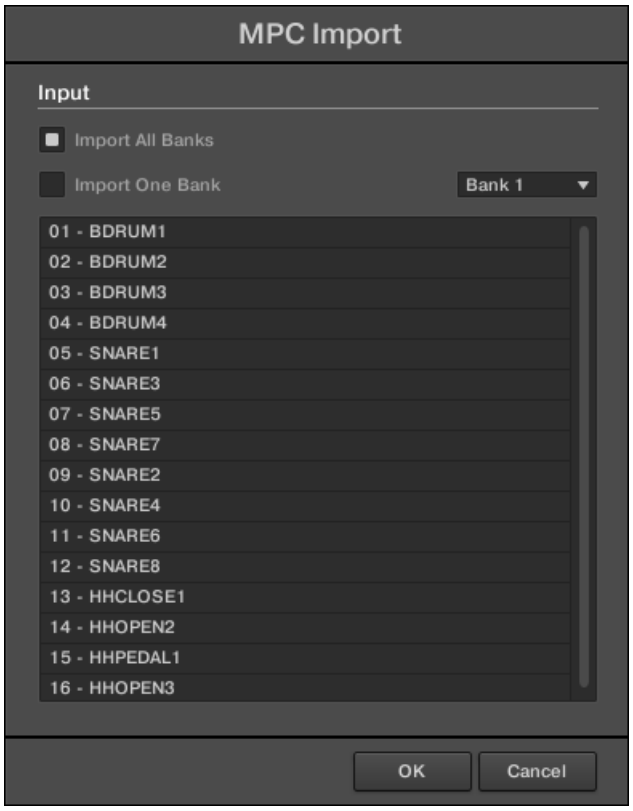
| MPC parameter | MPC500, 1000, 2500 | MPC4000 | MPC2000 (XL) | MPC3000 | Maschine parameter |
|---|---|---|---|---|---|
| Sample Name | x | x | x | x | Sample Name |

| MPC parameter | MPC500, 1000, 2500 | MPC4000 | MPC2000 (XL) | MPC3000 | Maschine parameter |
|---|---|---|---|---|---|
| Play Mode | x | x | – | – | Playback Type (ADSR, One-shot, AHD) |
| Sample Level | x | x | – | – | Zone Level |
| Sample Pan | – | x | – | – | Zone Pan |
| Range Lower/ Higher | x | x | – | – | High/Low Key |
| Tuning | x | x | x | x | Tune |
| Attack | x | x | x | x | Attack |
| Decay | x | x | x | x | Decay |
| Voice Overlap | x | – | x | x | Polyphony |
| Filter1 Type | x | – | – | – | Filter Type |
| Filter1 Frequency | x | – | x | x | Filter Cutoff |
| Filter1 Resonance | x | – | x | x | Filter Resonance |
| Filter1 Velocity to Frequency | x | – | – | – | Velocity Cutoff |
| Mixer Level | x | x | x | x | Track Level |
| Mixer Pan | x | – | x | x | Track Pan |
| Velocity to Level | x | – | – | – | Velocity to Volume |
| Mute Group | x | – | – | – | Choke Group |

## Importing MPC Program files

1. To import an MPC Program file, open the Browser in the Maschine software and click the **Files** tab.

2. Navigate to the MPC Program file you want to import and double-click it. You will be prompted with the **MPC Import** panel:




3. In the **Input** section of the panel, select one of the import options (refer to table below).
4. Click **OK** to start the import procedure or **Cancel** to close the panel without importing anything.

| Control | Description |
|---|---|
| **Import All Banks** | Select this to import all Banks of the MPC Program file. Each Bank will be loaded into a separate Group. |
| **Import One Bank** | Select this if you only want to import a single Bank. Use the drop-down menu to the right to select which Bank you want to import. The list below shows you a preview of the sounds in the selected MPC Bank. |

# 7. Playing on the controller

This chapter describes the numerous features available in Maschine to assist and enhance your playing on the controller, both during live performances and when recording Patterns.

## Selecting a pad mode

You can switch the pads of your controller between different input modes to adapt the way they react to your playing:

- In **Group mode** (the default pad input mode) each Sound of the focused Group is mapped to one pad: Each pad triggers a different Sound and you can play the entire Group at once. For example, this is well suited for drum kits or collections of loops. Refer to Playing the entire Group.
- In **Keyboard mode** the 16 pads play the same Sound at 16 different pitches, which allows you to play melodies. You can also set the pads to play in the desired scale. Refer to Playing melodies and selecting scales.
- In **Chord mode** the pads let you trigger chords by hitting single pads. You can choose chords from the desired scale, from factory chord sets, or from your own custom chord sets. Refer to Playing chords.
- In **Step mode** you can use the pads to create your Patterns in a step sequencer. For more information on the Step mode, refer to Recording Patterns with the step sequencer.
- By default, your pads are velocity-sensitive: they will play louder if you hit them harder. Instead, in **16 Velocities mode** the 16 pads play the focused Sound at 16 different predefined velocities, while the **Fixed Velocity** option lets you trigger all your Sounds at a constant velocity. Refer to Using the Fixed Velocity option and the 16 Velocities mode.

> ⓘ You can adjust the touch sensitivity and the velocity scaling of your pads on the **Hardware** page of the **Preferences**. Refer to Preferences – Hardware page for more information.

### Playing the entire Group

The **PAD MODE** button located above the pads allows you to switch the pads of your controller to **Group mode**, which is the pads' default mode. In Group mode each Sound of the focused Group is mapped to one pad. For example, this is well suited for drum kits.

With the pads in Group mode, hitting a pad both triggers its Sound and sets this Sound under focus.

▶ Press **PAD MODE** to switch the pads to Group mode.

→ The **PAD MODE** button turns on and your pads trigger the various Sounds in your Group.

Activating Group mode on your controller automatically switches the Pattern Editor to Group view in the software, and inversely.

### Group mode settings

When the **PAD MODE** button is active (fully lit), the display shows the base key for the focused pad, which defines the pitch of the note triggered by the pad. You can turn the Encoder to adjust the base key in semitones, or hold **SHIFT** and turn the Encoder to adjust the base key in octaves. Refer to Adjusting the base key for more information.

When you leave this display and switch back to Control mode (by pressing **PAD MODE** again, or by pressing **CHANNEL** or **PLUG-IN**), your pads stay in Group mode, as indicated by the dim lit **PAD MODE** button. The pads will stay in Group mode until you explicitly switch them to another pad input mode by pressing another button above the pads.

## Playing melodies and selecting scales

The **KEYBOARD** button located above the pads allows you to switch the pads to **Keyboard mode**. In Keyboard mode your pads play the focused Sound at different pitches. This is well suited for melodic instruments. By default, the pads trigger every semitone of the chromatic scale, starting from the root note on pad **1**. You can change this behavior by mapping the pads to the scale of your choice.

▶ Press **KEYBOARD** to switch the pads to Keyboard mode.

→ The **KEYBOARD** button turns on. When you now play on the pads, they all trigger the focused Sound, but at different pitches.

Activating Keyboard mode on your controller automatically switches the Pattern Editor to Keyboard view in the software, and inversely.

Try to experiment with all kinds of Samples in the Keyboard mode; some unnoticed Samples can sound really interesting if you play them at very low or very high pitches.

### About scales and the Keyboard mode

When using Keyboard mode to play scales, keep in mind the following:

- The scale parameters are the same for all Sound slots in the Group. You can have different scale parameters for each Group. The scale parameters in each Group are saved with the Project. However, when you save a Group, the scale parameters are not saved with the Group.
- The scales apply only to the pads of your controller. They do not affect the input from third-party MIDI controllers nor the notes recorded in the Patterns.
- The scale parameters cannot be modulated nor automated in Maschine.
- If a Sound slot contains a Komplete instrument providing control notes on particular keys (e.g., key switches), these notes will not be triggered by the scales.

### Keyboard mode settings

When the **KEYBOARD** button is active (fully lit), you can see and adjust the Keyboard mode settings on the display:

1. Press the Left or Right Arrow button to show the desired parameter on the display.

2. Turn the Encoder to adjust the selected parameter.

> When you leave this display and switch back to Control mode (by pressing **KEYBOARD** again, or by pressing **CHANNEL** or **PLUG-IN**), your pads stay in Keyboard mode, as indicated by the dim lit **KEYBOARD** button. The pads will stay in Keyboard mode until you explicitly switch them to another pad input mode by pressing another button above the pads.

The following parameters are available:

| Parameter | Description |
|---|---|
| **Root Note** | Adjusts the **root note** of the scale played by the pads (C3 by default), in semitones. You can also hold **SHIFT** while turning the Encoder to adjust the root note in octaves. The root note is always mapped to pad **1**. As you adjust the root note, the pitches played by the pads are transposed accordingly. |
| **Scale Bank** | Selects a bank of scales. The scales from the selected bank will be available in the **Scale** parameter. By default the **Main** bank is selected. |
| **Scale** | Selects the scale mapped onto the pads: The root note is on pad **1**, the 2nd note of the selected scale is on pad **2**, etc. Once all notes are mapped, the following pads trigger the scale in the next octave. By default the chromatic scale (**Chrom**) is selected and the pads trigger the 16 semitones upwards starting from the root note. Refer to Available scales for a list of the available scales. |

When you create a new Group, the last selected scale is automatically assigned.

> The scale parameters (root note, scale bank, and scale type) are common to the Keyboard mode and the Chord mode. This allows you to quickly switch between single notes and matching chords by pressing the **KEYBOARD** and **CHORDS** buttons. For more information on the Chord mode, refer to Playing chords.

## Enharmonic spelling of the root note

On your controller, depending on the selected Scale Type, the root note will be spelled differently to optimize the spelling of the scales:

| Scale Type | Enharmonic spelling | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Chromatic** | **C** | **C♯** | **D** | **D♯** | **E** | **F** | **F♯** | **G** | **G♯** | **A** | **A♯** | **B** |
| *not* **Chromatic** | **C** | **C♯** | **D** | **E♭** | **E** | **F** | **F♯** | **G** | **A♭** | **A** | **B♭** | **B** |

## Available scales

The following scale types are available in the various scale banks:

## Main scales

| Scale | Bank | Type | Degree formula |
|---|---|---|---|
| Chromatic | **Main** | **Chrom** | 1 ♭2 2 ♭3 3 4 ♭5 5 ♭6 6 ♭7 7 |
| Major | **Main** | **Major** | 1 2 3 4 5 6 7 |
| Minor | **Main** | **Minor** | 1 2 ♭3 4 5 ♭6 ♭7 |
| Harm Min | **Main** | **Harm Min** | 1 2 ♭3 4 5 ♭6 7 |
| Maj Pent | **Main** | **Maj Pent** | 1 2 3 5 6 |
| Min Pent | **Main** | **Min Pent** | 1 ♭3 4 5 ♭7 |
| Blues | **Main** | **Blues** | 1 ♭3 4 ♯4 5 ♭7 |
| Japanese | **Main** | **Japanese** | 1 2 ♭3 5 ♭6 |
| Freygish | **Main** | **Freygish** | 1 ♭2 3 4 5 ♭6 ♭7 |
| Gypsy | **Main** | **Gypsy** | 1 2 ♭3 ♯4 5 ♭6 7 |
| Arabic | **Main** | **Arabic** | 1 ♭2 3 4 5 ♭6 7 |
| Altered | **Main** | **Altered** | 1 ♭2 ♯2 3 ♯4 ♭6 ♭7 |
| Whole Tone | **Main** | **WH Tone** | 1 2 3 ♯4 ♯5 ♭7 |
| H-W Dim | **Main** | **H-W Dim** | 1 ♭2 ♯2 3 ♯4 5 6 ♭7 |
| W-H Dim | **Main** | **W-H Dim** | 1 2 ♭3 4 ♯4 ♯5 6 7 |

## Modes scales

| Scale | Bank | Type | Degree formula |
|---|---|---|---|
| Ionian | **Modes** | **Ionian** | 1 2 3 4 5 6 7 |
| Dorian | **Modes** | **Dorian** | 1 2 ♭3 4 5 6 ♭7 |
| Phrygian | **Modes** | **Phrygian** | 1 ♭2 ♭3 4 5 ♭6 ♭7 |
| Lydian | **Modes** | **Lydian** | 1 2 3 ♯4 5 6 7 |
| Mixolydian | **Modes** | **Mixolyd** | 1 2 3 4 5 6 ♭7 |
| Aeolian | **Modes** | **Aeolian** | 1 2 ♭3 4 5 ♭6 ♭7 |
| Locrian | **Modes** | **Locrian** | 1 ♭2 ♭3 4 ♭5 ♭6 ♭7 |
| Ionian b2 | **Modes** | **Ion b2** | 1 ♭2 3 4 5 6 7 |
| Dorian b5 | **Modes** | **Dor b5** | 1 2 ♭3 4 ♭5 6 ♭7 |
| Harm Phryg | **Modes** | **Har Phry** | 1 ♭2 ♭3 4 5 ♭6 7 |
| Phryg Major | **Modes** | **Phry Maj** | 1 ♭2 ♭3 4 5 6 7 |
| Lydian b3 | **Modes** | **Lyd b3** | 1 2 ♭3 ♯4 5 6 7 |
| Major Locrian | **Modes** | **Maj Loc** | 1 2 3 4 ♭5 ♭6 ♭7 |
| Minor Locrian | **Modes** | **Min Loc** | 1 2 ♭3 4 ♭5 ♭6 ♭7 |
| Super Locrian | **Modes** | **Sup Loc** | 1 ♭2 ♭3 ♭4 ♭5 ♭6 ♭7 |

## Jazz scales

| Scale | Bank | Type | Degree formula |
|---|---|---|---|
| Lydian ♭7 | **Jazz** | **Lyd ♭7** | 1 2 3 ♯4 5 6 ♭7 |
| Altered | **Jazz** | **Altered** | 1 ♭2 ♯2 3 ♯4 ♭6 ♭7 |
| Diminished | **Jazz** | **Diminshd** | 1 ♭2 ♯2 3 ♯4 5 6 ♭7 |
| Mixo b13 | **Jazz** | **Mix b13** | 1 2 3 4 5 ♭6 ♭7 |
| Mixo b9 b13 | **Jazz** | **Mixb9b13** | 1 ♭2 3 4 5 ♭6 ♭7 |
| Lydian ♭7 b2 | **Jazz** | **Lyd ♭7b2** | 1 ♭2 3 ♯4 5 6 ♭7 |
| Bebop | **Jazz** | **Bebop** | 1 2 3 4 5 6 ♭7 7 |
| Whole Tone | **Jazz** | **Whole Tn** | 1 2 3 ♯4 ♯5 ♭7 |
| Blues Maj | **Jazz** | **Blues Ma** | 1 2 ♭3 3 5 6 |
| Blues Min | **Jazz** | **Blues Mi** | 1 ♭3 4 ♯4 5 ♭7 |
| Blues Combined | **Jazz** | **BluesCmb** | 1 2 ♭3 3 4 ♯4 5 6 ♭7 |
| Lydian #5 | **Jazz** | **Lyd #5** | 1 2 3 ♯4 ♯5 6 7 |
| Jazz Minor | **Jazz** | **Jazz Mi** | 1 2 ♭3 4 5 6 7 |
| Half Dim | **Jazz** | **Half Dim** | 1 2 ♭3 4 ♭5 ♭6 ♭7 |
| Augmented | **Jazz** | **Augmentd** | 1 ♭3 3 5 ♯5 7 |

## World scales

| Scale | Bank | Type | Degree formula |
|---|---|---|---|
| Hungarian Min | **World** | **Hung Min** | 1 2 ♭3 ♯4 5 ♭6 7 |
| Hungarian Maj | **World** | **Hung Maj** | 1 ♯2 3 ♯4 5 6 ♭7 |
| Neapolitan | **World** | **Neapoltn** | 1 ♭2 ♭3 4 5 ♭6 7 |
| Spanish | **World** | **Spanish** | 1 ♭2 ♭3 3 4 5 ♭6 ♭7 |
| Greek | **World** | **Greek** | 1 2 ♭3 ♭4 5 ♭6 ♭7 |
| Jewish 1 | **World** | **Jewish 1** | 1 ♭2 3 4 5 ♭6 ♭7 |
| Jewish 2 | **World** | **Jewish 2** | 1 2 ♭3 ♯4 5 6 ♭7 |
| Indian 1 | **World** | **Indian 1** | 1 ♭2 ♭3 ♯4 5 ♭6 7 |
| Indian 2 | **World** | **Indian 2** | 1 2 ♭3 ♯4 5 6 7 |
| Indian 3 | **World** | **Indian 3** | 1 ♭2 2 4 5 ♭6 6 |
| Indian 4 | **World** | **Indian 4** | 1 ♯2 3 4 5 ♯6 7 |
| Mid East 1 | **World** | **M East 1** | 1 ♭2 3 4 5 ♭6 7 |
| Mid East 2 | **World** | **M East 2** | 1 ♭2 3 4 ♭5 ♭6 7 |
| Mid East 3 | **World** | **M East 3** | 1 ♭2 ♭3 4 ♭5 6 ♭7 |
| Mid East 4 | **World** | **M East 4** | 1 ♭2 3 4 ♭5 6 ♭7 |

## 5-Tone scales

| Scale | Bank | Type | Degree formula |
|---|---|---|---|
| Penta I | **5-Tone** | **Pent I** | 1 2 3 5 6 |
| Penta II | **5-Tone** | **Pent II** | 1 2 4 5 ♭7 |
| Penta III | **5-Tone** | **Pent III** | 1 ♭3 4 ♭6 ♭7 |
| Penta IV | **5-Tone** | **Pent IV** | 1 2 4 5 6 |
| Penta V | **5-Tone** | **Pent V** | 1 ♭3 4 5 ♭7 |
| Hirajoshi | **5-Tone** | **Hira** | 1 2 ♭3 5 b6 |
| Insen | **5-Tone** | **Insen** | 1 ♭2 4 5 ♭7 |
| Kokin Joshi | **5-Tone** | **Kokin** | 1 2 4 5 b6 |
| Akebono | **5-Tone** | **Akebono** | 1 2 ♭3 5 6 |
| Ryukuan | **5-Tone** | **Ryukuan** | 1 3 4 5 7 |
| Abhogi | **5-Tone** | **Abhogi** | 1 2 ♭3 4 6 |
| Bhupkali | **5-Tone** | **Bhupkali** | 1 2 3 5 b6 |
| Hindolam | **5-Tone** | **Hindolam** | 1 ♭3 4 ♭6 ♭7 |
| Bhupalam | **5-Tone** | **Bhupalam** | 1 ♭2 ♭3 5 b6 |
| Amritavarshini | **5-Tone** | **Amrita** | 1 3 ♯4 5 7 |

## Modern scales

| Scale | Bank | Type | Degree formula |
|---|---|---|---|
| Octatonic | **Modern** | **Octatonc** | 1 2 ♭3 4 ♯4 ♯5 6 7 |
| Acoustic | **Modern** | **Acoustic** | 1 2 3 ♯4 5 6 ♭7 |
| Augmented | **Modern** | **Augmentd** | 1 ♭3 3 5 ♯5 7 |
| Tritone | **Modern** | **Tritone** | 1 ♭2 3 ♭5 5 ♭7 |
| Leading Wh Tone | **Modern** | **Lead Wh** | 1 2 3 ♯4 ♯5 ♯6 7 |
| Enigmatic | **Modern** | **Enigmatc** | 1 ♭2 3 ♯4 ♯5 ♯6 7 |
| Scriabin | **Modern** | **Scriabin** | 1 2 3 ♯4 6 ♭7 |
| Tcherepnin | **Modern** | **Tcherepn** | 1 ♯1 ♯2 3 4 5 ♯5 6 7 |
| Messiaen I | **Modern** | **Mes I** | 1 2 3 ♯4 ♯5 #6 |
| Messiaen II | **Modern** | **Mes II** | 1 ♭2 ♯2 3 ♯4 5 6 ♭7 |
| Messiaen III | **Modern** | **Mes III** | 1 2 ♭3 3 ♯4 5 ♭6 ♭7 7 |
| Messiaen IV | **Modern** | **Mes IV** | 1 ♭2 2 4 ♯4 5 ♭6 7 |
| Messiaen V | **Modern** | **Mes V** | 1 ♭2 4 ♯4 5 7 |
| Messiaen VI | **Modern** | **Mes VI** | 1 2 3 4 ♯4 ♯5 ♯6 7 |
| Messiaen VII | **Modern** | **Mes VII** | 1 ♭2 2 ♭3 4 ♯4 5 ♭6 6 7 |

### Major scales

| Scale | Bank | Type | Degree formula |
|---|---|---|---|
| Natural | **Major** | **Natural** | 1 2 3 4 5 6 7 |
| Lydian | **Major** | **Lydian** | 1 2 3 ♯4 5 6 7 |
| Mixolydian | **Major** | **Mixolyd** | 1 2 3 4 5 6 ♭7 |
| Major Minor | **Major** | **Maj Min** | 1 2 3 4 5 ♭6 ♭7 |
| Harmonic Major | **Major** | **Har Maj** | 1 2 3 4 5 ♭6 7 |
| Dbl Har Major | **Major** | **Dbl Maj** | 1 ♭2 3 4 5 ♭6 7 |
| Neapolitan Maj | **Major** | **Nea Maj** | 1 ♭2 3 4 5 6 7 |
| Major Locrian | **Major** | **Maj Loc** | 1 2 3 4 ♭5 ♭6 ♭7 |
| Blues Major | **Major** | **Blues Ma** | 1 2 ♭3 3 5 6 |
| Bebop Major | **Major** | **Bebop Ma** | 1 2 3 4 5 ♯5 6 7 |
| Hexa 1 | **Major** | **Hexa 1** | 1 2 3 5 6 7 |
| Hexa 2 | **Major** | **Hexa 2** | 1 2 3 4 5 6 |
| Penta 1 | **Major** | **Penta 1** | 1 2 3 5 6 |
| Penta 2 | **Major** | **Penta 2** | 1 3 4 5 7 |
| Penta 3 | **Major** | **Penta 3** | 1 3 5 6 7 |

### Minor scales

| Scale | Bank | Type | Degree formula |
|---|---|---|---|
| Natural | **Minor** | **Natural** | 1 2 ♭3 4 5 ♭6 ♭7 |
| Dorian | **Minor** | **Dorian** | 1 2 ♭3 4 5 6 ♭7 |
| Phrygian | **Minor** | **Phrygian** | 1 ♭2 ♭3 4 5 ♭6 ♭7 |
| Minor Major | **Minor** | **Min Maj** | 1 2 ♭3 4 5 6 7 |
| Harmonic Minor | **Minor** | **Har Min** | 1 2 ♭3 4 5 ♭6 7 |
| Dbl Har Minor | **Minor** | **Dbl Min** | 1 2 ♭3 ♯4 5 ♭6 7 |
| Neapolitan Min | **Minor** | **Nea Min** | 1 ♭2 ♭3 4 5 ♭6 7 |
| Minor Locrian | **Minor** | **Min Loc** | 1 2 ♭3 4 ♭5 ♭6 ♭7 |
| Blues Min | **Minor** | **Blues Mi** | 1 ♭3 4 ♯4 5 ♭7 |
| Bebop Minor | **Minor** | **Bebop Mi** | 1 2 ♭3 4 5 ♭6 ♭7 7 |
| Hexa 1 | **Minor** | **Hexa 1** | 1 2 ♭3 5 ♭6 ♭7 |
| Hexa 2 | **Minor** | **Hexa 2** | 1 2 ♭3 4 5 b6 |
| Penta 1 | **Minor** | **Penta 1** | 1 2 ♭3 5 b6 |
| Penta 2 | **Minor** | **Penta 2** | 1 ♭3 4 5 ♭7 |
| Penta 3 | **Minor** | **Penta 3** | 1 ♭3 5 ♭6 ♭7 |

## Playing chords

The **CHORDS** button located above the pads allows you to switch the pads to **Chord mode**. In Chord mode you can play chords for the focused Sound by hitting single pads. You can choose between chords from the selected scale or chords from factory sets, or user-created chords.

▶ Press **CHORDS** to switch the pads to Chord mode.

→ The **CHORDS** button turns on. When you play on the pads, they trigger various chords.

Activating Chord mode on your controller automatically switches the Pattern Editor to Keyboard view in the software.

## About chords and the Chord mode

When using Chord mode to play chords, keep in mind the following:

- The chord parameters are the same for all Sound slots in a Group. You can have different chord parameters for each Group. The chord parameters of each Group are saved with the Project. However, when you save a Group, the chord parameters are not saved with the Group.
- The chords are generated only when using the pads of your controller. The chord generation does not apply to the input from third-party MIDI controllers nor to the notes recorded in the Patterns.
- The chords are recorded into the Patterns.
- The chord parameters cannot be modulated nor automated in Maschine.
- If a Sound slot contains a Komplete instrument providing control notes on particular keys (e.g., key switches), these notes will not be triggered by the chords.

## Chord mode settings

When the **CHORDS** button is active (fully lit), you can see and adjust the Chord mode settings on the display:

1. Press the Left or Right Arrow button to show the desired parameter on the display.
2. Turn the Encoder to adjust the selected parameter.

ⓘ When you leave this display and switch back to Control mode (by pressing **CHORDS** again, or by pressing **CHANNEL** or **PLUG-IN**), your pads stay in Chord mode, as indicated by the dim lit **CHORDS** button. The pads will stay in Chord mode until you explicitly switch them to another pad input mode by pressing another button above the pads.

The following parameters are available:

| Parameter | Description |
|---|---|
| **Root Note** | Adjusts the **root note** used to build the chord on pad **1** (C3 by default), in semitones. You can also hold **SHIFT** while turning the Encoder to adjust the root note in octaves. As you adjust the root note, the chords played by the pads are transposed accordingly. |

| Parameter | Description |
|---|---|
| **Mode** | Selects from three different modes for generating chords:<br><br>• **Harmonizer**: Generates chords based on the pads that you hit and using notes in the selected scale. You can select the desired scale by switching the pads to Keyboard mode (refer to Keyboard mode settings). When you trigger the chord, the pads of all the included notes will flash.<br>• **Chord Set**: Lets you map various factory sets of chords onto the first 12 pads. You can then use the **Type** parameter to choose a particular chord set. The chords in the set are not bound to any scale, they are affected only by the **Root Note** parameter. In this mode only the pad(s) that you hit will flash.<br>• **User Chords**: Lets you map one of your own sets of user chords onto the first 12 pads. You can then use the **Type** parameter to choose a particular set of user chords. Like in **Chord Set** mode, these chords are not bound to any scale and are affected only by the root note. In this mode only the pad(s) that you hit will flash. |
| **Type** | Selects the chords mapped to the pads. The available chord types depend on the selected **Mode**, as well as on the **Scale** parameter specified in the Keyboard mode settings (refer to Keyboard mode settings):<br><br>• **Mode** set to **Harmonizer**: **Type** lets you select the particular notes included in the chord. It offers different chords depending on whether the Keyboard mode's **Scale** parameter is set to the chromatic scale (**Chrom**) or to any other scale. Refer to Available chords in Harmonizer mode for a list of the available chords.<br>• **Mode** set to **Chord Set**: **Type** provides 16 factory sets of 12 chords each (8 major sets and 8 minor sets): **Major 1**, **Major 2**, ..., **Major 8**, and **Minor 1**, **Minor 2**, ..., **Minor 8**. When you select a set, its chords are mapped onto the first 12 pads. Pads **13**–**16** are inactive.<br>• **Mode** set to **User Chords**: **Type** provides up to 16 sets of 12 user chords each. When you select a set, its user chords are mapped onto the first 12 pads. Pads **13**–**16** are inactive. Pads **1**–**12** are lit in the Sound's color if they contain a chord, and dim white if they are empty. |

The scale parameters (root note, scale bank, and scale type) are common to the Keyboard mode and the Chord mode. This allows you to quickly switch between single notes and matching chords by pressing the **KEYBOARD** and **CHORDS** buttons. For more information on the Keyboard mode, refer to Playing melodies and selecting scales.

When erasing notes from your controller, the **Mode** value determines which notes are deleted:

- **Harmonizer**: Only the notes with the pitch of the pressed pad are deleted. The other notes in the triggered chord are not deleted.
- **Chord Set** and **User Chord**: No notes are deleted, in other words erasing is deactivated.

While creating and modifying user chords are only possible on Maschine MK3 and Maschine+, on Maschine Mikro MK3 you can play existing user chords, either created on your Maschine MK3 or Maschine+, or shared by other Maschine users. Each set of user chords is saved as a distinct JSON file on your hard disk at the following location: *~/Library/Application Support/Native Instruments/Shared/User Chords/* (macOS) or *%USERPROFILE%\AppData\Local\Native Instruments\Shared\User Chords* (Windows). On Maschine+ the JSON files of your user sets are located on the user data SD card under *Native Instruments/Maschine 3/User Chords/*. When transferring user set files between Maschine systems, you might need to rename the files to avoid naming conflicts with existing user set files on the target system. While doing so, arbitrary file names may be chosen.

## Enharmonic spelling of the root note

On your controller, depending on the Chord Mode, Scale Type, and Chord Type settings, the root note will be spelled differently to optimize the spelling of the chords:

| Chord mode | Scale Type | Enharmonic spelling | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Harmonizer** | **Chromatic** | **C** | **C♯** | **D** | **D♯** | **E** | **F** | **F♯** | **G** | **G♯** | **A** | **A♯** | **B** |
| | *not* **Chromatic** | **C** | **C♯** | **D** | **E♭** | **E** | **F** | **F♯** | **G** | **A♭** | **A** | **B♭** | **B** |

| Chord mode | Chord Type | Enharmonic spelling | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Chord Set** | **Major 1–8** | **C** | **D♭** | **D** | **E♭** | **E** | **F** | **F♯** | **G** | **A♭** | **A** | **B♭** | **B** |
| | **Minor 1–8** | **C** | **C♯** | **D** | **D♯** | **E** | **F** | **F♯** | **G** | **G♯** | **A** | **B♭** | **B** |

## Available chords in Harmonizer mode

When Chord Mode is set to **Harmonizer** and Scale Type is set to **Chromatic**, the scale includes all semitones and the chords can use any of them. Chord Type offers the following chords:

| Chord Type | Semitones added above the played note |
|---|---|
| Octave | 12 |
| Perfect 4 | 5 |
| Perfect 5 | 7 |
| Major | 4 and 7 |
| Minor | 3 and 7 |
| Suspended 4 | 5 and 7 |
| Major 7 | 4, 7, and 11 |
| Minor 7 | 3, 7, and 10 |
| Dominant 7 | 4, 7, and 10 |

| Chord Type | Semitones added above the played note |
|---|---|
| Dominant 9 | 4, 7, 10, and 14 |
| Minor 7♭5 | 3, 6, and 10 |
| Diminished 7 | 3, 6, and 9 |
| Augmented | 4 and 8 |
| Quartal | 5, 10, and 15 |
| Trichord | 5 and 11 |

When Chord Mode is set to **Harmonizer** and Scale Type is set to any other scale than **Chromatic**, the chords are bound to the particular notes included in that scale. Chord Type offers the following chords:

| Chord Type | Notes added to the played note |
|---|---|
| Octave | Octave |
| 1-3 | 3rd |
| 1-5 | 5th |
| 1-3-5 | 3rd and 5th |
| 1-4-5 | 4th and 5th |
| 1-3-5-7 | 3rd, 5th, and 7th |
| 1-4-7 | 4th and 7th |

### Using the Fixed Velocity option and the 16 Velocities mode

When playing on your pads, you can activate either of two additional features, which support your playing in specific situations:

- The **Fixed Velocity** option is available for all pad modes except the 16 Velocities mode. With this option activated, your pads play at the same volume no matter how hard you hit the pads. You can switch the Fixed Velocity option on or off by pressing **FIXED VEL** above the pads. The button is lit when the option is active. You can adjust the value of this fixed velocity in the settings of the various pad modes. All pad input modes share the same Fixed Velocity value.
- In **16 Velocities mode** your pads all play the same note of the focused Sound but with sixteen different velocity values. This can be useful to play or program complex drum fills. The right display indicates the velocity values for each pad (all are shown in the color of the focused Sound). The pitch of the played note is defined by the base key (refer to Adjusting the base key). You can activate the 16 Velocities mode by pressing **SHIFT** + **FIXED VEL**. Press again to disable. The button is lit when the mode is active.

### Setting notes in the step sequencer

The **STEP** button above the pads lets you switch to **Step mode**, in which your controller operates as a step sequencer. This pad mode is fundamentally since it is not made for playing live. For more information, refer to Recording Patterns with the step sequencer.

## Creating arpeggios and repeated notes

Maschine includes a flexible and versatile **Note Repeat / Arp engine**, an arpeggiator that effectively lets you play your Sounds in note sequences.

- With the pads in Group mode, you can play **repeated notes** by holding the pads depressed.
- With the pads in Keyboard mode, you can play **arpeggios** based on the pads that you press.
- With the pads in Chord mode, you can create **arpeggios** based on the chord currently triggered. You can even press more than one pad to include the notes of all corresponding chords into your arpeggio.

The Arp engine can be seen as a melodic extension of the Note Repeat: Arp replaces and extends Note Repeat in Keyboard and Chord mode. Instead of playing repeated notes at a constant pitch you can play sequences of notes at different pitches.

Arp and Note Repeat have similar modes on your controller: Depending on whether your pads are in Group mode or Keyboard/Chord mode, pressing **NOTE REPEAT** (**Arp**) on your controller will switch to Note Repeat mode or Arp mode, respectively. Arp mode simply adds a few parameters to those found in Note Repeat mode.

## General notes on the Note Repeat and Arp engine

- The Note Repeat / Arp parameters are the same for all Sound slots in all Groups of your Project. These parameters are saved with the Project.
- The Note Repeat / Arp engine processes the live input from the pads of your controller only. The input from third-party MIDI controllers and the data recorded in the Pattern Editor are not processed.
- The Note Repeat / Arp engine detects and makes use of any changes in the pressure you apply on every single pad you hold (Polyphonic Aftertouch). This allows you to generate arpeggios and repeated notes with varying velocities.
- The output of the Note Repeat / Arp engine is recorded into the Pattern Editor.
- The Note Repeat / Arp parameters cannot be modulated nor automated in Maschine.
- You can use Note Repeat and Arp even if the transport is not running: In this case, the Note Repeat / Arp engine will use its own central clock. This clock will be reset as soon as you start the playback.

Kontrol S-Series owners: The central clock is shared by all connected devices so that e.g. repeated notes triggered from your Maschine controller and arpeggios triggered from your Kontrol S-Series keyboard will be synchronized even if the transport is not running.

## Pads in Group mode: Note Repeat

Check that your Pattern is playing. If not, press **PLAY** to start the sequencer.

1. Press and hold **NOTE REPEAT** (**Arp**), then hold any pad. The Sound of the pad is repeatedly triggered at the rate shown at the bottom of the controller's display.
2. Turn the Encoder to select another repetition rate.

→ This is a handy way to add live ornaments to your Pattern.

You can also use Note Repeat to program your Pattern (e.g., record a continuous hi-hat).

Note Repeat mode seamlessly switches to Arp mode as soon as you switch your pads from Group mode to Keyboard mode (see below): All current values (including the **LOCK** state) are retained.

### Pads in Keyboard mode or Chords mode: Arp

If your pads are in Keyboard mode or Chords mode, pressing **NOTE REPEAT** (**Arp**) switches your controller to Arp mode:

With the pads in Group mode, Keyboard mode, or Chords mode, you can customize how the notes of the played chord will be arpeggiated by adjusting the following settings.

▶ Press the Arrow buttons to access the following settings, and turn the Encoder to adjust values.

| Element | Description |
|---|---|
| **TYPE** | Sets the sequential order of the arpeggiated notes. Turn the Encoder to choose from the following settings:<br><br>**UP** starts from the root note and plays the notes up through the chord.<br><br>**DOWN** plays the notes the other way around.<br><br>**UP-DOWN** plays the notes in both directions alternatively.<br><br>**PLAYED** plays the notes in the order you pressed down the corresponding pads on your controller. So, for example, if you have configured chords, the arpeggio will first play all notes of the chord triggered by the first pad you pressed, then all notes of the chord triggered by the second pad you pressed, etc.<br><br>**CHORD** plays all notes of the chord together repeatedly. |
| **RATE** | Adjusts the note length, hence the rate of the arpeggio. Available values are **1 BAR** and a series of note values going from **1/2** (half note) until **1/128** (a hundred twenty-eighth note). |
| **UNIT** | Selects from three variations of the original note length defined by the **RATE** parameter: **NORMAL** plays the original note length (default setting), **TRIPLET** plays triplets of the original note length (faster, three notes in the duration of two original notes), and **DOTTED** plays dotted versions of the original note length (slower, two notes in the duration of three original notes). Under Button 5–8, triplet values are indicated by a "**T**" and dotted values by a "**D**" next to the note value. |

Arp mode seamlessly switches to Note Repeat mode as soon as you switch your pads from Keyboard mode to Pad Mode (see above): All current values (including the **LOCK** state) are retained.

### Swing on the Note Repeat / Arp output

The Swing engines (at the Master, Group, and Sound levels) process notes coming **from the Pattern Editor and from the Arp engine** (pads in Keyboard or Chord mode) **or Note Repeat engine** (pads in Group mode). In other terms, the swing is applied not only to your Patterns but also to any live sequence generated by the Arp or Note Repeat engine.

For example, when you play live beats on top of a running Pattern, you can use Note Repeat without destroying the Pattern's groove: the repeated notes will be processed using the same swing parameters as the playing Pattern.

When the playback is not running, the swing is still applied to the output of Arp (pads in Keyboard/Chord mode) or Note Repeat (pads in Group mode). If you press **PLAY** on your controller, the playback starts immediately and the swing cycle is reset.

For more information on the swing, refer to Groove.

## Mute and Solo

Muting is used to silence a Sound or a Group, whereas Solo is pretty much the opposite: Soloing a Sound or a Group mutes all other Sounds in that Group or all other Groups, respectively, so that you can listen to the selected Sound or Group alone. The combination of both is a useful means to play live and to test different sequences together.

When used on Sounds, the Solo only applies to the current Group: The Sounds in other Groups won't be affected.

### Audio mute vs. trigger mute

At the Group level, the Mute function is an **audio mute**: The whole audio output of the muted Group will be bypassed. At the Sound level, the Mute function is by default a **trigger mute**: the Pattern content (the events) for the muted Sound will not be triggered — but any audio remaining from past events for this Sound will still be audible until it fades away. You can change this behavior by enabling the **Audio Mute** button in the **Audio** page of the Sound's Output properties (refer to Configuring the main output of Sounds and Groups) as well as in Solo and Mute mode on your controller: Activating the audio mute for Sounds will ensure that not only the events are muted, but any remaining audio as well.

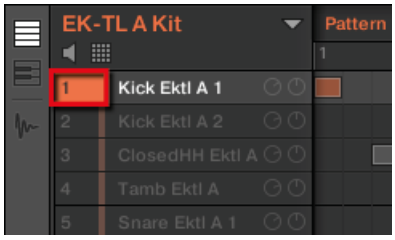
To momentarily mute all audio from all Sounds and Groups at once, refer to section Choke All Notes.

### Mute and Solo in the software

We describe here how to mute/solo Groups and Sounds in the Arrange view of the software, but you can also do this from Mix view via the **Mute** button available in each channel strip of the Mixer. See section Adjusting settings in the channel strips for more information.

## Soloing a Sound

1. To solo a Sound, right-click (on macOS: [Ctrl]-click) the number on the left side of the Sound slot in the Pattern Editor.

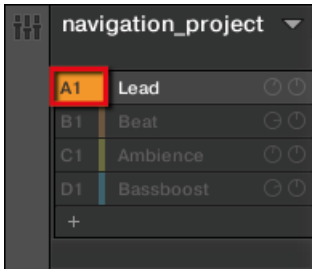



*Soloing the first kick Sound.*

2. To unsolo a Sound, right-click (on macOS: [Ctrl]-click) the number again.

## Soloing a Group

1. To solo a Group, right-click (on macOS: [Ctrl]-click) the Group index (letter + number) on the left side of the Group in the Arranger:

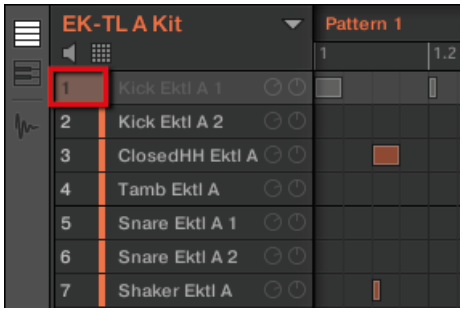



*Soloing a Group.*

2. To unsolo a Group, right-click (on macOS: [Ctrl]-click) the Group index again.

## Muting a Sound

1. To mute a Sound, click the number on the left side of the Sound slot in the Pattern Editor.



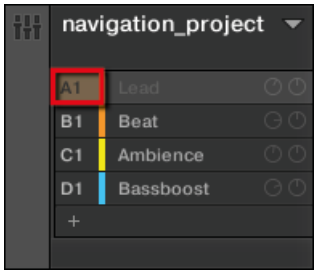

*Muting a Sound.*

2. To unmute the Sound, click the number again.

By default, the Mute on Sounds is an trigger mute: events for muted Sounds are not triggered, but the audio coming from previous events might still be audible (reverb tail, etc.). You can also activate audio mute for Sounds to mute both events and audio — see the beginning of this section for more information.

### Muting a Group

1. To mute a Group, click the Group index (letter + number) on the left side of the Group in the Arranger:




*Muting a Group.*

2. To unmute the Group, click the Group index again.

### Soloing Sounds and Groups on the controller

1. Press **SOLO** to enter Solo mode.
2. To solo a Sound, press the related pad.
3. To solo a Group, press **GROUP** followed by the related pads **9**–**16**.

### Muting Sounds and Groups on the controller

1. Press **MUTE** to enter Mute mode.
2. To mute a Sound, press the related pad.
3. To mute a Group, press **GROUP** followed by the desired pads **9**–**16**.

In both Solo and Mute modes you will note that on your controller the unmuted pads and Group buttons are fully lit, while the muted ones are dim lit (and the empty ones are off).



Since soloing a Sound mutes all Sounds except one, the **MUTE** button can then be used to "release" Sounds that have been muted. You can use this technique to create a breakdown: Solo a given Sound such as a kick drum, then build the track up again by bringing the muted Sounds back in one at a time while holding the **MUTE** button.

## Choke All Notes

The Choke All Notes feature allows you to kill any note or event currently playing in your Project. This affects the audio coming from all Plug-ins (Internal, Native Instruments, and External).

Choke All Notes is only available on your controller:

▶ Press **SHIFT** + **MUTE** to choke all playing notes.

Choke All Notes can be useful in various situations:

- as a creative tool in a live performance, e.g., to create stutter beaks
- as a workflow aid, to stop long one-shot Samples that continue playing after you have stopped the sequencer
- as a first panic button, if you are not sure where in your Project a particular sound is coming from, and you want to get rid of it.

Contrary to the Mute function, Choke All Notes is not turning any Group/Sound into another state. Instead, all audio voices currently playing are instantaneously killed. The killed voices cannot be reactivated and are freed up for subsequent notes according to the polyphony setting. Voices triggered by subsequent notes will play normally.

## Groove

The groove controls the swing, that is the rhythmic relationship between events in the selected channel (Sound, Group, or Master). By shifting some of the events, you can e.g. give a shuffling, ternary touch to your Patterns.

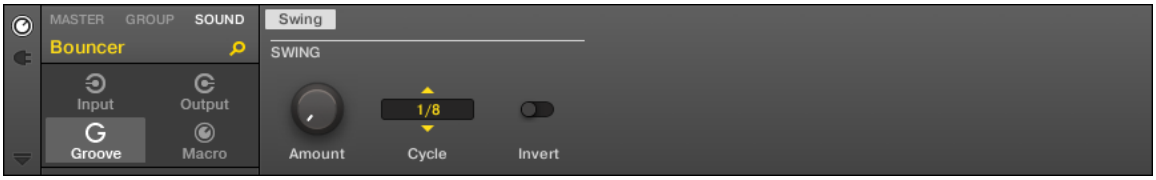
The groove can be adjusted for each channel individually via its **Groove properties**.

A groove configured for a channel affects all its contained channels:

- The Groove properties of a Sound only affect that particular Sound.
- The Groove properties of a Group affect all Sounds in that Group: The Group's swing is added to the swing of each individual Sound (as defined in its own Groove properties).
- At the Master level, the Groove properties affect all Sounds of all Groups. The Master's swing is added to the swing of each individual Group and Sound (as defined in its own Groove properties).

The Groove properties have a single Parameter page: **Swing**.

Please refer to section Navigating Channel properties, Plug-ins, and Parameter pages to know how to display and navigate sets of Channel properties.




*The Groove properties for a Sound in the software.*

| Control | Description |
|---|---|
| **Swing section** | |
| **Amount** | Adjusts the amount of swing, i.e. the amount by which some events are shifted. At 0 % events are not shifted. Raise the **Amount** value to increase the strength of the swing. |
| **Cycle** | Determines on what musical resolution the groove is applied. This directly affects which events will be shifted. Values are measured in fractions of a whole note. |
| **Invert** | Allows you to invert the groove so that instead of being delayed in the Pattern, events will be triggered ahead of time. |

### How groove affects the rhythm: an example

Take a simple, regular one-bar rhythm with a hit on each eighth note. We set the **Cycle** parameter to **1/2**, which is one half note, that is two beats.

The following picture shows you how this rhythm would *sound* with the following settings:

- Top: **Amount** at **0.0 %** (no groove).
- Middle: **Amount** at **100.0 %** and **Invert** off.
- Bottom: **Amount** at **100.0 %** and **Invert** activated.




*This is how the same regular rhythm would be heard with various groove settings.*



The picture above only illustrates how the groove function affects the *triggers* — adjusting the Groove properties will **not** actually move any events in the Pattern Editor.

## Level, tempo, tune, and groove shortcuts on your controller

Your controller provides extra shortcuts for various important parameters. Most of these parameters are already available in the Channel properties of the Sounds, Groups, and Master. The shortcuts detailed here give you an additional quick access to them — this is especially useful during live performance.

## Tap tempo

You can quickly define the tempo of your Project via the **TAP** button in the Transport section of the controller:

▶ Repeatedly tap the **TAP** button to set the desired tempo.

You can also use the **TEMPO** button to adjust the current tempo:

▶ Press the **TEMPO** button and turn the Encoder to quickly adjust the tempo of your Project.



Press and turn the Encoder (or hold **SHIFT** while you turn it) to adjust the value in finer increments when the **TEMPO** button is activated.

These shortcuts control the Tempo parameter of Maschine. In the software this parameter is available in the Header:




*The Tempo parameter in the software's Header.*

# Using Lock Snapshots

The **LOCK** button allows you to create a snapshot of your current settings that you can quickly recall. A snapshot contains every modulatable parameter in your Project, including your Solo and Mute settings.

Lock snapshots are not only a powerful tool for recalling extensive modulations, but also very useful to compare mixes or to use during a live performance.

## Creating a Lock snapshot

Use the **LOCK** button to capture, update or recall a Lock snapshot.

To create a Lock snapshot:

1. Press the **PLUG-IN** button.
2. Press **LOCK** to take a snapshot.

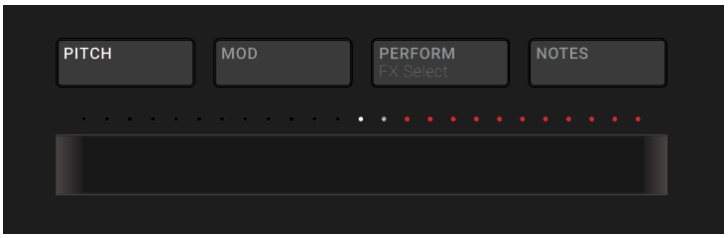
→ The **LOCK** button is highlighted to indicate that a snapshot has been taken. You are now free to change parameters or Mute and Solo settings, safe in the knowledge that you can recall your snapshot.

3. Press **LOCK** to recall the snapshot.

→ The Lock snapshot is recalled and the **LOCK** button ceases to be highlighted.

# Using the Smart Strip

The Smart Strip puts control of several parameters at your fingertips: You can use the Smart Strip to apply pitch bend or modulation to the sound you are playing on the pads, tweak Perform FX in real-time, or play Sounds by strumming on the Smart Strip.




*Smart Strip with **PITCH** mode activated.*

When the Smart Strip modes are not in use, the Smart Strip's LEDs show the playhead position within a Pattern or the song:

- In Ideas view, the Smart Strip's LEDs indicate the playhead position within the selected Pattern during playback and recording.
- In Song view, the Smart Strip's LEDs indicate the playhead position within the song.

This feature provides great visual feedback to aid your timing when recording or switching up patterns during a live set.

This feature is not available when the Smart Strip modes (Pitch, Mod, Perform, and Notes) are in use.

## Pitch mode

In **Pitch mode**, sliding your finger on the Smart Strip "bends" the pitch of the notes you play on the pads, i.e., it detunes the sound by a certain amount. If you have used the pitch bend wheel on a synthesizer or standard MIDI keyboard before, you are probably familiar with this effect.

In Pitch mode, the scale on the Smart Strip is centered, as indicated by a white LED in the middle of the Smart Strip. Sliding your finger to the left will flatten the pitch. Sliding your finger to the right will sharpen the pitch. The amount of pitch bend applied to the Sound is indicated by the LED dots above the Smart Strip. Once you lift your finger off the Smart Strip, the pitch of the sound will return to standard tuning.

▶ To enable Pitch mode, press the **PITCH** button.

## Modulation mode

In **Modulation mode**, sliding your finger on the Smart Strip modulates the sound of the notes you play on the pads. The Smart Strip always controls the parameter that is assigned to the standard MIDI CC #1. This MIDI Continuous Controller is reserved for the modulation wheel. If you have used the modulation wheel on a synthesizer or standard MIDI keyboard before, you are probably familiar with the effect.

In Modulation mode, the scale starts at the left side of the Smart Strip, as indicated by a white LED. Sliding your finger to the right will apply an increasing amount of modulation, as indicated by the LED dots above the Smart Strip. When you lift your finger off the Smart Strip, the modulation value will remain at the position where the strip was last touched; the LED dots above remain lit to indicate this position.

▶ To enable Modulation mode, press the **MOD** button.

## Perform mode

In **Perform mode**, the Smart Strip controls a parameter of one of the Perform effects (Perform FX) described in Perform FX. For each of the Perform FX, the Smart Strip is mapped to the parameter that makes the most sense to control in real-time.

To control a Perform FX using the Smart Strip:

1. Press the **PLUG-IN** button.
2. Select the Group (**SHIFT** + **A**–**H**) you want to apply the effect to.
3. Open the Perform FX page by pressing **SHIFT** + **PERFORM** (**FX Select**).
4. Select a Perform FX mode by turning the Encoder.
5. Press **PERFORM** to switch the Smart Strip to Perform mode.
6. Slide a finger on the Smart Strip to control the mapped parameter.

→ The effect will sound as long as your finger is held on the Smart Strip.

## Notes mode

In **Notes mode**, sliding your finger on the Smart Strip plays the pads you hold one after the other. Sliding your finger on the Smart Strip while no pad is held will play all Sounds mapped to the pad matrix in Group mode or Keyboard mode. If you slide your finger from left to right, the pads will be played in an ascending manner. If you slide your finger from right to left, the pads will be played in a descending manner. This applies regardless of which pads (if any) are held.

To play notes using the Smart Strip:

1. Load a Group (in Group mode) or a Sound (in Keyboard/Chords mode) so it is mapped to the pads.
2. Press the **NOTES** button to enable Notes mode.
3. Press and hold the pads you want to play.
4. Slide your finger on the Smart Strip to “strum” the sounds mapped to the held epads.

# 8. Working with Plug-ins

Plug-ins are the building blocks of all sound in Maschine. They can be used at all three levels of the Maschine audio routing system: in Sounds, in Groups, and in the Master.

This chapter includes various general or specific Plug-in topics:

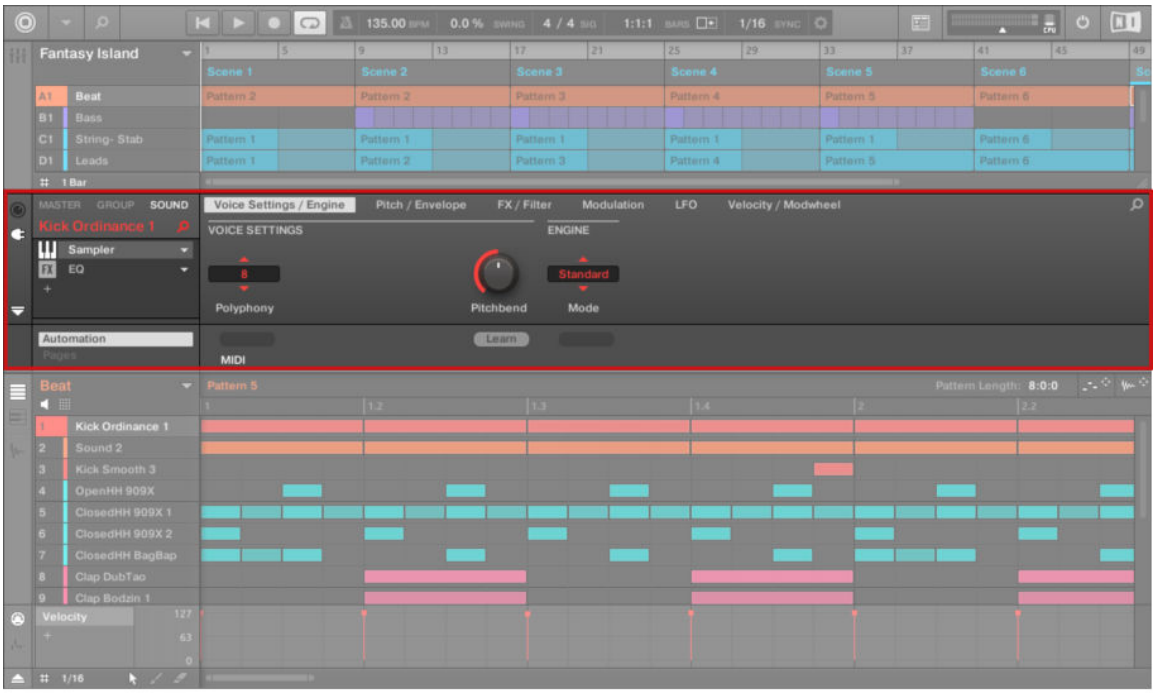
- An overview of Plug-ins and how to handle them (Plug-in overview).
- An exhaustive description of an essential Internal Instrument Plug-in in charge of playing back all sample content in Maschine: the Sampler (The Sampler Plug-in).
- Specific information on Native Instruments and External Plug-ins (Using Native Instruments and External Plug-ins).

## Plug-in overview

This section describes Plug-ins in general: where you find them, how you adjust their settings, and how you manage them.

### Plug-in basics

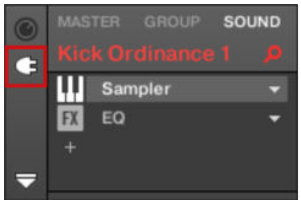
In Arrange view, the content and settings of the focused Sound/Group or the Master are displayed in the **Control area** (in the middle of the software window):




*The Control area displaying the content of the Sound Kick Ordinance of the selected Sound slot 1.*

Sounds, Groups, and the Master can each hold any number of Plug-ins. These are stacked up in the **Plug-in List**, on the left of the Control area.

▶ To show the Plug-in List, click the little **Plug-in icon** at the far left of the Control area:




In the Plug-in List, the processing order is always from top to bottom.



In addition to Plug-ins, each Sound, each Group, and the Master also provide a set of global settings called Channel properties. For more information, refer to Groove and Audio routing, remote control, and Macro Controls.

## Different types of Plug-ins

Plug-ins can be of different types:

| | Instrument Plug-ins | Effect Plug-ins |
|---|---|---|
| Internal Plug-ins | Audio, Sampler, Drum Synth, Bass Synth, Poly Synth | Maschine internal effects |
| Native Instruments Plug-ins | VST/AU instrument plug-ins from Native Instruments' range of products | VST/AU effect plug-ins from Native Instruments' range of products |
| External Plug-ins | Third-party VST/AU instrument plug-ins | Third-party VST/AU effect plug-ins |

- **Instruments**: These Plug-ins generate sound. Instrument Plug-ins can only be loaded in the first Plug-in slot of Sounds. Following Plug-ins are available:
  - **Audio**: Included with Maschine, the Audio Plug-in allows audio loops to playback in time with the tempo of your Project. Adding audio with the **Loops** tag from the Browser to the Sound slot will automatically load the Audio Plug-in in the first Plug-in slot of the Sound. For more information, refer to Using the Audio Plug-in.
  - **Sampler**: Included with Maschine, the Sampler Plug-in allows the selected Sound to playback Samples. Adding a Sample to the Sound slot will automatically load the Sampler in the first Plug-in slot of the Sound. For more information, refer to The Sampler Plug-in.
  - **Drum Synths**: Included with Maschine, these Plug-ins are mini-synths specialized in generating drum sounds. For more information, refer to Drum Synths.
  - **Bass Synth**: Included with Maschine, this Plug-in is a monophonic synthesizer specialized in generating bass sounds. For more information, refer to Bass Synth.
  - **Poly Synth**: Included in Maschine, this Plug-in is based on the Native Instruments Pro-53 plug-in. Poly Synth delivers the colorful character of a classic dual-oscillator synth built for full hands-on control with Maschine. For more information, refer to Poly Synth.
  - **Native Instruments**: You can use all Native Instruments Komplete instruments installed on your computer as VST/AU plug-ins. Products from Native Instruments are tightly integrated into Maschine.
  - **External**: You can also use VST/AU instrument plug-ins from any third-party manufacturers.

- **Effects**: These Plug-ins modify the audio coming from the previous Plug-in slot (or from the incoming audio if the Effect is loaded in the first Plug-in slot of a Sound). Effect Plug-ins can be loaded in any Plug-in slot. Following Plug-ins are available:
  - **Internal Effects**: These are the Effect Plug-ins included with Maschine. To read every detail about each of the Maschine internal effects, and how to use them, refer to Audio routing, remote control, and Macro Controls and Effect reference.
  - **Native Instruments**: You can use all Native Instruments Komplete effects installed on your computer as VST/AU plug-ins. Products from Native Instruments are tightly integrated into Maschine.
  - **External**: You can also use VST/AU effect plug-ins from any third-party manufacturers.

### What to load, and where

The type of Plug-in that you can load depends on the selected level (Sound, Group, or Master) and slot:

- Effect Plug-ins (both internal and external) can be loaded in all Plug-in slots at all levels (Sound, Group, Master).
- Instrument Plug-ins (both internal and external) can only be loaded in the first Plug-in slot of Sounds.

## First Plug-in slot of Sounds: defining the Sound's role

The Plug-in loaded in the **first Plug-in slot of a Sound** will determine the general role of this Sound:

- If the first Plug-in slot holds an **Instrument Plug-in** (Sampler, Drum Synth, Native Instruments, or External instruments, refer to Plug-in basics), the Sound will generate its own audio.
- If the first Plug-in slot holds an **Effect Plug-in** (Internal, Native Instruments, or External), the Sound will be available as bussing point for other audio signals (from within Maschine, and possibly from the outside world). This notably allows you to build up send effects or to apply effects to external audio. For more information, refer to Step 1: set Up a Sound or Group as send effect.



You can also sample directly to a Sound slot. This will automatically load a Sampler in its first Plug-in slot. For more information, refer to Effect reference.

## Loading, removing, and replacing a Plug-in

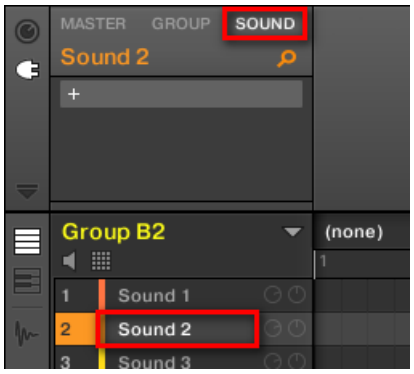
This section describes in detail how to load, remove, and replace a Plug-in.

### Loading, removing, and replacing a Plug-in in the software

### Loading a Plug-in

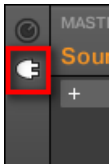
The procedure to load a Plug-in with its default settings is common to all levels (Sound, Group, and Master) and all Plug-in types (Internal, Native Instruments, and External, as well as Instrument and Effect):

1. Set the focus to the Sound, Group, or the Master where you want to load the Plug-in (refer to Focusing on a Group or a Sound). In the picture below we click an empty Sound slot in the Sound List of the Pattern Editor and click the **SOUND** tab in the Control area above.

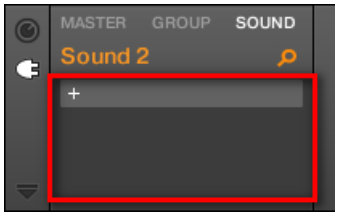



   The Control area will now show the content (Channel properties or Plug-ins) of the Sound we have just selected.

2. At the far left of the Control area, click the little plug icon to display the Plug-ins.



   This displays the Plug-in List on the left of the Control area:




   The Plug-in List is still empty because we selected an empty Sound slot. The only visible element in the list is a "**+**" icon at the top left.

3. Click the slot with the "**+**" icon at the top of the Plug-in List.
   This opens the **Plug-in menu** where you can select the desired Plug-in for loading (refer to below for a detailed description of the entries contained in the Plug-in menu).




→ After your selection the selected Plug-in sits at the top of the Plug-in List, in the first Plug-in slot of the Sound (in our example). In addition, some Native Instruments and External Plug-ins will automatically open in a floating window. For more information, refer to Opening/closing Plug-in windows.

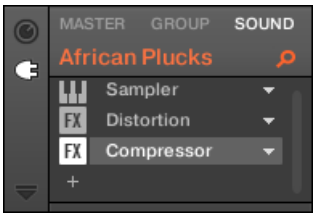
You will notice that the "**+**" sign has moved to the next slot. Clicking it would allow you to load a Plug-in into the next Plug-in slot of that Sound, and so on.



Instead of using the Plug-in menu to load a Plug-in with its default settings, you can also use the Browser to load a particular preset for a Plug-in. In particular, this can come in handy to insert a new Plug-in between two existing Plug-ins of the Plug-in List. For more information, refer to Searching and loading files from the Library.

## Removing and replacing a Plug-in

Once you have loaded a Plug-in into a Plug-in slot, the slot shows the name of the loaded Plug-in, preceded by an icon describing the type of Plug-in (Instrument or Effect), and followed by a down-pointing arrow:



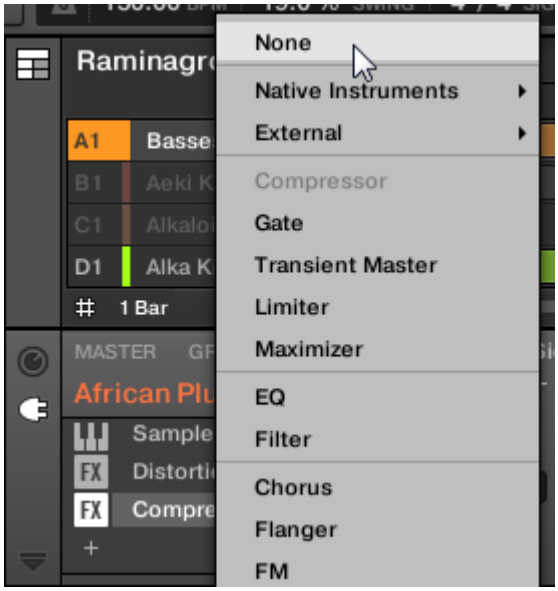

*A few Plug-ins loaded.*

This down-pointing arrow lets you open the Plug-in menu for slots already hosting a Plug-in.

▶ In the Plug-in List, click the down-pointing arrow at the right of a Plug-in name to open the Plug-in menu for that slot. You can also right-click ([Ctrl]-click on macOS) the Plug-in name in the slot.

This will notably allow you to **remove the loaded Plug-in** from the slot:

▶ To remove the Plug-in currently loaded in a slot, open its Plug-in menu and select **None** at the top of the menu.




→ The Plug-in is unloaded from the slot. All following Plug-ins are shifted one slot upwards to fill the gap.

Furthermore, the Plug-in menu also allows you to **replace the loaded Plug-in** with another one:

▶ To replace the Plug-in currently loaded in a slot, open its Plug-in menu and select another Plug-in in the menu.

→ The original Plug-in is replaced with the newly selected one. The rest of the Plug-in List stays untouched.



You can also recall the search query that was used to find the Plug-in preset currently loaded in the Plug-in slot. For more information, refer to Using Quick Browse.

## Content of the Plug-in menu

The entries in the Plug-in menu differ according to the Plug-in slot from which you are calling the menu:

- The **first Plug-in slot of a Sound** accepts both Instrument and Effect Plug-ins. The entries available in their Plug-in menu are listed in the following table.
- All **other Plug-in slots** at the Sound, Group, and Master level only accept Effect Plug-ins. Therefore, their Plug-in menus and submenus provide the same entries except for all entries for Instrument Plug-ins.

The Plug-in menus can have the following entries, from top to bottom:

| Plug-in Menu Entry | Description |
|---|---|
| **Plug-ins** | |
| **Presets** submenu (only when a Native Instruments or External Plug-in is loaded) | Lists all VST/AU presets made available to Maschine by the VST/AU plug-in. This allows you to use your favorite presets of the VST/AU plug-in directly inside Maschine. For more information, refer to Using VST/AU Plug-in presets. |
| **None** | Select **None** to remove the Plug-in currently loaded (refer to the previous paragraph). |

| Plug-in Menu Entry | Description |
|---|---|
| **Internal** | Lists all of Maschine internal Plug-ins. This includes:<br>• **Audio**: This plug-in is used to playback audio loops to in time with the tempo of your Project. Adding audio with the Loops tag from the Browser to the Sound slot will automatically load the Audio Plug-in in the first Plug-in slot of the Sound. Using the Audio Plug-in<br>• **Sampler**: This plug-in is used to playback all samples in Maschine. For more information, refer to The Sampler Plug-in.<br>• **Drum Synth**: A set of mini-synths specialized in generating drum sounds. For more information, refer to Drum Synths.<br>• **Bass Synth**: A monophonic synthesizer specialized in generating bass sounds. For more information, refer to Bass Synth.<br>• **Poly Synth**: Based on the Native Instruments Pro-53 plug-in, this synth provides warm vintage tones, organic bass, and shimmering pads with all of the 80s golden-era style. For more information, refer to Poly Synth.<br>• **Internal Effects** This list of internal effects is split into various categories (dynamics, filtering, modulation, reverb, etc.). For more information, refer to Effect reference. |
| **Native Instruments** | Lists available Native Instruments' Instruments (first Plug-in slot of Sounds only) and Effects. For products working both as Instrument and Effect, the Effect Plug-in name is followed by the mention **FX**. If necessary each entry is followed by the plug-in type between brackets: **(VST)** or **(AU)**. For more information, refer to Using Native Instruments and External Plug-ins. |
| **External** | Lists the available External Plug-ins, for instance, the available VST/AU instrument (first Plug-in slot of Sounds only) and effect plug-ins from third-party manufacturers. Each entry is followed by the plug-in type between brackets: **(VST)** or **(AU)**. For more information, refer to Using Native Instruments and External Plug-ins. |
| **Edit Commands** | |
| **Cut** | Removes the Plug-in from its current slot and stores the Plug-in and all its settings to the clipboard for later use. |
| **Copy** | Copies the Plug-in and all its settings to the clipboard for later use. |
| **Paste** | Loads into the current slot the Plug-in and all its settings that were cut or copied from another slot. This notably allows you to use a Plug-in in different locations (Sounds, Groups, Master) with the same settings. |
| **Preset Management** | |
| **Open…** | Allows you to open a Plug-in preset you have previously saved. |
| **Save As…** | Allows you to save the current Plug-in settings as a preset for later use. This preset will appear in the Browser. |

| Plug-in Menu Entry | Description |
|---|---|
| **Save As Default…** (only when a Native Instruments or External Plug-in is loaded) | Allows you to save the current Plug-in settings as a default preset. This default preset will be recalled each time you load the Plug-in from the Plug-in menu. |

Note that the first two submenus **Native Instruments** and **External** only show the Plug-ins that are activated in the **Plug-ins** page of the **Preferences** panel. For more information, refer to Preferences – Plug-ins page.

The edit commands (**Cut**, **Copy**, and **Paste**) and preset management commands (**Open**, **Save As…**, and **Save As Default…**) available at the bottom of the Plug-in menu are covered in section Moving Plug-ins and Saving and recalling Plug-in presets.

## Adjusting the Plug-in parameters

The procedure for adjusting the Plug-in parameters is common to all types of Plug-ins and all sets of Channel properties. For more information, refer to Navigating Channel properties, Plug-ins, and Parameter pages.

Native Instruments and External Plug-ins only: You can also adjust the Plug-in parameters via the VST/AU plug-in's own user interface. Refer to Using Native Instruments and External Plug-ins for more information.

## Bypassing Plug-in slots

You can bypass (or "mute") any Plug-in slot. When a Plug-in slot is bypassed, its Plug-in is temporarily removed from the signal flow and does not process the audio passing through the slot. Instead, the incoming audio is directly sent to the next Plug-in slot for further processing (or to the channel's output if you bypass the last Plug-in slot).

Bypassing Plug-in slots can be very useful in various situations, for example:

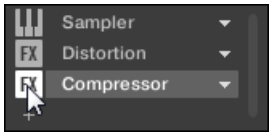
- Bypassing and re-enabling an effect during a live performance.
- Comparing the sound with and without an effect.
- Troubleshooting complex effect chains and routings ("Where does this strange reverb tail come from?").

### Bypassing a Plug-in slot in the software

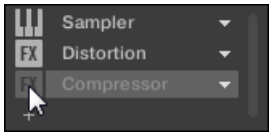
To bypass a Plug-in, do the following:

1. If you want to bypass a Plug-in of the Master, click the **MASTER** tab in the top left corner of the Control area.
2. If you want to bypass a Plug-in of a Group, click the desired Group on the left of the Arranger, and click the **GROUP** tab in the top left corner of the Control area.

3. If you want to bypass a Plug-in of a Sound, click the Group of its parent Group in the Arranger, click the desired Sound slot on the left of the Pattern Editor, and click the **SOUND** tab in the top left corner of the Control area.
4. In the Plug-in List, click the icon left to the Plug-in name (keys for an Instrument Plug-in, **FX** for an Effect Plug-in) to bypass this Plug-in.




The Plug-in does not affect the sound anymore. The icon is grayed out to indicate that this slot is now bypassed.




Use the same method to unmute the Plug-in:

▶ To activate the bypassed slot again, click its grayed-out icon.

> In most cases, the first Plug-in slot contains an Instrument Plug-in (for example, a Sampler). Be careful: bypassing the slot will mute the whole Sound!

## Using side-chain

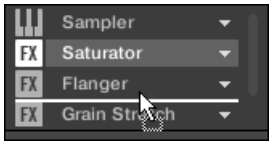
Some Plug-ins provide side-chaining. This allows you to control their operation using another audio signal sent to their secondary, so-called "side-chain" input. For more information, refer to Using the side-chain input.

## Moving Plug-ins

Maschine allows you to move Plug-ins across the Plug-in List and across Sounds and Groups.

### Moving Plug-ins within the Plug-in List

▶ To move a Plug-in in the Plug-in List, click its name and drag your mouse vertically. While you are holding the mouse button, an insertion line appears at the place in the Plug-in List where the Plug-in would land if dropped. Drag your mouse until the insertion line is at the desired location, then release the mouse button to drop the Plug-in onto this new location.




→ The Plug-in takes its new place between the existing Plug-ins while keeping the exact same settings. All other Plug-ins sitting between their old and new location are shifted one slot upwards/downwards to fill the gap.

> Dragging Plug-ins can be very useful if you want to quickly change the effects' processing order in the channel.

### Moving Plug-ins across Sounds and Groups

Moving Plug-ins is not only possible within the same Sound but also across Sounds, across Groups, across levels (e.g., from a Sound to a Group), or across Sounds in different Groups.

To move a Plug-in to another Sound, another Group, or the Master, do the following:

1. Click the down-pointing arrow of the slot containing the Plug-in that you want to move.
2. In the Plug-in menu that opens, select **Cut**.
3. Select the Sound, Group, or the Master where you want to move the Plug-in (refer to section Focusing on a Group or a Sound).
4. Click the down-pointing arrow of the target slot (the slot where you want to move the Plug-in to).
5. In the Plug-in menu that opens, select **Paste**.

→ The Plug-in with all its parameters is moved from its original location to its target location.

### Duplicating Plug-ins across Sounds and Groups

Instead of selecting **Cut** in the Plug-in menu of the original slot (see above), select **Copy** to duplicate the Plug-in to another slot.

## Alternative: the Plug-in Strip

You can also manipulate your Plug-ins via the Plug-in Strip in the Mix view of Maschine. For more information, refer to The Plug-in Strip.

## Saving and recalling Plug-in presets

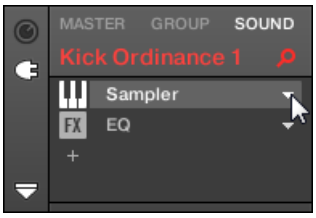
All settings and assignments of a Plug-in can be saved as Plug-in presets. Once saved, Plug-in presets can be accessed from the Browser, both in the software and from your controller (refer to Searching and loading files from the Library). This is a very quick and convenient way to recall Plug-ins with their parameters already set to specific values. In addition, a Plug-in preset can be assigned as the default preset so the Plug-in opens with that preset automatically loaded.

The Maschine file format for Native Instruments plug-ins allows you to save a preset in the format native to the plug-in, and freely exchange files between the plug-in in stand-alone mode, Maschine, and Komplete Kontrol.

> ⓘ To use this feature you must ensure that all installed Native Instruments plug-ins are up-to-date. Check Native Access for the latest updates.

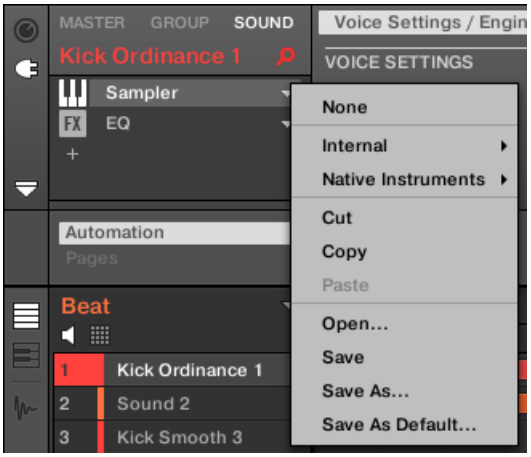
### Saving Plug-in presets

Saving Plug-in presets can only be done in the software via the Plug-in menu. To access the Plug-in menu, click the drop-down arrow on the right-hand side of the Plug-in slot in the Plug-in List:




*Opening the Plug-in menu.*

The commands for saving Plug-in presets are found at the bottom of the Plug-in menu.




*The commands for saving and recalling Plug-in presets in the Plug-in menu.*

| Plug-in menu entry | Description |
|---|---|
| **Save** | Saves your changes to the preset currently loaded. |
| **Save As…** | Saves the current Plug-in settings as a new preset on your hard disk. |
| **Save As Default…** | Saves the current settings as the default preset for the Plug-in. This default preset will be loaded with this Plug-in the next time it is loaded. |
| **Remove Default Preset** | Removes the default preset for the current Plug-in. This menu item only appears after a default preset has been saved using the **Save As Default...** command. |

The **Save As…** and **Save As Default…** commands notably allow you to import into the Maschine Library your user presets for Native Instruments instruments/effects as well as both factory and user presets for third-party instruments/effects. For more information, refer to Using VST/AU Plug-in presets.

## Recalling Plug-in presets

All Plug-in presets you saved using the Plug-in menu are available in the Browser, both in the software and from your controller. Each Plug-in preset is automatically placed in the corresponding "Instrument" or "Effect" category in the File Type selector of the Browser's **LIBRARY** pane. Furthermore, user presets are available when selecting the User content in the Content selector of the Browser's **LIBRARY** pane. For more information on how to load Plug-in presets in the Browser, refer to Searching and loading files from the Library.

You can also assign tags to the Plug-in presets that you have saved, making them easier to find in the Browser. For more information, refer to Editing the files' tags and properties.

In addition, the Maschine Library already provides a collection of Plug-in presets for Maschine's Internal Plug-ins. Furthermore, any Native Instruments product installed on your computer will have its own factory library already imported into the Maschine Browser so that you can browse and load its factory presets directly from Maschine.

> Komplete products and Maschine Expansions have to be updated to ensure their full integration into the Maschine Library. To update any Native Instruments product installed on your computer, start Native Access. For more information, refer to the Native Access web page.

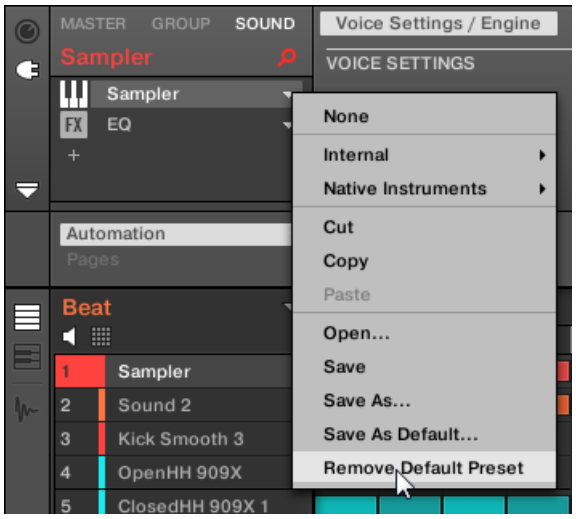
Alternatively, you can load a Plug-in preset from the Plug-in menu by selecting the **Open…** command, then navigating your file system and selecting the desired preset file (extension ".mxinst" for Instrument Plug-in presets, ".mxfx" for Effect Plug-in presets, or ".mfxp" for Maschine 1.x Module presets).

## Removing a default Plug-in preset

For each Plug-in, you can set a default preset that is loaded automatically every time the Plug-in is loaded. If this default preset is no longer needed, you can use the Plug-in menu to remove it.

To remove the default preset of a Plug-in using the Plug-in menu:

1. Click the Sound containing the Plug-in.
2. Click the Plug-in drop-down menu.
3. Click **Remove Default Preset** in the menu to remove the default preset.




→ The default preset for the Plug-in is removed and the Plug-in will use its factory settings next time it is loaded.

You can also use the Plug-in Manager in the Preferences panel to gain an overview of your default Plug-in presets and remove them if required. Refer to Preferences – Plug-ins page for more information.

Removing the default preset for a plug-in is a software-only feature.

## The Sampler Plug-in

The Sampler Plug-in allows you to playback any Sample in Maschine — including all Groups, Sounds, and Samples of the factory library. The Sampler comes with an extensive set of parameters that offer various ways to further shape each of your Sounds individually. You can tune, change basic dynamics and apply effects as well as different modulation options.

Many of the Sampler parameters can be modulated and automated. For more information, refer to section Recording and editing modulation and Controlling parameters via MIDI and host automation.

In case Maschine cannot find the Sample(s) loaded in a Sampler Plug-in, a **Missing Sample** dialog will appear and help you locate the missing Sample(s) again. For more information, refer to Locating missing samples.

This section describes the specific parameters found in the Sampler. For a general description of the features and characteristics of Plug-ins (including the Sampler), refer to Plug-in overview.

The Sampler parameters are organized into six pages:

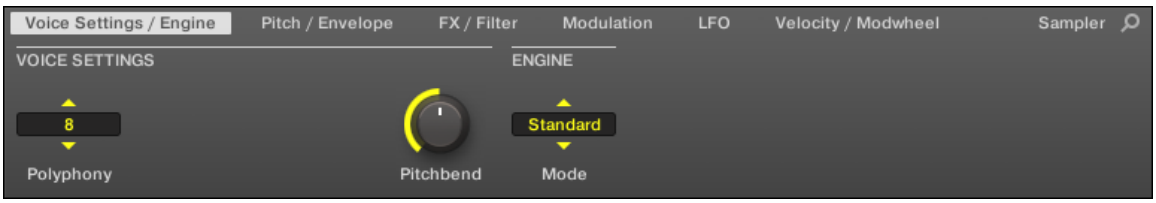
- Page 1: **Voice Settings / Engine**: Page 1: Voice Settings / Engine.
- Page 2: **Pitch / Envelope**: Page 2: Pitch / Envelope.
- Page 3: **FX / Filter**: Page 3: FX / Filter.
- Page 4: **Modulation**: Page 4: Modulation Envelope.
- Page 5: **LFO**: Page 5: LFO.
- Page 6: **Velocity / Modwheel**: Page 6: Velocity / Modwheel.

You can select these Parameter pages for displaying/editing via the usual way described in Navigating Channel properties, Plug-ins, and Parameter pages. For example:

▶ To display a particular Parameter page in the software, click its label at the top of the Control area.

We show here the Sampler parameters as they appear in the Control area of the Arrange view. The Sampler also provides a custom panel in the Plug-in Strip of the Mix view. For more information, refer to Panel for the Sampler.

## Page 1: Voice Settings / Engine




*Sampler parameters, page 1 of 6: **Voice Settings** and **Engine** in the software.*

| Parameter | Description |
|---|---|
| **Voice Settings section** | |
| **Polyphony** | Here you can define a voice limit for the Sound, that is the maximum number of voices (notes) the Sampler can play simultaneously. Once this polyphony has been reached, triggering any additional note will kill the "oldest" note still playing (i.e. the note that was triggered first). The available values are **1**, **2**, **4**, **8** (default), **16**, **32**, and **64**. You can also set this to **Legato**. In that case, the polyphony is set to 1 and the Sampler performs a continuous pitch transition between consecutive notes. |
| **Glide** | Allows the duration between consecutive notes to be adjusted when **Legato** is selected for the **Polyphony** parameter. |
| **Pitchbend** | Here you can adjust how the Sound reacts to incoming MIDI Pitchbend messages from an external MIDI controller or your host application. For more information on how to set up your Sounds to receive MIDI. For more information, refer to Triggering Sounds via MIDI notes. |
| **Engine section** | |
| **Mode** | This allows you to select between different models for the sampling engine. Besides the default **Standard** setting, the other options **MP60** and **S1200** emulate the sound of two legendary Samplers that are often used in Hip-Hop and similar genres of music. The latter comes in various flavors offering different filtering: **S1200** (no filtering), **S1200 L** (for low-pass filtering), **S1200 LM** (for low-mid-pass filtering), **S1200 HM** (for mid-high-pass filtering), and **S1200 High** (for high-pass filtering). |

## Page 2: Pitch / Envelope



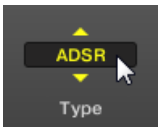

*Sampler parameters, page 2 of 6: **Pitch** / **Gate** and **Amplitude Envelope** in the software.*

| Parameter | Description |
|---|---|
| **Pitch / Gate** | |

| Parameter | Description |
|---|---|
| **Tune** | Defines the basic pitch of your Sample: turn the knob to the right for a higher pitch and to the left for a lower pitch. |
| **Start** | Determines the start point of the Sample. This parameter can also be modulated by the Velocity control. For more information, refer to Page 5: LFO. |
| **Reverse** | If **Reverse** is activated, the Sample will be played backward. |
| **Type** | Selects from three different types of amplitude envelopes. See below for more information. |

## Amplitude Envelope

The **Amplitude Envelope** section allows you to tailor your Sample in terms of its loudness over time.




*The Type selector.*

The **Type** selector allows you to choose from three different types of amplitude envelopes. Depending on the selected type, the available parameters in the **Amplitude Envelope** section will differ (see table below):

- **One-shot**: This is typical vintage drum machine behavior: the sample is played in its entirety from beginning to end with no envelope. If **One-shot** is selected, the **Amplitude Envelope** section doesn't display any parameters.
- **AHD**: AHD mode disables the Sustain and Release controls of the ADSR envelope (see below), and replaces them with the Hold parameter. AHD mode is ideal for "fire and forget" behavior, whereby you would like to have the sound trigger for a certain amount of time regardless of how long you hold the pad down.
- **ADSR**: Typically, the ADSR envelope is used for longer, sustained Samples that require complex dynamic control.

