

MASCHINE MIKRO

NATIVE INSTRUMENTS

THE FUTURE OF SOUND

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1 Welcome to MASCHINE

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.

1.1 MASCHINE Documentation

Native Instruments provide many information sources regarding MASCHINE. The main documents should be read in the following sequence:

1. **MASCHINE Getting Started:** This document provides a practical approach to MASCHINE via a set of tutorials covering easy and more advanced tasks in order to help you familiarize yourself with MASCHINE.
2. **MASCHINE Manual** (this document): The MASCHINE Manual provides you with a comprehensive description of all MASCHINE software and hardware features.

Additional documentation sources provide you with details on more specific topics:

- **Controller Editor Manual:** Besides using your MASCHINE hardware controller together with its dedicated MASCHINE software, you can also use it as a powerful and highly versatile MIDI controller to pilot any other MIDI-capable application or device. This is made possible by the Controller Editor software, an application that allows you to precisely define all MIDI assignments for your MASCHINE controller. The Controller Editor was installed during the MASCHINE installation procedure. For more information on this, please refer to the Controller Editor Manual available as a PDF file via the Help menu of Controller Editor.
- **Online Support Videos:** You can find a number of support videos on The Official Native Instruments Support Channel under the following URL: https://www.youtube.com/NIsupport-EN. We recommend that you follow along with these instructions while the respective application is running on your computer.

Other Online Resources: 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:

- Knowledge Base
- User Forum
- Technical Support
- Registration Support

You will find more information on these subjects in the chapter Troubleshooting.

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.

1.2 Document Conventions

This section introduces you to the signage and text highlighting used in this manual. This manual uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing these notes let you see what kind of information is to be expected:

This document uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing the following notes let you see what kind of information can be expected:

The speech bubble icon indicates a useful tip that may often help you to solve a task more efficiently.

The exclamation mark icon highlights important information that is essential for the given context.

The red cross icon warns you of serious issues and potential risks that require your full attention.

Furthermore, the following formatting is used:

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) in the software and paths to locations on your hard disk or other storage devices is printed in *italics*.
- Text appearing elsewhere (labels of buttons, controls, text next to checkboxes etc.) in the software is printed in blue. Whenever you see this formatting applied, you will find the same text appearing somewhere on the screen.

- Text appearing on the displays of the controller is printed in light grey. Whenever you see this formatting applied, you will find the same text on a controller display.
- Text appearing on labels of the hardware controller is printed in orange. Whenever you see this formatting applied, you will find the same text on the controller.
- Important names and concepts are printed in **bold**.
- References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Enter]").

► Single instructions are introduced by this play button type arrow.

→ Results of actions are introduced by this smaller arrow.

Naming Convention

Throughout the documentation we will refer to **MASCHINE controller** (or just **controller**) as the hardware controller and **MASCHINE software** as the software installed on your computer.

The term "**effect**" will sometimes be abbreviated as "**FX**" when referring to elements in the MASCHINE software and hardware. These terms have the same meaning.

Button Combinations and Shortcuts on Your Controller

Most instructions will use the "+" sign to indicate buttons (or buttons and pads) that must be pressed **simultaneously**, starting with the button indicated first. E.g., an instruction such as:

"Press SHIFT + PLAY"

means:

1. Press and hold SHIFT.
2. While holding SHIFT, press PLAY and release it.
3. Release SHIFT.

1.3 New Features in MASCHINE 2.8

The following new features have been added to MASCHINE:

Sounds.com Integration

- Browse on Sounds.com, create your own collections of loops and one-shots and send them directly to the MASCHINE browser.

Improvements to the Browser

- Samples are now cataloged in separate Loops and One-shots tabs in the Browser.
- Previews of loops selected in the Browser will be played in sync with the current project. When a loop is selected with Prehear turned on, it will begin playing immediately in-sync with the project if transport is running. If a loop preview starts part-way through the loop, the loop will play once more for its full length to ensure you get to hear the entire loop once in context with your project.
- Filters and product selections will be remembered when switching between content types and Factory/User Libraries in the Browser.
- Browser content synchronization between multiple running instances. When running multiple instances of MASCHINE, either as Standalone and/or as a plug-in, updates to the Library will be synced across the instances. For example, if you delete a sample from your User Library in one instance, the sample will no longer be present in the other instances. Similarly, if you save a preset in one instance, that preset will then be available in the other instances, too.
- Edits made to samples in the Factory Libraries will be saved to the Standard User Directory.

For more information on these new features, refer to the following chapter ↑4, Browser.

Improved Support for A-Series Keyboards

- When Browsing with A-Series keyboards, you can now jump quickly to the results list by holding SHIFT and pushing right on the 4D Encoder.
- When Browsing with A-Series keyboards, you can fast scroll through the Browser results list by holding SHIFT and twisting the 4D Encoder.
- Mute and Solo Sounds and Groups from A-Series keyboards. Sounds are muted in TRACK mode while Groups are muted in IDEAS.

- Adjust Pattern Length with A-Series keyboards. Push the 4D Encoder on a Pattern in IDEAS. Twist for 1 bar increments, or hold SHIFT and twist for finer increments. Press again to set.
- Clear patterns from A-Series keyboards by holding SHIFT and pressing STOP.

1.4 New Features in MASCHINE 2.7.10

The following new features have been added to MASCHINE:

New Hardware Support

- Support for KOMPLETE KONTROL A-Series keyboards.

Audio Plug-in Improvements

- Added Edit Tab to Audio plug-in: Like the Sampler plug-in, you can now perform destructive audio edits to loops loaded into the Audio plug-in via the new Edit tab.
- Added Usable Play Range for Audio plug-in: in the Edit tab of the Audio plug-in, there are now Playable Range Start and End markers which can be used to isolate only a portion of the loaded audio file that you wish to loop. The timeline along the top of the waveform now shows musical units rather than samples.

For more information on editing audio, refer to ↑8, Using the Audio Plug-in.

General Improvements

- Items can now be dragged from the Browser to external locations.

1.5 New Features in MASCHINE 2.7.8

The following new features have been added to MASCHINE:

New Hardware Support

- Support for KOMPLETE KONTROL S88 MK2

- Support for MASCHINE MIKRO MK3 hardware

1.6 New Features in MASCHINE 2.7.7

The following new features have been added to MASCHINE:

Audio plug-in Improvements

- Added a Formant mode to the Audio plug-in which preserves formants when pitching an audio loop up or down. This can be particularly useful when working with vocal material. For more information, refer to ↑8, Using the Audio Plug-in.
- The Engine Modes are now listed in order of CPU load, from lowest (Re-pitch) to highest (Formant).
- The Take Recording workflow has been improved by muting the previously-playing Take when you trigger a new recording so you're not distracted hearing the old Take while trying to record a new one. If you abort the recording, the previously-playing Take will be restored.
- The Pattern Recording workflow has been improved by muting the previously-playing Pattern when you trigger a new recording so you're not distracted hearing the old Pattern while trying to record a new one. If you abort the recording, the previously-playing Pattern will be restored.
- When you drag a bounced audio file from the Pattern Editor dragger to a Sound Slot or Group, MASCHINE will now load this into an Audio plug-in instead of a Sampler.
- When Exporting loop content from MASCHINE, the Project Tempo will now be written into the files. MASCHINE will read this tempo when later loading this file into the Audio plug-in.
- MASCHINE now writes both the Tempo and Loop tags to recordings made with Loop mode. Tempo is attached to recordings made in Sync mode. These recordings will therefore always be in sync with the project when loading them into an Audio plug-in.

Pattern Editor

- The number of tools available in the software for editing the Patterns has been reduced due to redundant functionality. Instead of an arrow, a pencil, and an eraser, there is now just a pencil tool which can be toggled on and off. When the pencil is off, the mouse will behave as it did when using the arrow tool (and the mouse will look like a normal arrow in this mode). When the pencil is on, this enables the same pencil/paint functionality as before (and the mouse will look like a pencil when in this mode). For more information, see ↑11.4.1, Editing Events with the Mouse: an Overview.
- There are some changes to keyboard shortcut behavior as they relate to view switching in the pattern editor:
  - W = toggle between Group view and Keyboard view
  - S = toggle Sampling view on/off
  - E = toggle Pencil/Paint on/off

Recording

- You can now engage count-in recording from the software while the playhead is moving via Command + Shift + Space (macOS) or Ctrl + Shift + Space (Windows).

General Improvements

- There are now previews of all Groups/Kits and Sounds in the MASCHINE Factory Library. In order for the previews to be available, you must first install the Factory Library v1.3.2 update.
- The "Use latest version of NI plug-ins" preference has had its functionality extended to project loading (previously, it was limited to the loading of presets). For example, if you made a project that used REAKTOR 5 but you also have REAKTOR 6 installed, enabling this preference will cause REAKTOR 6 to be loaded in all instances when loading up the project. When running in Standalone mode, a dialog box will be presented showing which plug-ins were updated. This function will also happen automatically if you only have the newest plug-in version installed, regardless of whether the preference is enabled or not, to ensure you can load the older project rather than getting the annoying "Could not load 1 or more plug-ins" error. For more information, see ↑3.6.6, Preferences – Plug-ins Page.

1.7 New Features in MASCHINE 2.7.4

The following new features have been added to MASCHINE:

Audio Plug-in Improvements

- Added a new Target parameter to the Loop recording mode of the Sampling Page which determines what should be done with a new recording when the recording is complete. Take simply adds the new recording to the Audio Pool of the current plug-in, Sound puts the new recording into an Audio plug-in in the next unoccupied Sound Slot (useful for layering the recording with whatever else is in the current Pattern, like a guitar looper pedal), and Pattern puts the new recording into an Audio plug-in in the next unoccupied Sound Slot and additionally creates a new Pattern where only this loop is being played (useful for capturing different versions of a part and quickly reviewing them by switching Patterns). For more information, refer to ↑17.2, Recording Audio.
- Added a new workflow to MASCHINE JAM which automates the use of the new Target parameter for fast sampling and layering. Holding the IN 1 button enables this new Loop Recording mode (it's also helpful to pin this mode on by holding IN 1 and pressing the SONG button). While this new Loop Recording mode is active, pressing an existing Pattern will trigger a recording of a new loop which is then added as a new Sound in the existing Pattern; doing this repeatedly allows you to quickly layer recordings on top of each other. Alternatively, pressing an empty Pattern button will trigger a recording and will then place that recording in a new Sound Slot and a new Pattern will be created where only the new loop is playing back. When pressing the IN 1 button, External Input 1 is selected as the source for the recording. Pressing GRP while in the Loop Recording mode will select the focused Group as the source. Pressing MST will select MASCHINE's Master output as the source (for resampling what is currently playing). For more information, refer to the MASCHINE JAM Manual available from *Help* menu.
- Added footswitch control of Sampling. When in the Sampling page, or when the Loop Recording mode is enabled on MASCHINE JAM, a connected footswitch can be used to control recording. Pressing the footswitch will arm a recording according to the current settings. Pressing the footswitch again before recording has actually started will cancel the recording. If recording is in progress, pressing the footswitch once will stop the recording, double-pressing will abort the recording (any recorded audio to that point will be discard-

ed). If the recording is complete, holding the footswitch down for a few moments will trigger Undo so you can try another take. For more information, refer to the MASCHINE JAM Manual available from *Help* menu, or to the following section when using MASCHINE MK3 or MASCHINE STUDIO: Using the Footswitch for Recording Audio.

- Improved the automatic tempo detection of the Audio plug-in so that it now chooses a tempo that's closest to your current project tempo. For example, if your project tempo is 170 BPM and you load a loop which should be 174 BPM, MASCHINE will now set the Source Tempo as 174 BPM instead of 87 BPM as it did previously.
- Added a Re-Pitch sync mode to the Audio plug-in which simply retunes/repitches the loop (like speeding up or slowing down a record) to make it conform to the Project tempo. This mode requires significantly less CPU power than the default mode, but you will not be able to retune the loop at all (any pitches programmed in Gate mode will be ignored—only the timing of the programmed notes will be used to gate the playing audio). For more information refer to ↑8, Using the Audio Plug-in.

MASCHINE MK3 Improvements

- Added Ableton Live DAW Integration for MASCHINE MK3 - Mixer and basic DAW Control. Access Ableton Live Mixer via MASCHINE MK3 hardware: Volume, Pan, Mute / Solo / Arm states are visible on screens. Also access essential controls: Play / Stop / Record / Session record, Clip Navigation, Launch & Record, Quantize, Undo / Redo, Automation Toggle, Tap Tempo, and Loop Toggle. For more information refer to Host Integration.

General Improvements

- Improved the Take management system (previously called "Recording History") for the Sampler and Audio plug-ins such that Takes are now saved and recalled as part of the Project.
- Improved external audio recording by implementing basic recording latency compensation. This compensation will be in effect when recording from an External Input and with the Monitoring parameter turned Off. The system currently works based upon the overall latency reported by the selected audio interface.
- Removed the function where a right click will remove Events in the Pattern Editor. Instead, the context menu is opened. Events can still be deleted using double-click as well as using the "Paint" and "Erase" tools. For more information refer to ↑11.4.5, Deleting Events/Notes.

- Changed the behavior of right-click in the Arranger. This no longer removes Patterns from Scenes. It now opens a context menu with many useful options for arranging. For more information on using the Pattern context menu within Song view refer to ↑16.3.13, Working with Patterns in Song view.
- Improved behavior and cursor icons for resizing Events in the Pattern Editor. The active area for resizing Events is increased.

1.8 New Features in MASCHINE 2.7.3

The following new features have been added to MASCHINE:

Audio Plug-in Improvements

- Added the ability to enable and disable Audio plug-in playback per Pattern when in Loop mode. Double-clicking the waveform will toggle playback for the selected Pattern. Alternatively, the loops can be enabled or disabled via the STEP page on the hardware controllers. For more details see ↑8.3, Using Loop Mode.
- Added a Loop recording mode to the Record tab, and the Record tab is now available for both Sampler and Audio plug-ins. When choosing the new Loop mode, the start of recording will be quantized to the start of the Pattern. Furthermore, when the recording is complete, the loop will automatically be loaded into an Audio plug-in and will immediately begin playback. For more details see ↑17.2, Recording Audio.

MASCHINE Controller Improvements

- Added Ideas View on MASCHINE MK3 and MASCHINE STUDIO. Access Ideas view with the MASCHINE MK3 hardware. For more details see ↑16.2, Using Ideas View.
- Added Event Editing on MASCHINE MK3 with 4-Directional Encoder. Select, nudge, pitch-shift and change the length of notes with the 4-Directional Encoder in the events window (on hardware screens). For more details see ↑11.4, Editing Events.
- Added Apple Logic DAW Integration for MASCHINE MK3, Mixer and basic DAW Control.
    - Access Logic Mixer via MASCHINE MK3 hardware (Volume, Pan, Mute / Solo states are visible on screens).

- Access Essential Controls: Play / Stop / Record / Quantize, Undo / Redo, Automation Toggle, Tap Tempo, and Loop Toggle.

General Improvements

- Added additional Scales from KOMPLETE KONTROL into MASCHINE. For more details see ↑6.4.2, Selecting a Scale and Creating Chords.
- Added loading of Perform FX at the end of a Group plug-in chain.
- Fixed an issue the broke Pattern Duplicate on the MASCHINE MIKRO.
- Fixed an issue where the MASCHINE Transport Loop would influence Ideas View playback when hosted in a DAW.
- Fixed a crash that could occur when zooming horizontally in the Arranger with special characters in Section names.
- Fixed some issues around renaming Scenes and Sections.
- Removed 32-bit versions of standalone application and plug-in.
- Added Velocity Curves to Controller Editor for MASCHINE MK3.
- Removed the modal dialog at startup that suggests to download sound preview files from Native Access. The preview files are still available for installation in Native Access.

2 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 every-day work with your controller (↑2.1, Using Your Controller).
- An overview of a MASCHINE Project and a description of both its structure and content (↑2.2, MASCHINE Project Overview).
- A basic reference of your hardware controller, naming and quickly describing each of its control elements (↑2.3, MASCHINE Hardware Overview).
- A basic reference of the MASCHINE software (↑2.4, MASCHINE Software Overview).



For a comprehensive description of every feature and setting, please refer to the Manual.

2.1 Using Your Controller

This section provides useful information for your every-day work with the MASCHINE controller.



For a complete reference of all shortcuts available on your controller, please refer to the Manual.

2.1.1 Controller Modes and Mode Pinning

The controller has different modes of operation.

In addition to the default Control mode (in which the pads trigger your Sounds), there are many other modes for accomplishing various tasks. These modes are enabled by specific buttons on your controller (e.g., SCENE, BROWSE, MAIN, etc.).

For some of these modes, you need to hold the button to keep the mode active. For example, when you press the PAD MODE button, the displays will show pad-specific control options; when you release it, the controller switches back to Control mode.

The buttons that are required to be held are in the middle column of your controller (left of the pads) along with the NOTE REPEAT button and the GRID button:



Each of these buttons needs to be pressed in order to use the corresponding mode.

Pinning the Controller Modes

You can also pin (i.e. lock) controller modes, so the controller doesn't switch back when releasing a mode button:

1. Press and hold a controller mode button, e.g., VIEW.
2. Press the CONTROL button.

→ You can release the VIEW button: The controller will remain in View mode until you press VIEW again.



Once a mode has been pinned your controller will automatically pin the mode next time it is pressed.

You can unpin any mode by pressing the mode button and CONTROL.

Navigating the MASCHINE MIKRO MK2 Controller Display

The buttons above and below the display, along with the Control encoder (on the right), have functions relating to what is shown on the display:



The control elements around the display.

- Depending on what is shown on the display, some of the buttons might be inactive — in that case they are off. The active buttons (i.e. those that would do something if you would press them) are always dim or fully lit.
- The ENTER button allows you to enter Control mode.

- The F1, F2, and F3 buttons above the display allow you to select the tab or button under them (at the top of the display). For example, in the picture above the SOUND tab is selected.
- The NAV + F2 and NAV + F3 allow you to switch between Channel and Plug-in.
- The NAV + Left and Right Arrow buttons under the display allow you to switch between the Plug-in and Control Mode pages. You can also use them in combination with the pads.
- Press Left/Right Arrow button to quickly navigate Plug-in parameters — in Control mode this field represents the selected parameter (1/8: OSC 1 SOL. in the picture above).
- The Control encoder allows you to change the value of the highlighted field. For continuous parameters, by pressing and turning the Control encoder you can change the value in finer increments. The Control encoder can also aid navigation (e.g., in the Browser).

2.1.2 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.

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

Scene View

Use Scene view to navigate the Arranger in the MASCHINE software:

1. Press and hold the VIEW button to enter View mode. You can also press VIEW + CONTROL to pin the View mode so that you can release VIEW and stay in View mode (see ↑2.1.1, Controller Modes and Mode Pinning).
2. Press F1 to select SCENE and use the pads in the table below to navigate the Scene view.

Action	Shortcut
Hide/view Browser	Press pad 13
Hide/view Control Lane	Press pad 14
Compact/Full Mixer	Press pad 15 (only in Mix view: SHIFT+VIEW)
Scroll Pattern left	Press pad 1

Action	Shortcut
Scroll Pattern right	Press pad 3
Zoom in (Arranger)	Press pad 6
Zoom out (Arranger)	Press pad 2

Pattern View

Use Pattern view to navigate the Pattern Editor in the MASCHINE software:

1. Press and hold the VIEW button to enter View mode. You can also press VIEW + CONTROL to pin the View mode so that you can release the VIEW button and stay in View mode (see ↑2.1.1, Controller Modes and Mode Pinning).
2. Press F2 to select PAT (for "Pattern") and use the pads in the table below to navigate the Pattern Editor view.

Action	Shortcut
Hide/view Browser	Press pad 13
Hide/view Control Lane	Press pad 14
Compact/Full Mixer	Press pad 15 (only in Mix view: SHIFT+VIEW)
Scroll Pattern left	Press pad 1
Scroll Pattern right	Press pad 3
Zoom in (Pattern Editor)	Press pad 6
Zoom out (Pattern Editor)	Press pad 2
Scroll up (Pattern Editor)	Press pad 8 (only in Keyboard mode: SHIFT+PAD MODE)
Scroll down (Pattern Editor)	Press pad 4 (only in Keyboard mode: SHIFT+PAD MODE)

2.2 MASCHINE Project Overview

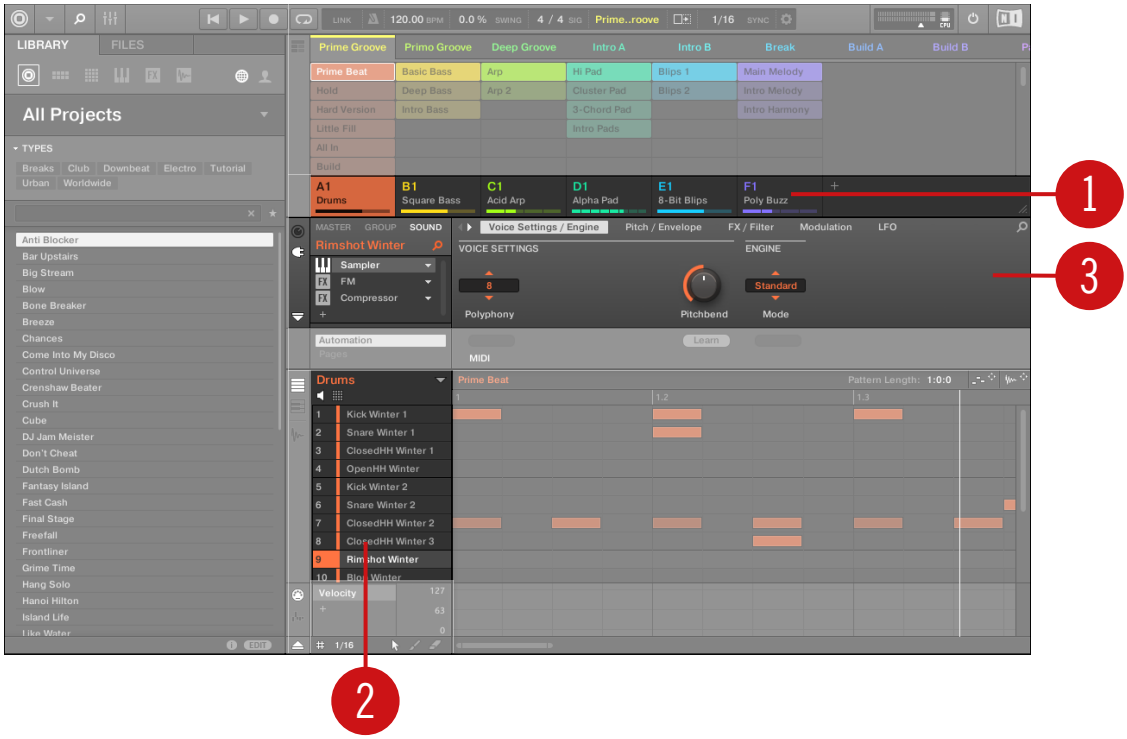
A MASCHINE Project contains all the information stored with a MASCHINE-produced piece of music.

- 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 which 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.

2.2.1 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 eight Groups (A-H) and each Group contains sixteen Sound slots (1–16) (**2**). 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 (**3**), 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.

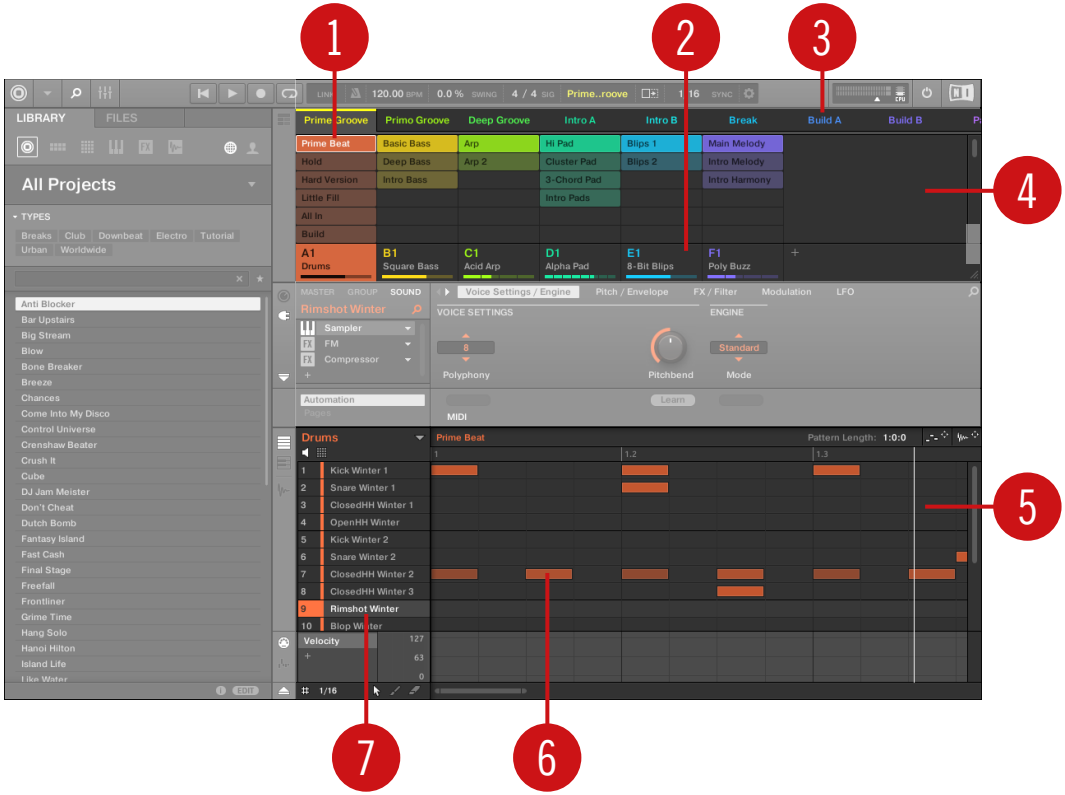
- The controls in the MASTER section affect the sound at the main outputs of MASCHINE, i.e. the sound of all Groups and all Sounds.