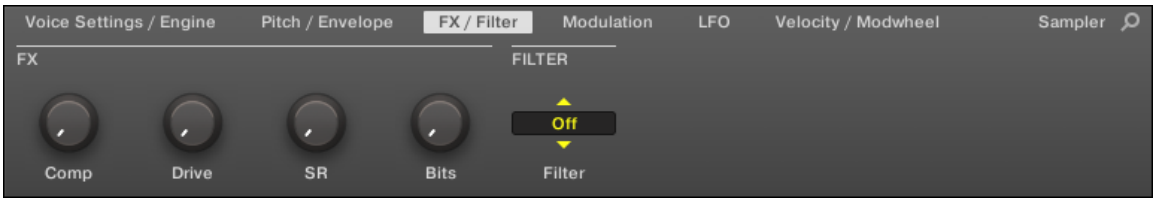


Unlike many other hardware devices, the pads on Maschine are sensitive not only to being hit but also to being held, so using the ADSR envelope, you can make the pads behave like a MIDI keyboard and sustain a note only for as long as it is held down.

| Parameter | Description |
|---|---|
| **Amplitude Envelope** | |
| **Attack** (AHD and ADSR) | **Attack** determines how quickly the Sound reaches full volume after being triggered. |
| **Hold** (AHD only) | **Hold** determines how long the envelope will stay at its maximum level. |
| **Decay** (AHD and ADSR) | **Decay** determines how fast the envelope drops to the **Sustain** level in ADSR mode; in AHD mode, it is used to adjust how fast the Sound dies down. This parameter can also be modulated by the Velocity control. For more information, refer to Page 5: LFO. |

| Parameter | Description |
|---|---|
| **Sustain** (ADSR only) | **Sustain** determines the constant level being kept after **Decay** until the note ends. This can also be controlled by an external MIDI controller or keyboard using the MIDI Control Change 64. |
| **Release** (ADSR only) | **Release** determines how long the sound takes to fade out after the note has ended. |

## Page 3: FX / Filter




*Sampler parameters, page 3 of 6: **FX** and **Filter** in the software.*

### FX

This is a small selection of basic effects, not to be mixed up with the collection of Effect Plug-ins covered in depth in chapter Effect reference.

| Parameter | Description |
|---|---|
| **FX** | |
| **Comp** | Allows you to give a Sound more density. |
| **Drive** | Defines the amount of saturation applied to a Sound. |
| **SR** | **SR** stands for "sample rate": you can use it to lower the original sample rate in order to make the Sound more lo-fi. |
| **Bits** | Allows you to lower the original bit depth of the Sound, resulting in a more rough, digital-sounding lo-fi effect. |

### Filter

The **Filter** selector in the **Filter** section gives you access to a set of different filters. Using the arrows or clicking the type currently displayed, you can choose from different filter type settings: **Off**, **LP2** , **BP2** , **HP2** , and **EQ** . Each type results in different parameters to the right of it:

| Filter modes | Description |
|---|---|
| **Off** | No filter. |
| **LP2** | LP2 is a low-pass filter with **Cutoff** and **Resonance** parameters. **Cutoff** can be modulated by Velocity, the Modulation Envelope, the LFO, or the MIDI Modulation Wheel. |
| **BP2** | BP2 is a band-pass filter with a **Cutoff** parameter. **Cutoff** can be modulated by Velocity, the Modulation Envelope, the LFO, or the MIDI Modulation Wheel. |
| **HP2** | HP2 is a high-pass filter with **Cutoff** and **Resonance** parameters. **Cutoff** can be modulated by Velocity, the Modulation Envelope, the LFO, or the MIDI Modulation Wheel. |

| Filter modes | Description |
|---|---|
| **EQ** | The EQ is an equalizer with **Frequency**, **Bandwidth** , and **Gain** parameters. |

## Page 4: Modulation Envelope




*Sampler parameters – page 4 of 6:* ***Modulation Envelope*** *and* ***Destination*** *in the software.*

### Modulation Envelope

The **Modulation Envelope** section offers an additional envelope allowing further modification (or "modulation") of specific Sampler parameters according to the way you play on the pads. Its parameters are matched to those of the **Amplitude Envelope** section on page 2 (refer to Page 2: Pitch / Envelope), so that you have either an ADSR (Attack, Decay, Sustain, Release) envelope or an AHD (Attack, Hold, Decay) envelope to modulate your parameters. If you choose One-shot mode, only the AHD envelope (pictured) will be available for modulation.

| Envelope controls | Description |
|---|---|
| **Attack** | The time it takes for the envelope to reach its maximum level. |
| **Hold** | How long the envelope will stay at its maximum level. |
| **Decay** | With **Decay** you adjust how fast the envelope drops to the sustain level in ADSR mode; in AHD mode it is used to adjust how fast the envelope fades out. |
| **Sustain** | Maintains the level as long as the note is played. |
| **Release** | The time for the sustain level to return to zero after the note has ended. |

### Destination

This is where you define modulation targets for the modulation envelope, i.e. the parameters you want this envelope to control. The knobs adjust the amount of modulation for the following targets:

| Parameter | Modulation destination |
|---|---|
| **Pitch** | **Tune** parameter of the **Pitch / Gate** section on the **Pitch / Envelope** page (page 2). |
| **Cutoff** | **Cutoff** parameter of the **Filter** section (with filter types **LP2**, **HP2**, **BP2** only) on the **FX / Filter** page (page 3). |
| **Drive** | **Drive** parameter of the **FX** section on the **FX / Filter** page (page 3). |
| **Pan** | **Pan** parameter on the **Audio** page of the Sound's Output properties. For more information, refer to Configuring the main output of Sounds and Groups for more information. |

## Page 5: LFO




*Sampler parameters, page 5 of 6:* ***LFO*** *and* ***Destination*** *in the software.*

### LFO

The LFO (Low-Frequency Oscillator) is another modulation source based on waveforms with different shapes.

| LFO controls | Description |
|---|---|
| **Type** | Here you can choose the shape of the LFO waveform. Available shapes are **Sine**, **Tri** (Triangle), **Rect** (Rectangle), **Saw**,and **Random**. |
| **Speed** | Controls the rate of the LFO measured in hertz (Hz). If you choose to synchronize the **Speed** by activating **Sync**, it will show note values instead of hertz. |
| **Phase** | Defines the initial phase of the LFO waveform, from **-0.50** to **0.50**. |
| **Sync** | The **Sync** selector is used to synchronize the LFO with the tempo of your Project. If **Free** is selected, the LFO rate is independent of the Project tempo. If **Retrig** or **Lock** is activated, the values of the **Speed** parameter will change into note values ranging from 16/1 (= one modulation cycle in 16 bars) to 1/32 (one cycle in 1/32nd note) and be synced with the Project tempo. While **Retrig** restarts the LFO at each new note (each note has another LFO phase), **Lock** keeps the LFO phase synchronized to the song position for all notes. |

### Destination

This is where you define modulation targets for the LFO, i.e. the parameters you want this LFO to control. The knobs adjust the amount of modulation for the following targets:

| Parameter | Modulation destination |
|---|---|
| **Pitch** | **Tune** parameter of the **Pitch / Gate** section on the **Pitch / Envelope** page (page 2). |
| **Cutoff** | **Cutoff** parameter of the **Filter** section (with filter types **LP2**, **HP2**, **BP2** only) on the **FX / Filter** page (page 3). |
| **Drive** | **Drive** parameter of the **FX** section on the **FX / Filter** page (page 3). |
| **Pan** | **Pan** parameter on the **Audio** page of the Sound's Output properties (see Configuring the main output of Sounds and Groups for more information). |

## Page 6: Velocity / Modwheel




*Sampler parameters – page 6 of 6:* ***Velocity Destination*** *and* ***Modwheel Destination*** *in the software.*

### Velocity Destination

This section allows you to use the input velocity in order to modulate various parameters.

| Parameter | Modulation destination |
|---|---|
| **Start** | **Start** parameter of the **Pitch / Gate** section on the **Pitch / Envelope** page (page 2). Positive values shift the Sample start position later in time as you play harder, negative values shift it closer to the beginning of the Sample as you play harder.<br><br>Tip: a typical example for this parameter is setting it so that the initial attack transient of a snare drum is heard only at high velocity values. This makes it sound "snappier" when you play hard, and "muffled" or muted when you play softly. |
| **Decay** | **Decay** parameter of the **Amplitude Envelope** section on the **Pitch / Envelope** page (page 2). |
| **Cutoff** | **Cutoff** parameter of the **Filter** section (with filter types **LP2**, **HP2**, **BP2** only) on the **FX / Filter** page (page 3). |
| **Volume** | This allows you to modulate the volume, which is what velocity normally is used for. |

### Modwheel Destination

Here you can determine how incoming MIDI data sent by the Modulation Wheel affects various parameters.

| Parameter | Modulation destination |
|---|---|
| **Start** | **Start** parameter of the **Pitch / Gate** section on the **Pitch / Envelope** page (page 2). |
| **Cutoff** | **Cutoff** parameter of the **Filter** section (with filter types **LP2**, **HP2**, **BP2** only) on the **FX / Filter** page (page 3). |
| **LFO Depth** | Use this knob to adjust how much the Modulation Wheel affects the depth of the LFO modulation (for all targets) defined on the **LFO** page (page 5). |
| **Pan** | **Pan** parameter on the **Audio** page of the Sound's Output properties (see Configuring the main output of Sounds and Groups for more information). |

# Using Native Instruments and External Plug-ins

Maschine allows you to load VST/AU plug-ins from Native Instruments (we call them "Native Instruments Plug-ins") or from any third-party manufacturer (we call them "External Plug-ins"), and to use them like the Internal Plug-ins of Maschine.

As with Internal Plug-ins, the following rules apply for loading Native Instruments and External Plug-ins:

- An Instrument Plug-in can be loaded only in the first Plug-in slot of a Sound.
- An Effect Plug-in can be loaded in any Plug-in slot of any Sound, any Group, or of the Master.

The following sections describe additional features and tasks specific to Native Instruments and/or External Plug-ins compared to Internal Plug-ins. For all other tasks (for example, loading Plug-ins, adjusting Plug-in parameters, etc.), refer to Plug-in overview.

## Opening/closing Plug-in windows

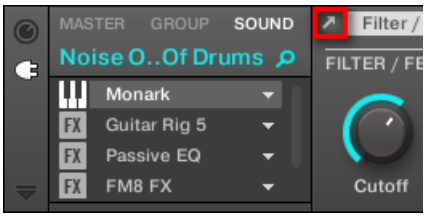
When you load a Native Instruments or External Plug-in into a Plug-in slot, you can open a floating window containing the original user interface of the instrument or effect.

> Plug-ins of Native Instruments platform products (Reaktor, Kontakt, Guitar Rig) are automatically opened in floating windows when loaded from the Plug-in menu. All other Native Instruments Plug-ins as well as all External Plug-ins are not opened in floating windows by default, however they will remember their last state: If such a Plug-in has previously been opened in its floating window, when you load a new instance of the same Plug-in it will also open in a floating window.




*Maschine showing the user interfaces of a few Native Instruments Plug-ins (MONARK, PASSIVE EQ, Guitar Rig, and FM8).*

When a Native Instruments or External Plug-in has been loaded into a Plug-in slot, a little diagonal arrow appears left of the Parameter pages' tabs, at the top of the Control area:




*The little diagonal arrow next to the Parameter pages' tabs.*

▶ To open or close the floating window of a Native Instruments or External Plug-in, click the Plug-in name in the Plug-in List and click the little diagonal arrow at the left of the Parameter pages' tabs (at the top of the Control area). You can also double-click the Plug-in name in the list.



You can also close any floating window via the common button provided by your operating system at the top left or right corner of the window.

Maschine will always show the open floating windows of the focused Sound, Group or Master when selected. When you set the focus to another Sound, another Group or the Master, all open floating windows disappear, possibly replaced by those for Native Instruments and External Plug-ins loaded in the newly focused Sound/Group/Master.



For more information on selecting Plug-in slots, refer to Navigating Channel properties, Plug-ins, and Parameter pages.

## Native Instruments Plug-ins: Default, Additional, and Edit views

Native Instruments Plug-ins provide the following extra features in the floating window:

- **Plug-in Header**: This is the same as in the Plug-in's panel in the Plug-in Strip (software in Mix view), with an additional Edit button described below. For more information, refer to Custom panels for Native Instruments Plug-ins.
- **Default view** and **Additional view**: Each Native Instruments Plug-in can provide one or two custom views including reduced sets of controls. The Default view is available for every Native Instruments Plug-in, while the Additional view is available for specific Native Instruments Plug-ins only. If a Native Instruments Plug-in provides an Additional view, you can switch between the Default and Additional views by clicking the "**+**" button in the Plug-in Header: These views are also available in the Plug-in's panel in the Plug-in Strip (Mix view in the software). For more information, refer to Custom panels for Native Instruments Plug-ins.
- **Edit view**: The Edit view shows the full user interface of the original Native Instruments product. You can show/hide the Edit view by clicking the Edit button (showing a pencil icon) in the Plug-in Header:

## Using the VST/AU Plug-in parameters

The parameters of Native Instruments and External Plug-ins offer various ways to shape each instrument/effect individually. Of course, you can adjust these parameters using the Plug-in's own user interface (refer to Opening/closing Plug-in windows above). But Maschine also provides quick and convenient access to the parameters of any Native Instruments or External Plug-in: upon loading these parameters are **auto-mapped** and organized into Parameter pages that will appear both in the software's Control area and on your controller in Control mode, exactly like Internal Plug-ins.

Having the Plug-in parameters on Parameter pages in Maschine has the following benefits:

- You can step through the Parameter pages and tweak each parameter on your controller via the usual workflow directly after loading the Native Instruments or External Plug-in. For more information, refer to Navigating Channel properties, Plug-ins, and Parameter pages).
- The Plug-in parameters can be modulated the same way as any other parameters. For more information, refer to Recording and editing modulation).
- The current state of the Plug-in parameters can be saved to the Browser as a Plug-in preset for total recall of the Plug-in. For more information, refer to Saving and recalling Plug-in presets).




*An auto-mapped Parameter page of the Massive Plug-in in the software.*

## Setting up your own Parameter pages

As with any Plug-in, the parameters of a Native Instruments or External Plug-in are organized into pages. Each Plug-in can have any number of pages, each containing 8 knobs, which can be assigned to the parameters of the VST/AU instrument or effect.

Parameter pages may be assigned automatically using **auto-mapping** (refer to Using the VST/AU Plug-in parameters) or created individually via **Learn mode**. With Learn mode, you can create custom pages containing only the desired parameters arranged to fit your personal workflow. Moreover, you can create sections of parameters within each custom Parameter page, and define custom labels for parameters, sections, and entire Parameter pages.

Note that parameters of Native Instruments and External Plug-ins are systematically assigned to knobs (not to switches nor selectors) in Maschine, and this is also true in the Maschine software.

A parameter of a Native Instruments or External Plug-in can be assigned to one knob only.

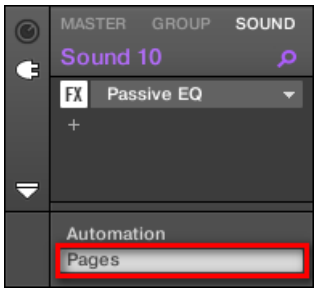
To begin assigning parameters, do the following:

1. Select the Plug-in for which you want to customize parameter assignments.

2. Click the down-pointing arrow in the bottom left corner of the Control area to reveal the **Assignment area** underneath:



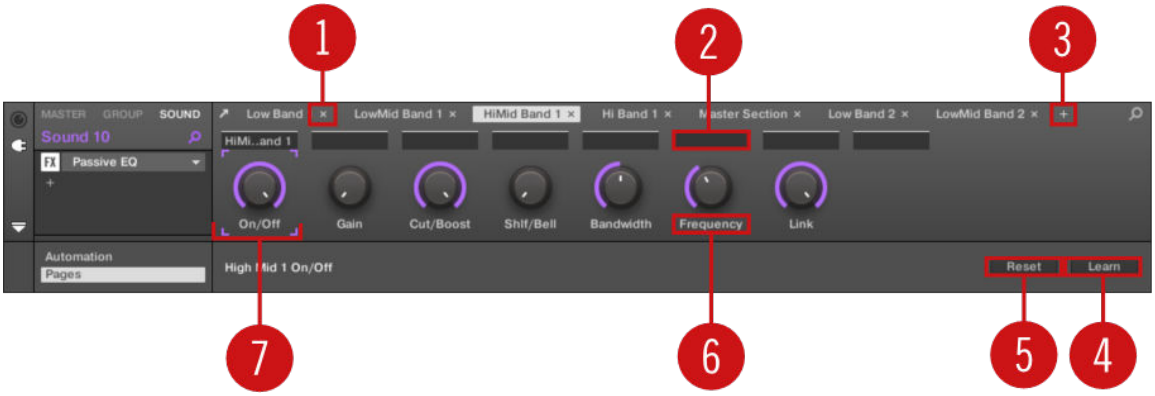

3. Click the **Pages** tab in the left part of the Assignment area:




→ The **Pages** tab lights up and the **Pages** pane appears on its right. You are now ready to assign parameters to the Parameter pages.

> ⓘ The **Pages** tab can be clicked only for Native Instruments or External Plug-ins, and for the Macro properties. For all other Plug-ins and Channel properties, parameters and Parameter pages are not editable, and the **Pages** tab is grayed out and inactive. For more information on Macro Properties, refer to Creating custom sets of parameters with the Macro Controls.

When the **Pages** pane of the Assignment area is open, you also notice a few changes in the Control area above:




*The Control area with the Pages pane active in the Assignment area underneath.*

(**1**) **Delete Page button ("x" symbol)**: Click the little "**x**" after a page name to delete this Parameter page.

(**2**) **Section Label fields**: These fields allow you to define sections of parameters within the displayed page. Double-click the field above the first parameter you want to include in the section, type the desired name for the section, and press [Enter] to confirm. The new section will include all following parameters until the next section starts (this can be seen only after you have closed the Assignment area). Moreover, the Parameter page's name will mirror the label(s) of its section(s). If there is more than one section, the page name will mirror all of them separated by slashes.

(**3**) **Add Page button ("+" symbol)**: Click the little "**+**" after the last page label to append a new page. By default, pages are labeled "Page 1," "Page 2," etc. You can change page labels by defining sections within your pages via the Section Label fields (**2**).

(**4**) **Focus frame**: Indicates the knob being assigned. Click any knob to edit its assignment.

(**5**) **Parameter Label fields**: Double-click these fields to enter custom labels for your parameters (press [Enter] to confirm). These labels will be mirrored everywhere in Maschine for the corresponding parameters.

(**6**) **Reset button**: Click **Reset** to remove the assignment for the selected knob.

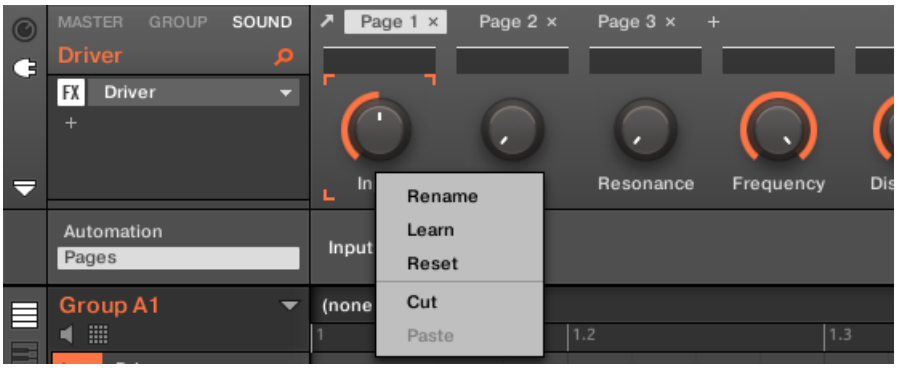
(**7**) **Learn button**: Click **Learn** to enter Learn mode. Learn mode is an intuitive learn process that allows you to quickly assign the desired Plug-in parameters to all eight knobs of the current Parameter page at once. When Learn mode is launched, each knob of the page is successively focused starting with the knob selected for editing, indicated by the Focus frame (**4**). The next parameter you touch in the plug-in's user interface (refer to Opening/closing Plug-in windows) will be assigned to the focused knob. Once a knob is assigned, the next knob to the right will become the focal point, and so on until the last knob is assigned. Once complete, Learn mode is automatically deactivated. Alternatively, at any time you can click **Learn** again if you want to stop assigning parameters. When Learn mode is active, you can manually change the focus of the knobs by clicking the desired knob in the Parameter area.



Once you have organized the Plug-in parameters into Parameter pages, you can also use Maschine's Macro Controls to pick the most commonly used parameters, e.g., for live performances. For more information, refer to Creating custom sets of parameters with the Macro Controls.

## Parameter slots: context menu

When the Assignment area is opened and the **Pages** tab is selected, a right-click on an assigned or unassigned Parameter slot's label brings up a context menu.




*The parameter slots' context menu.*

The context menu contains following items:

| Menu Item | Description | Keyboard Shortcuts |
|---|---|---|
| **Rename** | Rename the Parameter. | Ctrl + R / Cmd + R |
| **Learn** | Activates the Learn Mode. | |
| **Reset** | Reset the Parameter. | |
| **Cut** | Cut the Parameter to paste it in another position. | Ctrl + X / Cmd + X |
| **Copy** | Copy the Parameter. | Ctrl + C / Cmd + C |
| **Paste** | Paste a cut or copied Macro to a new position. Paste is only available if an applicable Parameter is in the clipboard: Paste is only available on the same Plug-in, this Plug-in can be placed somewhere else. | Ctrl + V / Cmd + V |

### Page names: context menu

When the Assignment Area is opened and the **Pages** tab is selected, a right-click on a Page name at the top of the Parameter area opens a context menu.




*The Parameter pages' context menu.*

The context menu contains the following items:

| Menu Item | Description | Keyboard Shortcuts |
|---|---|---|
| **Delete** | Deletes current Page with all assignments. | |
| **Clear All** | Clears all the assignments, and deletes all of the Pages. | |

## Using VST/AU Plug-in presets

For some of your Native Instruments or third-party VST/AU plug-ins, you might already have a set of factory or user presets (or patches, programs, etc.) that you like to use. Maschine lets you directly load these presets and save them as Plug-in presets within Maschine. Saving your VST/AU presets as Plug-in presets within Maschine will notably allow you to access them from the Maschine Browser, in the software as well as from your controller.

Saving presets can be done in the Maschine software only.

## Accessing factory presets of Native Instruments' instruments/effects

Accessing factory presets of your Native Instruments instruments and effects is straightforward: factory presets of all Native Instruments instruments/effects installed on your computer are already integrated into the Maschine Library. You will find them in the Browser by selecting the corresponding file type (Instruments or Effects), then selecting the factory content, and using the other Browser features. For more information, refer to Searching and loading files from the Library.

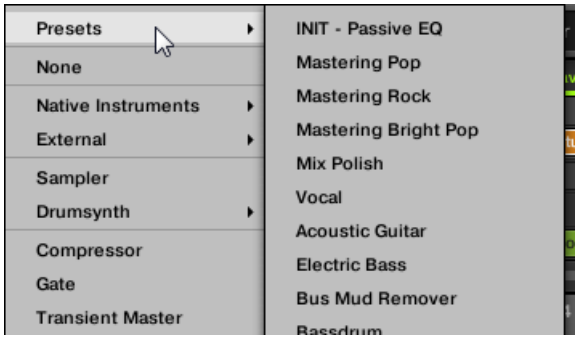


You can also add to the Maschine Library the user presets you might have created for any Native Instruments product installed on your computer. To do this, simply add the corresponding path(s) to the list found on the **User** pane of the **Library** page in the **Preferences** panel. For more information, refer to Preferences – Library page.

## Accessing other VST/AU presets

To access user presets of your Native Instruments instruments/effects as well as both factory and user presets of your third-party VST/AU plug-ins, you first need to load the corresponding Native Instruments or External Plug-in into a Plug-in slot.

1. Load the desired Native Instruments or External Plug-in into a Plug-in slot (refer to Loading, removing, and replacing a Plug-in).
2. Open the Plug-in menu by clicking the little arrow at the right of the Plug-in slot.The Plug-in menu now contains an additional **Presets** submenu:




   This submenu provides the list of all presets that your VST/AU plug-in has made available to the host (Maschine in this case).
3. Select the desired preset from the **Presets** submenu.

→ The preset is loaded into the Plug-in.

Each VST/AU instrument or effect might handle its presets (or patches, programs…) differently. Please refer to the plug-in documentation to find out how to reveal its presets (or a particular set of presets) to the host.



For example, in Massive, ABSYNTH 5, and FM8, you need to enable the **Program List** and fill it up with the desired patches in order to expose these and see them appear in the **Presets** submenu of the Plug-in menus in Maschine.

Some VST/AU plug-ins can run as both instrument and effect plug-ins. When loading a preset for such a plug-in, check that the preset can be effectively loaded in the current Plug-in slot, in particular, take care to load presets for instruments in the first Plug-in slot of Sounds only. To avoid any mistake, one solution is to name your VST/AU presets explicitly (for example, by adding a suffix "[FX]" to the effect presets).

Maschine allows you also to change the preset loaded in your Native Instruments or third-party VST/AU plug-in via MIDI Program Change messages. For more information, refer to Controlling parameters via MIDI and host automation.

### Saving VST/AU presets as Maschine Plug-in presets

When you have loaded a VST/AU preset (user preset of a Native Instruments instrument/effect or any preset of a third-party VST/AU instrument or effect) using the method described above, you can save it as a Plug-in preset in Maschine via the **Save As…** or **Save As Default…** commands of the Plug-in menu (refer to Saving and recalling Plug-in presets). Once this is done, your preset will be available as a user preset in the Instrument or Effect category of the Maschine Browser.

## Multiple-output Plug-ins and multitimbral Plug-ins

Maschine allows extended use of multiple-output Plug-ins as well as multitimbral Plug-ins.

### Multiple-output Plug-ins

Multiple-output Plug-ins are Plug-ins with more than one audio stereo output.

When a multiple-output Plug-in is loaded into a Sound, Maschine uses its available outputs as follows:

- The Plug-in's first output pair is inserted in the usual Plug-in signal chain: This output pair is fed into the input of the next Plug-in slot (or sent to the channel output if the Plug-in is in the last Plug-in slot).
- The Plug-in's additional outputs are made available as audio sources for other Sounds of the same Group (they appear in the **Source** menu in the **Audio** page of the Input properties for these Sounds). This can be used to build advanced routings in Maschine. For more information, refer to Sending external audio to Sounds.

### Multitimbral Plug-ins

Multitimbral Plug-ins are Plug-ins that can receive MIDI on top of the host control.

When a multitimbral Plug-in is loaded into a Sound, the other Sounds of the same Group can send MIDI data to this Plug-in: The Plug-in will appear as an additional port in the **Dest.** the menu on the **MIDI** page of the Output properties for these Sounds. For more information on configuring MIDI output for Sounds. For more information, refer to Sending MIDI from Sounds.

# Using the Audio Plug-in

The Audio Plug-in can playback Samples (drums, percussion, bass lines, guitar riffs, etc.) in sync with the tempo of your Project. It has two modes: **Loop** mode and **Gate** mode.

- **Loop** mode is the default setting where the loaded loop will play continuously whenever there is an active Pattern in the Group. You can see the waveform of the Sample in the Pattern Editor to understand how it aligns with the Pattern.
- **Gate** mode is similar to the Loop mode where the loaded loop will play continuously, however the loop will only be audible in locations where you place notes in the Pattern. Furthermore, when using **Stretch** mode the pitch of the loop will be transposed based on the pitch of the note (for example, note C3 plays the Sample at its original pitch, while C4 plays the Sample one octave higher than normal).

The Audio plug-in specializes in keeping audio loops playing in-sync with your Project and has the optional ability to do so without influencing the key of the loop. Furthermore, you can transpose the loop while it plays so that it fits the key of your song.

You can quickly audition your Samples from within the Browser and then drag and drop them directly onto a Sound. If you drag a Sample containing the **Loops** tag onto an empty Sound, the Audio Plug-in will load automatically.

Once a loop has been loaded, it will appear as a waveform of the Sample in the Pattern Editor, allowing you to edit the Sample by adjusting the Pattern Length, the overall tuning, the source tempo and length of the Sample, or add MIDI events to regions of the loop for selective playback and pitching. For more fine adjustments you can edit events in a close-up view by toggling the close-up view in the Pattern editor.



For more information on recording your own loops, refer to the chapter: Sampling and sample mapping.

## Loading the Audio Plug-in

The Audio Plug-in can be loaded onto any Sound within a Group. As a Maschine Plug-in, it supports all usual Plug-in workflows. Hence, to know how to load, remove, replace, insert, move, copy/paste the Audio Plug-in, as well as how to access the Audio Plug-in parameters and load/save default presets, refer to Plug-in overview.

Once an Audio Plug-in is loaded, it becomes visible in both the Maschine software and on the controller.




*The Audio Plug-in parameters in the software.*

Here is an overview of the Audio Plug-in parameters:

| Element | Description |
|---|---|
| **Playback section** | |

| Element | Description |
|---|---|
| **Mode** | Selects the mode of playback: **Loop** or **Gate**.<br><br>**Loop**: The default mode for playback, in this mode the Sample is heard with the Pattern (as with any regular MIDI event) without the need to trigger it. In this mode, Playback and Source parameters can be manipulated such as **Tune**, **Pitchbend**, **Tempo**, and **Length**.<br><br>**Gate**: When Gate mode is selected the Sample is only heard when triggered by a MIDI note event. The Sample is heard for the duration of the MIDI note event, and the note can also be used to pitch the Sample for melodic effect. |
| **Fade** (**Gate** mode only) | Sets a small fade-in/fade-out amount to avoid pops or clicks that may occur when using the **Gate** mode. To increase the fade of Gate mode, turn the **Fade** knob clockwise by clicking and dragging upwards. To decrease the fade, turn the **Fade** knob counter-clockwise by clicking and dragging downwards. Press the [SHIFT] key on your computer keyboard while turning the knob to increase or decrease the fade in finer increments. |
| **Tune** | Transposes the tune (range: -36 – +36 semitones) of the Audio Plug-in. You can use this knob to set the playback pitch of the loop to 'C', and then the loop's pitch will match the pitch of Notes programmed into the Pattern.<br><br>To increase the tuning of the Sample in semitones, turn the **Tune** knob clockwise by clicking and dragging upwards. To decrease the tuning of the Sample in semitones, turn the **Tune** knob counter-clockwise by clicking and dragging downwards. Press the [SHIFT] key on your computer keyboard while turning the knob to increase or decrease the tuning in cents. |
| **Pitchbend** | Sets the Pitchbend range (-12 – +12) for the Audio Plug-in which is relative to the Tune. This parameter controls the effect of the Pitch Wheel/Slider on your MIDI controller.<br><br>To increase the range of the Pitchbend, turn the **Pitchbend** knob clockwise by clicking and dragging upwards. To decrease the range of the Pitchbend, turn the **Pitchbend** knob counter-clockwise by clicking and dragging downwards. Press the [SHIFT] key on your computer keyboard while turning the knob to increase or decrease the Pitchbend range in cents. |
| **Engine section** | |
| **Re-pitch** | This playback engine simply matches the tempo of the Loop to the Project's tempo by changing the playback rate of the Loop, and playback rate changes will result in pitch changes to the loop. Like a vinyl record, playing it faster will also cause the pitch of the loop to rise, whereas slowing it down causes the overall pitch to drop. This mode is therefore more suitable for non-pitched material, like drums and percussion, and has the benefit that the transients of sounds remain sharp and also uses significantly less CPU than the other Engine modes. Since tempo and pitch are not independently adjustable with this Engine, any pitch automation you may have done via Events entered in Gate mode will be ignored, only the rhythm of the Events will be used to gate the Loop on and off. |

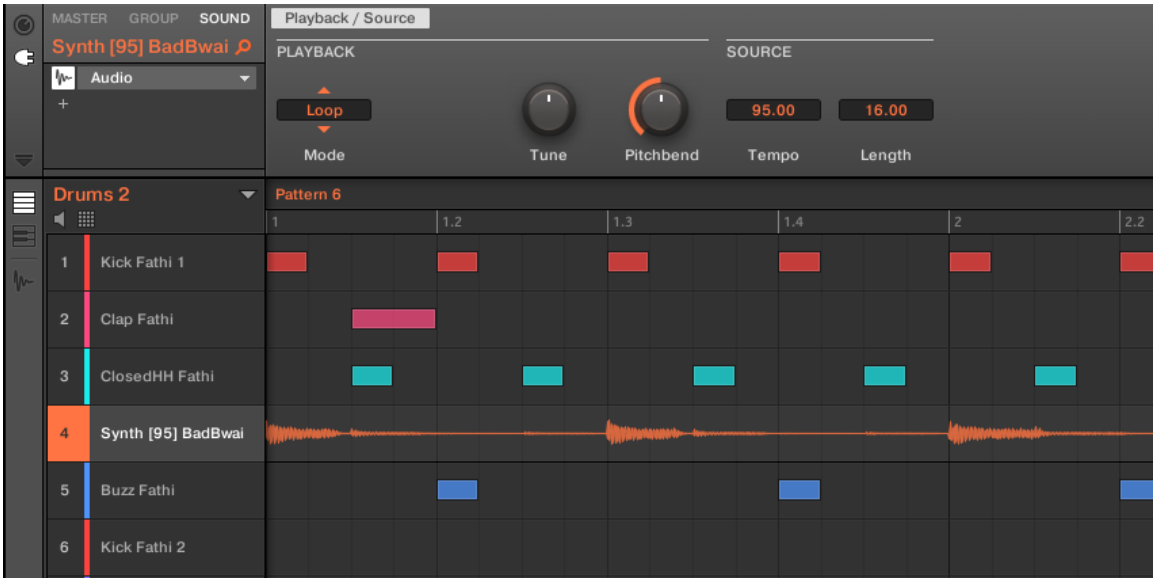
| Element | Description |
|---|---|
| **Stretch** | This playback engine provides complete independence between tempo and pitch. With this engine, you can change the tempo of a loop without changing its pitch, you can change its pitch without changing its tempo, or you can change both the tempo and pitch simultaneously. This mode even allows you to automate pitch changes by entering Events into the Pattern Editor while using Gate mode. As this mode provides complete tempo and pitch independence, and also works on polyphonic material, it requires more CPU power than other Engines. |
| **Formant** | This playback engine is best suited to pitched (tonal) audio as it preserves the formant of the sound. By preserving the formant, it retains the intrinsic character and avoids any shifts in pitch that would normally result in undesirable cartoonlike effects on vocals when they are pitched upwards or downwards. |
| **Source section** | |
| **Tempo** | Sets the original tempo of your Sample so that the Audio Plug-in can accurately play it in sync, no matter what tempo you choose for your Project. This is useful if Maschine has miscalculated the tempo while importing the Sample. However, be aware that changing **Tempo** during playback could affect the synchronization of your Sample.<br><br>To increase **Tempo** click and drag upwards. To decrease the **Tempo**, click and drag downwards. Press the [SHIFT] button on your computer keyboard while dragging to set finer increments. |
| **Length** | Sets the original length of your Sample so that the Audio Plug-in can accurately play it in sync, no matter what tempo you choose for your Project. This is useful if Maschine has miscalculated the length while importing the Sample. However, be aware that changing **Length** during playback could affect the synchronization of your Sample.<br><br>To increase **Length** click and drag upwards. To decrease the **Length**, click and drag downwards. Press the [SHIFT] key on your computer keyboard while dragging to set finer increments. |

The **Source Tempo** and **Source Length** values always reflect the take currently selected in the Audio Pool.

## Loading a loop into the Audio Plug-in

You can use the Sampler Plug-in to record sound directly from a microphone or from an electric instrument (such as an electric guitar) connected to your computer to create your own loops. Alternatively, you can quickly audition loops within the Maschine Library by using the **Loops** tag in the Browser to find one you want. To learn how to filter for loops using the Browser, refer to the section Selecting Type and Character tags.

It is possible to load a Sample tagged as **Loops** directly from the Browser by dragging and dropping it onto an empty Sound, which will load the Sample into an Audio Plug-in and place it directly within the Pattern. As the Sample is loaded into the Pattern, a waveform of the Sample will become visible and Maschine will seamlessly determine tempo information from the Sample and automatically time-stretch it to fit the tempo of your Project. You can begin playback immediately after it has loaded.




*Pattern Editor with the Audio Plug-in in Loop mode loaded on Sound 4.*

By default the Audio Plug-in will playback in Loop mode, meaning that the Sample will be repeated for the duration of the Pattern regardless of the length of the Sample. If you want to chop the loop and pitch it, switch to Gate mode. For more information on Loop and Gate modes, refer to Using Loop mode and Using Gate mode, respectively.

## Editing audio in the Audio Plug-in

The Audio Plug-in contains an **Edit** tab which, when clicked, opens the audio plug-in editing features. Here you can change the Playable Range Start and End markers to isolate only a portion of the loaded audio file that you wish to loop, and also perform destructive audio edits to the loaded loop.

To access the Audio Plug-in Editor in the software, do the following:

1. In the Sound List left of the Pattern Editor, click the desired Sound slot to put it under focus. For more details on how to set the focus to a Sound, please see section Focusing on a Group or a Sound.
2. Click the Sample Editor button on the left of the Pattern Editor to switch to the Sample Editor.

   The Sample Editor appears and displays the Sample content of the focused Sound.
3. In the Sample Editor, click the desired tab at the top to access the corresponding page:

- The **Record** page allows you to record audio: Recording audio.
- The **Edit** page allows you to apply destructive edits to existing audio: Editing a Sample.

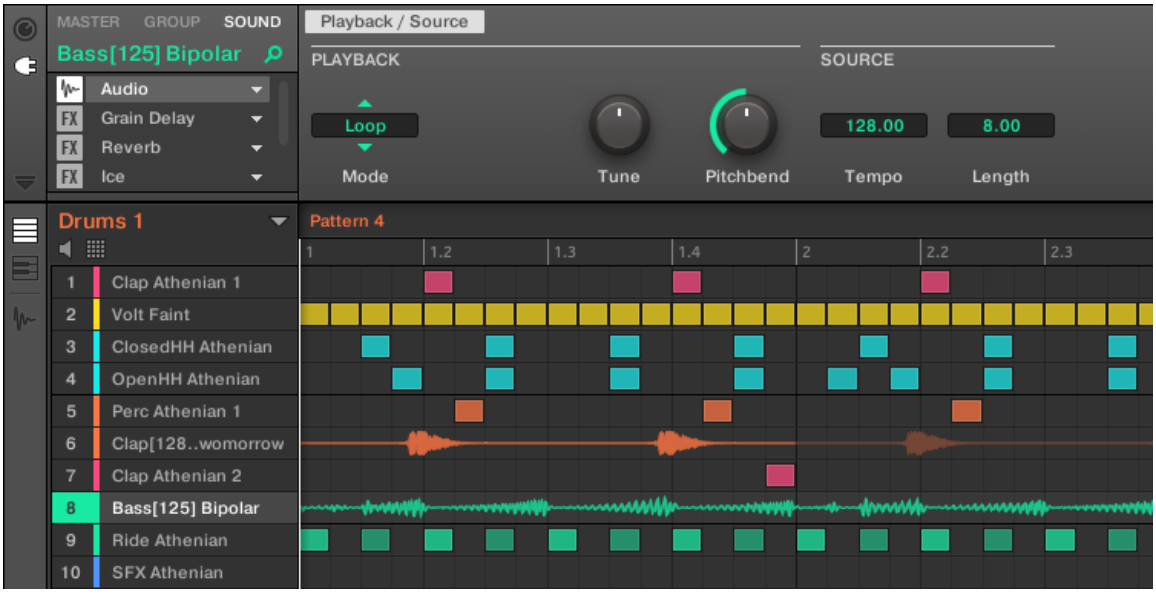
The destructive audio editing features here are the same as those found in the Sample Editor for the Sampler Plug-in. For more information on using the destructive audio editing features, refer to Editing a Sample.

## Using Loop mode

Loop mode is the default mode for the Audio Plug-in and is used to playback an audio file in time with your Project. When loaded into a Sound, the audio appears as a waveform in the Pattern Editor and is repeated for the entirety of the Pattern. A detailed overview of the waveform is displayed in Keyboard view.

If the Pattern Length is decreased to a length shorter than the audio, Pattern playback will end up looping back to the start before the entire audio has played, the Pattern Length must be at least as long as the audio in order to hear the entire audio playing in the Pattern. If the Pattern Length is increased to a length longer than the audio, the audio will be automatically looped as needed to fill the entire length of the Pattern, and these iterations will be visualized with darker versions of the waveform. For more information on changing the Pattern Length, refer to the section Adjusting the Arrange Grid and the Pattern Length.

The process of using Loop mode is as follows: load an audio file onto a Sound, and select Loop mode from the parameters of the Audio Plug-in.




*The Audio Plug-in with a bass recording in Loop mode.*

### Enabling and disabling audio per Pattern

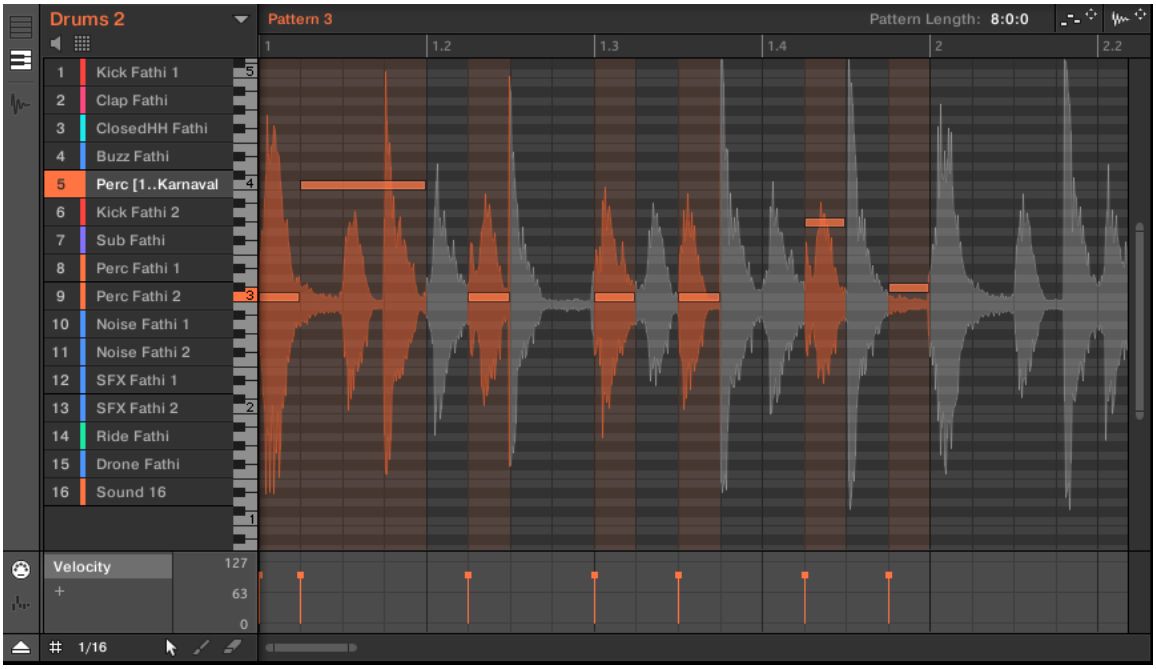
When using Loop mode with the Audio Plug-in, it is possible to enable and disable audio in the current Pattern in the Pattern Editor. By default, when audio is recorded using the Audio plug-in, or if it is tagged as a **Loops** and loaded directly from the Browser, it will be activated in the Pattern and play back when you press Play.

▶ To disable audio and temporarily remove it from the Pattern, simply double-click its waveform. By clicking the same area again the audio can be reactivated for the Pattern.

## Using Gate mode

Gate mode is used to chop and pitch selected parts of your Sample by applying MIDI note events in the Keyboard view of the Pattern Editor or by recording them using your controller. Each event is a gate for the Sample; the length determines the duration of playback, and placement on the scale determines the pitch. By chopping and pitching the loop you can create melodies or even use it for effect on drums.

In Keyboard view, MIDI note events are visually layered on top of the Samples' waveform and can be edited or deleted at any time, and more importantly, the Sample can be changed at any time while retaining the MIDI note events in the Pattern, meaning you can keep the phrasing and melody but use a different Sample for the playback.




*Gate mode in the Pattern Editor with a Sample and MIDI events.*

The process of using Gate mode is as follows: load a loop onto a Sound, select Gate mode from the parameters of the Audio Plug-in, and then add MIDI events in the Pattern in the regions where you want to chop and pitch your Sample, or press play on your controller and use the pads to pitch the Sample. For more information on recording and editing events, refer to chapter Working with Patterns and Clips.



To zoom into a Pattern, double-click on the vertical scroll bar to the right of the Pattern Editor.

# Drum Synths

Drum Synths are a powerful set of monophonic Internal Instrument Plug-ins (i.e. Instrument Plug-ins included with Maschine) that allow you to generate individual, fine-tuned drum sounds for your music productions. Like any other Instrument Plug-in, you can load them only in the first Plug-in slot of Sounds.

Drum Synths have been designed for extreme playability, both from the high-quality pads of the Maschine controller and from any velocity-sensitive MIDI keyboard. They allow you to quickly build custom drum sounds and give you full control over the characteristics of the various drums. Don't hesitate to tweak them during your live performance or modulate/automate them like any other Plug-in!



See section Recording and editing modulation for more information on modulation.

In this chapter you will find:

- An overview of the Drum Synths and a presentation of their **common features**: Using Drum Synths.
- A detailed description of each particular Drum Synth:
  - The Kick Plug-in: The kicks.
  - The Snare Plug-in: The Snares.
  - The Hi-hat Plug-in: The Hi-hats.
  - The Tom Plug-in: The Toms.
  - The Percussion Plug-in: The Percussions.
  - The Cymbal Plug-in: The Cymbals.



We describe here the specific handling and parameters of the Drum Synths. For a an overview of Plug-ins (including the Drum Synths), refer to Plug-in overview.

## Using Drum Synths

Drum Synths are Maschine Plug-ins and, as such, they support all usual Plug-in actions and procedures. To learn how to load, remove, replace, insert, move, copy/paste Drum Synths, as well as how to adjust the Drum Synth parameters and load/save presets, refer to section Plug-in overview, where these are described in detail.

### Engines: many different drums in each Drum Synth

Each of the available Drum Synths (Kick, Snare, Hi-hat, Tom, and Percussion) actually provides many different drums: Indeed, each Drum Synth allows you to select a particular **engine** for generating the drum sound. In the same Drum Synth each engine will have its own algorithm, parameters, and sonic characteristics — it is in fact an entirely distinct drum. For example, the Kick provides eight different engines! Some engines will create acoustic drums while others will rather produce electronic sounds.

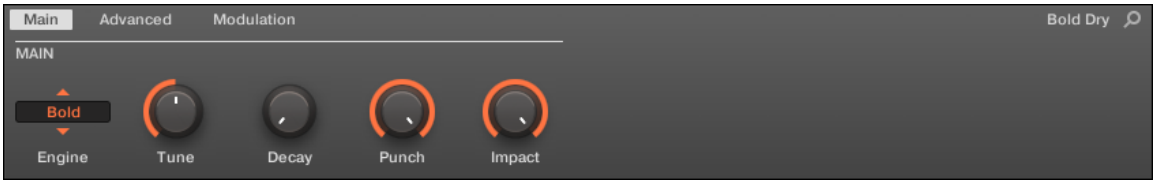
In each Drum Synth the first parameter (**Engine**) lets you select the engine you want to use. Most of the other parameters will depend on the selected engine.

### Common parameter organization

All Drum Synths have a similar parameter organization, both in the Control area of the Arrange view and in the Plug-in Strip of the Mix view.

## Common Parameter pages in the Control area (Arrange view)

In Arrange view, the parameters of all Drum Synths are grouped in similar ways in the Control area:




*All Drum Synths share the same parameter organization in the Control area.*

- Their parameters are grouped into the same three Parameter pages:
  - The **Main page** groups the most important parameters for each drum type. Here you can select the engine to be used, the tuning, the decay, etc.
  - The **Advanced page** provides access to more complex and finer adjustments to the drum sounds.
  - The **Modulation page** allows to adjust the playability of the drum by setting its velocity response.
- The **Main** page always starts with a **MAIN section**. The other sections on the page differ with each Drum Synth and engine.

## Common layout in the Plug-in Strip (Mix view)

In Mix view, the Plug-in panels of all Drum Synths have a similar layout in the Plug-in Strip:




*All Drum Synths share the same global layout in the Plug-in Strip.*

- In the top part of the panel you can adjust the **Tune** parameter, select the desired engine, adjust the velocity response, and adjust the **Decay** parameter (or the **Filter** parameter for the Shaker engine of the Percussion).

- In the bottom part of the panel you find the other parameters adjusting the sound of the selected engine.

> For more information on the various Plug-in panels found in the Plug-in Strip, please refer to section The Plug-in Strip.

### Shared parameters

Within each Drum Synth, some parameters are **shared** between **several engines** (e.g., the **Tune** parameter). Shared parameters have the advantage of **keeping their position** when you switch to another engine in the Drum Synth. This allows you to compare the sound of various engines more easily.

> The ranges of some shared parameters are different across engines. For example this is the case of the **Tune** parameter: When switching to another engine, the tuning might not stay the same although the knob position is kept.

Determining which parameters are shared among engines is straightforward: If you find a parameter in more than one engine, it is shared between these engines.

> If you switch to another Drum Synth (e.g., if you replace the Kick sitting in a Plug-in slot with a Hi-hat) parameter positions will not be kept!

### Various velocity responses

Each engine of each Drum Synth has a different response to the velocity of the notes you are playing. Globally, engines can be grouped into two general categories:

- **Acoustic sounding** engines are heavily velocity-dependant: the velocity affects many characteristics of the generated sound, which allows you to play these drums very expressively.
- **Electronic sounding** engines are generally less velocity-dependent. Most of them only use velocity to modulate the output volume of the sound.

The overall velocity sensitivity for both acoustic and electronic types of engines can be adjusted on the **Modulation** page via the **Velocity** control.

### Pitch range, tuning, and MIDI notes

All Drum Synths can be played chromatically: the pitch of the sound will be affected by the notes that you play on your MIDI keyboard (or on your pads in Keyboard mode).

For all engines, the **Tune** parameter lets you define which pitch will be played when hitting the pad of that Sound (with pads in Pad Mode) or playing the middle C (MIDI note 60) base note.

> In the Maschine convention the MIDI note 60 is noted C3.

The engines have different pitch ranges:

- Most engines have **limited pitch ranges**: For example, in the Snare, the Chrome engine can play pitches from MIDI note 60 to 84, while the Iron engine can play pitches from MIDI note 46 to 70. If the pitch of an incoming MIDI note falls outside the pitch range of the engine, the pitch will be bounded to that engine's allowable pitch range.
- Some engines have an **unlimited pitch range**: For example the Kick's Sub engine, the Tom's Fractal and Tronic engines, and the Percussion's Fractal engine.

In some drum engines it is impossible to set an exact tuning in MIDI notes. For them the **Tune** parameter is set in percents (from 0 % to 100 %).

## The kicks

The Kick Drum Synth can generate a myriad of kick sounds.




*The Kick in the Control area (Main page depicted).*




*The Kick panel in the Plug-in Strip.*

As in every Drum Synth, the engine can be selected via the **Engine** selector on the **Main** page. Each engine has a different character and set of parameters, as detailed in the following sections.

The Kick provides the following engines:

- **Sub** (default): Kick – Sub.
- **Tronic**: Kick – Tronic.

- **Dusty**: Kick – Dusty.
- **Rasper**: Kick – Rasper.
- **Snappy**: Kick – Snappy.
- **Bold**: Kick – Bold.
- **Maple**: Kick – Maple.
- **Push**: Kick – Push.

For more information on engines, refer to Engines: many different drums in each Drum Synth. For general information on the Kick and the other Drum Synths, refer to Using Drum Synths.

## Kick – Sub

The Sub engine is the default engine of the Kick.

Based on the kick from a classic analog drum machine, the Sub kick is a clean, subby, sine-based kick drum that can be very effectively abused as sub-bass, tom, or even a bleepy lead if tuned up and played chromatically on the keyboard.

The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to The kicks. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 31.00 to 55.00. The default value is 43.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Bend** | Adjusts the amplitude of the pitch envelope applied throughout the sound duration (punch), measured as a percentage. Available values range from 0.0 to 100.0 % (default: 6,8 %). At zero, the sound stays at its original pitch during its entire decaying phase. As the **Bend** value is increased, an increasing amount of pitch envelope is applied. This means that the pitch of the drum starts at a higher value and falls to the original value as the sound decays. The greater the **Bend** value, the higher the starting pitch. |

| Element | Description |
|---|---|
| **Time** | Adjusts the decay time of the pitch envelope, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 30 %). Note that if the **Time** value is too long compared to the **Decay** value, you won't hear the entire pitch drop but only its beginning — i.e. you will hear a higher pitch than the one set by **Tune**. |
| **ATTACK Section** | |
| **Mode** | Selects the style of the attack: **Thin** selects a thin-sounding click, **Thick** selects a slightly rounder click with added noise, and **Noise** uses just a noise burst for a less clicky attack. |
| **Color** | Only available if **Thick** or **Noise** is selected in the **Mode** selector. Adjusts the color of the attack, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). At lower values the attack is duller. Increase the **Color** value to get a more incisive attack. |
| **Amount** | Adjusts the level of the attack. Available values range from 0.0 % (soft attack) to 100.0 % (maximum attack). The default value is 50.0 %. |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Kick – Tronic

Fat, punchy, and warm, the Tronic kick is based on another classic analog kick drum which has provided the backbone to countless dance and electronic records for the past 30 years. The Tronic kick takes this classic a step further with extended parameter ranges and chromatic playability, but also adds a specially designed distortion section capable of a wide range of textures, from subtly rounded to all-out gabber assault.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to The kicks. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 31.00 to 55.00. The default value is 43.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Bend** | Adjusts the amount of pitch envelope applied throughout the sound duration, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 6.8 %). Low values give a more gentle sound. As Bend is increased, the kick becomes more punchy; at higher values, the pitch envelope is more clearly audible as an actual pitch bend. |
| **Impact** | Adjusts the amount of attack. Available values range from 0.0 % (soft attack) to 100 % (maximum attack). The default value is 75.0 %. |

## Advanced page

The **Advanced** page contains controls for the distortion.

| Element | Description |
|---|---|
| **DISTORTION Section** | |
| **Gain** | Adjusts the distortion gain, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 70.0 %). Increase **Gain** to get a more distorted drum sound. |
| **Tone** | Adjusts the color of the distortion, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 25.0 %). |
| **Bias** | Adjusts the timbre of the distortion, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). At zero, the distortion is symmetrical and introduces mostly odd harmonics. As the **Bias** value is increased, the distortion becomes more asymmetric and more even harmonics are introduced, resulting in a different tonality, especially at more subtle **Gain** settings. |
| **Mix** | Adjusts the mix between the clean and distorted signal, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). At zero, none of the distorted drum will be heard. At 100.0 %, only the distorted drum will be heard. |



Changes to the distortion parameters are only audible when the **Mix** parameter is set above 0 %.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Kick – Dusty

The Dusty kick is an electronic kick with an organic feel. It's capable of broken, dusty sounds but can also open up to a thundering warehouse boom.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to The kicks. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Impact** | Adjusts the amount of attack and click, measured as a percentage. Available values range from 0.0 % (soft attack) to 100.0 % (maximum attack). The default value is 75.0 %. |
| **CHARACTER Section** | |
| **Filter** | Adjusts the timbre of the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 40.0 %). Increase the value to produce richer high frequencies. |
| **Noise** | Adjusts the amount of noise, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 10.0 %). |

### Advanced page

For this engine, the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Kick – Grit

The Grit kick is a modern electronic kick drum to suit a wide range of styles. It's quite versatile: with a long decay it has a deep, boomy and airy tonality, but tightened up, it can thump with the best of them. At high tunings, especially with extreme "Aero Grind" and "Aero Amount" values, it becomes very gritty and bitcrushed, great for IDM and electro.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view) — for more information please refer to section 9.4 "The Plug-in Strip" in the Maschine 2.0 Manual.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to section 10.2 "The Kicks" in the Maschine 2.0 Manual. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 31.00 to 55.00. The default value is 43.00. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Bend** | Adjusts the amount of pitch envelope applied to the kick, measured as a percentage. Available values range from 0.0 to 100.0% (default: 6.8%). |
| **Impact** | Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 75.0%). |

| Element | Description |
|---|---|
| **Gate** | When activated, the decay of the drum is choked by the end of the note. When deactivated, the drum plays as a one-shot sound, i.e. until the end of its tail, no matter when the note is released, although the sound duration will still depend on the **Decay** parameter (refer to above). Switching **Gate** on and setting the **Decay** parameter to a high value while playing short notes can result in a punchier, more aggressive character than simply using short **Decay** values with **Gate** off. |
| **AERO Section** | |
| **Grind** | Adjusts the grittiness of the "aero" component of the sound, measured as a percentage. Available values range from 0.0 to 100.0% (default: 45.0%). Low values produce a boomy reverberation. High values result in a crushed, digital "air" squashed into the drum sound. Note that this parameter will only have an effect if **Amount** is set to a non-zero value (refer to below). |
| **Amount** | Controls the amount of air or grit in the kick sound, measured as a percentage. Available values range from 0.0 to 100.0% (default: 20.0%). |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

Like with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more sensitive to the velocity at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Kick – Rasper

The Rasper kick is an acoustic bass drum emulation providing a unique and organic sound that can be easily adapted into Drum'n'Bass or Dubstep productions. Its two crispness modes allow for a wide range of bass drums.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to The kicks. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 38.00 to 62.00. The default value is 50.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Punch** | Simultaneously adjusts the amount of the pitch envelope and the amount of noise of the attack. Available values range from 0.0 to 100.0 % (default). |
| **Impact** | Adjusts how hard the drum is hit. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |
| **CRISPNESS Section** | |
| **Mode** | Selects from two different crispness modes: Select **A** (default) for a tambourine-like sound, and select **B** for a snare-like sound. |
| **Decay** | Adjusts the duration of the crispness effect, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 34.0 %). |
| **Amount** | Adjusts the amount of crispness, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Kick – Snappy

The Snappy kick is an acoustic bass drum emulation that provides control over the mic oscillation before the hit via the **Snap** control. It's capable of a mid-range bass drum sound that can be tweaked via the extended punch parameters.

The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to The kicks. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 36.00 to 60.00. The default value is 48.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Snap** | Emulates the air movement caused by the beater before the drum is hit. Therefore, it produces a snap in the waveform the length of which can be controlled through this parameter. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Impact** | Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |
| **PUNCH Section** | |
| **Mode** | Selects from two different punch modes: **A** (default) and **B**. |
| **Decay** | Adjusts the duration of the punch, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Amount** | Adjusts the amount of punch, measured as a percentage. Available values range from 0.0 to 100.0 % (default). |

## Advanced page

For this engine the **Advanced** page does not contain any parameters.

## Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |

| Element | Description |
|---|---|
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Kick – Bold

The Bold kick is an acoustic bass drum emulation that provides an aggressive character and a punchy and dirty sound. It is capable of a range of sounds, from rock-like kicks to more snappy and tight sub-kicks.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See Pitch range, tuning, and MIDI notes for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to The kicks. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Punch** | Simultaneously adjusts the amplitude and decay time of the noise in the attack. Available values range from 0.0 to 100.0 % (default). |
| **Impact** | Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Kick – Maple

The Maple kick is an acoustic bass drum emulation that provides a realistic and organic sound. It is suitable for any production where a supporter kick is needed. It fits perfectly with acoustic instruments and its room parameters make it fit seamlessly into any mix.

> ⓘ The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See Pitch range, tuning, and MIDI notes for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to The kicks. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 42.00 to 54.00. The default value is 48.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Skin Tune** | Adjusts the fine-tuning of the skin of the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Impact** | Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |
| **ROOM Section** | |
| **Mode** | Selects from two different noise types that simulate the room in which the drum is played. Available modes are **A** (default) and **B**. |
| **Size** | Adjusts the size of the room, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |

| Element | Description |
|---|---|
| **Amount** | Adjusts the amount of room effect applied to the drum sound, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %). |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Kick – Push

The Push kick is an acoustic bass drum emulation that provides an aggressive and brazen sound. It is essential for mixes where a dirty, tight and powerful kick is required. Its versatility also allows for noisy and clicky kicks.

> The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Kick Plug-in. If you change this setting, please refer to The kicks. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |

| Element | Description |
|---|---|
| **Punch** | Simultaneously adjusts the amount of the pitch envelope and the amount of noise of the attack. Available values range from 0.0 to 100.0 % (default). |
| **Impact** | Adjusts how hard the drum is hit. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## The Snares

The Snare Drum Synth can generate a multitude of snare sounds.




*The Snare in the Control area (Main page depicted).*




*The Snare panel in the Plug-in Strip.*

As with every Drum Synth, the engine can be selected via the **Engine** selector on the **Main** page. Each engine has a different character and set of parameters, as detailed in the following sections.

The Snare provides the following engines:

- **Volt** (default): Snare – Volt
- **Bit**: Snare – Bit
- **Pow**: Snare – Pow
- **Sharp**: Snare – Sharp
- **Airy**: Snare – Airy
- **Vintage**: Snare – Vintage
- **Chrome**: Snare – Chrome
- **Iron**: Snare – Iron
- **Clap**: Snare – Clap
- **Breaker**: Snare – Breaker.

For more information on engines, refer to Engines: many different drums in each Drum Synth. For general information on the Snare and the other Drum Synths, refer to Using Drum Synths.

## Snare – Volt

The Volt engine is the default engine of the Snare.

The Volt snare is an electronic snare based on a family of analog classics.

The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 53.00 to 77.00. The default value is 65.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Gate** | When activated, the decay of the drum is choked by the end of the MIDI note. When deactivated (default), the drum plays as a one-shot sound, i.e. until the end of its tail, no matter when the note is released. |
| **Osc Mode** | Selects the oscillator mode: If you select **Tonal** (default), the engine uses two oscillators running in parallel, the higher of which is extra sensitive to velocity for increased expressivity. If you select **Punchy**, the engine uses one oscillator with a pitch envelope. |
| **Osc Mix** | Only available if **Tonal** is selected in the **Osc Mode** selector (see above). Adjusts the mix between both oscillators, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Punch** | Only available if **Punchy** is selected in the **Mode** selector (see above). Adjusts the amplitude of the pitch envelope (punch), measured as a percentage. Available values range from 0.0 to 100.0 % (default: 25.0 %). |
| **NOISE Section** | |
| **Color** | Adjusts the tone of the "snare" portion of the sound, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Amount** | Adjusts the level of the "snare" portion of the sound, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 25.0 %). |

## Advanced page

For this engine the **Advanced** page does not contain any parameters.

## Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Bit

The Bit snare is a thin, harsh, digital snare.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage (default: 50.0 %). |
| **Gate** | When activated, the decay of the drum is choked by the end of the MIDI note. When deactivated (default), the drum plays as a one-shot sound, i.e. until the end of its tail, no matter when the note is released. |
| **Grit** | Adjusts the intensity of the bitcrushing, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 30 %). |
| **NOISE Section** | |
| **Color** | Adjusts the tone of the digital noise, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Amount** | Adjusts the level of the digital noise, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 25.0 %). |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Pow

The Pow snare is a shot of filtered noise, useful as an electro snare, an effect or a layer in a combined snare sound.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage (default: 50.0 %). |
| **Bend** | Adjusts the pitch sweep of the sound, measured as a percentage. Available values range from -100.0 % to 100.0 % (default: 0.0 %). |
| **Focus** | Adjusts the attack of the sound as well as the speed and shape of the pitch envelope, to produce a different quality of attack and sharpness. Available values range from 0.0 to 100 % (default: 50.0 %). |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Sharp

The Sharp snare is an acoustic snare drum emulation inspired by the sound of 1970s disco snares.

> The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). |
| **Skin Tune** | Adjusts the fine-tuning of the skin of the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Impact** | Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |
| **Body** | Adjusts the level of the snare body independently from the wires level adjusted on the **Advanced** page (see below). Available values range from 0.0 to 100.0 % (default: 75.0 %). |
| **Noise** | Adjusts the level and duration of the wires sound applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 40.0 %). |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Airy

The Airy snare is an acoustic snare drum model that provides a realistic metallic snare sound. The two modes available on its **Advanced** page relate to different tension levels of the snare wires, which allows for a wide range of snares that will cut through very well into a mix.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 52.00 to 76.00. The default value is 64.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Skin Tune** | Adjusts the fine-tuning of the skin of the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Impact** | Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100 % (hardest). The default value is 75.0 %. |

### Advanced page

The **Advanced** page contains parameters controlling the wires' sound of the drum.

| Element | Description |
|---|---|
| **SPECTRA Section** | |
| **Mode** | Selects from two different noise types that simulate the wires of the drum. Available modes are **A** (default) and **B**. |
| **Tune** | Provides an independent tuning of the snare noise. It relates to the tension of the snare wires on a real snare drum. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Decay** | Adjusts the length of the sound of the snare wires, independently from the main **Decay** parameter on the **Main** page. Available values range from 0.0 % to 100.0 % (default: 40.0 %). |
| **Amount** | Adjusts the amount of snare wire sound applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %). |

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Vintage

The Vintage snare is an acoustic snare drum emulation that provides the sound of old, woody snares. The character of the sound comes from its broad spectrum that allows for a wide range of snares via a subtle use of the **Tune** parameters.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 61.00 to 79.00. The default value is 70.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Skin Tune** | Adjusts the fine-tuning of the skin of the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Impact** | Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |

## Advanced page

The **Advanced** page contains parameters controlling the wires' sound of the drum.

| Element | Description |
|---|---|
| **SPECTRA Section** | |
| **Mode** | Selects from two different noise types that simulate the wires of the drum. Available modes are **A** (default) and **B**. |
| **Tune** | Provides an independent tuning of the snare noise. It relates to the wires tension of a real snare drum. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Decay** | Controls the length of the snare wire sound independently from the main **Decay** parameter on the **Main** page. Available values range from 0.0 to 100.0 % (default: 40.0 %). |
| **Amount** | Adjusts the amount of snare wire sound applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %). |

## Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |

| Element | Description |
|---|---|
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Chrome

The Chrome snare is an acoustic snare drum emulation with a bright sound. The two modes available on its **Advanced** page relate to different snare wire characteristics: noisy and crispy.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 60.00 to 84.00. The default value is 72.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Skin Tune** | Adjusts the fine-tuning of the skin of the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Impact** | Adjusts how hard the drum is hit. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |

### Advanced page

The **Advanced** page contains parameters controlling the wires' sound of the drum.

| Element | Description |
|---|---|
| **SPECTRA Section** | |
| **Mode** | Selects from two different noise types that simulate the snare wires of the drum. Available modes are **A** (default) and **B**. |

| Element | Description |
|---|---|
| **Tune** | Provides an independent tuning of the snare noise. It relates to the snare wire tension of a real snare drum. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Decay** | Controls the length of the snare wire sound independently from the main **Decay** parameter on the **Main** page. Available values range from 0.0 to 100.0 % (default: 40.0 %). |
| **Amount** | Adjusts the amount of snare wire sound applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %). |

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Iron

The Iron snare is an acoustic snare drum model that is capable of a metallic, bright sound. The two modes available on its **Advanced** page select from two different snare wire characteristics.

> The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 46.00 to 70.00. The default value is 58.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |

| Element | Description |
|---|---|
| **Skin Tune** | Adjusts the fine-tuning of the skin of the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Impact** | Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %. |
| **Body** | Adjusts the level of the snare body independently from level of the snare wires, which is adjusted on the **Advanced** page (see below). Available values range from 0.0 to 100.0 % (default: 75.0 %). |

### Advanced page

The **Advanced** page contains parameters controlling the wires' sound of the drum.

| Element | Description |
|---|---|
| **SPECTRA Section** | |
| **Mode** | Selects from two different noise types that simulate the snare wires of the drum. Available modes are **A** (default) and **B**. |
| **Decay** | Controls the length of the snare wires' sound independently from the main **Decay** parameter on the **Main** page. Available values range from 0.0 to 100.0 % (default: 40.0 %). |
| **Amount** | Adjusts the amount of snare wire sound applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %). |

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Clap

A stalwart of electronic music, the classic analog clap never really sounded like a group of people clapping - but that makes it all the more iconic!



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare Plug-in. If you change this setting, please refer to The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, but also the "spread" between the individual claps, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Room** | Adjusts the balance between the dry sound — the claps themselves — and the synthesized room sound, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). At high values, extra "air" is added. |
| **Focus** | Adjusts the sharpness of each clap, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). At 0.0 % the sound is very smooth; at 100.0 % the claps are very sharp and staccato. |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Snare – Breaker

The Breaker snare is an acoustic high pitched snare drum that cuts through perfectly into mixes containing heavy bass. The adjustment of the wires spectrum provides a great range of snares. It also works very well with the Rasper Kick.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Snare plug-in. For more information on the available engines, please refer to section The Snares. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 61.00 (**NOTE C#3**) to 85.00 (**NOTE C#5**). The default value is 73.00 (**NOTE C#4**). |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Skin Tune** | Adjusts the fine-tuning of the skin of the drum, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Impact** | Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 75.0%). |

## Advanced page

For this engine the **Advanced** page does not contain any parameters.

| Element | Description |
|---|---|
| **SPECTRA Section** | |
| **Mode** | Selects from two different noise types that simulate the wires of the drum. Available modes are A (default) and B. |
| **Tune** | Provides an independent tuning of the snare noise. It relates to the tension of the snare wires on a real snare drum. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Decay** | Adjusts the length of the sound of the snare wires, independently from the main **Decay** parameter on the Main page. Available values range from 0.0% to 100.0% (default: 40.0%). |
| **Amount** | Adjusts the amount of snare wire sound applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0% (default: 75.0%). |

## Modulation page

Like with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |

| Element | Description |
|---|---|
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more sensitive to the velocity at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## The Hi-hats

The Hi-hat Drum Synth can generate a variety of hi-hat sounds.




*The Hi-hat in the Control area (Main page depicted).*




*The Hi-hat panel in the Plug-in Strip.*

As in every Drum Synth, the engine can be selected via the **Engine** selector on the **Main** page. Each engine has a different character and set of parameters, as detailed in the following sections.

The Hi-hat provides the following engines:

- **Silver** (default): Hi-hat – Silver.
- **Circuit**: Hi-hat – Circuit.

- **Memory**: Hi-hat – Memory.
- **Hybrid**: Hi-hat – Hybrid.

In addition, we mention how to use Choke groups with Hi-hat Plug-ins to emulate a closed vs. open hi-hat set up: Creating a Pattern with closed and open hi-hats.



For more information on engines, refer to Engines: many different drums in each Drum Synth. For general information on the Snare and the other Drum Synths, refer to Using Drum Synths.

## Hi-hat – Silver

The Silver engine is the default engine of the Hi-hat.

A classic analog hi-hat that can also be used as percussion or sound effect.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Hi-hat Plug-in. If you change this setting, please refer to The Hi-hats. |
| **Tune** | Adjusts the pitch of the cymbal played by the middle C, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound, measured as a percentage. A short decay produces a closed hat; a long decay gives an open hi-hat or cymbal. Available values range from 0.0 to 100.0 % (default: 65.0 %). |
| **Gate** | When activated, the decay of the cymbal is choked by the end of the note. When deactivated (default), the cymbal plays as a one-shot sound, i.e. until the end of its tail, no matter when the note is released, although the sound duration will still depend on the **Decay** parameter (refer to above). |
| **TONE Section** | |
| **Color** | Adjusts the center frequency of the filter applied to the sound, measured in hertz. Available values range from 932.3 Hz to 16.7 kHz (default: 7.4 kHz). The default position gives a standard metallic analog hi-hat. Colored down, the sound is much more melodic and in the midrange, good for percussion or effects. In a way this parameter is a more effective tuning control than the **Tune** parameter itself. Note that the **Color** parameter also follows keyboard tracking (i.e. the key/pad you play) along with the **Tune** parameter, limited to the range of the parameter. |

| Element | Description |
|---|---|
| **Saturate** | Adjusts the amount of analog-style saturation applied to the sound for increased thickness, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 19.0 %). |
| **Noise** | Adusts the mix between an oscillator bank and white noise as the signal source, measured as a percentage. Available values range from 0.0 % (oscillator bank only) to 100.0 % (white noise only). The default value is 10.0 %. |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Hi-hat – Circuit

Similar to the Silver hi-hat, the Circuit hi-hat uses a more complex oscillator for a more digital, robotic sound.

> The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Hi-hat Plug-in. If you change this setting, please refer to The Hi-hats. |
| **Tune** | Adjusts the pitch of the cymbal played by the middle C, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |

| Element | Description |
|---|---|
| **Decay** | Adjusts the duration of the sound, measured as a percentage. A short decay produces a closed hat; a long decay gives an open hi-hat or cymbal. Available values range from 0.0 to 100.0 % (default: 65.0 %). |
| **Gate** | When activated, the decay of the cymbal is choked by the end of the note. When deactivated (default), the cymbal plays as a one-shot sound, i.e. until the end of its tail, no matter when the note is released, although the sound duration will still depend on the **Decay** parameter (refer to above). |
| **TONE Section** | |
| **Color** | Adjusts the center frequency of the filter applied to the sound, measured in hertz. Available values range from 932.3 Hz to 16.7 kHz (default: 7.4 kHz). The default position gives a standard metallic analog hi-hat. Colored down, the sound is much more melodic and in the midrange, good for percussion or effects. In a way this parameter is a more effective tuning control than the **Tune** parameter itself. Note that the **Color** parameter also follows keyboard tracking (i.e. the key/pad you play) along with the **Tune** parameter, limited to the range of the parameter. |
| **Saturate** | Adjusts the amount of analog-style saturation applied to the sound for increased thickness, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 19.0 %). |
| **Seed** | Selects a random sequence to control the waveform produced by the oscillator. Each of the 31 seed values available produces a different set of random pitches and harmonics. |
| **Dissonance** | Affects the randomization of the oscillator, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 25.0 %). Higher values introduce more randomization, resulting in a more noisy sound. Lower values produce a more melodic, oscillator-like sound. |

## Advanced page

For this engine the **Advanced** page does not contain any parameters.

## Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Hi-hat – Memory

The Memory hi-hat is similar to a typical sample-based cymbal but with a modern twist, using analyzed and reconstructed timbres rather than just a recorded sample.

The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Hi-hat Plug-in. If you change this setting, please refer to The Hi-hats. |
| **Tune** | Adjusts the pitch of the cymbal played by the middle C, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 65.0 %). A short decay produces a closed hat; a long decay gives an open hi-hat or cymbal. |
| **Gate** | When activated, the decay of the cymbal is choked by the end of the note. When deactivated (default), the cymbal plays as a one-shot sound, i.e. until the end of its tail, no matter when the note is released, although the sound duration will still depend on the **Decay** parameter (refer to above). |
| **Source** | Selects the sampled timbre to be used as source. Six modes are available — **A** (default), **B**, **C**, **D**, **E**, and **F** — each corresponding to a different cymbal. |
| **TONE Section** | |
| **Color** | Adjusts the frequency curve of the sound, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 71.5 %). Higher settings produce a brighter sound; lower settings produce a more boxy sound. |
| **Strike** | Adjusts the attack of the cymbal, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %). |
| **Distress** | Introduces even more lo-fi grit, crushing and distortion. Available values range from 0.0 % (default) to 100.0 %. |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Hi-hat – Hybrid

The Hybrid hi-hat is an acoustic emulation with a distinctive sound, crossing over from acoustic to electronic timbres. It provides authentic acoustic features such as sizzling available through the Rattle parameter, and special electronic characteristics provided by the Metallic parameter. By automating these parameters you can create great sounding hi-hat figures.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view) — for more information please refer to section The Plug-in Strip.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Hybrid plug-in. For more information on the available engines, please refer to section The Hi-hats. |
| **Tune** | Adjusts the pitch of the cymbal played by the middle C, measured as a percentage. Available values range from 0.0% to 100.0% (default: 50.0%). |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 65.0%). |
| **TONE Section** | |
| **Color** | Adjusts the cutoff frequency of several low-pass filters in order to achieve the desired timbre. Available values range from 0.0 to 100% (default: 71.5%). |
| **Metallic** | Adjusts an enharmonic metallic character, measured as a percentage. Available values range from 0.0 to 100.0% (default: 0.0%). |
| **Strike** | Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 80.0%). |
| **Character** | Adjusts a wider range of timbers from noisy to metallic, measured as a percentage. Available values range from 0.0 to 100.0% (default: 25.0%). |

### Advanced page

| Element | Description |
|---|---|
| **HYBRID Section** | |
| **Bend** | Adjusts the amount of a pitch envelope for sound design purposes. It is a bipolar control ranging from -100.0 to 100.0% (default: 0.0%) |
| **Rattle** | Adjusts the amount of sizzling from the hi-hat. It is more noticeable with long decays. Available values range from 0.0 to 100.0% (default: 50.0%). |

### Modulation page

Like with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more sensitive to the velocity at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

### Creating a Pattern with closed and open hi-hats

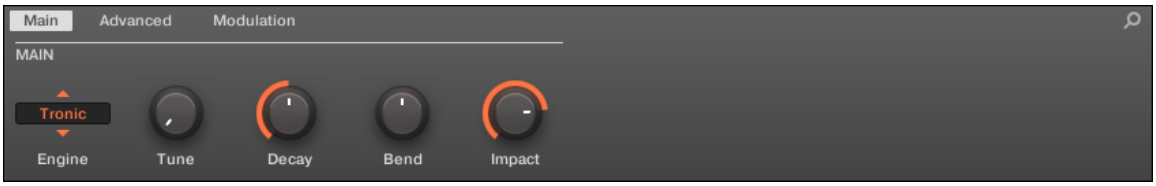
Don't hesitate to use a few Hi-hat Plug-ins within a **Choke group**! Indeed, by loading two Hi-hat Plug-ins with different settings in two different Sounds (one for the closed hi-hat, one for the open hi-hat), then assigning both Sounds to the same Choke group, and leaving both as Master in the group, you can recreate mutually exclusive hi-hat sounds that cancel each other out when played, like on a real drum set. By the way you are not limited to two hi-hat sounds — e.g., you could add to the same Choke group a third Sound containing a half-opened hi-hat. To know how to do this, please refer to section Using Choke groups where Choke groups are explained in detail.



With a single Hi-hat Plug-in, you could also recreate an open-closed hi-hat behavior by disabling **Gate** and modulating the **Decay** in your Pattern. This rather advanced task might give you even finer control over the duration of your various hi-hat sounds, and thereby help you to give your hi-hat track a "human" feel. Furthermore, since this method makes use of a single Sound you can quickly modify other parameters of your Hi-hat Plug-in, your changes will seamlessly apply to all your hi-hat variants.

## The Toms

The Tom Drum Synth can generate a variety of tom sounds.




*The Tom in the Control area (Main page depicted).*




*The Tom panel in the Plug-in Strip.*

As in every Drum Synth, the engine can be selected via the **Engine** selector on the **Main** page. Each engine has a different character and set of parameters, as detailed in the following sections.

The Tom provides the following engines:

- **Tronic** (default): Tom – Tronic.
- **Fractal**: Tom – Fractal.
- **Floor**: Tom – Floor.
- **High**: Tom – High.

> For more information on engines, refer to Engines: many different drums in each Drum Synth. For general information on the Snare and the other Drum Synths, refer to Using Drum Synths.

## Tom – Tronic

The Tronic engine is the default engine of the Tom.

A fat, analog-style tom with two tunable oscillators plus a tunable FM oscillator.

The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Tom Plug-in. If you change this setting, please refer to The Toms. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 36.00 to 60.00. The default value is 36.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Bend** | Adjusts the pitch sweep of the sound, measured as a percentage. Available values range from -100.0 % to 100.0 % (default: 0.0 %). At zero the sound stays at its original pitch during its entire decaying phase. At higher values, the pitch bends upwards. At lower values, the pitch bends downwards. |
| **Impact** | Adjusts the amount of attack, measured as a percentage. Available values range from 0.0 % (soft attack) to 100.0 % (maximum attack). The default value is 80.0 %. |

## Advanced page

The **Advanced** page contains parameters controlling the individual oscillators.

| Element | Description |
|---|---|
| **HARMONICS Section** | |
| **Interval** | Adjusts the interval between the two oscillators, measured in semitones and cents. Available values range from -0.50 to 13.50 (default: 6.50). At low values the oscillators are tuned close together, giving a detuned sound which can be used for basslines. |
| **FM Freq** | Adjusts the frequency of the FM oscillator, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **FM Decay** | Adjusts the decay of the FM oscillator, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 35.0 %). Short decays are useful to supplement the attack or impact of the tom. Long decays can be used to embellish the tone or timbre of the tom, especially when applied subtly (see **FM Amount** below). |
| **FM Amount** | Adjusts the amount of frequency modulation applied by the FM oscillator, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 10.0 %). At 0.0 % there is no frequency modulation so the other FM controls (**FM Freq** and **FM Decay**) have no effect. |

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Tom – Fractal

The Fractal tom is a modern electronic tom with a broad sonic range from pure and analog-sounding through organic and percussive through bell-like to totally alien. It uses a tone oscillator and a feedback oscillator bank (like the one used in the Fractal engine of the Percussion, refer to Percussion – Fractal), the balance between which is controlled by the **Mix** parameter on the **Advanced** page. The tone oscillator on its own produces a simple analog-style bleepy tom. The addition of the feedback oscillator bank facilitates a much wider range of sounds.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Tom Plug-in. If you change this setting, please refer to The Toms. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 48.00 to 72.00. The default value is 48.00. For more details seePitch range, tuning, and MIDI notes. Note that the pitch of this instrument is heavily dependent on the settings on the **Advanced** page (see below). |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Bend** | Adjusts the pitch sweep of the sound, measured as a percentage. Available values range from -100.0 % to 100.0 % (default: 0.0 %). At zero the sound stays at its original pitch during its entire decaying phase. At higher values, the pitch bends upwards. At lower values, the pitch bends downwards. |

| Element | Description |
|---|---|
| **Impact** | Adjusts the amount of attack, measured as a percentage. Available values range from 0.0 % (soft attack) to 100.0 % (maximum attack). The default value is 80.0 %. |
| **Color** | Adjusts a simple filter which affects the brightness of the sound. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Glide** | The tuning of the Fractal tom is locked for each note; in other words the change in tuning is applied only when a new note is received. When the **Glide** parameter is set higher than zero, the pitch glides smoothly to the new tuning. The **Glide** parameter then defines the duration this glide takes, measured in milliseconds: as you increase the **Glide** value, the glide gets slower and more audible. This also applies when the tom is played across the keyboard. Available values range from **None** (no glide) to 350.0 ms (slowest glide). The default value is 5.5 ms. |

## Advanced page

The **Advanced** page contains parameters controlling the individual oscillators.

| Element | Description |
|---|---|
| **HARMONICS Section** | |
| **KTr. Mode** (Key Tracking Mode) | Selects from two key tracking modes: **Harmonic** (default) and **Dissonant**.<br><br>In **Harmonic** mode all oscillators track the **Tune** parameter (on the **Main** page, refer to above) and your keyboard evenly. Therefore, the drum stays in tune with itself as the **Tune** parameter is adjusted, and can be played chromatically across the keyboard.<br><br>In **Dissonant** mode the oscillators track the **Tune** parameter of your keyboard/pads unevenly. Therefore, the drum produces dissonant, detuned harmonics when the **Tune** parameter is adjusted or when you play different notes. |
| **Mix** | Adjusts the mix between the tone oscillator and the feedback oscillator bank, measured as a percentage. Available values range from 0.0 % (tone oscillator only) to 100.0 % (feedback oscillator bank only). The default value is 5.0 %. |
| **Transpose** | Adjusts the pitch transposition of the feedback oscillator bank only, measured in semitones and cents. This is useful for tuning it to the tone oscillator. Available values range from -12.00 to 12.00 semitones (default: 0.00). |
| **Freq A** | Adjusts the pitch of oscillator **A** within the feedback oscillator bank, measured as a percentage. Available values range from 0.0 to 100.0 % (default). |
| **Freq B** | Adjusts the pitch of oscillator **B** within the feedback oscillator bank, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %). Note that this control has no effect when **FM** and **AM** are set to zero (see below). |

| Element | Description |
|---|---|
| **FM** | Adjusts the amount of frequency modulation within the feedback oscillator bank, measured as a percentage. Frequency modulation tends to add bell-like, ringing overtones. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **AM** | Adjusts the amount of amplitude modulation within the feedback oscillator bank, measured as a percentage. Amplitude modulation tends to add brash, bright overtones. Available values range from 0.0 to 100.0 % (default: 50.0 %). |

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Tom – Floor

The Floor Tom is an acoustic tom that provides the emulation of a complete set of toms. Although it is more suitable for floor and low toms, it is also capable of producing interesting mid and high toms. Furthermore the control over the pitch bend and the mute parameters allow for a wide range of sounds.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Tom Plug-in. If you change this setting, please refer to The Toms. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 48.00 to 62.00. The default value is 48.00. For more details see Pitch range, tuning, and MIDI notes. |

| Element | Description |
|---|---|
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Tension** | Adjusts the tension of the drum skin, measured as a percentage, allowing for a longer and bigger pitch bend. Available values range from 0.0 to 100.0 % (default). |
| **Impact** | Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 80.0 %. |
| **Flex** | Adjusts the elasticity of the skin, measured as a percentage, allowing for a greater pitch bend when the drum is hit. Available values range from 0.0 to 100.0 % (default: 30.0 %). |
| **MUTE Section** | |
| **Skin** | Adjusts the amount of damping applied to the drum skin, measured as a percentage. Available values range from 0.0 % (default) to 100.0 %. |
| **Air** | Adjusts the amount of damping applied to the air, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From the mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Tom – High

The High Tom is an acoustic tom that complements the Floor Tom. With very few parameters it provides a wide range of tom rolls and fills.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Tom plug-in. For more information on the available engines, please refer to section The Toms. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 57.00 (**NOTE A2**) to 71.00 (**NOTE B3**). The default value is 57.00. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Tension** | Adjusts the tension of the drum skin, measured as a percentage, allowing for a longer and bigger pitch bend. Available values range from 0.0 to 100.0% (default). |
| **Impact** | Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 80.0%). |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

Like with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). At zero (mid-course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more sensitive to the velocity at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## The Percussions

The Percussion Drum Synth can generate a variety of percussion sounds.




*The Percussion in the Control area (Main page depicted).*




*The Percussion panel in the Plug-in Strip.*

As in every Drum Synth, the engine can be selected via the **Engine** selector on the **Main** page. Each engine has a different character and set of parameters, as detailed in the following sections.

The Percussion provides following engines:

- **Fractal** (default): Percussion – Fractal.
- **Kettle**: Percussion – Kettle.
- **Shaker**: Percussion – Shaker.

> For more information on engines, refer to Engines: many different drums in each Drum Synth. For general information on the Snare and the other Drum Synths, refer to Using Drum Synths.

## Percussion – Fractal

The Fractal engine is the default engine of the Percussion.

The Fractal percussion mode is based on the feedback oscillator bank from the Fractal tom (see Tom – Fractal). It's capable of a broad range of sounds, from bell-like to metallic, cymbal-like, subby, melodic, weird and twisted, and is intended to be played across the keyboard.

> The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Percussion Plug-in. If you change this setting, please refer to The Percussions. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 60.00 to 108.00. The default value is 84.00. For more details see Pitch range, tuning, and MIDI notes. Note that the pitch of this instrument is heavily dependent on the settings on the **Advanced** page (see below). |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Tune Hold** | When **Tune Hold** is activated, the tuning behavior is that of the Fractal tom: the tuning is fixed until the next note is received (see Tom – Tronic). This allows you to create arpeggiated patterns by adjusting the **Tune** parameter while a sequence of notes is playing.<br><br>When **Tune Hold** is deactivated (default), the tuning behavior is that of the other modules: the tuning responds immediately when you adjust the **Tune** parameter. |
| **Glide** | Adjusts the glide between the pitch of new notes, measured in milliseconds. When the **Glide** parameter is set higher than zero, the pitch glides smoothly to the new tuning. The **Glide** parameter then defines the duration this glide takes. Available values range from **None** (no glide, default) to 762.8 ms. |
| **Impact** | Adjusts the amount of attack, measured as a percentage. Available values range from 0.0 % (soft attack) to 100.0 % (maximum attack). The default value is 60.0 %. |

## Advanced page

The **Advanced** page contains parameters controlling the individual oscillators.

| Element | Description |
|---|---|
| **HARMONICS Section** | |
| **KTr. Mode** (Key Tracking Mode) | Selects from two key tracking modes: **Harmonic** (default) and **Dissonant**.<br><br>In **Harmonic** mode all oscillators track the **Tune** parameter (on the **Main** page, refer to above) and your keyboard evenly. Therefore, the drum stays in tune with itself as the **Tune** parameter is adjusted, and can be played chromatically across a keyboard or the pads.<br><br>In **Dissonant** mode the oscillators track the **Tune** parameter you're your keyboard) unevenly. Therefore, the drum produces dissonant, detuned harmonics when the **Tune** parameter is adjusted or when you play different notes on a keyboard or the pads. |

| Element | Description |
|---|---|
| **Freq A** | Adjusts the pitch of oscillator A within the feedback oscillator bank, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Freq B** | Adjusts the pitch of oscillator B within the feedback oscillator bank, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). Note that this parameter has no effect when **FM** and **AM** are set to zero (see below). |
| **Freq C** | Adjusts the pitch of oscillator C within the feedback oscillator bank, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 29.1 %). Note that this parameter has no effect when **FM** and **AM** are set to zero (see below). |
| **FM** | Adjusts the amount of frequency modulation within the feedback oscillator bank, measured as a percentage. Frequency modulation tends to add bell-like, ringing overtones. Available values range from 0.0 to 100.0 % (default: 34.4 %). |
| **AM** | Adjusts the amount of amplitude modulation within the feedback oscillator bank, measured as a percentage. Amplitude modulation tends to add brash, bright overtones. Available values range from 0.0 to 100.0 % (default: 18.6 %). |

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Percussion – Kettle

The Kettle percussion is an acoustic timpani emulation that provides an orchestral and rich sound.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Percussion Plug-in. If you change this setting, please refer to The Percussions. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 33.00 to 57.00. The default value is 45.00. For more details see Pitch range, tuning, and MIDI notes. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). |
| **Puff** | Adjusts the amount of feedback noise applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 25.0 %). |
| **Damp** | Adjusts the damping amount, measured as a percentage. Available values range from 0.0 % (default) to 100.0 %. |
| **Impact** | Adjusts the amount of attack. Available values range from 0.0 % (soft attack) to 100.0 % (maximum attack). The default value is 60.0 %. |

### Advanced page

For this engine the **Advanced** page does not contain any parameters.

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Percussion – Shaker

The Shaker is a versatile electronic shaker/maraca engine.



The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Percussion Plug-in. If you change this setting, please refer to The Percussions. |
| **Tune** | Adjusts the center frequency of the filter applied to the noise source, which will define the pitch of the drum played by the middle C, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %). For more details see Pitch range, tuning, and MIDI notes. |
| **Filter** | Adjusts the bandwidth of the filter applied to the noise source, measured as a percentage. Higher settings result in a wider filter. Lower settings result in a narrower filter, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 70.0 %). |
| **Grain** | Adjusts the timbre of the noise source, measured as a percentage. Higher settings emulate the grainy sound of a real shaker. Available values range from 0.0 to 100.0 % (default: 50.0 %). Furthermore the **Grain** parameter is assigned to velocity: lower velocity shakes contain more grain. |
| **ENVELOPE Section** | |
| **Mode** | Selects from two envelope modes: **Realistic** (default) and **Machine**.<br><br>In **Realistic** mode the envelope uses curved attack and release stages for a more natural sound.<br><br>In **Machine** mode the envelope uses linear attack, hold, and release stages for a static, machine-like sound.<br><br>In **Performer** mode, instead of producing a one-shot sound like most drums, the shaker plays a rhythmic pattern like a real shaker. In this mode, simply hold the note for as long as you want the pattern to play. |
| **Attack** | Adjusts the duration of the envelope's attack stage, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 40.0 %). |
| **Hold** (Machine mode only) | Adjusts the duration of the envelope's hold stage, i.e. the time during which the envelope is held at its highest point, measured as a percentage. Available values range from 0.0 % (default) to 100.0 %. |
| **Accent** (Performer mode only) | Controls the amount of emphasis on certain notes within the shaker pattern, measured as a percentage. At low values, the groove is static and the notes rather quiet, as if the shaker were being shaken very gently and uniformly. As the parameter is increased, key notes in the pattern are emphasized, creating a classic shaker groove. High values simulate a shaker that is being shaken by someone who is having a lot of fun! Available values range from 0.0 to 100.0% (default: 70.0%). |

| Element | Description |
|---|---|
| **Fill** (Performer mode only) | The **Fill** parameter is designed to be set to **None** by default and played manually during performance or automated in the sequencer. By default, the shaker plays a pattern according to the **Rate** parameter on the **Advanced** page (see below).<br><br>When the **Fill** parameter is set to **Double**, the speed of the pattern is doubled. When set to **Triple**, the shaker plays rapid triplets. Use this to insert improvised fills into your shaker parts to add variety and interest. |
| **Release** | Adjusts the duration of the envelope's release stage, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 35.0 %). |

## Advanced page

The **Advanced** page contains parameters only when the Shaker engine is in Performer mode (see **Mode** parameter above). These parameters further adjust the envelope.