2.2.2 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 Arrangement area 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 (1-16). A recorded instance of a Sound is called an event (**6**).
- Together, the events add up to a Pattern (**1**) for the selected Group.
- All of this takes place 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 (**4**) allows you to combine your Patterns from each Group.
- Here you combine your Patterns (**1**) 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:

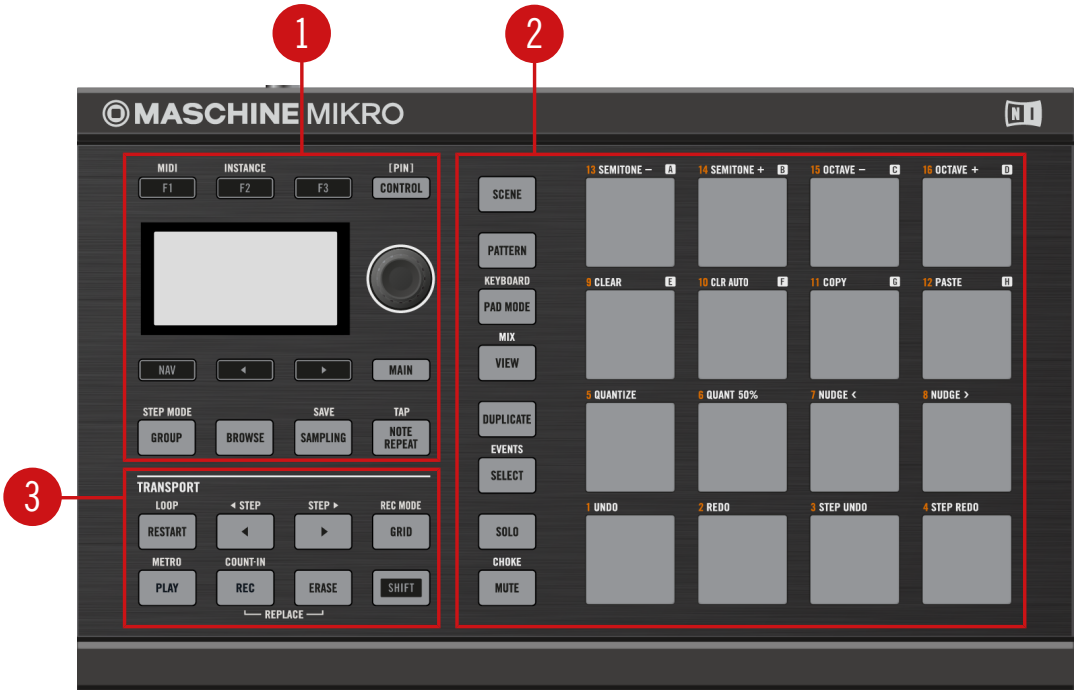
- Create Sections on the Timeline of the Arranger (**1**).
- Assign each Scene to a Section (**2**).

- Change the position of a Section by dragging the Sections slot.

2.3 MASCHINE Hardware Overview

2.3.1 MASCHINE MIKRO Hardware Overview

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



Overview of the MASCHINE MIKRO MK2 hardware controller.

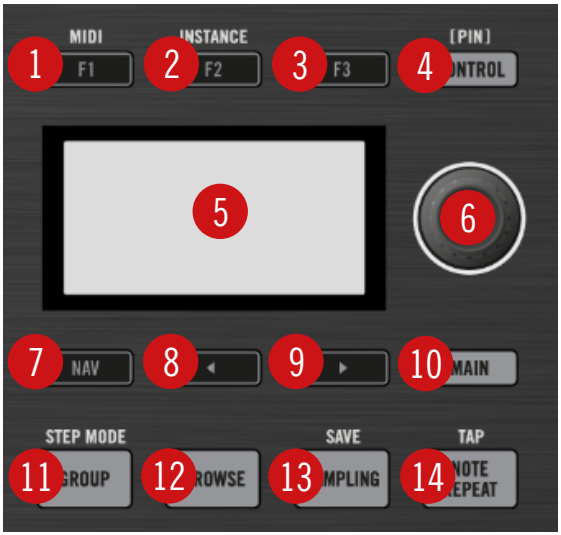
(1) **CONTROL section**: Use this multi-purpose section to access to all parameters of the mode currently selected on your controller. There are also dedicated buttons to access the Browser and the Sample Editor. For more information on this section please view CONTROL Section.

(**2**) **PADS section**: Access the various controller modes using the column of mode buttons on the left-hand side of this section. Pads 1-16 allow you to play the Sounds of the selected Group. For more information on this section please view PADS Section.

(**3**) **TRANSPORT section**: Start, stop and restart playback, activate record and skip bars while playing, simply by pressing the dedicated buttons. Use SHIFT to access the secondary functions of your controller. For more information on this section please view TRANSPORT Section.

2.3.1.1 CONTROL Section

This section gives an overview of the CONTROL section.



Overview of the CONTROL section.

(**1**–**3**) **F1**, **F2** and **F3** buttons: The three buttons above the LCD display dynamically adapt their function to the active mode, allowing direct access to the most important sub-sections and functions. The action they will perform is shown below each button in the display. Using the SHIFT button you can also use F1 to access **MIDI mode** and F2 to access **Instance mode**:

- **MIDI mode**: In this mode you can use MASCHINE MIKRO MK2 as a MIDI controller. Press SHIFT + F1 to access MIDI mode. For more details, please refer to the Controller Editor manual.

- **Instance mode**: In this mode you can select which instance of the MASCHINE plug-in you want to control from your hardware controller if you have more than one instance open in your Digital Audio Workstation (DAW). Press SHIFT + F2 to access Instance mode. Turn the Control encoder (**6**) to select an instance and press it to connect your controller to that instance.

(**4**) **CONTROL** button: Press the CONTROL button to get back to Control mode. Control mode is the default controller mode and can be used to access parameters of the Sound, Group and Master levels in your MASCHINE Project.



The CONTROL button also allows you to pin a particular mode on your controller: hold the desired mode button and press CONTROL once to pin the corresponding mode. You then can release the mode button and your controller will stay in the corresponding mode until you press it again. See ↑2.1.1, Controller Modes and Mode Pinning for more information.

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

(**6**) **Control encoder**: Turn the Control encoder to adjust the value of the field selected on the display. For some parameters, press and turn the Control encoder to change the value in finer increments. You can also use the Control encoder to browse lists shown on the display: Turn the Control encoder to highlight an entry; push the Control encoder to load it. In Control mode, when the Pattern is playing, hold SHIFT and turn the Control encoder to record automation for the currently selected parameter.

(**7**) **NAV** button: Press NAV + Left or Right Arrow buttons to quickly navigate parameter pages.



If you press and hold the NAV button in Control mode you can press F2 or F3 and then the desired pad 13–16 to select and display a particular Property page or Plug-in slot of the selected Sound/Group or the Master. See the Manual for more details.

(**8**) **Arrow Left** button: Use this button to navigate left in the display. Use with the NAV button to quickly navigate to the previous page or page section.

(**9**) **Arrow Right** button: Use this button to navigate right in the display. Use with the NAV button to quickly navigate to the next page or page section.

(**10**) **MAIN** button: Press the MAIN button to switch to **Main mode**. Main mode is used to change the Volume, Swing and Tempo/Tune parameters at each level of your Project (Master, Group and Sound). Press the MAIN button then: F1 for main **Volume**, F2 for global **Swing,** and

F3 **Tempo** to control the tempo of your Project. Use the Control encoder to change a parameter value. When a pad or the GROUP button is held **Tempo** will be replaced by the **Tune** parameter allowing you to tune individual Sounds or Groups on the fly by rotating the Control knob.

(**13**) **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 blue 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**. For more information on Step mode please refer to chapter Creating Beats with the Step Sequencer.



Hold the GROUP button to select Groups with the pads 9–16. Here, Group A is selected (pad 13 fully lit), Groups B to F contain something (pads 14 and 15 half lit in their respective colors), and Group D is white indicating a new Group can be created here. Groups E to H are empty (pad 9 to 12 off).

The pads 9–16 can also be used to solo and mute Groups on the fly when the SOLO or MUTE buttons are pressed. For example, in order to mute Group C, hold MUTE, press GROUP and then press the pad 15.

(**12**) **BROWSE** button: Press the BROWSE button to access the Browser. Press SHIFT + BROWSE to access the Plug-in menu and load a Plug-in (internal or VST/AU plug-in) in the currently selected Plug-in slot.

(**13**) **SAMPLING** button: Press the SAMPLING button to access the Sample Editor. Press SHIFT + SAMPLING to save your Project.

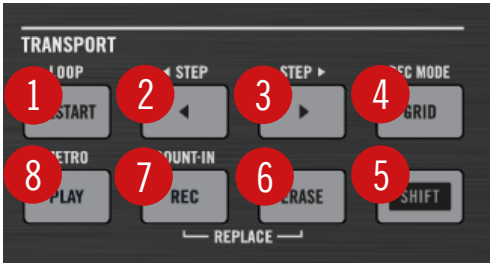
(**14**) **NOTE REPEAT** button: Note Repeat is a really handy way to play and record beats — it plays the selected Sound automatically at a given rate. While holding the NOTE REPEAT button, hold the pad you want to play: notes will be repeatedly triggered at the selected rate shown in the display. With buttons F1, F2 and F3, you can select different rates while playing. You can select new rate values for each of these buttons by turning the Control encoder. Press SHIFT and repeatedly tap the NOTE REPEAT button to set the required tempo for your Project.



The Note Repeat mode can be pinned: Press NOTE REPEAT + CONTROL to pin/unpin the Note Repeat mode. See ↑2.1.1, Controller Modes and Mode Pinning for more information.

2.3.1.2 TRANSPORT Section

This section gives an overview of the TRANSPORT section.



Overview of the TRANSPORT section.

Start, stop and restart playback, activate record and skip bars while playing, simply by pressing the dedicated buttons in the TRANSPORT section of the controller. Use the SHIFT button to invoke secondary commands such as the metronome, Count in and Step Forward and Backward.

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

(**2**) **Step Backward** button: Skip back through the loop range one bar at a time. Press SHIFT + Step Backward to skip backwards step by step.

(**3**) **Step Forward** button: Skip forwards through the loop range one bar at a time. Press SHIFT + Step Forward to skip forwards step by step.

(**4**) **GRID** button: Enters Grid mode. The Grid mode allows you to select resolutions for the Step Grid (used for quantization), for changing Pattern Lengths and for transitions between Scenes.



The Grid mode can be pinned: Press GRID + CONTROL to pin/unpin the Grid mode. See ↑2.1.1, Controller Modes and Mode Pinning for more information.

(**5**) **PLAY** button: Press the PLAY button to activate playback. Press PLAY a second time to stop playback. Press SHIFT + PLAY to turn the metronome on/off.

(**6**) **REC** button: When playback is on, press REC to begin recording. Press REC a second time to stop recording. Hold the REC button to access Pattern Preset mode, this allows you to select a preset for the Pattern Length before recording any events.

(**7**) **ERASE** button: When creating music, erasing needs to be as quick and simple as recording, so there is a dedicated button for this! During playback, hold ERASE and hold any number of pads to erase the events for the corresponding Sounds on the fly as the playback goes on. Use the shortcut ERASE + SELECT + pad to quickly erase all events triggered by that pad in your Pattern.