**ENVELOPE Section**

| Element | Description |
|---|---|
| **Sync** | The **Sync** parameter has two options: **Lock** and **Retrig**.<br><br>In **Lock** mode, the shaker pattern is synced to the song position; that is, it is always in time regardless of when a note is pressed.<br><br>In **Retrig** mode, the shaker pattern (including accents) is retriggered on every note on, without quantizing to the nearest beat.<br><br>In both cases, the tempo of the pattern remains correct for the song. |
| **Rate** | Sets the note division of the shaker pattern. For example, 1/16 (default value) will result in a shaker pattern that plays 16th notes, and so on. |
| **Length** | Adjusts the length of the pattern that is accented by the **Accent** parameter on the **Main** page (see above). By default, **Length** is set to 4, so the pattern will appear to repeat every 4 "shakes" (the note length of which can be set with the **Rate** parameter above). Syncopated patterns can be created by selecting a value other than 4 or 8 (or 3 or 6 if the **Rate** parameter is set to a triplet note division). |
| **Offset** | Adjusts the timing offset of the shaker pattern. Fine adjustment will shift the pattern slightly, by less than one note division, affecting the feel of the shaker pattern in relation to the beat. Coarse adjustment will shift the pattern by entire note divisions, allowing you to rapidly introduce syncopated variations to the shaker pattern during performance or using automation. Available values range from -4.00 to 4.00 (default: 0.00).<br><br>On your controller, coarse adjustment (changing the value in steps of 1.0) occurs by default when the knob is moved. Fine-tuning can be achieved by holding the **SHIFT** button while turning the knob. |

| Element | Description |
|---|---|
| **Swing** | Adjusts the amount of swing or shuffle in the shaker pattern. Higher values will result in a pattern with more swing. Note that **Swing** alone will result in quite a mechanical feel — for a more human feel it is recommended to add some **Twist** as well (see below). Available values range from 0.0 to 100.0% (default: 0.0%). |
| **Twist** | The **Twist** parameter "skews" the groove of the shaker pattern. On its own, with the **Swing** parameter set to zero, it can sound very strange and lopsided. However, used sparingly in conjunction with **Swing**, the **Twist** parameter gives the pattern a flowing, natural groove, just like a real person playing a shaker. Available values range from 0.0 to 100.0% (default: 0.0%). |

### Modulation page

As with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## The Cymbals

The Cymbal Drum Synth can generate a variety of cymbal sounds.




*The Crash engine selected for the Cymbal in the Control area (Main page depicted).*




*The Crash engine selected on the Cymbal panel in the Plug-in Strip.*

As in every Drum Synth, the engine can be selected via the **Engine** selector on the **Main** page. Each engine has a different character and set of parameters, as detailed in the following sections.

The Cymbal provides following engines:

- **Crash** (default): Cymbal – Crash.
- **Ride**: Cymbal – Ride.

> For more information on engines, refer to Engines: many different drums in each Drum Synth. For general information on the Cymbals and the other Drum Synths, refer to Using Drum Synths.

## Cymbal – Crash

The Crash engine creates a wide range of cymbals: from a typical 909-like crash to more acoustic sounding timbres. Its parameters provide a great range of expression and spectral variation.

> The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view) — for more information please refer to section The Plug-in Strip.

## Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Cymbal plug-in. Available engines include **Crash** and **Ride**. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 0.00 to 100.0% (default value is 30.0%). |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%). |
| **Impact** | Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%). |
| **Width** | Adjusts the perceived stereo image, measured as a percentage. At zero the sound is mono, at 100.0% the sound is a wide stereo image, replicating the effect of recording with overhead stereo microphones. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **COLOR Section** | |
| **Density** | Adjusts the more complexity to the sound, measured as a percentage. Available values range from 0.0 to 100.0% (default: 100.0%) |
| **Tone** | Adjusts the balance of the spectral content, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Mode** | Selects from three different modes Metallic, Normal, or Soft (default: Metallic). |

## Advanced page

For this engine the **Advanced** page does not contain any parameters.

## Modulation page

Like with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more sensitive to the velocity at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Cymbal – Ride

The Ride engine is an acoustic emulation that allows the cymbal to be hit in many different ways through the use of the Edge and Bell parameters. The sonic palette ranges from soft Jazz-like rides to more noisy cymbals.

> The parameters described below are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view) — for more information please refer to section The Plug-in Strip.

### Main page

| Element | Description |
|---|---|
| **MAIN Section** | |
| **Engine** | Selects the engine used in the Cymbal plug-in. Available engines include **Crash** and **Ride**. |
| **Tune** | Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 0.00 to 1.00. The default value is 0.30. |
| **Decay** | Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%). |
| **Impact** | Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%). |
| **Width** | Adjusts the perceived stereo image, measured as a percentage. At zero the sound is mono, at 100.0% the sound is a wide stereo image, replicating the effect of recording with overhead stereo microphones. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **STRIKE Section** | |
| **Edge** | Adjusts the point where the cymbal is hit, measured as a percentage. Hitting the edge of the cymbal (100%) creates a more chaotic sound, hitting it near the center (0.0%) creates a more high-pitched sound. Available values range from 0.0 to 100.0% (default: 50.0%) |
| **Bell** | Adjusts the high-frequencies on a narrow band, measured as a percentage. (default: 0.0%) |

### Advanced page

| Element | Description |
|---|---|
| **HYBRID Section** | |
| Character | Adjusts a wider range of timbers between more noisy to more metallic ones, measured as a percentage. Available values range from 0.0 to 100.0% (default: 20.0%). |

| Element | Description |
|---|---|
| Tail | Adjusts the length of the sound tail through an envelope. Available values range from 0.0 to 100.0% (default: 100.0%). |

### Modulation page

Like with all other engines and Drum Synths, the **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **SCALE Section** | |
| **Velocity** | Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys (or pads). From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum more sensitive to the velocity at which you hit the keys/pads. From the mid position, turning the knob to the left as the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

## Bass Synth

Bass Synth is an internal fun and easy-to-use monophonic synthesizer module that allows you to quickly create expressive bass lines. Like any other Instrument Plug-in, you can load it into the first Plug-in slot of a Sound to gain full control over its parameters in the software and from your hardware controller.

The Bass Synth's key features are the following:

- Two oscillators (monophonic)
- Seamlessly morph between sine, saw, and square wave for each oscillator
- Octave switch for each oscillator
- Filter, modulation envelope, drive (bi-polar saturation/distortion), and note glide
- Integrated with Maschine Jam: Program bass and acid lines via notes and glides on Maschine Jam direct from the 8x8 click-pad matrix. For more information on sequencing with Maschine Jam, please read the Maschine Jam Manual available from the **Help** menu and Native Instruments website.



Like any other Plug-in, you can also enhance the Bass Synth's sound by adding internal effects, tweaking its parameters during a live performance, or modulating its parameters.

### Using Bass Synth

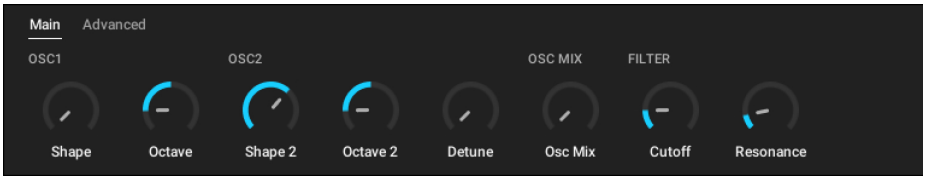
Bass Synth is a Maschine Plug-in and, as such, it supports the usual workflows and procedures for Plug-ins: To know how to load, remove, replace, insert, move, copy/paste a Bass Synth, adjust the Bass Synth parameters, and load/save Bass Synth presets, refer to Plug-in overview.

## Bass Synth parameter overview

The Bass Synth has the same parameters in both the Control area of the Arrange view and in the Plug-in Strip of the Mix view.

### Parameter pages in the Control area (Arrange view)

In Arrange view (Ideas view and Song view), the parameters of the Bass Synth appear as follows in the Control area:




*The Bass Synth in the Control area (Main page depicted).*

The parameters are grouped into two Parameter pages:

- The **Main page** groups the most important parameters: Here you can adjust the shape and octave of each oscillator, the detune of the second oscillator, the mix between both oscillators, and the cutoff and resonance of the filter.
- The **Advanced page** provides access to the modulation envelope parameters (modulation amount and decay), the amount of drive, and the note glide parameters (on/off and glide time).

### Common layout in the Plug-in Strip (Mix view)

In Mix view, the Plug-in panel of the Bass Synth in the Plug-in Strip provides easy access to parameters and visualization of the oscillator waveforms:




*The Bass Synth parameters in the Plug-in Strip.*

- The top row of the panel contains the parameters of the two oscillators.
- The bottom row of the panel contains the modulation envelope, filter, note glide, and drive parameters.

For more information on the various Plug-in panels found in the Plug-in Strip, please refer to section The Plug-in Strip.

## Bass Synth parameters

The following parameters are available in the Control area and in the Plug-in Strip:

> The parameters described are presented as they appear in the Control area. The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

### Page 1 — Main page

The Main page of the Bass Synth contains the following parameters:

| Element | Description |
|---|---|
| **OSC1 section** | |
| **Shape** | Adjusts the waveform shape of the first oscillator continuously from sine to square. |
| **Octave** | Transposes the base key of the first oscillator in octaves (range: -3 – 3). |
| **OSC2 section** | |
| **Shape2** | Adjusts the waveform shape of the second oscillator continuously from sine to square. |
| **Octave2** | Transposes the base key of the second oscillator in octaves (range: -3 – 3). |
| **Detune** | Adjusts the detuning of the second oscillator relative to the first oscillator, from 0 (same pitch) to 1 (a semitone higher). |
| **OSC MIX section** | |
| **Osc Mix** | Adjusts the mix between both oscillators. At full left only the first oscillator is audible, at full right only the second oscillator is audible. |
| **Filter section** | |
| **Cutoff** | Adjusts the frequency of the low-pass filter (range: 14.6 Hz – 23.7 kHz). |
| **Resonance** | Adjusts the amount of boost around the cutoff frequency (range: 0 – 120 %). Values above 100.0 % can lead to self-oscillation. |

### Page 2 — Advanced page

The Advanced page of the Bass Synth contains the following parameters:

| Element | Description |
|---|---|
| **Envelope section** | |
| **Mod. Amt.** | Adjusts the amount of envelope applied to the filter cutoff (range: 0 – 100 %). |
| **Decay** | Adjusts the rate at which the sound fades to silence (range: 0 – 100 %). |
| **Tone section** | |

| Element | Description |
|---|---|
| **Drive** | Adjusts the amount of drive (range: -100 % – 100 %). -100% increases the input level for the filter, driving the signal internally into saturation, and 100% controls the drive level of the distortion at the end of the signal chain. |
| **Note section** | |
| **Glide Time** | Adjusts the time it takes to glide from one pitch to the next (range: 10 ms – 1000 ms). |
| **Glide** | Activates or deactivates the note glide. When glide is on, each note glides to the next note in a monophonic manner. |

# Poly Synth

Based on the Native Instruments Pro-53 plug-in, Poly Synth delivers the colorful character of a classic dual-oscillator synth built for full hands-on control with Maschine. It provides warm vintage tones, organic bass, and shimmering pads with all of the 80s golden-era style. Assign modulation, switch routings, blend sounds, patch, and play for polysynth magic.

Poly Synth includes the following features:

- Up to 16 voices
- Two oscillators
- Multimode filter
- Two envelope generators
- One LFO
- Modulation and Poly Mod

You can load Poly Synth into the first Plug-in slot of a Sound to gain full control over its parameters in the Control area or direct from your hardware controller. Enhance the sound of the Poly Synth further by adding internal effects, tweaking parameters during a live performance, or automate them like any other plug-in in Maschine.



The parameters described are presented as they appear in the Control area. In addition, the same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view).

## Using Poly Synth

Poly Synth is a Maschine Plug-in and, as such, supports all usual plug-in actions and procedures. Hence, to know how to load, remove, replace, insert, move, copy/paste a Poly Synth, as well as how to adjust the Poly Synth parameters, and load/save presets, please refer to section Plug-in overview, where these are described in detail.

## Poly Synth parameters

The Poly Synth has the same parameters in both the Control area and in the Plug-in Strip of the Mix view.

## Poly Synth Parameter pages in the Control area (Arranve view)

In the Ideas and Song view, the parameters of the Poly Synth are grouped in the Control area:




*Poly Synth parameters in the Control area*

The Poly Synth parameters are presented in nine pages:

- Page 1: Filter adjusts the brightness of the sound and the filter mode.
- Page 2: Envelopes adjusts the filter and amplitude envelope generators.
- Page 3: Mix / Voices sets oscillator levels, voice mode, and the number of voices.
- Page 4: Oscillator A sets the basic tone and waveforms for Oscillator A.
- Page 5 Oscillator B sets the basic tone and waveforms for Oscillator B.
- Page 6: LFO sets the rate and modulation destinations for the low-frequency oscillator.
- Page 7: Modulation assigns the LFO or Noise signal (or a combination of both) to modify the frequency or pulse width of both oscillators as well as the filter cutoff.
- Page 8: Poly Mod sets Oscillator B or the Filter envelope to modulate Oscillator A frequency, Oscillator A pulse-width, and the Filter cutoff.
- Page 9: Global changes the overall sound and function of the Poly Synth.

## Poly Synth in the Plug-in Strip (Mix view)

In Mix view, the panel of the Poly Synth provides easy access to parameters:




*The Poly Synth parameters in the Plug-in Strip*

In the Plug-in Strip the Poly Synth parameters are consolidated and grouped into two pages:

- Page 1: **MAIN** contains all main synth parameters, including the Oscillators, Mixer, Amp, and Filter sections.

- Page 2: **MODULATION** contains all global and modulation parameters, including Voicing, Global, LFO, Poly Mod, and Modulation sections.



For more information on the Plug-in Strip, refer to The Plug-in Strip.

## Poly Synth Filter

The function of the filter is to subtract frequencies from the sound produced by the oscillators and noise generator, thereby changing the overall harmonic content of the sound. This change can be varied over time using the Filter Envelope to produce more dynamic timbres. Additionally, you can experiment with the Invert parameter to reverse the envelope's effect on the filter or the powerful Poly Mod feature to modulate the filter further.

The Filter page parameters are presented as follows:

### Filter parameters

| Element | Description |
|---|---|
| **Cutoff** | Sets the frequency of the filter. A low-pass (**LP**), band-pass (**BP**), or hi-pass (**HP**) characteristic may be selected using the **Mode** parameter. |
| **Resonance** | Sets the amount of boost around the cutoff frequency for the filter. This emphasizes a narrow band of frequencies. High levels of resonance can cause the filter to self-oscillate. |
| **Env Amount** | Sets the amount of modulation from the filter envelope to the filter's cutoff frequency. Any setting above zero means that each time you strike a key, the filter envelope controls how the filter opens and closes. Higher amounts affect the cutoff frequency more dramatically. |
| **Invert** | Inverts the effect of the filter envelope on the filter. When the **Invert** switch is activated, the action of the filter envelope on the filter is inverted. Normally when the **Invert** switch is off, and the **Env Amount** is turned up, the filter's Cutoff rises in the Attack stage and drops back in the Decay and Release stages. However, with **Invert** on, the Cutoff drops during the Attack stage and comes back up in the Decay and Release stages. This can be useful for creating sound effects. |
| **KBD** | Sets the amount of modulation from the keyboard to the filter's cutoff frequency. Increasing the amount means that higher notes open the filter more. This is useful for adding brightness to a sound as higher notes are played, which is typically how acoustic instruments behave. The keyboard filter tracking is off at zero, meaning the filter frequency is unaffected by playing higher or lower notes. |
| **Mode** | Selects the low-pass (**LP**), band-pass (**BP**), or hi-pass (**HP**) mode for the filter. |

## Poly Synth Envelopes

The Poly Synth contains two 4-stage envelopes; one controls the filter and the other the amplitude.

The Filter envelope provides control over harmonics and brightness over time by modifying the cutoff frequency over four stages, including attack, decay, sustain, and release. Using these controls to filter sound over time can provide a lot of variation and expression.

The Filter Envelope is applied using the Env Amount parameter on the Filter page. Additionally, experiment with the Invert parameter to reverse the effect of the envelope on the filter, and the powerful Poly Mod to modulate the filter further.

The Amp Envelope shapes the volume of a sound over time. Using this envelope, it is possible to mimic the dynamic properties of instruments such as for example, a string with a slow attack and a long release or a drum with a sharp attack and quick release. Of course, there is lots of room for experimentation, especially when combined with the effect of the Filter Envelope.

The Filter and Amp Envelope parameters are presented as follows:

### Filter Envelope parameters

| Element | Description |
|---|---|
| **Attack** | Sets the attack time of the envelope. Turned fully left, the envelope will start immediately. As the level is increased, the attack becomes longer, allowing the filter to open smoothly. |
| **Decay** | Sets the decay time of the envelope. After a sound reaches the filter frequency set at its attack stage, decay controls how quickly the filter then transitions to the cutoff frequency set with the sustain knob. The higher the setting, the longer the decay. |
| **Sustain** | Determines the control level for the duration of time that the note is being held. Unlike the other settings, **Sustain** is not time-based. |
| **Release** | Sets the release time of the envelope. This controls how quickly the filter closes after a note is released. If the Release switch on the Global page is set to off, then the Release control here will have no effect. |

### Amp Envelope parameters

| Element | Description |
|---|---|
| **Attack** | Adjusts the time it takes once a key is pressed for the volume to climb from zero to full volume. It can be used to create a sound with a fast attack or a slow fade-in. |
| **Decay** | Adjusts the time it takes for the volume to fall from its initial full volume to the level set by the **Sustain** control while a key is held down. |
| **Sustain** | Sets the volume level that the envelope remains at while the key is held down after the decay has expired. |
| **Release** | Adjusts the time it takes for the volume to fall from the sustain level to zero once the key is released. It can be used to create sounds that have a short or long fadeout. |

## Poly Synth Mix and Voices

The Mix / Voice page contains two sections that both affect the overall characteristics of the sound.

The Mix section enables you to adjust the levels of the various sound generators on the Poly Synth. These include Oscillator A, Oscillator B, and the noise generator. The level of at least one of these must be increased to make sound with the Poly Synth.

The Voice section contains parameters that can be used to set the polyphony (the number of voices used) and mode of the sound.

The Mix and Voice parameters are presented as follows:

### Mix parameters

| Element | Description |
|---|---|
| **Level A** | Adjusts the level of Oscillator A. At the far left position the oscillator is not heard. To the far right, the oscillator is at full volume. |
| **Level B** | Sets the level of Oscillator B. At the far left position the oscillator is not heard. To the far right, the oscillator is at full volume. |
| **Noise** | Sets the level of the noise generator. At the far left position the noise generator is not heard. To the far right, the oscillator is at full volume. |

### Voice parameters

| Element | Description |
|---|---|
| **Glide** | Sets the level of glide. When Unison mode is engaged, the Glide parameter determines the amount of time it takes the Poly Synth to slide from the previous note's pitch to a new pitch. This is the portamento effect that is common among monophonic synthesizers. The range of this function is from 0 seconds (when turned fully to the left) to 5 seconds (when turned fully to the right). |
| **Mode** | Sets the voice mode. In **Poly** mode, the Voices setting determines the number of voices that can play simultaneously. In **Unison** mode, all voices sound on one note. For example, if you use 16 voices of polyphony and are in Unison mode, playing a note will force 16 voices to play the same tone. That's 32 oscillators! This yields a very full lead or bass sound and allows the Glide function for portamento (gliding) effects. To create a "fatter" Unison Mode sound, the Poly Synth subtly detunes each voice. The detuning gives a doubling effect that can be used to create a mighty sound. If **Unison with Legato** is activated, when detached notes are played, each Attack will still be re-triggered, but when overlapping notes are played, the pitches will change without new Attacks, for Legato response. |
| **Voices** | Sets the number of voices of polyphony available to the Poly Synth synthesis engine. It also functions as the control for changing the amount of polyphony. The range is from 1 to 16 voices. |
| **Detune** | Adds an amount of random deviation throughout the synth engine. This random detuning is particularly noticeable in Unison mode, where the tuning variances will cause a monophonic patch to thicken. When **Detune** is set at the minimum amount, the Poly Synth is in "digital" mode, where all signals in the synthesis engine are precisely calibrated. |

## Poly Synth Oscillator A

The Poly Synth has two oscillators that are split across two pages named Oscillator A and Oscillator B. These oscillators produce waveforms that each have their own inherent sound character based on their harmonic content. The Poly Synth has two oscillators for each voice. If 16 voices are being used that's 32 oscillators! Level controls for each oscillator are located in the Mix / Voice section.

Oscillator A is capable of simultaneously generating sawtooth (ramp-like) and pulse (square-like) waveforms. You can select either waveform, both waveforms, or no waveform. If both waveforms are chosen, the output of this module will be an even mix of sawtooth and pulse waveforms. If neither waveform is selected, there will be no output from Oscillator A. Oscillator B can be hard-synced to Oscillator A to create more complex sounds.

Oscillator A parameters are presented as follows:

### Oscillator A parameters

| Element | Description |
|---|---|
| **Tune** | Sets the base pitch of Oscillator A. It can be adjusted in semitone increments over a 4-octave range. |
| **Sync** | Activates Oscillator A hard sync. Synchronization forces this oscillator's waveform to restart each time Oscillator B's waveform begins. The result of synchronization is the creation of interesting waveforms by either reinforcing harmonics of the controlling oscillator or adding new, unusual harmonics to the output signal.<br><br>It is important to note that when **Sync** is activated, the tune settings of Oscillator A only adjust the timbre of the oscillator. Oscillator B alone determines the pitch of the sound. Oscillator A will follow the pitch of incoming MIDI notes. Settings of Oscillator B are simply used to change the harmonic content of this oscillator. |

### Shapes parameters

| Element | Description |
|---|---|
| **Saw** | Activates the Sawtooth waveform. This is the richest audio signal of the waveforms (it contains all of the harmonics at decreasing volume levels in high frequencies). Its sound is ideal for brass sounds, percussive bass sounds, or rich accompaniments. |
| **Pulse** | Activates the Pulse waveform. The harmonic spectrum of a pulse wave is determined by the duty cycle, which can be changed using the **Pulse Width**. Acoustically, the wave could be described as changing during the duty cycle from buzzy, nasal and biting for thin pulses to warm, round, and hollow for more evenly spread, squarish waveforms. |
| **Pulse Width** | Changes the width of the pulse wave. It changes from a square wave when the pulse width knob is at its center position to a very narrow pulse wave when the pulse width knob is fully left or right. |

The parameters described are presented as they appear in the Control area (Arrange view). The same parameters are available in the Plug-in panel within the Plug-in Strip (Mix view). See The Plug-in Strip for more information on this.

## Poly Synth Oscillator B

The Poly Synth has two oscillators split across two pages named Oscillator A and Oscillator B. These oscillators produce waveforms with their own inherent sound character based on their harmonic content. The Poly Synth has two oscillators per voice. Level controls for each of these are located in the Mix / Voice section.

Oscillator A is capable of simultaneously generating sawtooth (ramp-like) and pulse (square-like) waveforms. Oscillator B can simultaneously generate sawtooth, triangle, and variable-width pulse waves and can be hard-synced to Oscillator A to create more complex sounds.

Oscillator B is also used as both a sound and modulation source. In addition to having more waveforms and finer frequency control, Oscillator B can be used as an LFO (Low Frequency Oscillator). This can also be disconnected from the incoming MIDI notes, allowing it to operate independently of the pitch being played.

Oscillator B parameters are presented as follows:

### Oscillator B parameters

| Element | Description |
|---|---|
| **Tune** | Sets the tuning of Oscillator B. The Tune control on Oscillator B works identically to that found on Oscillator A. It increments the frequency by semitones and provides a range of +/- 2-octaves. When the **Low** Mode is on, this control allows the frequency to be varied from roughly 0.3 Hz (one cycle every three seconds) to 30 Hz. |
| **Fine** | Sets the fine-tuning of Oscillator B. The fine control knob allows the tuning of Oscillator B to be adjusted continuously over a range of one semitone. When this control is turned fully counter-clockwise, there is no effect on the oscillator frequency. |
| **Low** | Turns Oscillator B into a low-frequency oscillator. The frequency range varies from 0.3 Hz to 30 Hz, with the rate selected using the **Tune** and **Fine** parameters. |
| **KBD** | Activates MIDI note control of Oscillator B. When turned off, its tuning can only be controlled by the **Tune** and **Fine** knobs, MIDI continuous controllers, andmodulation functions. |

### Shapes parameters

| Element | Description |
|---|---|
| **Saw** | Activates the Sawtooth waveform. This is the richest audio signal of the waveforms (it contains all of the harmonics at decreasing volume levels in high frequencies). Its sound is ideal for brass sounds, percussive bass sounds, or rich accompaniments. |
| **Triangle** | Activates the Triangle waveform. It sounds somewhere in between a square wave and a sine wave. It's not as buzzy as a square but not as smooth as a sine wave. It sounds clearer, maybe even brighter than a sine wave. |
| **Pulse** | Activates the Pulse waveform. The harmonic spectrum of a pulse wave is determined by the duty cycle, which can be changed using the **Pulse Width**. Acoustically, the wave could be described as changing during the duty cycle from buzzy, nasal and biting for thin pulses to warm, round, and hollow for more evenly spread, squarish waveforms. |
| **Pulse Width** | Changes the width of the pulse wave. It changes from a square wave when the pulse width knob is at its center position to a very narrow pulse wave when the pulse width knob is fully left or right. |

## Poly Synth LFO

The LFO provides a modulation signal with Modwheel control. The LFO is a special-purpose oscillator that produces a frequency typically below the range of human hearing. In addition to standard LFO functionality, the Poly Synth's LFO can also sync to the Maschine tempo.

An LFO, short for low-frequency oscillator, is an oscillator that runs below audio rate (below 20 cycles per second). The LFO is used for periodic modulation such as vibrato (periodic pitch modulation), filter modulation, and pulse-width modulation. The LFO can be routed to any or all of these destinations using the controls in the Modulation section.

The LFO produces three waveshapes: sawtooth, triangle, and square. Any of these waveshapes can be activated simultaneously. Noise is also available as a modulation source on the Modulation page. When all wave three shapes are switched off, the output of the LFO is a constant. With this, the Mod-Wheel can, for example, be used to directly make a filter sweep. Additionally, when all three waveform selector switches are turned on, the LFO enters the Sample and Hold mode. This is especially effective when combined with the **Voice Trig** mode, to produce a different Filter Cutoff every time the notes retrigger.

The LFO parameters are presented as follows:

### LFO parameters

| Element | Description |
|---|---|
| **Rate** | Determines the rate of the low-frequency oscillator. |
| **Mode** | Determines the mode of the LFO. The LFO can be set to run free or synchronized to the tempo of your host sequencer. In **Free** mode at the minimum **Rate** setting, the LFO cycles at about 0.04 Hz (1 cycle every 25 seconds). At its maximum **Rate** setting, the LFO will achieve a 20 Hz (20 cycles per second) rate. When set to **Synced**, the Frequency control will lock the LFO to the nearest appropriate tempo. As the **Rate** parameter is increased, the locking function will select a larger quantization value. It is sensitive to 1/16 and 1/8 note values, as well as triplet figures. |
| **Voice Trig** | Resets the Envelope when a MIDI note is received. This will automatically retrigger any held notes. |

### Shapes parameters

| Element | Description |
|---|---|
| **Saw** | Activates the sawtooth wave of the LFO. Activating/deactivating all of the shapes together will unlock other LFO behaviors. For more information, refer to above. |
| **Triangle** | Activates the triangle wave of the LFO. |
| **Pulse** | Activates the pulse wave of the LFO. |

## Poly Synth Modulation

The Modulation page is used to assign the LFO or Noise signal (or a combination of both) to modify the frequency or pulse-width of both oscillators as well as the filter cutoff. The **Amount** parameter sets the initial modulation level, and the modulation wheel on your MIDI controller can be used to apply the modulation effect further.

The Oscillator A Oscillator B destination switches determine the signals that will be affected by the modulation. Selecting the **Freq A** or **Freq B** destinations will allow you to apply LFO or noise modulation to Oscillator A and Oscillator B frequencies, respectively. This can provide interesting pitch and timbre alterations.

The **PW A** and **PW B** switches provide modulation of the pulse with the two oscillators. This can add great depth to your patch when using the pulse waveshapes on the oscillators. Finally, the **Filter** switch will allow you to add LFO and noise modulation of the cutoff frequency. This can create long sweeping or warbling filter effects that can also be controlled by simply moving the modulation wheel.

The Modulation parameters are presented as follows:

### Modulation parameters

| Element | Description |
|---|---|
| **Amount** | Sets the amount of LFO modulation routed to a destination set in the Destination section. Modulation can also be applied using the modulation wheel. |
| **LFO<>Noise** | Determines the mix of the modulation sources to be applied. When turned to the left, the modulation source is the output of the LFO section. When completely turned to the right, the source is the output of the Noise generator. When placed between these extremes, the source is a mixture of the two signals. |

### Destination parameters

| Element | Description |
|---|---|
| **Freq A** | Adds LFO or Noise modulation to the frequencies of Oscillator A. This can provide interesting pitch and timbre alterations to Oscillator A. |
| **Freq B** | Adds LFO or Noise modulation to the frequencies of Oscillator B. This can provide interesting pitch and timbre alterations to Oscillator B. |
| **PW A** | Adds LFO or Noise modulation of the pulse on Oscillators A. This can add great depth to your patch when using the pulse waveshapes on Oscillator A. |
| **PW B** | Adds LFO or Noise modulation of the pulse on Oscillators B. This can add great depth to your patch when using the pulse waveshapes on Oscillator B. |
| **Filter** | Adds LFO and Noise modulation of the filter cutoff. This can create long sweeping or warbling filter effects by simply moving the modulation wheel. |

## Poly Synth Poly Mod

The Poly Mod (polyphonic modulation) page provides a modulation system unique among polysynths. The Poly Mod system can be set to use Oscillator B or the Filter envelope to modulate Oscillator A frequency, Oscillator A pulse width, or the Filter cutoff frequency. with up to 16 voices this means that voice apply individual modulation to any of these selected destinations, creating interesting and varied results especially if the LFO is not set to retrigger for each new note played.

The Poly Mod parameters are presented as follows:

### Poly Mod parameters

| Element | Description |
|---|---|
| **Filter Env** | Selects the amount of modulation from the Filter envelope that is applied to a selected destination. For more information on the Filter envelope, refer to Poly Synth Envelopes. |
| **Oscillator B** | Creates FM and vibrato effects using an oscillator as a modulation source. The setting of **Oscillator B** will determine how much effect the output of Oscillator B will have on the selected modulation destinations. |

### Destination parameters

| Element | Description |
|---|---|
| **Freq A** | Activates frequency (tuning) of Oscillator A as a modulation destination. When activated, the tuning of Oscillator A will be affected. Depending on the **Filter Env** and **Oscillator B** controls settings, you will be able to create pitch slides, FM clanging, or wild pitch LFO effects. |
| **PW A** | Activates pulse width of Oscillator A as a modulation destination. Selecting the **PW A** switch will cause the Poly Mod system to affect the pulse width of Oscillator A. This is most often used to add thickness to a sound. |
| **Filter** | Activates the cutoff frequency of the filter as a modulation destination. The **Filter** destination switch will allow the Poly Mod section to modulate the Filter **Cutoff** setting. Modulating the Filter **Cutoff** will allow you to create LFO or FM-based filter effects. |

## Poly Synth Global

The Global page contains a number of parameters that enable you to change the overall sound and function of the Poly Synth.

The Global parameters are presented as follows:

### Global parameters

| Element | Description |
|---|---|
| **Tune** | Sets the basic tuning of the entire Poly Synth. The range of this control is +/-1 semitone. |
| **Pitchbend** | Sets the pitchbend range of the Poly Synth. The range of this control is 1 to 24 semitones. |
| **Velocity** | Determines if the incoming MIDI note velocities will control the envelope functions. When engaged, velocity will vary the amplifier envelope by 90%, and the filter envelope by 70%. The use of velocity control can help add dynamics to a sound. |
| **Release** | Determines if the **Release** settings of the filter and amplifier envelopes are used. When this button is activated, the envelope release times work as expected. When the button is deactivated, release times are set to their minimal positions. |
| **Hold** | Continues to hold played notes until it is deactivated. |

# 9. Working with Patterns and Clips

You can build your song in Maschine Mikro MK3 using either Patterns or Clips or a combination of both. Patterns and Clips each have their advantages depending on your preferred workflow and goals.

Clips only exist in the Song view (timeline) and are unique, while Patterns are referenced objects that exist in both the Ideas view and Song view. This means Patterns are great when you want to create single-sourced sequences, and Clips provide flexibility when you need one-off unique sound bites that can be freely positioned on the timeline. Therefore, if you copy a Clip to multiple places and change one of the Clips, only the edited one is changed. On the other hand, if you use a Pattern in multiple places and change one Pattern, all occurrences of this Pattern are changed (unless you use the "make unique" feature or convert it into a Clip beforehand). For added flexibility, Clips can be freely positioned and moved across the timeline. They can be part of a section but can also exist outside a section or span across multiple sections.

To summarize, here's an overview of Patterns and Clips basics:

- They both contain events (also called "notes") that make up a groove or a musical phrase using the Sounds of the selected Group.
- They can both contain modulation data modifying the value of parameters in that Group or any of its Sounds.
- They can both be edited in the Pattern Editor. Only the selected Pattern or Clip will appear in the Editor.

## Patterns versus Clips

This section provides an overview of the differences between Patterns and Clips.

**Patterns** have the following features:

- Patterns exist in the Ideas view and Song view. They act as the building blocks for developing ideas in Ideas view and can be added to Scenes in Song view to create an arrangement.
- You can reference the same Pattern in different Scenes. When you modify a Pattern in the Pattern Editor, all references to this Pattern are updated in the Song view (unless you use the "make unique" feature or convert into a Clip beforehand).
- When added to the Song view Patterns maintain a fixed position on the timeline of the arrangement relative to the Scene.
- A Pattern can be converted into a Clip. This creates a unique version of the Pattern that can be freely placed on the timeline of the arranger.
- Only one Pattern from each Group can be added to a Scene.
- A Pattern belongs to a Group and is saved together with the Group. Each Group can have an unlimited number of Patterns.

**Clips** have the following features:

- Clips exist only in Song view. They can be used in addition to Patterns. Clips are great for adding, for example, one-shot sounds, transitions, vocals, etc.
- Unlike Patterns, they are unique entities that can be freely positioned and moved across the timeline of the Arranger in the Song view.
- If you copy a Clip to multiple places and change one Clip, only the edited one will be changed.
- They can be part of a Section but can also exist outside a Section or span across multiple Sections.

- Whenever a Clip is placed on top of a Pattern, you will only hear the Clip.
- In Song view, Clips appear in a fully saturated color, while Patterns will have a slightly dimmed color state.

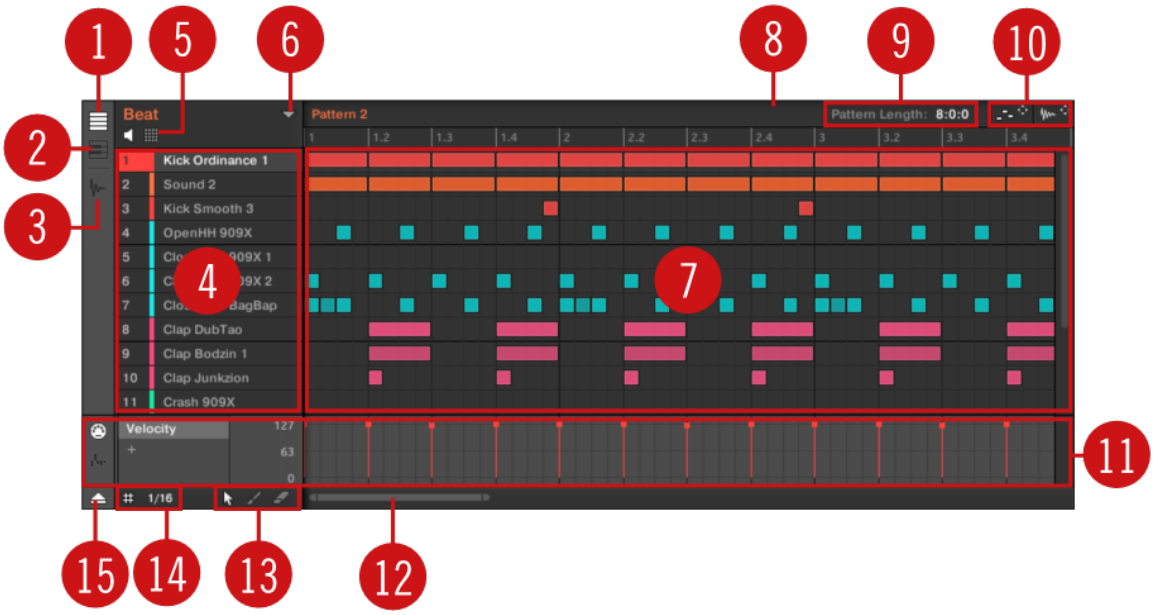
# Pattern basics

A Pattern contains the events (also called "notes") that make up a groove or a musical phrase using the Sounds of the selected Group. It also contains the modulation data (if any) modifying the value of parameters in that Group or any of its Sounds. The Pattern belongs to that Group and is saved together with the Group. In each Group you can have an unlimited number of Patterns. Patterns are grouped into Pattern banks containing up to 16 Patterns each.

## Pattern Editor overview

The Pattern Editor is the all-in-one Pattern and Clip editing tool of the Maschine software.

Pattern Editor contains the following control elements:




*The Pattern Editor (Group view depicted).*

1. **Group View button**: Click this button to switch to Group view. See section Group view and Keyboard view.
2. **Keyboard View button**: Click this button to switch to Keyboard view. See section Group view and Keyboard view.
3. **Sample Editor button**: Click this button to switch between the Pattern Editor and the Sample Editor. The Sample Editor is covered in chapter Sampling and sample mapping.
4. **Sound List**: Sound slots **1**–**16** of the selected Group are listed here. In Keyboard view (**2**), click a Sound slot to display its events in the Event area (**7**).
5. **Pad View button**: Click this button to switch between the Sound List (**4**) and the Pad view. The Pad view is an alternate representation of your Sound slots that focuses on the pads of your controller. In Pad view you can adjust how the Sounds should be triggered by your pads. For more information, refer to The Pad view.

6. **Pattern Manager button**: Opens/closes the Pattern Manager. The Pattern Manager gives you access to various management commands for your Patterns. Notably, it allows you to select the Pattern you want to edit in the Pattern Editor and use it in the current Scene of the Arranger. It also provides various Pattern management commands. For more information, refer to The Pattern Manager and the Pattern mode).
7. **Event area**: Displays the content of the selected Pattern. Here you can see your recorded events as rectangular blocks. In Group view (**1**) these represent the Sounds of your Group. In Keyboard view (**2**) they represent musical notes of the selected Sound. The length of each rectangular block represents the duration of the event, and its transparency indicates the event velocity (the softer the hit, the more transparent the event). You can edit events using your mouse; you can drag them to a new position, elongate/shorten them, create and delete them using various Edit modes (**13**). The Event area also displays the Step Grid divisions, a set of regularly spaced vertical lines defining the resolution of your edits. You can make all your edits snap to the desired Step Grid via the Step Grid settings (**14**).
8. **Pattern timeline**: The timeline at the top of the Event area (**7**) displays musical time units, including bars and beats. Click anywhere in the timeline to move the playhead to that position. For more information, refer to Jumping to another playback position in the Pattern). Drag the white Pattern Length marker horizontally to adjust the Pattern Length (this can also be done via the Pattern Length controls (**9**). For more information, refer to Adjusting the Arrange Grid and the Pattern Length).
9. **Pattern Length controls**: The Pattern Length controls allow you to choose the increment by which the length of the Pattern can be adjusted, and to adjust the length of the displayed Pattern according to that increment. For more information, refer to Adjusting the Arrange Grid and the Pattern Length.
10. **MIDI and Audio Dragger**: The MIDI Dragger and the Audio Dragger allow you to conveniently drag and drop MIDI or audio from your Patterns to your desktop or host software, respectively. For more information, refer to Exporting audio from Patterns and Exporting MIDI from Patterns.
11. **Control Lane**: The Control Lane provides a visual overview and editing tools for the modulation and the MIDI/host automation of each parameter. For more information, refer to Recording and editing modulation and Using MIDI control and host automation.
12. **Horizontal zooming scroll bar**: Click the main part of the scroll bar and drag your mouse horizontally to scroll through the Event area on the time axis, or drag it vertically to zoom in/out on the time axis. You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out while keeping the opposite border of the display at a fixed position in the Pattern. Double-click the main part of the bar to reset the zoom and display the entire Pattern. In Keyboard view (**2**) you will find a **vertical zooming scroll bar** with similar functionality at the right of the Pattern Editor. For more information, refer to Navigating the Event area.
13. **Edit Mode selector**: The Edit Mode selector lets you choose from three different modes when editing the content of the Pattern: Select, Paint, and Erase mode. For more information, refer to Editing events with the mouse.
14. **Step Grid settings**: Use the Step Grid button to enable/disable the Step Grid, and the Step Size menu to change the Step Grid resolution. For more information, refer to Adjusting the Step Grid and the Nudge Grid.
15. **Control Lane button**: Shows/hides the Control Lane (**11**).

## Patterns on the controller

Your controller provides various modes to work on your Patterns:

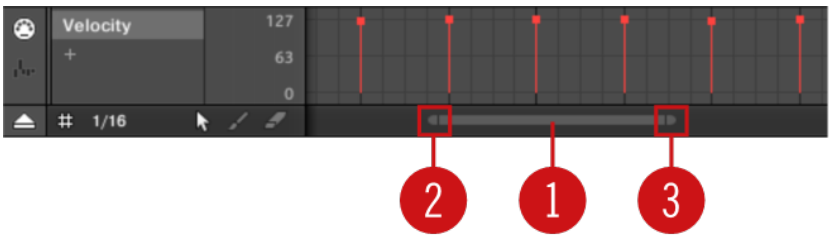
- The Pattern mode allows you to select and manage your Patterns: Managing Patterns.
- The Control mode (default mode of your controller) allows you to record Patterns in real time using various recording modes: Recording Patterns in real-time.
- The Step mode allows you to record Patterns in the step sequencer: Recording Patterns with the step sequencer.
- The Select mode allows you to select and edit the desired events: Selecting events/notes and Editing the selected events/notes.
- The Grid mode lets you adjust the Step Grid: Adjusting the Step Grid and the Nudge Grid.

## Navigating the Event area

The Event area in the Pattern Editor can be scrolled and zoomed in or out to fit your current needs.

### Navigating the Pattern Editor horizontally (time)

A **zooming scroll bar** is available at the bottom of the Pattern Editor. This tool allows you to both scroll and zoom in/out horizontally in the Event area and the Control Lane on the time axis:




*The zooming scroll bar at the bottom of the Pattern Editor.*

Use the horizontal zooming scroll bar as follows:

- Click the **main part** (**1**) of the scroll bar and hold the mouse button, then:
  - Drag your mouse horizontally to scroll through the Event area on the time axis (common scroll bar behavior).
  - Drag your mouse vertically to zoom in or out of the Event area on the time axis. The center of the zoom operation will be exactly where you placed your mouse cursor when you clicked.
- Click the **left handle** (**2**) of the scroll bar, hold the mouse button, and drag your mouse horizontally to zoom in or out of the Event area while keeping the right border of the display at a fixed position in the Pattern.
- Similarly, click the **right handle** (**3**) of the scroll bar, hold the mouse button, and drag your mouse horizontally to zoom in or out of the Event area while keeping the left border of the display at a fixed position in the Pattern.
- Double-click the **main part** (**1**) to reset the zoom and display the entire Pattern.



The Event Area and the Control Lane (if visible) always stay in sync on the time axis. For more information, refer to Creating and editing modulation in the Control Lane.

### Navigating the Pattern Editor vertically (Sounds or pitches)

When the Pattern Editor is in Group view, a classic scroll bar is visible right of the Pattern Editor. It allows you to scroll to hidden Sound slots in case all of them don't fit in the Pattern Editor.

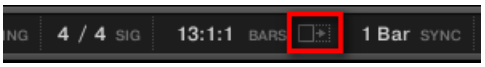
When the Pattern Editor is in Keyboard view, a vertical zooming scroll bar is available on the right of the Pattern Editor allowing you to both scroll and zoom in/out vertically on the pitch axis. It works in the same way as the horizontal bar described above.

> ⓘ For more information on the Group and Keyboard view, refer to Group view and Keyboard view.

You can also adjust the height of the Pattern Editor in order to display more/fewer Sound slots at once by resizing the Arranger above. For more information, refer to Navigating the Song view.

## Following the playback position in the Pattern

To have the Song view of the Arranger and Pattern Editor display the song position and scroll automatically, turn on the Follow button.




*Activate the Follow button to follow the playhead.*

▶ To follow the playhead position during playback, click the Follow button in the Maschine Header.

→ The Follow button lights up in the Maschine Header. The Song and Pattern Editor will now display the current position.

> ⓘ The Follow function is automatically deactivated as soon as you manually scroll in the Arranger or the Pattern area (in the software or from your controller).

The Follow function affects both the Pattern Editor and the Song view of the Arranger simultaneously. For more information, refer to Following the playback position in your Project.

### Following the playback position on the controller

▶ To follow the playhead position during playback, press **FOLLOW** in the Transport section.

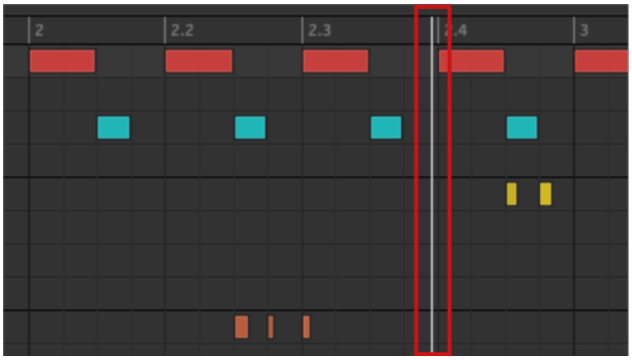
→ The **FOLLOW** button lights up, and the software follows the playback position of the song.

> ⓘ The Follow function is deactivated as soon as you manually scroll to another position in the song.

## Jumping to another playback position in the Pattern

You can use the timeline above the Event area to set the playback to the desired position. For example, this can be useful to check a particular transition between events in your Pattern or Clip without waiting for the whole Loop Range to be looped.

In the Event area, a white vertical line indicates the current playback position in the Pattern or Clip.




*The white vertical line in the Event area shows you the current playback position.*

At any time you can jump to another position in the Pattern:

▶ Click anywhere in the timeline of the Event area to move the playhead to that position in the Pattern.

Moving the playhead to another position in the timeline of the Pattern Editor automatically moves it to the corresponding position in the Arranger. However, using the timeline of the Pattern Editor you cannot jump outside the Pattern currently displayed. To do this, use the timeline of the Arranger (refer to Jumping to another playback position in your Project) or use your controller (see below).

Depending on the playback state, the following will happen:

- If playback is off, the playhead jumps to the closest step before your mouse cursor, according to the current Step Grid settings. If the Step Grid is deactivated, the playhead jumps to the exact position you have clicked. For more information on the Step Grid, refer to Adjusting the Step Grid and the Nudge Grid.
- If playback is on, the playhead jumps to the closest position near your mouse cursor that retains the current playhead position relative to the Pattern Grid division. This allows seamless jumps that don't break the rhythm of your music. If the Pattern Grid is set to **Off** (for instance, deactivated) or **Quick**, the playhead position is retained relative to the current bar. For more information on the Pattern Grid, refer to Adjusting the Arrange Grid and the Pattern Length.

**Example with playback activated**: Assuming that your Pattern is four bars long and the Pattern Grid resolution is set to one bar, if you click around the **1.4** mark (4th beat of the 1st bar) in the timeline when the playhead reaches the **3.3** mark (3rd beat of the 3rd bar), the playhead will jump from the **3.3** to the **1.3** mark (3rd beat of the 1st bar) and continue from there.

## Group view and Keyboard view

The Pattern Editor provides two different views: the Group view and the Keyboard view.

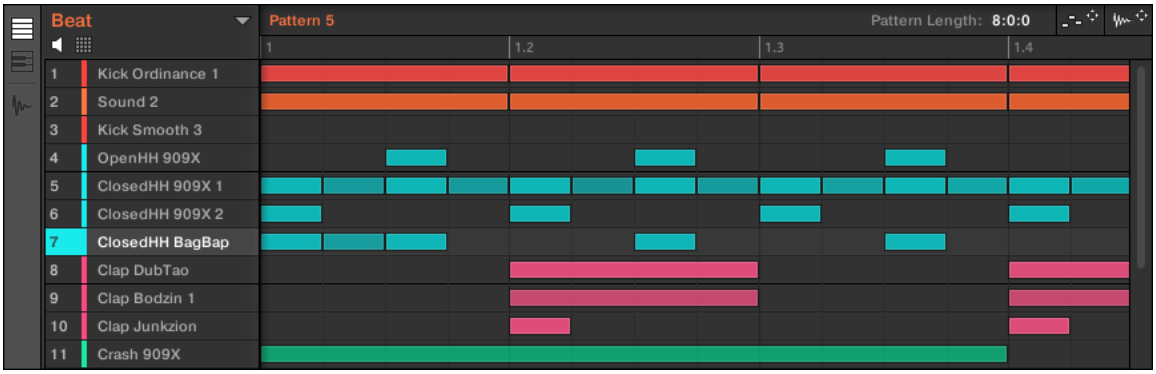
### The Group view

The **Group view** allows you to edit the events for all 16 Sound slots of the selected Group.

▶ Click the Group View button (showing little rows of events) in the top left corner of the Pattern Editor to switch it to Group view:




In Group view each row of the Event area shows the events for a different Sound slot in the Group.




*In Group view, the Pattern Editor shows the events for all Sounds in the Group.*

This view is well suited for rhythmic instruments (for example, a drum kit) since you can see and edit the events for all Sounds at once, without worrying about the pitch of the events you create or edit.

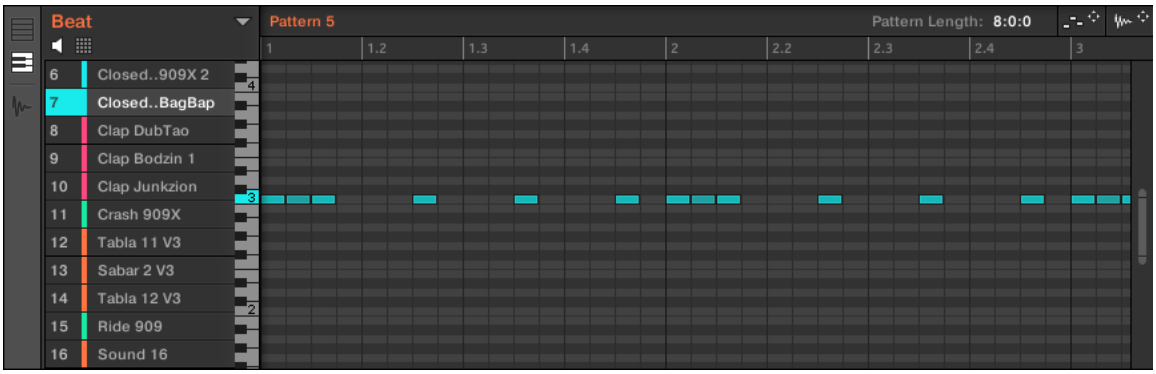
## The Keyboard view

Alternatively, you can switch the Pattern Editor to **Keyboard view**:

▶ Click the Keyboard View button (showing little keys) in the top left corner of the Pattern Editor to switch it to Keyboard view:




In Keyboard view each row of the Event area shows the notes at a particular pitch for the selected Sound. By adding or editing notes, you can choose their pitch in semitones depending on where you place them on the vertical axis, the lowest note being on the lowest row.



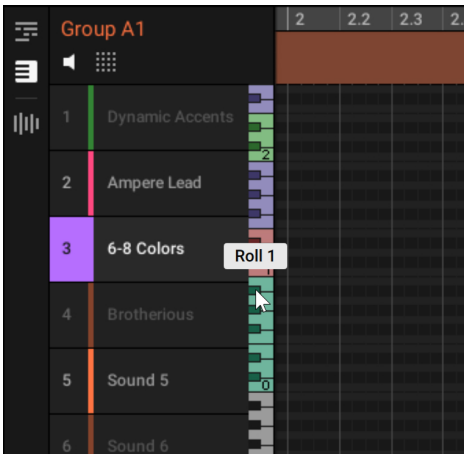

*In Keyboard view, the Pattern Editor shows all notes for a particular Sound.*

If you select another Sound slot in the Sound List on the left, the Event area will switch to the notes for that Sound.

This view is well suited for melodic instruments (for example, a piano) since you can focus on a particular Sound and create/edit notes at different pitches.

## Piano roll

On the left of the Event area in Keyboard view, a vertical piano roll shows the keys corresponding to each row in the Event area.




The piano roll provides a set of useful features:

- Octaves are indicated by a number on each C key: For example, the middle C, which is noted C3 in the Maschine convention, will read "**3**."
- Clicking any key on the piano roll triggers the selected Sound at that particular pitch.
- For NKS instruments, the active keys show the key colors from the original instrument, if any. Otherwise the active keys mirror the color of the Sound slot. Inactive keys have no color.
- If you select a scale on your Maschine controller or on your Kontrol S-Series keyboard, this scale is indicated by the colored keys. The keys outside the scale have no color, indicating that they cannot be triggered from your controller or from your keyboard.
- Hovering over keys displays the note name. If a key is used as a keyswitch in the loaded instrument, the keyswitch label is displayed.

## Switching between Group and Keyboard view from the controller

The Group/Keyboard view in the software is always in sync with the Group/Keyboard mode of the pads on your controller: Switching between Group and Keyboard view in the software will automatically switch the pads between Group mode and Keyboard mode on your controller, and inversely.

As a consequence, you can switch the Pattern Editor between Group and Keyboard view by switching your pads between Group and Keyboard mode:

▶ Press **PAD MODE** on your controller to switch the Pattern Editor to Group view.

→ The Pattern Editor in the software switches to Group view.

▶ Press **KEYBOARD** (or **CHORDS**) on your controller to switch the Pattern Editor to Keyboard view.

→ The Pattern Editor in the software switches to Keyboard view.

For more details on the various pad modes available on your controller, refer to Selecting a pad mode.

## Adjusting the Arrange Grid and the Pattern Length

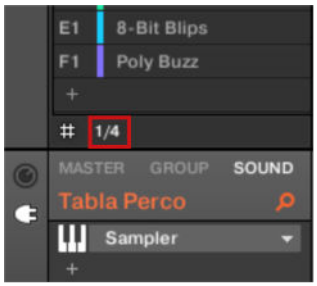
The **Arrange Grid** defines regularly spaced-out timings notably used in the following situations:

- Adjusting the Pattern length (see below).
- Adjusting the Section length.

### Adjusting the Arrange Grid in the software

To adjust the Arrange Grid:

▶ To adjust the Arrange Grid resolution, click the value beneath the Groups in the Arrange view and select the desired setting from the menu (see above for the available settings).




→ The divisions of the Arrange Grid now have the size you have just selected.

The following Arrange Grid resolutions are available:

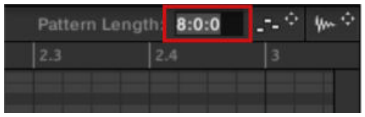
- **1 Bar**, **1/2 note**, …, **1/16th note**: Each of these settings lets you adjust the Pattern Length by the specified increment.
- **Off**: The Arrange Grid is deactivated. Notably, you can freely set the Pattern Length to any value or set the playback position to any location.
- **Quick** (default): With this setting, the available lengths for your Pattern are as follows: 1 bar, 2 bars, 4 bars, 8 bars, 12 bars, 16 bars, etc. (+ 4 bars each time starting from 4 bars). This handy mode allows you to quickly select from the most common Pattern Lengths. For other uses of the Arrange Grid (adjusting the playback position and the Loop Range), one-bar divisions are used instead.

### Adjusting the Pattern Length in the software

You can adjust the length of your Patterns to fit your needs. The Pattern Length is measured in bars and beats, and Patterns can be up to 256 bars long. When you create a new empty Pattern (refer to Creating Patterns), the Pattern has the default length as defined in the **Default** page of the **Preferences** panel (refer to Preferences – General page).

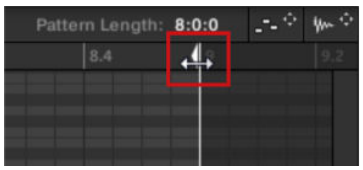
You can adjust the Pattern Length in two ways:

▶ To adjust the Pattern Length, click the **Pattern Length:** field and drag it up to make the Pattern longer or drag it down to make it shorter. You can also double-click the displayed value, enter a new value with your computer keyboard, and press [Enter] to confirm.



or

▶ To adjust the Pattern Length, drag the end marker of the Pattern (white arrow) in the timeline:




With either method, the available lengths will depend on the current Pattern Grid resolution (see above).

Reducing the length of a Pattern might exclude the last events from the Pattern. However, these events are not deleted: They simply appear darker in the Event area and will be included back into the Pattern next time you extend it.

Events beyond the Pattern's end can be edited in the software. However, you cannot edit them from the controller. For more information, refer to Editing events.

### Adjusting the Pattern Length on the controller

In Pattern mode you can adjust the Pattern Length of the current Pattern:

1. Press **PATTERN** to enter Pattern mode.
2. Press the pad relevant to the Pattern you want to adjust.
3. Turn the Encoder (**LENGTH**) to adjust the Pattern Length in relation to the current resolution of the Pattern Grid.

### Adjusting the Arrange Grid on the controller

In Grid mode, you can adjust the various grids used in Maschine, including the Arrange Grid resolution. The Arrange Grid changes the size of steps by which Section Lengths and Pattern Lengths can be adjusted.

1. Press **SHIFT** + **FOLLOW** (**Grid**) to enter Grid mode.
2. Press the Arrow buttons to navigate to the Arrange Grid setting.
3. Turn the Encoder to select a resolution.

## Adjusting the Step Grid and the Nudge Grid

The **Step Grid** defines regularly spaced-out timings (the "steps") at which your events/notes can be created, moved, etc. The Step Grid resolution corresponds to the step size, which directly affects the precision of all Pattern editing actions, including quantization (refer to Quantizing events/notes).

> ⓘ The Step Grid also affects the step sequencer on your controller: Increasing the Step Grid resolution (i.e. decreasing the step size) will make more steps available in your Pattern for placing events. For more information on the step sequencer, refer to Recording Patterns with the step sequencer.

In the Pattern Editor, the Step Grid is indicated by the gray vertical lines in the Event area:




*The vertical lines represent the Step Grid in the Event area.*

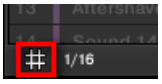
By default the Step Grid is active and the step size is 1/16th. However, you may use another step size or disable the Step Grid completely, as described below.

Depending on the current zoom factor and Step Grid resolution, if the vertical lines of the Step Grid are too close to each other they will be hidden to avoid convoluting the display. For example, this could be the case if you display 6 or 8 bars and choose a Step Grid resolution of 1/64th.

Regardless of the current Step Grid resolution, the gray lines on the beats (quarter notes) and the black lines on the bars (notes) are always visible in the Event area.

## Enabling or disabling the Step Grid in the software

▶ To enable or disable the Step Grid, click the Step Grid button (showing a little grid icon) in the bottom left corner of the Pattern Editor.




*The Step Grid is activated.*

## Adjusting the Step Grid in the software

The Step Grid resolution can be adjusted via the Step Size menu, showing a value next to the grid icon at the bottom left of the Pattern Editor:




*The Step Size menu lets you adjust the Step Grid resolution.*

▶ To select the step size that will apply to all your editing actions, click the value next to the grid icon at the bottom left of the Pattern Editor and choose the desired step size from the drop-down menu. Values range from **1 Bar** to **1/128** and also include triplet values. The default value is 1/16th note.

## Adjusting the Nudge Grid in the software

In addition to the Step Grid described above, a secondary grid specifically controls the timings at which existing events/notes can be nudged in the Pattern: the **Nudge Grid**.



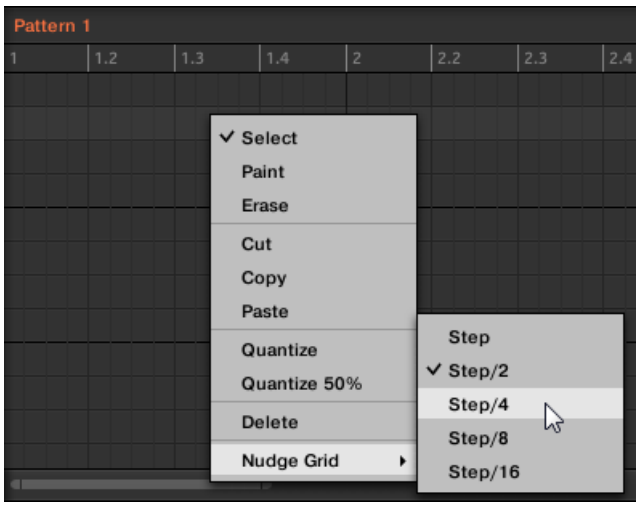
Nudging events means shifting them a small amount ahead or behind their current position. For more information, refer to Editing the selected events/notes.

The Nudge Grid is based on the Step Grid:

- The Nudge Grid is active when the Step Grid is active. If the Step Grid is deactivated, nudging events will shift them at the maximum resolution of the sequencer.
- By default, the Nudge Grid resolution is half a step, meaning that events will be nudged by half a step at a time.
- If you set the Nudge Grid resolution to a full step, the Nudge Grid will mirror the Step Grid and you can nudge events with the same resolution as when creating or quantizing events.
- You can also set the Nudge Grid resolution to a smaller fraction of the Step Grid resolution. This allows you to nudge events with even finer increments.

The Nudge Grid resolution can be adjusted in the context menu of the Event area:

▶ To adjust the Nudge Grid, right-click ([Ctrl]-click on macOS) on the background of the Event area, select **Nudge Grid** in the menu, and choose a resolution from the values available in the submenu: **Step**, **Step/2**, **Step/4**, **Step/8**, and **Step/16**:






The Nudge Grid is not indicated in the Event area of the Pattern Editor.

## Adjusting the Step Grid and the Nudge Grid on the controller

You can adjust the Step Grid and Nudge Grid resolution using your controller.

To adjust the Step Grid resolution:

1. Hold **SHIFT** + **FOLLOW** (**Grid**) to enter Grid mode.
2. Press the Arrow buttons to navigate to the Step setting.
3. Turn the Encoder to select a resolution.

To change the Nudge Grid resolution:

1. Hold **SHIFT** + **FOLLOW** (**Grid**) to enter Grid mode.
2. Press the Right Arrow buttons to navigate to the Step Nudge setting.
3. Turn the Encoder to select a resolution.

The new Nudge Grid resolution is directly in use, provided that the Step Grid is activated.

# Recording Patterns in real-time

This section describes the various ways, features, and aids available on your controller to record Patterns as you play them in real-time:

- The most common method is called overdub recording. Alternatively, you can use replace recording. Both are described in section Recording your Patterns live.
- You can also record a Pattern that will automatically grow until you stop recording: Using Auto-Growing Pattern.
- You can also start the recording with a count-in: Recording with count-in.

When recording Patterns in real-time, the metronome can be a useful help. Refer to Using the metronome for more information.

## Recording your Patterns live

In Control mode, your controller provides many tools to live record Patterns for the focused Group.

Take your time to set up the pad sensitivity and velocity scaling to your taste. You will have even more fun playing and recording with your controller! These settings can be found in **Preferences > Hardware > Pads**. For more information, refer to Preferences – Hardware page.

### Overdub mode

Overdub mode is the most usual recording mode. In this mode, all pad hits are added as events/notes, no matter if the Pattern already contains events.




*Recording a Pattern: press PLAY, then REC, and hit some pads!*

1. Press **PLAY** to start the sequencer. The **PLAY** button lights up.
2. Press **REC** to begin recording. The **REC** button lights up.

3. Now hit the pads you want to record and listen to what happens. Each hit will create an event in the Pattern Editor. The event length depends on how long you hold the pad. Events continue to be added to the Pattern, even as the Pattern cycles.
4. When you're done, press **REC** again to stop recording the pads.

→ The **REC** button turns off. The sequencer keeps playing until you press **PLAY** again.

### Replace mode

When recording in Replace mode the events of the selected Sound(s) are replaced by what you play.

1. Select the Sound(s) of which you want to replace events: with the pads in Group mode you can select multiple Sounds (refer to Selecting multiple Sounds or Groups), with the pads in Keyboard mode only the focused Sound (the one played by your pads) will have its events replaced.
2. Press **PLAY** to start the sequencer. The **PLAY** button lights up.
3. Press **ERASE** + **REC** to begin recording in Replace mode. The **ERASE** and **REC** buttons light up.
4. Hit the pads you want to record. Each hit will create an event in the Pattern Editor, the event length depends on how long you hold the pad. Existing events for the selected Sound(s) are deleted as they are reached by the playhead.
5. When you're done, press **REC** again to stop recording the pads.

→ The **ERASE** and **REC** buttons turn off. The sequencer keeps playing until you press **PLAY** again.

In order to prevent you from erasing events accidentally, in the following situations Replace mode is **automatically disengaged** (**ERASE** turns off) and the recording continues in Overdub mode:

- When the playback loops (whether at the end of the Loop Range or at the end of your Project).
- When you stop the sequencer (by pressing the lit **PLAY** button).
- When you jump to another location in the Project. For more information, refer to Jumping to another playback position in the Pattern.
- When you switch your controller to another mode (by pressing, e.g., **SCENE**, **PATTERN**, etc.).
- When you set the focus to another Group.

You can also **manually disengage** Replace mode and switch to Overdub mode:

▶ While recording in Replace mode, press the lit **ERASE** button to disengage Replace mode.

→ The recording goes on in Overdub mode (see description above).



You can also erase events without engaging record: If you hold **ERASE** together with a pad while playing (or recording), all events of that pad at the current play position are deleted. For more information, refer to Deleting events/notes.

### Where are the events recorded?

When you start recording the pads, the events are recorded as follows:

- If a Pattern is already selected (i.e. loaded in the Pattern Editor), the events are recorded in that Pattern. This is also true if the playhead of the Arranger currently is within an automatic repetition of the Pattern.

- If no Pattern is selected, engaging record (in Overdub or Replace mode) automatically creates an new empty Pattern with the default Pattern Length. The new Pattern is used at the beginning of the current Scene and repeated throughout the Scene.



You can adjust the default Pattern Length in the **Defaults** page of the **Preferences** panel. For more information, refer to Preferences – Default page.

## Using Auto-Growing Pattern

Auto-Growing Pattern lets you record Patterns of an undefined length. This means that when inspiration strikes, you can quickly capture an idea without having to set a Pattern Length in advance. Simply begin recording and the length of the Pattern will grow until you stop recording, allowing you to maintain your creative flow.

When you have finished recording, any silence at the end of the Pattern will automatically be trimmed to the nearest bar (quantization can be adjusted via Grid settings). You can then define the start of your Pattern and set its length, to pick the take or part of your recording that you liked best.

### Setting Auto-Growing Pattern in the Preferences

Auto-Growing Pattern is active by default unless you manually change the Pattern Length before recording. You can change this default behavior in the **Preferences** panel of the software:

1. Open the Maschine menu (macOS) or File menu (Windows) of the Application Menu Bar, or open the **File** submenu of the Maschine menu, and select **Preferences…**.
2. In the **Preferences** panel, select the **Default** page in the left column.
3. In the **Pattern** section, click the **Grow Pattern while Recording** checkbox to activate or deactivate Auto-Growing Pattern by default.



If you manually select a defined Pattern Length, Auto-Growing Pattern is automatically deactivated for the selected Pattern. If you want to use Auto-Growing Pattern again, select another Pattern or press **SHIFT** + Pad **1** on your controller to undo the Pattern Length selection until you return to **Auto**.

## Recording with count-in

Count-in allows you to start the metronome before the sequencer and recording begin. This is very handy if you want to start recording a Pattern exactly on the downbeat.

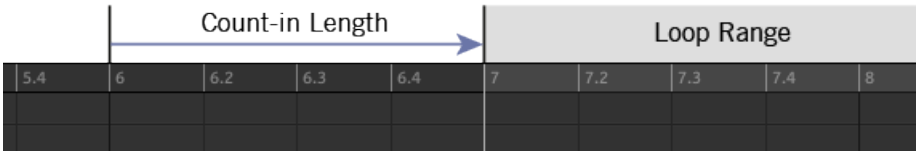
When recording starts with a count-in, the following happens:

- The playhead jumps to the beginning of the Loop Range.
- You hear the metronome alone during the count-in phase (1, 2, or 4 bars).
- After the count-in phase, the recording starts in Overdub mode (refer to Recording your Patterns live). The metronome turns off if it was off before the Count-in, otherwise it stays on.

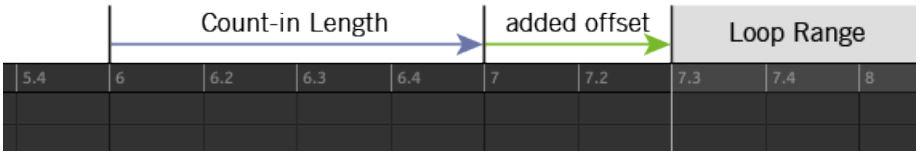


You can adjust the metronome's volume, time signature, and downbeat/upbeat sounds. For more information, refer to Using the metronome.

If the current Loop Range does not start at the beginning of a bar (i.e. on a downbeat), the count-in phase will start with a downbeat, count the selected duration (1, 2, or 4 bars), and then add the offset between the beginning of the bar and the actual beginning of the Loop Range:




*Count-in when the Loop Range starts at the beginning of a bar…*




*…and when the Loop Range does not start at the beginning of a bar.*

You can also use the count-in to start a recording in Replace mode.

### Adjusting the count-in duration in the software

You can choose how long the metronome should be heard before the recording actually starts. In the software, this is done via the **Count-in Length** setting in the **General** page of the **Preferences** panel. Available values are 1 bar, 2 bars, and 4 bars. For more information, refer to Preferences – General page.

### Using the count-in on your controller

On your controller:

- Press **SHIFT** + **REC** to start the Count-in and record in Overdub mode.

or

- Press **SHIFT** + **ERASE** + **REC** to start the Count-in and record in Replace mode (refer to Recording your Patterns live for more information on the Replace mode).



You can adjust the duration of the Count-in using the software, refer to Preferences – General page.

## Recording Patterns with the step sequencer

If you are familiar with classic drum machines you may want to program your Pattern using the step sequencer. On your controller, the step sequencer is available using the **Step mode**.

## Step mode basics

The Step mode allows you to program the steps to be played by the focused Sound in the current Group.

### Entering Step mode

▶ Press **STEP** to switch your controller to Step mode.

In Step mode, each pad of your controller represents one step of a 16-step sequence for the focused Sound. The size of the steps depends on the current Step Grid settings. Lit pads indicate when events are on the corresponding steps.

> For more information on the Step Grid, refer to Adjusting the Step Grid and the Nudge Grid.

In Step mode events are created with the following settings:

- The event **pitch** is set to the Sound's base key. For more information, refer to Adjusting the base key.
- The event **velocity** is defined by how hard you hit the pads unless you have activated the Fixed Velocity option (see below).
- The event **length** is set to one step (hence, it depends on the current Step Grid settings).
- Obviously, the event **position** is defined by the pad you hit.

### Checking your sequence

In Step mode the pads provide an overview of the first bar of a four-bar Pattern:

- Individual events in your Pattern are represented by lit pads.
- The playback position in the Pattern is indicated by a playhead traveling from left to right.

To switch the pads to another part of the sequence, you have two possibilities:

▶ Press **FOLLOW** to enable/disable the Follow function.

→ When Follow is activated, your pads automatically switch to the next 16 steps as soon as the playback position reaches the end of the portion currently displayed.

> This Follow function is always synchronized with the Follow function in the software. For more information, refer to Following the playback position in the Pattern.

Otherwise, you can manually switch to the previous/next steps:

▶ Turn the Encoder to manually switch to the previous/next 16 steps on your pads.

### Doubling your pattern

You can quickly double the content of the Pattern:

▶ Press **SHIFT** + **DUPLICATE** (**Double**) to double the content of the Pattern.

→ The length of the Pattern is doubled. All events in the original Pattern are duplicated to the second half of the extended Pattern. Any events that were located beyond the original Pattern's end are moved beyond the extended Pattern's end.

> ⓘ You can otherwise double your Pattern using Pattern mode. For more information, refer to Doubling a Pattern on your controller.

### Preparing the next events

You can adjust the velocity of the next events that you will create by pressing the pads. The velocity of the events you create depends on the state of the Fixed Velocity option:

▶ Press **FIXED VEL** to enable/disable the Fixed Velocity option.

- If Fixed Velocity is activated, all events you create will have the velocity set by turning the Control encoder. The Fixed Velocity value is momentarily shown on the display as you turn the Controller encoder.
- If Fixed Velocity is deactivated, the velocity of each event will depend on how hard you hit the pad when creating the event.

> ⓘ These parameters affect only your next hits on the pads: They do not modify the velocity of existing events.

## Editing events in Step mode

In Step mode, you can quickly adjust the parameters of events on particular steps.

### Quick Edit shortcuts for the selected steps

You can quickly adjust the velocity, position, and pitch of any events via the Quick Edit shortcuts:

1. Press and hold the pad(s) of the step(s) you want to edit. If you want to adjust the last step you have created, you can skip this step: the last created event is automatically selected.
2. To adjust the velocity, press the **VOLUME** (**Velocity**) button and turn the Encoder.
3. To finely adjust the position, press the **SWING** (**Position**) button and turn the Encoder.
4. To adjust the pitch, press **TEMPO** (**Tune**) button and turn the Encoder.

→ The adjusted value appears on the display. When you are done, release the pad(s).

### Edit commands on the pads in Step mode

In Step mode on your controller, each event you create is automatically selected (and the previous selection is dropped). You can then edit this last created event via the various commands available on your pads while holding **SHIFT**. Refer to Editing events for more information on the available commands.

# Editing events

Many creation and editing commands on events/notes are available directly via mouse actions in the Event area of the Pattern Editor. They will be applied according to the selected Step Grid resolution (refer to Adjusting the Step Grid and the Nudge Grid). In Group view, the Sound in focus will change according to the row you click in. Selected notes are highlighted.

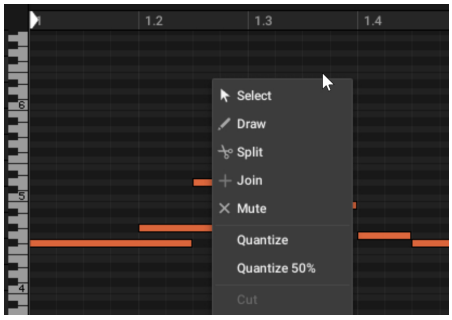
### Events vs. notes

Basically, events and notes are equivalent: a trigger for a Sound with particular velocity, pitch, length, etc. If we might use the word "note" when dealing with melodic instruments, and "event" when dealing with drum kits, keep in mind that both words have the same meaning in the Maschine context.

## Editing events with the mouse

In the software, you can choose between five mouse modes for editing your events. Each mode provides different mouse actions in the Event area.

▶ To activate a mouse mode, right-click in the Event area and select the desired mode from the upper part of the context menu. You can also use the keyboard shortcuts listed below.



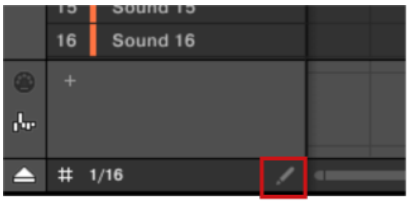

In the Event area, the mouse cursor shows the icon of the active mode.

The following mouse modes are available:

- **Select mode** (arrow icon): This is the default mode. It provides an exhaustive set of actions for creating, selecting, editing, and deleting events/notes with your mouse. Refer to Mouse in Select mode for more information.
- **Draw mode** (pencil icon): Provides quick actions for creating, resizing, and deleting events/notes. Pressing [E] on your computer keyboard will quickly switch between the Draw mode and the default Select mode. Refer to Mouse in Draw mode for more information.
- **Split mode** (scissors icon): Lets you split events/notes. Pressing [X] on your computer keyboard will quickly switch between the Split mode and the default Select mode. Refer to Mouse in Split mode for more information.
- **Join mode** ("**+**" icon): Lets you join events/notes. Pressing [Y] on your computer keyboard will quickly switch between the Join mode and the default Select mode. Refer to Mouse in Join mode for more information.
- **Mute mode** ("**x**" icon): Lets you mute events/notes. Pressing [Z] on your computer keyboard will quickly switch between the Mute mode and the default Select mode. Refer to Mouse in Mute mode for more information.

ⓘ The keyboard shortcuts above are not available when the computer keyboard is used as MIDI keyboard in Maschine. Refer to Using your computer keyboard as a MIDI keyboard for more information.

You can also turn the Draw mode on or off by clicking the dedicated Draw Mode button (pencil icon) at the bottom left of the Pattern Editor:



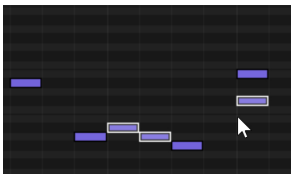

*The Draw Mode button.*

The mouse actions work both in Group view and in Keyboard view. Refer to Group view and Keyboard view for more information.

For additional edit commands available from your computer keyboard, as well as more details on quantization behavior, refer to Editing the selected events/notes.

## Mouse in Select mode

In Select mode (the default mode) the mouse cursor shows the standard arrow icon.



The following mouse actions are available:

| Action | Function |
|---|---|
| **Creating notes**<br><br>(refer to Creating events/notes for details) | |
| Double-click in the Event area's background | Creates a note. |
| **Deleting notes**<br><br>(refer to Deleting events/notes for details) | |
| Double-click note | Deletes the selected notes. |
| Right-click (macOS: [Ctrl]-click) and select **Delete** from the menu. | Deletes the selected notes. |
| **Selecting notes**<br><br>(refer to Selecting events/notes for details) | |
| Click unselected note | Selects a note. |
| [Shift] + click unselected note | Adds note to current selection. |
| [Shift] + click selected note | Removes note from the selection. |
| Drag in Event area's background | Multiple selection (selection frame). |

| Action | Function |
| --- | --- |
| Click in the Event area's background | Deselects all notes. |
| **Editing the selected notes***<br><br>(refer to Editing the selected events/notes for details) | |
| Drag note horizontally | Moves the selected notes in time according to the Step Grid. |
| [Ctrl] + drag note horizontally<br><br>(macOS: [Cmd] + drag note) | Freely moves the selected notes in time, overriding the Step Grid quantization. |
| [Alt] + drag note | Duplicates the selected notes. When you drag horizontally, the copies are moved in time according to the Step Grid. |
| Drag the left/right border of a note | Resizes the selected notes by moving their start/end position according to the Step Grid. |
| [Ctrl] + drag the left/right border of a note<br><br>(macOS: [Cmd] + drag left/right border) | Freely resizes the selected notes by moving their start/end position, overriding the Step Grid quantization. |
| Drag note vertically | Group view: Moves selected notes to another Sound of the Group.<br><br>Keyboard view: Transposes selected notes. |

* If multiple notes are selected, mouse actions performed on any selected note will apply to all the selected notes.

If you edit a note not included in the current selection, the selection is dropped and the note you are editing will be the only note affected by your edit.

## Mouse in Draw mode

In Draw mode the mouse cursor shows a pencil icon. You can press [E] to quickly switch between the Draw mode and the default Select mode.



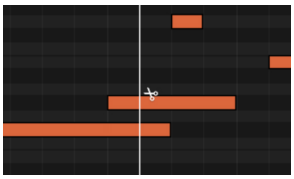
The following mouse actions are available:

| Action | Function |
| --- | --- |
| **Creating notes**<br><br>(refer to Creating events/notes for details) | |

| Action | Function |
|---|---|
| Click in the Event area's background | Creates a note. |
| Click and drag (with the button pressed) in the Event area's background | Create series of notes wherever you move the cursor. Notes are created for the selected Sound. |
| **Deleting notes**<br><br>(refer to Deleting events/notes for details) | |
| Click a note | Deletes the note. |
| Click a note and drag the mouse( with the button pressed) | Deletes all the notes under the mouse cursor. Only the notes for the selected Sound are deleted. |
| **Editing the selected notes***<br><br>(refer to Editing the selected events/notes for details) | |
| Drag the left/right border of a note | Resizes the selected notes by moving their start/end position according to the Step Grid. |
| [Ctrl] + drag the left/right border of a note<br><br>(macOS: [Cmd] + drag the left/right border of a note) | Freely resizes the selected notes by moving their start/end position, overriding the Step Grid quantization. |

## Mouse in Split mode

In Split mode the mouse cursor shows a scissors icon. You can press [X] to quickly switch between the Split mode and the default Select mode.



To split a note, do the following:

1. Hover with your mouse over the desired note.

→ A white vertical line shows the position at which the note will be split, according to the Step Grid. Hold [Ctrl] (Windows) or [command] (Mac) while moving the mouse to adjust the split position regardless of the Step Grid.

2. Click to split the note at the current position.

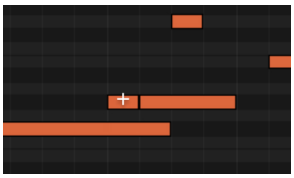
→ The underlying note is split into two distinct notes. If there is no note playing at the split position, nothing happens.

If some notes are currently selected, the following will happen:

- Clicking an unselected note will split only that note.
- Clicking a selected note will split all the selected notes that are playing at the split position.

### Mouse in Join mode

In Join mode the mouse cursor shows a plus (**+**) icon. You can press [Y] to quickly switch between the Join mode and the default Select mode.



▶ Click a note to join it with the next note on the same key.

If some notes are currently selected, the following will happen:

- Clicking an unselected note will join it with the next note (selected or not) on the same key.
- Clicking a selected note will join it with the next selected note on the same key, if any. Any unselected note in between will stay unaffected. Selected notes on other keys will also be joined with their next selected note, if any.

If the original notes did not overlap, the joined note will fill the gap between the two original notes.

ⓘ Both in Group view and in Keyboard view, you can only join notes triggering the same key, that is, notes that are on the same row in Keyboard view.

### Mouse in Mute mode

In Mute mode the mouse cursor shows a cross (**x**) icon. You can press [Z] to quickly switch between the Mute mode and the default Select mode.



▶ Click any note to mute or unmute it.

→ Muted notes are grayed out in the Event area and they will not be triggered.

If some notes are currently selected, the following will happen:

- Clicking an unselected note will mute or unmute only that note.
- Clicking a selected note will mute or unmute all the selected notes.

ⓘ Muting notes in the Pattern Editor works independently of muting Sounds or Groups. For more information on muting Sounds and Groups, refer to Mute and Solo.

## Creating events/notes

In the software, you can create new events anywhere in the Event area using your mouse in Select mode or Draw mode.

Each event is created at the beginning of the step in which your mouse cursor is located, according to the Step Grid settings. If the Step Grid is deactivated, the event is created at the exact position of your mouse cursor.

In Group view you can create events at the base key for all Sounds in the Group, no matter which Sound is focused. In Keyboard view you can create events at all keys (pitches) for the focused Sound. You need to set the focus to another Sound in order to create events for that Sound.

### Mouse in Select mode

▶ To create a new event in Select mode, double-click at the desired location in the background of the Event area.

### Mouse in Draw mode

▶ To create a new event in Draw mode, simply click at the desired location. Click and drag your mouse horizontally to quickly create a series of events.

### Creating events beyond the Pattern's end

If you create an event beyond the end of the Pattern in the Event area, the Pattern is automatically extended to the next Arrange Grid division after the new event in order to include this new event.



For more information on the Pattern Length and the Arrange Grid, refer to section Adjusting the Arrange Grid and the Pattern Length.

### Creating events on the controller

Your controller offers numerous ways to create events. On your controller, this is referred to as "recording Patterns." For more information, refer to Recording Patterns in real-time and Recording Patterns with the step sequencer.

## Selecting events/notes

Use your mouse in Select mode to select events/notes in your Pattern. This defines which events will be affected by your edits.

| Action | Function |
|---|---|
| **Selecting events** | |
| Click unselected event | Select event |
| [Shift] + click unselected event | Add event to current selection |
| [Shift] + click selected event | Remove event from selection |
| Click and drag in Event area's background | Multiple selection (selection frame) |
| Click in Event area's background | Deselect all events |

### Selecting all events

You can select all events displayed in the Event area via the usual keyboard shortcut on your operating system:

▶ Click anywhere in the Event area and press [Ctrl] + [A] ([Cmd] + [A] on macOS) on your computer keyboard to select all displayed events.

→ If the Pattern Editor is in Group view this will select all events for all Sounds in the Pattern. If the Pattern Editor is in Keyboard view this will select all events at all pitches for the focused Sound.

### Selecting events/notes on the controller

Using your controller you can select particular events from the selected Pattern. This will allow you to edit them without affecting the other events.



For example in Group mode this can be very useful to quickly quantize a few drum instruments in your kit without affecting the rest of the kit: Press **SHIFT** + **SELECT** + the pads of the desired drums then press **SHIFT** + pad **5** (**QUANTIZE**), and you're done!

You can select notes and events using the pads. Depending on the current mode of the pads (Group mode or Keyboard mode, refer to Selecting a pad mode), these tools will select events differently:

- In **Group mode** (the default mode of the pads), each pad represents a specific Sound:
  - **Unlit pads** indicate Sounds for which the Pattern has no events. Nothing happens when you press them.
  - **Dimmed pads** indicate Sounds for which events can be selected: Press any dimmed pad to add all events for that Sound to the selection. The pad turns fully lit to indicate that all its events are selected. You can press any additional dimmed pad to add its events to the selection. Pressing a dimmed pad additionally switches the focus to the corresponding Sound.
  - **Fully lit pads** indicate Sounds for which all events are selected: Press any lit pad to remove all its events from the selection (the pad turns dim lit).
- In **Keyboard mode**, each pad represents a specific pitch of the focused Sound:
  - **Unlit pads** indicate pitches at which the Pattern has no notes. Nothing happens when you press them.
  - **Dimmed pads** indicate pitches at which notes can be selected: Press any dimmed pad to add all notes at that pitch to the selection. The pad turns fully lit to indicate that all its notes are selected. You can press any additional dimmed pad to add its notes to the selection.
  - **Fully lit pads** indicate pitches at which all notes are selected: Press any lit pad to remove all its notes from the selection (the pad turns dim lit).

## Editing the selected events/notes

Once you have selected particular events, you can edit them in various ways.

In the software, you can edit the selected events with your mouse using the various mouse modes available. Refer to Editing events with the mouse for more information.

| Action | Function |
|---|---|
| **Editing selected notes** | |
| Drag note horizontally | Moves the selected notes in time according to the Step Grid (refer to the quantizing rules below). |

| Action | Function |
|---|---|
| [Ctrl] + drag note horizontally<br><br>(macOS: [Cmd] + drag note) | Freely moves the selected notes in time (overriding the Step Grid quantization). |
| [Alt] + drag note | Duplicates the selected notes. When you drag horizontally, the copies are moved in time according to the Step Grid (refer to the quantizing rules below). |
| Drag left/right note border | Moves the start/end of the selected notes according to the Step Grid, thereby resizing the notes (refer to the quantizing rules below). |
| [Ctrl] + drag left/right note border<br><br>(macOS: [Cmd] + drag left/right border) | Freely moves the start/end of the selected notes (overriding the Step Grid quantization), thereby resizing the notes. |
| Drag note vertically | Group view: Moves the selected notes to another Sound in the Group.<br><br>Keyboard view: Transposes the selected notes. |
| Double-click note | Deletes the selected notes. |
| Right-click (macOS: [Ctrl]-click) | Deletes the selected notes. |

If multiple notes are selected, mouse actions can be performed on any of the selected notes — they will apply to all selected notes.

## Quantization when editing a single event/note

By default, all dragging actions on the time axis are quantized according to the Step Grid:

- When you drag a note (or its duplicate) horizontally, its original offset with the Step Grid is preserved, unless you drag the note near a grid line, in that case, it will snap to the grid.
- When you resize a note by dragging its start/end border, the new start/end border will snap to the Step Grid.



To override the quantization and freely adjust the note position or size, hold [Ctrl] ([Cmd] on macOS) while dragging.

## Quantization when editing multiple events/notes at once

When you drag multiple notes (or their duplicates) on the time axis or resize them according to the Step Grid, the various notes in the selection are affected as follows:

- The note you click is moved or resized according to the quantizing rule described above.
- All other notes in the selection are moved or resized by the same amount (regardless of their own quantizing rules). When resizing, if the notes have different lengths the length differences are retained as long as no event becomes shorter than one step.

For example, if you have a drum roll, a flam, or any custom sequence happening right before a beat, this allows you to move the whole sequence to another beat with perfect timing while keeping its feel untouched.

### Nudging events/notes

Nudging lets you to shift the selected events according to the Nudge Grid. This can be useful to move your events by smaller amounts. The offsets of the events relative to the Nudge Grid are preserved.

In the software, the Nudge command is not available with your mouse but via a keyboard shortcut:

▶ Press [Alt] + the left/right cursor key on your computer keyboard to nudge the selected notes by one Nudge Grid division. If no event is selected, all events in the Pattern will be affected.

### Dragging vs. nudging

Dragging with the mouse is different from the Nudge command on your controller:

- Whereas dragging is based on the Step Grid, the Nudge command is based on the Nudge Grid (refer to Adjusting the Step Grid and the Nudge Grid).
- Whereas you can drag notes beyond the end of the Pattern, nudged notes reaching the end of the Pattern are automatically sent to the beginning of the Pattern.
- If a note is not on a Step Grid division, dragging it with Step Grid activated will alternate between snapping to Step Grid divisions and snapping to positions that preserve its original offset with the Step Grid (refer to quantization rule above).

## Editing the selected events/notes on the controller

### Nudging events/notes on the controller

Nudging allows you to shift the selected events by the Nudge Grid resolution. The offsets of the events relative to the Nudge Grid are preserved.

The Nudge Grid is based on the Step Grid and allows you to define even smaller jumps than the Step Grid divisions to move your events more precisely. For more information, refer to Adjusting the Step Grid and the Nudge Grid.

▶ Press **SHIFT** + pad **7** (**NUDGE <**) to nudge the selected events to the left, or **SHIFT** + pad **8** (**NUDGE >**) to nudge the selected events to the right. If nothing is selected, all events/notes in the Pattern will be affected.

Setting the Step Grid to **Off** and then using Nudge will shift events in extremely small increments. This can be used to creatively add groove to Patterns, for example, shifting the snare drum so that it is ever so slightly late, or “in the pocket” (something a funk drummer does naturally).

### Transposing events/notes on the controller

You can transpose the selected events by semitones or octaves to match their pitch to your requirements.

1. Press **SHIFT** + pad **13** (**SEMITONE -**) to transpose the selected events down in semitones, or **SHIFT** + pad **14** (**SEMITONE +**) to transpose them up in semitones. If nothing is selected, all events/notes in the Pattern will be affected.
2. Press **SHIFT** + pad **15** (**OCTAVE -**) to transpose the selected events down in octaves, or **SHIFT** + pad **16** (**OCTAVE +**) to transpose them up in octaves . If nothing is selected, all events in the Pattern will be affected.

## Deleting events/notes

In the software you can delete events in the Event area using your mouse in Select mode or Draw mode.

### Mouse in Select mode

▶ To delete events in a Pattern, double-click them, or right-click them (macOS: [Ctrl]-click) and select **Delete** from the menu. This also works when multiple events are selected.

If some events are selected, you can also press [Del] or [Backspace] on your computer keyboard to delete them. For more information on selecting events, refer to Selecting events/notes.

### Mouse in Draw mode

▶ To delete an event, simply click it. Click an event and drag your mouse with the button pressed to quickly delete a series of events.

### Deleting events/notes on the controller

Your controller provides you with several tools to delete events from the current Pattern.

### Quick deleting events/notes

The quickest and easiest way to delete events is the following:

▶ Press **EVENTS** + **ERASE** + the desired pad to delete from the Pattern all events for that Sound (if pads are in Group mode) or all notes at that pitch for the focused Sound (if pads are in Keyboard mode).



For more information on Group mode and Keyboard mode, refer to Selecting a pad mode.

As soon as you hold **EVENTS** + **ERASE**, some pads light up to indicate where there is something to delete:

- If your pads are in Group mode, the lit pads show you the Sounds for which the Pattern contains events.
- If your pads are in Keyboard mode, the lit pads show you the pitches (of the focused Sound) for which the Pattern contains events.

In other terms, you don't need to press any unlit pads, since there are no events to delete there. While holding **EVENTS** + **ERASE** you can press several pads to delete their events.



If you accidentally deleted events, press **SHIFT** + pad **1** (**Undo**) to undo it.

### Deleting the selected events/notes

Once you have selected particular events (refer to Selecting events/notes for more on this), you can delete them from the Pattern:

▶ Press **SHIFT** + pad **9** (**Clear**) to erase the selected events. If nothing is selected, all events/notes in the Pattern will be deleted.

### Deleting events/notes while playing

If the sequencer is currently playing, you can selectively erase events at the play position:

▶ While the Pattern is playing, hold **ERASE** + the desired pad to progressively delete the events for that Sound (if pads are in Group mode) or the notes at that pitch for the focused Sound (if pads are in Keyboard mode) as they are reached by the playhead.

→ As long as you hold the pad, the corresponding events are deleted as the playhead moves on.

You can use this to selectively erase notes at a particular place in the Pattern.



This might take some time getting used to, especially when the tempo is very fast, but you can always use undo/redo (**SHIFT** + pad **1** and **SHIFT** + pad **2**) to cancel any unwanted deletion.

### Deleting events for the entire Group at playback position

Using your controller you can erase events for all Sounds in the Group at the playback position:

▶ While the Pattern is playing, hold **ERASE** + the desired Group button **A**–**H** to progressively delete events for all Sounds in that Group as they are reached by the playhead.

## Cut, copy, and paste events/notes

You can cut, copy and paste the selected events to another location in the same Pattern or to a different Pattern, and for the same Sound or for another Sound (possibly in another Group).

To cut, copy, and paste the selected events/notes in the software, do the following:

1. To cut or copy the selected events, press [Ctrl] + [X] or [Ctrl] + [C] ([Cmd] + [X] or [Cmd] + [C] on macOS), respectively. You can also right-click ([Ctrl]-click on macOS) in the background of the Event area and select **Cut** or **Copy** from the context menu. The selected events are placed in the clipboard, ready to be pasted. If you selected the **Cut** command, they are additionally removed from their original location.
2. If you want to paste the events in another Pattern, open the Pattern Manager, double-click the Pattern in which you want to paste the events (refer to The Pattern Manager and the Pattern mode for more information on the Pattern Manager).
3. Click anywhere in the Event area of the newly selected Pattern.

4. To paste the events, press [Ctrl] + [V] ([Cmd] + [V] on macOS). You can also right-click ([Ctrl]-click on macOS) the desired location in the background of the Event area and select **Paste** from the context menu.

→ The events will be pasted according to the rules described hereinafter. If no event is selected, all displayed events will be affected: in Keyboard view, these are all events of the focused Sound; in Group view these are all events of all Sounds within the Group (refer to Group view and Keyboard view for more information on Group view and Keyboard view).

> ⓘ If you have copied events from multiple Sounds as the Pattern Editor was in Group view, and then switch to Keyboard view before pasting the events, only the copied events from the Sound previously focused will be pasted in the new focused Sound.

## Pasting rules

The location at which the cut or copied events will be pasted depends on the following:

- In any case the first pasted event will be quantized to the current Step Grid, and the following pasted events will retain their time offset to this first event.
- If you paste the events via the **Paste** command from the context menu of the Event area's background:
  - The first copied event is pasted at the closest step near the mouse cursor on the time axis.
  - In Group view the events copied from the topmost Sound in the Sound List are pasted onto the focused Sound. In Keyboard view, the events copied from the highest pitch are pasted at the pitch of the row in which the mouse cursor is located.
  - All copied events retain their position relative to each other, both on the time axis and on the vertical axis (Sound List in Group view, pitches in Keyboard view).
  - If some of the pasted events go beyond the Pattern's end, the Pattern is extended to the next Pattern Grid division after the last pasted event.
- If you paste the events via the shortcut on your computer keyboard **while playback is on**:
  - If you haven't changed the Sound focus, events are pasted one step after the original events.
  - If you have changed the Sound focus, events are pasted at the same timings as the original events. In Group view the events copied from the topmost Sound in the Sound List are pasted onto the focused Sound, and the other events will retain their vertical position relative to these topmost events.

- If you paste the events via the shortcut on your computer keyboard **while playback is off**:
  - If you haven't changed the Sound focus or the playhead position, events are pasted one step after the original events.
  - If you haven't changed the Sound focus but changed the playhead position, events are inserted with the first event starting at the playhead position. All following events will retain their position relative to the first event.
  - If you have changed the Sound focus without changing the playhead position, events are inserted at the same timings as the original events. In Group view the events copied from the topmost Sound in the Sound List are pasted onto the focused Sound, and the other events will retain their vertical position relative to these topmost events.
  - If you have changed both the Sound focus and the playhead position (e.g., by clicking in the timeline above the Event area, refer to section Jumping to another playback position in the Pattern), events are inserted with the first event starting at the playhead position. In Group view the events copied from the topmost Sound in the Sound List are pasted onto the focused Sound, and all copied events retain their position relative to each other, both on the time axis and on the vertical axis (Sound List in Group view, pitches in Keyboard view).

### Cut, copy, and paste events/notes on the controller

To copy and paste selected events from your controller:

1. To copy the selected events, press **SHIFT** + pad **11** (**Copy**).
2. If you want to cut the selected events before pasting them, press **SHIFT** + pad **9** (**Clear**) to delete the original events.
3. To paste them, press **SHIFT** + pad **12** (**Paste**).

→ The events will be pasted according to the same rules as when using the keyboard shortcuts in the software (see above). If no event is selected, all displayed events will be affected: in Keyboard view, these are all events of the focused Sound; in Group view these are all events of all Sounds within the Group. For more information, refer to Group view and Keyboard view.

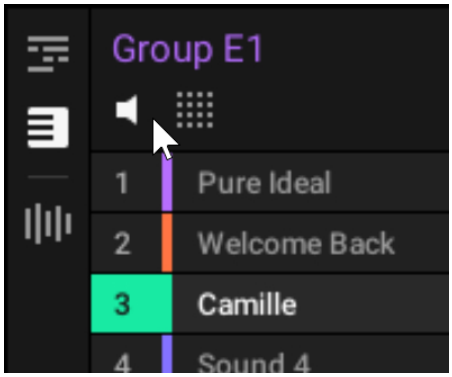


You can also copy events from one Pattern to another: to do this, copy the selected events as described here, select the Pattern you want to copy them to, and paste them.

## Auditioning notes

You can audition single events/notes as you select and edit them in the Event area of the Pattern Editor. This lets you quickly hear how your edits affect the Pattern. To do this:

▶ Click the speaker button above the Sound List (or the Pad view) to activate or deactivate event auditioning in the Event area:




When the speaker icon is active:

- With the mouse in Select mode, creating a note (double-click) or selecting an existing note (single click) will trigger it. If you select multiple notes, nothing happens. When dragging a note to a different key (in Keyboard view) or to a different Sound (Group view), every new key or Sound will be triggered.
- With the mouse in Draw mode, creating a note (single click) will trigger it.
- Every triggered note mutes the previous note to clearly hear the current edit.

ⓘ For more information on the various mouse modes, refer to Editing events with the mouse. For more information on Keyboard view and Group view, refer to Group view and Keyboard view.

ⓘ The speaker button also controls the Sound preview in the Sound List. For more information, refer to Auditioning Sounds.

## Quantizing events/notes

Quantization is the process of moving events to the closest steps. You can quantize your notes at any time, no matter how you recorded them. They will be quantized according to the step size (i.e. Step Grid resolution) selected. If you turn the Step Grid off, no quantization will be applied. See section Adjusting the Step Grid and the Nudge Grid above for more information on the Step Grid and the step size.

There are two strengths of quantization:

- **Full quantization**: Moves each event directly onto the closest step of the current Step Grid. This allows a perfectly regular rhythm.
- **Half quantization (50%)**: Moves each event halfway toward the closest step of the current Step Grid. This allows a tighter rhythm while retaining a human feel.

In addition, if you record notes from a MIDI keyboard or use the pads, and create unwanted double notes where you don't want them; Maschine automatically detects and removes these double notes while quantizing.

### Quantizing events/notes in the software

**Quantize** and **Quantize 50%** are available from the context menu in the Event area.

**Quantize** and **Quantize 50%** in the Pattern Editor context menu.

To apply full or half quantization using the Maschine software:

1. In the Event area, select the events that you want to quantize. If nothing is selected, the whole Pattern will be quantized.
2. To apply full quantization to the selected events, right-click anywhere in the Event area and select **Quantize** from the context menu.
3. To apply only a small amount of quantization to keep the groove you created after recording your pattern, right-click anywhere in the Event area and select **Quantize 50%** from the context menu.

You can undo/redo the quantization by pressing [Ctrl]+[Z] / [Ctrl]+[Y] (Windows) or [command]+[Z] / [command]+[Y] (macOS).

### Using quantization on the controller

You can quantize your notes at any time, no matter how you recorded them. They will be quantized according to the step size (i.e. Step Grid resolution) selected. If you turn the Step Grid off, no quantization will be applied. For more information, refer to Adjusting the Step Grid and the Nudge Grid.

To apply full or half quantization:

1. Select the events you wish to quantize. If nothing is selected, the whole Pattern content will be quantized. For more information, refer to Selecting events/notes to know how to select events.
2. To apply full quantization to the selected events, press **SHIFT** + pad **5** (**Quantize**).
3. To apply only a bit of quantization to keep the groove you created by playing your notes live, press **SHIFT** + pad **6** (**Quantize 50%**).



You can repeatedly apply **Quantize 50%** until you are happy; you could for example apply it until the notes are close enough to the Step Grid to sound tight, but loose enough to maintain their basic "feel." If it is too quantized for you, just press **SHIFT** + pad **1** to undo the last change.

## Quantization while playing

Input Quantization allows you to quantize events also `as you play them` on the pads.

Input Quantization can be set to the following modes:

- **None**: Input Quantization is deactivated. Events you play or record on the pads are not quantized.
- **Record**: Input Quantization is applied only when you record the pads.
- **Play/Rec**: Input Quantization is applied both when you play on the pads and when you record them.

In Play/Rec mode the quantization applied while playing is slightly different from the quantization applied while recording: When recording, all events are quantized to the closest step — possibly ahead of the event. When playing, on the other hand, events occurring in the first half of the steps are left untouched (since you cannot bring them forward in the timeline!) whereas events occurring in the second half of the steps are quantized to the next step.

### Choosing an Input Quantization mode in the software

In the software the Input Quantization can be configured using the **Quantize** setting available in the **Input** section of the **General** page in the **Preferences** panel:

▶ Click the **Quantize** menu and select the desired Input Quantization mode from the three modes available (see their description above).

Refer to Preferences – General page for more information on the **General** page of the **Preferences** panel.

## Doubling a Pattern on your controller

Your controller provides a useful shortcut to double the length and content of the current Pattern. In the software, you can do this for example by copying all events, putting the Playhead indicator at the end of the Pattern, and pasting the events (the Pattern Length is automatically doubled).

To double the length and content of a Pattern:

1. Hold **PATTERN** to enter Pattern mode.
2. Select the desired Pattern by pressing its pad.
3. Press **SHIFT** + **DUPLICATE** (**Double**).

→ The Pattern is doubled.

Keep in mind that doubling a Pattern twice results in a Pattern that is four times as long.

## Adding variation to Patterns

Variation provides an abundance of inspiration and even “happy accidents” when applied to your workflow. The variation engine contains two modes:

- **Humanize**: This mode adds natural rhythmic fluctuations to programmed sequences.
- **Random**: This mode provides randomly generated patterns or variations of your beats and melodies based on customizable values.

Variation is available in both Group mode and Keyboard mode and can be applied to a Sound. In Keyboard mode, the Variation in Random mode contains extra parameters that allow you to add variety to melodic content.

When adding variation to your Patterns, please be aware that Random mode conforms to the selected scale.

To apply variation :

1. Press **SELECT** + pad **1**–**16** to select the desired Sound.
2. Press **VARIATION** to access the Variation controls.
3. Press the Left or Right Arrow to access Humanize or Randomize mode.
4. Turn the Encoder to choose an amount.
5. Press the Encoder to apply the set amount.

# Recording and editing modulation

One of the really cool features of Maschine is the ability to modulate nearly all Maschine parameters both on the controller and in the software in a very easy way.

In Maschine, **modulation** means the automatic change of Maschine parameters from an **internal source** (for example, manual changes recorded via Auto-write…). Value changes are:

- **Temporary**: The modified value is valid only until the end of the Pattern or Clip: When the Scene is looped or when playback is restarted, the parameter value is reset to its non-modulated value.
- **Relative** (knobs only): For continuous parameters (these parameters are controlled by a rotary knob in the software), the new parameter value is defined as deviation from the actual value. Note that for selectors and buttons, modulation defines instead absolute values.

## Modulation vs. automation

Although dealing both with automatic change of Maschine parameters, **modulation** and **automation** have to be distinguished. The following table summarizes the main differences:

| | Modulation | Automation |
|---|---|---|
| **Source of control** | Internal (for example, changes recorded via Auto-write) | External (for example, an external MIDI sequencer or an automation track in your host) |
| **Duration of the change** | Temporary (until the end of the Pattern/Clip) | Permanent |
| **Target parameters** | At the Sound and Group levels only | At all levels (Sound, Group, and Master) |
| **Nature of the change (continuous parameters only)** | Relative (defines a deviation to the non-modulated value) | Absolute (defines a new value regardless of the non-automated value) |



This section describes how to use modulation in Maschine. For more information on automation in Maschine, refer to Controlling parameters via MIDI and host automation.

Please note that modulation and automation are not mutually exclusive: You can modulate a parameter in Maschine **and** automate it (for example, from your host) simultaneously! As a result, the parameter value will deviate (according to the recorded modulation) from its moving value defined by the automation.

Example: Let's assume that you have recorded some modulation for the **Cutoff** parameter of a Filter Plug-in in order to create a filter sweep. Since modulation is defined relative to the non-modulated value, by manually adjusting the **Cutoff** parameter you can shift the entire sweep across frequencies. By additionally assigning this **Cutoff** parameter to a MIDI control or an automation ID (refer to Controlling parameters via MIDI and host automation to learn how to do this) you can create a filter sweep that automatically moves across frequencies!

## Which parameters can be modulated?

All the modulatable parameters are located in Plug-ins or Channel properties (e.g., you cannot modulate the Pattern Length or the Step Grid resolution). This means that all the modulatable parameters are found on a Parameter page of the Control area (when the software is in Arrange view).

In order to be modulatable, parameters of Plug-ins and Channel properties have to meet the following requirements:

- The parameter must be **controlled by a knob or a button** in the software. Most parameters controlled by selectors (e.g., for selecting an operating mode or a filter type) cannot be modulated, but there are a few exceptions.
- The parameter must be at the **Group or Sound level**. Parameters at the Master level cannot be modulated.

This second rule is also true for Plug-ins: if a Plug-in is loaded at the Master level its parameters cannot be modulated, but if the same Plug-in is loaded in a Group or a Sound its parameters can be modulated.

Almost all parameters meeting these requirements can be modulated, the only exceptions being:

- Plug-ins:
  - Saturator: in Tube mode, the **Bass Overload** button (**MAIN** section) and **Bypass** button (**EQ** section).
  - Percussion (Drum Synth): in Fractal mode, the **Tune Hold** button in the **Main** page.
- Channel properties:
  - Sound's and Group's Output properties: the **Cue** button in the **Audio** page.
  - Group's Input properties: the **Root Note** knob in the **MIDI** page.

At the Sound and Group level, the same parameters can be both automated and modulated. For more information on automation, refer Controlling parameters via MIDI and host automation.

Your Macro Controls can me modulated if, and only if, their target parameters can be modulated. For more information on Macro Controls, refer to Creating custom sets of parameters with the Macro Controls.

## Recording modulation

In the software, if you take a closer look at the knobs in the Parameter pages of the Control area, you will notice an outer ring whose color changes to light grey when you hover over it with the mouse cursor.




*Drag the outer ring of the knobs during playback to record modulation.*

▶ To record modulation for a knob, start the playback, click the knob's outer ring and drag it vertically.

→ Your movement is recorded into the Pattern and will be recalled as the playback is looped.

As soon as you record modulation for a parameter, the following happens:

- On the outer ring of the knob, the colored section, which usually indicates the current parameter value, is replaced by a **little colored segment** indicating the modulated value. During playback, this little segment follows the movements that you have recorded. The non-modulated value of the parameter is still indicated by the little white segment on the knob itself. Since modulation is defined relative to the original value, you can turn the knob to define the original value from which the recorded modulation will deviate.
- A modulation track is created for this parameter in the Modulation pane of the Control Lane (at the bottom of the Pattern Editor) containing the modulation points that you have recorded. You can further edit the modulation track from there. For more information, refer to Creating and editing modulation in the Control Lane.

### Removing modulation

You can also use the knob's outer ring to remove the modulation for the knob:

▶ To remove the entire modulation for a knob, right-click (Windows) or [Ctrl]+click (macOS) the knob's outer ring.

> ⓘ You can also create and remove modulation tracks from the Control Lane.

### Recording modulation on the controller

To modulate a parameter with the controller:

1. Press **PLUG-IN**.
2. Navigate to the parameter you want to modulate. To do this, put the focus on the desired Group or Sound (refer to Focusing on a Group or a Sound), navigate to the desired Plug-in or set of Channel properties, and finally to the Parameter page and the particular parameter (refer to Navigating Channel properties, Plug-ins, and Parameter pages).
3. Make sure the song is playing (**PLAY** must be lit).

4. Hold **AUTO** to enter Auto-write mode and turn the Control encoder to change the parameter value.

→ Your modulation is recorded. The Control encoder movements are stored in your Pattern or Clip as clean, editable modulation curves with a reduced number of modulation points, so that you can easily edit the modulation in the software if needed. The encoder movements will be automatically played with your Pattern upon its next cycle.

You can also delete all modulation events for all parameters of the channel:

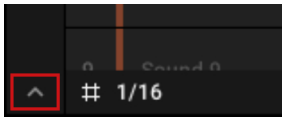
Press **SHIFT** + pad **10** (**Clear Auto**) to delete the modulation for all the parameters in the focused Sound or Group.

## Creating and editing modulation in the Control Lane

You can also create, select, and edit individual modulation points in the **Modulation pane** of the Control Lane.

### Displaying the Modulation pane in the Control Lane

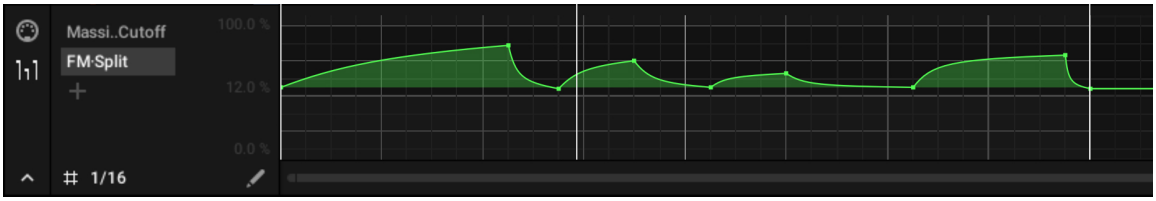
1. To see and edit the modulation for the parameters of a Sound, click the desired Sound slot in the Sound List left of the Pattern Editor, and click the **SOUND** tab in the Control area. To see and edit instead the modulation for the parameters of a Group, click the desired Group in the Group List left of the Arranger, and click the **GROUP** tab in the Control area.
2. If the Control Lane is not visible at the bottom of the Pattern Editor, click the up-pointing arrow in the bottom left corner of the Pattern Editor to open the Control Lane.




3. Click the icon showing little bars left of the Control Lane to display the Modulation pane.




→ The Modulation pane appears.




*The Modulation pane showing the modulation track for the Split parameter of the FM Plug-in.*

The Modulation pane contains the following elements:

- The left part shows the **Modulator List** with all the parameters that are currently modulated in the focused Sound or Group. Click any entry from the list to display the modulation track for that parameter on the right. Click the "**+**" symbol at the end of the list to add a modulation track for another parameter (see below). If the list is too small to display all entries at once, a vertical scroll bar appears on the right to navigate the list.
- The right and biggest part shows the **modulation track** for the parameter selected in the Modulator List on the left:
  - Each modulation track contains a variable number of modulation points connected by curved or straight lines. These points and lines define the new values of the parameter relative to its original value. In the track you can create, edit, and delete modulation points and lines (see below).
  - The display (zoom factor and scroll position) of the modulation track is always synchronized to the Event area above. Using your mouse wheel, you can [Ctrl]+scroll (Windows) or [command]+scroll (macOS) to zoom horizontally in the modulation track, and [Alt]+scroll (Windows) or [option]+scroll (macOS) to scroll horizontally through the track.
  - Left of the modulation track, a vertical scale indicates the actual parameter values. The scale is always centered on the current, non-modulated value of the parameter. Since modulation points set new values relative to the non-modulated value, this evolving scale allows you to see at any time the real values set by the modulation curve in the track. The range of possible values for the parameter is indicated by a different background color.



You can adjust the height of the Control Lane by dragging its upper border with the mouse.

When some modulation is recorded for a parameter in a particular Pattern of the Group, the corresponding Modulator and modulation track appear for **all Patterns and Clips** in the Group. The track will be empty for Patterns and Clips in which you haven't recorded any modulation for this parameter yet. Similarly, if you delete a Modulator and its modulation track from a Pattern or a Clip, it will be **deleted from all other Patterns and Clips** in the Group as well.

## Editing modulation points and lines

In the modulation track, you can create, edit, and delete modulation points and adjust the lines between them using your mouse. You can choose between two mouse modes:

- The **Select mode** is the default mode. In this mode the mouse cursor shows the standard arrow icon. The Select mode lets you create points, select single or multiple points, change their position, delete them, and modify the shape of the lines between the points.
- The **Draw mode** lets you quickly create series of modulation points. In this mode the mouse cursor shows a pencil icon. You can press [E] on your computer keyboard to quickly switch between the Draw mode and the default Select mode, or you can click the Draw Mode button (pencil icon) at the bottom left of the Pattern Editor:




In both mouse modes, your actions are quantized according to the current Step Grid, if active.

For each mouse mode, the following mouse actions are available:

| Mouse mode | Available mouse actions in the modulation track |
|---|---|
| **Select mode**<br><br>(arrow cursor) | To create a modulation point, double-click in the Control Lane. Any existing point on this step will be replaced.<br><br>To delete a modulation point, double-click it. You can also select it and press [Del] on your computer keyboard.<br><br>To edit a modulation point, drag it vertically to change the modulation value, or horizontally to change its timing.<br><br>When hovering the mouse over a modulation point, its modulation value appears. The display is updated as you drag the point vertically.<br><br>To select a modulation point, click it. Clicking a line segment selects the two points on either end.<br><br>**Multiple selection**: To select a group of modulation points, click the background and drag your mouse to draw a selection box around them. You can also hold [Shift] on your computer keyboard and click any unselected point to add it to your selection, or click any selected point to remove it from your selection. Once multiple points are selected, you can click and drag any of them to move the entire group of points at once. In doing so the points will keep their relative offsets until some of them reach the minimum or maximum value. You can also delete the entire group at once by pressing [Del] on your computer keyboard.<br><br>**Creating curves**: When you hold [Alt] (Windows) or [option] (macOS) and hover your mouse over a line segment between two points, the mouse cursor changes: While still holding the key, click and drag the line vertically to bend it and modify the shape of the modulation between the two points. You can reset the segment to a straight line by holding [Alt] (Windows) or [option] (macOS) and double-clicking the curved segment.<br><br>You can switch to Draw mode by pressing [E] on your computer keyboard or by activating the Draw Mode button at the bottom of the Pattern Editor. |
| **Draw mode**<br><br>(pencil cursor) | Click and drag your mouse to create a continuous series of modulation points wherever you move the cursor. Dragging with the Step Grid inactive lets you create freehand, high-resolution modulation. Dragging with the Step Grid active will create quantized, stepped automation, placing one point on each grid line that you draw across.<br><br>You can switch back to Select mode by pressing [E] on your computer keyboard or by deactivating the Draw Mode button at the bottom of the Pattern Editor. |

## Adding a modulation track

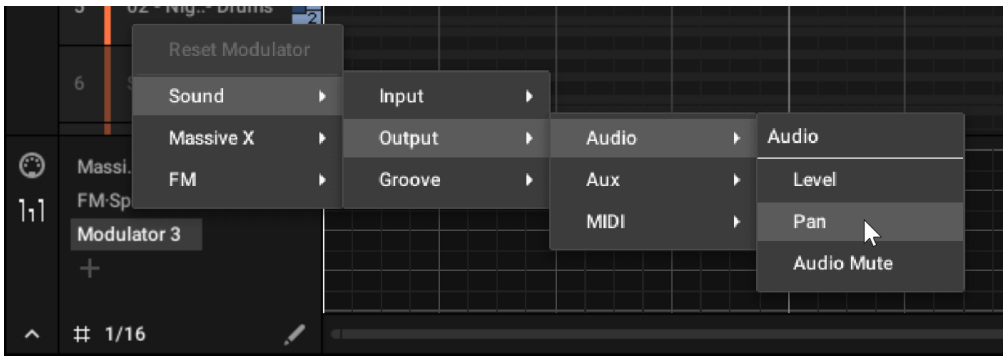
As soon as you record modulation for a new parameter, a new modulation track is created containing your recorded movements in form of modulation points. You can also manually create a new modulation track from scratch in the Control Lane by using the "**+**" symbol at the end of the Modulator List on the left:




*Click the "**+**" symbol to add a new empty modulation track.*

To create a new modulation track:

1. To create a new modulation track for a parameter of a Sound, click the desired Sound in the Sound List (left of the Pattern Editor) and click the **SOUND** tab in the Control area. To create a new modulation track for a parameter of a Group, click the desired Group in the Group List (left of the Arranger) and click the **GROUP** tab in the Control area.
2. In the Modulation pane, click the "**+**" symbol at the end of the Modulator List to create a new empty modulation track. A new **Modulator X** entry is appended to the list (**X** is an ordering number) and it is automatically selected. This modulation track is still empty. You cannot create any modulation point in the track yet, you first need to assign this modulator to a parameter of your choice.
3. Right-click (Windows) or [Ctrl]-click (macOS) the **Modulator X** entry to open a structured menu containing all the modulatable parameters in that channel.
4. Navigate the structure of the menu down to the desired parameter: For a parameter located in Channel properties select **Sound/Group > [set of Channel properties] > [Parameter page] > [parameter]**. For a parameter located in a Plug-in select **[Plug-in name] > [Parameter page] > [parameter]**.




Once you have selected a parameter from the menu, the parameter name appears in place of **Modulator X** in the Modulator List and you can edit its modulation track on the right.

→ In the modulation track, you can now add and edit modulation points for the selected parameter as described above. The modulation track is added to all the Patterns in the Group and you can create different modulation points in the different Patterns.

When you load a Plug-in into a channel (a Sound or a Group), its modulatable parameters show up in the menu listing the available parameters (when this channel is under focus).

### Resetting a modulation track

▶ To reset the modulation track of a parameter, right-click (Windows) or [Ctrl]-click (macOS) the parameter name in the Modulator List and select **Reset Modulator** at the top of the menu.

→ All the modulation points are deleted from the track for all Patterns in the Group. You can start designing a new modulation for that parameter from scratch.

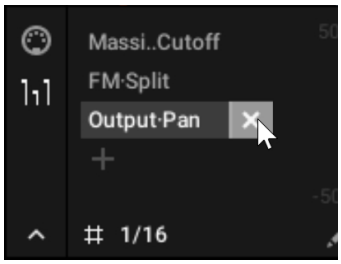
### Re-assigning a modulation track

▶ To re-assign a modulation track to another parameter, right-click (Windows) or [Ctrl]-click (macOS) the current parameter in the Modulator List and select another parameter from the structured menu as described above.

→ Upon your selection, the track is assigned to the new parameter. The modulation (including all its modulation points and connecting lines) now affects the new parameter. The previous parameter is not modulated anymore.

### Removing a modulation track

▶ To remove a modulation track, hover its entry in the Modulator List with the mouse and click the little cross that appears on the right.




→ The modulation track and its entry in the Modulator List are removed from the Modulation pane for all Patterns. The parameter is not modulated anymore.

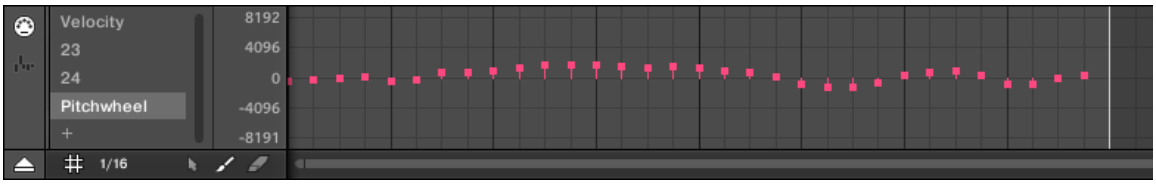
## Creating MIDI tracks from scratch in Maschine

Within Maschine you can create MIDI tracks from scratch for any Sound of your Project. Maschine's MIDI automation tracks can have two purposes:

- When playback is on, the content of these tracks is sent in real-time as MIDI data via the MIDI output of the Sound (if activated). Configuring the MIDI output of Sounds is done in the **MIDI** page of the Sound's Output properties. For more information, refer to Sending MIDI from Sounds.
- When exporting your Pattern as a MIDI file for use in another environment, MIDI automation tracks will be included in the exported MIDI file. For more information, refer to Exporting MIDI from Patterns.

You cannot create MIDI tracks for Groups nor for the Master.

Creating and editing MIDI tracks is done in the **MIDI pane** of the Control Lane:




*Create MIDI tracks in the MIDI pane of the Control Lane.*

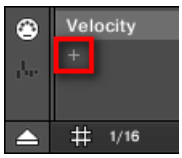
1. Click the desired Sound in the Sound List on the left of the Pattern Editor.
2. If the Control Lane is not visible at the bottom of the Pattern Editor, click the up-pointing arrow in the bottom left corner of the Pattern Editor to show it.




3. Click the MIDI socket icon left of the Control Lane to display the MIDI pane.




4. At the end of the list of MIDI controls nearby, click the "**+**" to add a new MIDI track.




   A new entry appears at the end of the list reading **Not assigned**.
5. Right-click ([Ctrl]-click on macOS) this **Not assigned** entry and select the desired MIDI control from the context menu.
6. Add and modify events in the new MIDI track via the same editing tools as for modulation tracks (refer to Creating and editing modulation in the Control Lane).

→ You have just created a new MIDI track.

One MIDI track is always present in the MIDI pane: the **Velocity** track. This track holds the velocities of all the events/notes for the focused Sound in the Pattern. You cannot delete the **Velocity** track.

### Removing a MIDI track

▶ To remove a MIDI track, hover its entry in the list of MIDI controls on the left with the mouse and click the little cross that appears on its right.




→ The MIDI track and its entry in the list of MIDI controls are removed from the MIDI pane.

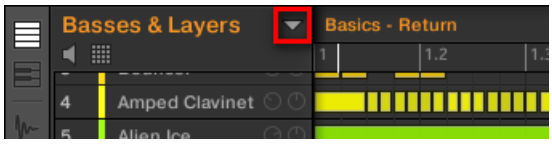
## Managing Patterns

This section describes how to organize your Patterns, Pattern slots, and Pattern banks.

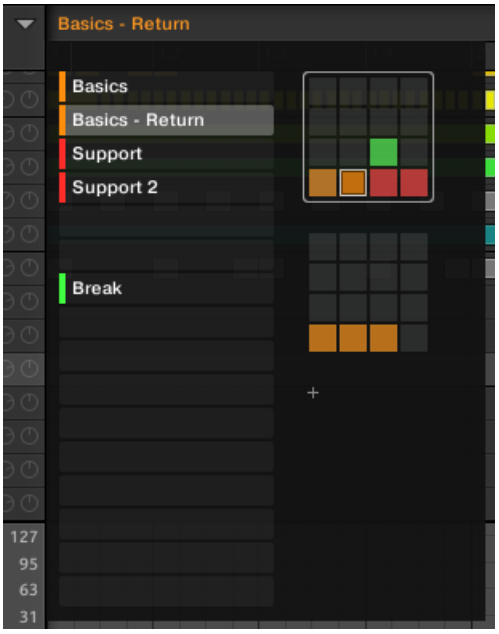
### The Pattern Manager and the Pattern mode

In the software, all Pattern management operations are done in the **Pattern Manager**:

▶ To open the Pattern Manager, click the Pattern Manager button (a down-pointing arrow) at the left of the name of the selected Pattern.




→ The Pattern Manager appears underneath.




*Use the Pattern Manager to manage your Patterns.*

- On the left, you can see the list of the 16 Pattern slots in the selected Pattern bank. Slots containing a Pattern show a colored bar on the left along with the Pattern name. The other slots contain no Pattern. The selected Pattern is highlighted (the **Basics - Return** Pattern in the picture above).

- On the right, you can see the various Pattern banks in form of pad grids. A pad grid is a square of 4x4 cells representing the pads of your controller. In each Pattern bank the colored cells indicate Pattern slots containing a Pattern, while unlit cells indicate empty Pattern slots. The selected Pattern bank is surrounded by a white border (the first bank in the picture above). If there are too many Pattern banks to fit into the Pattern Manager's height, use the scroll wheel of your mouse to display the other banks.
- The Pattern slots on the left and the cells in the selected pad grid on the right are strictly equivalent: you can use either the slots or the corresponding cells to execute all the management commands described in the next sections.

### Closing the Pattern Manager

▶ To close the Pattern Manager, click anywhere outside of it.

### The Pattern mode on the controller

The **Pattern mode** is where you select and manage your Patterns.

▶ To enter Pattern mode, press **PATTERN**.

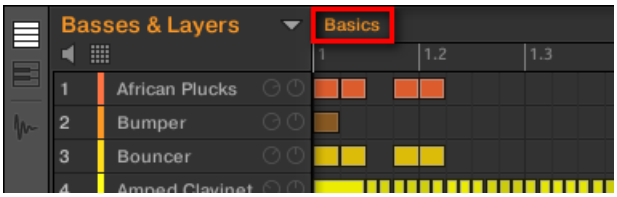
→ Your controller switches to Pattern mode. This is indicated by the lit **PATTERN** button.

Now the pads on your controller represent the 16 Pattern slots of the current Pattern bank:

- The fully lit pad indicates the selected Pattern slot.
- Dim lit pads indicate Pattern slots containing a Pattern.
- Unlit pads represent empty Pattern slots.

## Selecting Patterns and Pattern banks

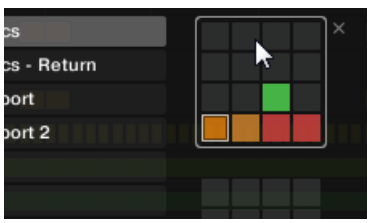
In the topmost row of the Pattern Editor, you can see on the left the name of the Pattern selected:




*The selected Pattern is named Basics.*

To select a Pattern, do the following:

1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).
2. If necessary, select the Pattern bank containing the desired Pattern by clicking its pad grid on the right.




The left part of the Pattern Manager displays the list of Pattern slots in that bank.

3. Select the desired Pattern by clicking its name from the list or by clicking its cell in the selected pad grid on the right.




→ The selected Pattern is loaded in the Pattern Editor and its events appear in the Event area. Furthermore, this Pattern is referenced for the Group in the current Scene in the Arranger, replacing any previous Pattern for the Group in that Scene. For more information, refer to Working with the Arranger.

### Selecting a Pattern bank on the controller

To select a Pattern located in another Pattern bank, you first need to select the desired Pattern bank:

1. Press and hold **PATTERN** to enter Pattern mode.
2. Press the Right Arrow button to select **Bank**.
3. Turn the Encoder to select a Pattern bank.

### Selecting a Pattern on the controller

▶ To select a Pattern in the current Pattern bank, press **PATTERN** + the dim-lit pad corresponding to this Pattern.

When a Pattern is selected:

- This Pattern is displayed in the software's Pattern Editor. You can then modify it both from your controller and in the software.
- This Pattern is referenced for the selected Group in the current Scene. This Pattern replaces any previous Pattern selected for the Group in that Scene (refer to Using the Song view).

## Creating Patterns

First of all, you don't need to explicitly create a new empty Pattern before filling it with events:

- If no Pattern is selected, as soon as you record the pads on your controller (live or with the step sequencer), or create an event in the empty Event area of the software, a new Pattern will be created containing your events.
- If you double-click in a cell of the Arranger, a Clip is created referencing a new empty Pattern for the corresponding Group at that location in your arrangement. For more information, refer to Assigning and removing Patterns.

Still, you can manually create a new empty Pattern in the software:

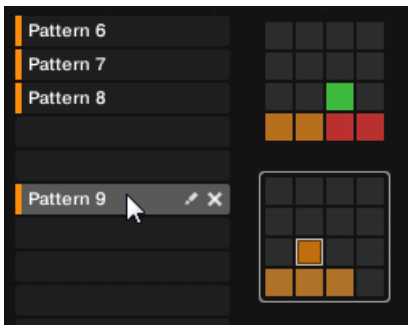
1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).

2. If it is not already selected, click the desired pad grid on the right to select the Pattern bank where you want to create a Pattern.



The selected Pattern bank is surrounded by a white border, and the left part of the Pattern Manager displays the Pattern slots in that bank.

3. Click any empty Pattern slot in the list on the left or click any dark cell in the selected pad grid on the right to create a new empty Pattern there.




→ A new empty Pattern is created in the selected Pattern slot. The new Pattern is loaded in the Pattern Editor with an empty Event area. Furthermore, this Pattern is referenced by a Clip for the selected Group in the current Scene in the Arranger. This Clip replaces any previous Clip for the Group in that Scene. For more information, refer to Using the Song view.

### Creating a new Pattern on your controller

▶ To create a new empty Pattern in the current Pattern bank, press **PATTERN** + any unlit pad.

→ A new empty Pattern is created at this position in the current Pattern bank.

Upon the creation of the Pattern:

- The new Pattern is selected and displayed in the software's Pattern Editor. You can modify it both from your controller and in the software.
- The new Pattern is referenced by a Clip for the selected Group in the current Section. This Clip replaces any previous Clip for the Group in that Section. For more information, refer to Using the Song view.

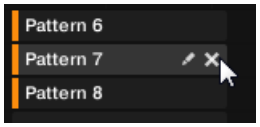
## Deleting Patterns

### Deleting a Pattern in the software

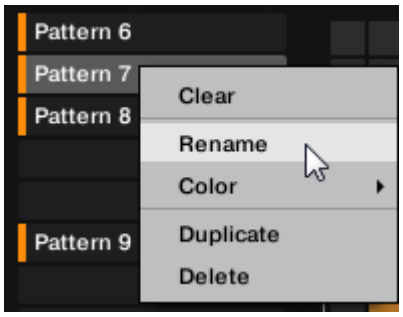
To delete a Pattern:

1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).
2. If necessary, select the Pattern bank containing the desired Pattern by clicking its pad grid on the right. Its Patterns appear in the list on the left.

3. Right of the Pattern name, click the little cross icon:




You can also right-click ([Ctrl]-click on macOS) the Pattern slot or the corresponding cell in the pad grid and select **Delete** from the context menu:




→ The Pattern is deleted.

> If the Pattern was referenced by Clips in the Arranger, these Clips will be removed as well.

### Deleting Patterns on the controller

1. Press **PATTERN** to enter Pattern mode.
2. Press **ERASE** + the pad corresponding to the Pattern you want to delete.

→ The Pattern is deleted.

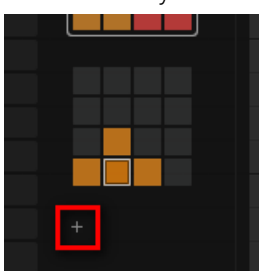
## Creating and deleting Pattern banks

You can create and delete Pattern banks in order to organize your Patterns to your liking.

### Creating a Pattern bank in the software

If the last Pattern bank contains at least one Pattern (even empty), you can create an additional Pattern bank after that last bank. To do this:

1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).
2. Click the "**+**" symbol under the last pad grid on the right to create another Pattern bank.



→ A new empty Pattern bank is created and its pad grid appears in place of the "**+**" symbol.

If the last Pattern bank is empty, there is no "**+**" symbol under its pad grid and you cannot create any new Pattern bank.

### Deleting a Pattern bank in the software

To delete a Pattern bank:

1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).
2. Hover the pad grid of the desired Pattern bank with your mouse. A little cross appears at the top right of the pad grid.



3. Click the little cross to delete that Pattern bank.

→ The Pattern bank is deleted including all its Patterns if any. The following banks are shifted up to fill the gap.

If the Patterns of the deleted Pattern bank were referenced by Clips in the Arranger, these Clips will be removed as well!

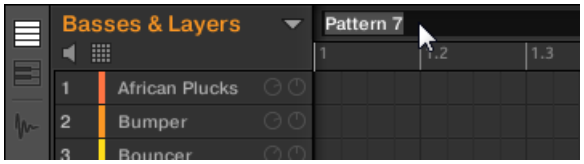
## Naming Patterns

You can replace the Patterns' default names with names of your own. This can be done in the Pattern Editor, in the Pattern Manager, and in the Arranger.

### Renaming Patterns in the Pattern Editor

To rename the selected Pattern in the Pattern Editor:

1. Double-click the Pattern name at the top left of the Pattern Editor:



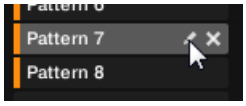

2. Type a name and press [Enter] on your computer keyboard to confirm (or press [Esc] to exit).

→ The Pattern is renamed. In the Arranger, all Clips referencing this Pattern in the Arranger will mirror the new Pattern name.

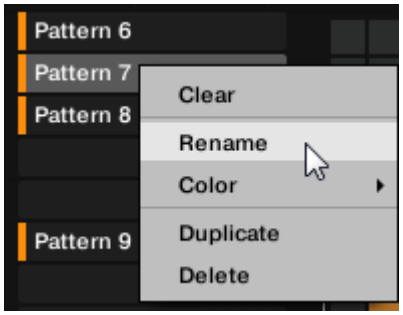
### Renaming Patterns in the Pattern Manager

To rename any Pattern, even if it is not selected:

1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).
2. If necessary, select the Pattern bank containing the desired Pattern by clicking its pad grid on the right.
3. On the right of the Pattern slot, click the little pen icon:




You can also right-click ([Ctrl]-click on macOS) the Pattern slot or the corresponding cell in the pad grid and select **Rename** from the context menu:




The Pattern name gets highlighted and editable.

4. Type a name and press [Enter] on your computer keyboard to confirm (or press [Esc] to exit).

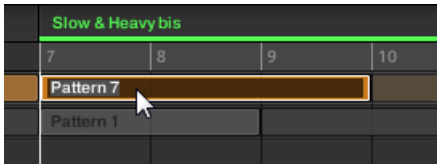
→ The Pattern is renamed. In the Arranger, all Clips referencing this Pattern will mirror the new Pattern name.

If you use Maschine as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the Maschine plug-in window to confirm the name you have entered.

## Renaming Patterns in the Arranger

You can also rename a Pattern in the Arranger by using any Clip referencing it:

1. Double-click any Clip referencing the Pattern you want to rename. The Clip turns to a text field and waits for your input.




2. Type a name and press [Enter] on your computer keyboard to confirm.

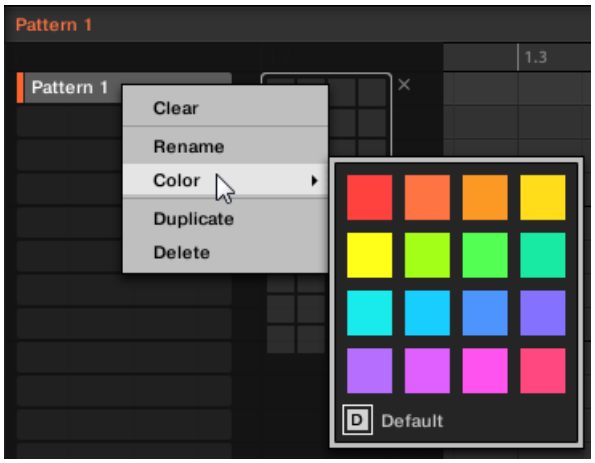
→ The Pattern is renamed. All Clips referencing this Pattern will mirror the new Pattern name.

If you use Maschine as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the Maschine plug-in window to confirm the name you have entered.

## Changing the Pattern color

By default, Patterns inherit the color of the Group they belong to. But you can change the color of each individual Pattern to your liking. To do this:

1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).
2. If necessary, select the Pattern bank containing the desired Pattern by clicking its pad grid on the right. The selected Pattern bank is surrounded by a white border and its Patterns are displayed in the list on the left.
3. Right-click ([Ctrl]-click on macOS) the desired Pattern slot or the corresponding cell in the pad grid, and select **Color** from the context menu. A Color Palette appears. In the Palette, the current color of the Pattern is highlighted.




4. Select the desired color in the Palette. You can also choose to set the Pattern back to its default color by selecting **Default** at the bottom of the Color Palette.

→ The Pattern slot takes the new color you select. In the Arranger, all Clips referencing this Pattern will also mirror the selected color.

## Duplicating, copying, and pasting Patterns

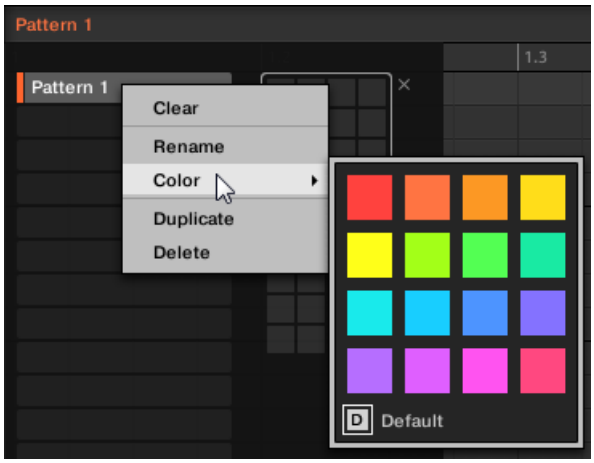
Maschine provides different ways of copying/pasting Patterns.

### Duplicating a Pattern in the software

To duplicate a Pattern:

1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).
2. If necessary, select the Pattern bank containing the desired Pattern by clicking its pad grid on the right. The selected Pattern bank is surrounded by a white border and its Patterns appear in the list on the left.

3. Right-click ([Ctrl]-click on macOS) the Pattern slot or the corresponding cell in the pad grid and select **Duplicate** from the context menu:

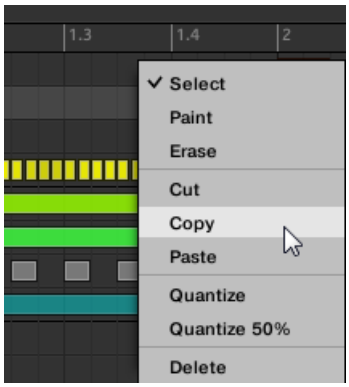



→ A Pattern copy is inserted right after the original Pattern in the Pattern bank — all following Patterns are shifted to the next slot.

## Copying and pasting a Pattern in the software

To cut or copy the content of a Pattern and paste it into another Pattern, do the following:

1. Click the Event area's background to deselect any selected events (your mouse must be in Select mode).
2. Right-click (on macOS: [Ctrl]+click) the Event area's background and choose **Copy** from the slot's context menu:




3. Select the Group in which you want to paste the Pattern's content.
4. Open the Pattern Manager, select (or create) an empty Pattern, and close the Pattern Manager again. The selected (or created) Pattern appears in the Pattern Editor.
5. Right-click (on macOS: [Ctrl]-click) the Event area's background and choose **Paste** from the context menu to paste the Pattern.



If events are selected in the Pattern, the copy/paste operation will apply to these events only. For more information, refer to Cut, copy, and paste events/notes.

### Duplicating, copying, and pasting Patterns on the controller

You can copy a Pattern to the Pattern slot of your choice via the **DUPLICATE** button of your controller:

1. Press **PATTERN** to enter Pattern mode.
2. Press and hold **DUPLICATE**, then press the pad of the Pattern you want to copy.

→ The pad starts flashing.

3. Press the target pad for the Pattern copy.

→ The Pattern is copied to the target pad. The target pad then starts flashing and you can further copy/paste it to other slots.

This procedure has the following benefits:

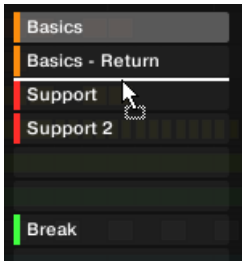
- You can paste the copy into the Pattern slot of your choice, empty or not. If the target Pattern slot already contains a Pattern, it will be replaced by the copied Pattern.

## Moving Patterns

You can reorder Patterns via drag and drop in the software. It can be helpful to organize your Patterns more conveniently (for example, to bring together variations of the same rhythm).

To move Patterns:

1. Open the Pattern Manager (refer to The Pattern Manager and the Pattern mode).
2. If necessary, select the Pattern bank containing the desired Pattern by clicking its pad grid on the right. The selected Pattern bank is surrounded by a white border and its Patterns appear in the list on the left.
3. Click and hold the Pattern slot or the corresponding cell in the pad grid.
4. While holding the mouse button, drag your mouse toward the desired location. As the mouse cursor moves, the potential target slots are highlighted or an insertion line appears between slots where you can drop the Pattern slot.




5. When the desired slot is highlighted or when the insertion line appears at the desired location, release the mouse button.

→ The Pattern takes its new place. If you drop the Pattern onto a slot containing a Pattern, the moved Pattern will replace it. Scenes referencing the previous Pattern will now reference the replacement Pattern.



You can also drag a Pattern from the pad grid onto the Pad List, and inversely.

### Adjusting the Pattern Length in fine increments on the controller

The Pattern Length can be adjusted in small increments, for example to create irregular pattern lengths, by holding the [Shift] key on your computer keyboard or the **SHIFT** button on the controller when adjusting the Pattern Length. The size of the small increments are defined by the Step Grid.

1. Press **SHIFT** + **FOLLOW** (**Grid**).
2. Press the Right Arrow button until you reach **STEP**.
3. Turn the Encoder to select the desired Step Grid size.
4. Press **PATTERN** to switch to Pattern mode.
5. Press **SHIFT** and turn the Encoder to adjust the Pattern Length in fine increments.

→ The Pattern Length is now adjusted in finer increments according to the value of the Step Grid.

## Importing/exporting audio and MIDI to/from Patterns

In the Pattern Editor, you can quickly export MIDI and audio from Patterns and import MIDI to Patterns via drag and drop.

### Exporting audio from Patterns

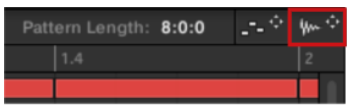
The Audio drag-and-drop function allows you to export audio from the selected Pattern onto your desktop or into your DAW by simply dragging it onto the target location or application. This function is only available in the software.

The audio will be exported to a WAV audio file according to the current settings of the **Export Audio** panel (refer to Exporting audio for more information on these settings) with the following exceptions:

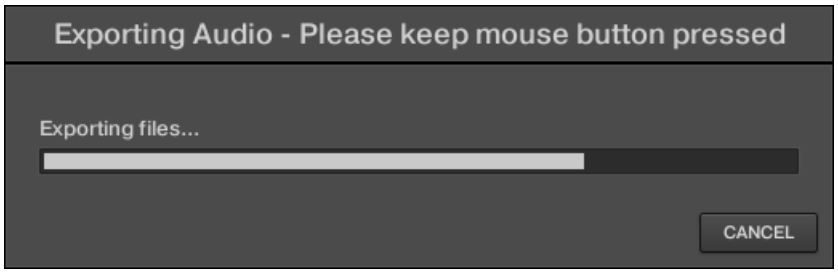
- The exported range will be based on the selected Pattern, regardless of the current Loop Range. Note that the **Loop Optimize** setting will be respected.
- The exported audio will only include the focused Group (in Group view) or the focused Sound (in Keyboard view), in other words it will include what you see in the Event area.
- The audio file will be named as follows:
  - Export in Group view: [Group name] - [Pattern name] - [BPM].wav
  - Export in Keyboard view: [Group name] - [Pattern name] [Sound name] - [BPM].wav

To export Patterns to audio files:

1. Select the Pattern you want to export audio from (refer to Selecting Patterns and Pattern banks).
2. If you want to export multiple Sounds of the Group, switch the Pattern Editor to Group view, mute the Sounds you want to exclude from the exported audio file (refer to Mute and Solo), and check that the Group itself is not muted, otherwise the exported audio file will be silent.
3. If you want to export a single Sound in the Group, you can switch the Pattern Editor to Keyboard view, put the focus on the desired Sound, and check that this Sound is not muted (refer to Mute and Solo), otherwise the exported audio file will be silent. Alternatively, you can let the Pattern Editor in Group view and solo this Sound.
4. In the top right corner of the Pattern Editor, click and hold the **Audio Dragger icon**:



5. While holding the mouse button, drag the icon to start the export. A pop-up message will inform you about the rendering status:




As soon as rendering is finished, the mouse cursor displays the name of the Pattern you are dragging.

→ You can now drop the exported audio file to your desktop, onto an audio channel in your DAW, or even to another Sound or Group in Maschine.



If you drop the audio file onto a Group, it will be loaded into the first empty Sound slot of this Group.

## Exporting MIDI from Patterns

You can export MIDI files from Patterns. This is useful if you want to use or edit them in another application. This function is only available in the software.

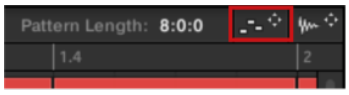
The MIDI file will be exported according to the **Channel** and **Transpose** parameters in the **MIDI** page of the Output properties of each exported Sound. For more information, refer to Sending MIDI from Sounds.

You can export MIDI files using two methods: via drag-and-drop or via the Group/Sound context menu.

### Exporting MIDI via drag-and-drop

You can render the selected Pattern to a MIDI file by simply dragging it onto the target location on your operating system or directly into a MIDI channel of your host software:

1. Select the Pattern you want to export MIDI from (refer to Selecting Patterns and Pattern banks).
2. If you want to export MIDI from the entire Group, switch the Pattern Editor to Group view. If you want instead to export MIDI from the focused Sound only, switch the Pattern Editor to Keyboard view. For more information, refer to Group view and Keyboard view.
3. In the top right corner of the Pattern Editor, click and hold the **MIDI Dragger icon**:




As you start dragging the icon the mouse cursor displays the name of the Pattern you are about to export:



4. Drag the icon to your desktop or onto a MIDI channel of your host application.

→ The MIDI file is exported to the selected location.

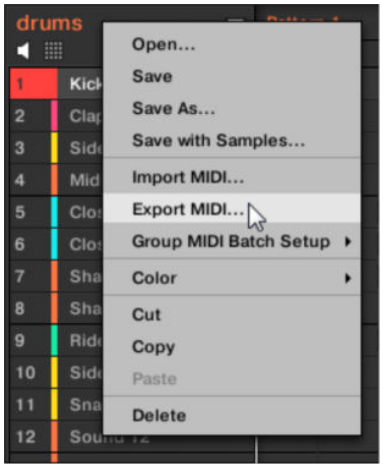


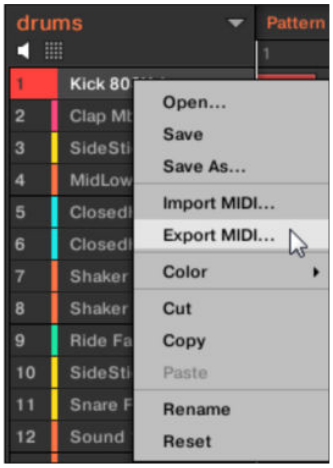
You can even drag the MIDI Dragger icon onto another Sound or Group in Maschine! In this case, the MIDI file will be directly imported into a Pattern of the selected Group according to the rules described in section Importing MIDI to Patterns.

### Exporting MIDI via the context menu

You can also render the selected Pattern to a MIDI file on your hard disk using the Export MIDI… entry in the context menu of the Sound or Group:

1. Select the Pattern you want to export MIDI from (refer to Selecting Patterns and Pattern banks).
2. To export MIDI from the entire Group, switch the Pattern Editor to Group view and right-click ([Ctrl]-click on macOS) the desired Group in the Group List (left of the Arranger) to open its context menu. You can also right-click ([Ctrl]-click on macOS) the Group name above the Sound List. To export MIDI from a particular Sound only, right-click ([Ctrl]-click on macOS) the desired Sound slot in the Sound List (left of the Pattern Editor) to open its context menu.
3. Select **Export MIDI…** in the context menu (the picture below shows the context menu for a Sound).




4. In the Export MIDI dialog that opens, navigate to the desired location on your computer, type a name for the MIDI file and click **Save** to confirm.

→ The MIDI file is exported to the selected location.

Sounds that do not contain note events in a Group Pattern are exported as empty MIDI tracks. This way, if you are exporting multiple Patterns and some Sounds in the Group only have notes in some of these Patterns, you will get a consistent assignment of notes to MIDI tracks across all exported Patterns. Also, when you export a Pattern and then re-import it into Maschine, the notes will always be mapped to the correct Sounds.

## Importing MIDI to Patterns

You can import MIDI files (extension ".mid") to Patterns. This allows you to use in Maschine MIDI files prepared with another application. This function is only available in the software.

Importing MIDI data into a Pattern that already contains data (note, modulation tracks, and MIDI tracks) will replace that data. As always, this can be undone both in the software or from your controller (refer to Undo/redo).

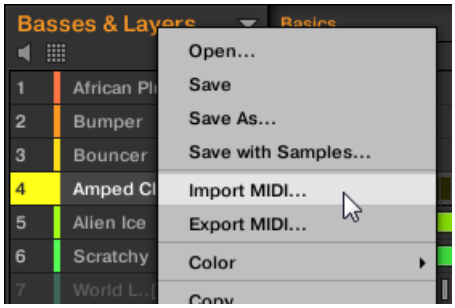
You can import MIDI files into Groups or into individual Sounds. You can do this via three methods: via the context menu of the Group/Sound, via drag-and-drop, or via the **FILES** pane of the Browser. You can even import multiple MIDI files at once. The following paragraphs describe each of these situations.

## Importing a MIDI file to a Group

You can import a MIDI file to a whole Group. In particular, this allows you to import a drumbeat for an entire drum kit. You can do this via the Group's context menu or via drag-and-drop.

**Method 1**: via the **Group's context menu**

1. In the Group List (left of the Arranger), click the Group in which you want to import the MIDI file. This sets the focus to that Group and displays its Patterns in the Pattern Editor underneath.
2. Select the Pattern in which you want to import the MIDI file.
3. Right-click ([Ctrl]-click on macOS) the Group in the Group List and select **Import MIDI…** from the context menu.




   You can alternatively right-click ([Ctrl]-click on macOS) the Group name in the header above the Sound List and select the same entry.
4. In the Import MIDI dialog that opens, navigate to the desired MIDI file on your computer and click **Open** to confirm.

→ The MIDI file will be imported to the selected Pattern of the Group according to the import rules described below.

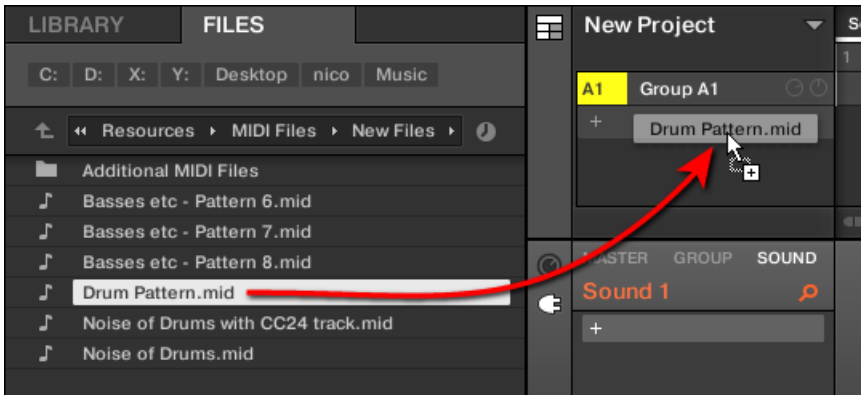
**Method 2**: via **drag and drop**

1. In the Group List (left of the Arranger), click the Group in which you want to import the MIDI file.

→ This sets the focus to that Group and displays its Patterns in the Pattern Editor underneath.

2. Select the Pattern in which you want to import the MIDI file.
3. Navigate to the desired MIDI file in the Explorer/Finder of your operating system or in the **FILES** pane of the Maschine Browser.

4. Drag the MIDI file onto the desired Group in the Group List left of the Arranger.




→ The MIDI file will be imported to the selected Pattern of the Group according to the import rules described below.



If the Pattern Editor is in Group view, you can also drag the MIDI file directly onto the Event area to import it to the Group!

**MIDI to Group rules**: When you import a MIDI file into a Group, Maschine assumes that the MIDI file contains data for different instruments (e.g., a drum kit), and the import will be performed accordingly. Your MIDI file will be imported as follows:

- The imported MIDI data will replace any existing data (notes, MIDI tracks, and modulation tracks) in the selected Pattern.
- If the MIDI file contains data on a **single MIDI channel**: MIDI notes will be imported to the different Sounds of your Group according to their pitch:
  - The MIDI note data will be allocated to the various Sounds in your Group according to the **Root Note** parameter in the **MIDI** page of the Group's Input properties, refer to Triggering Sounds via MIDI notes. This parameter defines the lowest note in the Group, which is tied to Sound slot **1**.Example: If **Root Note** is set to C1 (which corresponds to MIDI note number 36 in the Maschine convention), all notes with MIDI note number 36 in the MIDI file will be imported to the first Sound (in Sound slot **1**); all notes with MIDI note number 37 will be imported to the second Sound (in Sound slot **2**); etc.
  - For each Sound, MIDI notes will be imported at the default root note C3 — this ensures that the imported MIDI data will correctly trigger all Maschine factory kits.
  - The MIDI CC data will be copied to all Sounds for which MIDI notes have been imported.
- If the MIDI file contains data on **multiple MIDI channels**, the data from the individual channels will be imported to individual Sounds:
  - If any channel from the MIDI file corresponds to the MIDI input channel of a particular Sound in your Group, the data on that channel will be imported to that Sound. The MIDI input channel of each Sound is defined by the **Channel** parameter in the **MIDI** page of the Sound's Input properties. For more information, refer to Triggering Sounds via MIDI notes.
  - For all other channels of the MIDI file (i.e. channels that doesn't correspond to any MIDI input channel of a Sound in your Group), the data from individual channels will be imported to individual Sounds that have not received any data during the current import yet: the channel with the lowest number will be imported to the Sound with the lowest slot number, and so on. For example: if the MIDI file contains data on channels 2, 3, and 5, and the MIDI input channel isn't defined in any Sound of your Group, Sound slot **1** will receive the data from channel 2, Sound slot **2** from channel 3, and Sound slot **3** from channel 5.

## Importing a MIDI file to a Sound

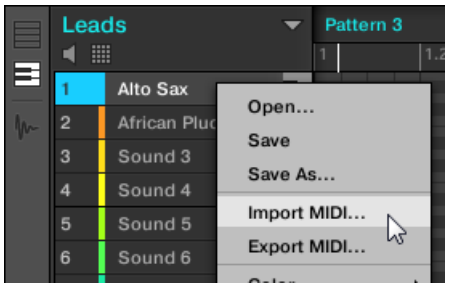
You can import a MIDI file to a single Sound. For example, this can be useful to import a melodic part for a single instrument. You can do this from the Sound's context menu, via drag-and-drop, or via the **FILES** pane of the Browser.

**Method 1**: via the **Sound's context menu**

1. In the Group List (left of the Arranger), click the Group containing the Sound for which you want to import the MIDI file.

→ This sets the focus to that Group and displays its Sounds and Patterns in the Pattern Editor underneath.

2. Select the Pattern in which you want to import the MIDI file.
3. Right-click ([Ctrl]-click on macOS) the desired Sound in the Sound List and select **Import MIDI…** from the context menu.




4. In the Import MIDI dialog that opens, navigate to the desired MIDI file on your computer and click **Open** to confirm.

→ The MIDI file will be imported to the selected Pattern for that Sound according to the import rules described below.

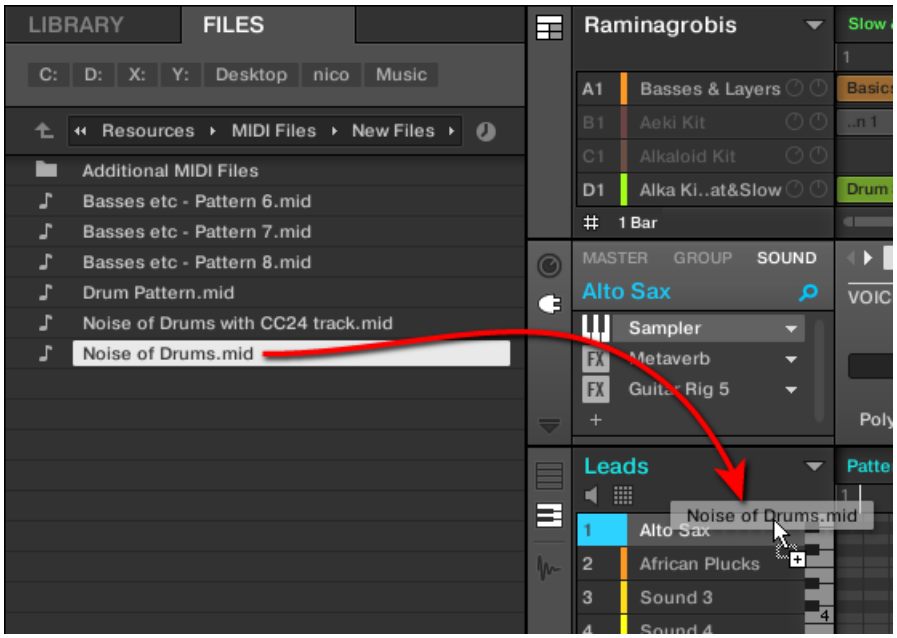
**Method 2**: via **drag and drop**

1. In the Group List (left of the Arranger), click the Group containing the Sound for which you want to import the MIDI file.

→ This sets the focus to that Group and displays its Sounds and Patterns in the Pattern Editor underneath.

2. Select the Pattern in which you want to import the MIDI file.
3. Navigate to the desired MIDI file in the Explorer/Finder of your operating system or in the **FILES** pane of the Maschine Browser.

4. Drag the MIDI file onto the desired Sound in the Sound List (left of the Pattern Editor).




→ The MIDI file will be imported to the selected Pattern for that Sound according to the import rules described below.



If the Pattern Editor is in Keyboard view, you can also drag the MIDI file directly onto the Event area to import it into the focused Sound!

**Method 3**: using the **FILES pane of the Browser**

1. In the Group List (left of the Arranger), click the Group containing the Sound for which you want to import the MIDI file.

→ This sets the focus to that Group and displays its Sounds and Patterns in the Pattern Editor underneath.

2. Select the Pattern in which you want to import the MIDI file.
3. Set the focus to the desired Sound by clicking it in the Sound List (left of the Pattern Editor).
4. Open the **FILES** pane of the Browser and navigate to the desired MIDI file (refer to Loading and importing files from your file system to learn how to use the **FILES** pane).
5. Double-click the MIDI file or click it and press [Enter] on your computer keyboard.

→ The MIDI file will be imported to the selected Pattern for the focused Sound according to the import rules described below.

**MIDI to Sound – import rules**: When you import a MIDI file into a Sound via its context menu, Maschine assumes that the MIDI file contains data for one single instrument (e.g., a bass or a lead synthesizer), and the import will be performed accordingly. Your MIDI file will be imported as follows:

- The imported MIDI data will replace any existing data (notes, MIDI tracks, and modulation tracks) for that Sound in the selected Pattern. For the other Sounds the Pattern content won't be affected.

- Any channel information in the MIDI file will be disregarded. All notes will appear in the same Pattern for that particular Sound. If the same MIDI note number and MIDI CC number are used in different channels in the MIDI file, the note and automation data will be merged. Conflicts will be resolved as follows:
  - Note duplicates: only the longest note is kept.
  - Modifiers (Mod Wheel, Pitch Bend, etc.), Velocity, and MIDI CCs: higher values are kept.

## Importing multiple MIDI files to a Sound or a Group

You can even select multiple MIDI files and import them all to a Sound or Group at once!

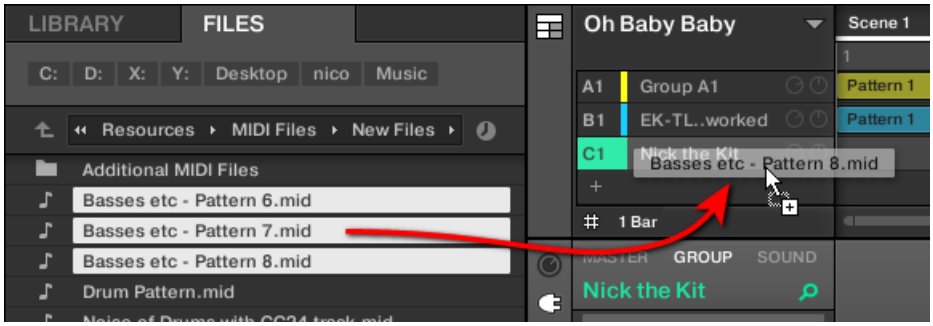
Contrary to the single-file import described above, importing multiple files doesn't replace the content of the selected Pattern, instead, for each MIDI file in the selection, a new Pattern will be created.



As a consequence, when importing multiple MIDI files you don't need to select any particular Pattern beforehand.

To import **multiple MIDI files to a Group**:

1. Select multiple MIDI files in your operating system or in the **FILES** pane of the Browser.
2. Drag and drop the multiselection onto the desired Group in the Group List.

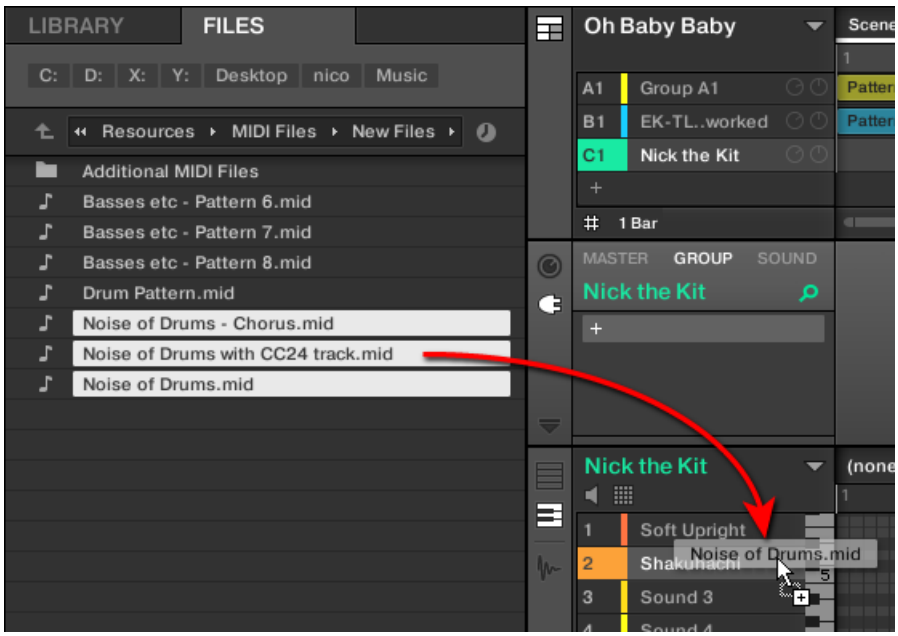



→ New Patterns will be created for that Group. Each new Pattern receives the data from one of the MIDI files and each MIDI file will be imported as a single MIDI file to that Group. Refer to the section above for a detailed description.

To import **multiple MIDI files to a Sound**:

1. Select multiple MIDI files in your operating system or in the **FILES** pane of the Browser.

2. Drag and drop the multiselection onto the desired Sound in the Sound List.




→ New Patterns will be created for that Sound in the Group, each new Pattern receiving the data from one of the MIDI files. Only this Sound will contain notes in these new Patterns. Apart from this, each MIDI file will be imported as a single MIDI file to that Sound. Refer to the section above for a detailed description.

Alternatively, if you have selected the MIDI files in the **FILES** pane of the Browser, simply press [Enter] on your computer keyboard to import the multiselection to the focused Sound!

# Working with Clips

This section explains in detail how to work with Clips.

For an overview of Patterns and Clips, refer to Working with Patterns and Clips.

## Creating a Clip

A new Clip can be created anywhere in the Arranger in the Song view.

Clips can also be created directly on top of Patterns. In this instance, you will only hear the Clip during playback.

## Converting Patterns into Clips

You can convert Patterns into Clips in various ways:

- Convert single Patterns into Clips. For more information, refer to Converting a single Pattern into a Clip.
- Convert the Patterns within a Scene into Clips. For more information, refer to Converting a Scene into Clips.
- Convert the Patterns within the loop range into Clips. For more information, refer to Converting the loop brace into Clips.

## Converting a single Pattern into a Clip

A single pattern can be converted to a Clip using the context menu.

To convert a Pattern into a Clip in the software:

1. Right-click on the Pattern that you want to convert and select **Convert to Clip** from the context menu.



You can also use the keyboard shortcut **[Ctrl]** + **[.]** (Windows) or **[cmd]** + **[.]** (macOS) to convert the selected Pattern into a Clip.

## Converting a Scene into Clips

You can convert all the Patterns within a Scene into Clips.

### Converting a Scene into Clips in the software

To convert a Scene into a Clip in the software:

▶ Right-click on the Scene that you want to convert and select **Convert to Clips** from the context menu.



You can also use the keyboard shortcut **[Ctrl]** + **[.]** (Windows) or **[cmd]** + **[.]** (macOS) to convert the selected Scene into Clips.

## Converting the loop brace into Clips

You can convert all the Patterns within the loop brace into Clips at once.

### Converting the loop brace into Clips in the software

To convert the Patterns within the loop brace into Clips in the software:

▶ Right-click on the loop brace and select **Convert to Clips** from the context menu.



You can also use the keyboard shortcut **Ctrl** + **.** (Windows) or **cmd** + **.** (macOS) to convert Patterns within the loop brace once it has been selected.

## Switching the focus between Patterns and Clips

When arranging your song in the Song view you may need to switch focus between editing Patterns or Clips. When you switch focus, the content of the selected Pattern or Clip automatically becomes available in the Editor. Here you can edit your content as required. Additionally, you will notice that Clips can also be freely moved here and placed anywhere on the timeline.

To switch between editing Patterns and Clips in Song view:

▶ Press [**C**] on your computer keyboard.

→ The software switches the focus between the Pattern (in the last selected Section) and the last selected Clip.

## Navigating between Patterns and Clips

Maschine provides a simple way to switch between Pattern view and Clip view for ease of use and to speed up your workflow.

To navigate to Pattern view:

1. Press **PATTERN**.
2. Press Button 1 (**PATTERN**).

→ Pattern view is displayed. Press Button 1 again to pin or unpin Pattern view.

To navigate to Clip view:

1. Press **PATTERN**.
2. Press Button 2 (**CLIP**).

→ Clip view is displayed, and Maschine switches to Song mode. Press Button 2 again to pin or unpin Clip view.



You can also quickly enter Clip view by pressing **SHIFT** + **PATTERN**.

## Navigating Clips using the 4-D encoder

The 4-D encoder can be used to interact and arrange Clips in Song mode. It is possible to navigate between Groups, select, move, and resize Clips using the 4-D encoder.

▶ To navigate between Groups, nudge the encoder up and down.

→ The previous or next Group is selected.

▶ To select Clips in the selected Group, turn the encoder left or right.

→ The Clip to the left or right is selected.

▶ To move the selected Clip, nudge the encoder left or right.

→ Nudging the 4-D encoder left or right moves the selected Clip relative to the current Arrange Grid value. Pressing **SHIFT** while nudging moves the selected Clip relative to the current Step Grid value.

▶ To resize the selected Clip, press and turn the 4-D encoder.

→ Pressing and turning the 4-D encoder left shortens the selected Clip. Pressing and turning the 4-D encoder right elongates the selected Clip. The resizing amount is relative to the current Arrange Grid value.



To select a new Grid value, press **SHIFT** + **FOLLOW** (**Grid**), and then press Button 3 (**ARRANGE**) or Button 4 (**STEP**). To change the value of the selected Grid, press the pad relative to the value you want to use.

## Inserting Scenes to an arrangement as Clips

Once you are satisfied with a Scene you can insert it directly as Clips into your arrangement in the Song view.

To insert a Scene to the arrangement as Clips:

1. Hold **SHIFT** + **IDEAS** (**Song**).
2. Then press Button 1 (**IDEAS**) to enter Ideas view.
3. Press and hold **SCENE** (**Section**) to enter Scene mode.
4. Press Button 3 (**APPEND**).
5. Press the pad corresponding to the Scene you want to append. You can do this more than once, tapping a series of pads will add all of those Scenes into Sections at the end of the Arranger in one quick step.

## Deleting a Clip

Clips can be deleted from the Arranger and Editor in Song view.

## Doubling a Clip

The size of a Clip can be doubled in the Song view.

## Duplicating a Clip

Using the duplicate function enables you to make a copy of a Clip.

## Clearing a Clip

Clearing a Clip allows you to remove all of its Events, leaving the Clip empty.

## Adjusting the Length of a Clip

In the Song view, you can adjust the length of a Clip. When you adjust the length, it snaps to the nearest position on the grid, using the current Arrange Grid value. You can override the grid by holding down **SHIFT** while dragging the Clip.

## Adjusting the Start of a Clip

In Song view, you can adjust the start of a Clip. When you adjust the start point, it snaps to the nearest position on the grid, using the current Arrange Grid value.

To adjust the start of a Clip on the Arranger:

1. Hold **SHIFT** + **IDEAS** (**Song**).
2. Then press Button 2 (**SONG**) to select the Song view.

3. Press Button 2 (**CLIPS**) to select Clips.
4. Turn the 4-D encoder to select the Clip you want to adjust.
5. Turn Knob 3 to adjust the start of the selected Clip.

→ The start of the Clip is adjusted.



Press **SHIFT** to override the Arranger Grid and adjust the Clip in smaller intervals.

## Repositioning a Clip

In the Song view, a Clip can be moved to a different position within the same Group. This enables you to place a Clip exactly where you want on the timeline.

## Renaming a Clip

Clips can be renamed in Song view to replace the default name with a custom name of your own choice.

To rename a Clip:

1. Hold **SHIFT** + **PATTERN**.
2. Press the Pad of the Clip you want to name.
3. Then press Button 5 (**RENAME**).
4. Enter a new name for the Clip by nudging and turning the 4-D encoder.
5. Press Button 8 to rename the Clip.

## Coloring a Clip

By default, Clips take the color of the Group they belong to, but you can adapt the color of each individual Clip to your needs.

# 10. Audio routing, remote control, and Macro Controls

This chapter describes a few important topics and features of Maschine's routing and assignment system. Understanding these will be of great help in numerous Maschine workflows:

- We will explain how Maschine's audio routing works and how to take advantage of its flexibility: Audio routing in Maschine.
- We will describe how to route MIDI signals to and from your Sounds and Groups, and how to control Maschine parameters via MIDI and host automation: Using MIDI control and host automation.
- We will show how to use the powerful Macro Controls to greatly improve your live experience by putting the desired parameters at your fingertips: Creating custom sets of parameters with the Macro Controls.

### The Channel properties

Most of routing and assignment features can be accessed via the **Channel properties**. Channel properties are global settings that apply to a particular Sound, Group, or to the Master independently of which Plug-ins are loaded in it.

Channel properties are organized into four sets. Similar sets of properties are available for all channels (Sounds, Groups, and Master): **Input properties** (unavailable for the Master), **Output properties**, **Groove properties**, and **Macro properties**.

You can access Channel properties and their parameters via the same procedure as for Plug-ins, both in the software and from your controller. Please refer to section Navigating Channel properties, Plug-ins, and Parameter pages for a detailed description.

The Input properties, Output properties, and Macro properties are covered in the following sections. For more information on the Groove properties, please refer to section Groove.

## Audio routing in Maschine

Maschine offers a powerful audio routing system that you can finely customize to fit your specific needs.

To make it short, by default the various channels of Maschine are structured in a simple, hierarchical way:

- At the bottom level, each Sound has its own audio channel. The output of the Sound's channel is sent to its parent Group.
- At the mid-level, each Group has its own audio channel, which sums all channels of the included Sounds. The output of the Group's channel is sent to the Master.
- At the top level, the Master has its own channel, which sums the channels of all Groups and ends up at the main output of Maschine. The output of the Master's channel is sent to your amplification system (in stand-alone mode) or to your host application (in plug-in mode).

This default routing configuration can be customized in numerous ways. Using the audio settings available in the Input and Output properties of each Sound, each Group, and the Master, you can build complex routings that cover a wide range of situations, as you will see in the next sections:

- Feed external audio into the input of your Sounds: Sending external audio to Sounds.

- Adjust the main output of your Sounds and Groups, and route it to various destinations: Configuring the main output of Sounds and Groups.
- Send auxiliary outputs of your Sounds and Groups to other destinations: Setting up auxiliary outputs for Sounds and Groups.
- Choose the destination and settings for the Master output (Maschine's main output) as well as for the Cue bus used for pre-listening: Configuring the Master and Cue outputs of Maschine.

### Mix view or arrange View?

When it comes to adjusting audio and MIDI routings, the Mix view can sometimes be the most efficient view to use: The familiar mixing desk layout allows you to quickly find the parameters you are looking for and adjust the routing on the fly. Hence, in the following sections we describe the procedures in both Arrange view and Mix view. For more details on the Mix view, refer to Controlling your mix.

You will also find useful examples of the various routings described here in Using effects.

## Sending external audio to Sounds

Each Sound can be configured to receive external audio signals. These audio signals can be coming from the following sources:

- Outside Maschine (from your audio interface if Maschine is used in stand-alone mode, or from your host if Maschine is used in plug-in mode).
- Additional outputs of multiple-output Plug-ins that might be loaded somewhere else in your Project.

Each Sound can use one external mono or stereo input. The same external signal can be fed into any number of Sounds.

For example, this allows you to have an external audio signal processed by the Plug-ins loaded in a Sound, and more generally, to integrate external audio signals into the Maschine routing and processing system. See also section Applying effects to external audio for an example of use and step-by-step instructions.

Configuring external audio inputs for a Sound is done on the **Audio** page of the Sound's Input properties.

> The **Audio** page of the Input properties is available for Sounds only.