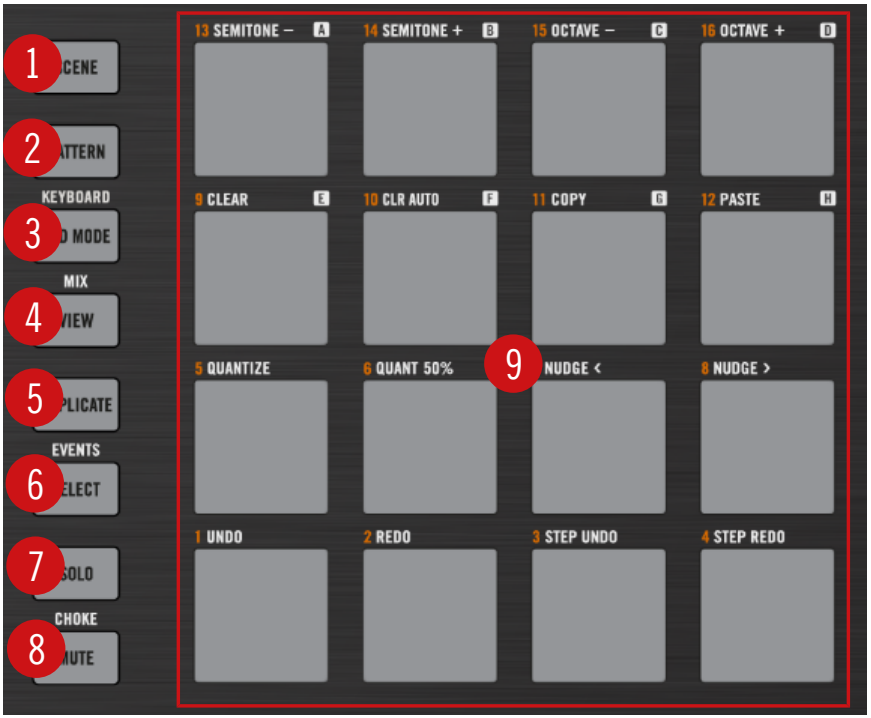
(**8**) **SHIFT** button: While the most important features are accessible through dedicated buttons, many shortcuts are available by holding the SHIFT button and pressing pads 1–16 or several other buttons. In Control mode, when the Pattern is playing, hold SHIFT and turn the Control encoder to record automation for the currently selected parameter.



All hardware shortcuts are explained in the Hardware Control Reference.

2.3.1.3 PADS Section

This section gives an overview of the PADS section.



Overview of the PADS section.



All the following buttons can be pinned: Simply press the desired button + CONTROL to pin/unpin the corresponding mode. See ↑2.1.1, Controller Modes and Mode Pinning for more information.

(**1**) **SCENE** button: Enters **Scene** mode in Ideas view or **Section** mode in Song view. Use Scene mode to access your Scenes and Section mode for arranging 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.



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

(**2**) **PATTERN** button: Enters Pattern mode. Pattern mode allows you to create different Patterns for the selected Group, switch between different Patterns or create a new one during playback, etc. Half-lit pads show which Patterns contain events, the fully lit pad shows the selected Pattern.

(**3**) **PAD MODE** button: Enters Pad Mode. This mode allows you to select a different mode for your pads. For example, you can quickly switch the pads to play melodies or even chords! The following pad modes are available:

- In the standard layout mapping, each pad represents one Sound of the Group and the Sounds' velocity is controlled by the pressure applied on the pads.
- In **Keyboard mode**, the pads represent 16 chromatic steps of the currently selected Sound, ascending from the selected root note — this way you can play the selected Sound like a melodic instrument. You can also use F2 to transpose down or F3 to transpose up an octave at a time. Press SHIFT + PAD MODE to quickly activate Keyboard mode.
- In **16 Velocities mode**, the pads represent 16 levels from the softest to the full velocity of the currently selected Sound — this is especially useful for building up dynamic grooves.
- In **Fixed Velocities mode**, each pad represents one Sound of the Group and all Sounds have the same fixed velocity, whatever pressure you apply on the pads.



You may also change Choke and Link settings in Pad Mode. Please refer to the Manual for more information on these features.

(**4**) **VIEW** button: Enters View mode. When working on large Projects, it is sometimes necessary to look at the computer screen. With View mode there is no need to use the mouse and search for scroll bars or magnifying glasses! Just use the pads and the CONTROL section to zoom in and out or scroll Patterns, Scenes and waveforms. See ↑2.1.2, Controlling the Software Views from Your Controller for more information.

(**5**) **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.

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

(**7**) **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 — 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.

(**8**) **MUTE** button: Enters Mute mode. In this mode, you can instantly mute Sounds and/or Groups by pressing the corresponding pads with or without the GROUP button — 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 unmuted (i.e. audible) Sounds/Groups are represented by fully lit pads.

(**9**) **Pads 1–16**: Besides playing and selecting your Sounds, the pads have many functions depending on the controller mode that is currently active. If you hold the GROUP button, they allow you to select a Group. In addition, when used in combination with SHIFT, the pads trigger various commands:

- Press SHIFT + pad 1/2 to undo/redo your last action.
- Press SHIFT + pads 3–16 to access various editing functions in the selected Pattern.



For a detailed explanation of each feature please refer to the Manual.

2.4 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.

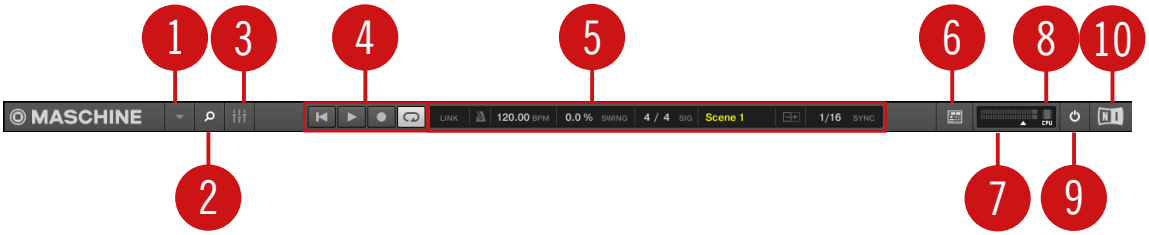
(**2**) **Browser**: The Browser is your tool for managing, finding, tagging and categorizing Projects, Groups, Sounds, Instruments, Effects and Samples. Using the search facility you can quickly find things and Prehear (audition) Samples.

(**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.

2.4.1 Header



The Header.

(**1**) **MASCHINE menu**: Click the MASCHINE menu to access the software menus. This menu is particularly useful in Full screen mode and when MASCHINE is used as a plug-in in a host application.

(**2**) **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 prehear (audition) Samples directly from the Browser and apply new tags.

(**3**) **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.

(**4**) **Transport controls**: The Transport controls contain buttons such as Play, Restart, Record and Loop.

(**5**) **Display area**: The Display area provides control regarding Ableton Link, time signature, tempo, global swing, Follow and Performance Grid (Including Retrigger)

(**6**) **Controller icon**: This area displays an icon each MASCHINE controllers connected to your computer.

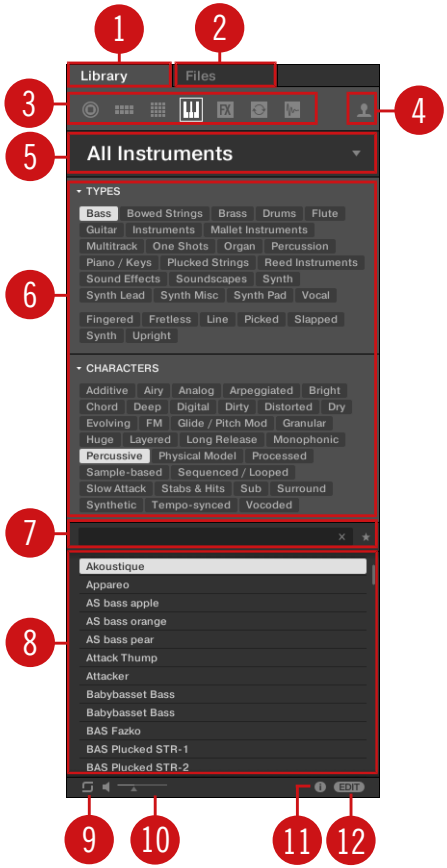
(**7**) **Master Volume slider**: Shows and adjusts the level of the MASCHINE audio output.

(**8**) **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 (for more information, please refer to the Manual).

(**9**) **Audio Engine button**: Click the Audio Engine button to disable the entire sound processing of MASCHINE.

(**10**) **NI logo**: The NI logo and MASCHINE logo open the About screen which displays the version number and edition of your MASCHINE software.

2.4.2 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 to listen in context and in tempo with your Project while it is playing.

(**10**) The Prehear 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.



Audition control volume slider.

When browsing **Groups**, the +PATTERNS and +ROUTING buttons appear in the Control bar of the Browser.



+PATTERNS and +ROUTING 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 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.

2.4.3 Arranger

The Arranger is 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. 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**: 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 (see ↑2.4.5, Pattern Editor) and the Group's Channel properties and Plug-in parameters in the Control area (see ↑2.4.4, 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**: 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 (see ↑2.4.5, Pattern Editor) and the Group's Channel properties and Plug-in parameters in the Control area (see ↑2.4.4, 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 Scene 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.

2.4.4 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).

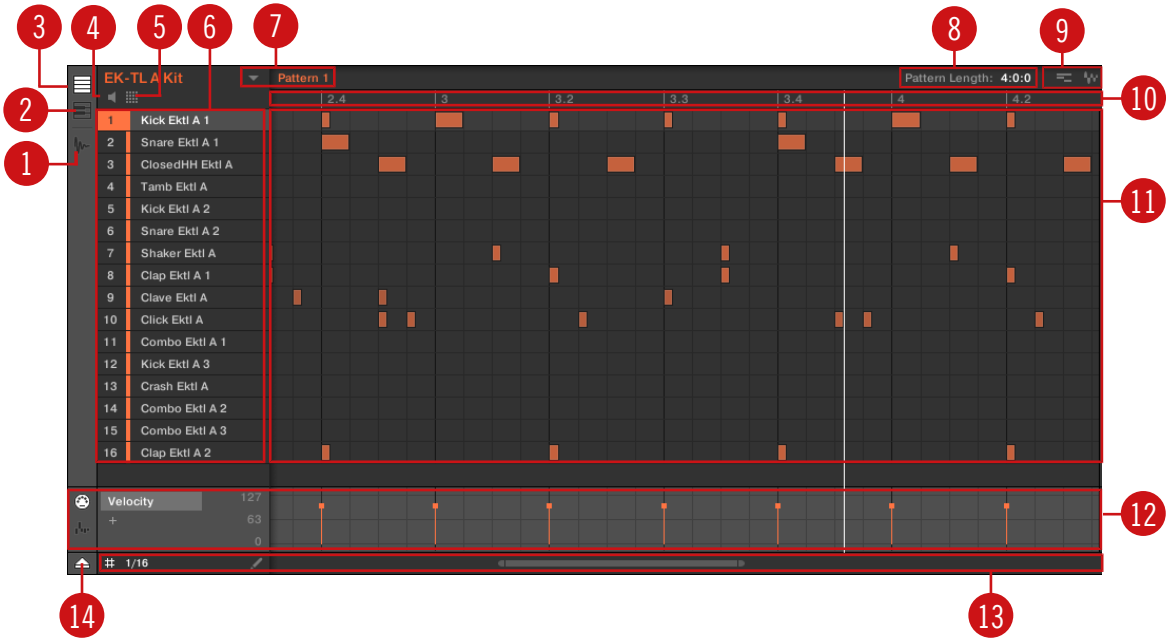
(**5**) **SOUND tab**: Click the SOUND tab to gain access to Plug-ins and Channel properties of the Sound in the selected Sound slot (1-16).

(**6**) **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 pages. In this case, click the name of the parameter page to display it.

(**7**) **Quick Browse Icon**: Use the Quick Browse icon to recall the search query you performed to find the currently loaded file/preset.

(**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.

2.4.5 Pattern Editor



The Pattern Editor.

(**1**) **Sample Editor** button: Click this button to open/close the Sample Editor.

(**2**) **Keyboard** view button: Click this button to display the Keyboard view.

(**3**) **Group** view button: Click this button to display the Group view.

(**4**) **Audition** button: Click this button to audition a Sound when it is selected from the Sound slots (**6**).

(**5**) **Sound** properties icon: Click this icon to quickly access the Key, Choke, and Link settings for the selected Sound.

(**6**) **Sound** slots: Sounds 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 (see ↑2.4.4, Control Area). In Keyboard view (**2**), click a Sound slot to display its events in the Step Grid (**11**).

(**7**) **Pattern** slots: 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 ↑2.4.3, Arranger). Select various Patterns from each Group to form an arrangement.

(**8**) **Pattern Length** controls: The Pattern Length controls allow you to choose the unit by which the length of the Pattern can be adjusted and to adjust the length of the displayed Pattern according to that unit.

(**9**) **Dragger** icons: The Dragger icons allow you to conveniently drag and drop audio or MIDI from your Patterns to your desktop or host software.

(**10**) **Pattern timeline**: The timeline at the top of the Step Grid (**11**) displays musical time units, including bars and beats. Click the timeline to resize the currently selected Pattern.

(**11**) **Step Grid**: 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 automation of each parameter and modulation of each MIDI control change.

(**13**) **Edit** controls: Use the Step menu to change the step size in which events can be moved/resized and click the Pencil icon to toggle the Pencil mode on/off.

(**14**) **Control Lane** button: The Control Lane button allows you to show/hide the Control Lane (**12**).



For a detailed explanation of each section please refer to the MASCHINE Manual.

3 Basic Concepts

This chapter will reintroduce 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 how to connect MIDI devices.