*The Audio page of the Input properties for a Sound in the software.*

> Refer to Navigating Channel properties, Plug-ins, and Parameter pages to know how to access the **Audio** page of the Input properties.

| Control | Description |
|---|---|
| **Audio section** | |
| **Source** | Selects an external audio input to be routed to the Sound. The available entries are **None** (no external input), the 16 stereo inputs **In 1 L+R** – **In 16 L+R** of Maschine, the 32 corresponding left or right mono inputs, as well as any additional outputs of multiple-output Plug-ins loaded in other Sounds of the same Group. |
| **Gain** | Adjusts the gain of the incoming signal. |

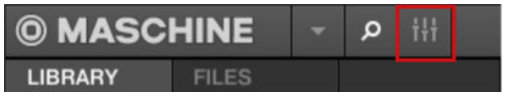
If Maschine is running as a stand-alone application, the external stereo inputs **In 1**–**8** available in the **Source** selector of the **Audio** section will correspond to the physical inputs of your audio interface that you have selected in the **Audio** page of the **Preferences** panel. Refer to Preferences – Audio page for more information.

If Maschine is running as a plug-in in a DAW, the external stereo inputs **In 1**–**8** available in the **Source** selector of the **Audio** section will correspond to virtual inputs in your DAW. This allows you to send mixer channels from your DAW to individual Sounds within Maschine, for example. Refer to your DAW documentation to know how to route signals to the virtual audio inputs of the Maschine plug-in.

## Configuring external audio inputs for Sounds in Mix view

You can also easily send external audio to Sounds in Maschine's Mixer:

1. Click the Mix View button on the left of the Arranger to switch from Arrange view to Mix view:




2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:




3. Check that the **IO** button is active on the left of the Mixer — if not, click it to enable it and display the input/output settings of each channel strip.



4. If the Mixer currently displays the Group channels, in the top row of the Mixer double-click the header of the Group containing the Sound you want to configure. If the Mixer currently displays the Sound channels, single-click the header of the desired Group.



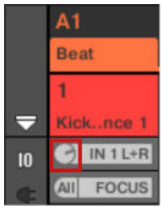

The Mixer displays the channel strips of all Sounds in the selected Group.

5. At the top of the channel strip of the Sound you want to configure, click the first field under the Sound name and select the desired external input in the menu.




This is equivalent to setting the **Source** parameter described above.

6. Turn the little knob on its left to adjust the input gain.




This is equivalent to setting the **Gain** parameter described above.

## Configuring the main output of Sounds and Groups

By default the outputs of all Sounds in a Group are sent to this Group, where they are mixed together and processed by the Plug-ins loaded in the Group, if any. Similarly, by default the outputs of all Groups are sent to the Master, where they are mixed together and processed by the Plug-ins loaded in the Master, if any.

This default behavior can be customized to your liking: You can adjust the level and panoramic position of the channel output, or send it to the Cue bus for pre-listening. Furthermore, you can send individual Sounds or whole Groups to another pair of outputs on your audio interface in order to process them separately at a later stage. The output routing configuration is done on the **Audio** page of the Output properties for Sounds and Groups.




*The Audio page of the Output properties (here for a Sound) in the software.*

Refer to Navigating Channel properties, Plug-ins, and Parameter pages to know how to access the **Audio** page of the Output properties.

| Control | Description |
|---|---|
| **Audio section** | |
| **Dest.** | Selects where you want to send the main audio output of your channel.<br><br>• For Sounds, the available options are **None** (no output), **Master**, **Group** (parent Group, default setting), any other Group or any other Sound acting as bussing point (i.e. containing an Effect Plug-in in its first Plug-in slot), as well as the 16 external stereo outputs **Ext. 1**–**16** of Maschine.<br>• For Groups, the available options are **None** (no output), **Master** (default setting), any other Group acting as bussing point (i.e. containing an Effect Plug-in in its first Plug-in slot), any Sound acting as bussing point in any other Group, as well as the 16 external stereo outputs **Ext. 1**–**16** of Maschine.<br>The available bussing points are labeled as described below. |
| **Cue** | When **Cue** is activated, the main output of the channel is sent to the Cue bus instead of its normal target (defined in **Dest.**, refer to above). For example, this is very useful to pre-listen a channel before you mix it in your performance. See also section Using the Cue bus for more information.<br><br>Note that when **Cue** is activated, the channel's Aux 1 and Aux 2 outputs are muted as well — but they are not sent to the Cue bus (refer to Setting up auxiliary outputs for Sounds and Groups). |
| **Level** | Adjusts the overall volume level of the channel. |
| **Pan** | Defines the pan position of the channel in the stereo field. |

| Control | Description |
|---|---|
| **Audio Mute** (Sounds only) | If you enable **Audio Mute**, muting this Sound will not only bypass its events but also mute its audio output, thereby muting any audio tails from notes already played. See section Mute and Solo for more information. |

If Maschine is running as a stand-alone application, the external stereo outputs **Ext. 1**–**16** available in the **Dest.** selector of the **Audio** section will correspond to the physical outputs of your audio interface that you have selected in the **Audio** page of the **Preferences** panel. Refer to Preferences – Audio page for more information.

If Maschine is running as a plug-in in a DAW, the external stereo outputs **Ext. 1**–**16** available in the **Dest.** selector of the **Audio** section will correspond to virtual outputs in your DAW. This allows you to send individual Sounds or Groups from Maschine to their own mixer channels within your DAW, for example. Refer to your DAW documentation to know how to route signals from the virtual audio outputs of the Maschine plug-in.

### Labels for bussing points in the Dest. selector

The various bussing points available in the **Dest.** selector (see table above) are labeled differently in the drop-down menu and in the display of the selector:

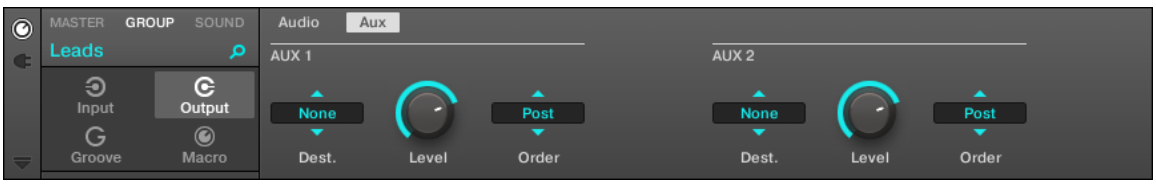
- In the drop-down menu they are labeled as follows:
  - For Groups: **[Group name]** (e.g., **Drums**).
  - For Sounds: **[Group name]: [Sound name]-[input number]** (e.g., **Drums: Kick-1**).
- In the selector display they are labeled as follows:
  - For Groups: **[Group letter+number]** (e.g., **A2**).
  - For Sounds: **[Group letter+number]:S[Sound number]-[input number]** (e.g., **A2:S4-1** for the first input of the Sound 4 of Group A2).

## Setting up auxiliary outputs for Sounds and Groups

Each Sound or Group of your Project provides two auxiliary outputs that you can route to additional targets. For example, you can send a definable amount of the channel's audio output to other channels for further processing. This is notably used in send effects (refer to Creating a send effect to learn how to set up a classic send effect).

The auxiliary outputs of a Sound/Group are configured on the **Aux** page of the Output properties.

There is no **Aux** page in the Output properties of the Master.




*The Aux page of the Output properties (here for a Group) in the software.*

Refer to section Navigating Channel properties, Plug-ins, and Parameter pages to know how to access the **Aux** page of the Output properties.

| Control | Description |
|---|---|
| **Aux 1 / Aux 2 section** | |
| **Dest.** | Selects where you want to send the Aux 1 or Aux 2 output of your channel. The available options are the same as for the **Dest.** selector of the **Audio** page (see Configuring the main output of Sounds and Groups), except that for Aux 1 and Aux 2 the default destination is **None**, in other terms there are no auxiliary sends defined by default. |
| **Level** | Adjusts the level of the signal sent to the Aux 1 or Aux 2 output. |
| **Order** | If **Order** is set to **Pre**, the channel will be fed into Aux 1 or Aux 2 *before* the **Level** and **Pan** settings in the **Audio** section of the **Audio** page are applied. If **Order** is set to **Post** (default setting), the **Level** and **Pan** settings of the main output also affect the signals sent to the auxiliary outputs. |

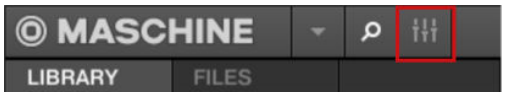
If Maschine is running as a stand-alone application, the external stereo outputs **Ext. 1**–**16** available in the **Dest.** selector of the **Aux 1** and **Aux 2** sections will correspond to the physical outputs of your audio interface that you have selected in the **Audio** page of the **Preferences** panel. Refer to Preferences – Audio page for more information.

If Maschine is running as a plug-in in a DAW, the external stereo outputs **Ext. 1**–**16** available in the **Dest.** selector of the **Aux 1** and **Aux 2** sections will correspond to virtual outputs in your DAW. This allows you to send auxiliary outputs of individual Sounds or Groups from Maschine to their own mixer channels within your DAW, for example. Please refer to your DAW documentation to know how to route signals from the virtual audio outputs of the Maschine plug-in.

## Setting up the auxiliary outputs for Sounds and Groups in Mix view

You can also easily set up auxiliary outputs for your Sounds and Groups in Maschine's Mixer:

1. Click the Mix View button on the left of the Arranger to switch from Arrange view to Mix view:




2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:



3. Check that the **AUX** button is active on the left of the Mixer — if not, click it to enable it and display the settings for the auxiliary outputs of each channel strip.




4. Navigate to the channel of which you want to configure an auxiliary output: for a Sound click the header of its parent Group (or double-click it if the Mixer currently displays the Group channel strips), and for a Group simply ensure that its channel strip is visible (double-click the Group header if the Mixer currently displays the Sound channel strips).
5. In the channel strip of the desired Sound or Group, click the **AUX 1** or **AUX 2** label (default labels) at the bottom of the strip and select the desired destination in the menu.




This is equivalent to setting the **Dest.** parameter described above.

6. Adjust the level for that auxiliary output via the little knob at the right of the menu.




This is equivalent to setting the **Level** parameter described above.

7. Set the pre/post state of the auxiliary output by clicking the **Post** (or **Pre**) label right under the menu.




This is equivalent to setting the **Order** parameter described above.

## Configuring the Master and Cue outputs of Maschine

All channels routed to the Master are mixed together and processed by the Plug-ins loaded in the Master, if any. The result is then sent to the Master output, that is, Maschine's main output.

Besides, all channels currently routed to the Cue bus for pre-listening are mixed together and sent to the Cue output.

> For more information on the Cue bus, refer to section Using the Cue bus.

You can choose to which outputs (on your audio interface or in your DAW) both the Master and the Cue outputs should be sent, and adjust their respective levels and panoramic positions. This is done on the **Audio** page of the Output properties for the Master.




*The Audio page of the Output properties for the Master in the software.*

> Refer to section Navigating Channel properties, Plug-ins, and Parameter pages to know how to access the **Audio** page of the Master's Output properties.

| Control | Description |
|---|---|
| **Audio section** | |
| **Output** | Selects where you want to send the main stereo output of your Maschine Project. The available options are the 16 external stereo outputs **Ext. 1**–**16**. |
| **Level** | Adjusts the overall volume level of the master output. This control is the same as the Master Volume slider in the Header, at the top right corner of Maschine's window. |
| **Pan** | Defines the panoramic position of the master output in the stereo field. |
| **Cue section** | |
| **Output** | Selects where you want to send the Cue bus of your Maschine Project. The available options are the 16 external stereo outputs **Ext. 1**–**16**. By selecting a different output from the one used for the main stereo output, you can effectively pre-listen on this additional output (e.g., on your headphones) any channels sent to this Cue bus. To send a channel to the Cue bus, enable the **Cue** switch in the **Audio** page of its Output properties (refer to Configuring the main output of Sounds and Groups). |
| **Level** | Adjusts the level of the Cue output. |
| **Pan** | Defines the panoramic position of the Cue output in the stereo field. |

If Maschine is running as a stand-alone application, the external stereo outputs **Ext. 1**–**16** available in the **Output** selector of the **Audio** and **Cue** sections will correspond to the physical outputs of your audio interface that you have selected in the **Audio** page of the **Preferences** panel. Refer to Preferences – Audio page for more information.

If Maschine is running as a plug-in in a DAW, the external stereo outputs **Ext. 1**–**16** available in the **Output** selector of the **Audio** and **Cue** sections will correspond to virtual outputs in your DAW. Refer to your DAW documentation to know how to route signals from the virtual audio outputs of the Maschine plug-in.

## Configuring the Master and Cue outputs in Mix view

You can also easily configure the Master and Cue outputs of Maschine in the Mixer. Both share the same channel strip at the far right of the Mixer.

To display the Master/Cue channel strip, do the following:

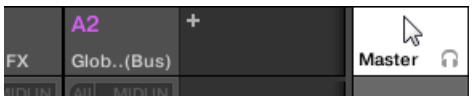
1. Click the Mix View button on the left of the Arranger to switch from Arrange view to Mix view:




2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:




3. Click the background of the last header in the top right corner of the Mixer.



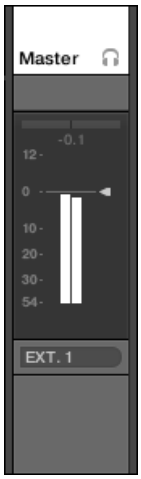

The Master/Cue channel strip appears underneath.

In this Master/Cue channel strip, do the following to configure the output of the **Master channel**:

1. Click **Master** in the strip's header to show the controls for the Master channel.



2. To adjust the level and panoramic position of the main output, use the channel's fader and balance control (above the fader), respectively.




This is equivalent to setting the **Level** or **Pan** parameters in the **Audio** section of the Master's Output properties, respectively (refer to above).

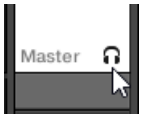
3. To select another destination for the Master output, click the first area under the level meter and select the desired destination in the menu.




This is equivalent to setting the **Output** parameter in the **Audio** section of the Master's Output properties (refer to above).

In this Master/Cue channel strip, do the following to configure the output of the **Cue channel**:

1. Click the headphone icon in the strip's header to show the controls for the Cue channel.



2. To adjust the level and panoramic position of the Cue output, use the channel's fader and balance control (above the fader), respectively.




This is equivalent to setting the **Level** or **Pan** parameters in the **Cue** section of the Master's Output properties, respectively (refer to above).

3. To select another destination for the Cue output, click the first area under the level meter and select the desired destination in the menu.




This is equivalent to setting the **Output** parameter in the **Cue** section of the Master's Output properties (refer to above).

# Using MIDI control and host automation

Maschine provides you with flexible MIDI remote control and host automation facilities that can be used in many situations.

## Incoming MIDI and host automation

Maschine's Master, Groups and Sounds can be controlled via MIDI and from the DAW (when Maschine is running as a plug-in), both globally and individually:

- By default, all MIDI data incoming on the activated MIDI input port(s) will be received by the focused Sound of the focused Group. See Preferences – MIDI page to find information on how to enable/disable MIDI input ports in Maschine.
- **Triggering Sounds via MIDI notes**: By default, incoming MIDI notes will trigger the focused Sound. You can change this default behavior and map incoming MIDI notes differently in order to adapt Maschine to your requirements. The appropriate MIDI settings can be configured in the **MIDI** page of the Input properties, both for individual Sounds and for entire Groups. These are described in section Triggering Sounds via MIDI notes.

- **Controlling parameters via MIDI messages and host automation**: You can control parameters of Channel properties and Plug-ins in your channels (Sounds, Groups, and Master) via MIDI messages and host automation (when Maschine is running as a plug-in). This is described in section Controlling parameters via MIDI and host automation.
- **Switching Plug-in Patches via MIDI Program Change messages**: You can use MIDI Program Change messages to recall particular patches (or programs, presets, etc.) for Native Instruments and External Plug-ins loaded at the Sound level. This is described in section Selecting VST/AU plug-in presets via MIDI Program Change.

When Maschine is running as a plug-in in a host, you can also trigger your Scenes and Sections using MIDI notes or MIDI Program Change messages. Refer to section Triggering Sections or Scenes via MIDI for more information.

### Outgoing MIDI

You can also **sending MIDI data from Sounds**. For example, when Maschine is running as a plug-in in a DAW, this allows you to record your performance on the pads as a MIDI pattern in your DAW. This is described in Sending MIDI from Sounds.

## Triggering Sounds via MIDI notes

Maschine allows you play your Sound(s) via MIDI (for example, from a MIDI keyboard).

By default and without any configuration, incoming MIDI notes on any MIDI port and any MIDI channel will trigger different pitches of the Sound slot currently under focus.

To play one or more Sounds via MIDI notes independently of the Sound currently under focus, you need to configure the MIDI input settings of your Sound(s) or of their Group, i.e. define how the Sound(s) or the Group should react to incoming MIDI notes. This is done in the **MIDI** page of the Group or the Sound Input properties.

There is no **MIDI** page in the Input properties of the Master.

When configuring these MIDI input settings, keep in mind the following:

- **MIDI input settings for a Group** affect all Sounds in the Group: Each Sound will be triggered by a different MIDI note. Typically, this allows you to quickly set up a MIDI remote control for an entire drum kit.
- **MIDI input settings for a Sound** affect only that Sound: Incoming MIDI notes will trigger different notes of this Sound. Typically, this allows you to control a melodic instrument via MIDI. More precisely, the incoming MIDI notes will be routed to the first Plug-in slot of the Sound.

  If the Sound has no Plug-ins, incoming MIDI notes will be forwarded to the Sound's MIDI output, if activated (refer to Sending MIDI from Sounds).

- MIDI input settings of a Sound and its parent Group are merged: For example, if you configure a Group to react to incoming notes on MIDI channel 1, but one Sound is setup to react to incoming notes on MIDI channel 2, then this Sound will react to one incoming note on MIDI channel 1 and all incoming notes on channel 2.

- The MIDI input settings described here also affect other Maschine features:
  - The preset selection via MIDI Program Change for Native Instruments and External Plug-ins. See section Selecting VST/AU plug-in presets via MIDI Program Change for more information.
  - The way MIDI files are imported to Sounds and Groups. See section Importing MIDI to Patterns for more information.
  - The way the MIDI dragger in the Pattern editor places Sounds when they are dragged to host software.
- MIDI automation (i.e. controlling Maschine parameters via MIDI) is not affected by the settings described here. For more information on MIDI automation, please refer to section Controlling parameters via MIDI and host automation.




*The MIDI page of the Input properties (here for a Group) in the software.*

Please refer to section Navigating Channel properties, Plug-ins, and Parameter pages to know how to access the **MIDI** page of the Input properties in the software and from your controller.

The MIDI input settings for Sounds and Groups provide following parameters:

| Control | Description |
|---|---|
| **MIDI ROUTING Section** | |

| Control | Description |
|---|---|
| **Key Mode** (Group mode only) | Enables the MIDI note input for the selected Group (deactivated by default). Please refer to your host documentation to find out how to route MIDI signals to your Maschine plug-in.<br><br>**Key Mode** offers the following options:<br><br>**Off**: Select this option to disable MIDI note input for the selected Group.<br><br>**Drumkit**: Select this option to conveniently configure the MIDI note input for the selected Group and place each Sound on a specific key chromatically across the keyboard starting from C2 upwards.<br><br>If nothing is loaded on a Sound nothing can be triggered, and if you use a Native Instruments Komplete Kontrol S-series keyboard the Light Guide will remain white to indicate that nothing loaded. Additionally, Komplete Kontrol S-series keyboards have a dedicated **KEY MODE** button to quickly active the **Drumkit** option for the selected Group in Maschine.<br><br>By selecting **Drumkit** you also affect how MIDI is exported from Maschine to another host sequencer when using the MIDI dragger in the Pattern editor, for more information on the how to drag and drop MIDI from your Patterns to your desktop or host software please read: Importing/exporting audio and MIDI to/from Patterns.<br><br>**Manual**: This option allows you to configure the MIDI note input based on your own preferences, including the **Source**, **Channel**, **Start Note** and **Thru** settings. |
| **Source** (stand-alone and in Manual mode only) | Select the MIDI port on which the Sound or Group will receive MIDI notes. Available entries are **None** (MIDI note input deactivated, default setting), **All** (MIDI notes are received on all activated input ports), and each activated MIDI input port. You can enable the desired MIDI input ports of your MIDI interfaces in the **MIDI** page of the **Audio and MIDI Settings** panel (refer to Preferences – MIDI page). Note that when **None** is selected for both a Sound and its parent Group, if the Sound is focused it will receive MIDI notes from all MIDI ports and on all MIDI channels. |
| **Channel** (Manual mode only) | Select the MIDI channel on which the Sound or Group will receive MIDI notes. If you select **All** (default setting), the Sound or Group will receive MIDI notes from all channels.<br><br>The **Channel** parameter of a Sound is also used when importing a multi-channel MIDI file to its Group — see section Importing MIDI to Patterns for more on this. |

| Control | Description |
|---|---|
| **Start Note** (Manual mode only) | Define the MIDI root note for that Group (**C1** by default). The MIDI root note and the upper 15 MIDI notes (from [Root Note] until [Root Note + 15]) will trigger the root note of Sound slot **1**–**16**, respectively. Incoming MIDI notes outside this range will be ignored by the Group.<br><br>The **Start Note** parameter is also used when importing a single-channel MIDI file to the Group — see section Importing MIDI to Patterns for more on this. |
| **Thru** (Manual mode only) | Switch this parameter on to send incoming events through to the MIDI outputs. This can be useful if you want to record notes played from Maschine into your host sequencer, and then play them back from there, using Maschine as the sound source.<br><br>Switch this parameter off to stop incoming events from being routed to the outputs. |



Some of these parameters also affect MIDI file import: The **Channel** parameter of a Sound will be used when importing a multi-channel MIDI file to its Group, while the **Root Note** parameter will be used when importing a single-channel MIDI file to the Group. For more information on MIDI file import please refer to section Importing MIDI to Patterns.

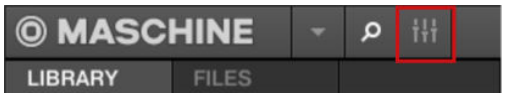


If Maschine is running as a plug-in in a host and you have configured your Scenes to be triggered via MIDI notes, the Scene trigger has priority over any Sound trigger set to the same MIDI channel. To configure MIDI control for Scenes, please refer to section Triggering Sections or Scenes via MIDI.

## Configuring MIDI note input for Sounds and Groups in Mix view

You can also easily configure the MIDI note input of your Sounds and Groups in Maschine's Mixer:

1. Click the Mix View button on the left of the Arranger to switch from Arrange view to Mix view:




2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:



3. Check that the **IO** button is active on the left of the Mixer — if not, click it to enable it and display the input/output settings of each channel strip.




4. Above the fader area in the channel strip of the Sound or Group you want to configure, click the bigger field on the right (labeled **MIDI IN** by default) and select the desired MIDI port in the menu.




This is equivalent to setting the **Source** parameter described above.If Maschine is running as a plug-in you see a **MIDI IN** button instead. Click it to enable the MIDI input from the host.




This is equivalent to enabling the **Active** button described above.

5. Click the little field on its left to select a MIDI channel.




This is equivalent to the **Channel** parameter described above.

## Triggering Scenes via MIDI

The Maschine hardware SCENE mode can be configured to send out MIDI (Notes/Program Changes) which can be used to trigger scenes. When Maschine runs as a Plug-in this MIDI data is sent to the host application. When Maschine runs as a stand-alone application this MIDI data is sent out to all activated MIDI output devices.

MIDI Scene Change program change messages can be used to record a Scene performance to a host application, and all recorded Scene performances can be then be saved within your host and sent back to Maschine for playback and trigger Scenes in the recorded order.

### Sending MIDI Scene Change Messages

To enable or disable the MIDI Scene Change feature, do the following:

1. Click **Edit** > **MIDI Change**.

→ This opens the following dialog:




2. Click **Scene Enabled** from the dialog.
3. In the submenu that opens, select the source you want to use for changing the MIDI Program Change messages. A list of connected controller names appear in the drop-down menu, or you can select **None** to disable the feature.
4. Then from the drop-down menu select **MIDI Note** to trigger your Scenes via MIDI notes, or **Program Change** to trigger your Scenes via MIDI Program Change messages.
5. If necessary, reopen the same submenu and select the MIDI channel the Scene changes should receive MIDI messages from (channel 1 by default).

ⓘ MIDI Scene change has priority over Lock change. If you select the same MIDI Source and Channel for Lock and Scene changes, only Scenes will be triggered by the corresponding events coming from the MIDI source. Corresponding Lock snapshots will not be recalled.

## Controlling parameters via MIDI and host automation

You can assign many parameters of the Channel properties and Plug-ins of your Sounds, your Groups, and your Master to MIDI messages in order to control and automate them via MIDI.

In addition, when Maschine is running as a plug-in, you can assign these parameters to automation IDs in order to control and automate them via host automation tracks in your DAW.



Configuring MIDI and host automation is possible in the software only.

In Maschine, **automation** means the control of Maschine parameters from an **external source** (MIDI or host application). Value changes are:

- **Permanent**: The new parameter value stays valid until a new value is defined (via MIDI/host or manually), even when the playback is looped or restarted.
- **Absolute**: The new parameter value is defined regardless of its current value.

### Automation vs. Modulation

Although both deal with automatic change of Maschine parameters, `automation` and `modulation` have to be distinguished. The following table summarizes the main differences:

| | Modulation | Automation |
|---|---|---|
| **Source of control** | Internal (e.g., changes recorded via Auto-write) | External (e.g., an external MIDI sequencer or an automation track in your host) |
| **Duration of the change** | Temporary (until the end of the Clip) | Permanent |
| **Target parameters** | At the Sound and Group levels only | At all levels (Sound, Group, and Master) |
| **Nature of the change (continuous parameters only)** | Relative (defines a deviation to the non-modulated value) | Absolute (defines a new value regardless of the non-automated value) |

This section describes how to use automation in Maschine — for more information on using modulation, please refer to section Recording and editing modulation.

Please note that modulation and automation are not mutually exclusive: You can modulate a parameter in Maschine `and` automate it (e.g., from your host) simultaneously! As a result, the parameter value will deviate (according to the recorded modulation) from its moving value defined by the automation.

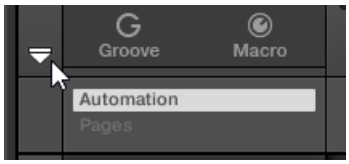
### Using the Automation pane in the Assignment area

MIDI and host control can be configured in the **Automation pane** of the **Assignment area**:




*The Automation pane of the Assignment area.*

1. Click the down-pointing arrow in the bottom left corner of the Control area to reveal the **Assignment area** underneath:




2. In the left part of the Assignment area, click the **Automation** tab:




→ The **Automation** tab lights up and the **Automation** pane appears on its right. You are now ready to configure MIDI and host automation for the parameters in the current Parameter page.



Once the Assignment area is open, when you switch to other Parameter pages the Assignment area follows your selection: it always shows the assignments for the page currently displayed above.



Maschine 1.x owners: In previous Maschine versions MIDI/host automation was only possible via the Macro Controls. Now MIDI/host automation and Macro Controls are unrelated: MIDI/host automation can be configured directly on parameters, independently of your Macro Control assignments. Macro Controls now specifically serve as shortcuts (or "aliases") for parameters — see section Creating custom sets of parameters with the Macro Controls for more information.

The **Automation** pane holds two tabs:

- **MIDI tab**: Click the **MIDI** tab to assign MIDI messages to automatable parameters. You can then remote control and automate Maschine parameters from any MIDI-capable device or software. Possible MIDI messages are Pitch wheel, Program Change, and MIDI CC 0–127.
- **Host tab**: Click the **Host** tab to assign automation IDs to automatable parameters if Maschine is running as a plug-in. You can then remote control and automate Maschine parameters from your host application.

Under each automatable parameter of the current Parameter page, the Automation pane shows an **Assignment field** showing the current assignment for this parameter, if any. If the parameter has no assignment yet, the Assignment field reads **Learn** (**MIDI** tab) or **Enable** (**Host** tab). If the parameter cannot be automated, its Assignment field is grayed out and inactive (refer to below to know which parameters can be automated).




*A MIDI CC assignment for the current Parameter page.*




*A few host automation assignments for the current Parameter page.*

The following paragraphs describe in more details how to assign MIDI controls and host automation IDs to Maschine parameters.

## Which Maschine parameters are automatable?

All the automatable parameters are found in Plug-ins or Channel properties (e.g., you cannot automate the Pattern Length or the color of a Scene). In the software in Mix view, this means that all automatable parameters are found in some Parameter page of the Control area.

In order to be automatable, parameters of Plug-ins and Channel properties have to meet one single requirement:

- In order to be automatable, a parameter must be **controlled by a knob or a button** in the software — most parameters controlled by selectors (e.g., for selecting an operating mode or a filter type) cannot be automated.

Almost all parameters meeting this requirement are automatable, the only exceptions being:

- Plug-ins:
  - Saturator: in Tube mode, the **Bass Overload** button (**MAIN** section) and **Bypass** button (**EQ** section).
  - Percussion (Drum Synth): in Fractal mode, the **Tune Hold** button in the **Main** page.
- Channel properties:
  - Sound's and Group's Output properties: the **Cue** button in the **Audio** page.
  - Group's Input properties: the **Root Note** knob in the **MIDI** page.
  - Master's Groove properties: the **Amount** knob and **Invert** toggle in the **Swing** page.

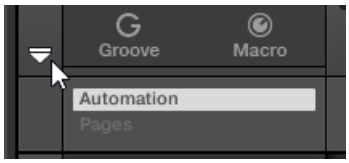


You will notice that the rules for automatable parameters are the same as for modulatable parameters except that modulatable parameters can only be found in Sounds and Groups (not in the Master). In other words, at the Sound and Group level the same parameters are both automatable and modulatable. For more information on modulation please refer to section Recording and editing modulation.

Also note that your Macro Controls will be automatable if, and only if, the parameters they are controlling are themselves automatable. For more information on Macro Controls please refer to section Creating custom sets of parameters with the Macro Controls.

### Assigning host automation IDs to parameters (Maschine as plug-in)

1. Click the down-pointing arrow in the bottom left corner of the Control area to open the Assignment area underneath.




2. On the left of the Assignment area, click the **Automation** tab to show the **Automation** pane, then in this pane click the **Host** tab.




3. Click the **Enable** label in the Assignment field under any unassigned parameter to automatically assign that parameter to the next free automation ID.




→ The Assignment field displays the automation ID for that parameter. The parameter is ready to be controlled from your host.




Removing an automation ID is also straightforward:

▶ Click the non-empty Assignment field under any assigned parameter to remove the automation ID currently assigned to that parameter.

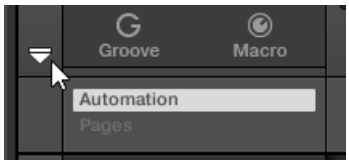
→ The previous automation ID is removed from the Assignment field and the parameter is not available anymore for host automation.

ⓘ For more information on how to automate VST/AU plug-in parameters from your host, please refer to your host documentation.

## Assigning MIDI controls to parameters

Assigning a MIDI control to a parameter in Maschine is done via an intuitive **Learn mode**:

1. Click the down-pointing arrow in the bottom left corner of the Control area to open the Assignment area underneath.




2. On the left of the area, click the **Automation** tab to show the **Automation** pane, then in this pane click the **MIDI** tab.




   In this tab, the Assignment fields for automatable parameters read **Learn**.

3. Click **Learn** in the Assignment field of a parameter to enter Learn mode for that parameter.The Assignment field shows a blinking **Learning**.




4. Move the desired control element (knob, button, etc.) on your MIDI controller.

→ The Assignment field automatically displays the MIDI message type received (CC number, **PC** for Program Change, or **PW** for Pitchbend). The parameter is ready to be controlled via MIDI.

Note that the assignments you create will receive MIDI messages on all channels of all activated MIDI ports.

> For the Learn mode and the resulting MIDI control to work, MIDI must be correctly configured in Maschine. If Maschine is running as stand-alone application this is done in the **MIDI** page of the **Preferences** panel — for more details please refer to section Preferences – MIDI page. If Maschine is running as a plug-in in a host application the MIDI configuration is done in the host — see section Stand-alone and plug-in operation.

If there is already a MIDI assignment for the parameter, the new MIDI assignment will replace the previous one. If you change your mind and don't want to assign any new MIDI control, while **Learn** is blinking click the Assignment field again or press [Esc] on your computer keyboard.

You cannot assign the same MIDI control to more than one parameter in Maschine: If a MIDI control is already assigned to a parameter, when you assign it to another parameter its first assignment is automatically deleted.

If you want to simply remove a MIDI assignment without recording a new one, do the following:

▶ Right-click ([Ctrl]-click on macOS) the non-empty Assignment field under a parameter and select **Unlearn** in the menu to remove the MIDI assignment for that parameter.




→ The MIDI assignment is removed from the Assignment field and the parameter is not controllable via MIDI anymore.

Of course, this procedure also works for Native Instruments and External Plug-ins loaded in Maschine.

## Selecting VST/AU plug-in presets via MIDI Program Change

If you have a Native Instruments or third-party VST/AU plug-in loaded in a Sound, you can remotely switch presets (or patches, programs, etc.) in your plug-in via MIDI Program Change messages.

For this to work, your plug-in must expose its presets or a particular set of presets to the host (here Maschine). Each VST/AU instrument or effect might handle its presets (or patches, programs…) differently. Please refer to the plug-in documentation to know how to make its presets available to the host.

For example, in Massive, ABSYNTH 5, and FM8, you need to enable the **Program List** and fill it up with the desired patches in order to expose these to Maschine and switch between them via MIDI Program Change messages.

The Native Instruments or third-party VST/AU plug-in will listen to Program Change messages according to the **Source** and **Channel** settings you have defined on the **MIDI** page of the Input properties for the respective Sound — this page is described in detail in section Triggering Sounds via MIDI notes above.

## Sending MIDI from Sounds

Your Sounds can output MIDI notes and automation data to the outside world, allowing you to control any MIDI-capable application and/or external MIDI gear from Maschine's sequencer.

With its MIDI output activated, a Sound will send:

- MIDI notes corresponding to the notes played by that Sound in the current Pattern.
- MIDI notes corresponding to your hits on the pads.
- All events of the MIDI tracks you might have created in the MIDI Automation pane of the Control Lane, at the bottom of the Pattern Editor. See section Creating MIDI tracks from scratch in Maschine for more on this.

A Sound without any Plug-in loaded can still send the MIDI data listed above! Furthermore, if the Sound has no Plug-in it will forward any incoming MIDI notes to its MIDI output. To know how to configure the MIDI note input of Sounds, please refer to section Triggering Sounds via MIDI notes.

The MIDI output of Sounds is configured on the **MIDI** page of their Output properties.

The **MIDI** page of the Output properties is available for Sounds only.




*The MIDI page of the Output properties for a Sound in the software.*

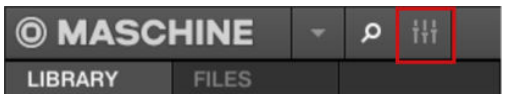
Refer to section Navigating Channel properties, Plug-ins, and Parameter pages to know how to access the **MIDI** page of the Output properties.

| Control | Description |
|---|---|
| **MIDI section** | |
| **Dest.** | Selects the MIDI port on which the Sound will send MIDI data.<br><br>If Maschine is running in **stand-alone mode**, available entries are **None** (MIDI output deactivated, default setting), every activated MIDI output port, as well as any Sound in the same Group containing a Plug-in that can receive MIDI (multitimbral Plug-in). Check the **MIDI** page of the **Preferences** panel to enable the desired MIDI output ports on your MIDI interfaces (see Preferences – MIDI page).<br><br>If Maschine is running **as a plug-in** in a host application, the entries for the activated MIDI output ports are **None** (MIDI output deactivated, default setting) and **Host**. If **Host** is selected, Maschine will forward the MIDI data from the Sound to the host application. This notably allows you to record what you play on the pads as MIDI files in your host — e.g., for further editing, controlling other instruments, etc. |
| **Channel** | Selects the MIDI channel on which the Sound will send MIDI data. By default Sound slot 1 will send MIDI data on channel 1, Sound slot 2 on channel 2, etc. |
| **Transpose** | Applies an offset to the MIDI note numbers before the notes are sent. Values range from -48 (downward transposition by 48 semitones, i.e. four octaves) to +48 (upward transposition by 48 semitones, i.e. four octaves). The default value is 0. |

## Configuring the MIDI output for Sounds in Mix view

You can also easily configure the MIDI output of your Sounds in Maschine's Mixer:

1. Click the Mix View button on the left of the Arranger to switch from Arrange view to Mix view:




2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:




3. Check that the **IO** button is active on the left of the Mixer — if not, click it to enable it and display the input/output settings of each channel strip.




4. If the Mixer currently displays the Group channels, in the top row of the Mixer double-click the header of the Group containing the Sound you want to configure. If the Mixer currently displays the Sound channels, single-click the header of the desired Group.




The Mixer displays the channel strips of all Sounds in the selected Group.

5. At the bottom of the channel strip of the Sound you want to configure, click the bigger field left and select the desired MIDI port in the menu.




This is equivalent to setting the **Dest.** parameter described above.

6. Click the little field on its right to select a MIDI channel.




This is equivalent to the **Channel** parameter described above.

## Creating custom sets of parameters with the Macro Controls

Macro Controls enable you to control in one same location a selection of parameters coming from different sources. Available in every channel (Sounds, Groups, and Master), Macro Controls are very useful for playing live since you can choose a set of parameters from various sources to manipulate on one screen without having to switch screens.

The Macro Controls are available in the **Macro properties**.




*The Macro properties (here for a Sound) in the software.*

Refer to section Navigating Channel properties, Plug-ins, and Parameter pages to know how to access the Macro properties.

## Macro Control overview

Each Macro Control can be assigned to one destination with the full range of the selected parameter. On the other hand, the same parameter can be the destination of more than one Macro Control.

To know which parameters you can assign to a Macro Control, consider this single rule:

**A Macro Control of a channel can control any parameter located in the properties or Plug-ins of that channel or of any underlying channel.** In other words:

- For Sounds: You can assign the Macro Controls of a Sound to any parameters in its properties or Plug-ins. It is also possible to assign MIDI Control Change messages, Pitchbend and Program Changes to Macro Controls in order to control external MIDI devices.
- For Groups: You can assign the Macro Controls of a Group to any parameters in its properties or Plug-ins as well as any parameters in any Sound inside the Group.
- For the Master: You can assign the Macro Controls to any parameters found in the properties or Plug-ins of any channel in your Project.

The Macro properties themselves (even from a different channel) are not available as targets for any Macro Control.

Linking the same parameter to more than one Macro Control can be useful in the following example: If a parameter of a Sound is particularly important, you can link it to the same knob in the Macro Controls of that Sound, of its parent Group, and of the Master. By doing this, you ensure that the parameter is always available on the same knob when you switch between the Master, Group, and Sound levels (but not if you switch to another Sound or Group).

### Macro Control shortcut on the controller

On your controller, a dedicated button allows you to quickly access your Macro Controls at any time:

▶ Press **SHIFT** + **PLUG-IN** (**Macro**) to directly switch to the Macro Controls of the focused channel (Sound, Group or Master).

## Assigning Macro Controls in the software

Macro Controls can be assigned in two different ways in the software. The quickest and easiest way is to create a Macro Control directly from a parameter. The other more elaborate method is to use the **Pages** pane in the Assignment area.

## Assigning Macro Controls from parameters

Assigning a parameter to a Macro from a Channel or Plug-in properties is quick and easy. You can simply right-click ([Ctrl]-click on macOS) a parameter name and select which Macro level you want to assign it to.

To assign a Macro Control directly from a parameter:

1. Click the Channel or Plug-in icon depending on where the parameter you want to assign is located.
2. Select the level where the parameter is, this can be on the **MASTER**, **GROUP** or **SOUND** level.
3. Right-click ([Ctrl]-click on macOS) the name of the parameter (the text below the knob, switch, or menu) you want to assign and select either **Create Master Macro**, **Create Group Macro**, or **Create Sound Macro** depending on the options available, and to which level you want to assign the parameter as a Macro Control.

→ The parameter is assigned as a Macro and you can see your assignments by selecting **Macro** in the Channel properties and selecting the Macro level (**MASTER**, **GROUP** or **SOUND**) where you assigned the Macro Control.

You can remove the Macro by using the same procedure:

▶ To remove a Macro, right-click the parameter and select **Remove Macro**.

→ The selected Macro is removed.

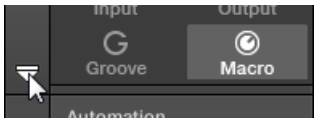
## Assigning Macro Controls using the Pages pane

Assigning Macro Controls is done in the **Pages** pane of the Assignment area when the Macro properties are selected. The procedure is similar to the procedure used when assigning parameters of VST/AU plug-ins to Parameter pages in Maschine (refer to Setting up your own Parameter pages).

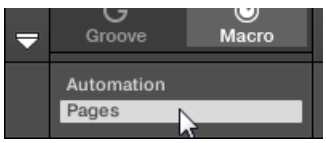
## Opening the Pages pane in the Assignment area

First of all, you need to open the **Pages** pane of the Assignment area for Macro properties. To do this:

1. Select the Macro properties of the desired channel (Sound, Group, or Master) as described in section Navigating Channel properties, Plug-ins, and Parameter pages.
2. Click the down-pointing arrow in the bottom left corner of the Control area to reveal the **Assignment area** underneath:




3. Click the **Pages** tab in the left part of the Assignment area:

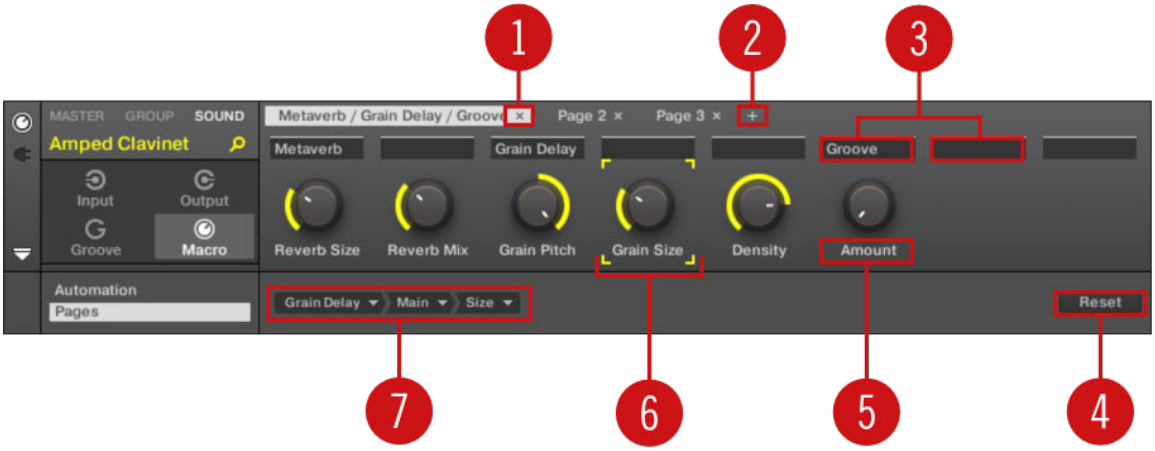



→ The **Pages** tab lights up and the **Pages** pane appears on its right. You are now ready to assign Macro Controls to parameters.

Once the Assignment area is open, when you switch to other Parameter pages the Assignment area follows your selection: it always shows the assignments for the page currently displayed above.

The **Pages** tab can be clicked only for Native Instruments or External Plug-ins, and for the Macro properties. For all Internal Plug-ins and for Channel properties, the parameters and Parameter pages are not editable, and the **Pages** tab is grayed out and inactive. For more information on how to assign parameters of Native Instruments or External Plug-ins to Parameter pages, refer to Setting up your own Parameter pages.

When the **Pages** pane of the Assignment area is open, you also notice a few changes in the Control area above.




*The Control area with Macro Properties displayed and the Pages pane active in the Assignment area underneath.*

(**1**) **Delete Page button ("x" symbol)**: Click the little "**x**" after a page name to delete this Parameter page.

(**2**) **Add Page button ("+" symbol)**: Click the little "**+**" after the last page label to append a new page. By default, pages are labeled "Page 1," "Page 2," etc. You can change page labels by defining sections within your pages via the Section Label fields (**3**).

(**3**) **Section Label fields**: These fields allow you to define sections of parameters within the displayed page. Double-click the field above the first parameter you want to include in the section, type the desired name for the section, and press [Enter] to confirm. The new section will include all following parameters until the next section starts (this can be seen only after you have closed the Assignment area). Moreover, the Parameter page will mirror the label(s) of its section(s) — if there are more than one section, the page label will mirror all of them, separated by slashes.

(**4**) **Reset button**: Click **Reset** to remove the Macro Control assignment for the selected knob.

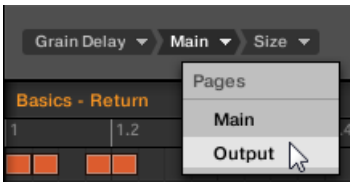
(**5**) **Parameter Label fields**: Double-click these fields to enter custom labels for your parameters (press [Enter] to confirm). These labels will be mirrored everywhere in Maschine for the corresponding parameters.

(**6**) **Focus frame**: Indicates the Macro Control being assigned. Click any Macro Control to display and edit its assignment in the Target selector below (**4**).

(**7**) **Target selector**: Displays and selects the target parameter of the selected Macro Control indicated by the Focus frame (**5**). This multi-level drop-down widget allows you to quickly navigate through the structure of the channel to the desired parameter. The detailed procedure is explained in the next paragraph.

## Selecting a parameter in the Target selector

The Target selector (see picture above) allows you to choose from all available parameters for each Macro Control.




*The Target selector allows you to quickly select the desired parameter.*

This tool is similar to a menu containing several levels of submenus—with the notable difference that every intermediary selection stays visible for faster switching.

When assigning a new, unassigned Macro Control, do the following:

1. Click the **Select** menu (for now the only menu of the Target selector).The menu is organized into subcategories: **Settings** (listing the properties of the current channel), **Slots** (listing the Plug-ins loaded in the current channel), and possibly a third category listing the channels included at the next level: if you're editing the Macro properties of the Master you will see the **Groups** subcategory listing all Groups of your Project, and if you are editing the Macros of a Group you will see the **Sounds** subcategory listing all Sounds in that Group, and if you are editing the Macro properties of a Sound you will see the **MIDI** menu item which upon selection lists all available Control Change messages that can be assigned to a Macro Control.

   The Macro Control menu item **Select** > **MIDI** lists the full range of MIDI Control Change messages from 0-127 which can be individually assigned to a Macro Control in order to control parameters on an external MIDI device. If you are unsure which MIDI Control Change message can be used to control a particular parameter, please check the documentation that came with your MIDI device for details.

2. Upon your selection in the previous menu, the menu takes the name of your selection, and another menu may appear to the right which allows you to refine your search (e.g., by listing all Parameter pages of the selected Plug-in or Channel properties). This continues until a parameter is reached and you select it.

→ Upon the selection of a parameter, the Macro Control is assigned to this parameter.

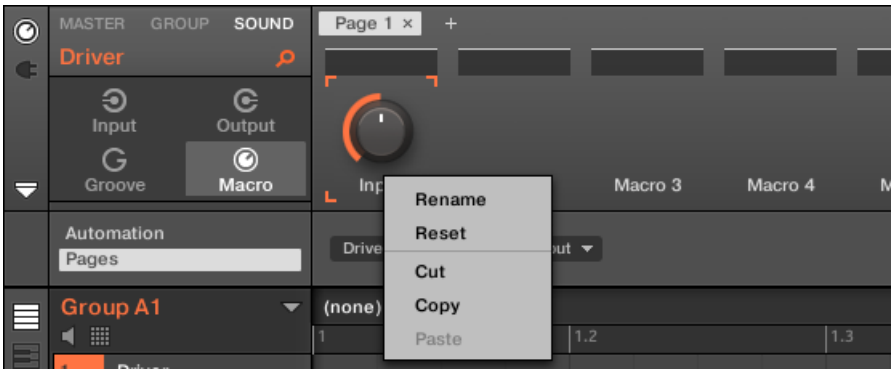
Note that the whole path to this parameter stays visible in the Target selector: this lets you modify a single selection without starting from the topmost channel and going through the entire selection process again:

▶ To modify a particular item in the selection shown by the Target selector, click it and select another item for that level.

→ Items on the left of the selected item (i.e. at a higher level) stay untouched, while items on its right (i.e. at a lower level) are reset.

## Macro – context menu

When the Assignment area is opened and the **Pages** tab is selected, right-clicking an assigned or unassigned Macro slot opens a context menu.




*The context menu for Macro properties.*

The context menu contains following items:

| Menu item | Description | Keyboard shortcut |
|---|---|---|
| **Rename** | Rename the Macro. | Ctrl + R / Cmd + R |
| **Reset** | Reset the Macro. | |
| **Cut** | Cut the Macro to paste it in another position. | Ctrl + X / Cmd + X |
| **Copy** | Copy the Macro. | Ctrl + C / Cmd + C |
| **Paste** | Paste a cut or copied Macro to a new position. | Ctrl + V / Cmd + V |

## Assignment area pages – Context Menu

When the Assignment area is opened and the **Pages** tab is selected, right-clicking a page name opens a context menu.




*The context menu for pages.*

The context menu contains the following items:

| Menu item | Description | Keyboard shortcut |
|---|---|---|
| **Delete** | Deletes current page with all assignments. | |
| **Clear All** | Clears all the assignments, and deletes all of the pages. | |

# 11. Controlling your mix

The default view of the Maschine software is the Arrange view, which contains the Arranger at the top, the Control area in the middle, and the Pattern Editor or the Sample Editor at the bottom. The Arrange view is best suited to organize your melodies and rhythms in the timeline: With it you can for example finely tailor your Patterns for each of your Groups in the Pattern Editor, and put them together as Clips in the Arranger to build a complete song.

The **Mix view** is the other main view of Maschine. Instead of focusing on the time-dependent aspects of your Project, it gives you quick access to the level and routing settings of all your Sounds, all your Groups, and the Master. In addition, it provides you with an intuitive interface for adjusting the parameters of all your Plug-ins.

The Mix view can come in handy at various stages of your work, for example, when building custom drum kits, setting up send effects, creating advanced routings, or last but not least, during live performances.

## Mix view basics

This section describes the basic operation of the Mix view.

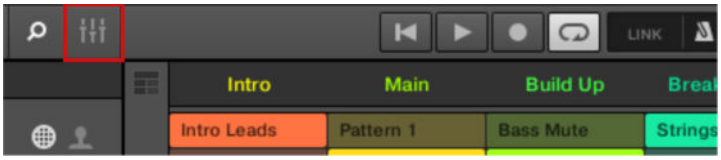
### Mix view vs. Arrange view

It is important to note that the Mix view does not provide any additional settings that are not available in Arrange view. In other words, every action done in Mix view can also be done in the Arrange view (Ideas view and Song view). The purpose of the Mix view is rather to organize the information and settings in a different way that is better suited for particular workflows, notably those involving levels and routings.

In the rest of the chapter, for each procedure in Mix view we will quickly mention the equivalent procedure in Arrange view or point to the corresponding description in this manual.

### Switching between Arrange view and Mix view

You can switch the Maschine software at any time between the Arrange view and the Mix view:




*The Mix View button.*

- Click the Mix View button in the Maschine Header to switch between the Arrange view and the Mix view.

### Mix view elements

When you switch the Maschine software to Mix view, the Arranger, the Control area, and the Pattern Editor disappear and are replaced with the following three elements:




*The Mix view, with the Mixer in the upper part and the Plug-in Strip below.*

1. **Mixer**: In the upper part, the Mixer shows you at a glance the level and routing settings for all Sounds of the focused Group, or all Groups in your Project. You can change these settings on the fly, select or put the focus on any channel, etc. At the far right you can control the settings for the parent channel — the Group channel if the Mixer displays Sound channels, or the Master/Cue channel if the Mixer displays Group channels. See section The Mixer for a detailed description.
2. **Plug-in Strip**: In the lower part, the Plug-in Strip displays the series of Plug-ins loaded in the focused channel (Sound, Group, or Master). You can adjust the parameters of each Plug-in in its own interface. See section The Plug-in Strip for a detailed description.

# The Mixer

Sitting in the top part of the Mix view, the Mixer is ideal to quickly see and adjust the level and routing settings of different channels in one go.




*The Mixer in the Maschine software.*

The Mixer provides a classic mixing desk layout containing a certain number of **channel strips**. The particular channel strips displayed along with their precise layout depend on the following:

- Which of the Sound or Group level is selected for displaying: Displaying Groups or Sounds.
- Whether the Mixer is minimized or not, and which sections are activated for display: Adjusting the Mixer layout.

## Displaying Groups or Sounds

The Mixer provides two display modes, allowing you to focus on the current context:

- **Group level**: The Mixer shows channel strips for all Groups in your Project.
- **Sound level**: The Mixer shows channel strips for all Sound slots in the focused Group.

Both display modes are described in the following paragraphs.

If the Maschine window is too small to display all channel strips, an horizontal scroll bar appears at the bottom of the Mixer to navigate to the hidden channels.



*If necessary, use the scroll bar to show hidden channels.*

Whether the scroll bar appears or not, the output strip at the far right of the Mixer is always visible.

## Mixer displaying the Group level

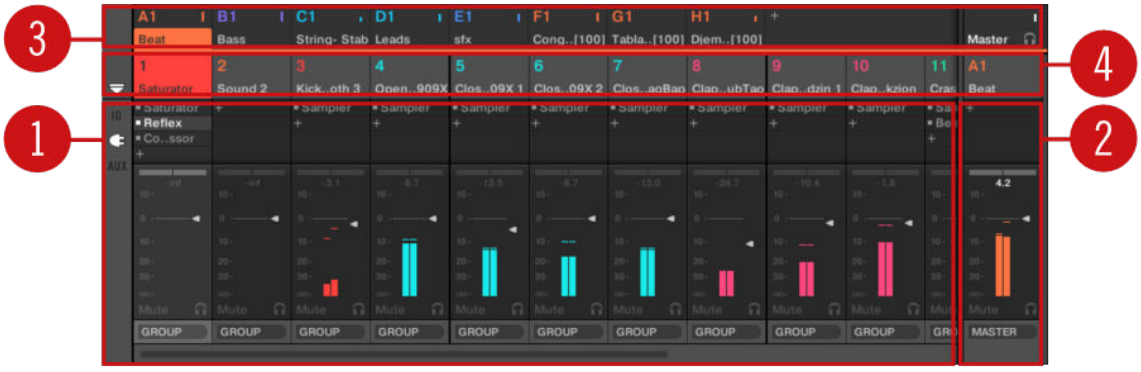
The Mixer can display **all Groups at once**:




In this mode the desk's input strips (**1**) represent all Groups of your Project, while the output strip at the far right (**2**) represents the Master/Cue channel. At the top of the Mixer you see the headers of all your Groups and of the Master/Cue channel (**3**). The focused channel is highlighted.

## Mixer displaying the Sound level

The Mixer can alternatively display the **Sounds slots of a particular Group**:




In this mode the desk's input strips (**1**) represent all Sounds of the focused Group, while the output strip at the far right (**2**) represents that focused Group. At the top of the Mixer you see two rows:

- The first row (**3**) contains the headers of all your Groups and of the Master/Cue channel. The header of the focused Group (or of the Master/Cue at the far right) is highlighted.
- The second row (**4**) contains the headers of the Sound slots in the focused Group. The header of the focused Sound slot (or of the parent Group at the far right) is highlighted.

## Switching the Mixer between the Group and Sound levels

At any time you can switch between both display modes:

▶ To switch the Mixer display between all Groups of your Project and all Sound slots in a particular Group, double-click the background of any Group header at the top of the Mixer.

→ If the Mixer was displaying Sound strips beforehand, it will display all Group strips instead, and the Group you have double-clicked will be focused. If the Mixer was displaying Group strips beforehand, it will instead display all Sound strips of the Group that you have double-clicked. The last focused Sound slot in that Group will be focused again.



Make sure that you double-click in the header background and not on the number or letter+number in the top left corner of the header — instead of switching the Mixer between both views this would mute/unmute the Group channel in question.

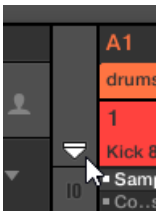
## Adjusting the Mixer layout

No matter which of the Group or Sound levels is currently displayed in the Mixer, you can adjust its layout as described below in order to concentrate on your current task.

### Maximizing/minimizing the Mixer

You can minimize/maximize the Mixer so that it shows only the Group and Sound headers or the entire channel strips:

▶ Click the arrow button at the bottom left of the Mixer to show or hide the channel details in the Mixer.




*Minimizing/maximizing the Mixer.*

When the Mixer is minimized, the channel strips only show their headers:




*A channel strip in the minimized Mixer.*

### Showing/hiding particular sections of the strips

Both when displaying all Group channels or all Sound channels of a particular Group, the Mixer allows you to select which sections you want to show or hide in the channel strips. This is done by using the three buttons on the left of the Mixer, under the arrow expanding the Mixer:




*Choosing what to display in the channels.*

From top to bottom:

- **IO button**: Click it to show/hide the input and output settings (both MIDI and audio) in the channel strips.
- **Plug-in icon**: Click it to show/hide the Plug-in Lists in the channel strips.

- **AUX button**: Click it to show/hide the auxiliary output settings in the channel strips.

> The settings for the main audio output are always visible, even if the **IO** button is deactivated.

For a detailed description of the settings available in the channel strips, refer to section Adjusting settings in the channel strips.

## Selecting channel strips

Since the Mix view is just another way of displaying and accessing Maschine channels, selection and focus work similarly in the Mixer view and in the Arrange view:

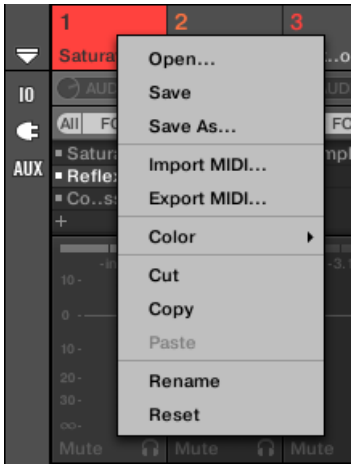
- You can set the focus onto a particular channel (Sound or Group) by clicking the background of its header in the top two rows of the Mixer (upper row for Groups and the Master/Cue, lower row for Sounds, if visible), and you can use the usual commands on your controller (refer to Focusing on a Group or a Sound). The header of the channel in focus is highlighted.
- Setting the focus onto a particular channel strip in the Mixer will automatically set the focus onto the corresponding Sound, the corresponding Group, or the Master in Arrange view, and inversely.
- When the Mixer displays the Sound strips of a Group, if you click another Group header in the top row the Mixer will stay at the Sound level and switch to the Sound strips of this other Group.
- You can select more than one channel strip among the strips displayed. The strip in focus is always selected. The multiple selection follows the same rules as in Arrange view (refer to Selecting multiple Sounds or Groups).

> Whichever channel strip is in focus, the Plug-in Strip at the bottom of the Mix view shows the Plug-ins loaded in that channel (refer to The Plug-in Strip).

## Managing your channels in the Mixer

The Mixer provides the same Sound and Group management commands as in Arrange view, with similar procedures. Most of them are available via the channel's context menu:

▶ To open the channel's context menu, right-click ([Ctrl]-click on macOS) the background of the channel header:



Opening the context menu of a channel automatically sets the focus onto that channel.

The channel's context menu provides the exact same entries as in Arrange view.

Following management commands are available in the Mixer:

| Management command | Action |
|---|---|
| Renaming channels | Double-click the channel name in the header, type the desired name on your computer keyboard, and press [Enter] to confirm (or [Esc] to cancel). You can also open the channel's context menu and select **Rename**.<br><br>See Renaming Sound slots and Renaming Groups. |
| Changing the channel's color | Open the channel's context menu and select **Color**.<br><br>See Changing the Sound color and Changing the Group color. |
| Copying/pasting channels | Open the channel's context menu and select **Copy** or **Paste**.<br><br>See Copying and pasting Sounds and Copying and pasting Groups. |
| Resetting Sound channels | Open the Sound channel's context menu and select **Reset**.<br><br>See Resetting Sound slots. |
| Deleting Group channels | Open the Group channel's context menu and select **Delete**.<br><br>See Deleting Groups. |
| Saving channels | Open the channel's context menu and select **Save As…**.<br><br>See Saving Sounds and Saving Groups. |

You cannot move Sounds and Groups via drag and drop in the Mixer. This is only possible in Arrange view. Refer to Moving Sounds and Reordering Groups for more information.

## Adjusting settings in the channel strips

The layout of Sound and Group strips is close to that of a classical mixing desk. The signal travels from top to bottom: from the input routing settings at the top, it passes through the various Plug-ins loaded in the channel, then goes through the pan and level controls, and finally arrives to the output routing settings at the bottom.

The settings available in each channel strip mirror most of the parameters found in the Channel properties displayed in the Control area of the Arrange view, allowing you to adjust them in a more intuitive and visual way (refer to the list of available parameters at the end of this section).

## Adjusting settings on the fly

The Mixer provides an interesting feature not available in Arrange view: You can quickly change the settings in any channel strip currently displayed without having to put the channel under focus beforehand: Simply click the desired setting in any of the displayed channel strips to modify it — the current selection/focus will stay untouched.

## Tip: Use the parent channel strip at the far right

In both display modes of the Mixer, the rightmost channel strip (the "output" strip of the mixing desk) represents the parent channel:

- If the Mixer currently shows all Groups, the rightmost strip represents the Master (or Cue) channel.
- If the Mixer currently shows the Sounds of the focused Group, the rightmost strip represents that Group.

In particular, at the Sound level, this allows you to quickly check the level and adjust the settings of the parent Group without having to switch the Mixer display to the Group level.



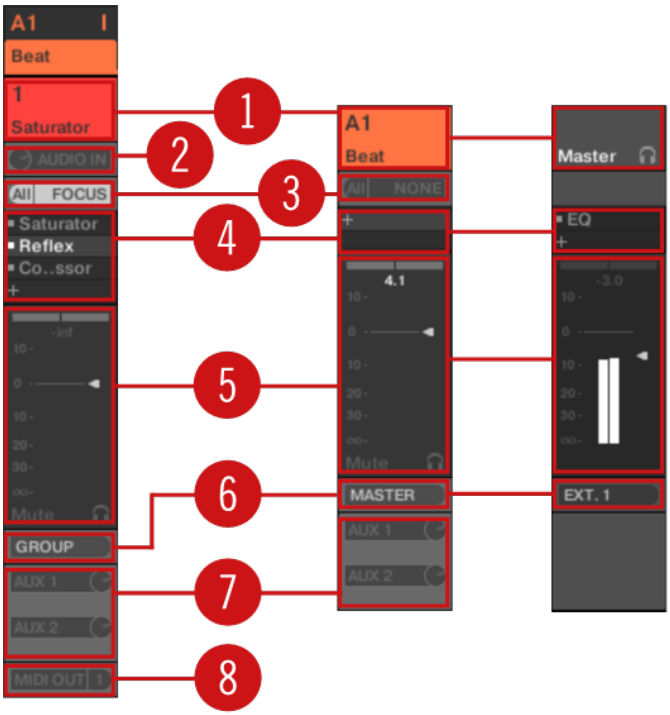
For example, if a kick drum is too loud in a drum kit, while decreasing its level you can check at the far right how your change affects the overall Group level, and you can quickly adjust this Group level if needed.

## Available settings in Sound/Group channel strips

All the elements available in a full channel strip are listed here. For each element, the basic operation and the corresponding parameter in Arrange view are indicated.



If some of the settings are not visible, check that the Mixer is not minimized and that the relevant button is activated at the left of the Mixer. For more information, refer to Adjusting the Mixer layout.




*A complete channel strip in the Mixer (Sound on the left, Group and Master on the right).*

(**1**) **Header**: Displays the name and index (letter + number) of the Group or number of the Sound. Headers in the Mixer's top row are for Groups, headers in the second row (Sound level only) are for Sounds. If the rest of a channel strip is currently not visible, its header additionally shows a mini level indicator in its top-right corner. Following actions are available:

- Switch the Mixer display between Sounds and Groups (refer to Displaying Groups or Sounds).
- Focus/select particular channels (refer to Selecting channel strips).
- Rename the channel: Double-click its current name, type a new name on your computer keyboard, and press [Enter] to confirm (or [Esc] to cancel). You can also use the **Rename** entry in the channel's context menu.
- Other management commands: Right-click ([Ctrl]-click on macOS) the header background to open the channel's context menu (refer to Managing your channels in the Mixer).

(**2**) **Audio input settings** (Sound strips only): Allows you to adjust the audio input routing. Visible only if the **IO** button is activated on the left of the Mixer. Click the **AUDIO IN** label to select an audio input, and adjust its level via the little knob on the left. These controls are equivalent to the **Source** and **Gain** parameters in the **Audio** page of the Sound's Input properties. For more information, refer to Sending external audio to Sounds.

(**3**) **MIDI input settings**: Allows you to adjust the MIDI input routing. Visible only if the **IO** button is activated on the left of the Mixer. Click the **MIDI IN** label to select a MIDI input port, then select a channel via the little menu on its right. These controls are equivalent to the **Source** and **Channel** selectors in the **MIDI** page of the Sound's and Group's Input properties, respectively. For more information, refer to Triggering Sounds via MIDI notes.

(**4**) **Plug-in List**: Shows the Plug-ins loaded in the channel. Visible only if the Plug-in icon is activated on the left of the Mixer. Following actions are available:

- Click the little "**+**" symbol to open the Plug-in menu and load a new Plug-in at the end of the list.
- Right-click (macOS: [Ctrl]-click) an existing Plug-in to replace it with another Plug-in or to remove it (to do this, select **None** in the menu).

- Click a Plug-in name to select it. If this Plug-in is currently hidden in the Plug-in Strip under the Mixer, it automatically scrolls to show the interface of that Plug-in. For more information, refer to The Plug-in Strip).
- Click the little square left of a Plug-in to bypass it (the bypassed Plug-in is grayed out) or re-insert it in the signal chain.
- Drag and drop Plug-ins to move them across the list.

This Plug-in List is the exact equivalent of the Plug-in List in the Control area of the Arrange view. For more information, refer to Plug-in overview.

(**5**) **Fader section**: Allows you to adjust the channel's level, panoramic position, Mute and Cue state. Following actions are available:

- Drag the **fader** vertically to adjust the level of the channel. This is equivalent to the **Level** parameter in the **Audio** page of the channel's Output properties (refer to Configuring the main output of Sounds and Groups). Additionally, the **level meter** shows you at any time the level of the channel. The **peak level** value appears in gray above the level meter and fader. If this peak value exceeds zero, it turns white to indicate clipping; click the value to reset it.
- Drag the little horizontal slider at the top to adjust the **panoramic position** of the channel in the stereo field. This is equivalent to the **Pan** parameter in the **Audio** page of the channel's Output properties. For more information, refer to Configuring the main output of Sounds and Groups).
- Click the **Mute button** to mute the channel, or right-click ([Ctrl]-click on macOS) it to mute all other channels (Solo function). For more information, refer to Mute and Solo.
- Click the little **headphones button** to send the channel to / remove it from the Cue bus. This is equivalent to the **Cue** parameter in the **Audio** page of the channel's Output properties. For more information, refer to Using the Cue bus).

(**6**) **Main audio output menu**: Selects the destination of the channel's main audio output. By default Sound channels are output to their parent Group, Group channels are output to the Master, and the Master is output to the first stereo pair of outputs. Click the label to select another destination. This control is equivalent to the **Dest.** selector in the **Audio** page of the Output properties for the Sounds and Groups (refer to Configuring the main output of Sounds and Groups) and for the Master. For more information, refer to Configuring the Master and Cue outputs of Maschine).

(**7**) **Aux routing settings**: Allows you to adjust the routing for both auxiliary outputs. Visible only if the **AUX** button is activated on the left of the Mixer. Click the **AUX 1** or **AUX 2** label to select a destination for this aux output, adjust its level via the little knob on the right, and choose its pre/post tapping point by clicking the **Post** or **Pre** label. These controls are equivalent to the **Dest.**, **Level**, and **Order** parameters in the **Aux** page of the Sound's and Group's Output properties, respectively. For more information, refer to Setting up auxiliary outputs for Sounds and Groups).

(**8**) **MIDI output settings** (Sound strips only): Allows you to select a MIDI output. Visible only if the **IO** button is activated on the left of the Mixer. Click the **MIDI OUT** label to select a MIDI output port, then select a channel via the additional menu on the right. These controls are equivalent to the **Dest.** and **Channel** selectors in the **MIDI** page of the Sound's Output properties. For more information, refer to Sending MIDI from Sounds).

Parameter modulation is not indicated in the Mixer. As a consequence, the value of modulated parameters might change even if their control elements stay at a fixed position in the Mixer. For example, if the fader of a channel strip is fully down but the channel level is being modulated, the channel's actual level might temporarily exceed the fader position, leading to an audible signal (and visible meter activity!) although the fader is fully down. In Arrange view, on the other hand, the Control area indicates the modulation of continuous parameters via the ring around their knob. For more information, refer to Recording and editing modulation.

### Available settings in the Master and Cue channel strips

The Master and the Cue channel strips are similar to the Sound/Group channel strips described above, except for the following elements (numbers refer to the picture in the previous paragraph):

- The **Mute** button in the Fader section (**5**) is not available.
- The audio input settings (**2**) and MIDI input settings (**3**) are not available.
- The aux routing settings (**7**) and MIDI output settings (**8**) are not available.
- There is no Plug-in List (**4**) in the Cue channel strip.

## Using the Cue bus

Maschine provides a dedicated Cue bus. This Cue bus allows you to route any channel (Sound or Group) on a separate output while leaving the main Maschine output untouched. For example, you can use it to prepare any Sound or Group in your headphones during a live session: first send the empty channel to the Cue bus, then load the desired Sound or Group from the Browser (or create one from scratch), add any Plug-ins, adjust any parameters in that channel, record Patterns for that Group as you see fit, and when you are ready, insert it back into your performance!

The Cue bus is also used for following features:

- Pre-listening to Samples in the Browser (refer to Auditioning Samples).
- Metronome (refer to Using the metronome).
- Pre-listening functions in the Sample Editor when recording (refer to Selecting the source and the recording mode) or slicing Samples (refer to Slicing a Sample).

### Sending Sound and Group channels to the Cue bus

▶ In any channel strip, click the little headphones button to send this channel to the Cue bus.

→ The headphones button lights on. The channel is not sent to its defined destination anymore but instead to the Cue bus.

To remove the channel from the Cue bus and send it back to its normal destination as defined in its output settings, click the headphones button again to turn it off.

You can send any number of Sound and Group channels to the Cue bus simultaneously.

In Arrange view, the equivalent of the headphones button is the **Cue** switch found on the **Audio** page of the Sound's and Group's Output properties (refer to Configuring the main output of Sounds and Groups).



The mute and solo of channels don't apply when these channels are sent to the Cue bus: What is sent to the Cue bus is always played back via the Cue channel, regardless of the original channel being muted or not.

### Adjusting the Cue channel in the mixer

All signals on the Cue bus arrive on the Cue channel strip. You can display the Cue channel strip in the Mixer as follows:

1. Click the header of the Master/Cue strip in the top right corner of the Mixer.




   If the Mixer was showing Sound channels, it switches to the Group level. The Master/Cue channel strip appears and is put under focus.

2. Click the headphone icon in the Master header.




→ The Master channel strip switches to the Cue channel strip. Here you can adjust the Cue channel's level and panoramic position, along with the destination you want to send the Cue channel to. As destination, choose for example another output pair into which you will have plugged your headphones. These settings are described in section Configuring the Master and Cue outputs of Maschine.

## The Plug-in Strip

In the lower part of the Maschine window, the Mix view provides an intuitive representation of all Plug-ins loaded in the channel (Sound, Group, or Master) currently under focus: the **Plug-in Strip**. The Plug-in Strip shows the loaded Plug-ins as a series of **Plug-in panels**, each Plug-in having its own panel. The Plug-ins are arranged horizontally, with the audio traveling from left to right through every Plug-in.




*The Plug-in Strip of a channel, with a distinct interface for each Plug-in.*

In the Plug-in Strip the Plug-in panels vary with the type of Plug-in (Internal, Native Instruments or External):

- For all types of Plug-ins, the panel shows a **Plug-in Header** at the top: The Plug-in Header.
- **Internal Effects and Drum Synths** have their own custom panels: Panels for Drum Synths and Internal Effects.

- The **Sampler** Plug-in has a special, extended panel: Panel for the Sampler.
- **Native Instruments Plug-ins** provide dedicated panels inspired from the user interface of each particular Native Instruments product: Custom panels for Native Instruments Plug-ins.
- Native Instruments and External Plug-ins can also be **undocked** and opened in a floating window: Undocking a Plug-in panel (Native Instruments and External Plug-ins only).

### Navigating the Plug-in Strip

If the Maschine window is not wide enough to show all the Plug-in panels at once, a horizontal scroll bar at the bottom of the Plug-in Strip lets you display the remaining Plug-ins.




*Use the horizontal scroll bar to display the other Plug-in panels.*

If you want to quickly jump to the panel of one particular Plug-in, you can click the Plug-in name from the Plug-in List in the Mixer above, and the Plug-in Strip will directly scroll to its panel.

If the Plug-in List is not visible in the Mixer, you can show it by clicking the Plug-in icon on the left of the Mixer. For more information on showing or hiding particular sections of the Mixer, refer to Adjusting the Mixer layout.

If the Maschine window is not high enough to display a Plug-in panel entirely, a vertical scroll bar on the right of the panel lets you display the remaining part of the panel.

## The Plug-in Header

For all types of Plug-ins (Internal, Native Instruments, and External) the Plug-in panel displays a **Plug-in Header** at the top:




*The Plug-in Header at the top of the Plug-in panel.*

The Plug-in Header can contain following elements, from left to right:

(**1**) **Open Plug-in Window button** (Native Instruments and External Plug-ins only): Click the little arrow icon to open/close the Plug-in interface in an external window. See section Custom panels for Native Instruments Plug-ins for more on this.

(**2**) **Additional View button** (specific Native Instruments Plug-ins only): Some Native Instruments Plug-ins provide two different views in their panel. Click the little "**+**" to switch between Default view and Additional view. See section Custom panels for Native Instruments Plug-ins for more on this.

(**3**) **Preset name**: Shows the name of the preset currently loaded, if any.

(**4**) **Quick Browse button**: Click the magnifying glass to run the Quick Browse function and recall in the Browser the search query you performed to get to the loaded preset.

## Panels for Drum Synths and Internal Effects

For Drum Synths and Internal Effects, the panels in the Plug-in Strip provide intuitive visual representations of the Plug-ins and their parameters.




*The Plug-in panel of a Drum Synth and two Internal Effects.*

As with all other Plug-ins, the panels for Drum Synths and Internal Effects show the Plug-in Header at the top. This Header contains the name of the current preset and the Quick Browse icon — see section The Plug-in Header above for more details.

Although parameters are organized differently than in the Parameter pages of the Arrange view, the panels for Drum Synths and Internal Effects contain the exact same parameters as the Parameter pages in Arrange view.

> The only exceptions are the Compressor, the Gate, and the Limiter: their panels contain an additional level meter not available in the Control area (gain reduction for the Compressor, and input level for the Gate and the Limiter).

For an exhaustive description of the parameters available in each panel, please refer to chapter Drum Synths for Drum Synths and chapter Effect reference for Internal Effects.

> Parameter modulation is not indicated in the panel for Internal Plug-ins. As a consequence, the value of modulated parameters might change even if their control element doesn't move in the panel. See section Recording and editing modulation for more on modulating parameters.

## Panel for the Sampler

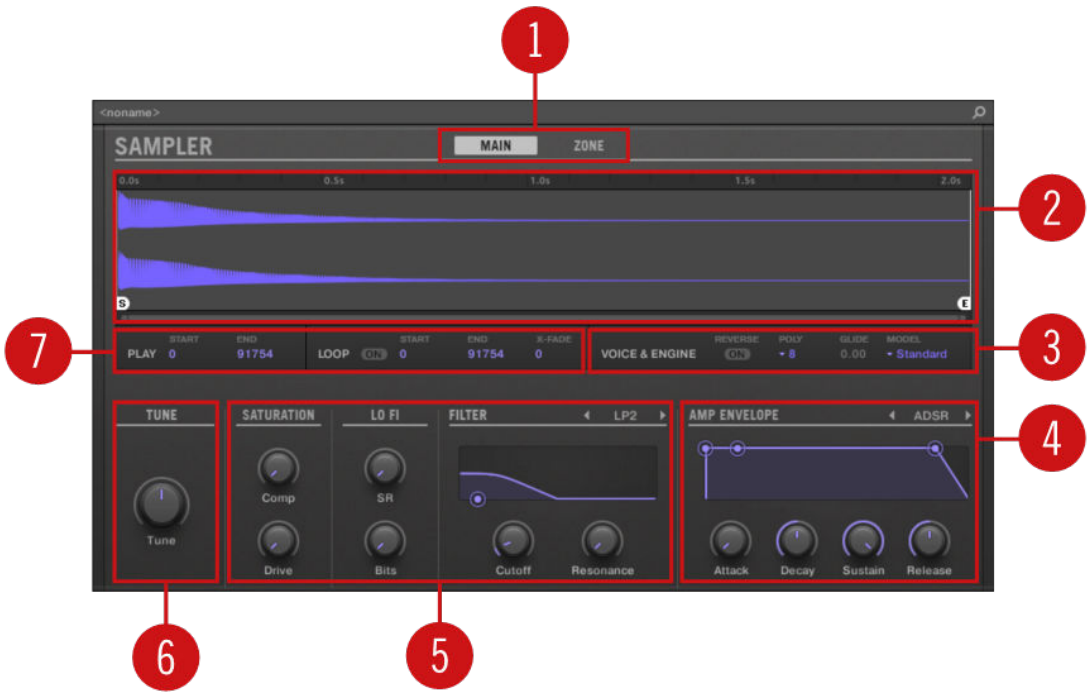
For the Sampler, the Plug-in Strip provides a custom panel containing a judicious mix of parameters available in the three first pages of the Control area along with parameters available in the **Zone** page of the Sample Editor.

As with all other Plug-ins, the panel for the Sampler shows the Plug-in Header at the top. This Header contains the name of the current preset and the Quick Browse icon — see section The Plug-in Header above for more details.

The Sampler panel contains two distinct panes: **MAIN** and **ZONE**. These can be displayed by clicking the **MAIN** and **ZONE** button in the Pane selector at the top of the Sampler interface, respectively.

Parameter modulation is not indicated in the panel for Internal Plug-ins. As a consequence, the value of modulated parameters might change even if their control element doesn't move in the panel. See section Recording and editing modulation for more on modulating parameters.

## Sampler – MAIN pane




*The Sampler in the Plug-in Strip.*

(**1**) **Pane selector**: Click **MAIN** or **ZONE** to show the corresponding pane in the Plug-in.

(**2**) **Sample waveform**: Shows the waveform or the Sample used in the selected Zone. It provides the same features as the waveform found in the Sample view of the **Zone** page in the Sample Editor: Start and End markers, zooming, etc. For more details, refer to section Sampling and sample mapping.

(**3**) **VOICE & ENGINE section**: Allows you to adjust the **Polyphony**, **Glide**, and **Mode** parameter from the **Voice Settings / Engine** page in the Control area, and the **Reverse** button from the **Pitch/Envelope** page in the Control area. For more details, refer to section Page 1: Voice Settings / Engine and Page 2: Pitch / Envelope, respectively.

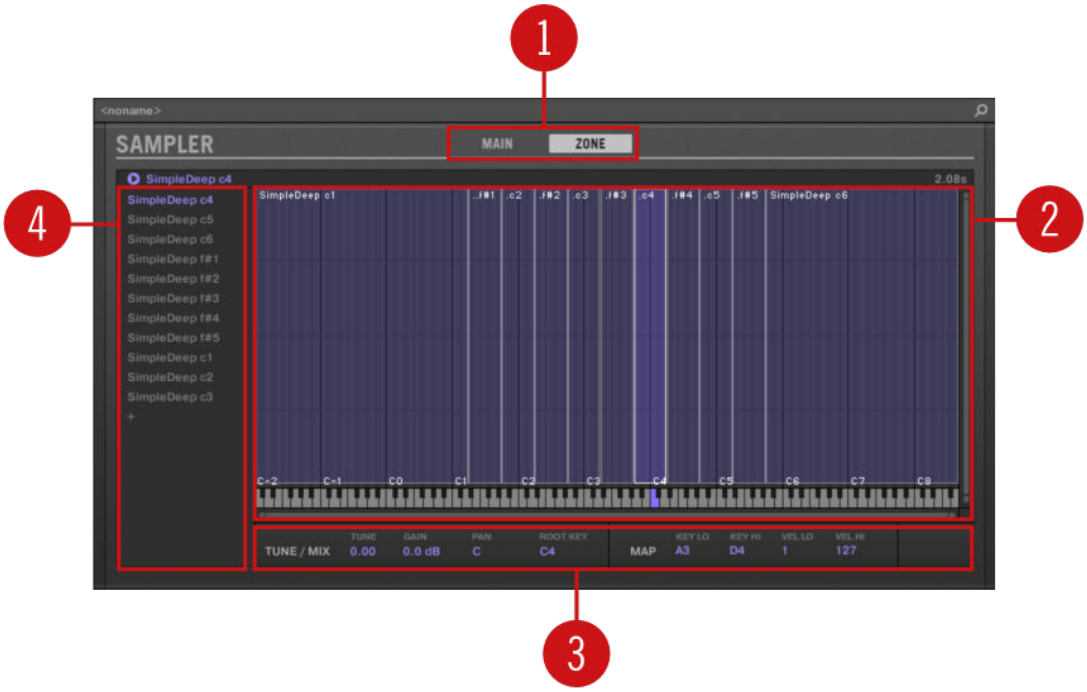
(**4**) **AMP ENVELOPE section**: Allows you to adjust the **Type** parameter and the envelope parameters from the **Pitch/Envelope** page in the Control area. For more details, refer to section Page 2: Pitch / Envelope.

(**5**) **SATURATION, LO FI, and FILTER sections**: Allows you to adjust the parameters from the **FX/ Filter** page in the Control area. For more details, refer to section Page 3: FX / Filter.

(**6**) **TUNE section**: Allows you to adjust the **Tune** parameter from the **Pitch/Envelope** page in the Control area. For more details, refer to section Page 2: Pitch / Envelope.

(**7**) **PLAY and LOOP sections**: Allow you to adjust the play range and loop settings of the selected zone, respectively. These provide the same parameters as the **PLAY RANGE** and **LOOP** sections found in the **Zone** page of the Sample Editor. For more details, refer to section Sampling and sample mapping.

## Sampler – ZONE pane




*The Sampler in the Plug-in Strip.*

(**1**) **Pane selector**: Click **MAIN** or **ZONE** to show the corresponding pane in the Plug-in.

(**2**) **Sample Map**: Allows you to adjust the key and velocity ranges of your Zones. This the same as the Map view available in the **Zone** page of the Sample Editor. For more details, refer to section Sampling and sample mapping.

(**3**) **TUNE / MIX and MAP sections**: Allow you to adjust the tuning and gain parameters as well as the key and velocity ranges of your Zones. These are the same as the **TUNE** and **MAP** sections from the **Zone** page of the Sample Editor. For more details, refer to section Adjusting the Zone settings.

(**4**) **Zone List**: Allows you to manage your Zones. This is the same as the Zone List available in the **Zone** page of the Sample Editor. For more details, refer to section Sampling and sample mapping.

ⓘ As with all Internal Plug-ins, parameter modulation is not indicated in the panel for the Sampler. As a consequence, the value of modulated parameters might change even if their control element doesn't move in the panel. See section Recording and editing modulation for more on modulating parameters.

## Custom panels for Native Instruments Plug-ins

The panels for Native Instruments Plug-ins provide an extra feature: one or two **custom views** that group the most important parameters of the Plug-in into a clear and concise interface while retaining the overall feel and look of each Native Instruments product:

- The **Default view** is available for every Native Instruments Plug-in.
- An **Additional view**, only available for particular Native Instruments Plug-ins, provides an alternate set of controls for the Plug-in.

For example:

- ABSYNTH 5's Default view shows the main elements of the Perform window of ABSYNTH 5:
- Massive's Default view shows specific parts of the Synth view (the eight Macro Controls at the top and the Modulation pages underneath):
- Guitar Rig's Default view shows a mini Rack with a reduced version of the Global Header at the top:

As with all other Plug-ins, the panel for Native Instruments Plug-ins shows the Plug-in Header at the top containing a button for opening the Plug-in in a floating window as well as the name of the current preset and the Quick Browse icon — see section The Plug-in Header above for more details.

For Native Instruments Plug-ins providing an Additional view, the Header also contains an **Additional View button** (a little "**+**" symbol) allowing to switch between Default and Additional view:



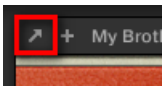

*Click the little "**+**" in the Plug-in Header to switch between Default and Additional view.*

macOS users: The VST plug-in of a Native Instruments product must be installed for this product's Default view (and Additional view, if any) to appear in the Plug-in Strip. If you normally use the AU version of this Native Instruments product, please check that its VST version is also installed on your computer to ensure the perfect integration of this plug-in into Maschine. You can show/hide the AU version of Native Instruments plug-ins in the Plug-in menu (software) and Plug-in Browser (controller) via the **Use NI Audio Units** checkbox in the **Plug-ins** page of the **Preferences** panel — see section Preferences – Plug-ins page for more information.

You can also undock any Native Instruments Plug-in and open it in a separate floating window. In the floating window you can notably switch between the Default view and the full user interface of the original Native Instruments product — see section Undocking a Plug-in panel (Native Instruments and External Plug-ins only) for more information.

## Undocking a Plug-in panel (Native Instruments and External Plug-ins only)

You can undock the panel of a Native Instruments or External Plug-in and open it in its own floating window by clicking the little diagonal arrow in the Plug-in Header:



*Click the little diagonal arrow to open the Plug-in in a floating window.*

▶ To undock a Native Instruments or External Plug-in and open it in its dedicated floating window, click the little diagonal arrow on the left of the Plug-in Header.

→ The Plug-in shows up in its own floating window.

When undocking Native Instruments Plug-ins, their panel in the Plug-in Strip is replaced by a thin Plug-in placeholder (see below).

Plug-ins of Native Instruments platform products (Reaktor, Kontakt, Guitar Rig) are automatically opened in floating windows when loaded from the Plug-in menu.

Maschine will always show the open floating windows of the focused channel (Sound, Group or Master). In this channel you can have as many open floating windows as you see fit. When you set the focus to another channel, all open floating windows disappear, possibly replaced by those for Native Instruments and/or External Plug-ins loaded in the newly focused channel (Sound, Group or Master).

The Plug-in floating window is the same as in Arrange view — see section Opening/closing Plug-in windows for more on this.

### Undocking a Native Instruments Plug-in

When you open a Native Instruments Plug-in its own floating window, following things additionally happen:

- In the Plug-in Strip the Plug-in panel is replaced with a thin vertical **Plug-in placeholder** containing only the little diagonal arrow — this allows you to dock the Plug-in back into the Plug-in Strip (see below).
- The floating window also displays the Plug-in Header at the top. In addition to the Header's elements described in section Custom panels for Native Instruments Plug-ins, this Header contains an additional **Edit button** (showing a pencil icon) allowing you to switch to the Edit view, which shows the full interface of the original Native Instruments product:

### Closing the Plug-in's floating window

▶ To dock a Native Instruments or External Plug-in back into the Plug-in Strip and close its dedicated floating window, click the little diagonal arrow in the Plug-in placeholder (Native Instruments Plug-ins) or in the header of the generic Plug-in panel (External Plug-ins) in the Plug-in Strip.



You can also close any floating window via the common button provided by your operating system at the top left or right corner of the window. The Plug-in will be inserted back into the Plug-in Strip.

# 12. Using effects

At each Project level (Sound, Group and Master) you can add effects in the form of Plug-ins. Each Sound, each Group, and the Master can have an unlimited number of insert effects loaded in their Plug-ins slots. In each Plug-in slot, you can load an Internal, Native Instruments or External Effect Plug-in.

The processing order is always from top to bottom, both in the Plug-in List of the Control area (in Ideas view and Song view) and in the channel strip of the Mixer (in Mix view). In the Plug-in Strip of the Mix view, the processing order is from left to right.



For Sounds, the first Plug-in slot is often hosting an Instrument Plug-in (Sampler, Drum Synth, Native Instruments or External Plug-in), allowing the Sound to generate its own audio. If you load instead an effect into the first Plug-in slot of a Sound, this Sound will act as a bussing point for other Sounds and Groups, and you will find this Sound in the various **Dest.** selectors in the Output properties of other the Sounds and Groups. See section Creating a send effect below for more information.

Most of the features used in the procedures mentioned in this chapter have been already described in chapter Working with Plug-ins — in Maschine, effects are just a certain type of Plug-ins. Nevertheless, we illustrate them here with various effect-oriented examples. Furthermore, from time to time we will use the Mix view instead of the default Arrange view: Indeed, the intuitive routing facilities of the Mixer make it particularly well suited for quickly setting up advanced effect routings.

## Applying effects to a Sound, a Group, or the Master

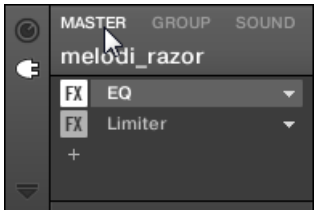
The procedures for applying an effect at the Sound, Group, and Master levels are very similar.

### Adding an effect

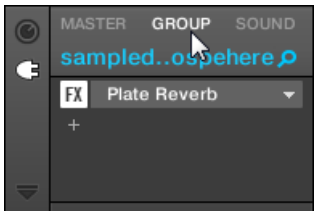
Let us add an Effect Plug-in somewhere in the Project. We first describe the detailed procedure in Arrange view, then we will show the equivalent procedure in Mix view.

#### Choosing the channel for the effect

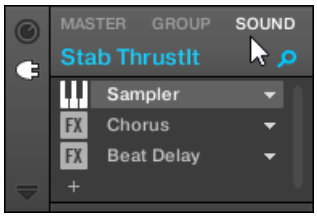
1. If you want to apply the effect to the Master (to process the audio of the whole Project), click the **MASTER** tab in the top left corner of the Control area.



2. If you want to apply the effect to a Group (to process the audio of the whole Group), click the desired Group on the left of the Arranger, and click the **GROUP** tab in the top left corner of the Control area.

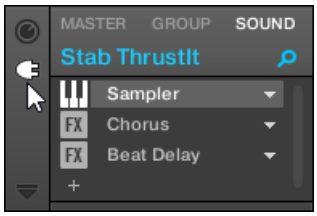



3. If you want to apply the effect to a Sound, click its parent Group in the Group List (on the left of the Arranger), click the desired Sound slot in the Sound List (on the left of the Pattern Editor), and click the **SOUND** tab in the top left corner of the Control area.

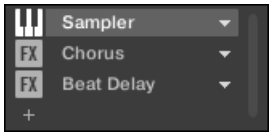



## Loading the effect in a new Plug-in slot

1. At the far left of the Control area, click the little Plug-in icon to display the Plug-ins of the selected channel:

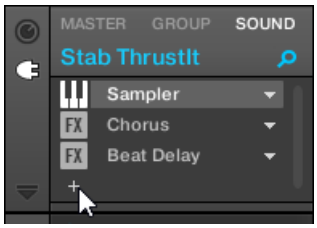



The icon lights up. The Plug-in List appears nearby, showing a stack of all Plug-ins already loaded in the channel:

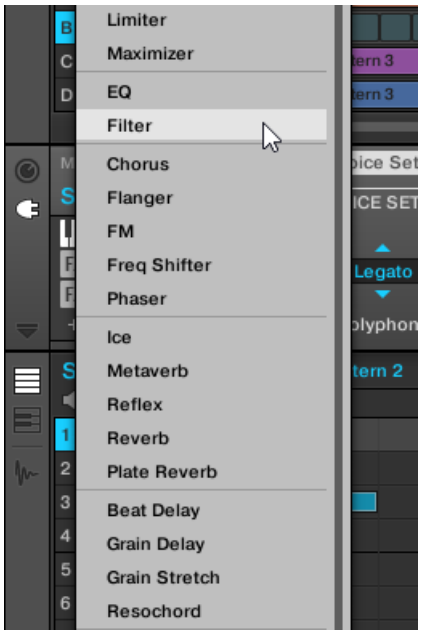



In the Plug-in List, each Plug-in has its own slot.

2. Click the "**+**" icon under the last Plug-in in the list (or at the top if the list is empty).




The Plug-in menu opens and shows a list of all available Effect Plug-ins.




If you have selected a Sound and its Plug-in List is empty, the Plug-in menu also shows all available Instrument Plug-ins.

3. Click the desired entry in the list. If you have VST/AU effect plug-ins installed you may also load them from the menu by selecting the **Native Instruments** (for Native Instruments products) or **External** (for third-party products) submenu at the top of the list.

→ Upon your selection, the effect is loaded in a new Plug-in slot at the end of the list and directly starts to process the audio of the channel. The effect parameters are displayed in the Parameter area on the right (in the example underneath we selected the **Phaser** effect in the Plug-in menu).




## Notes and hints on loading effects in the software

- Instead of clicking the "**+**" icon to load the effect in a new slot, you can also click the down-pointing arrow on the right of an existing slot to open the Plug-in menu: The effect selected in the menu will **replace** the Plug-in currently loaded in that slot.

- Instead of using the Plug-in menu, you can also use the **Browser** to load a particular preset for an effect. In particular, this can come in handy to insert a new effect between two existing Plug-ins in the Plug-in List. For more information, refer to Searching and loading files from the Library. Alternatively, you can use Quick Browse to recall the search query that was used to load a particular Plug-in preset, for more information refer to Using Quick Browse.
- For all details on the parameters for each Maschine effect, refer to Effect reference.
- For additional, specific information on VST/AU plug-ins, refer to Using Native Instruments and External Plug-ins.
- If you created a nice effect setting, you can put it to further use by saving it as a **Plug-in preset**. For more information, refer to Saving and recalling Plug-in presets.

## Adding an effect in Mix view

You can also load effects in Mix view. The procedure is quite similar to that in Arrange view (see above).



Reminder: To switch the Mixer display between all Groups of your Project and all Sound slots in a particular Group, double-click the background of any Group header at the top of the Mixer. For more information, refer to Displaying Groups or Sounds.

First, display the Plug-in List in Mix view:

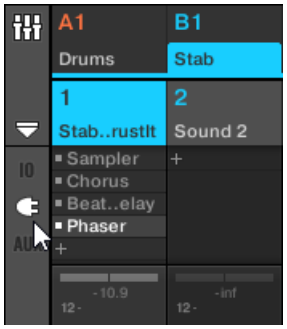
1. Click the Mix View button (showing three little faders) at the left of the Arranger to switch from Arrange view to Mix view:




2. If it is not already open, open the extended view of the Mixer by clicking the down-pointing arrow at the left of the Mixer:

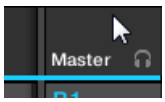



3. Check that the Plug-in icon is active at the left of the Mixer. If not, click it to display the Plug-in List in each channel strip.




Then you can put the focus onto the channel (Master, Group or Sound) in which you want to load the effect:

1. To set the focus onto the **Master channel**: In the top right corner of the Mixer, click in the blank space above the **Master** label and headphones icon to set the focus to the Master/Cue channel strip.



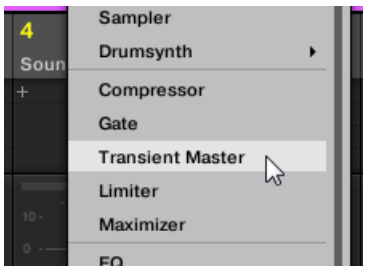

   If necessary, click **Master** in that header to switch from the Cue channel to the Master channel.

2. To set the focus onto a **Group channel**: If the Mixer is currently displaying the Group channel strips, click the header of the desired Group at the top of the Mixer. If the Mixer is currently displaying Sound channel strips, double-click the header of the desired Group at the top of the Mixer.

3. To set the focus onto a **Sound channel**: If the Mixer is currently displaying the Group channel strips, in the Mixer's top row double-click the blank space in the header of the Group containing the desired Sound, then click the header of the desired Sound in the row below. If the Mixer is currently displaying Sound channel strips, in the top row click the header of the Group containing the desired Sound, then click the header of this Sound in the row below.

Finally, load the effect in the focused channel strip:

▶ In the Plug-in List of the focused channel, click the little "**+**" to append the effect to the list, or right-click ([Ctrl]-click on macOS) an existing Plug-in slot to replace its current Plug-in, and select the desired effect in the Plug-in menu that opens.




→ The effect is loaded and starts to process the audio of the channel. The effect also appears in the Plug-in Strip under the Mixer, allowing you to adjust its parameters.



In fact, you don't need to explicitly put the focus on the channel in which you want to load the effect: You only have to make that channel visible in the Mixer! You can then directly click the "**+**" symbol or right-click ([Ctrl]-click on macOS) an existing Plug-in slot to load the effect in that channel. Nevertheless, setting the focus on the channel has the advantage of displaying the new effect in the Plug-in Strip under the Mixer for adjusting its parameters, you can do this afterward.



For more information on the Mixer and the Mix view in Maschine, refer to section Mix view basics.

## Other operations on effects

You can manipulate effects like any other Plug-in loaded in a Plug-in slot. This notably includes adjusting the effect parameters, removing effects, moving effects to different Plug-in slots, saving and recalling effect presets, etc.

We provide here a reminder of every operation available on the effects in both Arrange view and Mix view.

> ⓘ Concerning the procedures listed below, the only difference between Arrange view and Mix view is the way to open the Plug-in menu: In Arrange view you open it by clicking the Plug-in slot's down-pointing arrow, whereas in Mix view you open it by right-clicking ([Ctrl]-clicking on macOS) the effect name in the Plug-in List.

| Action | Procedure |
|---|---|
| **All effects** | |
| Insert an effect after an existing Plug-in | From the Browser or from your operating system, drag and drop the desired effect preset between two existing Plug-in slots. |
| Replace an effect | Open the Plug-in menu, and select another effect from the menu. |
| Remove an effect | Open the Plug-in menu, and select **None** from the menu. |
| Move an effect within the Plug-in List | Click and hold the effect in the Plug-in List, drag your mouse to the desired location (an insertion line appears where the effect will be dropped), and release the mouse button. |
| Move an effect to another channel (Sound, Group, or Master) | First, open the source slot's Plug-in menu and select **Cut**. Then open the Plug-in menu of the desired slot in the target channel (Sound, Group, or Master) and select **Paste**. |
| Duplicate an effect | First, open the source slot's Plug-in menu and select **Copy**. Then open the Plug-in menu of the desired slot in the target channel (Sound, Group, or Master) and select **Paste**. |
| Bypass an effect | Click the **FX** icon (in Arrange view) or the little square (in Mix view) at the left of the effect name in the Plug-in List. Click again to re-enable the effect. |
| Save the current effect settings as preset | Open the Plug-in menu, and select **Save As…** at the bottom of the menu. |
| Recall an effect preset | Use the Browser (see chapter Browser), or open the Plug-in menu and select **Open…** at the bottom of the menu. |
| **Native Instruments and External effects** | |
| Open/close the effect window | Arrange view: Click the little window icon in the top left corner of the Parameter area (at the left of the first page tab).<br><br>Mix view: In the Plug-in Strip under the Mixer, click the little arrow in the top left corner of the effect panel. |
| Save the current settings as default preset for this effect | Open the Plug-in menu, and select **Save As Default…** at the bottom of the menu. |

For detailed information on these topics, please refer to Plug-in overview. For more details on the specific operations available for Native Instruments and External Effects, refer to Using Native Instruments and External Plug-ins.

## Using the side-chain input

For certain Plug-ins, Maschine allows you to use a side-chain input to control how the effects process the audio.

### What is a side-chain input?

If we consider an effect unit that processes the signal incoming at its main input, **side-chaining** means using a secondary signal (the "side-chain signal") fed into a secondary input of the unit (the "side-chain input") to control the behavior of the processing. Usually, the amplitude of the side-chain signal will determine how much the main signal will be processed by the unit.

In music production, the side-chain signal is most of the time another audio track of the project. A common example is the use of the kick drum track as a side-chain for the compression of the bass track: on each kick the compressor will compress the bass more, resulting in a typical pumping effect between kick and bass that can be heard in various styles of dance music.

### The side-chain Parameter page

The following Internal, Native Instruments, and External Plug-ins support side-chaining:

- Internal Plug-ins: Compressor, Maximizer, Limiter, Gate, Filter.
- AU plug-ins (Native Instruments and External): Any AU plug-in with side-chain input.
- VST plug-ins (Native Instruments and External): Any VST plug-in with multiple inputs.

When you load one of these Plug-ins into a Sound or a Group, a **Side-Chain Input** Parameter page appears at the end of the page list.

> Side-chaining is not possible at the Master level (that is if the Plug-in is loaded in a Plug-in slot of the Master).




*The Side-Chain Input page of the Compressor Plug-in in the Control area.*

> To learn how to access Parameter pages, refer to Navigating Channel properties, Plug-ins, and Parameter pages.

> The parameters of the side-chain input are not available in the Plug-in panel of the Plug-in Strip (Mix view).

| Parameter | Description |
|---|---|
| **Input section** | |

| Parameter | Description |
|---|---|
| **Source** | Selects the audio signal you want to use as a side-chain signal to control the Plug-in. Available options are **None** (side-chain deactivated, default setting), the outputs of all (other) Sounds, and the outputs of all (other) Groups.<br><br>In the menu these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group name]: [Sound name]** (e.g., **Drums: Kick**)<br><br>In the selector display these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group letter+number]:S[Sound number]** (e.g., **A1:S4** for the Sound 4 of Group A1) |
| **Gain** | Adjusts the input level of the side-chain signal fed into the Plug-in. |
| **Filter section** | |
| **Filter** | Activates a filter on the side-chain input. This filter can be useful to select only a specific frequency range of the side-chain signal to control the Plug-in. |
| **Center Freq** | Adjusts the center frequency of the filter. |
| **Width** | Adjusts the bandwidth of the filter. |

On your controller, the outputs available in the **Source** parameter are labeled as in the display of the **Source** selector described above.

Note that the settings of the **Side-Chain Input** page stay in place when you switch to another Plug-in supporting side-chain. This notably allows you to try different compressors or different compression presets without losing your side-chain setup.

# Applying effects to external audio

Maschine's flexible routing facilities allow you to apply effects to external audio as well. This external audio can come from the inputs of your audio interface if Maschine is used in stand-alone mode, or from your DAW if Maschine is used as a plug-in.

This is done by configuring a Sound accordingly using the **Audio page** of its **Input properties**.

## Step 1: configure the Maschine audio inputs

You can configure Maschine's audio inputs in the software only. Furthermore, this configuration is necessary only if you are using Maschine as a stand-alone application.

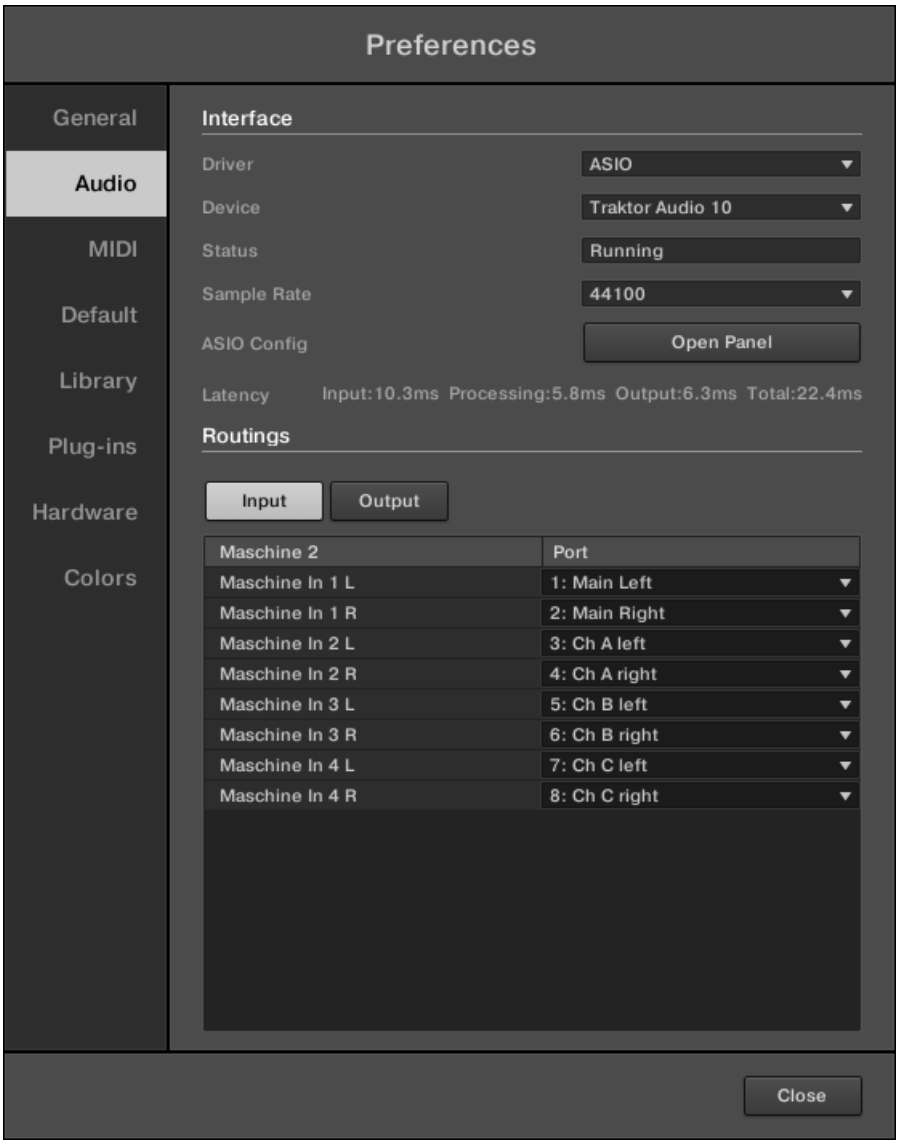
If you are using Maschine as a plug-in in a DAW, Maschine can receive audio from your DAW on any of its sixteen mono virtual inputs. To know how to route audio in your DAW to the virtual inputs of the Maschine plug-in, please refer to your DAW documentation. When this is done, go directly to Step 2: set up a Sound to receive the external input.

### Maschine in stand-alone mode

Please make sure that you have connected an external audio signal source to your audio interface and that the audio interface's inputs are activated. To do this:

1. Select the **Preferences…** entry from the **File** submenu of the Maschine menu to open the **Preferences** panel.
2. On the **Audio** page, click the **Input** button, activate the desired inputs by clicking their field in the **Port** column, selecting a physical input from the drop-down menu, and clicking **Close**.

→ Audio signals coming from external sources plugged in the inputs selected here will now be routed to the Maschine inputs shown in the first column.






See Preferences – Audio page for more information on the **Audio** page of the **Preferences** panel.

## Maschine in plug-in mode

If Maschine is running as a plug-in in a host environment, the Maschine plug-in can receive audio from the host only. Please refer to your host documentation to find out how to route audio channels to the virtual audio inputs of the Maschine plug-in.

In this example, we will assume that you routed some audio channels of your host to the first virtual input pair of Maschine.

## Step 2: set up a Sound to receive the external input

We describe here the procedure in Arrange view. You can also do this in Mix view, as described in Sending external audio to Sounds.

- Now the external audio is routed to your Sound! You can adjust the level of the incoming signal via the **Gain** knob.

You will find a detailed reference of the **Audio** page of the Sounds' Input properties in section Sending external audio to Sounds.

## Step 3: load an effect to process the input

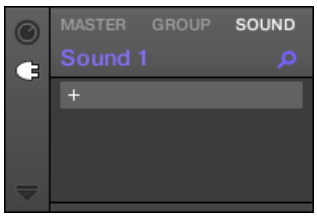
We describe here the procedure in Arrange view. You can also do this in Mix view, as described in Adding an effect.

You can now insert an Effect Plug-in into this Sound to let it process the incoming audio.

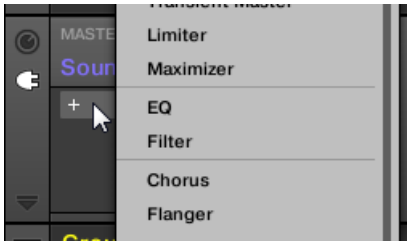
1. At the far left of the Control area, click the Plug-in icon to display the Plug-ins of the Sound:

   The icon lights up. The Plug-in List appears nearby. Since we have chosen an empty Sound in section Step 2: set up a Sound to receive the external input above, the Plug-in List should be empty:

2. Click the "**+**" icon at the top of the Plug-in List. The Plug-in menu opens and shows a list of all available Instrument and Effect Plug-ins.

3. Click the desired effect in the list. If you have VST/AU effect plug-ins installed you may also load them from the menu by selecting the **Native Instruments** (Native Instruments products) or **External** (third-party products) submenu at the top of the list.

→ Upon your selection the effect is loaded in a new Plug-in slot and directly starts to process your external audio!

## Creating a send effect

Sometimes you may want to have a classic send effect, for example, a reverb which can be shared by multiple sound sources. To make use of a send effect, you need to:

- Step 1: set up a Sound or Group as send effect. This is done by loading an effect into its first Plug-in slot: Step 1: set Up a Sound or Group as send effect.
- Step 2: route a portion of the desired audio signals from their original Sounds and Groups to that send effect. This is done in the Output properties of the corresponding Sounds and Groups: Step 2: route audio to the send effect.

### Step 1: set Up a Sound or Group as send effect

The procedure to set up a Sound or Group as a send effect is straightforward: You just need to load an effect into its first Plug-in slot — Maschine will take care of the rest and make it available as a destination for other channels of your Project.

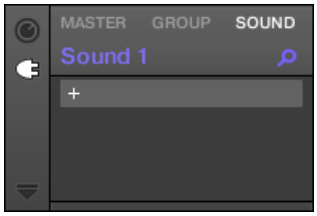
> We describe here the procedure in Arrange view. You can also do this in Mix view, as described in Adding an effect.

In this example we will use an empty Sound:

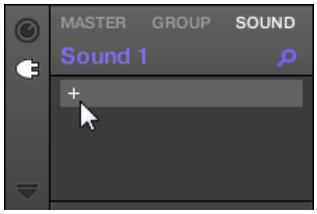
1. Choose the empty Sound you want to use as send effect: On the left of the Arranger click the Group containing that Sound, on the left of the Pattern Editor click the desired Sound slot, and click the **SOUND** tab in the top left corner of the Control area.
2. At the far left of the Control area, click the Plug-in icon to display the Plug-ins of the Sound:



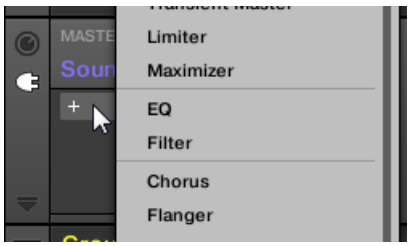
The icon lights up. The Plug-in List appears. Since we have chosen an empty Sound, the Plug-in List should be empty:



3. Click the "**+**" icon at the top of the Plug-in List.




The Plug-in menu opens and shows a list of all available Instrument and Effect Plug-ins.




4. Click **Internal** and select the desired Maschine effect from the submenu. If you have VST/AU effect plug-ins installed you may also load them by using the dedicated submenu (for example, the **VST3** submenu) and choosing a vendor submenu.

→ Upon selection, the effect is loaded and its parameters are displayed in the Parameter area. When you load an effect into the first Plug-in slot of a Sound, Maschine automatically configures the Sound's input to receive any signal(s) coming from other Sounds and Groups in your Project and sends them through its own Plug-in slots, in other words, you now have a send effect.



You could also load an effect preset from the Browser instead of using the Plug-in menu. For more information on how to load effect presets, refer to Searching and loading files from the Library.

Now that the effect is loaded, we suggest that you rename the Sound slot to the Plug-in name: this will be of great help when routing other signals to that send effect in the next step (refer to Step 2: route audio to the send effect). To rename the Sound slot:

1. Double-click the name of the Sound slot in the Sound List. The name becomes highlighted, ready to be edited.
2. Type the name of the Plug-in, and press [Enter] on your computer keyboard to confirm.

→ The Sound slot now mirrors the Plug-in name.



For more information on renaming Sound slots, refer to Renaming Sound slots.

## Step 2: route audio to the send effect

Once you have configured a Sound or Group as send effect (refer to Step 1: set Up a Sound or Group as send effect), you can send the output of any other Sounds and Groups to that Sound or Group. For this purpose, each Sound and each Group is equipped with an additional two auxiliary outputs available in its Output properties.

> ⓘ We describe here the procedure in Arrange view. You can also do this in Mix view, as described in Configuring the main output of Sounds and Groups.

You can repeat the process to route more Sounds/Groups to the same send effect, or route the same Sound/Group to an additional send effect send using **AUX 2**.

### A few notes on send effects

When working with send effects, please keep in mind the following:

- You cannot send the Master output to send effects.
- You cannot send a send effect's output to itself, nor the output of a Group to one of its own Sounds.

However, you can:

- Chain several Sounds configured as send effects by sending the output of a send effect into another send effect using the method described above (refer to Step 2: route audio to the send effect).
- Use the Effect Plug-ins loaded in a Group to simultaneously process its own Sounds and other Sounds/Groups sent to it.

This opens up virtually endless routing possibilities.

> ⓘ When setting up complex routings, please take care to avoid feedback loops!

In addition, the following points are worth noting:

- **CPU load**: Send effects can be of great help to save CPU power. Using one reverb for many Sounds and Groups instead of loading another reverb in each Sound/Group makes a big difference on the CPU load. You can adjust at which extent the reverb must be applied to each Sound/Group via the **Level** control in their respective Output properties.
- **MIDI control**: As any other Sounds, Sounds used as send effects can be controlled via MIDI. This is not only true for all effect parameters (refer to Controlling parameters via MIDI and host automation), but also for effects requiring incoming notes (for example, a vocoder). See Triggering Sounds via MIDI notes for more information.
- **Use Patterns**: You can create Patterns for your send effects to make them more lively. Simply record some modulation in Control or Step mode for the desired effect parameters, or even record notes for effects requiring incoming notes (like the vocoder).

## Creating multi-effects

Creating a multi-effect unit is the same thing as creating a series of Sounds as send effects within a Group and arrange them as you see fit. Following the procedure described in the previous section Creating a send effect, in every Sound of the Group you can set up a send effect containing any number of effects, the only limit being the processing power of your computer! You can route Sounds within the Group to your liking: You can chain them all, keep them as separate effects to be used in parallel, build any combination of both, etc.

## Organizing your effects across several sounds

If you plan to build multi-effects containing more than a few Effect Plug-ins in series, you have many ways at your disposal. Since you can have any number of Effect Plug-ins in each Sound, you can set up the whole sequence of effects in series into one single Sound. However, it might be judicious to split your sequence of effects across several Sounds whose outputs are sent into the inputs of the next Sound (thereby re-building an equivalent sequence of effects). Doing this can have several advantages, for example:

- The Sound List helps you keep a better overview of your effect sequence than the tiny Plug-in List in a single Sound.
- You can rename and colorize each Sound individually according to the effect(s) it contains.
- You have better control of your whole effect sequence from your controller.
- You can easily re-arrange your effect sequence by changing the routing between your Sounds.

To use several Sounds plugged in series, use the procedure described in the previous section Creating a send effect to send the output of each Sound to the input of the next one in the sequence.

## Which output to use?

Each Sound provides three distinct outputs: Main, Aux 1, and Aux 2. If you want to build a series of effects split across several Sounds, for each Sound in the series you have to send one of these outputs to the input of the next Sound. For this, we recommend you to use the `main output` of the Sound rather tha an auxiliary output because it provides a few useful additional features not available on the auxiliary outputs:

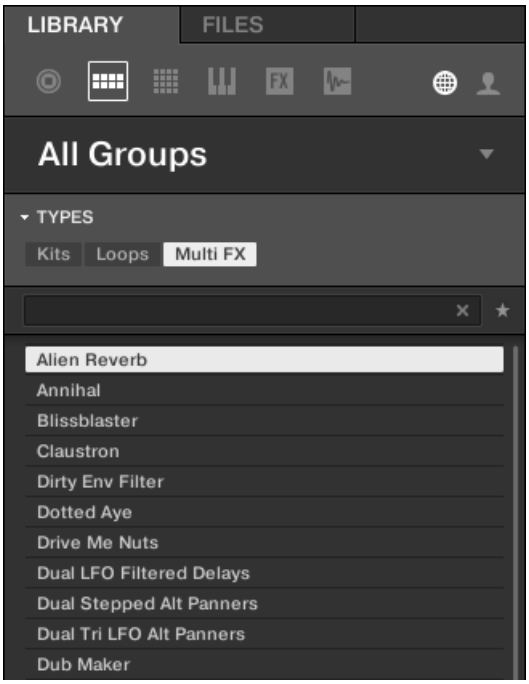
- **Cue** switch: You can send the Main output of any Sound to the Cue bus and pre-listen the channel on a distinct Maschine output (typically your headphones). Note that enabling the **Cue** switch automatically mutes both Aux 1 and Aux 2 outputs as well, but it doesn't send them to the Cue bus!
- Hardware control: Your controller provides various shortcuts allowing a quicker and easier control of your Sounds' Main output.

These can be of great help when building complex multi-effects.

## Saving your multi-effects

You can then save the whole multi-effect Group for later use. This can be useful if you like a certain combination of effects for your live setup or in the studio. Although this might sound overkill, you can still add more effects to the multi-effect Group itself afterwards: Imagine for example distinct send effects in different Sounds, but all of them being further processed by the same set of effects at the Group level.

However, take the time to name the multi-effect Group and every of its Sounds based on the inserted effect(s), and possibly prepend or append a text string (for example "FX_") that will later help you recognize it as an effect. Remember that you will be choosing this effect from a potentially large list in your user library. In the Maschine Library there are already a number of multi-effect Groups tagged **Multi FX**. Don't hesitate to reuse this tag or to create a custom tag for your own multi-effect Groups.




*Groups of the Multi FX type in the LIBRARY pane.*

# 13. Effect reference

Maschine provides a healthy selection of more than 20 different Effect Plug-ins that can be quickly applied to Sounds, Groups and the Master, all as insert effects. By using Maschine's powerful routing system, it is also easy to setup send effects, build complex effect chains or apply an effect to an external source that is connected to your audio interface, such as an instrument, vocals or a turntable. We recommend you load a Project from the factory library to get to know how effects can be used.

This chapter will describe the effects and their parameters. For more information on how to use effects within your Project, refer to Using effects.

### Available effects

Many types of effects are available and nearly all applications are represented. You will, of course, find traditional effects such as delays, reverbs and distortions, as well as engineering tools such as EQs, dynamics, and filters. But we have also provided you with a series of unique and unusual effects such as Reflex, Ice, and Resochord.

Effects are organized into the following categories:

- **Dynamics**: Compressor, Gate, Transient Master, Limiter, and Maximizer. Refer to Dynamics.
- **Filtering effects**: EQ, Filter, and Cabinet. Refer to Filtering effects.
- **Modulation effects**: Chorus, Flanger, FM, Freq Shifter, and Phaser. Refer to Modulation effects.
- **Spatial and Reverb effects**: Ice, Metaverb, Reflex, Reverb, and Plate Reverb. Refer to Spatial and reverb effects.
- **Delays**: Beat Delay, Grain Delay, Grain Stretch, and Resochord. Refer to Delays.
- **Distortion effects**: Distortion, Lofi, and Saturation. Refer to Distortion effects.
- **Perform FX**: Designed for spontaneous, tactile control in recording or live performance, these complex multi-effects alter motion, space, dynamics, and more for added expression. Refer to Perform FX.

## Dynamics

### Compressor

This is a classic compression effect to control the dynamic information of an audio signal. You can use the Compressor to fatten up your drums or to control signals that have a very wide dynamic range.

In addition to the legacy Classic mode, the Compressor provides an alternate **Feedback mode**. If this effect is used in a Sound or a Group, it also provides a **Side-Chain Input page** (in the Control area and on your controller).




*The Compressor panel in the Plug-in Strip.*

## Main page




*The Compressor in the Control area: Main page.*

| Parameter | Description |
|---|---|
| **MODE Section** | |
| **Mode** | Selects between two operation modes: **Classic** (default setting) and **Feedback**. Whereas Classic mode generates a cleaner and more precise compression, Feedback mode introduces a subtle change in transient shape and frequency responsiveness. The memory-based envelope detection along with the knee-dependent ratio and gain give this mode a typical vintage feel. |
| **DEPTH Section** | |
| **Threshold** | This value determines the threshold at which the Compressor starts to work. |
| **Knee** | This parameter defines how the Compressor starts to work: with a low setting, the transition into compression is soft, whereas with a high setting, the Compressor abruptly starts to work once the threshold is reached. |
| **Amount** | The amount of compression effect, often called ratio in typical applications. |
| **TIME Section** | |
| **Attack** | Use **Attack** to adjust how fast the Compressor reacts on the incoming signal: the more you dial it to the right, the slower it will react. Longer Attack times let more transients through. |
| **Release** | The time the compressor will take to stop compressing after the input signal falls below the threshold. With longer release times it takes more time to get back to normal. |
| **OUTPUT Section** | |

| Parameter | Description |
|---|---|
| **Gain** | Use **Gain** to adjust the volume of the resulting signal; sometimes called "make-up gain" as it can be used to compensate for any reduction in the signal induced by the settings above. |

## Side-Chain Input page




*The Compressor in the Control area: Side-Chain Input page.*

| Parameter | Description |
|---|---|
| **INPUT Section** | |
| **Source** | Selects the audio signal you want to use as side-chain signal to control the Plug-in. Available options are **None** (side-chain deactivated, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups.<br><br>In the menu these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group name]: [Sound name]** (e.g., **Drums: Kick**)<br><br>In the selector display these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group letter+number]:S[Sound number]** (e.g., **A1:S4** for the Sound 4 of Group A1) |
| **Gain** | Adjusts the input level of the side-chain signal fed into the Plug-in. |
| **FILTER Section** | |
| **Filter** | Activates a filter on the side-chain input. This filter can be useful to select only a specific frequency range of the side-chain signal to control the Plug-in. |
| **Center Freq** | Adjusts the center frequency of the filter. |
| **Width** | Adjusts the bandwidth of the filter. |

On your controller the outputs available in the **SOURCE** parameter are labeled as in the display of the **Source** selector described above.

For more information on how to use the side-chain input, please refer to section Using the side-chain input.

### Level meters in the Compressor panel (Plug-in Strip)

In the Plug-in Strip, the Compressor panel offers a few extra features not available in the Control area:

- The **Threshold** and **Gain** faders (corresponding to the **Threshold** and **Gain** parameters of the **Main** page in the Control area) provide level meters for visual monitoring of the input and output levels. In particular, by comparing the input level with the position of the **Threshold** fader, you can easily see you which parts of the signal will be compressed, and adjust the **Threshold** fader accordingly.
- An additional **GR** level meter indicates the **gain reduction** currently applied by the Compressor to the input signal.

## Gate

The Gate cuts any part of the input signal which falls below the input threshold. This can be used to rhythmically chop the signal and make it stutter or sound staccato.

If this effect is used in a Sound or a Group, it also provides a **Side-Chain Input page** (in the Control area and on your controller).




*The Gate panel in the Plug-in Strip.*

### Main page

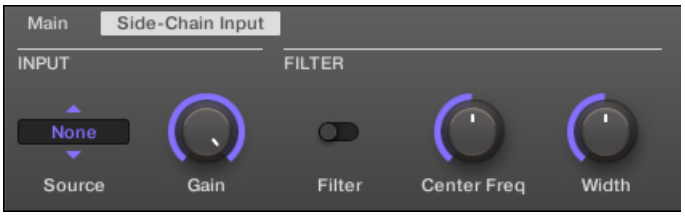



*The Gate in the Control area: Main page.*

| Parameter | Description |
|---|---|
| **DEPTH Section** | |

| Parameter | Description |
|---|---|
| **Threshold** | This value determines the threshold at which the Gate starts to work. Higher values will let only the loudest parts of the signal through the Gate. |
| **TIME Section** | |
| **Attack** | Use **Attack** to adjust how fast the Gate reacts to the incoming signal: the more you dial it to the right, the slower it will react, resulting in a softer transition between the gated and the not gated parts of the signal. |
| **Hold** | The **Hold** parameter is used to determine how long the gated signal is held; lower values will result in a more "choppy" effect. |
| **Release** | The time the Gate will take to release the input signal after it rises above the threshold. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Side-Chain Input page




*The Gate in the Control area: Side-Chain Input page.*

| Parameter | Description |
|---|---|
| **INPUT Section** | |
| **Source** | Selects the audio signal you want to use as side-chain signal to control the Plug-in. Available options are **None** (side-chain deactivated, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups.<br><br>In the menu these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group name]: [Sound name]** (e.g., **Drums: Kick**)<br><br>In the selector display these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group letter+number]:S[Sound number]** (e.g., **A1:S4** for the Sound 4 of Group A1) |

| Parameter | Description |
|---|---|
| **Gain** | Adjusts the input level of the side-chain signal fed into the Plug-in. |
| **FILTER Section** | |
| **Filter** | Activates a filter on the side-chain input. This filter can be useful to select only a specific frequency range of the side-chain signal to control the Plug-in. |
| **Center Freq** | Adjusts the center frequency of the filter. |
| **Width** | Adjusts the bandwidth of the filter. |

On your controller the outputs available in the **SOURCE** parameter are labeled as in the display of the **Source** selector described above.

For more information on how to use the side-chain input, please refer to section Using the side-chain input.

### Input level meter in the Gate panel (Plug-in Strip)

In the Plug-in Strip, the Gate panel offers an extra feature not available in the Control area: The **Threshold** fader (corresponding to the **Threshold** parameter of the **Main** page in the Control area) provides a level meter for visual monitoring of the input level. By comparing this input level with the position of the **Threshold** fader, you can easily see you which parts of the signal will pass through the Gate.

## Transient Master

The Transient Master allows you to emphasize or attenuate the transients of your audio material by modifying the envelopes of every attack and sustain phase. For example, by increasing the attacks of a snare or a kick, you can build powerful percussive sounds without running the risk of damaging their natural sounding. Unlike other dynamic effects (compressors, limiters, etc.), the Transient Master does not use the input signal level to decide when to come into effect (no threshold) but rather affects all parts of the signal. This retains the musical character of your sound while keeping operation simple and intuitive: Adjust the desired amount of accentuation for the attack and/or sustain phases and you're all set!




*The Transient Master panel in the Plug-in Strip.*




*The Transient Master in the Control area.*

| Parameter | Description |
|---|---|
| **DEPTH Section** | |
| **Input Gain** | Adjusts the level of the input signal. This allows you to offset the overall level once you have set the desired effect, in order to counterbalance the gain or loss of level that might occur. |
| **Attack** | Sharpens/softens the attack phases in your signal. With the knob at the middle position, the attack phases are not altered. From this position, turning the **Attack** knob to the left softens the attack phases, while turning it to the right sharpens them. |
| **Sustain** | Prolongs/shortens the sustain phases in your signal. With the knob at the middle position, the sustain phases are not altered. From this position, turning the **Sustain** knob to the left shortens the sustain phases, while turning it to the right prolongs them. |
| **Limit** | Activates a hard limiter at the output, preventing the output signal from clipping. This can be useful when the **Attack** knob is set to a high value as this may produce amplified attack phases which become too loud. |

## Limiter

The Limiter does two things: firstly it ensures that the signal level stays below 0 dB, thus preventing digital clipping. But it can also increase the overall perceived volume by reducing the threshold. It is recommended to place the Limiter in a Master Plug-in slot. However, please note that the Limiter introduces a small latency.

If this effect is used in a Sound or a Group, it also provides a **Side-Chain Input page** (in the Control area and on your controller).




*The Limiter panel in the Plug-in Strip.*

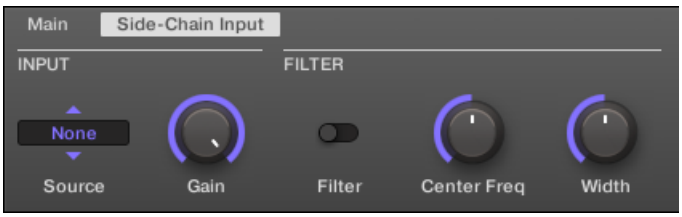
## Main Page




*The Limiter in the Control area: Main page.*

| Element | Description |
|---|---|
| **MODE Section** | |
| **Mode** | Selects from two different limiter types. The available modes are **Legacy** and **Transparent**. |
| **DEPTH Section** (Transparent mode only) | |
| **Threshold** | This value determines the threshold where the Limiter kicks in. If you use it to prevent your signal from clipping, leave it at 0 dB; if you want to make your signal louder, dial the Knob to the left. Available values range in decibels from -40.0 dB to 0.0 dB (default: 0.0 dB). |
| **Release** | The time the limiter will take to stop limiting after the input signal falls below the threshold. With longer release times it takes more time to get back to normal. Available values can be adjusted in milliseconds from 1.0ms to 500.0ms (default: 1.0ms). |
| **OUTPUT Section** | |
| **Ceiling** | Adjusts the maximum output level, or ceiling. The signal will not rise above this. Available values range in decibels from -40.0 dB to -0.3 dB (default: -0.3 dB). |

## Side-Chain Input page




*The Limiter in the Control area: Side-Chain Input page.*

The **Modulation** page contains one parameter: **Velocity**.

| Element | Description |
|---|---|
| **INPUT Section** | |

| Element | Description |
|---|---|
| **Source** | Selects the audio signal you want to use as side-chain signal to control the Plug-in. Available options are **None** (side-chain deactivated, default setting), the outputs of all (other) Sounds, and the outputs of all (other) Groups.<br><br>In the menu these outputs are labeled as follows:<br><br>• For Groups: **[Group name]** (e.g., Drums)<br>• For Sounds: **[Group name]**: **[Sound name]** (e.g., Drums: Kick)<br>• In the selector display these outputs are labeled as follows:<br>• For Groups: **[Group name]** (e.g., **Drums**)<br>• For Sounds: **[Group letter+number]:S[Sound number]** (e.g., **A1:S4** for the Sound 4 of Group A1) |
| **Gain** | Adjusts the input level of the side-chain signal fed into the Plug-in. Available values range from 0.00 dB to 1.00 (default: 1.00). |
| **FILTER Section** | |
| **Filter** | Activates a filter on the side-chain input. This filter can be useful to select only a specific frequency range of the side-chain signal to control the Plug-in. Available values are off and on (default: off). |
| **Center Freq** | Adjusts the center frequency of the filter. Available values range in kilohertz from 20.0 Hz to 20.0 kHz (default: 632.5 kHz). |
| **Width** | Adjusts the bandwidth of the filter. Available values range from 0 to 100 %. |

ⓘ On your controller the outputs available in the **SOURCE** parameter are labeled as in the display of the **Source** selector described above.

ⓘ For more information on how to use the side-chain input, please refer to section Using the side-chain input.

### Input level meter in the Limiter panel (Plug-in Strip)

In the Plug-in Strip, the Limiter panel offers an extra feature not available in the Control area: The **Threshold** fader (corresponding to the **Threshold** parameter of the **Main** page in the Control area) provides a level meter for visual monitoring of the input level. By comparing this input level with the position of the **Threshold** fader, you can easily see which parts of the signal will be limited, and adjust the **Threshold** fader accordingly.

## Maximizer

The Maximizer reduces the dynamics within the sound, making the overall sound louder. It is similar to the Limiter, but it is specifically designed for increasing the perceived volume.

If this effect is used in a Sound or a Group, it also provides a **Side-Chain Input page** (in the Control area and on your controller).




*The Maximizer panel in the Plug-in Strip.*

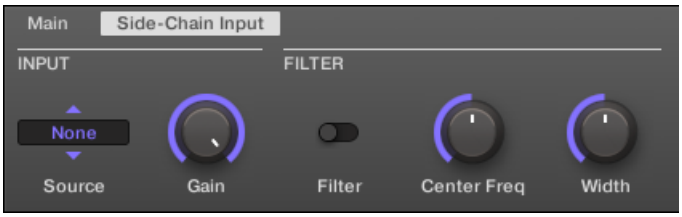
## Main page




*The Maximizer in the Control area: Main page.*

| Parameter | Description |
|---|---|
| **DEPTH Section** | |
| **Amount** | This parameter is used to adjust the amount of the Maximizer effect. Turn the knob clockwise to increase the loudness of the signal. |
| **Curve** | Controls the compression knee; higher values tend to result in faster and more aggressive gain control. |
| **Turbo** | Turbo intensifies the effect the Maximizer has on the signal by causing the maximizing algorithm to be applied twice. |

## Side-Chain Input page




*The Maximizer in the Control area: Side-Chain Input page.*

| Parameter | Description |
|---|---|
| **INPUT Section** | |

| Parameter | Description |
|---|---|
| **Source** | Selects the audio signal you want to use as side-chain signal to control the Plug-in. Available options are **None** (side-chain deactivated, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups.<br><br>In the menu these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group name]: [Sound name]** (e.g., **Drums: Kick**)<br><br>In the selector display these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group letter+number]:S[Sound number]** (e.g., **A1:S4** for the Sound 4 of Group A1) |
| **Gain** | Adjusts the input level of the side-chain signal fed into the Plug-in. |
| **FILTER Section** | |
| **Filter** | Activates a filter on the side-chain input. This filter can be useful to select only a specific frequency range of the side-chain signal to control the Plug-in. |
| **Center Freq** | Adjusts the center frequency of the filter. |
| **Width** | Adjusts the bandwidth of the filter. |

ⓘ On your controller the outputs available in the **SOURCE** parameter are labeled as in the display of the **Source** selector described above.

ⓘ For more information on how to use the side-chain input, please refer to section Using the side-chain input.

# Filtering effects

## EQ

Use the EQ to boost or cut selective frequencies of the audio signal. The EQ is mainly a tool to tailor your audio signal to taste by cutting out selected frequencies or boosting others, but can also be used as a DJ-style cut-and-boost effect. Please note that in the Control area and on your controller the EQ parameters are spread over two pages.




*The EQ panel in the Plug-in Strip.*

## Freq / Gain page




*The EQ in the Control area: Freq / Gain page.*

| Parameter | Description |
|---|---|
| **LOW Section** | |
| **Freq** | Frequency selector for the low frequency band. Ranges from 20 Hz to 8 kHz. |
| **Gain** | This determines how much the selected frequency is increased/attenuated by. |
| **LOW-MID Section** | |
| **Freq** | Frequency selector for the first mid-frequency band. Ranges from 40 Hz to 16 kHz. |
| **Gain** | This determines how much the selected frequency is increased/attenuated by. |
| **HIGH-MID Section** | |
| **Freq** | Frequency selector for the second mid-frequency band. Ranges from 40 Hz to 16 kHz. |
| **Gain** | This determines how much the selected frequency is increased/attenuated by. |
| **HIGH Section** | |
| **Freq** | Frequency selector for the high frequency band. Ranges from 50 Hz to 20 kHz. |
| **Gain** | This determines how much the selected frequency is increased/attenuated by. |

### Width / Output page




*The EQ in the Control area: Width / Output page.*

| Parameter | Description |
|---|---|
| **LOW-MID Section** | |
| **Width** | Bandwidth control for the first mid-frequency band. |
| **HIGH-MID Section** | |
| **Width** | Bandwidth control for the second mid-frequency band. |
| **OUTPUT Section** | |
| **Gain** | Gain control for the EQ altogether. |

## Filter

Filter with selectable characteristics that can be modulated via LFO or envelope. There are many applications for a filter: it can be used to emulate a synthesizer more realistically or to filter out selected frequencies and create filter-sweeps.

If this effect is used in a Sound or a Group, it provides a **Side-Chain Input page** (in the Control area and on your controller).




*The Filter panel in the Plug-in Strip.*

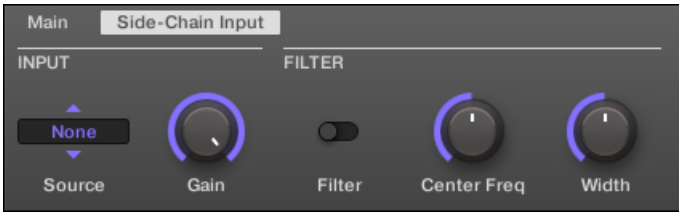
### Main page




*The Filter in the Control area: Main page.*

| Parameter | Description |
|---|---|
| **TYPE Section** | |
| **Mode** | Select between four different filter modes: **LP** (low-pass), **BP** (band-pass), **HP** (high-pass), and **Notch**. Depending on the mode selected, the following parameters vary as indicated. |
| **FREQ Section** | |
| **Cutoff** | Controls the cutoff frequency of the filter. |
| **Resonance** | Controls the amount of resonance, i.e. the amount of amplification near the cutoff frequency. It is not available with filter mode **Notch**. |
| **MOD Section** | |
| **Amount** | Defines how much the Filter gets modulated by the modulation source. |
| **Source** | Select between three different modulation sources: **LFO**, **LFO Sync**, and **Envelope**. Depending on your choice for the modulation source, the following parameters appear to the right: |
| Source: **LFO** | Articulates the opening and closing of the filter using an LFO. Use this setting in combination with **Speed**, and **LFO Shape**. |
| **Speed** | Defines the speed of the modulation in hertz ranging from 0.03 Hz up to 16 Hz. |
| **LFO Shape** | Defines how the LFO evolves over time. |
| Source: **LFO Sync** | Articulates the opening and closing of the filter using an LFO in sync to the tempo of the Project. Use this setting in combination with **Speed**, **LFO Shape**, and **Phase**. |
| **Speed** | Defines the speed of the modulation in note values from 16/1 (one cycle every 16 bars) up to 1/32 note. |
| **LFO Shape** | Defines how the LFO evolves over time. |
| **Phase** | Adjusts the start phase of the LFO. |
| Source: **Envelope** | Articulates the opening and closing of the filter using an envelope. Use this setting in combination with **Decay**, **Smooth**, and **Shape**. |
| **Decay** | Adjusts how fast the envelope fades out. |
| **Smooth** | Smooths the shape of the envelope. |
| **Shape** | Changes the shape of the envelope. |

## Side-Chain Input page




*The Filter in the Control area: Side-Chain Input page.*

| Parameter | Description |
|---|---|
| **INPUT Section** | |

| Parameter | Description |
|---|---|
| **Source** | Selects the audio signal you want to use as side-chain signal to control the Plug-in. Available options are **None** (side-chain deactivated, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups.<br><br>In the menu these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group name]: [Sound name]** (e.g., **Drums: Kick**)<br><br>In the selector display these outputs are labeled as follows:<br><br>For Groups: **[Group name]** (e.g., **Drums**)<br><br>For Sounds: **[Group letter+number]:S[Sound number]** (e.g., **A1:S4** for the Sound 4 of Group A1) |
| **Gain** | Adjusts the input level of the side-chain signal fed into the Plug-in. |
| **FILTER Section** | |
| **Filter** | Activates a filter on the side-chain input. This filter can be useful to select only a specific frequency range of the side-chain signal to control the Plug-in. |
| **Center Freq** | Adjusts the center frequency of the filter. |
| **Width** | Adjusts the bandwidth of the filter. |

ⓘ On your controller the outputs available in the **SOURCE** parameter are labeled as in the display of the **Source** selector described above.

ⓘ For more information on how to use the side-chain input, please refer to section Using the side-chain input.

## Cabinet

The Cabinet Emulation is a cabinet and microphone component that proves full control over all the (post-amp) stages of recording a guitar tone. Cabinet Emulation includes the four cabinet types, and the variable positioning of six different microphones.




*The Cabinet Emulation effect in the Plug-in Strip.*




*The Cabinet Emulation in the Control area (Main page depicted).*

## Main page

| Element | Description |
|---|---|
| **CABINET Section** | |
| **Cabinet** | Selects from four different cabinet types, which includes:<br>• American Cabinet<br>• British Cabinet<br>• Vintage Cabinet<br>• Modern Cabinet |
| **MICROPHONE Section** | |
| **Microphone** | Selects from six different microphone types, which includes:<br>• Dynamic 57<br>• Dynamic 421<br>• Dynamic 441<br>• Ribbon 121<br>• Condenser 47<br>• Condenser 67 |
| **Distance** | Adjusts the distance of the microphone from the cabinet. Available values range from 0.0 to 100.0% (default: 0.0%). |
| **OUTPUT Section** | |

| Element | Description |
|---|---|
| **Mix** | Adjusts the ratio between the effect (wet) signal and original (dry) signals. Available values range from 0.0 to 100.0% (default: 100.0%). |

# Modulation effects

## Chorus

The Chorus is useful to "thicken" signals and enhance or add stereo content. It is most effective on melodic sounds, but can also be used on hi-hats to make them more vivid or on a voice sample to create a doubling effect (thereby making it sound as if there were several voices). It works by splitting the audio signal up into two versions and slightly detuning one of them.




*The Chorus panel in the Plug-in Strip.*




*The Chorus in the Control area.*

| Parameter | Description |
|---|---|
| **MOD Section** | |
| **Rate** | The **Rate** knob defines how fast the phase (and thus the perceived pitch) of the detuned signal is being modulated. |
| **Amount** | The amount of the Chorus effect. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Flanger

Classic flanger effect with LFO and envelope modulation. The Flanger sounds a bit like the Chorus, but the difference between them is that the Flanger modulates the signal faster, it is equipped with a feedback mechanism, and can be synchronized to the tempo of the Project.




*The Flanger panel in the Plug-in Strip.*




*The Flanger in the Control area.*

| Parameter | Description |
|---|---|
| **MAIN Section** | |
| **Frequency** | This defines the center frequency of the Flanger. |
| **Feedback** | Adjusts the amount of output signal fed back into the input. |
| **Invert** | Inverts the Flanger. |
| **MOD Section** | |
| **Amount** | This defines how much the Flanger gets modulated by the modulation source. |
| **Source** | Here you can select the modulation source of the Flanger: available options are **LFO**, **LFO Sync**, and **Envelope**. Depending on your selection, the parameter to the right will change. |
| **Speed** (LFO) | Defines the speed of the LFO in a range from 0.03 Hz up to 8 Hz. |
| **Speed** (LFO Sync) | Defines the speed of the LFO in note values from 16/1 (one cycle every 16 bars) up to 1/16 note. |
| **Shape** (Envelope) | Change the shape of the envelope here. |
| **Stereo** | This parameter widens the stereo field of the effect. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## FM

FM modulates the frequency of the audio signal based on FM synthesis. High frequency settings are useful for adding a subtle “gritty” texture to the input signal.




*The FM panel in the Plug-in Strip.*




*FM in the Control area.*

| Parameter | Description |
|---|---|
| **FREQ Section** | |
| **Rate** | This is for adjusting the speed of the FM modulation. |
| **Split** | The **Split** control determines the extent to which the FM effect is applied to high frequencies via a crossover. Turn to the right to affect higher frequencies. It can be useful to eliminate noise artifacts caused by FM of very high signals.<br><br>With high **Split** settings, the effect becomes more “gritty” and crackling. |
| **DEPTH Section** | |
| **Contour** | **Contour** determines the extent to which the input volume affects the intensity of the effect. |
| **Amount** | Determines the amount of the FM effect. |

## Freq Shifter

The Freq Shifter shifts selected frequencies of the audio signal by a user-specified amount. With high frequencies it sounds like a pitch shifter; with low frequencies it sounds like a special chorus.




*The Freq Shifter panel in the Plug-in Strip.*




*The Freq Shifter in the Control area.*

| Parameter | Description |
|---|---|
| **FREQ Section** | |
| **Coarse** | This is used to define the basic frequency of the Freq Shifter. |
| **Fine** | Fine-tune the frequency here. |
| **OUTPUT Section** | |
| **Feedback** | Adjusts the amount of output signal fed back into the input. Increasing this parameter will increase the intensity of the effect. |
| **Stereo** | This parameter widens the stereo field of the effect. |
| **Invert** | Inverts the settings of the Freq Shifter. |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Phaser

Classic phaser with LFO and envelope modulation.




*The Phaser panel in the Plug-in Strip.*




*The Phaser in the Control area.*

| Parameter | Description |
|---|---|
| **MAIN Section** | |
| **Frequency** | This defines the center frequency of the Phaser. |

| Parameter | Description |
|---|---|
| **Feedback** | Adjusts the amount of output signal fed back into the input. |
| **8Pole** | Activating this causes the Phaser to use the 8Pole mode, resulting in a more intense phasing effect. |
| **MOD Section** | |
| **Amount** | This defines how much the Phaser gets modulated by the modulation source. |
| **Source** | Here you can select the modulation source of the Phaser: available options are **LFO**, **LFO Sync**, and **Envelope**. Depending on your selection, the parameter to the right will change. |
| **Speed** (LFO) | Defines the speed of the LFO in a range from 0.03 Hz up to 8 Hz. |
| **Speed** (LFO Sync) | Defines the speed of the LFO in note values from 16/1 (one cycle every 16 bars) up to 1/16 note. |
| **Shape** (Envelope) | Change the shape of the envelope here. |
| **Stereo** | This parameter widens the stereo field of the effect. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

# Spatial and reverb effects

## Ice

This is a special reverb for getting cold and metallic sound. Ice includes a bank of self-oscillating filters for interesting and colorful effects. In the Project "Come Into My Disco" from the Maschine factory library, you can hear how it creates deep soundscapes during the break in Scene 6.




*The Ice panel in the Plug-in Strip.*




*The Ice in the Control area.*

| Parameter | Description |
|---|---|
| **ROOM Section** | |
| **Color** | With lower settings, the general sound is a bit more muffled. The higher the **Color** value, the brighter it sounds. |
| **Ice** | The "ICE" factor: higher values sound more metallic. |
| **Size** | Adjust the size of the virtual room here. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Metaverb

Like the Reverb, the Metaverb adds spatial room information. However, in contrast to the Reverb it has a much more "synthetic" sound, which is particularly suited for melodic content.




*The Metaverb panel in the Plug-in Strip.*




*The Metaverb in the Control area.*

| Parameter | Description |
|---|---|
| **ROOM Section** | |
| **Size** | Adjust the size of the virtual room here. |
| **EQ Section** | |
| **Low** | Low band EQ to cut or boost bass frequencies. |
| **High** | High band EQ to cut or boost high frequencies. |
| **POSITION Section** | |
| **Pan** | This pans the dry signal. This is useful because the dry signal can not be panned after the effect without panning the reverb itself, which is unnatural. |
| **OUTPUT Section** | |

| Parameter | Description |
|---|---|
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Reflex

This is a special resonating reverb. At moderate settings the Reflex can be useful to emulate small, "tight" rooms. At more extreme settings, it can produce interesting artificial, metallic textures.



Automating the **Color** parameter usually yields very pleasing results.




*The Reflex panel in the Plug-in Strip.*




*The Reflex in the Control area.*

| Parameter | Description |
|---|---|
| **ROOM Section** | |
| **Color** | At lower settings, the general sound is a bit more muffled; the higher the settings, the brighter it sounds. |
| **Smooth** | With this parameter, you can soften the metallic character of Reflex. |
| **Size** | Adjust the size of the virtual room here. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Reverb (Legacy)

This reverb is best for most common applications. The Reverb adds room information to the signal, making it sound more spacious and natural. It is particularly suited to drum sounds, but also useful to add a more "natural" sound for all sorts of other signals.




*The Reverb panel in the Plug-in Strip.*




*The Reverb in the Control area.*

| Parameter | Description |
|---|---|
| **ROOM Section** | |
| **Room** | This allows you to choose one of four basic characteristics of the Reverb: **General**, **Bright**, **Guitar**, and **Shatter**. |
| **Size** | Adjust the size of the virtual room here. |
| **EQ Section** | |
| **Low** | Low band EQ to cut or boost bass frequencies. |
| **High** | High band EQ to cut or boost high frequencies. |
| **POSITION Section** | |
| **Pan** | This pans the dry signal. This is useful because the dry signal can not be panned after the effect without panning the reverb itself, which is unnatural. |
| **Stereo** | This parameter widens the stereo field of the effect. |
| **OUTPUT Section** | |
| **Freeze** | Enabling **Freeze** both mutes the dry signal and traps the current state of the Reverb output in a temporary buffer to make it last much longer. This is a powerful tool for playing live: By simultaneously tweaking the **Mix** knob nearby, you can create striking breaks! Setting the EQ's **Low** and **High** controls to generous values will further increase the effect. |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Reverb

The Reverb effect provides three different modes which are described in this section.




*The Room Reverb panel in the Plug-in Strip.*

## Reverb Room

The Room mode is suited to drum and percussive sounds, and particularly sounds good when used on snares. Modulate the **Room Size**, and **Pre Delay** parameters to create special effects.




*The Reverb effect in the Plug-in Strip.*




*The Reverb in the Control area (Main page depicted).*

## Main page

| Element | Description |
|---|---|
| **ROOM Section** | |
| **Mode** | Allows you to choose one of three basic modes of Reverb: **Room**, **Hall**, and **Plate** (default: **Room**). |
| **Reverb Time** | Adjusts the reverb decay time. Turn clockwise to increase decay. Available values range can be adjusted in seconds from 0.5s to 20.2s (default: 1.0s). |
| **Reverb Size** | Adjust the size of the simulated room. Turn clockwise to increase the perceived size of the room and reverb reflections. Available values range from 0.0 to 100.0% (default: 20.0%). |

| Element | Description |
|---|---|
| **COLOR Section** | |
| **Damping** | Adjusts damping of the high frequencies in the reverb signal. Damping refers to the rate at which the high frequencies decay. This effect causes the sound to become gradually muffled and warmer. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Modulation** | Sets the modulation amount. A value of 0 turns the delay modulation off. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Diffusion** | Controls the density of the reflections in the virtual room. A low diffusion setting makes the reflections sound more distinct, like closely spaced echoes. A high diffusion setting creates reflections so close they sound more like noise, in which echoes are indistinguishable. Available values range from 0.0 to 100.0% (default: 80.0%). |
| **Pre Delays** | Adjusts the initial delay between the original signal and the first reverberant sound. At higher values this can also be used in many creative ways. Available values can be adjusted in milliseconds from 0.0ms to 250.0ms (default: 0.0ms). |
| **OUTPUT Section** | |
| **Mix** | Adjusts the ratio between the effect (wet) signal and original (dry) signals. Available values range from 0.0 to 100.0% (default: 50.0%). |

### EQ page

The **EQ** page contains parameters to adjust the EQ of the reverb.

| Element | Description |
|---|---|
| **EQ Section** | |
| **High Cut** | Adjusts the high frequencies in the reverberated signal. Available values range in kilohertz from 20.0 kHz to 2.0 kHz (default: 20.0 kHz). |
| **Low Shelf** | Adjusts the low-frequency content in the reverberated signal. Available values range in decibels from -0.0 dB to -12.0 dB (default: -0.0 dB). |

## Reverb Hall

The Reverb Hall mode is a spacious and natural reverb that is particularly suited to tonal sounds. When used with a high Reverb Time setting it provides a very lush reverb making it also suitable for ambient or experimental music. Modulate the **Room Size**, and **Pre Delay** parameters to create special effects.




*The Reverb effect in the Plug-in Strip.*




*The Reverb in the Control area (Main page depicted).*

## Main page

| Element | Description |
|---|---|
| **ROOM Section** | |
| **Mode** | Allows you to choose one of three basic modes of Reverb: **Room**, **Hall**, and **Plate** (default: **Room**). |
| **Reverb Time** | Adjusts the reverb decay time. Turn clockwise to increase decay. Available values range can be adjusted in seconds from 0.5s to 20.2s (default: 2.2s). |
| **Room Size** | Adjust the size of the simulated room. Turn clockwise to increase the perceived size of the room and reverb reflections. Available values range from 0.0 to 100.0% (default: 10.0%). |
| **COLOR Section** | |
| **Damping** | Adjusts damping of the high frequencies in the reverb signal. Damping refers to the rate at which the high frequencies decay. This effect causes the sound to become gradually muffled and warmer. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **Modulation** | Sets the modulation amount. A value of 0 turns the delay modulation off. Available values range from 0.0 to 100.0% (default: 40.0%). |
| **Softness** | Alters the balance between early reflections and the late reverb tail. It also changes the amount of diffusion present. It allows you to soften the attack of the reverb and push it more into the background, so it doesn't muddy the dry sound so much. Available values range from 0.0 to 100.0% (default: 90.0%). |
| **Pre Delay** | Adjusts the initial delay between the original signal and the first reverberant sound. At higher values this can also be used in many creative ways. Available values can be adjusted in milliseconds from 0.0ms to 250.0ms (default: 0.0ms). |

| Element | Description |
|---|---|
| **OUTPUT Section** | |
| **Mix** | Adjusts the ratio between the effect (wet) signal and original (dry) signals. Available values range from 0.0 to 100.0% (default: 50.0%). |

### EQ page

The **EQ** page contains parameters to adjust the EQ of the reverb.

| Element | Description |
|---|---|
| **EQ Section** | |
| **High Cut** | Adjusts the high frequencies in the reverberated signal. Available values range in kilohertz from 20.0 kHz to 2.0 kHz (default: 20.0 kHz). |
| **Low Shelf** | Adjusts the low-frequency content in the reverberated signal. Available values range in decibels from -0.0 dB to -12.0 dB (default: -0.0 dB). |

## Plate Reverb

This effect emulates a plate reverberator. Partly inspired by a legendary plate reverb system, this efficient reverb effect can be used in numerous situations. Its controls make the Plate Reverb easy to use while still flexible and unique sounding. The Plate Reverb is the best choice if a vintage metallic sound is desired. It is particularly good for vocals, but popular for other material as well, such as snare drums.




*The Plate Reverb effect in the Plug-in Strip.*




*The Plate Reverb in the Control area.*

| Parameter | Description |
|---|---|
| **MAIN Section** | |

| Parameter | Description |
|---|---|
| **Mode** | Allows you to choose one of three basic modes of Reverb: **Room**, **Hall**, and **Plate** (default: **Room**). |
| **Decay** | Adjusts the damping of the plate, which directly affects the decay time of the reverb. |
| **EQ Section** | |
| **Low Shelf** | Controls the low-frequency content in the reverberated signal. |
| **High Damp** | Adjusts the damping of the high frequencies in the reverberated signal. |
| **Pre Delay** | Adjusts the time between the original signal and the early reflections. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

# Delays

## Beat Delay

The Beat Delay specializes in creating delays that are synced to the tempo. If you wonder how this sounds, load up the Project "Big Stream" from the Maschine factory library: the Beat Delay is used in various Groups here and offers many rhythmic sonic possibilities. Please note that in the Control area and on your controller, the Beat Delay parameters are spread over two pages.




*The Beat Delay panel in the Plug-in Strip.*

### Main page

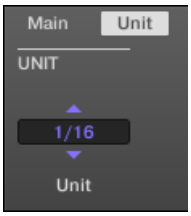



*The Beat Delay in the Control area: Main page.*

| Parameter | Description |
|---|---|
| **DELAY Section** | |

| Parameter | Description |
|---|---|
| **Time** | The **Time** parameter defines the delay length in note values. The available values depend on the unit defined by the **Unit** parameter on the **Unit** page (refer to below). They range from half a unit to 16 units. |
| **Offset** | This parameter is used to shift the start of the delay in relation to the tempo. |
| **Feedback** | Adjusts the amount of output signal fed back into the input. Higher values produce more copies of the signal and longer decays. |
| **Crossover** | Allows for panning the feedback signal rhythmically in the stereo field. |
| **Color** | Defines the basic frequency of the feedback circuit: lower values result in a deeper sound, whereas higher values brighten the sound. |
| **Split** | Controls the difference in frequency between the left and right channels. At full left, this control is deactivated. |
| **OUTPUT Section** | |
| **Stereo** | This parameter widens the stereo field of the effect. For example, values go from -100.0 % to 100 %, and negative values inverse the stereo field of the effect. |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

### Unit page




*The Beat Delay in the Control area: Unit page.*

| Parameter | Description |
|---|---|
| **UNIT Section** | |
| **Unit** | Defines the unit used by the **Time** and **Offset** parameters on the **Main** page. |

## Grain Delay

By chopping the input into small “grains” and rearranging them as a cloud, the Grain Delay is useful for creating ambient textures. Increase Size, Space and Density to quickly transform any sound into an evolving ambient texture. As a unique experimental effect, it is best experienced firsthand. Please note that in the Control area and on your controller, the Grain Delay parameters are spread over two pages.




*The Grain Delay panel in the Plug-in Strip.*

## Main page




*The Grain Delay in the Control area: Main page.*

| Parameter | Description |
|---|---|
| **GRAIN Section** | |
| **Pitch** | Determines the pitch of the grains: low values result in a deep, slowly repeating grain. High values speed up the grain, making it sound faster and higher. |
| **Size** | Defines the length of the grains. |
| **Jitter** | Introduces artifacts into the grains. |
| **Reverse** | Produces a reverse playback of the grain. |
| **CLOUD Section** | |
| **Space** | Determines the spacing between the grain clouds: the higher the value, the bigger the space between the clouds. |
| **Density** | Creates a more “dense” cloud: higher values create feedback-like effects. |
| **Mod** | The amount of modulation introduced to the grain cloud. |
| **Mix** | Lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Output page




*The Grain Delay in the Control area: Output page.*

| Parameter | Description |
|---|---|
| **OUTPUT Section** | |
| **Stereo** | This parameter widens the stereo field of the effect. Values go from 0 % (no stereo) to 100 % (full stereo). |

## Grain Stretch

The Grain Stretch effect uses granular synthesis to manipulate the speed and pitch of the incoming signal.




*The Grain Stretch panel in the Plug-in Strip.*




*The Grain Stretch in the Control area.*

| Parameter | Description |
|---|---|
| **MASTER Section** | |
| **On** | Enables the effect. Every time this control is switched on, the Grain Stretch effect buffers incoming audio for 32 x 1/16th step. |
| **TIME Section** | |
| **Stretch** | Defines the time-stretch amount. Set to **50.0 %** for half speed. |
| **Loop** | Sets a loop length, in 1/16th steps. |
| **PITCH Section** | |
| **Pitch** | Adjusts the pitch of the grains. |
| **Link** | When on, grain size is corrected by the pitch. |
| **Size** | Adjusts the size of the grains. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Resochord

The Resochord is a bank of 6 comb filters, each of which is individually tuned according to the selected chord. The results are most effective with non-melodic content (like drums) as the Resochord will print its own harmonic content on to any input material.




*The Resochord panel in the Plug-in Strip.*




*The Resochord in the Control area.*

| Parameter | Description |
|---|---|
| **PITCH Section** | |
| **Mode** | Here you can select between the two modes of the Resochord: **Chord** and **String**. In Chord mode, the 6 combs are tuned according to various chords. In String mode, the 6 combs are centered around one frequency and can be spread for an intense chorus-like effect. Depending on your selection the other parameters in the Pitch area will change. |
| **Spread** (String mode) | Allows you to define how big the difference in tuning is between combs. |
| **Style** (Chord mode) | You can select between different chord-styles such as minor or major. |
| **Chord** (Chord mode) | Here you can choose from different chords to be applied to your audio signal. |
| **Tune** | It allows you to transpose the Resochord in semitones. |
| **COLOR Section** | |
| **Brightness** | This is to determine the basic sound characteristic of the Resochord: higher values will brighten the sound by adding high frequencies. |
| **Feedback** | Adjusts the amount of output signal fed back into the input. |
| **Decay** | With **Decay** you adjust how fast the Resochord fades out. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

# Distortion effects

## Distortion

The Distortion effect contains two modes of distortion: Mullholland and Analog.




*The Distortion panel in the Plug-in Strip.*




*The Distortion in the Control area.*

### Mullholland mode

Mullholland mode combines overdrive, feedback and modulation, this produces a heavy distortion/fuzz effect, comparable to distortion stomp-boxes for guitars. This effect is special because of the feedback it creates.

| Parameter | Description |
|---|---|
| **MAIN Section** | |
| **Mode** | Select a distortion type: **Mullholland** or **Analog**. |
| **Drive** | Determines the basic amount of distortion. |
| **Color** | At lower settings, the general sound is a bit more muffled; the higher the settings, the brighter it sounds. |
| **Feedback** | Adjust the amount of output signal fed back into the input. |
| **Tone** | General tonal characteristic of the feedback signal. |
| **Tone Mod** | Modulation introduced in the feedback signal. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |
| **GATE Section** | |
| **Gate** | The **Gate** button is used to cancel out feedback loops introduced by high **Feedback** settings. |

| Parameter | Description |
|---|---|
| **Release** | This parameter determines how fast the distorted sound dies down when the **Gate** is activated. |

### Analog distortion

Analog mode adds grit to Drums and Percussion, Lead Synths and Guitars.

| Parameter | Description |
|---|---|
| **MODE Section** | |
| **Mode** | Select a distortion type: **Mullholland** or **Analog**. |
| **DISTORTION Section** | |
| **Saturation** | Sets the amount of saturation applied to the signal. Available values range from 0.0 to 100.0% (default: 25.0%). |
| **Bass** | Attenuates the low frequencies of the distortion effect. Available values range from 0.0 to 100.0% (default: 100.0%). |
| **Tone** | Sets the frequency for the high cut filter. Filtering the harmonically rich distorted signal produces a softer tone. Available values range from 0.0 to 100.0% (default: 100.0%). |
| **Focus** | Switches the frequency range of the processed signal, pulling it slightly further forwards in the mix. The effect is more pronounced when **Definition** is set to lower values. |
| **Definition** | Determines how pronounced the distortion effect is. Available values range from 0.0 to 100.0% (default: 50.0%). |
| **OUTPUT Section** | |
| **Mix** | Mix lets you adjust the amount of the effect in relation to the dry original audio signal. Available values range from 0.0 to 100.0% (default: 100.0%). |

## Lofi

The Lofi effect reduces the bit depth (or bit resolution) and Sample rate of the audio signal for an interesting “vintage” effect at subtle settings, and heavy digital distortion at extreme settings.




*The Lofi panel in the Plug-in Strip.*




*The Lofi in the Control area.*

| Parameter | Description |
|---|---|
| **RESAMPLE Section** | |
| **SR** | **SR** stands for Sample Rate and ranges from CD-quality (44.1 kHz) to 99.5 Hz which results in a hissy crackle. |
| **BITCRUSH Section** | |
| **Bits** | Introduces a distortion based on bit reduction. |
| **Smooth** | Reduces the aliasing introduced by the Lofi effect. |
| **Stereo** | Widens the stereo field of the effect. |
| **OUTPUT Section** | |
| **Mix** | **Mix** lets you adjust the amount of the effect in relation to the dry original audio signal. |

## Saturator

The Saturator is a flexible tool allowing you to apply various types of saturations to your signal. The Saturator offers three modes: Classic (legacy mode), Tape, and Tube. You can select the desired mode via the **Mode** selector. Since the three modes provide different sets of parameters, each of them is described separately below.




*The Saturator panel (here in Tube mode) in the Plug-in Strip.*

### Classic mode

The Classic mode is the legacy mode. It combines compression and saturation to increase the overall loudness and add additional harmonics.




*The Saturator in Classic mode in the Control area.*

| Classic mode – parameter | Description |
|---|---|
| **MAIN Section** | |
| **Mode** | Selects between **Classic**, **Tape**, and **Tube** saturation modes. All other parameters vary according to the mode selected here. |
| **Input** | Controls the input gain of the effect. Increasing **Input** will also increase the amount of compression performed on the audio signal. |
| **Contour** | Determines how closely the Saturator responds to the input volume. Higher values create a more distorted sound. |
| **Drive** | Adjusts the amount of distortion introduced by the Saturator. |

## Tape mode

The Tape mode emulates the soft compression and pleasant saturation induced by recording to analogue magnetic tapes. It can be used lightly to add warmth and coloring to the sound, or heavily to add aggressive distortion.

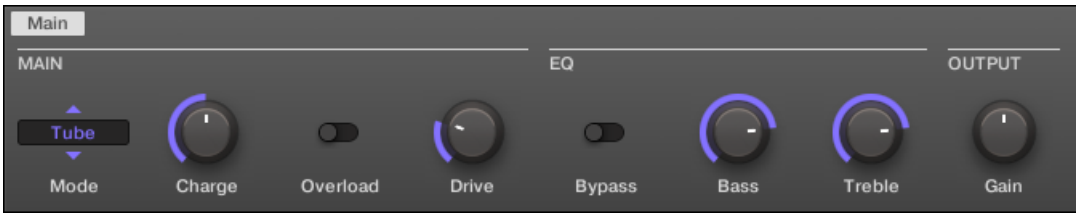



*The Saturator in Tape mode in the Control area.*

| Tape mode – parameter | Description |
|---|---|
| **MAIN Section** | |
| **Mode** | Selects between **Classic**, **Tape**, and **Tube** saturation modes. All other parameters vary according to the mode selected here. |
| **Input** | Controls the input gain of the effect. This affects the amount of tape distortion and compression. |
| **Contour** | Controls the high frequency roll-off starting frequency. Frequencies above this point will be attenuated. |
| **Drive** | Controls the low frequency boost/cut of the effect. |

## Tube mode

The Tube mode emulates the smooth saturation of overdriven tube amplifiers. It is equipped with a feedback-driven dynamic compression and an additional EQ section allowing you to fine adjust the frequency content to be processed.




*The Saturator in Tube mode in the Control area.*

| Tube mode – parameter | Description |
|---|---|
| **MAIN Section** | |
| **Mode** | Selects between **Classic**, **Tape**, and **Tube** saturation modes. All other parameters vary according to the mode selected here. |
| **Charge** | In Tube mode the Saturator provides a negative feedback loop that attenuates the level at the Saturator's input according to the amount of low frequencies at its output. This notably prevents the bass content "polluting" the saturation. The **Charge** parameter allows you to adjust the amount of feedback. At **0** (full left) the feedback loop is deactivated. Increase the **Charge** value to strengthen the effect. Higher values additionally generate an interesting compression-like effect. |
| **Overload** | Boosts the low frequencies of the input signal. Used together with the **Charge** parameter (see above) it provides you with a powerful tool to produce a richer, fatter sound. |
| **Drive** | Adjusts the level of the input signal. This directly affects the amount of tube distortion. |
| **EQ Section** | |
| **Bypass** | Enable this button to bypass the **EQ** section. |
| **Bass** | Adjusts the level of the low frequency band. |
| **Treble** | Adjusts the level of the high frequency band. |
| **OUTPUT Section** | |
| **Gain** | Adjusts the output level of the effect. Use this to compensate for changes in volume caused by input gain and signal compression. |

# Perform FX

Designed for spontaneous, tactile control in recording or live performance, these eight complex multi-effects alter motion, space, dynamics, and more for added expression.

- **Filter**: The Filter is a raw-sounding, analog-modeled LP/BP/HP filter with additional saturation parameters and resonance that can be pushed into self-oscillation. For more information see section Filter.
- **Flanger**: The Flanger is a comb filter effect. It can behave like a standard flanger or phaser but can also go pretty wild and sound more like a creative delay if you push the decay and delay time. Various tone-shaping controls are available. For more information see section Flanger.
- **Burst Echo**: The Burst Echo is a warm, versatile echo with plenty of character. It's great as a dub echo but can also be used for quite extreme sound design. For more information see section Burst Echo.

- **Reso Echo**: The Reso Echo is a crazy psychedelic echo which can be tightened up into a punchy resonator. For more information see section Reso Echo.
- **Ring**: Based on a bank of ring modulators, the Ring effect adds a bell-like quality to melodic sound sources. An additional plate reverb lets you pick out individual notes with your finger and have them ring out for several seconds. For more information see section Ring.
- **Stutter**: Stutter is a beat-mangling effect, great for adding glitches and fills to drum patterns and more. For more information see section Stutter.
- **Tremolo**: Tremolo is a tremolo/vibrato effect, useful for adding expression and movement on the fly. For more information see section Tremolo.
- **Scratcher**: At its most basic, Scratcher allows you to apply a turntable "brake" to the incoming signal and then scratch it, as if on vinyl. But an additional pitch shifter delay, linked to the Smart Strip position, adds a wealth of sonic possibilities, from simple thickening to alien-sounding sweeps. For more information see section Scratcher.

For information on how to control a Perform FX parameter using the Smart Strip, refer to Perform mode.

## Filter

An analog-modeled High, Low, and Band-pass filter capable of yielding raw, natural-sounding results using saturation and resonance. Roll off the highs for a thick, murky veil, or use the resonance to create sounds that float into self-oscillation infinity.




*Filter Perform FX in the Plug-in Strip.*




*Filter Perform FX in the Control area.*

### Main page

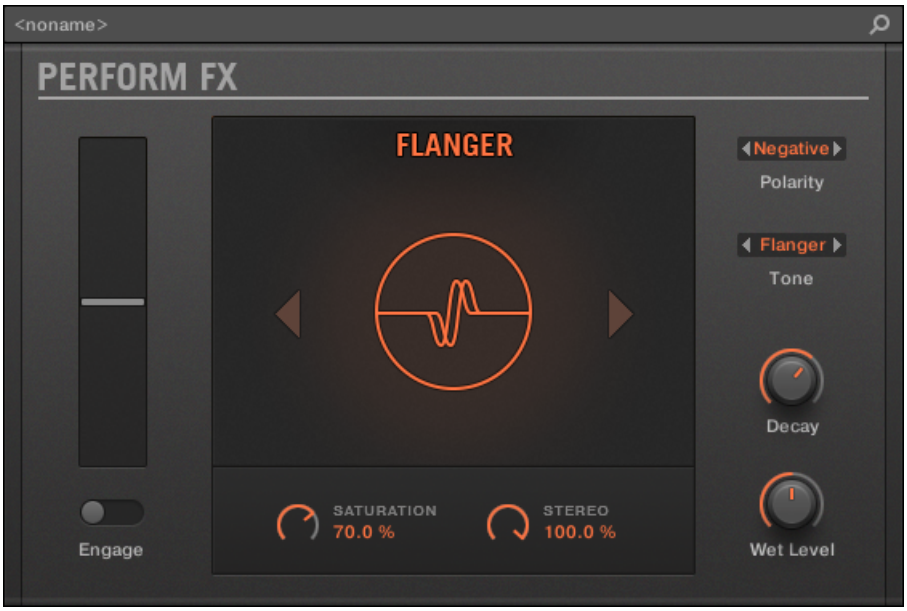
| Parameter | Description |
|---|---|
| **MODE Section** | |
| **Mode** | Select an effect. |
| **TOUCHSTRIP Section** | |
| **Engage** | Activates the filter. |
| **Frequency** | Sets the cutoff frequency according to the min/max range parameters. |
| **FILTER** | |
| **Type** | Selects from Low Pass, Band Pass and High Pass modes. |
| **Resonance** | Sets the resonance of the filter. Values over 100% will lead to self-oscillation—be careful! Turn down the Output Gain (and turn up the Saturation to compensate) in order to avoid extremely loud ringing. Note that the resonance will sound more pronounced at lower saturation settings and vice versa. |

### Setup page

| Parameter | Description |
|---|---|
| **RANGE Section** | |
| **Min. Freq** | Sets the lower limit for cutoff frequency. |
| **Max. Freq** | Sets the upper limit for cutoff frequency. |
| **SATURATION Section** | |
| **Saturation** | Sets the input gain of the filter. |
| **Out Level** | Sets the output gain of the filter. |

## Flanger

A comb filter effect with more than a few tricks up its sleeve. Get performance-ready flanger or phaser effects, or expose its wild side – setting higher decay and frequency values unleashes ping-pong delay-like flutter effects.




*Flanger Perform FX in the Plug-in Strip.*




*Flanger Perform FX in the Control area.*

## Main page

| Parameter | Description |
|---|---|
| **MODE** | |
| **Mode** | Select an effect. |
| **TOUCHSTRIP** | |
| **Engage** | Activates the effect. |
| **Frequency** | Controls the volume of the comb filter. |
| **FLANGER** | |
| **Decay** | Controls the decay time. |
| **SATURATION** | Controls the saturation in the feedback path, producing a dirtier, compressed sound. |
| **STEREO** | Controls the stereo spread of the effect. |

## Setup page

| Parameter | Description |
|---|---|
| **COLOR** | |

| Parameter | Description |
|---|---|
| **Polarity** | Flips the phase of the signal in the feedback loop. Negative polarity lowers the pitch by an octave and produces a slightly hollower sound. |
| **Tone** | Offers the choice between Flanger mode, essentially a straightforward comb filter or short delay, and Phaser mode, which shifts the phase of the signal in the feedback loop to produce a more rounded, hollow tone. |

## Burst Echo

A warm, versatile echo with plenty of character, designed for spontaneous splashes of echo. Strong, responsive attacks that taper off into hazy trails are perfect for dub and can also be tweaked for more extreme sound design.




*Burst Echo Perform FX in the Plug-in Strip.*




*Burst Echo Perform FX in the Control area.*

## Main page

| Parameter | Description |
|---|---|
| **MODE** | |
| **Mode** | Select an effect. |
| **TOUCHSTRIP** | |
| **Engage** | Activates the effect. When activated, feeds a burst of signal into the effect according to the length set by the Feed parameter. |

| Parameter | Description |
|---|---|
| **TS Assign** | Assigns the control to Feedback or Time.<br><br>**Feedback**: Sets the delay feedback when the effect is activated. The feedback is reduced when the effect is disengaged. |
| **ECHO** | |
| **Time** | Controls the delay time, either continuously or in quantized divisions according to the Time Mode. |
| **Time Mode** | Sets the rhythm mode of the delay, either in quantized note divisions (Straight/Dotted/Free) or unquantized (milliseconds). |
| **Filter** | Adjusts the LP and HP filter in the feedback loop. At 0%, the filter is fully open. At higher values, the HPF frequency increases and LPF frequency decreases for more aggressive filtering. |
| **Wet Level** | Adjusts the volume of the delayed signal. |

### Setup page

| Parameter | Description |
|---|---|
| **ROUTING** | |
| **Mix Mode** | **Mix mode** sets the routing of the signal:<br><br>• In **Mix** mode, the dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level parameter.<br>• In **Replace** mode, the dry signal is muted after the first repetition, leaving only the delay tail audible until the effect is released.<br>• In **Wet Only** mode, the dry signal is muted entirely, which is useful for placing the effect on a send. |
| **Feed** | Sets the length of the burst of audio to feed into the delay input whenever the effect is initially activated. Shorter burst lengths (e.g. 100-150ms) are useful for picking out notes or drum hits. Longer burst lengths (up to a second) can be used to repeat musical phrases. Set to maximum (>99%), the feed is continuous, deactivating burst mode entirely and simply feeding the delay whenever the effect is on. |

## Reso Echo

A complex resonant echo with advanced feedback and saturation that verge on psychedelic tendencies. Echoes range from a tight, punchy resonant hum to ambiguous howling sounds from another dimension.




*Reso Echo Perform FX in the Plug-in Strip.*




*Reso Echo Perform FX in the Control area.*

## Main page

| Parameter | Description |
|---|---|
| **MODE** | |
| **Mode** | Select an effect. |
| **TOUCHSTRIP** | |
| **Engage** | Activates the effect. |
| **Frequency** | Controls the frequency of the filters in the filter bank, altering the tonality of the signal. |
| **ECHO** | |
| **Time** | Sets the delay time. |
| **Feedback** | Sets the delay feedback. |
| **Pump** | Controls the amount of compression applied to the feedback loop. |
| **Wet Level** | Controls the volume of the delayed signal. |

| Parameter | Description |
|---|---|
| **Mix Mode** | Sets the routing of the signal:<br><br>- In **Mix** mode, the dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level parameter.<br><br>- In **Insert** mode, the dry signal is processed with a filter and the wet signal is added on top. The Wet Level parameter is an output level control for the whole effect while engaged.<br><br>- In **Wet Only** mode, the dry signal is muted entirely, which is useful for placing the effect on a send. |

## Setup page

| COLOUR | |
|---|---|
| **Saturation** | Controls the amount of saturation applied to the feedback path. |
| **Resonance** | Controls the resonance of the filters in the filter bank. More resonance emphasizes the "singing" effect. |

## Ring

Built on a carefully selected bank of ring modulators, Ring adds a bell-like quality to melodic sound sources. Using the additional plate reverb, tweak a knob or Smart Strip to hand-pick individual notes and keep them ringing into the stratosphere.