Before reading this chapter it is strongly recommended that you read the MASCHINE Getting Started first.

3.1 Important Names and Concepts

We will start with 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 independent 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. To learn more about the Browser, please read chapter ↑4, 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 details on using effects in MASCHINE, refer to chapter ↑14, Using Effects. You will find an exhaustive description of all internal effects included in MASCHINE in chapter ↑15, 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). Events are described in more detail in chapter ↑11, Working with Patterns.

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). Refer to chapter ↑5, Managing Sounds, Groups, and Your Project for more information on Groups.

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. More information on the Master can be found in chapter ↑5, 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. More information on Patterns can be found in chapter ↑11, Working with Patterns.

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. Refer to chapter ↑7, 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. Refer to chapter ↑16.3, Using Song View for more information on Scenes.

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. Refer to chapter ↑5, Managing Sounds, Groups, and Your Project for more information on Sounds.



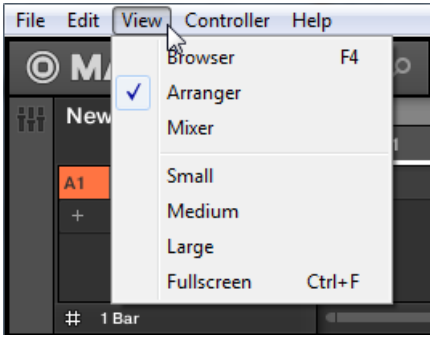
Please refer to chapter ↑20, Glossary at the end of this Manual for more definitions.

3.2 Adjusting the MASCHINE User Interface

The MASCHINE software user interface is very flexible. You can choose what to display and what not, allowing you to focus on your workflow. This section shows you how to adjust the MASCHINE GUI to suit your needs.

3.2.1 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).

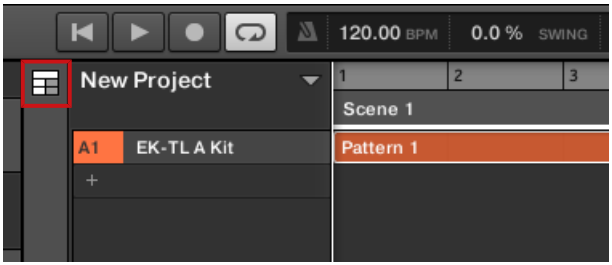


The View submenu in the MASCHINE menu.

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

3.2.2 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 in the top left corner.

► Press the Arranger view button to toggle between Song view and Ideas view.

→ The Arrangement area switches from Ideas view (default view) to Song view.

For more information about Ideas view and Song view see ↑16, Working with the Arranger.

Switching between Ideas View and Song View using the Controller

On your controller:

- Press SHIFT + SCENE to quickly toggle between Ideas view and Song View.
- The software switches between Ideas view and Song View.

3.2.3 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 VIEW + pad 13 to show/hide the Browser.

3.2.4 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.

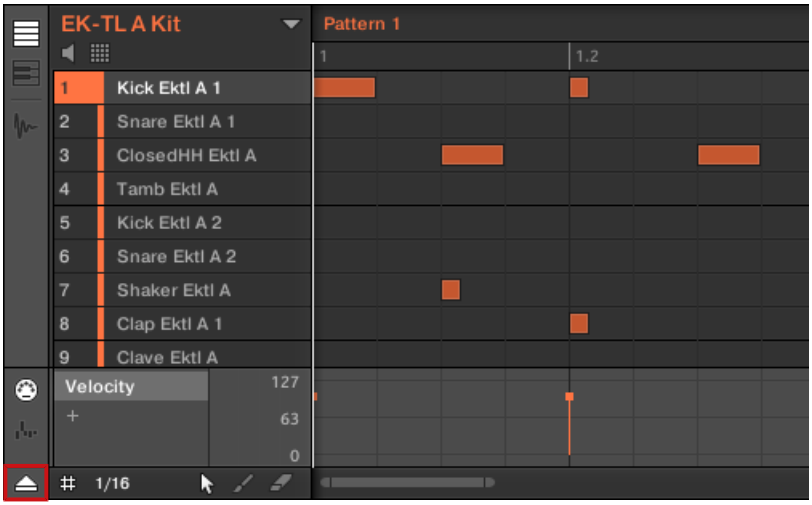
Minimizing the Mixer on the MASCHINE Controller

Press VIEW + pad 14 to show/hide the channel details in the Mixer.

3.2.5 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.



Click the arrow button at the bottom left of the Pattern Editor to show/hide the Control Lane.

Showing/Hiding the Control Lane on the Controller

► Press VIEW + pad 15 to show/hide the Control Lane.

3.3 Common Operations

This sections introduces a few very common operations in MASCHINE you will encounter in numerous situations.

3.3.1 Pinning a Mode on the Controller

Besides the default Control mode, your controller has various other modes of operation, which you can enter by pressing their dedicated buttons. Depending on their purpose and workflow, these controller modes are of two types:

- **Temporary modes** only stay active as long as you hold down their button on the controller. When you release the button, your controller returns to Control mode. This is for example the case with the MUTE button.

- **Permanent modes** stay active even if you release their button. To deactivate them, you must press their button a second time. This is for example the case with the BROWSE button.

But in some situations you might want to release the mode button of a temporary mode without leaving that mode, e.g., to free your hand and tweak other controls more easily. For this purpose, MASCHINE lets you pin (or "lock") temporary modes so that they behave like permanent modes.

► To pin a mode on your controller, press the relevant mode button (SCENE, PATTERN, etc.) + CONTROL.

→ Now the mode is always pinned when you select it.

► To unpin a mode (i.e. make it a temporary mode again), press its mode button + CONTROL again.

→ Now the mode will only be active as long as you hold the mode button.

Here is a list of all buttons on your controller that you can pin by pressing CONTROL simultaneously:

- All buttons in the column at the left of the pads (SCENE, PATTERN, ..., SOLO, MUTE)
- GRID button
- NOTE REPEAT button

3.3.2 Adjusting Volume, Swing, and Tempo

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

3.3.2.1 Adjusting Volume, Swing and Tempo in the MASCHINE Software

Adjusting Volume

To adjust the various volume levels in the software, the following controls are at your disposal:

► 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.

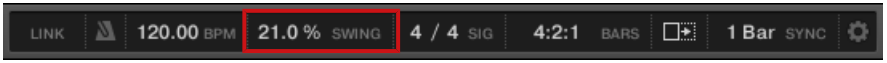


Use the Master Volume slider in the Header to adjust the overall volume of MASCHINE.

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 Mix View.

Adjusting Swing

To adjust the overall Swing of your song, you can use the display in the Header, at the top of the MASCHINE window:

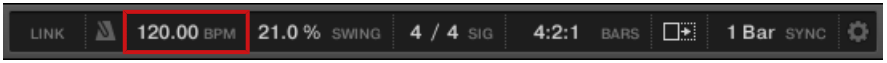


The SWING control in the Header.

► To adjust the Swing value of your Project, click the SWING value, hold the mouse button and drag vertically.

Adjusting Tempo

To adjust the overall Tempo of your song, you can use the display in the Header, at the top of the MASCHINE window:



The BPM control in the Header.

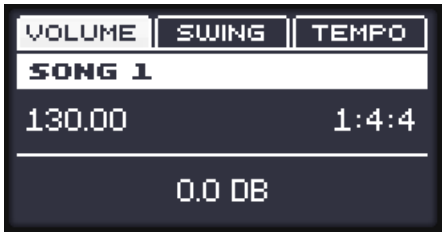
► To adjust the Tempo (Beats Per Minute) value of your Project, click the BPM value, hold the mouse button and drag vertically.

3.3.2.2 Adjusting Volume, Swing, Tempo and Tune on Your Controller

You can now adjust the volume, swing, tempo and tune for your overall Project, for each Group, and for each Sound individually using the Control encoder:

Adjusting Volume

1. Press the MAIN button to activate it (the button lights up).
2. Press F1 to select VOLUME.



3. To adjust the overall volume, simply turn the Control encoder. Press and turn the Control encoder to adjust the value in finer increments.
4. To adjust the volume of a particular Group, press and hold the GROUP button, press the pad corresponding to the desired Group (the pad must be lit, here the pad 1 for your drum kit), and turn the Control encoder while holding GROUP. Press and turn the Control encoder to adjust the value in finer increments.
5. To adjust the volume of an individual Sound, press and hold its pad, and turn the Control encoder. Press and turn the Control encoder to adjust the value in finer increments.

At any time, the display indicates the volume's current value.



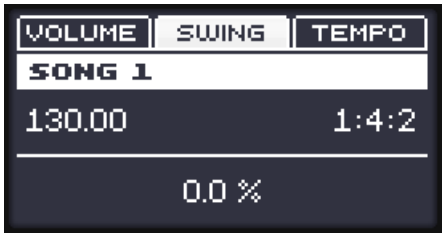
It is recommended you try this while your Pattern is playing, you will immediately hear the effect of your changes.

Adjusting Swing

Now adjust the overall **swing** of your Project, too. 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:

1. Press the MAIN button to activate it (the button lights up).

2. Press F2 to select SWING.



3. Turn the Control encoder to adjust the overall Swing for your Project.
4. To adjust the swing of a particular Group, press and hold the GROUP button, press the pad corresponding to the desired Group (the pad must be lit, here the pad 1 for your drum kit), and turn the Control encoder while holding GROUP. Press and turn the Control encoder to adjust the value in finer increments.
5. To adjust the swing of an individual Sound, press and hold its pad, and turn the Control encoder. Press and turn the Control encoder to adjust the value in finer increments.

At any time, the display indicates the current value.

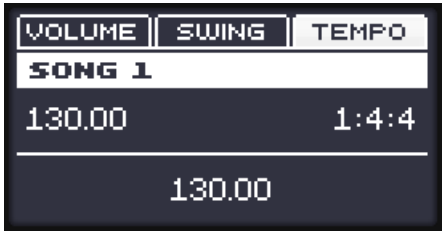


It is recommended you try this while your Pattern is playing, you will immediately hear the effect of your changes.

Adjusting Tempo

To adjust the overall **tempo** of your Project:

1. Press the MAIN button to activate it (the button lights up).
2. Press F3 to select TEMPO.



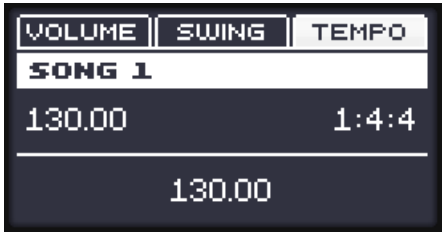
3. Turn the Control encoder to adjust the overall Swing for your Project.

At any time, the display indicates the current value.

Adjusting Tune

To adjust the overall **tempo** of your Project:

1. Press the MAIN button to activate it (the button lights up).
2. Press F3 to select TEMPO.



3. To adjust the tune of a particular **Group**, press and hold the GROUP button, press the pad 1 for your drum kit, (TEMPO will change to TUNE) and turn the Control encoder while holding GROUP. Press and turn the Control encoder to adjust the value in finer increments.
4. To adjust the Tune of an individual Sound, press and hold its pad, (TEMPO will change to TUNE) turn the Control encoder. Press and turn the Control encoder to adjust the value in finer increments.



At any time, 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.

3.3.3 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.
- **Take Undo** allows you to cancel your last group of actions.

Step Undo

Step Undo/Redo is the classic undo/redo found in most applications. It cancels or re-executes each single action you have performed.

In the software use the following keyboard shortcuts for the Step Undo and Step 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.



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

Take Undo

Suppose 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. This is what Take Undo has been made for!

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.

Take Undo/Redo is the default undo/redo in MASCHINE. In the software use the common keyboard shortcuts for the Undo and Redo functions:

- ► To cancel your last group of actions, press [Ctrl]+[Z] ([Cmd]+[Z] on macOS). To re-execute your last group of actions, 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 Undo and Step Undo are also available on your controller:

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

Take Undo is available in following situations:

- Recording in Control mode
- Recording in Step mode
- Recording modulation



Outside of these three situations, Take Undo has the same effect as Step Undo (see above).

3.3.4 Focusing on a Group or a Sound

To display the content and parameters of a particular Sound or Group, you first need to put it in focus.

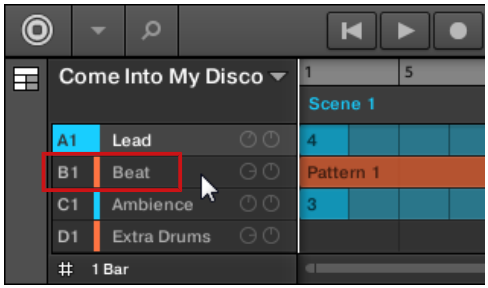
Setting the focus on a Sound or Group is slightly different than selecting it: The focus defines what will be displayed, whereas the selection defines what will be affected by your edits. Note that a focused Sound/Group is always selected. The distinction is of importance because you can select multiple Sounds or Groups to apply your edits to all of them at once! See section ↑5.1.3, Selecting Multiple Sounds or Groups for more on this.