*Ring Perform FX in the Plug-in Strip.*




*Ring Perform FX in the Control area.*

## Main page

| Parameter | Description |
|---|---|
| **MODE** | |
| **Mode** | Select an effect. |
| **TOUCHSTRIP** | |
| **Engage** | Activates the effect. |
| **Frequency** | Controls the frequency of the ring modulators. |
| **OSC** | |
| **Spread** | Controls the frequency spread of the ring modulators. At low Spread values, the ring modulators converge to a single modulation frequency. At higher Spread values, the oscillator frequencies become further apart. |
| **Glide** | Sets the smoothing rate of the control position, allowing for pitch slides as you activate different values. |
| **REVERB** | |
| **Rev Time** | Controls the decay time of the plate reverb. |
| **Rev Mix** | Controls the dry/wet mix of the plate reverb. |
| **MIX** | |
| **Dry/Wet** | Controls the dry/wet mix of the overall effect. |

## Setup page

| Parameter | Description |
|---|---|
| **ROUTING** | |
| **Mix Mode** | Mix mode sets the routing of the signal:<br>• In **Mix** mode, the dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level parameter.<br>• In **Wet Only** mode, the dry signal is muted entirely, leaving silence except when the effect is activated. This is useful for using Ring as an instrument with a sustained sound (e.g. a pad) as source material. |

## Stutter

Turn the intensity up, and down again with Stutter. This beat-mangling effect adds creative dynamics like glitches, fills, and expressive pitch-bending crescendos to drum patterns and more.




*Stutter Perform FX in the Plug-in Strip.*




*Stutter Perform FX in the Control area.*

## Main page

| Parameter | Description |
|---|---|
| **MODE** | |
| **Mode** | Select an effect. |
| **TOUCHSTRIP** | |
| **Engage** | Controls a hard bypass. Activating the control commences looping, releasing the control bypasses the effect. |
| **Length** | Can be assigned to **Length** (loop length, by default) or **Pitch** (relative pitch) using **TS Assign**. |
| **TS Assign** | Assigns the control to **Length** or **Pitch**. |
| **STUTTER** | |
| **Gate** | Applies a volume envelope to the loop, exaggerating the "stutter" effect, especially at short loop lengths. Setting the parameter to 100% effectively disables the envelope whereas the gating is most extreme at 0%. |
| **Pitch** | Parameter controls playback pitch (relative to pitch when the effect is engaged) when the controls are assigned to **Length**, and the **Length** parameter controls loop length when the control is assigned to **Pitch**. Otherwise each of these parameters has no effect and is respectively hidden. |
| **LOOP** | |

| Parameter | Description |
|---|---|
| **Direction** | Controls the looping direction—**Forward** (always forward), **Reverse** (always reverse) or **Both**. In **Both** mode, direction is forwards by default on engage and whenever the most recent control movement was upwards, or reverse whenever the most recent control movement was downwards. The Direction parameter is available only when the **TS Assign** is set to **Length**. |
| **Quantize** | Quantizes the loop length and start point to the song position and tempo. When Quantize is off, the loop length is continuously variable and measured in milliseconds, and no quantization takes place. Quantization is especially meaningful if direction is set to **Reverse** or **Both**, since it's during reverse playback where a poorly timed loop will sound completely off-time. |

## Tremolo

A no-frills tremolo and vibrato effect that's perfect for creating motion and wobble on the fly. Instantly add expression with multiple modes, Rate, and Depth ranges, and use the Stereo knob to create auto-pan motion effects.




*Tremolo Perform FX in the Plug-in Strip.*




*Tremolo Perform FX in the Control area.*

## Main page

| Parameter | Description |
|---|---|
| **MODE** | |

| Parameter | Description |
|---|---|
| **Mode** | Select an effect. |
| **TOUCHSTRIP** | |
| **Engage** | Enables and disables the effect. |
| **Position** | Controls the tremolo and vibrato rate and depth, within the ranges defined by the Min and Max parameters on the second page. |
| **TREMOLO** | |
| **Trem/Vibr** | Controls the balance between tremolo (modulation of amplitude) and vibrato (modulation of frequency/pitch). |
| **Vibr Mode** | Sets the vibrato mode. Two are available: Varispeed, which modulates the playback speed of the audio, much like moving the pitch control on a turntable or tape player, and Freq Shift, which uses a modulated frequency shifter. Freq Shift produces a somewhat detuned sound due to the nature of the frequency shifting—low frequencies are more audibly shifted than high frequencies. Varispeed scales pitches evenly across the audible range, but it introduces small fluctuations in timing. |
| **Attk/Rel** | Controls the speed at which the effect comes on after turning the effect on and tails off after releasing the effect. |
| **Stereo** | Controls the stereo width of the modulation. |

### Setup page

| Parameter | Description |
|---|---|
| **DEPTH RANGE** | |
| **Depth Min** | Controls the amplitude of the modulation when the parameter position is set to 0%. |
| **Depth Max** | Controls the amplitude of the modulation when the parameter position is set to 100%. |
| **DEPTH RANGE** | |
| **Rate Min** | Controls the rate of the modulation when the parameter position is set to 0%. |
| **Rate Max** | Controls the rate of the modulation when the parameter position is set to 100%. |

## Scratcher

Scratcher warps your sounds with turntable motion effects that can get other-worldly. Apply a ‘brake’ to a sound, then scratch with it – just like on vinyl. Or use the pitch shifter delay to thicken the sound and create alien-sounding sweeps.




*Scratcher Perform FX in the Plug-in Strip.*




*Scratcher Perform FX in the Control area.*

## Main page

| Parameter | Description |
|---|---|
| **MODE** | |
| **Mode** | Select an effect. |
| **TOUCHSTRIP** | |
| **Engage** | Engages the turntable brake, enabling scratch control. When released, the effect is bypassed entirely. |
| **Position** | Controls the brake speed (higher = slower brake), the scratch position (higher = forward) and the delay time (higher = longer delay time). |
| **SWIRL** | |
| **Delay Time** | Controls the delay time range. Longer values produce a delay effect. Shorter values result in a comb filtering effect. The Position parameter acts as a further scale factor on this delay time. |
| **Feedback** | Controls the delay feedback. |
| **Freq Shift** | Controls a frequency shifter in the delay feedback loop. At 12 o'clock, the frequency shifter is deactivated. Swirling, alien and metallic sounds can be made by enabling the frequency shifter and increasing the feedback. |
| **Wet Level** | Controls the level of the delay effect. |

# 14. Working with the Arranger

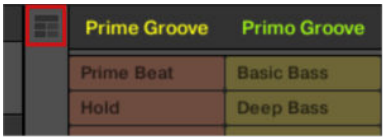
The Arranger is the big area located in the upper part of the Maschine window, right under the Header.

The Maschine Arranger has two different views: Ideas view and Song view, which are also reflected on your controller. Each view has a specific purpose in the workflow of creating a song, but essentially they represent the same content. The **Ideas view** allows you to experiment with your musical ideas without being tied to a timeline or any kind of arrangement. Here you can create Patterns for each Group and combine them into a Scene. Alternatively, the **Song view** allows you to structure your song by allowing you to assign the Scenes you created in the Ideas view to Sections on the Timeline, and move them around to quickly create a larger musical structure.

## Arranger basics

The Arranger has two different views: **Ideas view** and **Song view**. Each view has a specific purpose in the workflow of creating a song, but essentially they represent the same content.

### Switching between Ideas view and Song view




*The Arranger View button.*

▶ Click the Arranger View button to switch between the Ideas view and the Song view.

→ When the button is unlit the Ideas view is active, when the button is lit the Song view is active.

### The Ideas view

The Ideas view allows you to experiment with your musical ideas without being tied to a timeline or any kind of arrangement. Here you can create Patterns for each Group and combine them into a Scene.




*The Ideas view for creating and experimenting with musical ideas free from the Timeline.*

1. **Scenes**: This area displays all the current Scenes in your Project. After creating a Scene by clicking the **+** symbol, you can build the Scene by selecting a Pattern from each Group. By clicking each Scene name (Scene slot) you can switch between Scenes to see how your musical ideas work together. Using your mouse you can right-click ([Ctrl] + click on macOS) on the Scene slot and select to **Append to Song** from the menu and then arrange your song in the Song view. You can also use the right-click menu to **Clear**, **Duplicate**, or **Delete** Scenes, as well as organize your Scenes by selecting the **Rename** or **Color** options.
2. **Pattern area**: All Patterns in your Song are represented here. You can double-click a blank slot to create and new Pattern or click an existing Pattern to assign it to the selected Scene. Once assigned, a Pattern will become highlighted, click it again to remove it from the selected Scene. Using your mouse you can right-click ([Ctrl] + click on macOS) on the name of a Pattern and select to **Clear**, **Duplicate**, or **Delete** a Pattern. You can also organize your Patterns by selecting the **Rename** or **Color** options.
3. **Groups**: The Group slots can hold one Group each. Select the desired slot to load a Group into it and display the Group's content (Sounds, Patterns…) in the Pattern Editor (refer to Pattern Editor) and the Group's Channel properties and Plug-in parameters in the Control area (refer to Control area). To mute a Group click the Group letter, for example **A1**, and right-click ([Ctrl] + click on macOS) on the letter to solo the Group. Using your mouse you can also right-click ([Ctrl] + click on macOS) on the name of a Group to access the many options available to manage them.

## The Song view

The Song view allows you to structure your song by allowing you to assign the Scenes you created in the Ideas view to Sections, and move them around to quickly create a larger musical structure.




*The Song view for organizing your musical ideas into a song on the Timeline.*

1. **Groups** : The Group slots can hold one Group each. Select the desired slot to load a Group into it and display the Group's content (Sounds, Patterns…) in the Pattern Editor (refer to Pattern Editor) and the Group's Channel properties and Plug-in parameters in the Control area (refer to Control area).
2. **Song timeline**: This area displays the current position within the track and allows you to set the loop range.
3. **Section slots**: This area displays Section slots. A Section is a container for a Scene placed on the Timeline. A Section can be reordered by clicking the name of the Section and dragging and dropping it into place. You can change the length of a Section by dragging the Section end marker to the left to shorten it, or to the right to lengthen it. Using your mouse you can right-click ([Ctrl] + click on macOS) a Section and use **Select** in the menu to assign a Scene to a Section. It is also possible to use the menu to **Insert, Duplicate**, **Delete**, **Clear** or **Remove** Sections as well as organize them by selecting the **Rename** or **Color** options.

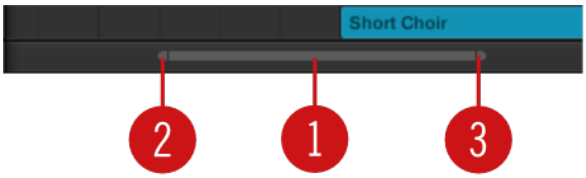
4. **Pattern area**: In each Section of the Arrangement, you can see the name of the Scene assigned to the Section along with the Scene's Patterns stacked vertically for each Group in the Project. The Patterns seen here are the same as those seen when viewing the same Scene in the Ideas view.

## Navigating the Song view

### Navigating the Song view horizontally

Song view can be scrolled and zoomed in or out to fit your current needs.

A **zooming scroll bar** is available at the bottom of the Arranger in Song view. This tool allows you to scroll and zoom in/out horizontally in the Event area and the Control Lane on the time axis:




*The zooming scroll bar at the bottom of Song view in the Arranger.*

Use the horizontal zooming scroll bar as follows:

- Click the **main part** (**1**) of the scroll bar and hold the mouse button, then:
  - Drag your mouse horizontally to scroll through Song view on the time axis (common scroll bar behavior).
  - Drag your mouse vertically to zoom in or out of Song view on the time axis.
- Click the **left handle** (**2**) of the scroll bar, hold the mouse button, and drag your mouse horizontally to zoom in or out of Song view while keeping the right border of the display at a fixed position in the song.
- Similarly, click the **right handle** (**3**) of the scroll bar, hold the mouse button, and drag your mouse horizontally to zoom in or out of Song view while keeping the left border of the display at a fixed position in the song.
- Double-click the **main part** (**1**) to reset the zoom and display all of the Sections in your arrangement.

### Navigating the Arranger vertically

A classic scroll bar is available right of the Arranger. It allows you to scroll to view hidden Groups if they do not fit in the Arranger.




*The classic scroll bar right of the Arranger.*

You can also adjust the height of the Arranger in order to display more/less Groups at once by dragging its bottom right corner vertically with your mouse.




*Drag the handle to adjust the Arranger's height.*

### Navigating the Song view from the controller

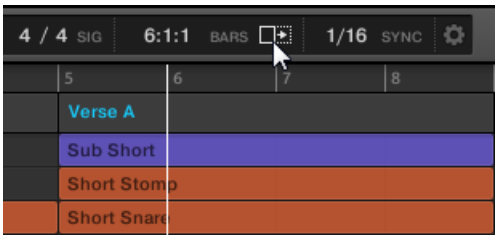
You can also control the position and zoom factor in the Song view from your controller:

▶ Press **SHIFT** + **VARIATION** (**Navigate**) to enter Navigation mode.

| Action | Shortcut |
|---|---|
| Scroll Arranger left | Press pad **9** |
| Scroll Arranger right | Press pad **11** |
| Zoom in (Arranger) | Press pad **14** |
| Zoom out (Arranger) | Press pad **10** |

## Following the playback position in your Project

If the Arranger doesn't display the entire Loop Range, at some point the playhead will go beyond the portion of your Project currently displayed in the Arranger and you might loose track of the playback position. To prevent this, you can force the Arranger to follow the playhead:




*Activate the Follow button to keep following the playhead in the Arranger.*

▶ To follow the playhead position in the Arranger during playback, click the Follow button in the Maschine Header.

→ The Follow button lights up in the Maschine Header. The Arranger will now switch to the next portion of your Project (with the same zoom factor) as soon as the playhead reaches the end of the portion currently displayed. This way, you always see the portion of your Project that is currently played.

ⓘ The Follow function will be automatically deactivated as soon as you manually scroll in the Arranger or the Pattern Editor (in the software or from your controller).

The Follow function affects both the Pattern Editor and the Arranger simultaneously. For more information, refer to Following the playback position in the Pattern.

### Following the playback position on the controller

To follow the playhead position during playback:

▶ Press the **FOLLOW** button in the Transport section (at the bottom of your controller).

→ The **FOLLOW** button lights up. In the software the Arranger will now switch to the next portion of your Project (with the same zoom factor) as soon as the playhead reaches the end of the portion currently displayed. This way, you always see the portion that is currently played.

ⓘ The Follow function will be automatically deactivated as soon as you manually scroll to another portion of the Arranger or of the Pattern Editor.

In the software the Follow function affects both the Pattern Editor and the Arranger.

## Performing with Scenes and Sections using the pads

Maschine provides you with settings to fine-tune the timing of the jump between the Scenes and Sections:

- The **Perform Grid** lets you quantize the Scene transitions: You can choose the point at which the playback will leave the current Scene (Ideas view) or Section (Song view). For example, you might not want a newly selected loop to fire off immediately — you might want it to wait until the next bar line. The available quantization values are: one bar, one half note, one quarter note, one eighth note, one sixteenth note, the whole Scene/Section, and Off. If you choose Off, the Scene/Section change will be performed immediately after you select the next loop.

- The **Retrigger** setting lets you decide where the next loop will start:
  - If Retrigger is activated, the next Section (Ideas view) or Section (Song view) that is selected will be forced to play from the start. This is useful if you always want your Scenes or Sections to play from the beginning regardless of what's happening elsewhere in the music.
  - If Retrigger is deactivated (default setting),the next Scene or Section that is selected will play from the same offset to the beginning: for example, leaving the current Section on beat 3 will cause the new Section to start playing on its beat 3. This ensures that the global groove of your track is not interrupted.

## Jumping between Scenes or Sections in the software

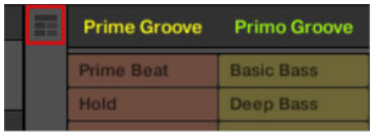
In the software, the Perform Grid and the Retrigger setting can be adjusted in the Maschine Header.

In Ideas view the Perform Grid and the Retrigger controls the setting for jump between **Scenes** and in Song view it sets the grid for the jump between **Sections**.

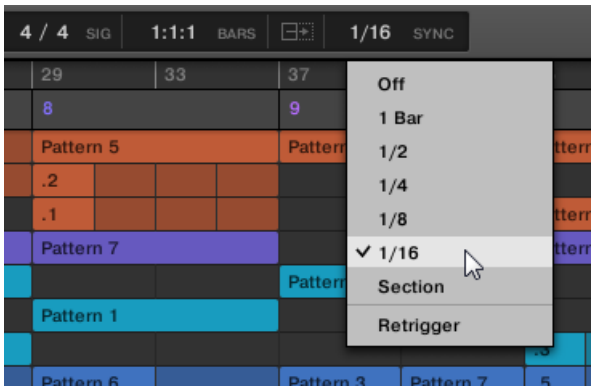
To set the Perform Grid and the Retrigger settings:

1. Click the Arranger View button to access Ideas view for Scenes or Song view for Sections.

→ When the Arranger View button is illuminated, Song view is active.

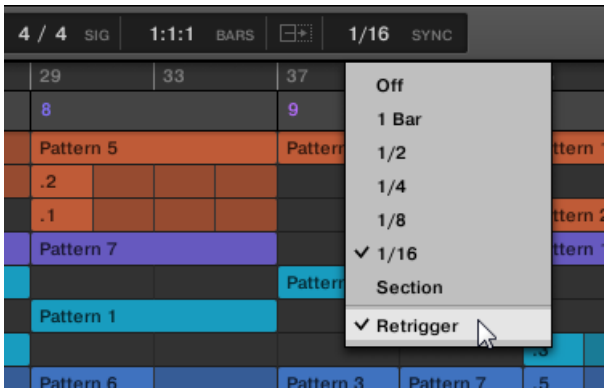



2. To adjust the Perform Grid, click the Performance Grid menu in the Header and select the desired division from the menu:




→ The next time you select a new Scene/Section or group of Scenes/Sections for looping, the switch will happen on the next division selected here.

▶ To enable/disable the Retrigger setting, click the Performance Grid menu in the Header and select **Retrigger** from the menu.




→ The next time you select a new Scene/Section or group of Scenes/Sections for looping, the new loop will start from the beginning of the first Scene/Section (Retrigger activated) or from the same position as where it left the current Scene/Section (Retrigger deactivated).

## Jumping to other Scenes using the controller

In Ideas view the Perform Grid and the Retrigger controls the setting for jump between **Scenes**, and in Song view it sets the jump between **Sections**.

### Setting the Perform Grid and Retrigger Settings

To set the Perform Grid and the Retrigger settings:

1. Press **SCENE** to select Scene mode or **SHIFT** + **SCENE** (**Section**) Section mode.
2. If you want to set the Perform Grid and the Retrigger settings for Scenes, select Scene mode, for Sections, select Section mode.
3. Press **SHIFT** + **FOLLOW** (**Grid**) to enter Grid mode.
4. Use the Arrow buttons to select **Perform**.

→ In the display you see the current Scene/Section Sync value. The default value **Scene**/**Section** means that the next time you select a new Scene/Section or loop range, the switch will happen once the current Scene/Section has played to the end.

5. Turn the Encoder to select the desired value, for example **1/4** (quarter note).

→ The next time you select a new Scene/Section or loop range, the switch will happen on the next quarter note.

### Adjusting the Scene Retrigger Setting

To adjust the Scene Retrigger setting:

1. Press **SCENE** (**Section**) to select Scene mode.
2. In the display you see the current Retrigger value (**Off** by default).
3. Turn the Encoder to select **On**.

→ The next time you select a new Section or loop range, it will start from the beginning.

### Adjusting the Section Retrigger Setting

To adjust the Section Retrigger setting:

1. Press **SHIFT** + **SCENE** (**Section**) to select Section mode.
2. Press the Right Arrow button to access **Retrigger**.
3. In the display you see the current Retrigger value (**Off** by default).
4. Turn the Control knob to select **On**.

The next time you select a new Section or loop range, it will start from the beginning.

> Make sure you have created at least one Section before you try to set the Retrigger setting; otherwise, the setting will not be available.

## Using the Ideas view

The Ideas view allows you to experiment with your musical ideas without being tied to a timeline or any arrangement. Here you can create Patterns for each Group and combine them into Scenes.

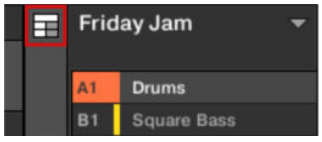
In Ideas view, Maschine provides a perfect overview of all your Scenes, Patterns, and Groups. Here you can create a Scene by selecting a Pattern for each Group, duplicate your Scenes, clear a Scene and, more importantly, trigger your Scenes so you can hear how they sound when played in a particular order.

Pressing a pad in Scene mode will trigger a Scene and trigger all the assigned Patterns. In addition to creating ideas, Scene mode is fantastic for improvisation during a performance.

### Scene overview

In the software, all Scenes can be managed from the Ideas view:

▶ To open Ideas view, click the Arranger View button on the left of the Arranger.




→ When the button is unlit Ideas view is active, when the button is lit Song view is active.




*The Ideas view.*

- At the top you can see Scene slots. The selected Scene is highlighted.
- The selected Scene displays the selected Patterns for the current Scene.

### The Scene mode on the controller

The Scene mode focuses on Scene selection and manipulation.

To enter Scene mode on your controller:

▶ Press **SCENE** (**Section**) to enter Scene mode.

→ The software switches to Scene mode. This is indicated by the illuminated **SCENE** (**Section**) button.

In Scene mode you see all Scene slots of the selected Scene bank represented as a square of 4x4 cells:

- The highlighted cell indicates the selected Scene slot.
- Cells showing a name represent Scene slots containing a Scene.
- Empty cells represent empty Scene slots.

This grid of cells shown in the right display corresponds to the pads of your controller, which have the same functionality as in Scene Arrange mode:

- The fully lit pad indicates the selected Scene slot.
- Dim lit pads indicate Scene slots containing a Scene.
- Unlit pads represent empty Scene slots.

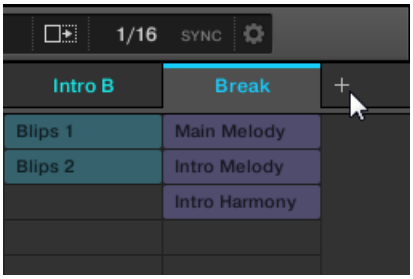
In addition, the Scene mode provides useful Scene management commands similar to those of the Scene Arrange mode. These are described in the following sections.

## Creating Scenes

You can create a new Scene directly in the Ideas view.

### Creating a Scene in Ideas view

▶ To create a new Scene, click the "**+**" button located after all existing Scene names in the top row of the Ideas view.




*Click the "+" button to create a new Scene.*

- A new empty Scene is created after all existing Scenes.

### Creating a Scene on the controller

Using the controller you can create a new Scene in Ideas view.

▶ Press **SCENE** (**Section**) + any unlit pad to create a new empty Scene in the current Scene bank.

→ A new empty Scene is created. You can then assign Patterns to this Scene as described in Assigning and removing Patterns.

## Assigning and removing Patterns

Each Pattern placed in the Arranger (Ideas view or Song view) references one of the Patterns available in the corresponding Group.

In the Ideas view, each column represents a Group. After selecting a Scene it is possible to assign and remove Patterns by clicking the Pattern slots.

Any changes made in the Ideas view or Song view are one and the same.

### Assigning a Pattern in Ideas view

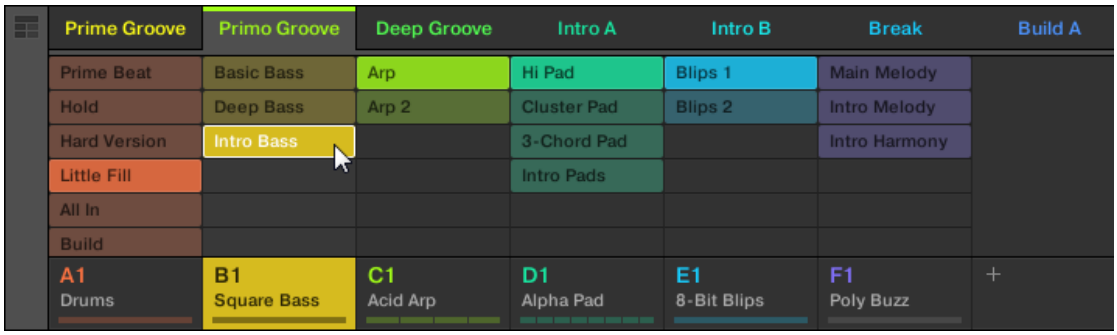
To assign a Pattern to a Scene in Ideas view:

1. Select a Scene slot in the upper row.




→ Each column below shows the Patterns available for a particular Group (one column for each Group). The highlighted Patterns are played in that Scene. In each column, only one Pattern can be highlighted.

2. Click an unlit Pattern slot that you want to play in the Scene.




→ The selected Pattern is assigned to the Scene and replaces any previous Pattern for that Group in the Scene. Additionally, this Pattern is loaded in the Pattern Editor, ready to be modified.

> ⓘ Patterns and the Pattern Editor are described in Working with Patterns and Clips.

### Creating a new Pattern in Ideas view

To create a new empty Pattern in Ideas view:

▶ In the Ideas view, double-click an empty Pattern slot in the column of the desired Group.

→ A new empty Pattern is created in that slot. The Pattern is automatically assigned to the Scene and it is loaded in the Pattern Editor, ready to be filled with notes/events.

### Removing a Pattern in Ideas view

To remove a Pattern from a Scene in Ideas view:

▶ Click the highlighted Pattern for any Group to remove it from the Scene.

→ The Pattern is removed from the Scene and will not be played by that Scene anymore. The Pattern itself is left untouched.

### Assigning a Pattern to a Scene on the controller

Assigning a Pattern is done in Pattern mode.

First select the Scene to which you want to assign a Pattern:

1. Press and hold **SCENE** to switch to Scene mode.
2. Press the pad corresponding to the Scene to which you want to assign a Pattern.

Then select the Pattern for the desired Group:

1. Press **GROUP** + the pad **9**–**16** of the Group from which you want to select a Pattern.
2. Press and hold **PATTERN** to switch to Pattern mode.

→ Your pads give you an overview of the available Patterns. Dim lit pads indicate the available Patterns. If a Pattern is already assigned to the selected Scene, its pad is fully lit.

3. Press the desired dim lit or unlit pad to select the Pattern you want to use in that Scene.

→ If you have pressed a dim lit pad, the Pattern is assigned to the selected Scene. If you have pressed an unlit pad, a new empty Pattern is created and assigned to the selected Scene. In both cases, any Pattern previously assigned to the Scene for that Group will be replaced.

Furthermore, the following happens:

- The corresponding Pattern will now be played by that Scene.
- Additionally this Pattern is loaded in the Pattern Editor, ready to be modified.



For further information on the Pattern mode, please refer to section Managing Patterns.

### Removing a Pattern from a Scene on the controller

Removing a Pattern is also done in Pattern mode.

To remove a Pattern from the selected Scene:

1. Press **GROUP** + the pad **9**–**16** of the Group from which you want to select a Pattern.
2. Press and hold **PATTERN** to switch to Pattern mode.
3. Press the lit pad to remove the Pattern from that Scene.

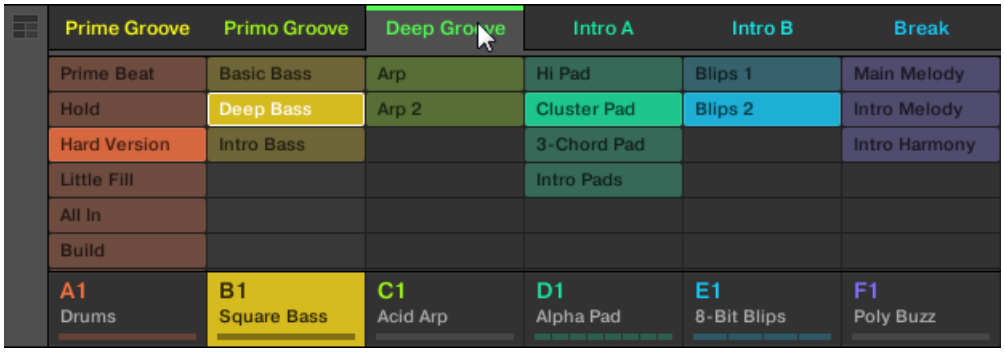
## Selecting Scenes

You can select the desired Scene in the Ideas view.

### Selecting a Scene in the Ideas view

To select a Scene in the Ideas view, do the following:

▶ Select the desired Scene by clicking its name at the top of the Ideas View:




→ The Scene name is now highlighted to indicate that this Scene is selected.

### Once a Scene has been selected…

Once you have selected a Scene, the following happens:

- The selected Patterns slots for the focused Scene are highlighted. The highlighted Pattern slot for the selected Group has a white frame and is displayed in the Pattern Editor. Unselected Pattern slots are dimmed. If there are no Patterns slots selected for the Scene in focus, or if there are no Patterns at all, the Pattern Editor is empty.
- If playback is off the playhead immediately jumps to the beginning of the selected Scene. If playback is on the playhead jumps according to the Perform Grid settings.

### Selecting Scenes and Scene banks on the controller

### Selecting a Scene bank

To select a Scene located in another Scene bank, you need to select that Scene bank first:

1. Press and hold **SCENE** (**Section**).
2. Press the Right Arrow button to select **Bank**.
3. Turn the Encoder to select a Scene bank.

### Selecting a Scene

To select a Scene in the current Scene bank:

▶ Press **SCENE** (**Section**) + the dim lit pad corresponding to the desired Scene.

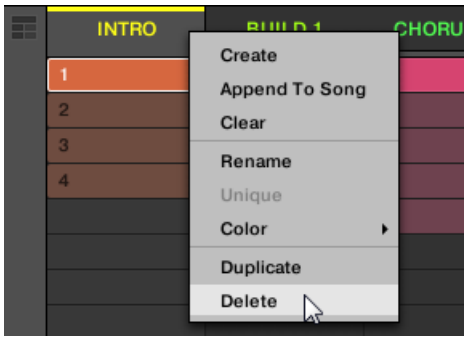
After your selection, the following happens:

- The Pattern Editor displays the Pattern for the focused Group in this Scene. If there is no Pattern for the focused Group in the Scene you have just selected, the Pattern Editor is empty.
- If playback is off the playhead immediately jumps to the beginning of the selected Scene.

## Deleting Scenes

To delete a Scene in the Ideas view:

▶ In the top row of the Ideas view, right-click ([Ctrl]-click on macOS) the name of the Scene you want to delete and select **Delete** from the context menu:




→ The Scene is deleted with all its Patterns. Scenes to the right shift to fill the gap.

> ⓘ Instead of deleting the Scene, which removes it entirely, you can also clear the Scene: This will only remove its content, the Scene itself will stay in your arrangement, but empty. For more information on clearing Scenes, refer to section Clearing Scenes.

### Deleting Scenes on the controller

To delete a Scene on your controller:

1. Press **SCENE** (**Section**) to enter Scene mode.
2. If required, press the Right Arrow button and turn the Encoder to select the desired Scene bank.
3. Press **ERASE** + the pad corresponding to the Scene you want to delete.

→ The Scene is deleted with all its Patterns. Scenes to the right shift to fill the gap.

## Creating and deleting Scene banks

A new Scene bank is automatically created once you fill an entire bank with Scenes.

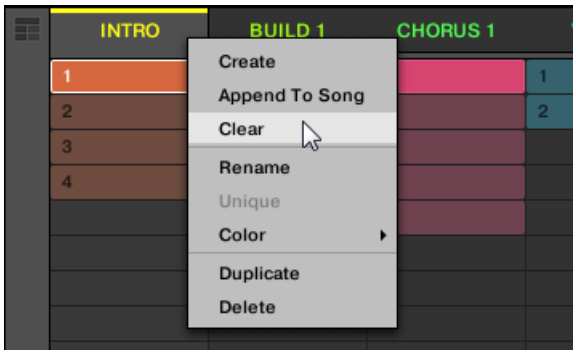
## Clearing Scenes

Clearing a Scene allows you to remove all its Patterns, leaving the Scene empty. Clearing Scenes is only available from within the software.

> ⓘ While deleting a Scene removes it entirely from your arrangement, clearing it only removes its content: The Scene stays in your arrangement, but empty. For information on deleting Scenes, refer to Deleting Scenes.

To clear a Scene:

▶ Right-click ([Ctrl]-click on macOS) the name of the Scene you want to clear, and select **Clear** from the context menu.




→ All Patterns are removed from the Scene.

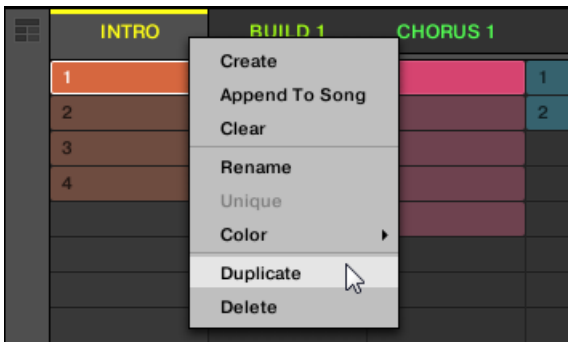
## Duplicating Scenes

The Ideas view allows you to duplicate Scenes. Duplicating a Scene has a different result depending on the **Duplicate** setting available in the **Scene / Section** section on the **Default** page of the **Preferences** panel. Refer to Preferences – Default page for more information.

### Duplicating a Scene in the software

To duplicate a Scene in the software:

▶ Right-click ([Ctrl]-click on macOS) a Scene in the top row of the Ideas view, and select **Duplicate** from the context menu.




→ The selected Scene is duplicated. The duplicate contains references to the same Patterns or to independent copies of the Patterns, depending on the setting chosen in the **Preferences** panel.



You can also duplicate a Scene by clicking the Scene slot header while holding [Alt] key (or [Ctrl] on Windows), and dragging the mouse. After the mouse is released a duplicate copy of the Scene is created.

### Duplicating a Scene on the controller

To duplicate a Scene on your controller:

1. Press and hold **SCENE** (**Section**) to enter Scene mode.

2. Press the pad corresponding to the Scene you want to duplicate.
3. Press any unlit pad to duplicate the Scene.

→ The selected Scene is duplicated. The duplicate contains references to the same Patterns or to independent copies of the Patterns, depending on the setting chosen in the **Preferences** panel.

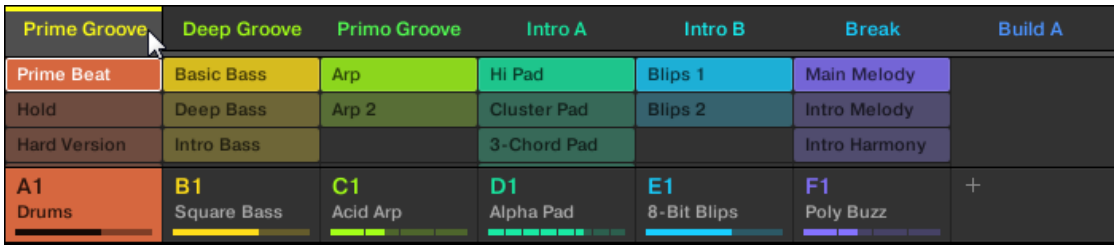
## Reordering Scenes

Reordering Scenes in Ideas view allows you to visually organize your ideas and also place each idea on a specific pad of your controller. The reordering of Scenes will not affect your arrangement.

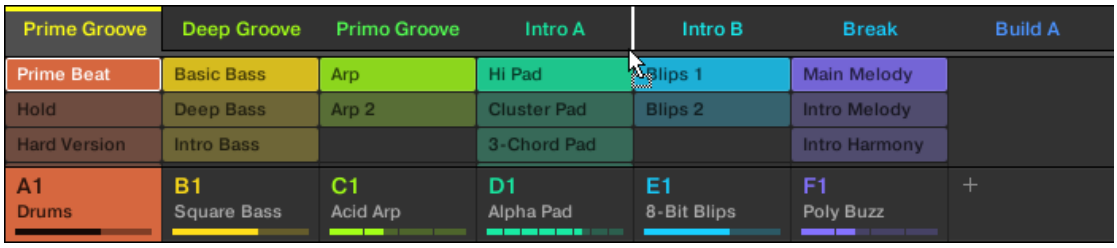
In the software you can reorder Scenes in the Ideas view.

To reorder Scenes:

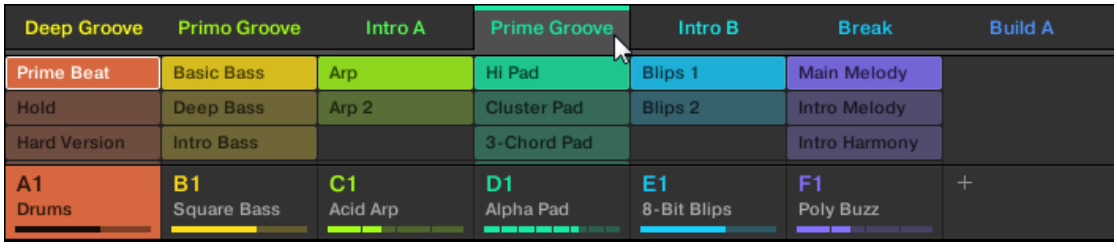
1. Click and hold the Scene name in the Ideas view.




2. While holding the mouse button, drag your mouse horizontally to the desired location. As the mouse cursor moves, an insertion line appears at the potential places where you can drop the Scene.
3. When the insertion line appears at the desired location, release the mouse button.




→ The Scene takes its new place. On your controller in Scene mode, you can now select this Scene via the pad corresponding to its new location.



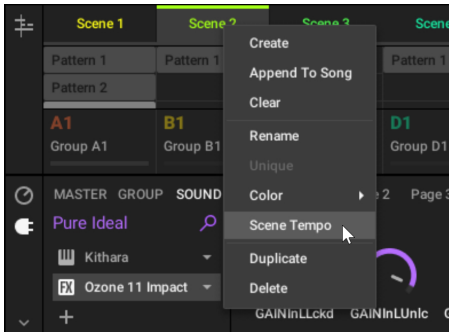

## Changing the Scene tempo

By default, all Scenes play at the tempo of the Project. You can set a custom tempo for specific Scenes, which allows you to create tracks with varying tempo.

To know how to adjust the tempo of your Project, refer to Adjusting the volume, swing and tempo.

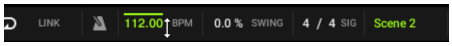
### Changing the Scene tempo in the software

1. In the top row of the Arranger, right-click the name of the desired Scene or Section and select **Scene Tempo** from the context menu:




→ This activates a custom tempo for the Scene. In the Maschine header, the **BPM** control takes the color of the Scene and a horizontal segment appears above. This BPM control now displays and adjusts the tempo value for that particular Scene.

2. Adjust the **BPM** control in the Maschine header as you would do for the Project tempo: You can double-click the **BPM** value, enter the desired tempo value, and press [Enter] to confirm, or you can click the **BPM** value and drag your mouse vertically (hold [Shift] on your computer keyboard to adjust the value in finer increments).




→ The new tempo value will be used only for that Scene.

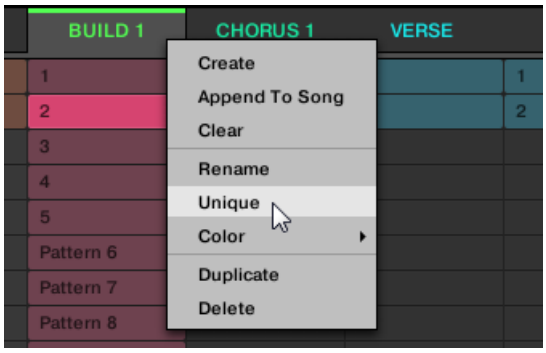
You can remove the custom tempo for a Scene by right-clicking its name and deselecting **Scene Tempo** from the context menu. The Scene will then use the default tempo of your Project.

## Making Scenes unique

If a Scene is referencing the same Patterns you can make a separate (unique) copy of the Scene and its Patterns by selecting **Unique**. This allows you to work on a new separate copy of the Scene and its Pattern in isolation. Use **Unique** in combination with the **Duplicate** option. For more information on the **Duplicate** option, read: Duplicating Scenes.

To make a Scene unique in the Ideas view:

▶ In the top row of the Ideas view, right-click ([Ctrl]-click on macOS) the name of the Scene you want to make unique and select **Unique** from the context menu:




→ A unique copy of the Scene and its Patterns are created.

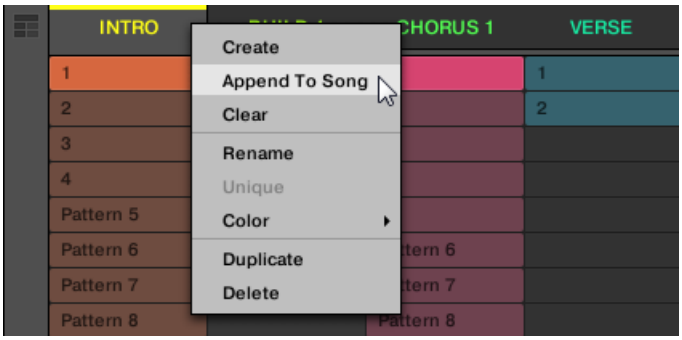
> ⓘ This option is only available if the selected Scene is referencing the same Patterns as another Scene.

## Appending Scenes to the arrangement

Once you are satisfied with a Scene you can append it directly to your arrangement in the Song view.

To append a Scene to the Arrangement in the software:

▶ In the top row of the Ideas view, right-click ([Ctrl]-click on macOS) the name of the Scene you want to append to the arrangement and select **Append To Arrangement** from the context menu:




- A Section containing the appended Scene is created and added to the end of your arrangement. You can then click and drag the Section slot (containing the Scene) to an appropriate place on the Timeline of the Arranger.

## Naming Scenes

By default, Scenes are named **Scene 1**, **Scene 2**, **Scene 3**, etc. You can rename Scenes and use custom names of your own.

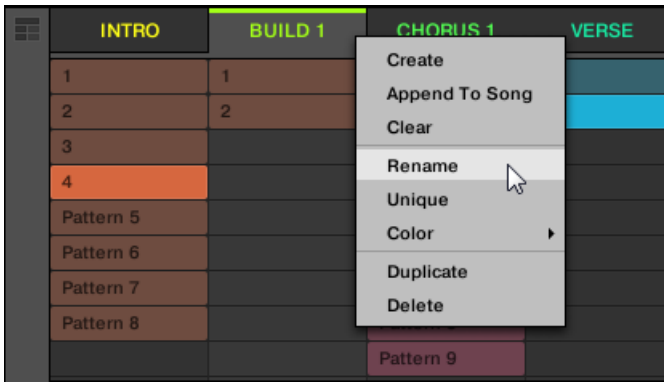
### Renaming Scenes in the Ideas view

To rename a Scene in the Ideas view:

1. Double-click the Scene name at the top of the Ideas view:




   You can also right-click ([Ctrl]-click on macOS) the Scene slot or the corresponding cell in the pad grid and select **Rename** from the context menu:




   The Scene name gets highlighted and editable.

2. Type a name and press [Enter] on your computer keyboard to confirm (or press [Esc] to cancel you change).

→ The Scene is renamed.

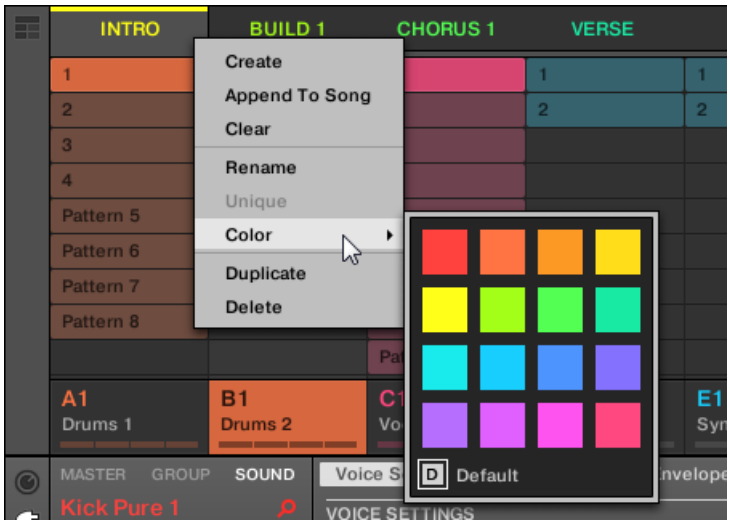
> If you use Maschine as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the Maschine plug-in window to confirm the name you have entered.

## Changing the color of a Scene

You can change the color of your Scenes.

To change the color of a Scene:

1. Right-click ([Ctrl]-click on macOS) the name of the desired Scene in the Arranger or in the Scene Manager, and select **Color** from the context menu.A Color Palette appears. In the Palette, the current color of the Scene is highlighted.




2. Select the desired color in the Palette. You can also choose to set the Scene back to its default color by selecting **Default** at the bottom of the Color Palette.

→ The Scene slot takes the new color you select.

You can change the default color for Scenes in **Preferences > Colors > Scene**. Refer to Preferences – Colors page for more information.

Once you have set a custom color for a Scene as described above, the Scene will retain its color when you move it in the Ideas view, and the color will be stored with the Scene when you save your Project. Note that you can select the same color as the one used by default: In this case the color (even unchanged) will be considered as a custom color and will follow the Scene as you move it.

## Using the Song view

In Maschine, a song is made of a variable number of Scenes, which represent the different parts of the song, for example, intro, verse, chorus, break, another verse. By assigning your Scenes to Sections through the timeline of the Song view, you can organize your arrangement.

The Song view is where you can sequence Scenes to create your final arrangement. This process involves creating Sections on the timeline and assigning a Scene to each Section. Any Scene that exists in the Ideas view can be assigned to a Section in the Song view. You can change the length of the Section (determining the playback length of the Scene) or re-order the Sections as you see fit. You can also re-use the same Scene in multiple Sections in the timeline, or you can choose to assign no Scene to the Section at all.

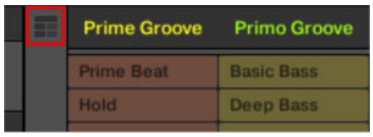
One powerful aspect of the relationship between the Ideas view and Song view is that the content in these two areas are actually one-in-the-same. This means that if you make a change to a Scene it will affect all other instances of that Scene automatically. If you place a Scene in three different Sections of the Timeline and then proceed to change the Patterns assigned to that Scene, the other two instances of that Scene also play the newly-assigned Patterns. It's therefore very easy to make changes to individual Patterns and Scenes after the arrangement has been made and immediately hear the results in the context of the arrangement, and those changes can be made in either Ideas or Song view.

## Section management overview

In the software, all Sections can be managed using the Section Manager of the Song view.

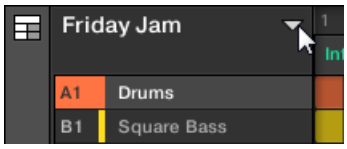
To open the Section Manager:

1. To open Song view, click the Arranger View button on the left of the Arranger.

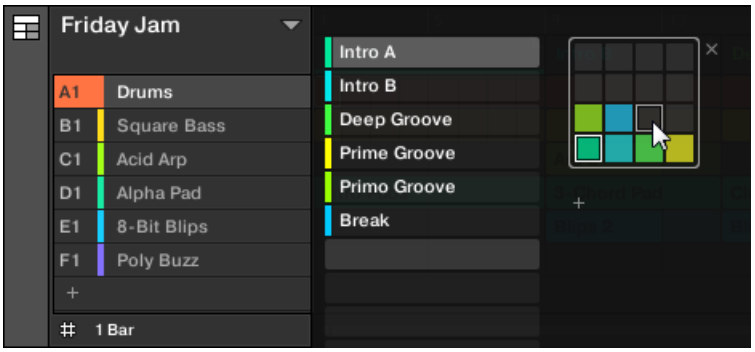



→ The Song view appears on the right.

2. To open the Section Manager, click the drop-down menu on the left of the arrangement.




→ The Section Manager appears on the right.




*Use the Section Manager to manage your Sections.*

- On the left you can see the list of the 16 Section slots in the selected Section bank. Slots containing a Section show a colored or white bar on the left along with the Section name. The other slots contain no Section. The selected Section is highlighted (**Intro A** in the image above).
- On the right you can see the various Section banks in form of pad grids, a pad grid is a square of 4x4 cells representing the pads of your controller. In each Section bank the colored cells indicate Section slots containing a Section, while unlit cells indicate empty Section slots. The selected Section bank is surrounded by a white border (bank 2 in the picture above). If there are too many Section banks to fit into the Section Manager's height, use the scroll wheel of your mouse to display the other banks.

- The Section slots on the left and the cells in the selected pad grid on the right are strictly equivalent: you can use either the slots or the corresponding cells to execute all the management commands described in the next sections.

### Closing the Section Manager

▶ To close the Section Manager, click anywhere outside it.

### Section Manager vs. Arranger's top row

If all Section operations can be done in the Section Manager, most of them can also be done in the **top row of the Arranger**:




*The top row of the Arranger.*

The only difference between the Section Manager and the Arranger's top row is that the Section Manager allows you to manage your Section banks, which is impossible in the Arranger's top row. Apart from this, actions in the Arranger's top row and in the Section Manager are strictly equivalent.

### The Section mode on the controller

The **Section mode** is where you select and manage your Sections.

▶ To enter Section mode on your controller, press **SHIFT** + **SCENE** (**Section**).

→ Your controller switches to Section mode. This is indicated by the lit **SCENE** (**Section**) button.

Now the pads on your controller represent the 16 Section slots of the current Section bank:

- The fully lit pad indicates the selected Section slot.
- Dim lit pads indicate Section slots referencing a Scene.
- Unlit pads represent empty Section slots.

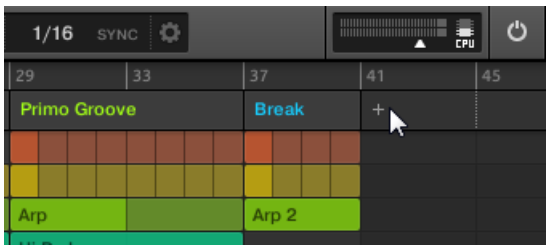
In addition, the Section mode provides useful Section management commands. These are described in the following sections.

## Creating Sections

You can create a new Section directly in the Song view.

### Creating a Section in the software

▶ To create a new Section, click the "**+**" button located after all existing Section names in the top row of the Song view.




→ A new empty Section is created after all existing Sections. You can then assign a Scene to it. Refer to Assigning a Scene to a Section for more information.

### Creating a new Section on the controller

To create a new Section on your controller:

1. Press **SHIFT** + **SCENE** (**Section**) to enter Song view.
2. Press any unlit pad to create a new empty Section in the current Section bank.

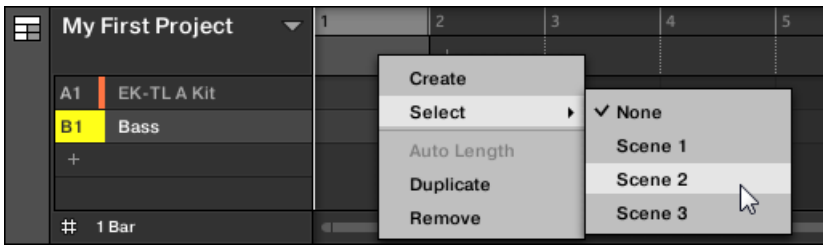
→ A new empty Section is created. You can then assign a Scene to it. Refer to Assigning a Scene to a Section for more information.

## Assigning a Scene to a Section

When you have created an empty Section on the timeline of the Arranger, you can now add a Scene from the Ideas view to the Song view.

To assign a Scene to a Section on the timeline of the Arranger:

▶ Right-click ([Cmd] + click on macOS) a Section slot and choose **Select** from the context menu, and select the desired Scene from the submenu.




→ The selected Scene is assigned to the Section.

By repeating this for each new Section, you can quickly add Scenes to the Arranger timeline.

### Assigning a Scene to a Section on the controller

To assign a Scene to a Section on your controller:

1. Press **SHIFT** + **SCENE** (**Section**) to access the Song view.
2. Press the right arrow button to select **SCENE**.

3. Turn the Encoder to select the Scene you want to add to the Section.

→ The selected Scene is added to the Section.

By repeating this for each new Section, you can quickly add Scenes to the Arranger timeline.

## Selecting Sections and Section banks

You can select the desired Section via the Section Manager or directly in the Song view.

### Selecting a Section in the Song view

To select a Section in the Song view, do the following:

▶ Select the desired Section by clicking its name at the top of the Song view:

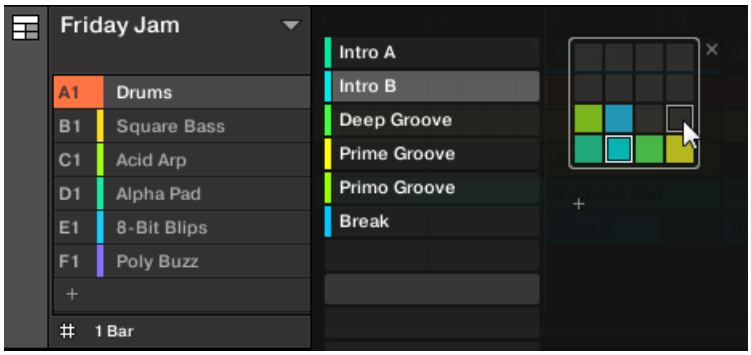



→ The Section name is now highlighted and underlined to indicate that this Section is selected.

### Selecting a Section and a Section bank in the Section Manager

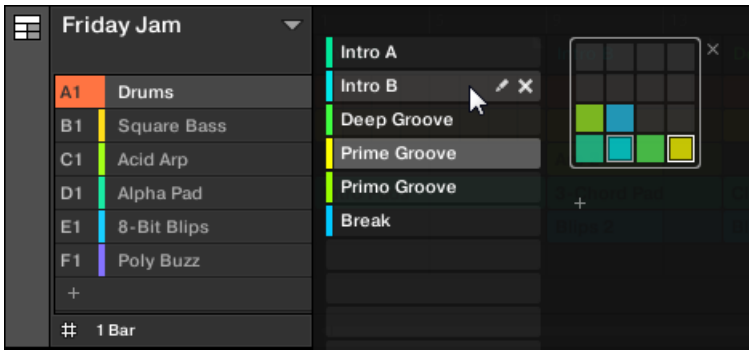
To select a Section in the Section Manager, do the following:

1. Open the Section Manager (see Section management overview).
2. If it is not already selected, select the Section bank containing the desired Section by clicking its pad grid on the right.




The selected Section bank is surrounded by a white border, and the left part of the Section Manager displays the Section slots in that bank.

3. Select the desired Section by clicking the slot with its name in the list on the left or by clicking its cell in the selected pad grid on the right.




→ The Section slot and the corresponding cell on the right are now highlighted to indicate that this Section is selected.

### Once a Section has been selected…

Once you have selected a Section using either of the methods described above, the following happens:

- The Pattern Editor displays the Pattern corresponding to the focused Group in this Section. If there is no Pattern for the focused Group in the Section you have just selected, the Pattern Editor is empty.
- Additionally, if the selected Section is outside the current Loop Range:
  - The Loop Range is set to the selected Section.
  - If playback is off the playhead immediately jumps to the beginning of the selected Section. If playback is on the playhead jumps according to the Perform Grid settings.

> For more info on the Loop Range see section Section management overview. For more info on the Perform Grid settings see section Section management overview.

## Selecting Sections and Section banks on the controller

### Selecting a Section bank

To select a Section located in another Section bank:

1. Press **SHIFT** + **SCENE** (**Section**) to access the Song view.
2. Press the Right Arrow button to select **Bank**.
3. Turn the Encoder to select the Bank you want to add to the Section.

→ The desired Bank is selected.

### Selecting a Section

To select a Section in the current Section bank:

1. Press **SHIFT** + **SCENE** (**Section**) to access the Song view.

2. Press the dim lit pad corresponding to the Section you want to select.

→ The Section is selected.

Upon your selection, the following happens:

- The Pattern Editor displays the Pattern corresponding to the focused Group in this Section. If there is no Pattern for the focused Group in the Section you have just selected, the Pattern Editor is empty.
- If you have selected the Section by pressing a pad, or if you have selected a Section outside the current Loop Range:
  - The Loop Range is set to the selected Section.
  - If playback is off the playhead immediately jumps to the beginning of the selected Section. If playback is on the playhead jumps according to the Perform Grid settings.

If you have selected a Section within the current Loop Range via the Arrow buttons, the Loop Range and the playback position stay untouched.

## Reordering Sections

Reordering Sections is essential to organize your Sections and arrange your song.

### Reordering Sections in the software

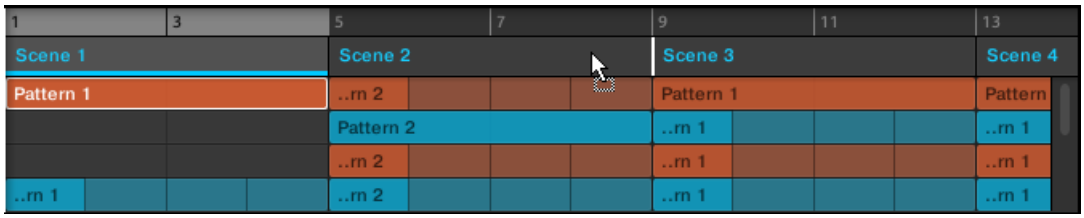
In the software you can reorganize sections both in the Arranger and in the Section Manager.

To move a Section:

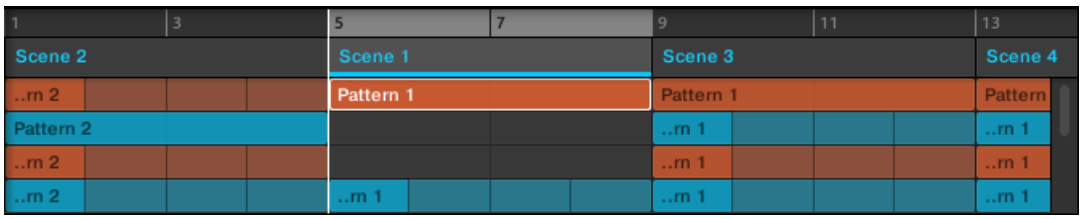
1. Click and hold the Section name in the Arranger.




2. While holding the mouse button, drag your mouse horizontally in the Arranger to the desired location.As the mouse cursor moves, an insertion line appears at the potential places where you can drop the Section.
3. When the insertion line appears at the desired location, release the mouse button.




→ The Section takes its new place. On your controller in Section mode, you can now select this Section via the pad corresponding to its new location.



### Moving a Section on the controller

To move a Section using your controller:

1. Press **SHIFT** + **SCENE** (**Section**) to access the Song view.
2. Press the Right Arrow button to select **Position**.
3. Press the pad of the Section you want to move.
4. Turn the Encoder to change the position of the selected Section.

→ The Section takes its new place. In Section mode you can now select this Section via the pad corresponding to its new location.

## Adjusting the length of a Section

Here are a few rules on how Sections, Scenes and Patterns are displayed within the Arranger:

By default the length of a Section is automatically set to the longest Pattern used within the referenced Scene (**Auto Length**), unless the length of the Section is manually set to a specific bar range (**Manual Length**).

- **Auto Length**: By default, the length of a Section corresponds to the longest Pattern used in the referenced Scene. Inserting a new Pattern that is longer than the Section automatically extends the Section. Removing the longest Pattern from the Section automatically shrinks the Section. Extending/shrinking the longest Pattern automatically extends/shrinks the Section accordingly.
- **Manual Length**: A Section can be manually adjusted to a particular length. This can be shorter or longer than the Pattern contained within the referenced Scene. Inserting or removing Patterns from the Scene will not alter the length of the Section, however the length of a Section can be altered by dragging the mouse directly in the timeline or from your controller.
- If a Pattern is shorter than the Section it is placed in, it is automatically repeated until the end of the Section (the last repetition might be shortened). These repetitions are automatically generated and cannot be edited. They reference the same Pattern placed at the beginning of the Section. Repetitions of a Pattern are indicated by darker blocks in the Arranger, and a Truncated Pattern marker will appear on the right-hand side of the Section to indicate that a section of the Pattern is hidden:
- If a Section has been manually shortened, only the visible part of the Pattern within the set length will be audible.
- Scenes always start at the beginning of the Section.

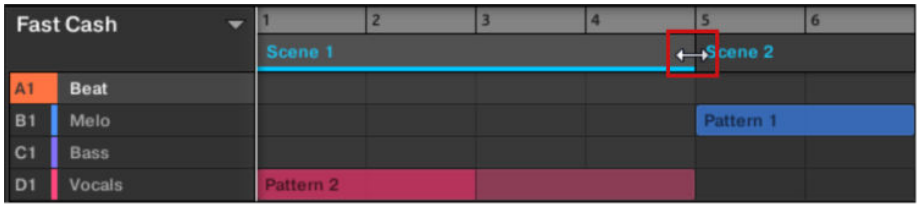
### Adjusting the length of a Section in the software

Variable Section length allows you to lengthen or shorten a Scene on the Timeline of the Arranger without altering the referenced Patterns. This is particularly useful as it avoids the need to create a new version of a Scene when you only want to extend or truncate a Scene to make it fit an arrangement.

When the right end marker of a Section is extended beyond the length of a Scene, the referenced Patterns are repeated. When the right end marker of a Section is dragged so it is shorter than the referenced Scene, only the visible part of the Patterns is played.

To lengthen a Section:

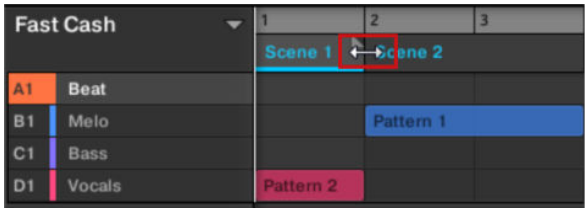
▶ Click and drag the end marker of the Section to the right.



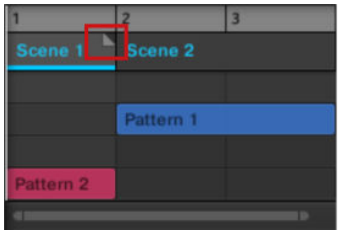

→ The Scene will be repeated if the adjustment is longer than the referenced Pattern.

To shorten a Section:

▶ Click and drag the end marker of the Section to the left.




→ The Scene will be shortened, and if the adjustment is shorter than the referenced Pattern a small Truncated Pattern marker will appear on the right-hand side of the Section to indicate that a part of the Scene is hidden. Only the visible part of the Scene will be played back.




When adjusting the size of a Section the following rules apply:

- The value set in the Arrange Grid is used for length increments. For more information on Arrange Grid, read: The Arrange Grid.
- When [Shift] is pressed while changing the length, the value set in the Step Grid is used. For more information on Step Grid, read: Adjusting the Step Grid and the Nudge Grid.
- The minimum length a Section marker can be dragged without modifier is one Arrange Grid increment.
- When [Shift] is pressed, the minimum length a Section marker can be dragged is one Step Grid increment.
- The minimum length of a Section equals the minimum Scene length. This can only be achieved if Arrange Grid or Step Grid is set to **Off**.

## Adjusting the length of a Section on the controller

To adjust the length of a Section on your controller:

1. Press **SHIFT** + **SCENE** (**Section**) to enter Song view.
2. Select the pad relating to the Section you want to adjust.
3. Press the Right Arrow button to access **Length**.
4. Turn the Encoder to adjust the length of the Section as required. Turning the knob counterclockwise will shorten the Section, turning it clockwise will lengthen the Section.

5. Press **SHIFT** and turn the Encoder to change the Section length in smaller increments.

→ The Section length is adjusted accordingly.

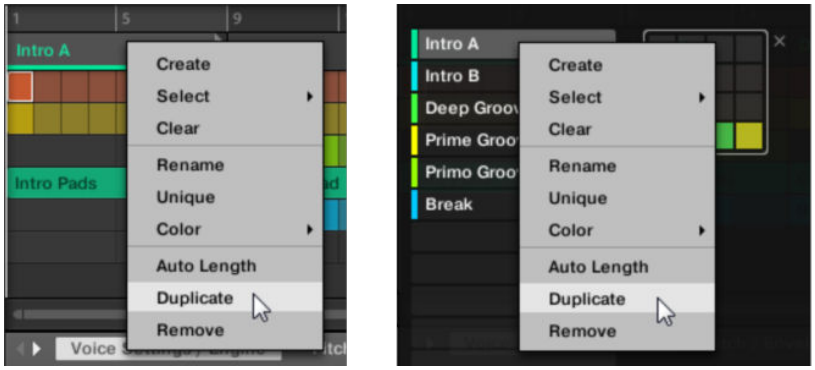
## Duplicating Sections

The Song view allows you to duplicate a Section. Duplicating a Section has a different result depending on the **Link when duplicating Sections** setting available in the **Scene / Section** section on the **Default** page of the **Preferences** panel. Refer to Preferences – Default page for more information.

### Duplicating a Section in the software

To duplicate a Section in the software:

▶ Right-click ([Ctrl]-click on macOS) a Section header in the top row of the Song view, and select **Duplicate** from the context menu.




→ The selected Section is duplicated. The duplicate is an independent copy or a linked copy of the original Section, depending on the setting chosen in the **Preferences** panel.

### Duplicating a Section on the controller

To duplicate a Section using your controller:

1. Press **SHIFT** + **SCENE** (**Section**) to access the Song view.
2. Hold **DUPLICATE** and then press the pad of the Section you want to duplicate.
3. Press the pad where you want to copy the Section.

→ The selected Section is duplicated. The duplicate is an independent copy or a linked copy of the original Section, depending on the setting chosen in the **Preferences** panel.

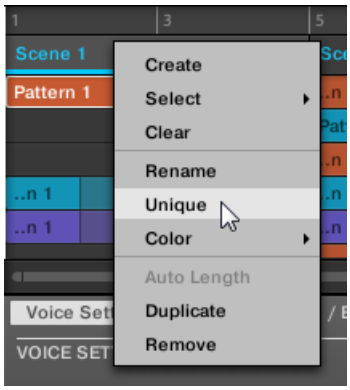
## Making Sections unique

At any time, you can make a linked Section totally unique. This will create a new Section in the same location, and will also create new Patterns. You are then free to edit the Patterns in the Section, or the data in the Patterns, without affecting any of the original Sections. This is great for when you want to introduce variations into a song structure that's been made with linked Sections.

To make a Section unique in the Maschine software:

1. Right-click (or ([Ctrl]-click on OS X) the Section you want to make unique in the Timeline. The context menu will open.

2. Click **Unique**.

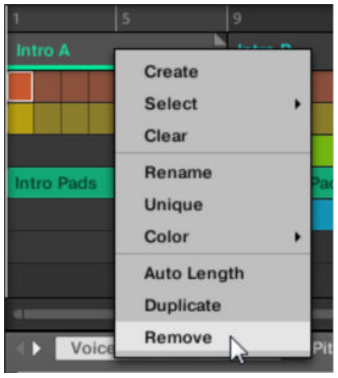


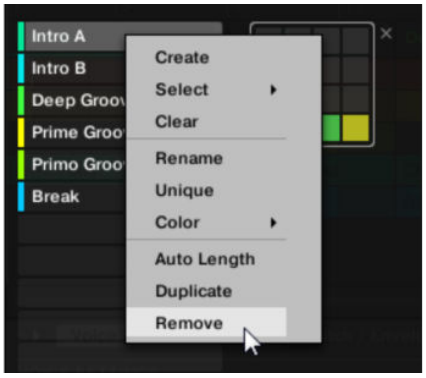

→ The Section will become independent of any Sections it was linked to and the Patterns can be edited without affecting any the original Sections.

## Deleting Sections

To delete (remove) a Section from the arrangement:

▶ In the top row of the Song view, right-click ([Ctrl]-click on macOS) the name of the Section you want to remove and select **Delete** from the context menu:




→ The Section is removed from the arrangement. The next Sections shift ahead to fill the gap.

ⓘ When you delete a Section, the referenced Scene is not deleted from the Ideas view. You can insert the Scene back into your arrangement at a later time.

### Removing Sections on the controller

To remove a Section using your controller:

1. Press **SHIFT** + **SCENE** (**Section**) to access the Song view.
2. Press **ERASE** + the pad corresponding to the Section you want to remove.

→ The Section is removed from the arrangement. The next Sections shift ahead to fill the gap.

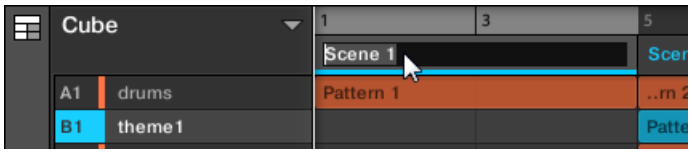
## Renaming Sections

Sections are displayed in the software using the name of the Scene that they reference, they do not have separate names from the Scene they represent. While you are organizing your arrangement, you can rename Scenes to your liking directly from the Song view.

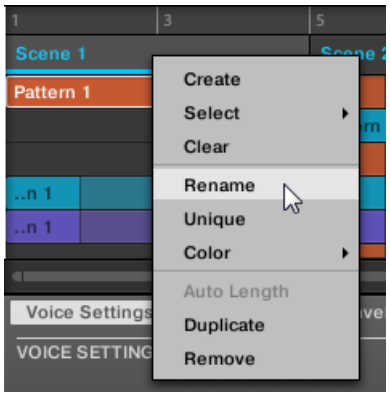
### Renaming Scenes in the Song view

To rename a Scene in the Song view:

1. Double-click the Scene name at the top of the Song view.




   You can also right-click ([Ctrl]-click on macOS) the Scene slot or the corresponding cell in the pad grid and select **Rename** from the context menu.




   The Scene name is highlighted and editable.

2. Type a name and press [Enter] on your computer keyboard to confirm (or press [Esc] to cancel you change).

→ The Scene is renamed.

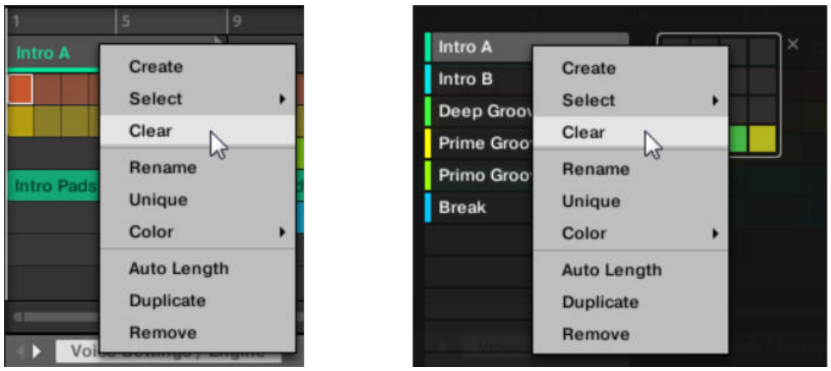
> If you use Maschine as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the Maschine plug-in window to confirm the name you have entered.

## Clearing Sections

Clearing a Section has the same effect as clearing the referenced Scene: It removes the content from the referenced Scene, leaving the Scene (and the Section) empty. Clearing Sections is only available from within the software.

To clear a Section:

▶ Right-click ([Ctrl]-click on macOS) the name of the desired Section in the Song view, and select **Clear** from the context menu.




→ Both the Section and its referenced Section are cleared.

For more information on clearing Scenes, refer to Clearing Scenes.

## Working with Patterns in Song view

By right-clicking on a Pattern in the Song view of the Arranger you can access the context menu with many useful options for arranging and interacting with Patterns.

### Creating a Pattern in Song view

In Song view use the right-click context menu to create a new Pattern within a Section.

To create a new Pattern in Song view:

▶ Right-click ([Ctrl]-click on macOS) an empty cell the Section where you want to create a new Pattern, and click **Create** in the menu.

→ A new empty Pattern is created within the selected Section.

### Selecting a Pattern in Song ciew

In Song view you can use the right-click context menu to select an alternative Pattern for a Section.

To select another Pattern in Song view:

▶ Right-click ([Ctrl]-click on macOS) the Pattern you want to replace, click **Select** in the menu, and click the desired Pattern from the list that appears.

→ The new Pattern is selected for this Section and the referenced Scene, and it will appear in each Section where the Scene is used.

### Clearing a Pattern in Song view

In Song view use the right-click context menu to clear the contents of a Pattern. Clearing the contents will remove all events and audio loops from the Pattern.

To clear the contents of a Pattern in Song view:

▶ Right-click ([Ctrl]-click on macOS) the Pattern you want to clear, and click **Clear** in the menu.

→ All contents of the selected Pattern are cleared.

### Renaming a Pattern in Song view

In Song view use the right-click context menu to rename a Pattern within a Section.

To rename a Pattern in Song view:

▶ Right-click ([Ctrl]-click on macOS) the name of the Pattern you want to rename, and click **Rename** in the menu.

→ The Pattern is renamed. Its new name appears in every Scene and Section referencing the Pattern.

### Coloring a Pattern in Song view

In Song view use the right-click context menu to change the color of a Pattern within a Section.

To recolor a Pattern in Song view:

1. Right-click ([Ctrl]-click on macOS) the Pattern you want to recolor, and select **Color** in the menu.
2. Select a new color.

→ The selected Pattern is recolored.

### Removing a Pattern in Song view

In Song view use the right-click context menu to remove a Pattern from a Section.

To remove a Pattern from a Section in Song view:

▶ Right-click ([Ctrl]-click on macOS) the name of the Pattern you want to remove, and click **Remove** in the menu.

→ The Pattern is removed from the Section and from the referenced Scene, but not deleted. You can add the Pattern back to the Scene by using **Select** in the right-click menu.

For more information on **Select** see Selecting a Pattern in Song ciew.

### Duplicating a Pattern in Song view

In Song view use the right-click context menu to duplicate a Pattern within the selected Scene.

To duplicate a Pattern in Song view:

▶ Right-click ([Ctrl]-click on macOS) the Pattern you want to duplicate, and click **Duplicate** in the menu.

→ The selected Pattern is duplicated. The duplicate Pattern will take the place of the existing Pattern in the Scene and appear in each Section where the Scene is used in the arrangement.

## Activating Auto Length

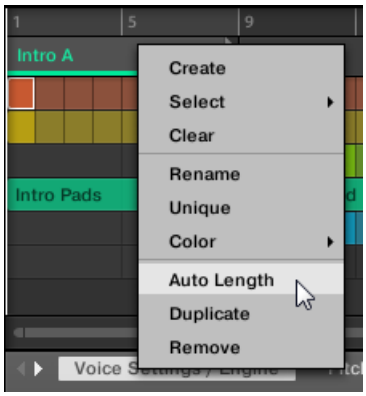
By default a Section is set to Auto Length, allowing it to resize automatically to the content within the Section. If you manually adjust the length of a Section by truncating or lengthening the Section end marker, Auto Length is deactivated and the Section automatically set to Manual Length.

You can quickly reset a Section back to Auto Length in order to return the Section to its default behavior and reveal any truncated (hidden) content. Your previous manual length adjustments are discarded and the Section is resized according to the Patterns in the assigned Scene, and will continue to resize with the content until you manually adjust its length again.

### Activating Auto Length in the software

To enable Auto Length for a Section in the software:

1. Right-click ([Ctrl]+click on macOS) on the Section.
2. Click **Auto Length** in the menu.




→ Auto Length is activated and the selected Section is automatically resized to fit the content of the Patterns within the assigned Scene. Any manual adjustments that were previously made are discarded.

### Activating Auto Length on the controller

To activate Auto Length for a Section using your controller:

1. Press **SHIFT** + **SCENE** (**Section**) to enter Song view.
2. Press the corresponding pad to select a Section.
3. Press the Arrow buttons to select **Length**.
4. Turn the Encoder to select **Auto**.

→ Auto Length is activated and the selected Section is automatically resized to fit the content of the Patterns within the assigned Scene. Any manual adjustments that were previously made are discarded.

## Looping

Activate a Loop to repeatedly play a portion of your track. Once a loop is activated the Sections within the Loop Range play until the loop is deactivated. This can be good for composing, practicing a part before recording, recording multiple takes, etc. The Loop Range is always visible (even when inactive) and you can adjust it at any time by moving its left and right end points.

### Setting the Loop Range in the software

Set the start, end and position of the loop using the dedicated Loop Range in the timeline. The value set in the Arrange Grid is used for Loop Range increments and movement of the Loop Range itself.

To adjust the Loop Range in the software:

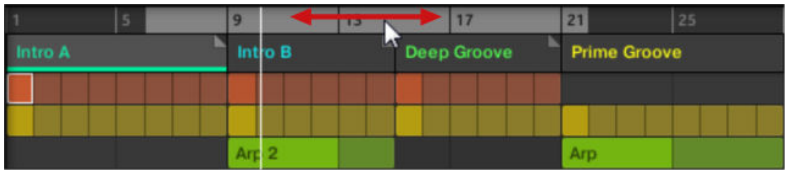
▶ Drag the left or right end of the Loop marker to make it longer.




→ The Loop range is elongated.

To move the Loop using the software:

▶ Click and drag the Loop range left or right.




→ The whole Loop range is moved.

### Activating or deactivating a loop in the software

To activate a Loop using the software:

▶ Click the Loop button in the header to activate or deactivate the loop.




→ When the Loop is activated the Sections within the Loop range are repeated.

### Activating or deactivating a Loop on the controller

To activate or deactivate a Loop using the controller:

▶ Press **SHIFT** + **RESTART** (**Loop**) to activate or deactivate the loop.

→ When the loop is active the Sections within the Loop Range are repeated.

## Playing with Sections

Maschine provides you with various tools to precisely control which Section has to be played, and when.

### Studio track or live performance?

If you are composing a studio track that you plan to export as is, you can arrange your Sections so that your whole track can be played in one go from the very first Section to the very last one.

For more information on exporting audio, refer to Exporting audio .

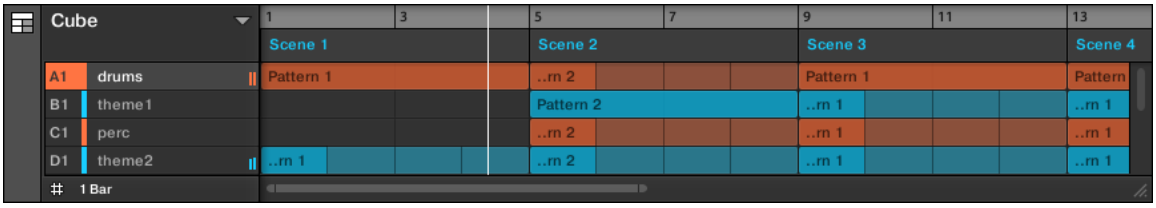
Alternatively, if you are preparing a track for performing live, you might prefer to switch back and forth between different Scenes in Ideas view during your performance.

This may also be necessary if you are composing a studio track in your DAW and want to control which Scenes or Sections the Maschine plug-in has to play. This is where the Maschine tools described in the following sections come in handy.

### Jumping to another playback position in your Project

You can use the timeline above the Sections headers in the Song view to set the playback to the desired position.

In the timeline and across the entire height of the Song view, the playhead (a white vertical line) indicates the current play position in your Project.




*The playhead shows you the current play position.*

At any time you can jump to another position in your Project:

▶ Click anywhere in the timeline to move the playhead to that position in the Project.

Depending on the playback state, the following will happen:

- If playback is off, the playhead jumps to the closest Perform Grid division. If the Perform Grid is set to **Off** (for instance deactivated), the playhead jumps to the exact position you have clicked. If the Perform Grid is set to **Quick**, the playhead jumps to the beginning of the bar you have clicked in.
- If playback is on, the playhead jumps to the closest position near your mouse cursor and retains the playhead position relative to the Perform Grid division. This allows seamless jumps that don't break the rhythm of your music. If the Perform Grid is set to **Off** (i.e. deactivated) or **Quick**, the playhead position is retained relative to the current bar.



You can also change the playback position by switching to another Scene. The moment at which the jump will occur depends on the Perform Grid setting. For more information, refer to Adjusting the Arrange Grid and the Pattern Length.

## Triggering Sections or Scenes via MIDI

You can trigger and change Sections and Scenes using MIDI Note or MIDI Program Change messages sent from your DAW to the Maschine plug-in or from a MIDI controller.

When this feature is activated, MIDI notes or Program Change messages are linked to the first 128 Section slots or Scenes (depending on your settings), whether they are empty or not:

| Section/Scene slot | MIDI Note number | Program Change number |
|---|---|---|
| 1 | 0 | 1 |
| 2 | 1 | 2 |
| 3 | 2 | 3 |

| Section/Scene slot | MIDI Note number | Program Change number |
|---|---|---|
| … | … | … |
| 128 | 127 | 128 |

**MIDI Note numbers**: Host applications use various conventions to name MIDI notes. For example, in Maschine, MIDI note number 0 is referred to as C-2 and MIDI note number 60 (middle C) as C3. Please refer to the documentation of your host to know which convention is used.

**Program Change numbers**: Some host applications send Program Change numbers in the range [0–127] instead of [1–128]. In that case, the PC number 0 will trigger Section/Scene slot 1, PC 1 will trigger Section/Scene slot 2, etc. Please refer to the documentation of your host to know in which range it sends Program Change numbers.

To enable or disable Section/Scene MIDI Change feature, do the following:

▶ Click **Edit** > **MIDI Change** from the menu.

→ The MIDI Change dialog appears.




In the MIDI Change dialog:

1. In **Scene** option click the **Enabled** checkbox to enable Scenes in the Ideas view to be triggered. In **Section** option, click the **Enabled** checkbox to enable Sections in the Song view to be triggered.
2. In the **Source** submenu, select the name of your controller.
3. In the **Trigger** submenu for Scene and Section, select **MIDI Note** to trigger via MIDI notes, **Program Change** to trigger via MIDI Program Change messages, or **None** (default setting) to disable MIDI Change completely.
4. In the **Channel** submenu, select the MIDI channel the Scenes or Sections should receive MIDI messages from.

# The Arrange Grid

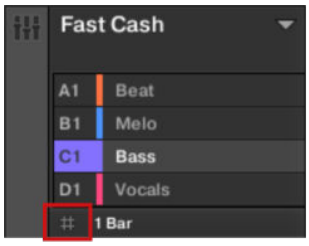
The Arrange Grid is used to quantize most modifications related to the timeline. The Arrange Grid division is used for the following features:

- Loop start / length
- Loop position
- Pattern length
- Scene length
- Song Clip start / length
- Playhead relocation

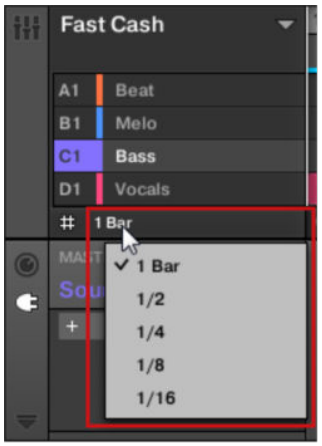
## Adjusting the Arrange Grid in the software

The Arrange Grid setting is located at the bottom left corner of the Arranger area and can be activated/deactivated by toggling the Grid symbol.

1. Click the Grid symbol next to the value to enable the Arrange Grid.




2. Click the current Arrange Grid value to open the drop-down menu.




3. Select a new value for the Arrange Grid.

→ The selected Arrange Grid value is applied.

## Adjusting the Arrange Grid on the controller

On your controller:

1. Press the **SHIFT** + **FOLLOW** (**Grid**) button to access the Grid page.
2. Press the Right Arrow button to access **Arrange**.

3. Turn the Encoder to select an Arrange Grid value.

→ The selected Arrange Grid value is applied.

# 15. Sampling and sample mapping

Maschine allows you to record internal or external audio signals without having to stop the sequencer. This is a helpful feature if you want to record your Samples or rearrange loops that you have created yourself using Maschine.

You can apply various types of destructive processing to the recorded audio or to any Sample you want to use in a Sound.

The slicing feature allows you to slice loops to make them playable at any tempo without changing their pitch or timing. It is also useful if you want to quickly extract single Samples from loops (for example., a snare sound from a drum loop) or rearrange loops by editing or muting their Slices, changing the order of the Slices, applying a different quantization, or adding Swing.

Last but not least, you can map your Samples to particular Zones, thereby creating multi-sample Sounds with individual velocity and note ranges, volume, and panning. This is useful to emulate the behavior of classic instruments and synthesizers and allows for a large number of Samples in only one Sound.

All this can be done in the Sample Editor of the software and in the Sampling mode of your controller.



Before recording an external source please consult the documentation that came with your audio interface for information on connecting audio devices and instruments.

## Opening the Sample Editor

To access the Sample Editor in the software, do the following:

1. In the Sound List left of the Pattern Editor, click the desired Sound to put it under focus. For more information, refer to Focusing on a Group or a Sound.
2. Click the Sample Editor button on the left of the Pattern Editor to switch to the Sample Editor.




The Sample Editor appears and displays the Sample content of the focused Sound.

3. In the Sample Editor, click the desired tab at the top to access the corresponding page:

- The **Record** page allows you to record audio: Recording audio.
- The **Edit** page allows you to apply destructive edits to existing Samples: Editing a Sample.
- The **Slice** page allows you to create Slices from your existing Samples: Slicing a Sample.
- The **Zone** page allows you to assign your Samples to particular note and velocity ranges (called Zones) in your Sound and to adjust various playback settings for each Zone individually: Mapping Samples to Zones.

### Entering Sampling mode on the controller

The equivalent to the Sample Editor on your controller is the **Sampling mode**. To enter Sampling mode, do the following:

1. With your controller in Group mode, press the pad of the Sound in which you want to record the Sample. For more details on how to set the focus to a Sound, please see section Focusing on a Group or a Sound.
2. Press **SAMPLING** to enter Sampling mode and access the Sample content of the focused Sound.

> The Sample Editor in the software is always in sync with the Sampling mode on your controller: Entering/leaving Sampling mode on your controller will automatically show/hide the Sample Editor in the software, and inversely.

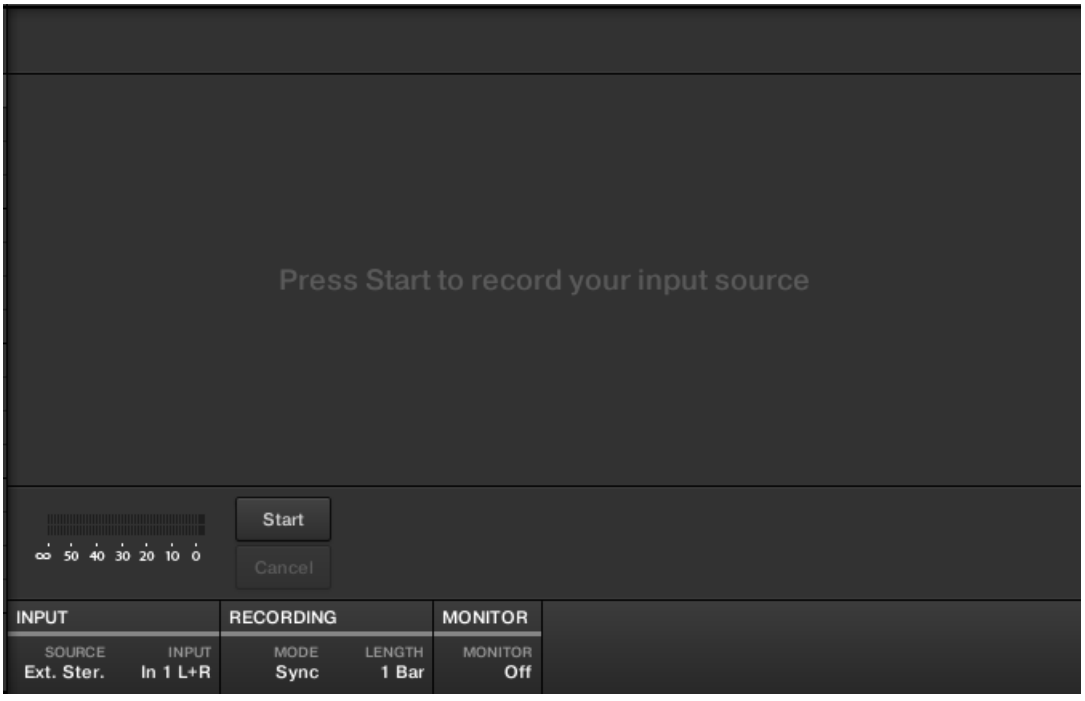
# Recording audio

Maschine provides everything you need to record audio.

## Opening the Record page

In the software, recording audio is done in the Sample Editor. By default, the Sample Editor is on the blank **Record** page and no other tabs are visible. However, the **Record** tab, plus additional tabs, will become visible once audio has been recorded.

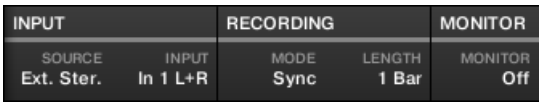
The **Record** page looks as follows:




*The Record page in the software.*

## Selecting the source and the recording mode

At the bottom of the **Record** page, the **INPUT** section and the **RECORDING** section allow you to select which source should be recorded and how the recording should be made.