We show here how to put Sounds and Groups in focus when the MASCHINE software is in Arrange view (default view). For instructions on putting Sounds and Groups in focus in Mix view, please refer to chapter ↑13.2.3, Selecting Channel Strips.

Setting the Focus on a Group

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



→ The focused Group is highlighted. The Pattern Editor displays the Sounds and Patterns of that Group.



The focused Group is highlighted and the Pattern Editor show its content.

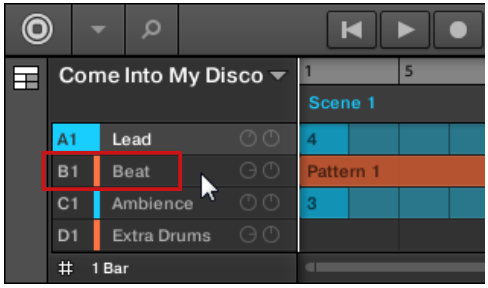
If the desired Group does not appear in the Group List, use the scroll bar at the right end of the Arranger or turn your mouse wheel while hovering the Arranger to display any hidden Groups. You can also extend the Arranger by dragging its lower right corner vertically with the mouse.

You can also select multiple Groups at once to apply changes to all of them. See section ↑5.1.3, Selecting Multiple Sounds or Groups for more information.

Setting the Focus on a Sound

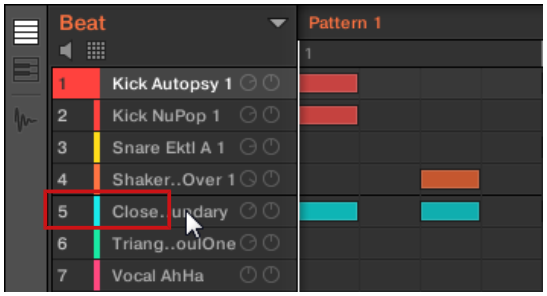
To put a Sound in focus:

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

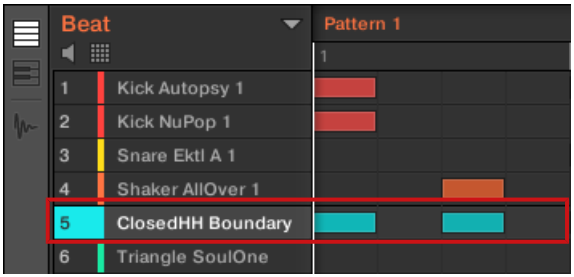


   The focused Group is highlighted. The Pattern Editor displays the Sounds and Patterns of that Group.

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



→ The focused Sound slot is highlighted.



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 ↑5.1.3, Selecting Multiple Sounds or Groups for more information.

Focusing on a Group using the Hardware

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.

Once the Group is focused you can use F1–F3 above the display to quickly switch between the Master, the focused Group and the last focused Sound in that Group! See section ↑3.3.5, Switching Between the Master, Group, and Sound Level for more information.



You can also select multiple Groups at once to apply changes to all of them. See section ↑5.1.3, Selecting Multiple Sounds or Groups for more information.

Setting the Focus on a Sound using the Hardware

1. If you want to set the focus on a Sound located in another Group, first select its Group as described above.
2. Hold SELECT.
3. While holding SELECT, press F1 (QUIET) to enter Sound selection.
4. While holding SELECT, press the pad of the desired Sound.

→ The selected Sound is now in focus.



If the pads on your controller are in Pad Mode, simply press the pad of the desired Sound to set the focus on that Sound!

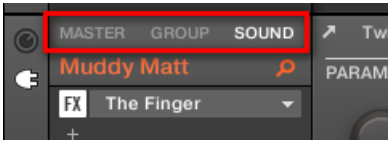
Once the Sound is focused you can use F1–F3 above the display to quickly switch between the Master, the containing Group and the focused Sound!



You can also select multiple Sounds at once to apply changes to all of them. See section ↑5.1.3, Selecting Multiple Sounds or Groups for more information.

3.3.5 Switching Between the Master, Group, and Sound Level

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, the focused Group 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 the Plug-in parameters and Channel properties of the Master, the focused Group or the focused Sound, respectively.

Switching Between the Master, Group, and Sound Level using the Controller

On your controller:

1. Press the CONTROL button to enter Control mode.
2. Press F1 (MASTER), F2 (GROUP) or F3 (SOUND) above the display to show the Plug-in parameters and 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 the focused Sound appears on the display (under the MASTER, GROUP, and SOUND tabs), and the display shows the Plug-in parameters and Channel properties of the Master, the focused Group or the focused Sound, respectively.

3.3.6 Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area

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

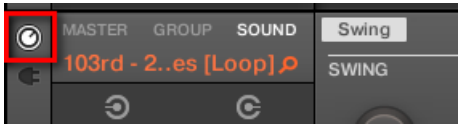
To select a particular Plug-in or a particular set of Channel properties, you first need to display the parameters of the Master, the desired Group or Sound.

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 (see section ↑3.3.4, 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 desired Sound, desired Group or the Master.

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:

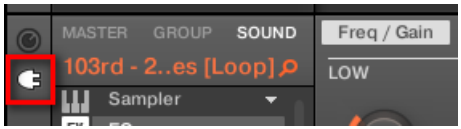


2. Click the desired button (Input, Output, Groove, or Macro) in the Channel Property selector to select that set of Channel properties.

→ 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 ↑7.1.3, 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.

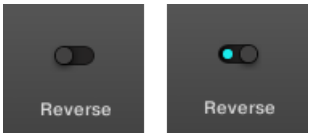
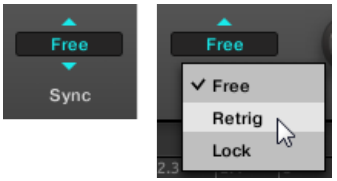
If all page names cannot be displayed at once at the top of the Parameter area, two small arrows are displayed on the left to click through the pages:



► 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 enabled, 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 Channel Properties, Plug-ins, and Parameter Pages using the Controller

On the MASCHINE MIKRO controller in Control mode you can use the buttons below and above the display along with the Control encoder on its right to navigate through the parameters and Parameter pages of any Channel properties or Plug-in:



Depending on what is shown on the display, some of the buttons might be inactive — in that case they are off. The active buttons (i.e. those that would do something if you would press them) are always dimmed or fully lit.

To see and edit any parameter of any Channel properties or Plug-in in any Sound, Group, or the Master, do the following:

1. Set the focus on the Sound, Group or the Master containing the desired Channel properties or Plug-in (see section ↑3.3.4, Focusing on a Group or a Sound).
2. Press F1 (MASTER), F2 (GROUP) or F3 (SOUND) to display the Plug-ins and Channel properties of the Master, the focused Group or the focused Sound, respectively.
3. Press NAV + F2 (CHNL.) to navigate Channel properties or NAV + F3 (PLUG-IN) to navigate Plug-ins.



4. While holding NAV, turn the Control encoder or press the dimmed pads to select another set of Channel properties or another Plug-in.
5. Press NAV + Left/Right Arrow button to switch to another Parameter page of the selected Channel properties or Plug-in.



When you release NAV you see the selected Parameter page of the selected Channel properties or Plug-in in the display:



6. Press the Left/Right Arrow buttons under the display to select the previous/next parameter of the selected page, if any.



7. Turn the Control encoder to change the value of the selected parameter. For continuous parameters, press and turn the Control encoder to change the value in finer increments.



3.3.7 Navigating the Software Using the Controller

You can use the controller to adjust the position and zoom factor in the software.

To access the Navigation 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 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

Action	Shortcut
Zoom in (Arranger)	Press pad 14
Zoom out (Arranger)	Press pad 10

3.3.8 Using Two or More Hardware 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.



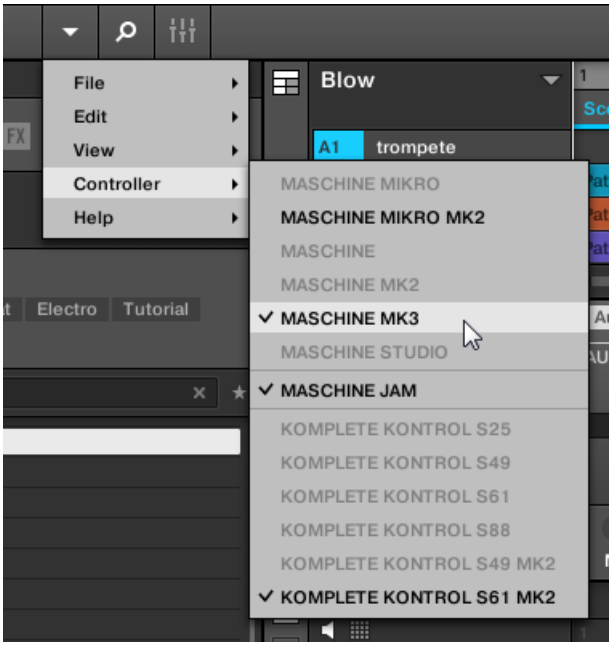
If you have more than one instance of the MASCHINE software running on your computer, you can control each instance with a different controller. See ↑3.5.3, Controlling Various Instances with Different Controllers for more information.



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.

Hardware

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.
- MASCHINE STUDIO controller: Press SHIFT + PLUG-IN, turn the jog wheel to select the desired instance, and press the jog wheel or Button 8 to load it.
- MASCHINE (MK1 & MK2) controller: Press SHIFT + STEP, turn Knob 8 (or press Button 5/6) to select the desired instance, and press Button 8 to load it.
- MASCHINE MIKRO (MK1 & MK2) controller: Press SHIFT + F2, turn the Control encoder to select the desired instance, and press the Control encoder to load it.
- MASCHINE JAM controller: Press SHIFT + H (INSTANCE), turn the Control encoder to select the desired instance, and press the Control encoder to load it.

- KOMPLETE KONTROL Keyboard MK1: Press INSTANCE and turn the Control encoder to select the desired instance, and press the Control encoder to load it.
- KOMPLETE KONTROL Keyboard MK2: Press INSTANCE and turn the 4-D encoder to select the desired instance, and press the 4-D encoder to load it.

3.4 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 (see section ↑4.2.6, 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, see below). The folders containing the preset files for NKS support can be managed in the Factory pane on the Library page of the Preferences (see section ↑3.6.5, 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…*.
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.
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 afterwards, 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 (see section ↑3.6.5, Preferences – Library Page).

3.5 Stand-Alone and Plug-in Mode

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 VST, 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, please refer to the documentation included with your host software.

3.5.1 Differences between Stand-Alone and Plug-in Mode

Transport Functions

The most noticeable difference between the stand-alone and plug-in mode of MASCHINE 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, e.g., 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 synchonized 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 as well as the Tempo and Time Signature fields are grayed out and inactive in the MASCHINE Header. Obviously you cannot control MASCHINE's playback and tempo settings from your MASCHINE controller either.



However from your controller you can directly control the transport functions of your host application instead. See section Controlling your Host's Transport Functions in Plug-in Mode for more information.

Audio and MIDI Handling

When MASCHINE is used in stand-alone mode, it 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 on this, please refer to ↑3.7, Integrating MASCHINE into a MIDI Setup).

On the contrary, When MASCHINE is used as a plug-in within a host application, the communication with your audio and MIDI interfaces is managed by the host — the MASCHINE plug-in only communicates with the host. Native Instruments' Online Knowledge Base provides how-tos 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 the audio and MIDI configuration of your host application, please refer to its documentation.

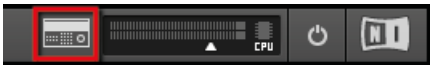
Multiple Plug-in Instances

When you are using MASCHINE as a plug-in within a host application, you can open multiple MASCHINE instances. Actually, 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. To learn more about these, have a look at chapter ↑16.5, Triggering Sections or Scenes via MIDI and ↑12.2, Using MIDI Control and Host Automation.

3.5.2 Switching Instances

When two or more instances of the MASCHINE software are running (e.g., 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, click the Connect button in the MASCHINE Header of that instance.



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

Switching Instances using the Controller

To switch from one MASCHINE instance to another:

1. Press SHIFT + F2.
2. Turn the Control encoder to select the desired instance.
3. Press the Control encoder to load that instance.

3.5.3 Controlling Various Instances with Different Controllers

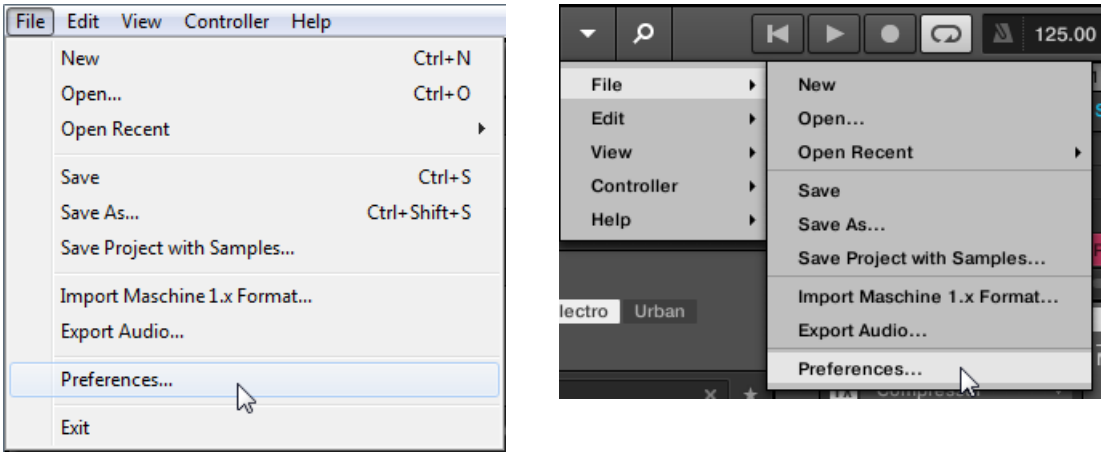
You can use two or more MASCHINE controllers of different types (MASCHINE STUDIO, MASCHINE MK3, MASCHINE MK2, MASCHINE MIKRO MK2, MASCHINE, and MASCHINE MIKRO) simultaneously with different instances of the MASCHINE software (possibly with one instance in stand-alone mode). In doing so, the following 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 as described in ↑3.5.2, Switching Instances.
- When you start a new instance of the MASCHINE software, it connects to one of the MASCHINE controllers according to following precedence rules:
  - Rule 1: The MASCHINE STUDIO controller focus has priority over the MK3 controller, which takes priority over all legacy controllers (MASCHINE MK2, MASCHINE MIKRO MK2, MASCHINE and MASCHINE MIKRO).
  - Rule 2: The MASCHINE controllers (legacy and MK3) have priority focus over MASCHINE MIKRO controllers.
  - Rule 1 has priority over rule 2.

3.6 Preferences

The Preferences panel lets you specify various settings for MASCHINE.

► To open the Preferences panel, click *Preferences…* in the Maschine menu (macOS) or File menu (Windows) of the Application Menu Bar, or in the *File* submenu of the MASCHINE menu:



Preferences... in the File menu of the Application Menu Bar (Windows depicted), and in the File submenu of the MASCHINE menu.

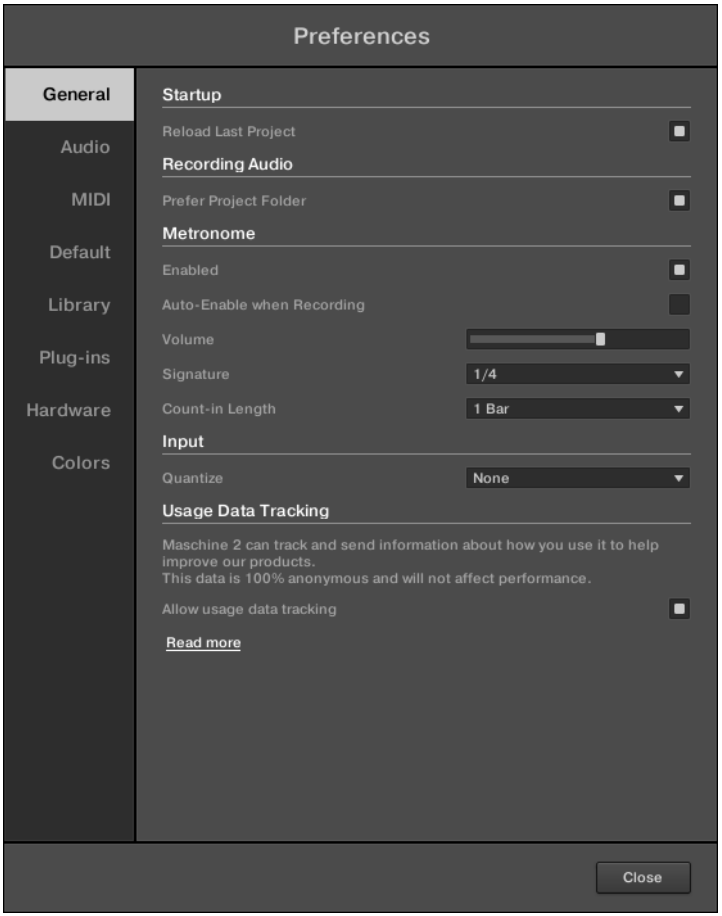
The following pages are available in the Preferences panel:

- **General**: see ↑3.6.1, Preferences – General Page.
- **Audio**: see ↑3.6.2, Preferences – Audio Page.
- **MIDI**: see ↑3.6.3, Preferences – MIDI Page.
- **Default**: see ↑3.6.4, Preferences – Default Page.
- **Library**: see ↑3.6.5, Preferences – Library Page.
- **Plug-ins**: see ↑3.6.6, Preferences – Plug-ins Page.
- **Hardware**: see ↑3.6.7, Preferences – Hardware Page.
- **Colors**: see ↑3.6.8, Preferences – Colors Page.

3.6.1 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
Startup	
Reload Last Project	Click this checkbox to automatically reload the last Project on startup.
Recording Audio	

Setting	Description
Prefer Project Folder	If this checkbox is marked, the Samples you record will be put in 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 (see section ↑3.6.4, Preferences – Default Page).
Metronome	
Enabled	Check this box to activate the metronome. You can also enable the metronome by clicking the Metronome button in the MASCHINE Header, for more information see section: ↑11.2.3, Using the Metronome.
Auto-Enable when Recording	Click the checkbox to enable the Auto-Enable option. This automatically turns on the metronome when you start recording a Pattern. When you start recording a Pattern (typically by pressing REC on your controller), the metronome is automatically enabled. When you exit recording (e.g., by pressing the lit REC button) the metronome returns to its state before the recording (this can be on or off). The Auto-Enable option can be activated/deactivated both in the software and from your controller. The Auto-Enable option does not affect the Count-in: Even if Auto-Enable is disabled, the metronome turns on when you press SHIFT + REC to start the Count-in. For more information on configuring Count-in, refer to section: ↑11.2.4, Recording with Count-in.
Volume	Click the slider to adjust the volume of the metronome.
Signature	Select 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.

Setting	Description
Count-in Length	Select the duration of the Count-in, i.e. how long the metronome will sound before the recording actually starts.
Link	
Enabled	Click the checkbox to enable the Link protocol by default. Applications that support Ableton Link can join a Link session when connected to the same network. For more information on Link please refer to section: ↑3.8, Syncing MASCHINE using Ableton Link.
Input	
Quantize	Input Quantize automatically quantizes your input to MASCHINE as you record. Select one of the following Input Quantization modes: None: Input Quantization is disabled. 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.

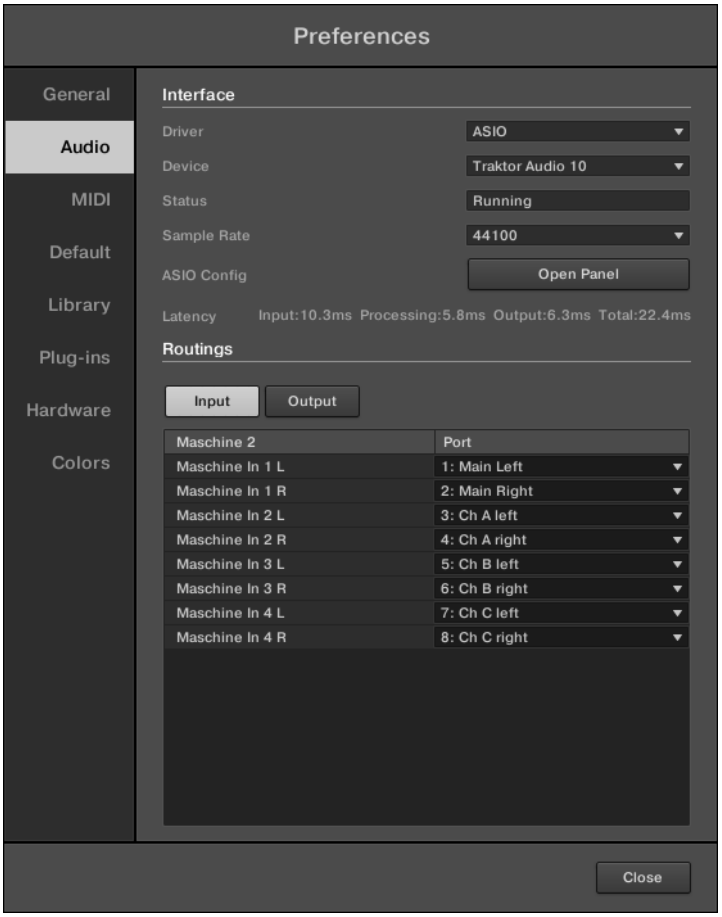
Setting	Description
Usage Data Tracking	
Allow usage data tracking	Here you can select to enable or disable Usage Data Tracking. Usage Data Tracking technology enables MASCHINE to automatically track anonymous usage data that you can choose to share with us. All users should keep Data Tracking enabled 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. 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

3.6.2 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.

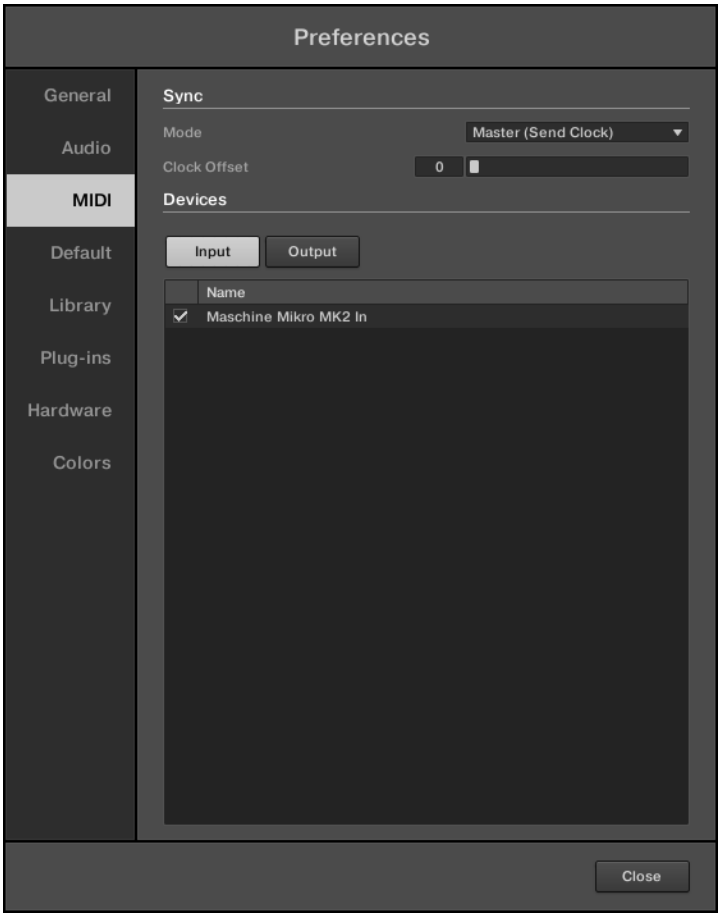
Setting	Description
Status	This confirms whether your audio interface is currently running.
Sample Rate	This displays the selected sample rate of your audio interface. Restart MASCHINE after changing the sample rate.
ASIO Config (Windows only)	Click Open Panel to access specific controls related to your audio interface. Please consult the documentation that came with your audio interface for more information.
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. **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	

Setting	Description
Input	Click Inputs to display the Routing Inputs. Here you can select which inputs on your audio interface should be used for the four stereo inputs of MASCHINE. Select the inputs of your audio interface on the right column by clicking the fields: you will be presented with a drop-down menu with all the 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 Routing Outputs. Here you are presented with a list of the 16 stereo outputs from 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.

3.6.3 Preferences – MIDI Page

The MIDI page allows you to set up the MIDI input and output ports that 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.