*Adjusting the source and mode of the recording in the software.*

## Choosing a recording mode

▶ Click the **MODE** selector in the **RECORDING** section to select from the four available recording modes:

- **Detect**: Select **Detect** mode to record audio after the set threshold has been exceeded. This is useful when you want to record audio without the silence before the incoming sound is played. If the focused Sound Slot contains neither an Audio nor Sampler plug-in, the recorded audio will automatically be loaded into a Sampler plug-in for the first Take. After that, you must trigger the Sampler with MIDI Events, such as those in a Pattern, to playback the audio.
  - If **Detect** is selected, you can set a specific threshold using the level **THRESHOLD** control on the right. After clicking **Start**, any input signal level exceeding this threshold will start the recording. You can then manually stop the recording by clicking **Stop**. You can also adjust the threshold by dragging the slider that appears on the horizontal input level meters above the **RECORDING** section: Any input level reaching the slider position will start the recording. Double-click the slider to reset the threshold to its default value (-12 dB).
- **Sync**: Select **Sync** to start recording audio in time with the Pattern Grid. If the focused Sound Slot contains neither an Audio nor a Sampler plug-in, the recorded Sample will be loaded automatically into a Sampler plug-in as the first Take. After that, you must trigger the Sampler with MIDI Events to playback the audio.
  - When **Sync** is selected, the recording starts in sync with the sequencer after clicking **Start**. The recording will begin at the start of the next bar. The **LENGTH** control on the right allows you to choose a length for the recording: either 1, 2, 4, 8, or 16 bars, or choose **Free** if you do not want to set a duration limit to the recording. You can click **Stop** to end recording at any time, and the recording will stop at the next bar.

- **Loop**: Select **Loop** to record audio that you intend to play back in sync with your Project using the Audio plug-in. It records audio in the same way as **Sync**. However, when **Loop** mode is selected, an additional parameter appears called **Target**. In Loop mode, the recording is loaded into an Audio plug-in so that you can immediately hear the results. The **Target** parameter dictates how Maschine loads new recordings into the Audio plug-in:
  - **Take**: Select this to record each new Take into the focused Sound slot. After a Take is recorded, it will become visible in the Audio Pool and is automatically selected for playback. You can review all the Takes you've captured in the Audio Pool, and you can also select any of these Takes to make it the one that actively plays back in the Audio plug-in.
  - **Sound**: Select this Target to enable a layered workflow similar to that achieved with guitar loop pedals. When using this mode, each recording that you make will be loaded into an empty Sound Slot in the current Group and Pattern and will begin playing back. Therefore, each recording that you make will playback layered on top of all the previous recordings made in that particular Group and Pattern. By layering each new Take onto a new Sound, you can quickly build a whole pattern. You can continue this process until all empty Sound slots in the Group are used up. After that, each additional recording will be recorded as a new Take into the last Sound of the Group that contains an Audio plug-in (and the previous Takes will still be preserved if you want to switch back to them).
  - **Pattern**: Select this Target to record similar to the **Sound** Target described above, except that each new recording will also be assigned to a new Pattern. This mode can be helpful when you want to record different variations of a part and then review the variations quickly by playing each Pattern. For example, the first recording will be placed into an Audio plug-in in the first available Sound Slot in the Group, and then a new Pattern will be created where only this new recording is playing back. Making another recording will result in the recording being loaded into another unused Sound Slot, and another new Pattern will be made where only this most recent recording is playing. If you switch back to the previous Pattern, you'll hear only the previous recording (the newest will automatically be deactivated in the previous Pattern).
- **Auto**: Select this recording mode if you want to automatically sample an external or internal synthesizer. After selecting this mode, further options are available for setting the notes' stride (interval), key range, and velocity. You can also let Maschine Mikro MK3 batch process the samples to automatically find the best loop points, trim silence from the start and endpoints, and normalize the sound level. Refer to Auto Sampler.

## Selecting the input source to record

▶ Click the **SOURCE** selector in the **INPUT** section to select the type of source you want to record:

- To record external audio signals connected to your audio interface, select **Ext. Ster.** (for stereo signals) or **Ext. Mono** (for mono signals).
- To record audio signals coming from Maschine itself, select **Internal**.

▶ Click the **INPUT** selector to choose between the available source inputs:

- **Ext. Ster.**: Selects either of Maschine's four external stereo inputs **In 1**–**4**.
- **Ext. Mono**: Selects either of Maschine's eight external mono inputs: the left ("**L**") or right ("**R**") channel of each input pair **In 1**–**4**.
- **Internal**: Selects the output of any available Group or the Master.



You can easily record the output of a particular Sound by setting **SOURCE** to **Internal**, soloing this Sound, and selecting its parent Group in the **INPUT** selector.

You can also set **SOURCE** to **Internal**, choose as **INPUT** a Group with a drum kit loaded, and record your live improvisations on the pads while playing this drum kit. You will then have your improvisations recorded as Samples, ready to be used, edited, sliced, etc., as any other Samples in Maschine.

### Monitoring the input signal




*Visually controlling the input signal.*

The level meters above the **RECORDING** section show you at any time the level of the selected audio source. For example, this can come in handy to adjust the appropriate threshold in Detect mode. For this purpose, in Detect mode, the level meters also provide a fader adjusting the threshold level for this purpose. This fader is a strict equivalent to the **THRESHOLD** control described above. This way, you can easily visualize when the input signal exceeds the current threshold (and hence, when it would start the recording) and adjust that threshold accordingly.

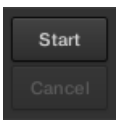



*Monitoring the input signal.*

Furthermore, if you have selected an external signal (**Ext. Ster.** or **Ext. Mono** selected in **SOURCE**), an additional **MONITOR** section appears on the right. In this section, activate the **MONITOR** button to send the input signal to the Cue bus of Maschine, allowing you to hear on a separate channel (for example, your headphones) the audio source that is about to be recorded.

For more information on using the Cue bus, please refer to section Using the Cue bus.

## Arming, starting, and stopping the recording




*The Start and Cancel buttons.*

▶ Click **Start** to arm the recording.

After the recording has been armed, its behavior will depend on the recording mode you have selected (via the **MODE** selector, refer to section Selecting the source and the recording mode above):

- When recording in **Detect** mode:
  - The recording will start as soon as the input signal exceeds the **THRESHOLD** value. Until then the **Start** button turns to a **Waiting** button and the **Waiting for input…** message appears in the information bar above the waveform display. During this waiting phase you can also start the recording manually by clicking the **Waiting** button or cancel the recording by clicking **Cancel**.
  - Once the recording has started, click **Stop** to stop the recording (it stops immediately) or **Cancel** to cancel the recording (the recorded audio will not be saved).
- When recording in **Sync** mode:
  - The recording will start at the next bar. Until then the **Start** button reads a flashing **Waiting** label and the **Waiting for the next bar…** message appears in the information bar above the waveform display.
  - Once the recording has started, the audio is recorded for the duration set by the **LENGTH** control (refer to Selecting the source and the recording mode above). You can also click **Stop** beforehand to stop the recording at the next bar, or **Cancel** to cancel the recording (in that case the recorded audio will not be saved).
- When recording in **Loop** mode:
  - The recording will start at the beginning of the Pattern. Until then the **Start** button reads a flashing **Waiting** label and the **Waiting for end of Pattern…** message appears in the information bar above the waveform display.
  - Once the recording has started, the audio is recorded for the duration set by the **LENGTH** control (refer to Selecting the source and the recording mode above). You can also click **Stop** beforehand to stop the recording at the next bar, or **Cancel** to cancel the recording (in that case the recorded audio will not be saved).



If you want to start and stop the recording manually, you can set the **MODE** to **Detect**, dial the **THRESHOLD** down to **OFF,** and start the recording by clicking **Start**. To stop recording, click **Stop**.

In any case the recorded audio will be stored in the Sound that was under focus as you started the recording.

## When Recording is Complete

When the recording is done, the following things happen:

- Each Take is named and stored as a file on your hard disk (refer to Location and name of your recorded Samples).
- Its waveform appears in the waveform display and its name appears in the information bar above.
- The recording is automatically appended to the Audio Pool of the Sound and selected (refer to Checking your recordings below).
- A Sampler Plug-in is automatically loaded in the first Plug-in slot of the Sound, ready to play your new recording. All Plug-ins previously loaded in that Sound are removed. However, when recording in Loop mode, an Audio plug-in will be loaded. If there was already a Sample Plug-in in the Slot when engaging Loop recording, it will not change the Sampler to an Audio plug-in, it will remain as a Sampler and you will need to manually change the plug-in to Audio if you wish. In this case all recorded takes will be preserved.

- The Sound slot takes the name of your recording.
- If the Sampler Plug-in was used in **Detect** mode or **Sync** mode, the recording is mapped to a new Zone covering the entire key and velocity ranges in the **Zone** page, which makes your new sample directly playable from the pad of its Sound slot (or from all your pads if pads are in Keyboard mode). Any existing Zones will be replaced. The sample must then be triggered using MIDI Events in the Pattern Editor. For more information on Zones, refer to section Mapping Samples to Zones.
- If the Audio Plug-in was used in **Loop** mode, the last recorded Take will automatically play back with the Pattern.

> ⓘ Note that any MIDI Events for that Sound in the current Pattern will remain. As a consequence, your recording might directly start to play at the pitch defined by the existing MIDI Events.

## Arming, starting, and stopping the recording on the controller

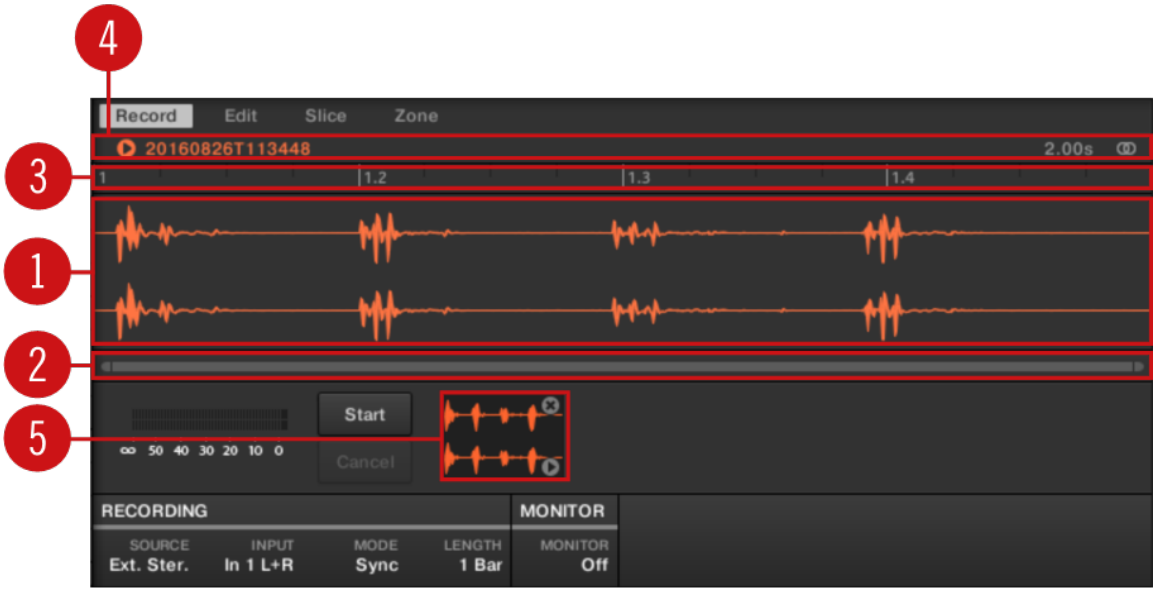
1. Press **SAMPLING**.
2. Press the Encoder (**Start**) to arm the recording.

→ After the recording has been armed, its behavior will depend on the recording mode you have selected via the software, refer to section Selecting the source and the recording mode.

▶ To stop recording, press the Encoder (**Cancel**).

## Checking your recordings

You can visualize the last recordings you have made in the current Sound:




*The waveform display and the information bar displaying a recording.*

### (**1**) **Waveform display**

Shows the waveform of the recording currently selected in the Audio Pool (**5**) — by default your last recording:

- Use the scroll wheel of your mouse to zoom in/out. You can also use the zooming scroll bar (**2**).
- When the Sample is played back (e.g., by pressing the pad or by clicking the little play icon in the information bar (**4**)), a **playhead indicator** (white vertical line) shows you the current play position within the waveform.
- Right-click (macOS: [Ctrl]-click) anywhere in the waveform to open a **context menu** with the following commands:

| Command | Description |
|---|---|
| **Open containing folder** | Opens the folder on your hard disk containing the Sample, providing quick access to the original file. |
| **Save Sample As…** | Opens a Save Sample As dialog allowing to save the recorded Sample under another name and/or to another location on your computer. |

### (**2**) **Zooming scroll bar**

Click the main part of the scroll bar and drag your mouse horizontally to scroll through the waveform on the horizontal axis (time), or drag it vertically to zoom in/out on the same time axis. You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out while keeping the opposite border of the display at a fix position in the waveform. Double-click the main part of the bar to reset the zoom and display the entire waveform. Alternatively you can use the scroll wheel of your mouse when hovering the waveform display (**1**) to zoom in/out.

### (**3**) **Timeline**

Shows the time scale in bars (Sync mode) or seconds (Detect mode).

### (**4**) **Information bar**

Displays the file name and the length of the recorded Sample. Click and hold the little play icon on the left to listen to the Sample on the Cue bus (refer to Using the Cue bus for more information). Click the little circle (or pair of circle) at the far right to switch the waveform display (**1**) between single-channel and two-channel display.

### (**5**) **Audio Pool**

All the takes you have made since you opened the current Project are stored in the Audio Pool and displayed as mini waveforms under the waveform display. The following actions are available:

- Click any take to display the recording, you can then further edit this recording via the other pages of the Sample Editor. When selected, a recording is also automatically mapped to a new Zone covering the entire key and velocity ranges in the **Zone** page. Any existing Zones will be replaced.

  > ⓘ In the Audio Plug-in, changing the selected take only affects the current Pattern. The other Patterns remain unchanged.

- Click and hold the little play icon in the bottom right corner to listen to the Sample on the Cue bus without loading it in the waveform nor in the **Zone** page.
- Click the little cross at the top right corner of a mini waveform to delete this particular recording.
- Drag any mini waveform to another Sound slot to load it in that Sound.

Right-click (macOS: [Ctrl]-click) any mini waveform in the Audio Pool to open a **context menu** with the following commands:

| Command | Description |
|---|---|
| **Delete** | Deletes the displayed take from the Audio Pool. This has the same effect as clicking the little cross at the top right corner of the selected mini waveform in the Audio Pool. |
| **Remove unused recordings** | Deletes from the Audio Pool all takes that are not currently mapped to any Zone in the **Zone** page. |
| **Map recordings to zones** | Automatically maps all recordings of the Audio Pool to Zones in the **Zone** page. The created Zones are put on adjacent keys and cover the entire velocity range. Any existing Zones will be replaced. |

All recordings (takes) in the Audio Pool are saved with the Project. When you close the current Project, all of your takes are saved as audio files and available for later use in the Audio Pool, unless you explicitly delete them (via the Maschine software or in your operating system).

### Location and name of your recorded Samples

By default, recorded Samples (takes) are saved in the Recordings subfolder of your Standard User Directory, as defined on the **User** pane of the **Library** page in the **Preferences** panel (see Preferences – Library page). If you activate the **Prefer Project Folder** option on the **General** page of the **Preferences** panel (see Preferences – General page), recorded Samples will be saved instead in a Recordings subfolder of the folder where your current Project is saved.

Recorded Samples are automatically named using the following scheme:

**[YYMMDD]T[HHMMSS].wav**

In the name above, [YYMMDD] stands for the current date (year, month, day, all 2-digit numbers) and [HHMMSS] for the current time (hours, minutes, seconds, all 2-digit numbers).

## Auto Sampler

Auto Sampler makes it easy to create sampler instruments that you can use in Maschine Mikro MK3. You can create a sampler instrument from a MIDI-capable hardware synthesizer, a software instrument, or a combination of synthesizers, hardware effects, and effect plug-ins.

Sampling instruments is a great way to capture other instruments and save on CPU resources, especially when sampling instruments that have effects. Used creatively, you could also turn any monophonic synthesizer into a polyphonic powerhouse.

Instruments created with Auto Sampler can be saved as a Sound and all its samples. This is a great way to share your sampled instruments with other Maschine users or between Maschine+ and your desktop.

Using effects when creating a sampler instrument is a creative process but is different from using effects in real-time in two ways: first, effects are applied to each sampled note, not on multiple notes or chords; and second, effects parameters cannot be edited or automated to produce changes in the sound over time.

Before using the Auto Sampler, you must first set up the devices you want to record and access the Recording mode of the Sampler. Refer to Creating a sampled instrument using Auto Sampler for more information.

## Creating a sampled instrument using Auto Sampler

To create a sampled instrument using Auto Sampler:

1. Click the Sample icon to access the Sampler Editor. Refer to Opening the Sample Editor.
2. Select **Auto** from the Recording mode field at the bottom of the interface. Refer to Selecting the source and the recording mode.

### Recording an external instrument

- If you are sampling an external device such as a synthesizer, connect the instrument to your Maschine (audio and MIDI), then select Input Source to **External**. Refer to Input.
- Ensure that Maschine can receive audio input from the external device on the correct audio input. Refer to Monitor.

### Recording an internal instrument

- If you want to sample a Plug-in, select Input Source to **Internal** and the Input to Group and Sound of the plug-in you want the Auto Sampler to capture. Refer to Input.

Once you have set up the Auto Sampler, you can make settings regarding the notes, velocities, and batch processing you want Auto Sampler to perform. Refer to

## Recording

The recording section enables you to set the recording mode, the sample length, and the note length of the sample you want to record.

| Setting | Description |
|---|---|
| **MODE** | Sets the recording mode of the Sampler. Select **Auto** to use Auto-Sampler. |
| **SAMPLE** | Sets the length of time Auto-Sampler records samples. For example, choose short times for percussive sounds or bass stabs, and longer times for strings and pads. If you want to loop your sound, it is helpful to record for longer to give Maschine enough material to find the best loop points. For the best results, use this parameter in conjunction with the **NOTE ON** parameter. |
| **NOTE ON** | Sets the length of time Auto-Sampler triggers the instrument it is recording. For the best results, use this parameter in conjunction with the **SAMPLE** parameter. |

## Input

The Input section lets you set the source you want to record and select the MIDI device and channel when triggering external MIDI instruments.

| Setting | Description |
|---|---|
| **SOURCE** | **Ext. Ster.**: Selects external stereo inputs as the recording source type.<br><br>**Ext. Mono**: Selects external mono inputs as the recording source type.<br><br>**Internal**: Selects the internal output Maschine as the recording source type. |
| **INPUT** | **Ext. Mono**: Selects either of Maschine's eight external mono inputs: the left ("L") or right ("R") channel of each input pair In 1–4.<br><br>**Ext. Ster.**: Selects either of Maschine's four external stereo inputs In 1–4.<br><br>**Internal**: Selects the output of any available Group or the Master channel. |
| **MIDI TO** | Sets the MIDI port you want to use when connecting to external MIDI equipment. All available devices are shown here. |
| **CHANNEL** | Sets the MIDI channel to match the MIDI channel of the external equipment you want to sample. Maschine will use this to trigger the sound when making recordings. |

## Note Map

The Note Map section enables you to set the number of notes and the range of the keyboard covered by each sample.

| Setting | Description |
|---|---|
| **STRIDE** | Sets the number of notes that each sample will cover. A Stride value of 1 records every note within the Key Lo and Key Hi range. For example, a Stride of 5 to accurately capture every note in the Key Lo and Key Hi range. Alternatively, you could set a higher Stride value, resulting in fewer samples. A value of 12, for example, would cover 12 notes, meaning one sample would be stretched across a range of notes. This could result in possible pitch artifacts, but the value you select depends on the sound you want to achieve. |
| **KEY LO** | Sets the lowest note of the sample note range. |
| **KEY HI** | Sets the highest note of the sample note range. |
| **EXTEND** | Extends the highest and lowest samples to include the whole range of the keyboard. |

## Velocity Map

The Velocity Map section lets you set the velocity covered by each sample within the velocity range.

| Setting | Description |
|---|---|
| **STRIDE** | Sets the velocity range each sample will cover as the Auto-Sampler triggers sounds. If, for example, you wanted to capture every nuance of sound, you could use a Stride value of 1 to record every velocity set within the Vel Lo and Vel Hi range. Alternatively, you could set a higher Stride value, resulting in fewer samples for a broader sample of the sound. |

| Setting | Description |
|---|---|
| **VEL LO** | Sets the lowest velocity value you want to sample. |
| **VEL HI** | Sets the highest velocity you want to sample. |
| **EXTEND** | Extends the upper and lower velocity values to include the full velocity range of the instrument. |

### Batch Process

The Batch Process section provides a set of time-saving tools that help you by automating the process of looping, trimming, and normalizing your samples.

| Setting | Description |
|---|---|
| **FIND LOOP** | Automatically finds the best loop point in your samples. This feature is useful if you want to create sustained sounds such as pads or strings. |
| **TRIM SILENCE** | Automatically removes unwanted silence from the beginning and end of each sample. |
| **NORMALIZE** | Adjusts the level of each sample to the maximum possible value without clipping. Normalizing audio is useful for making samples more consistent in volume. |

### Monitor

The Monitor section enables you to hear the output of the Auto-Sampler.

| Setting | Description |
|---|---|
| **MONITOR** | Activates the monitor, which enables you to hear the Auto-Sampler as it works through the process of capturing samples. |

## Editing a Sample

The **Edit** page of the Sample Editor in the software and its equivalent the **EDIT** page of the Sampling mode on your controller allow you to adjust the start and end points of a Sample or Slice and to apply various destructive audio processing functions to any part of the Sample.

### Which Sample is shown in the Edit page?

The **Edit** page (**EDIT** page on your controller) always displays the Sample of the Zone currently selected (refer to Selecting and managing Zones in the Zone List for more information on selecting Zones), and all your actions in that page will affect this particular Sample. For example:

- If you have just recorded a Sample, it will directly appear here. If you have recorded more than one Sample, the Sampled selected in the Audio Pool (by default the last recorded Sample) will appear here. Refer to Checking your recordings for more information on the Audio Pool.
- If the Sample in that Sound is already split into Slices, each Slice has its own Zone and the Slice of the focused Zone will appear here. Refer to Slicing a Sample for more information on slicing Samples.

## Using the Edit page

▶ In the Sample Editor, click the **Edit** tab at the top to open the **Edit** page.

The **Edit** page looks as follows:




*The Edit page in the software.*

### (1) Waveform display

Shows the waveform of the Sample for the focused Zone. The waveform display provides following tools:

- Drag any Sample onto the waveform to replace the current Sample for the focused Zone. If there is no Sample loaded yet, this automatically loads a Sampler Plug-in in the Sound and creates a Zone over the entire key and velocity ranges for the dragged Sample.
- Use the scroll wheel of your mouse to zoom in/out. You can also use the zooming scroll bar (**4**).
- **Play range**: The **S** and **E** markers indicate the start and end points of the play range, respectively. Drag them with the mouse to modify the portion of the Sample that will be played back. This can also be done using the controls in the **PLAY RANGE** section (**5**).
- **Loop range**: If a loop has been defined in the Sample, it is also indicated on the waveform. You can then adjust the loop by dragging its borders, and move the entire loop by dragging its title bar. Loops can be created and adjusted in the **Zone** page — see section Selecting and editing Zones in the Map view. Note that the loop will always stay within the play range. Therefore, when moving the Sample's start and end points closer to each other, keep in mind that it might also shrink the loop!
- **Playhead indicator**: When the Sample is played back (e.g., by pressing the pad or by clicking the little play icon in the information bar (**2**)), a playhead indicator (white vertical line) shows you the current play position within the waveform.

- **Selection range**: Click and drag your mouse to create a selection range. The selection range defines the portion to which the audio processing functions of the Audio Toolbar (**7**) will be applied. Adjust the current selection range by dragging its borders or move it by dragging its top part. Double-click anywhere in the waveform to set the selection range to the play range (i.e. to select everything between the **S** and **E** markers). You can also select particular ranges via the context menu (see below) and via the controls in the **SELECTION RANGE** section (**6**).
- **Context menu**: Right-click (macOS: [Ctrl]-click) anywhere in the waveform to open a context menu with the following commands:

| Command | Description |
|---|---|
| **Deselect** | Cancels the current selection range. |
| **Select All** | Selects the entire Sample. |
| **Select Play Range** | Selects the play range, i.e. the region between the **S** and **E** markers. This is equivalent to double-clicking anywhere in the waveform. |
| **Select Loop** | Selects the loop range. |
| **Find in Explorer** | Opens the folder on your hard disk containing the Sample, providing quick access to the original file. |
| **Save Sample As…** | Opens a Save Sample As dialog allowing to save the Sample under another name and/or to another location on your computer. |

(**2**) **Information bar**

Displays the file name and the length of the recorded Sample. Click and hold the little play icon on the left to play back the whole Sample on the Cue bus (refer to Using the Cue bus for more information). Click the little circle (or pair of circle) at the far right to switch the waveform display (**1**) between single-channel and two-channel display.

(**3**) **Timeline**

Shows the time scale in seconds.

(**4**) **Zooming scroll bar**

Click the main part of the scroll bar and drag your mouse horizontally to scroll through the waveform on the horizontal axis (time), or drag it vertically to zoom in/out on the same time axis. You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out while keeping the opposite border of the display at a fix position in the waveform. Double-click the main part of the bar to reset the zoom and display the entire waveform. Alternatively you can use the scroll wheel of your mouse when hovering the waveform display (**1**) to zoom in/out.

(**5**) **PLAY RANGE section**

Adjusts the range that will be played when you trigger a note. Adjust the play start and end points in the Sample via the **Start** and **End** parameters. You can also do it by dragging the white markers labeled **S** and **E** on the waveform display (**1**) using the mouse as described above.

(**6**) **SELECTION RANGE section**

Adjusts the range to which audio processing functions will be applied. You can also select the range by dragging your mouse on the waveform display (**1**) as described above.

(**7**) **Audio Toolbar**

Provides a set of destructive audio processing functions to modify your Sample. The functions will be applied to the current selection range. The available functions are described in section Audio editing functions below.

You can also edit the play and loop ranges on the **Zone** page. See section Adjusting the Zone settings for more information.

### Using the EDIT page on the controller

In Sampling mode, the right Page button provides access to the Edit page so you can trim the start and end points of a loop or one-shot sample using your controller. These parameters adjust the range that is played when you trigger a note.

Access the **Play Range** parameters using the Page buttons.

| Parameter | Description |
|---|---|
| **START** | Adjusts the start point of the play range in the Sample. |
| **END** | Adjusts the end point of the play range in the Sample. |

Press **SHIFT** + turn the Encoder to adjust the start and end points of the sample in fine increments. If necessary, you can refer to the software to see a visual overview of the sample waveform to help when editing.

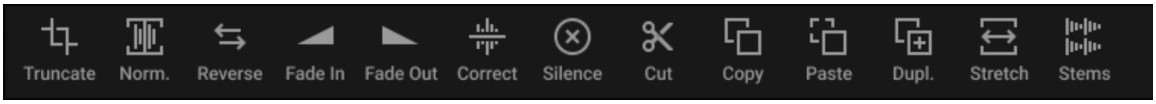
## Audio editing functions

In the **Edit** page, the Audio Toolbar provides various audio functions. These will be performed on the selected region of the Sample, as defined by the **Start** and **End** parameters of the **SELECTION RANGE** section (refer to Using the Edit page above).

▶ To apply any audio function to the selected region in your Sample, click the desired icon in the Audio Toolbar.

Most of these audio processing functions are destructive: They modify the audio material in the Sample. However, your original Sample will not be modified: For each audio function that you perform, a new, distinct copy of the Sample will be saved. Besides, you can always cancel your last action(s) by pressing [command] + [Z] (Mac) or [Ctrl] + [Z] (Windows) on your computer keyboard.

The playback settings of the Sample (e.g., tune, amplitude envelope, etc.) can be adjusted on the **Zone** page. See section Selecting and editing Zones in the Map view for more information.



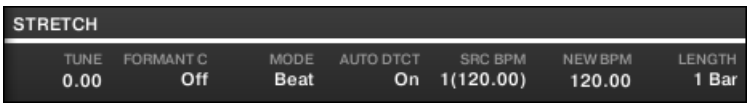

*The Audio Toolbar.*

The Audio Toolbar provides following audio processing functions:

| Command | Description |
|---|---|
| **Truncate** | Deletes the part of the Sample that is outside of the selected region. |
| **Norm.** (Normalize) | Adjusts the level of the selected region to the maximum possible value without clipping. |
| **Reverse** | Reverses the selected region of the Sample. |
| **Fade In** | Applies a fade in to the selected region of the Sample. |
| **Fade Out** | Applies a fade out to the selected region of the Sample. |
| **Correct** | Removes the DC offset. DC offset ("Direct Current offset") is an undesirable constant shift in the signal level that might be introduced by some audio processing units. This offset can notably waste some of the available headroom. |
| **Silence** | Silences the selected region of the Sample. |
| **Cut** | Deletes the selected region from the Sample and places it into the clipboard for later use. |
| **Copy** | Copies the selected region of the Sample to the clipboard for later use. |
| **Paste** | Pastes the cut/copied region of the Sample, replacing the region of the Sample currently selected. |
| **Dupl.** (Duplicate) | Duplicates the selected region of the Sample. The copy is placed right after the original region. |
| **Stretch** | Allows you to apply time stretching and/or pitch shifting to the selected region of the Sample. See below for a detailed description. |
| **Stems** | Separates the Sample into four distinct components or "stems": drums and percussion, bass, other, and vocals. The third stem ("other") is what remains in the Sample after removing all other stems, and can vary from Sample to Sample. When you click **Stems**, the icon switches to a percentage value indicating the progress of the stem separation. This processing runs in the background and you can continue with other work until the separation has been completed. You can also click **Cancel** at any time to cancel the separation process. Upon completion, a new Group will automatically be created, with its first four Sound slots containing the four stems (drums, bass, vocals, other) loaded in Sampler modules, ready to be played. The stems will appear as individual Samples in the user content of your Maschine library. Their name mirrors that of the original Sample, followed by the particular component (**Drums**, **Bass**, **Other**, or **Vocal**).<br><br>Only one stem separation process can be started at a time. While a stem separation process is running, the **Stems** button of the other Sound slots is grayed out and not available. |

## Time stretching / pitch shifting

When you select **STRETCH** in the Audio Toolbar, the bottom of the **Edit** page switches to the following set of controls:




*The stretch controls at the bottom of the Edit page.*

These controls allow you to adjust the parameters of the time stretching / pitch shifting function before applying it to the selected region. Pitch shifting and time stretching can be applied independently.

The following parameters are available:

| Parameter | Description |
|---|---|
| **STRETCH section** | |
| **TUNE** | Adjusts the detuning (pitch shifting) to be applied (in semitones and cents). Leave this value to **0.00** to leave the original pitch untouched. |
| **FORMANT C** (Formant Correction) | Enables/disables the formant correction. Formant correction allows the pitch-shifted audio to retain the timbre (or "color") of the original audio as much as possible. This is especially useful for melodic instruments. |
| **MODE** | Selects between **Beat** and **Free** mode:<br><br>In **Beat** mode, the new tempo is defined relative to the time signature (the beats and bars) of the original audio. This can be useful if you sampled a loop with a clearly defined rhythm (e.g., a drum loop).<br><br>In **Free** mode, the new tempo is defined independently from the time signature of the source. This is more suited for non-rhythmic Samples. In this mode only one parameter is available: **SPEED** (refer to below). |
| **AUTO DTCT** (Auto Detection, Beat mode only) | If activated, Maschine automatically detects the tempo of the original audio. |
| **SRC BPM** (Source BPM, Beat mode only) | Allows to define the tempo of the original audio (in BPM). This tempo is defined in different ways according to the **AUTO DTCT** value:<br><br>If **AUTO DTCT** is activated, you can set the length (in bars) of the original audio. You can choose between 1/2, 1, and 2 bars. The number between brackets indicates the resulting tempo (in BPM) derived from the number of bars you have set and the computed tempo value.<br><br>If **AUTO DTCT** is deactivated, you can directly define the tempo of the original audio (in BPM). |
| **NEW BPM**<br><br>(Beat Mode only) | Defines the target tempo of the time-shifted audio (in BPM). |
| **LENGTH** (Stretch Length, Beat mode with Auto Detection activated only) | If **AUTO DTCT** is activated, you can define the length of the target audio (in bars). Please note that any change to the **SRC BPM** value (refer to above) will be automatically mirrored by this **LENGTH** value. Once you have set the number of bars in the source audio, you can set here another number of bars, thereby dividing or multiplying the tempo of the target audio. Available values are 1/16, 1/8, 1/4, 1/2, 1, 2, 4, and 8 bars, as well as the corresponding triplet values. |
| **SPEED**<br><br>(Free mode only) | Adjusts the new tempo relative to the original tempo (in percentage). The minimum value is 10 %. |

> In Beat mode, if you set a target tempo that is smaller than a tenth of the original tempo, the **Apply** button will be deactivated. Set a higher target tempo to enable the **Apply** button again!

▶ Once you have set the parameters to the desired values, click **Apply** to apply the pitch shifting and/or time stretching to the selected region in the Sample, or **Cancel** to let the Sample untouched.

# Slicing a Sample

Slicing allows you to chop up loops to extract single Sounds (the drum sounds of a drum loop for example), but it's also good for preparing a loop to be played back at another tempo without changing its pitch or timing. The resulting **Slices** can then be exported to different notes of the same Sound or to different Sounds of the same Group.

The **Slice** page of the Sample Editor in the software and its equivalent the **SLICE** page of the Sampling mode on your controller allow you to slice your Samples in various ways.

The typical workflow for slicing your Samples is as follows:

1. Open the **Slice** page (**SLICE** page on the controller): Opening the Slice page.
2. Choose a method for slicing along with a few settings depending on the chosen method: Adjusting the slicing settings.
3. If you wish, manually adjust the proposed Slices: Manually adjusting your slices.
4. Apply the slicing to your Sample and export the Slices — whether in place or to another Sound/Group: Applying the slicing.

## Which Sample is shown in the Slice page?

The **Slice** page (**SLICE** page on your controller) always displays the Sample of the Zone currently selected (refer to Selecting and managing Zones in the Zone List for more information on selecting Zones), and all your actions in that page will affect this particular Sample. For example:

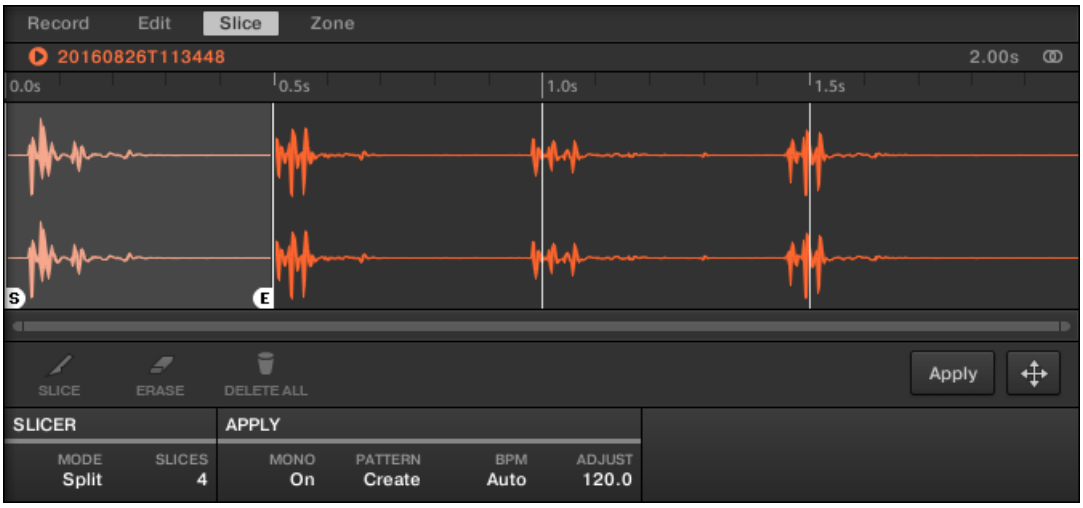
- If you have just recorded a Sample, it will directly appear here. If you have recorded more than one Sample, the Sampled selected in the Audio Pool (by default the last recorded Sample) will appear here — see section Recording audio for more information on how to record Samples.
- You can also drag a Sample onto the focused Sound slot or directly to the **Slice** page from the Browser or from your operating system. It will then appear on the page and replace any Sample already loaded in that Sound.

## Opening the Slice page

In the software, slicing a Sample is done in the **Slice** page of the Sample Editor.

▶ In the Sample Editor, click the **Slice** tab at the top to open the **Slice** page.

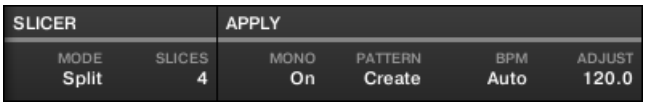
The **Slice** page looks as follows:




*The Slice page in the software.*

## Adjusting the slicing settings

At the bottom of the **Slice** page, you can adjust the settings used to define where the various Slices will be created in the Sample.




*Adjust the slicing settings at the bottom of the Slice page.*

Any change to these settings will directly affect the number and position of the Slice markers displayed on the waveform above.

At any time you can audition the proposed Slices on the Cue bus (refer to Using the Cue bus for more information) by pressing the lit pads or clicking the Slices on the waveform display.

Following parameters are available:

| Parameter | Description |
|---|---|
| **SLICER Section** | |
| **MODE** | Here you can select either **Split**, **Grid**, **Detect** or **Manual**:<br><br>**Detect mode**: The Sample will be sliced according to its transients.<br><br>**Split mode**: The Sample will be sliced into equally spread Slices.<br><br>**Grid mode**: The Sample will be sliced according to note values.<br><br>**Manual mode**: Manually enter slice points using the pads on your controller, or adjust the start and end points of a slice. |

| Parameter | Description |
|---|---|
| **SLICES** (Split and Grid mode only) | When **MODE** is set to **Split** (see above), **SLICES** lets you choose the amount of Slices: 4, 8, 16 or 32.<br><br>When **MODE** is set to **Grid** (see above), **SLICES** lets you choose the length of the Slices in note values: 4th, 8th,16th or 32nd notes. |
| **AUTO-SNAP** (Manual mode only) | The Sample Slicer Manual mode Auto-Snap feature automatically aligns Slice points to the nearest transient as you manually trigger the slicing from the pads. It can be turned off so that slice points are instead placed exactly where you trigger them. In order to use Auto-Snap, you must wait for analysis to be performed on the sample you're slicing—the analysis is very quick but will take longer for long audio files. |
| **SENSITIVITY** (Detect mode only) | When **MODE** is set to **Detect** (see above), **SENSITIVITY** lets you adjust the sensitivity of the transient detection. Higher values will cause more Slices to be detected because more transients will be recognized, lower values will result in less Slices. This parameter should be adjusted until all the musically significant slices are being detected in the waveform. |
| **APPLY Section** | |
| **MONO** | The Sample Slicer Mono option when activated automatically sets the Voice and Choke Group of all sample slices to 1 when slicing to a Group.<br><br>This time saving feature is useful when you don't want to have lots of samples triggered or repeating at the same time, for example, when you slice a drum loop and trigger the individual hits to form a new pattern. When Mono is selected and the slices are applied to a Group, the sampler polyphony is automatically set to 1 so only one voice will play at a time. The Choke Group is also automatically set to 1 so each new pad that is hit will always take priority over the previous one by cancelling it out. This behavior can be found on vintage drum machines (typically used to "choke" the open hi-hat with the closed one), but also in monophonic synthesizers that are only capable of playing one note at a time. |
| **BPM** (BPM Mode) | Selects how the tempo is defined: If you select **Auto**, Maschine will calculate the tempo automatically. If you select **Manual**, you can enter the tempo in BPM manually. |
| **ADJUST** | If **BPM** is set to **Auto**, you can choose between the tempo that Maschine detected, or half or double of that tempo. If **BPM** is set to **Manual**, you can adjust the tempo manually. |
| **ENGINE Section** | **(Detect mode only)** |
| **ZERO-X** (Zero Crossing, Detect mode only) | When **MODE** is set to **Detect**, activate **ZERO-X** to force the detected Slices to be created on the closest locations where the audio signal crosses the zero value. This can be helpful to avoid clicks when playing back Slices in another sequence. |

## Live slicing

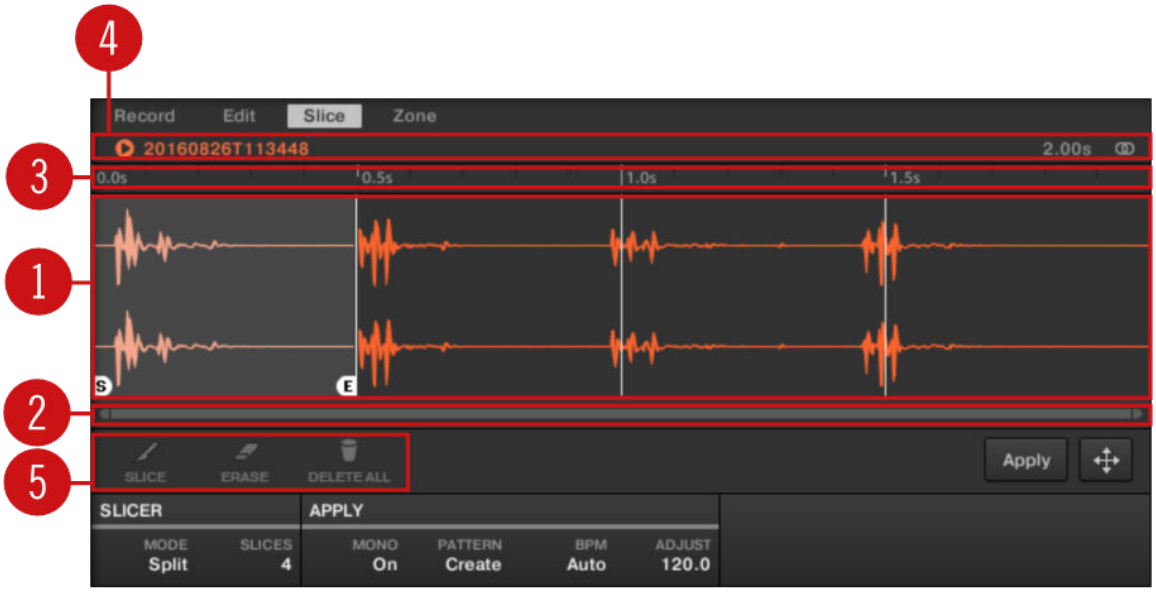
Live slicing is a quick and intuitive way to add slices to a sample using the pads on your controller. The first pad is used to trigger the sample and the subsequent pads are used to add slice points as required. If necessary, the start and end points of the slices can then be fine-tuned using Edit mode.

Live Slicing is only available from your Maschine controller.

## Manually adjusting your slices

In addition to the Detect, Split, Grid, and Manual modes that create Slices automatically (refer to Adjusting the slicing settings above), you can also adjust Slices manually using your mouse, the waveform display, and the various edit tools at your disposal.

You can directly adjust your Slices manually by selecting **Manual** in the **MODE** selector, or start from Maschine's proposed Slices as described in section Adjusting the slicing settings and fine-adjust these Slices manually — in that case the **MODE** selector automatically switches to **Manual**.




*Manually adjusting your Slices.*

### (**1**) **Waveform display**

Shows the selected Sample with a couple of spread vertical lines in the waveform: this is where the Slices are going to be applied (i.e. cut).

- Hover a Slice with the mouse to select it (it is highlighted). Little "**S**" and "**E**" markers appear at the bottom of the Slice borders to indicate the start and end point of that Slice, respectively.
- Use the scroll wheel of your mouse to zoom in/out. You can also use the zooming scroll bar (**2**).
- When the entire Sample or a particular Slice is played back, a **playhead indicator** (white vertical line) shows you the current play position within the waveform.
- **Context menu**: Right-click (macOS: [Ctrl]-click) anywhere in a Slice to open a context menu with the following commands:

| Command | Description |
|---|---|
| **Open containing folder** | Opens the folder on your hard disk containing the Sample, providing quick access to the original file. |
| **Save Sample As…** | Opens a Save Sample As dialog allowing to save the Slice under as a distinct file on your computer. |

By default, you can adjust Slices with your mouse as follows:

- Click inside a Slice (i.e. anywhere between its borders) to play it back on the Cue bus (refer to Using the Cue bus for more information).
- Drag the borders of a Slice to adjust them. You have two possibilities:
  - If the end point of the previous Slice and the start point of the next Slice are joined, drag the border's `vertical line` to move both the end point of the previous Slice and the start point of the next Slice together, so that both Slices stay joined.
  - Drag the little "**S**" (or "**E**") `marker` at the bottom of the vertical line to move the start (or end) point of a Slice independently of the end (or start) point of the previous (or next) Slice. If you want this border to stick again with that of the previous (or next) Slice, drag the `vertical line` (instead of the "**S**"/"**E**" marker) toward that of the previous (or next) Slice.



By moving the start and end points of Slices independently, you can create overlapping Slices or gaps between Slices.

These default mouse actions are valid only if the **SLICE** and **REMOVE** buttons are deactivated in the edit tools (**5**). Enabling any of them provides alternative mouse controls described below.

(**2**) **Zooming scroll bar**

Click the main part of the scroll bar and drag your mouse horizontally to scroll through the waveform on the horizontal axis (time), or drag it vertically to zoom in/out on this time axis. You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out while keeping the opposite border of the display at a fix position in the waveform. Double-click the main part of the bar to reset the zoom and display the entire waveform. Alternatively you can use the scroll wheel of your mouse when hovering the waveform display (**1**) to zoom in/out.

(**3**) **Timeline**

Shows the time scale in seconds.

(**4**) **Information bar**

Displays the file name and the length of the selected Sample. Click and hold the little play icon on the left to play back the whole Sample on the Cue bus (refer to Using the Cue bus for more information). Click the little circle (or pair of circle) at the far right to switch the waveform display (**1**) between single-channel and two-channel display.

(**5**) **Edit tools**

The three buttons in the edit tools allow you to add or remove Slices:

- **SLICE**: When the **SLICE** button is activated, the default mouse behavior in the waveform display is replaced by the following:
  - Click inside a Slice to split it into two Slices at that location.
  - Adjust the borders of existing Slices as described above in the waveform display (**1**).

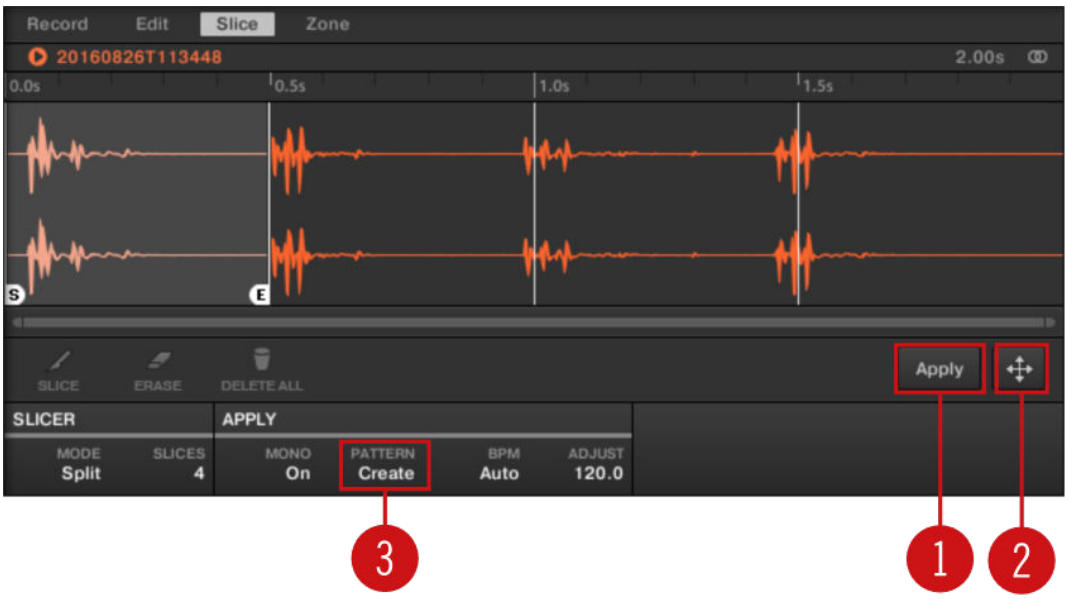
- **REMOVE**: When the **REMOVE** button is activated, over the waveform display the mouse pointer turns into a rubber icon and the default mouse actions are replaced by the following:
  - Click the start border of a Slice to delete that border and merge the Slice with the previous one.
  - Click inside a Slice (i.e. anywhere between its borders) to remove the entire Slice. The corresponding part of the Sample is grayed out and won't be exported as Slice.
- **DELETE ALL**: Click the **DELETE ALL** button to delete all proposed Slices and start slicing from scratch again.

The **SLICE** and **REMOVE** buttons are mutually exclusive.

With **SLICE** or **REMOVE** activated, you can still prelisten to your individual Slices by pressing the corresponding pads on your controller!

## Applying the slicing

Once you are satisfied with the proposed and/or manually adjusted Slices (refer to Adjusting the slicing settings and Manually adjusting your slices), you can apply the slicing in order to actually cut the original Sample and create the Slices. This is done via the three elements at the bottom right of the **Slice** page:




*You can apply the slicing in various ways.*

### (**1**) **Apply button**

Exports the Slices to the same Sound. If you click **Apply**, the Slices will be mapped to individual notes of this Sound, the Sample Editor will be replaced by the Pattern Editor in Keyboard view, and the pads of your controller will switch to Keyboard mode so that you can directly play your Slices on the pads. Additionally, depending on the setting of the Pattern Creation selector (**3**), some notes can be automatically created for each Slice (see below).



The **Apply** button (**1**) can be seen as a shortcut for dragging the Slice Dragger to the focused Sound itself.

(**2**) **Slice Dragger**

Drag the Slice Dragger to export the Slices to any other Sound or Group:

- If you drag to a Sound (in the Sound List at the left of the Sample Editor):
  - The Slices will be mapped to individual notes of this Sound, starting with the bottom C (C-2 in Maschine convention). The base key of the Sound will be set to the bottom C as well (refer to Adjusting the base key for more information on the base key). Any previous content in the Sound will be replaced.
  - The Sample Editor will be replaced by the Pattern Editor in Keyboard view.
  - The pads of your controller will switch to Keyboard mode so that you can directly play your Slices on the pads.
  - Depending on the setting of the Pattern Creation selector (**3**), notes will be automatically created for each Slice (see below).
- If you drag to a Group (in the Group List at the left of the Arranger):
  - The Slices will be mapped to individual Sound slots, replacing their current content (if any). Only the first 16 Slices will be exported.
  - The Sample Editor will be replaced by the Pattern Editor in Group view.
  - The pads of your controller will switch to Group mode so that you can directly play your Slices on the pads.
  - Depending on the setting of the Pattern Creation selector (**3**), notes will be automatically created for each Slice (see below).

(**3**) **Pattern Creation selector**

Selects from three modes controlling the automatic note creation upon Slice export. The mode selected here will be used both when clicking the **Apply** button (**1**) and when using the Slice Dragger (**2**). Following options are available:

- **Create Pattern** (default setting): Upon Slice export a new Pattern will be created with one note for each pitch (if Slices are exported to a Sound) or one note for each Sound (if Slices are exported to a Group) so that the Pattern reproduces the original, unsliced Sample.
- **Replace Pattern**: Upon Slice export a sequence of notes will be created in the current Pattern so that the Pattern reproduces the original, unsliced Sample. If the sequence is shorter than the current Pattern it will be repeated to fill the Pattern; if the sequence is longer than the Pattern the Pattern will be extended according to the Pattern Grid and the content of other Sounds will be repeated.
  - If Slices are exported to a Sound, the sequence of notes will contain one note for each pitch. Any existing notes for that Sound will be replaced. Notes for other Sounds in the Pattern will stay untouched.
  - If Slices are exported to a Group the sequence of notes will contain one note for each Sound containing a Slice. Any existing notes for these Sounds will be replaced. Notes for other Sounds in the Pattern will stay untouched.
- **No Pattern**: No Pattern is created, and the current Pattern is left untouched.

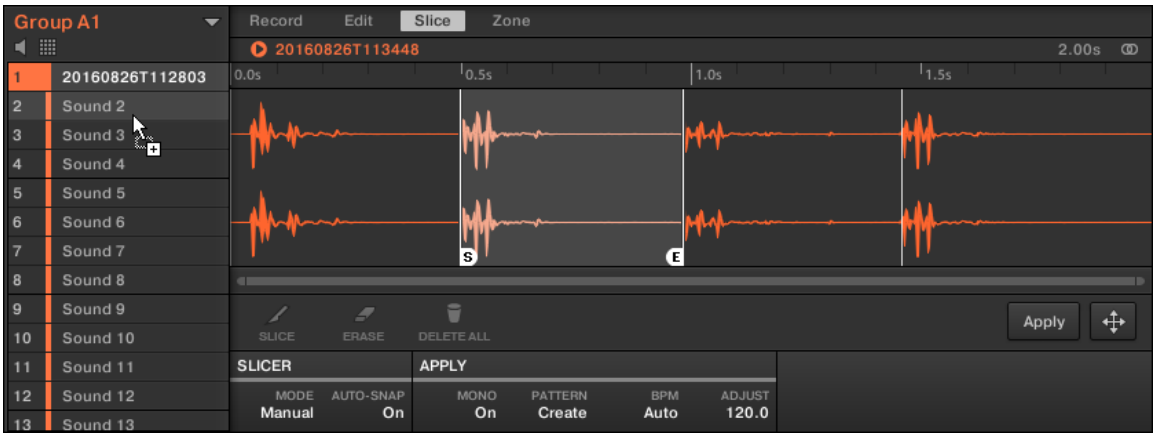


Play around with the slicing feature by removing some of these notes, quantizing or completely rearranging them.

The notes in the picture above represent the Slices and trigger them in order to play the Sample with correct timing and pitch. If you change the tempo of your Project, you will hear that the loop automatically adjusts to the new tempo.

### Exporting single Slices

You can also export an individual Slice to another Sound by drag-and-drop:




*Dragging an individual Slice to another Sound.*

### Applying a sliced sample to a Sound

If you drag a Slice to a Group in the Group List (at the left of the Arranger), it will be exported to the first Sound slot of that Group. Any Sound loaded in that Sound slot will be replaced.

When applying a sliced sample to a Sound in an otherwise empty Group, the root note of the Sounds in that Group is set to C-2, matching the key zones of the slices.

The root note parameter is shared among all Sounds in a Group. However, when applying slices to a Sound, these slices will always start at the lowest possible note, to make room for the maximum number of slices. If you already have Sounds in a Group, the root note is not changed after applying slices, in order to not change the behavior of the existing Sounds. This will, however, lead to a mismatch in how you accessed slices across Pads in the Sampling / Slice tab and how they are laid out in the Sound you applied them to. You will typically play a root note of C3 with Pad 1, while the lowest slice will start at C-2. To avoid this mismatch, and to access slices on a Sound exactly as you created them in the Sampling / Slice screen, apply slices to a Sound in a Group where you have not loaded anything to the other Sounds. This also works when you start by loading a Sample into a Sound in a Group where you have not yet loaded anything else.

## Mapping Samples to Zones

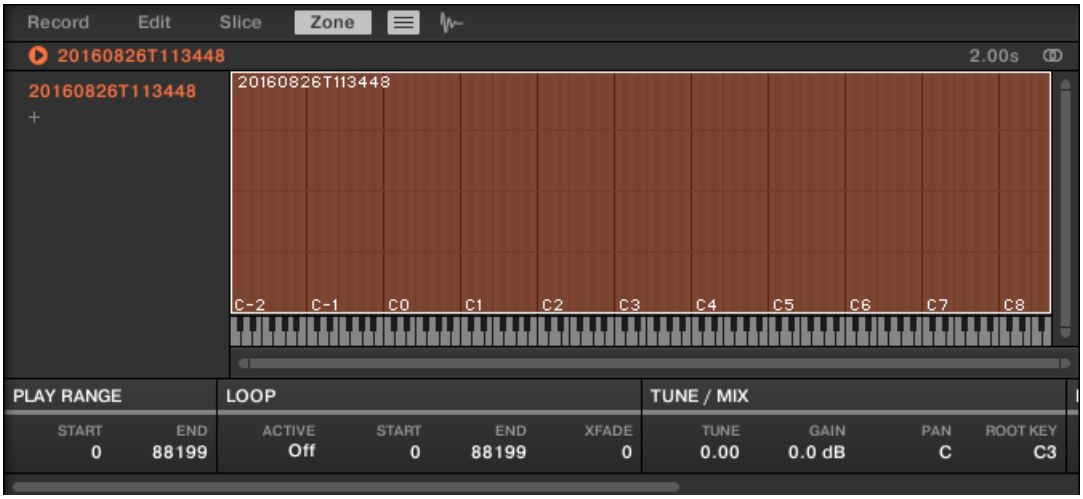
Mapping Samples is a way to create Sounds with more than one Sample across the MIDI keyboard and with different velocities. You can create and adjust **Zones** that define a key range (or pitch range) and a velocity range for each Sample included in the Sound: The Sample will be triggered only if the played note is within the key range and velocity range of its Zone.

The Zones can overlap, allowing you to trigger different Samples at once or triggering different Samples depending on how hard you hit the pads. You can adjust various playback settings for the Sample of each Zone individually. The set of all Zones define the **Sample Map** (or "**Map**" for short) of the Sound.

## Opening the Zone page

Mapping is done in the **Zone** page of the Sample Editor.

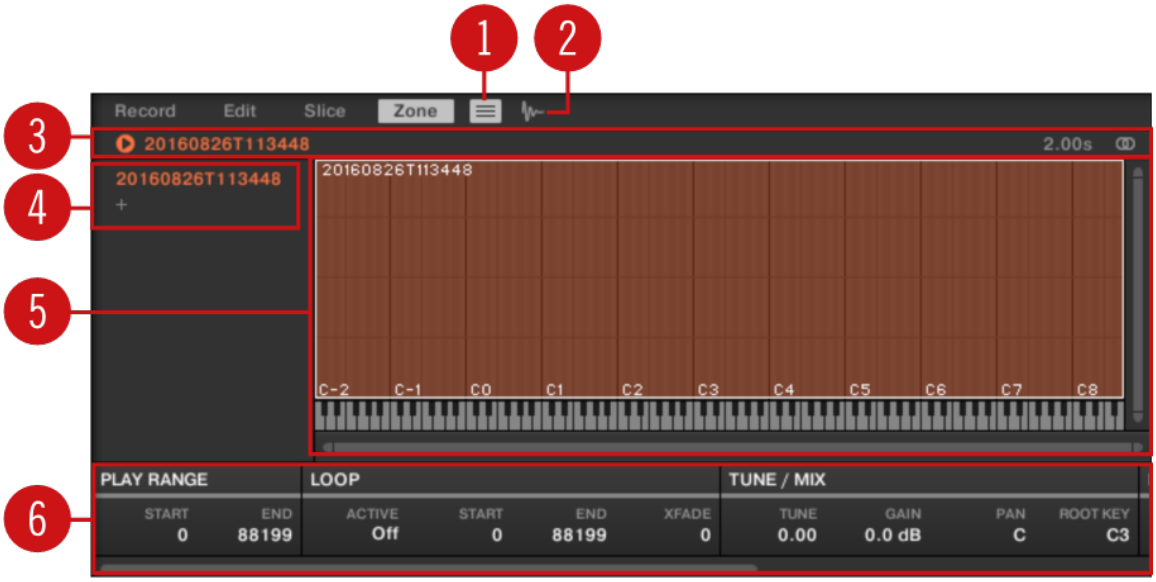
- ▶ Select a Sound slot, then open the Sample Editor (by clicking the button with the waveform icon on the left of the Pattern Editor), and click the **Zone** tab to show the **Zone** page.




*The Zone page (here for an empty Sound).*

## Zone page overview

The Zone page provides the following elements:




*The **Zone** page: an overview.*

(**1**) **Zone List button**: Shows/hides the Zone List (**4**).

(**2**) **Sample View button**: Switches the Zone page between Map view and Sample view (**5**).

(**3**) **Information bar**: Displays the file name and the length of the Sample in the focused Zone. Click and hold the little play icon on the left to play back the whole Sample on the Cue bus (refer to Using the Cue bus for more information). Click the little circle (or pair of circle) at the far right to switch the waveform display (**1**) between single-channel and two-channel display.

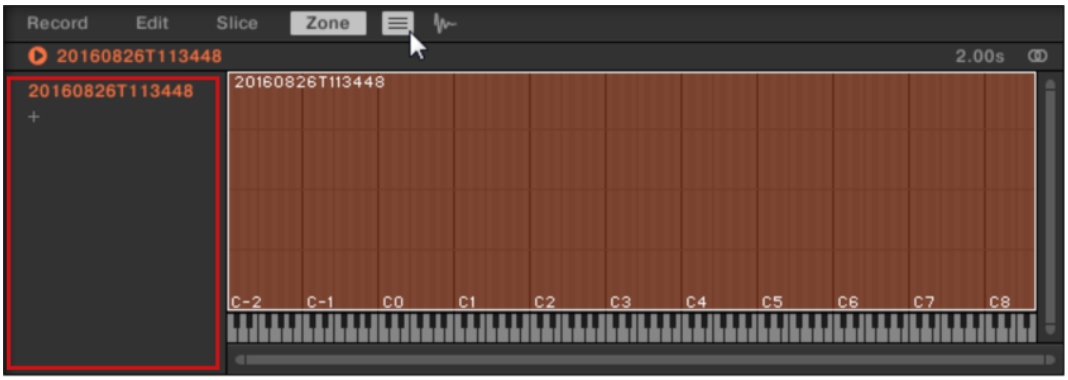
(**4**) **Zone List**: Shows all Zones in a list. The Zone List can be shown/hidden by clicking the Zone List button (**1**). Click an entry in the list to set the focus to that Zone. You can also select multiple Zones, move them via drag and drop, and add/delete Zones in the list. See section Selecting and managing Zones in the Zone List for a complete description of the Zone List.

(**5**) **Map view / Sample view**: The Map view is the default view (pictured above). It shows and lets you edit all Zones contained in your Sound. The Sample view shows the waveform of the Sample for the focused Zone and lets you edit some of its settings. Click the Sample View button (**2**) to switch between the Map view and the Sample view (the Sample view is visible when the Sample View button is activated). The Map and Sample views are explained in detail in section Selecting and editing Zones in the Map view and Editing Zones in the Sample view, respectively.

(**6**) **Zone settings**: Displays the parameters for the focused Zone. See section Adjusting the Zone settings for a detailed description of the available parameters.

## Selecting and managing Zones in the Zone List

On the left, the Zone List shows all Zones of the focused Sound.




*The Zone List in the Zone page.*

▶ Click the Zone List button next to the **Slice** tab to show/hide the Zone List.

The Zone List allows you to add, remove, replace, select, and reorder Zones in the list.



You can adjust the width of the Zone List by dragging its right border.

### Adding a new Zone to the Zone List

You can add a new Zone to the Zone List in two ways:

▶ Drag a Sample from the Browser's **LIBRARY** or **FILES** pane or from your operating system onto the empty area in the Zone List.




or

1. Click the "**+**" at the end of the Zone List.

   A Load Sample dialog opens up.
2. Navigate to the desired audio file on your operating system and press [Enter] to confirm.

→ A new Zone is created at the end of the list containing the dragged or selected Sample.



You can drag and drop several Samples at once, this will create as many new Zones.

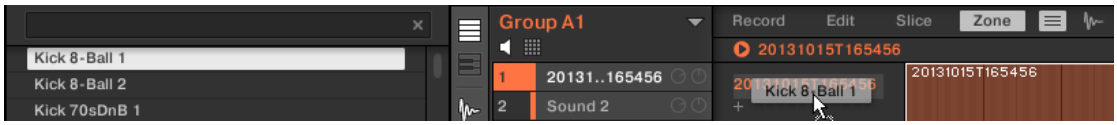


You can also add Zones to your Sound by dragging and dropping Samples directly onto the Sample Map of the Map view. See section Adding Samples to the Sample Map for more on this.

## Replacing the sample of an existing Zone

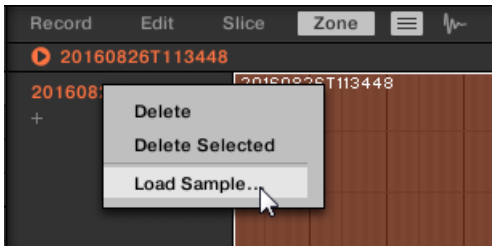
You can also put a new Sample into an existing Zone, thereby replacing the Sample currently contained in that Zone. Again, you have two methods at your disposal:

▶ Drag a Sample from the Browser's **LIBRARY** or **FILES** pane or from your operating system onto the desired entry in the Zone List.




or

1. Right-click ([Ctrl]-click on macOS) the desired entry in the Zone List and select **Load Sample…** in the menu that opens.




   A Load Sample dialog opens up.
2. Navigate to the desired audio file on your operating system and press [Enter] to confirm.

→ The dragged or selected Sample replaced the previous Sample in the target Zone.

## Selecting a Zone from the list

▶ Click any Zone entry in the Zone List to put it under focus.

→ The focused Zone gets highlighted in color both in the list and in the Map view (if visible). In addition:

- The focused Zone is displayed in the Sample view and its settings appear in the Zone settings at the bottom of the page. See section Adjusting the Zone settings for more information on these settings.

- The focused Zone also appears on the **Edit** and **Slice** pages, which allows you to further process of its contained Sample. For more information on the **Edit** and **Slice** pages, please refer to section Editing a Sample and Slicing a Sample, respectively.

## Selecting multiple Zones from the list

You can select several Zones in the list at once using the common methods of your operating system. The basic rules for multiple selection are the following:

- The focused Zone is automatically selected. It is highlighted in the color of the Sound and its waveform and parameters are displayed in the **Slice** page's **Sample** view and **Zone** settings as well as on the **Edit** and **Slice** pages.
- The other selected Zones are highlighted in white. Their settings are not displayed anywhere, however they will be affected by your actions in the Zone List and in the Map view (refer to Selecting and editing Zones in the Map view for more on this).

| Mouse/keyboard action | Command |
|---|---|
| **Multiple selection** | |
| Hold [Ctrl] ([Cmd] on macOS) and click several entries in the list | Selects all clicked Zones. Click a selected Zone to deselect it (i.e. remove it from the selection). |
| Hold [Shift] and click two entries | Selects both Zones and all Zones in-between. |
| Press [Ctrl]+[A] ([Cmd]+[A] on macOS) | Selects/deselects all Zones in the list. When deselecting, only the focused Zone remains selected. |

## Deleting Zones from the list

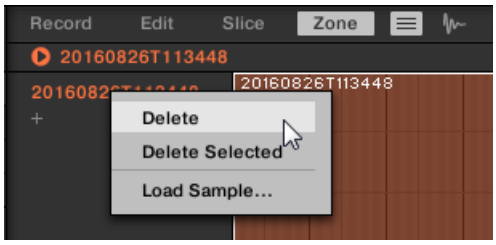
To remove one or more Zone(s) from the Zone List:

1. Select the Zone(s) you want to remove.
2. Press [Del] or [Backspace] on your computer keyboard.

→ The selected Zones are removed from the Zone List and from the Sample Map, and the corresponding Samples are not used in the Sound anymore.

After you have selected the Zone(s) you want to remove, you can also use the context menu:

1. Select the Zone(s) you want to remove.
2. Right-click ([Ctrl]-click on macOS) any of the selected Zones.A menu opens up.




3. In that menu selects **Delete** to remove the focused Zone only, or **Delete Selected** to remove all selected Zones.

## Moving Zones in the list

You can move your Zones across the Zone List via drag and drop:

1. Select the Zone(s) you want to move.
2. Click and hold the mouse button, and drag your mouse vertically.As the mouse pointer moves, an insertion line appears at various places between the existing entries.

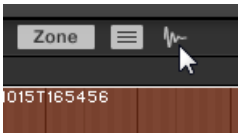



3. When the insertion line indicates the desired location, release the mouse button to drop the selected Zone(s) to this new place.

Moving Zones allow you to reorder the Zone List. This can come in handy before you run the **Map as Drum Kit** command from the Sample Map's context menu, so that your Samples are well ordered in the new mapping. See section Selecting and editing Zones in the Map view for more information on the Sample Map.

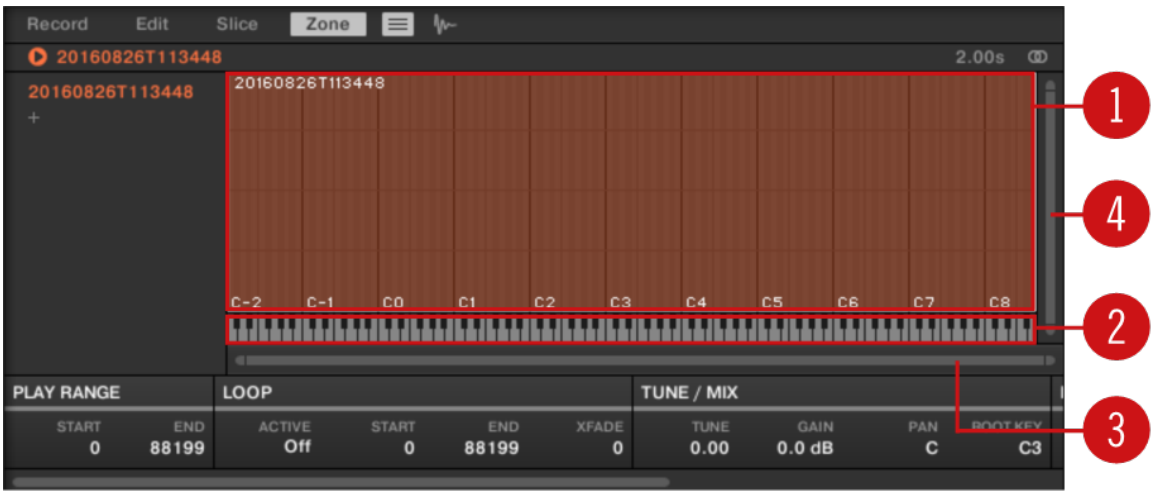
## Selecting and editing Zones in the Map view

The Map view is visible when the Sample View button (showing a little waveform icon at the right of the **Zone** tab) is deactivated.




*Disable the Sample View button to see the Map view.*

The Map view contains the following elements:




*The Map view of the Zone page.*

### (1) Sample Map

The Sample Map shows all Zones contained in your Sound.

- The horizontal axis represents keys (or pitches) from C-2 to G8, while the vertical axis represents velocities from 0 to 127.
- Each Zone is depicted as a rectangle defining a specific key range (the rectangle's width) and a velocity range (the rectangle's height). Any note played within these key and velocity ranges will trigger the Sample of that Zone.
- You can zoom in/out both horizontally and vertically via the zooming scroll bars (**3**) and (**4**), respectively.
- Each Zone header displays the name of the corresponding Sample.
- Click a Zone in the Map to put it under focus. The focused Zone is highlighted; its information and parameters are displayed in the Zone settings at the bottom of the **Zone** page.
- You can select multiple Zones at once: All your mouse actions within the Map view (moving, resizing, etc.) will affect all selected Zones — see the next paragraph for more details on the available selection and edit commands in the Map.



You can also add a Sample by dragging it directly onto the Sample Map. See section Adding Samples to the Sample Map for more information.

(**2**) **Virtual keyboard**

Below the Mapping view, the virtual keyboard represents the entire key scale. The root note of the selected Zone is indicated by the colored key. You can drag this key with the mouse to modify the root key.

(**3**) **Horizontal zooming scroll bar**

Click the main part of the scroll bar and drag your mouse horizontally to scroll through the Sample Map on the horizontal axis (pitch), or drag it vertically to zoom in/out on this pitch axis. You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out while keeping the opposite border of the display at a fix position in the Sample Map. Double-click the main part of the bar to reset the zoom and display the entire pitch range.

(**4**) **Vertical zooming scroll bar**

Click the main part of the scroll bar and drag your mouse vertically to scroll through the Sample Map on the vertical axis (velocity), or drag it horizontally to zoom in/out on this velocity axis. You can also click the top or bottom handle of the scroll bar and drag it vertically to zoom in/out while keeping the opposite border of the display at a fix position in the Sample Map. Double-click the main part of the bar to reset the zoom and display the entire velocity range.

## Available actions in the Map

You can select and edit Zones with your mouse and your keyboard in the Map. Following actions are available:

| Mouse/keyboard action | Command |
|---|---|
| **Selection commands** | |
| Click a Zone | Puts this Zone under focus. The focused Zone is highlighted. You can edit the focused Zone and the playback settings of its Sample via the Zone settings at the bottom of the **Zone** page, as well as process the Sample's audio material on the **Edit** page and/or slice the Sample on the **Slice** page. |

| Mouse/keyboard action | Command |
|---|---|
| Hold [Ctrl] ([Cmd] on macOS) and click several Zones | Selects all clicked Zones. Click a selected Zone to deselect it (i.e. remove it from the selection). |
| Hold [Shift] and click two Zones | Selects both Zones and all Zones in-between. |
| Click and drag a selection frame in the Sample Map | Selects all Zones within or overlapping the frame. |
| Press [Ctrl]+[A] ([Cmd]+[A] on macOS) | Selects/deselects all Zones. When deselecting, only the focused Zone remains selected. |
| **Edit commands** | |
| Drag the left/right border of a Zone | Adjusts the key range for the selected Zones. |
| Drag the higher/lower border of a Zone | Adjusts the velocity range for the selected Zones. |
| Drag a corner of a Zone | Simultaneously adjusts the lowest/highest note and the lowest/highest velocity of the selected Zone(s) — depending on the corner. |
| Click inside a Zone and drag | Moves the selected Zone(s) across the Sample Map. Note that the Root Key of each Zone is moved accordingly. |
| Double-click a Zone | Extends the key and velocity ranges of the Zone so that it fits the key and velocity limits of the neighbor Zones. This can be very useful to quickly fill up any key or velocity gap between Zones. |
| Right-click ([Cmd]-click on macOS) a Zone | Opens the Sample Map menu (see below). |
| Press [Del] or [Backspace] | Removes the selected Zone(s) from the Sample Map. |



You can also adjust the key and velocity ranges in the Zone settings at the bottom of the **Zone** page. See Adjusting the Zone settings for a detailed description.



For more information on the **Edit** and **Slice** pages, please refer to section Editing a Sample and Slicing a Sample, respectively.

## Sample Map menu

The Sample Map menu contains additional editing facilities.

▶ Right-click ([Ctrl]-click on macOS) a Zone to open the Sample Map menu.

The commands in the Sample Map menu will affect all selected Zones. The menu provides following commands:

| Command | Description |
|---|---|
| **Delete** | Removes the selected Zone(s) from the Sample Map. |

| Command | Description |
|---|---|
| **Map as Drum Kit** | Reduces the selected Zones to one note over the full velocity range and puts the Zones next to each other upwards from the middle C (C3). The actual note assigned to each Zone depends on the Zone position in the Zone List: The topmost Zone will be mapped to middle C (C3), the Zone underneath to C#3, etc. |

## Editing Zones in the Sample view

The Sample view is visible when the Sample View button (showing a little waveform icon at the right of the **Zone** tab) is activated.




*Enable the Sample View button to see the Sample view.*

The Sample view contains the following elements:




*The Sample view of the **Zone** page.*

### (**1**) Waveform display

Shows the waveform of the Sample for the focused Zone. The waveform display provides following tools:

- Use the scroll wheel of your mouse to zoom in/out. You can also use the zooming scroll bar (**3**).
- **Play range markers (4) and loop markers (5)**: See below.
- **Playhead indicator**: When the Sample is played back (e.g., by pressing the pad or by clicking the little play icon in the information bar above the waveform), a playhead indicator (white vertical line) shows you the current play position within the waveform.
- **Context menu**: Right-click (macOS: [Ctrl]-click) anywhere in the waveform to open a context menu with the following commands:

| Command | Description |
|---|---|
| **Open containing folder** | Opens the folder on your hard disk containing the Sample, providing quick access to the original file. |
| **Save Sample As…** | Opens a Save Sample As dialog allowing to save the Sample of the focused Zone under another name and/or to another location on your computer. |

(**2**) **Timeline**

Shows the time scale in seconds.

(**3**) **Zooming scroll bar**

Click the main part of the scroll bar and drag your mouse horizontally to scroll through the waveform on the horizontal axis (time), or drag it vertically to zoom in/out on this time axis. You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out while keeping the opposite border of the display at a fix position in the waveform. Double-click the main part of the bar to reset the zoom and display the entire waveform. Alternatively you can use the scroll wheel of your mouse when hovering the waveform display (**1**) to zoom in/out.

(**4**) **Play range markers**

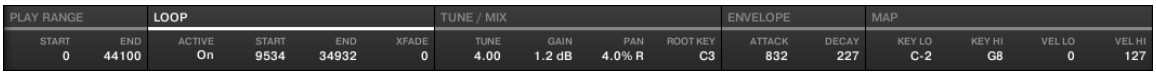
The **S** and **E** markers indicate the start and end points of the play range, respectively. Drag them with the mouse to modify the portion of the Sample that will be played back. This can also be done in the **PLAY RANGE** section of the Zone settings, under the waveform display (refer to Adjusting the Zone settings).

(**5**) **Loop markers**

If a loop has been defined in the Sample, it is also indicated on the waveform. You can then adjust the loop by dragging its borders, and move the entire loop by dragging its title bar. Loops can be created and adjusted in the **LOOP** section of the Zone settings, under the waveform display (refer to Adjusting the Zone settings). Note that the loop will always stay within the play range. Therefore, when moving the Sample's start and end points closer to each other (see above), keep in mind that it might also shrink the loop!

## Adjusting the Zone settings

At the bottom of the **Zone** page, the Zone settings allow you to adjust how each Zone should be played back.




*The Zone settings in the software.*

The various sections always display the values for the focused Zone.

If the Maschine window is not wide enough to display all Zone settings at once, a horizontal bar appears underneath to scroll to the desired section of parameters.

Following parameters are available:

(**1**) **PLAY RANGE section**

The parameters in the **PLAY RANGE** section allow you to adjust the portion of Sample that will be played back when the Zone is triggered.

| Parameter | Description |
|---|---|
| **START** | Adjusts the playback's start point in the Sample of the focused Zone. |
| **END** | Adjusts the playback's end point in the Sample of the focused Zone. |

### (**2**) **LOOP section**

The parameters in the **LOOP** section allow you to define and adjust a portion that will play in loop while the note is held.

| Parameter | Description |
|---|---|
| **ACTIVE** | Enable this to define a loop in the Sample of the focused Zone. When the play position reaches the loop, the playback is looped as long as the note is held. This can be useful to loop either a whole Sample or part of it, e.g., to simulate a longer tone. Note: this technique requires that you set the Sampler's **Type** selector to **AHD** or **ADSR** on the **Pitch / Envelope** page (refer to Page 2: Pitch / Envelope). |
| **START** | Adjusts the loop's start point. |
| **END** | Adjusts the loop's end point. |
| **XFADE** (Crossfade) | Allows you to blend a little of the material near the loop start and end points in order to get a smoother, less abrupt loop. This is particularly helpful if the loop is inducing any clicks. |

Alternatively you can also adjust the loop' start and end points by dragging the borders of the loop in the Sample view, and move the entire loop by dragging its title bar.



By moving the loop's start and end points closer to each other you can shrink the loop to very small values on-the-fly, thereby creating very interesting glitch effects in a live situation.



The loop will always stay within the play range of the Sample. Therefore, when moving the Sample's playback start and end points closer to each other, keep in mind that it might also shrink the loop!

### (**3**) **TUNE / MIX section**

The **TUNE / MIX** section contains parameters controlling pitch- and level-related aspects of the Sample playback.

| Parameter | Description |
|---|---|
| **TUNE** | Sets the tuning of the focused Zone. |
| **GAIN** | Sets the gain of the focused Zone. |
| **PAN** | Sets the panorama position of the focused Zone. |
| **ROOT KEY** | Adjusts the **root key** of the focused Zone, that is the key at which the Sample will be played back at its original pitch. The root key is also indicated by the colored key on the virtual keyboard; to change it, you can drag it to another note on the keyboard. |

### (**4**) **ENVELOPE section**

This amplitude envelope can be used to get rid of clicks after slicing; you can either apply it to the Zone of the whole Sample or to individual Zones for selected Slices.

| Parameter | Description |
|---|---|
| **ATTACK** | Adjusts how quickly the Sample/Slice reaches full volume after being triggered. |
| **DECAY** | Adjusts how fast the Sample/Slice dies down. |

(**5**) **MAP section**

The **MAP** section contains the parameters defining the key and velocity ranges of the Zone.

| Parameter | Description |
|---|---|
| **KEY LO** (Lowest Key) | Sets the lowest note (key) of the focused Zone. Alternatively, you can drag the left border of the Zone in the Map. |
| **KEY HI** (Highest Key) | Set the highest note (key) of the focused Zone. Alternatively, you can drag the right border of the Zone in the Map. |
| **VEL LO** (Lowest Velocity) | Defines the lowest velocity of the focused Zone. Alternatively, you can drag the lower border of the Zone in the Map. |
| **VEL HI** (Highest Velocity) | Defines the highest velocity of the focused Zone. Alternatively, you can drag the higher border of the Zone in the Map. |

## Adding Samples to the Sample Map

You can add Samples directly to the Map view of the **Zone** page.



To see the Map view, make sure that the Sample View button is deactivated next to the **Zone** tab at the top of the Sample Editor. If this is not the case, click it to disable it.

▶ To add a new Sample, select one from the Browser or from your operating system and drag it onto the Sample Map of the Map view (the biggest part in the middle of the **Zone** page). Once your mouse is hovering the Sample Map, and `before` you release the mouse button:

- Drag your mouse horizontally to choose the root key of the new Zone.
- Drag your mouse vertically to adjust the key range: With your mouse in the lower half of the Sample Map the Zone will cover the root key only; dragging your mouse up in the upper half of the Sample Map will extend the Zone's key range up to one octave above the root key; with your mouse at the top of the Sample Map, the Zone will cover the entire keyboard.
- As you release the mouse button, the Zone is created.

You can add other Samples to the Sound via this method.

The key range of several Zones can overlap, as can the velocity range.

### Adding multiple Samples at once

You can also drag several Samples to the Sample Map at once:

1. Hold [Ctrl] ([Cmd] on macOS) or [Shift] on your computer keyboard and click the desired Samples in the Browser or in your operating system.

2. Drag the selected Samples to the Sample Map.

→ This will create multiple adjacent Zones. The width (i.e. key range) of these Zones will again depend on where they are dropped in the Sample Map: The higher you drop, the wider each Zone will be. Dragging to the top part layers all Zones across the entire keyboard.

The placement of the Zones depends on the original Samples' position in the selection list: The first Sample selected will get the Zone with the lowest key range, the second Sample selected will get the Zone just over the previous one, etc.

# 16. Appendix: tips for playing live

Maschine is a very hands-on tool for producing music as well as for performing live. Here we have specifically gathered some tips to help you when playing live. If you are used to playing live, you may not need them, but maybe you will find some new ideas to integrate into your set.

## Preparations

### Focus on the hardware

In a live situation, it is not very comfortable or intuitive to look back and forth from your laptop screen running the Maschine software to the Maschine hardware controller.

### Customize the Pads of the Hardware

Take your time to set up the pad sensitivity and velocity scaling to your taste, and you will have even more fun playing Maschine. For more information, refer to Preferences – Plug-ins page.

### Check your CPU power before playing

Some things can be embarrassing if, for example, you are on stage and your computer starts to have problems because it cannot handle the number of effects you are using. Although the Maschine software is programmed very efficiently, this might happen if your computer is quite old. So before you get on stage, give your live set a thorough performance check by first playing it at home. While doing so, take a look at the CPU meter in the Maschine software's Header to ensure it never turns red. If necessary, increase the **Latency** value. For more information, refer to Preferences – General page).

### Name and color your Groups, Patterns, Sounds, and Scenes

Naming and coloring your Groups, Patterns, Sounds, and Scenes gives you a better overview of exactly what you are doing. The colors you select are mirrored on the controller. This is especially helpful if you focus on playing with the Maschine controller. It might not be exciting, but it certainly pays off in a hectic live situation.

### Consider using a limiter on your Master

This sounds rather conservative, but if you want to avoid digital distortion caused by an overload of your audio interface , this is a useful safety measure. However, you might experience a somewhat squashed and dull sound if you overuse the Limiter by feeding a lot of loud signals to it. Try it out and see what works best for you. For more information, refer to Limiter.

### Hook up your other gear and sync it with MIDI Clock

If you have other gear such as a drum machine, a synthesizer or another sequencer that is able to send MIDI Clock, hook it up to your MIDI interface and activate **Sync to External MIDI Clock** from Maschine's **File** menu so that they can play together in sync. Maschine can also receive MIDI Clock via an internal MIDI port, so you can synchronize it with another software. You can also let Maschine send the MIDI Clock signal by activating **Send MIDI Clock** from the **Preferences**. Please refer to section Integrating Maschine into a MIDI setup for more information on these features. Make sure you also setup the **Sync Offset Receive** value correctly (see chapter Preferences – General page) so that all your devices and Maschine are tightly synchronized.

### Improvise

It is nice if a live set is working out exactly the way you planned it, but sometimes, this can get boring for you and the audience. Something unexpected or even simple mistakes can be the key for inspiring tracks and performances as well as just jamming around with your Sounds and Samples!

## Basic techniques

### Use Mute and Solo

Mute and Solo are excellent ways to build up a live set, especially on the Maschine controller, as you can mute and solo Groups and Sounds simultaneously.

Since soloing a Sound mutes all Sounds except one, the **MUTE** button can then be used to "release" Sounds that have been muted. You can use this technique to create a breakdown: Solo a given Sound such as a kick drum, then build the track up again by bringing the muted Sounds back in one at a time with the **MUTE** button. For more information, refer to Use Note Repeat.

### Create variations of your drum patterns in the step sequencer

You can easily create exciting drum patterns by adding or removing steps in the step sequencer. Breaks and build-ups like snare rolls or a double-tempo hi-hat can be created on the fly.

For more information, refer to Recording Patterns with the step sequencer.

### Use Note Repeat

Note Repeat is a helpful tool for playing live: use it to add some additional drums, drop in some effect sounds, play a bassline or a melody. Note Repeat is also interesting to use with tonal Sounds, and you can access it from Keyboard mode to create synthesizer-like arpeggios.

### Set up multi-effect Groups and automate them

You can set up multi-effect Groups containing all the effects you want to use in a live set. You can find several multi-effect Groups in the **LIBRARY** pane of the Browser to give you an idea of what works for you. To quickly change and modulate the effect settings, you can set modulation for the multi-effect as Patterns from within the Maschine software. By using Patterns for the multi-effect Group, you could, for example, trigger a filter sweep or a wild modulated Beat Delay. For more information, refer to Creating multi-effects.

# Special tricks

## Change the Pattern Length to add variation

Try a short Pattern Grid resolution like a quarter or eighth note and change the Pattern Length (refer to Adjusting the Arrange Grid and the Pattern Length) to create variations of a Pattern. If you select an even smaller value like 1/64th you can create stuttering breaks and rolls.

## Load long audio files and play with the start point

You can adjust the start point of a Sample in the Sampler's Parameter pages (refer to Page 1: Voice Settings / Engine). If you load a long audio file, you can create interesting variations by tweaking (or modulating) the start point.

# 17. Troubleshooting

If you are experiencing problems related to your Native Instruments product that the supplied documentation does not cover, there are several ways of getting help.

Before getting help please make sure you have downloaded the latest Maschine software from Native Access.

## How to get support

The Native Instruments website has a dedicated Support page that is designed to help you find answers to your questions and resolve any issues as quickly as possible. To get Support, visit https://support.native-instruments.com/hc/.

## User forum

In the Native Instruments User Forum, you can discuss product features directly with other users and with experts moderating the forum. Please be aware that the Technical Support team does not participate in the forum. If you're encountering an issue that can't be solved by other users, contact Native Instruments' Technical Support team via the online support as described above. You can reach the User Forum via: http://www.native-instruments.com/forum.