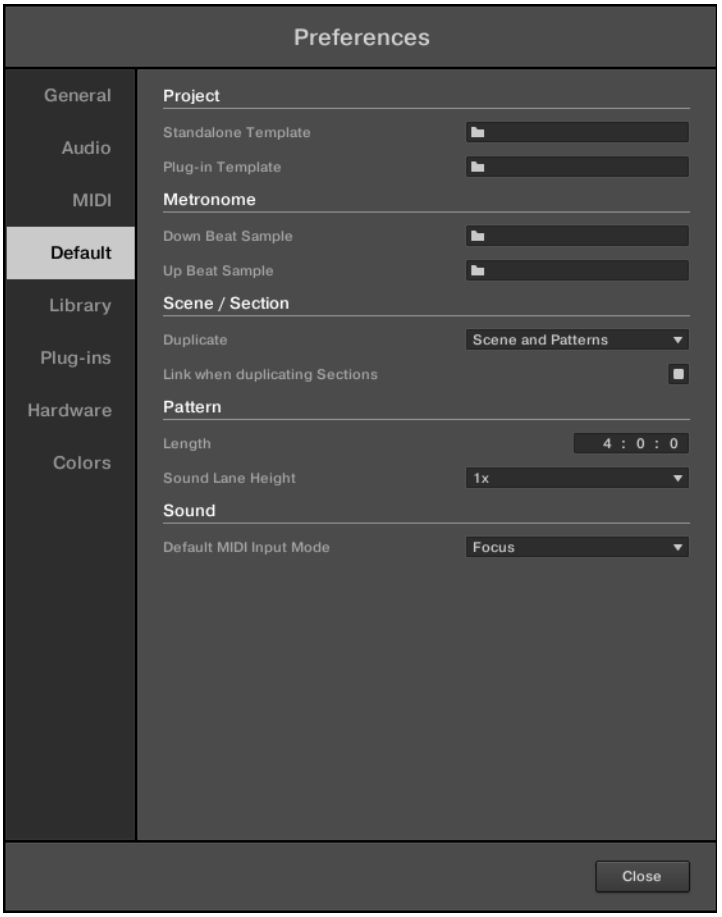
Setting	Description
Sync	
Mode	Click the drop-down menu to set the MIDI Sync mode preference for MASCHINE: Off: No MIDI sync mode is selected. Master (Send Clock): If MASCHINE is running as a stand-alone application, it can also send a MIDI Clock signal to any device that is capable of receiving MIDI Clock. This could be hardware such as a drum machine, another groove box, or even another software sequencer. Slave (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. Please note that the Slave (Receive Clock) option is not available when LINK is active. For more information on Link see ↑3.8, Syncing MASCHINE using Ableton Link.
Clock Offset (appears when Mode is set to *Slave*)	Click and move the Clock Offset slider to compensate for delay 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. 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	
Inputs	Click Input to display a list of all the available MIDI inputs of your system. You can activate/deactivate each input by clicking the fields in the Status column, which displays the current status of the corresponding port.

Setting	Description
Outputs	Click Output to display a list of all the available 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.

3.6.4 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	Here you can 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.
Plug-in	Here you can select 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 Settings	
Down Beat Sample and Up Beat Sample	Here you can select audio files to be used as up and down beat 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	

Setting	Description
Duplicate	Select from the drop-down menu how the Duplicate function in MASCHINE will operate when duplicating Scenes. *Scene Only* Only the Scene is duplicated. The result is a new unlinked Scene with the same Patterns referenced. *Scene and Patterns* 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 disabled. When enabled, 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: ↑11.1.6, Adjusting the Arrange Grid and the Pattern Length.
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.

Setting	Description
Sound	
Default MIDI Input Mode	MASCHINE allows you to play your Sound(s) 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. Select one of the following MIDI input mode options from the drop-down menu: Focus: MIDI input from any connected controller can be used to trigger the focused (selected) Sound slot. None: The selected Sound will not receive MIDI data.

3.6.5 Preferences – Library Page

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



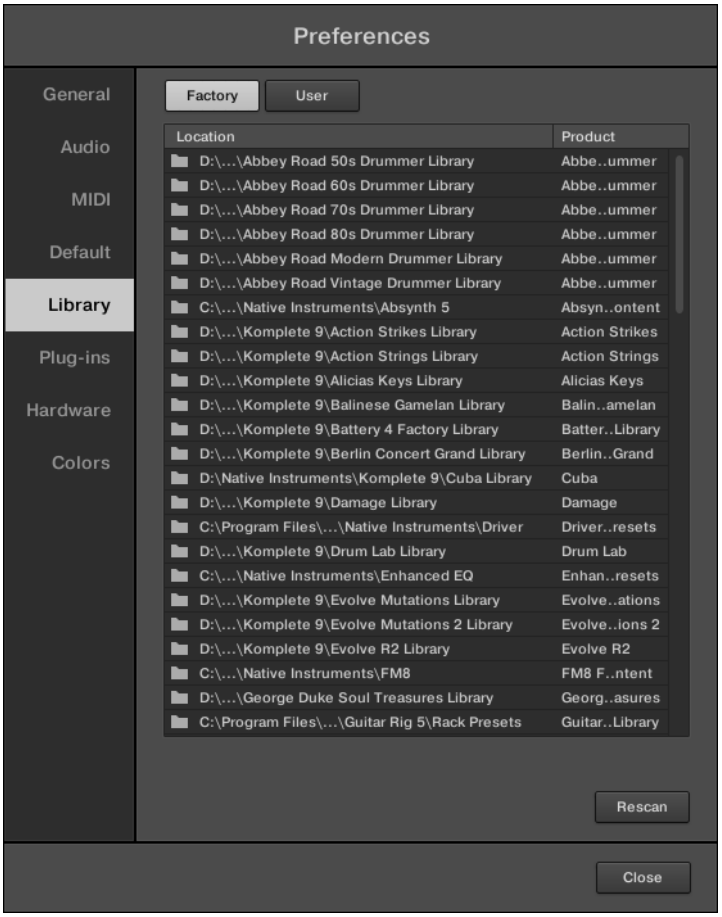
The LIBRARY pane of the Browser is described in section ↑4.2, Searching and Loading Files from the Library.

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

At the top of the page, the Factory and User buttons 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.

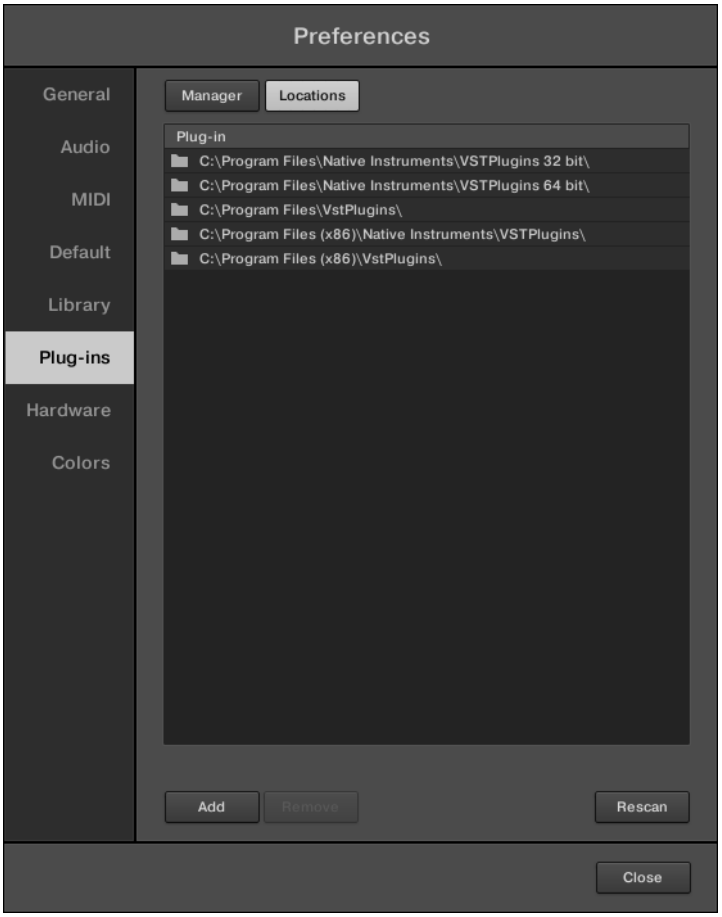
The Factory pane displays all factory libraries available. These includes the MASCHINE Factory Library, libraries imported from other NI products, as well as installed MASCHINE EXPANSIONS.

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	If you have made any change to a library (e.g., changed its location), select it 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 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.
Alias column	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 — this is the location where all your user files will be stored by default.
Add button	Click Add to manually add directories to the user library. See below for more details.
Remove button	Click Remove to remove the selected user library. Files will only be removed from the MASCHINE Browser, not from your hard disk.
Rescan button	If you have made any change to a library (e.g., added/removed files), select it in the list and click the Rescan button to rescan that library.
Scan user content for changes at start-up checkbox	Click this checkbox to allow MASCHINE to scan 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, and as a consequence its files are available in the MASCHINE Browser.

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

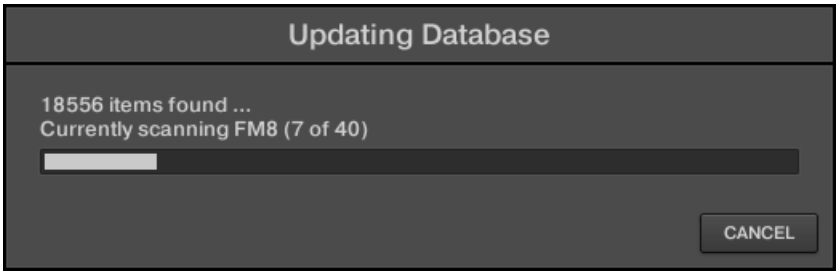
Standard User Directory Cannot Be Removed

The Standard User Directory can neither 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.

Cancelling Library Rescan

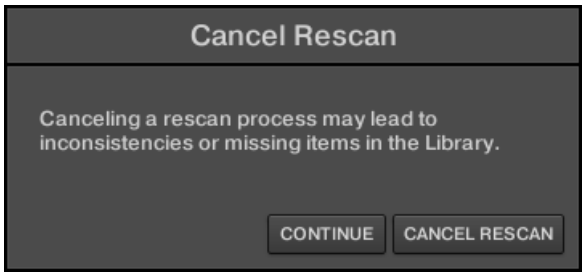
In the Library page of the Preferences panel, the Rescan button allows you to rescan the selected library (or all your libraries if none is selected) so that the MASCHINE Browser mirrors any changes you have made to the files. Clicking this Rescan button triggers the scan and an Updating Database dialog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

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 cancelling 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 cancelled.
- If you prefer instead *not* to cancel the scan, click CONTINUE or press [Esc] on your computer keyboard, and the scan will go on.

If you cancelled the scan, any inconsistencies or missing items in your MASCHINE Library will be resolved by rescanning 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 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 (e.g., 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 in order 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 up.
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/SubType/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 bank.
  - If Samples reside in a subfolder of this subfolder, the name of the lower subfolder will be used as 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 ↑4.2, 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 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 ↑4.6.5, 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, 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.

3.6.6 Preferences – Plug-ins Page

The Plug-ins page allows you to 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

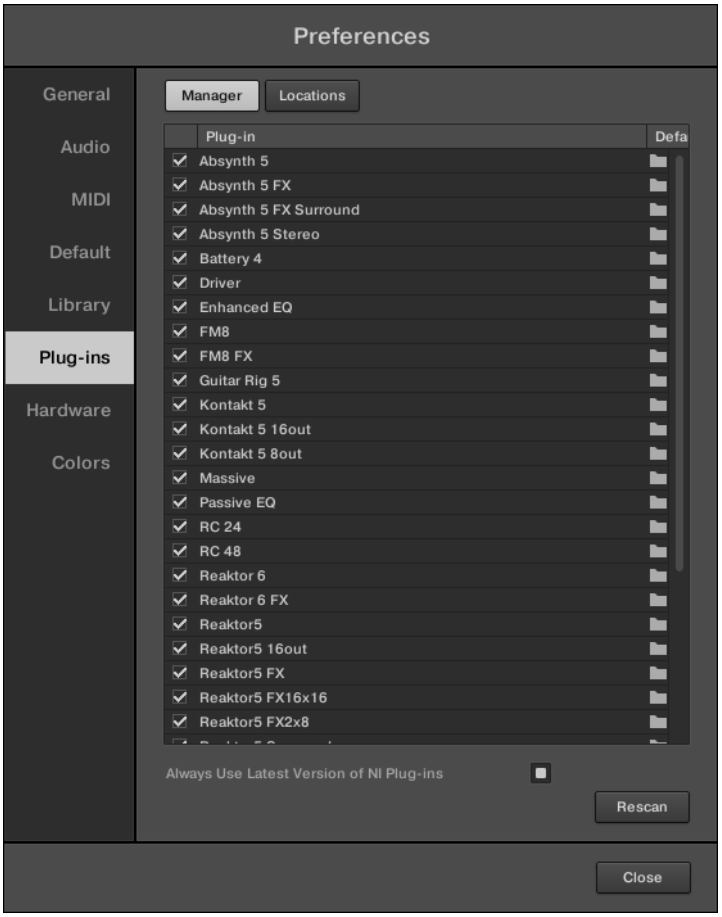
► To display the Manager pane, click the Manager button at the top of the Plug-ins page.

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 disabled, 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, please refer to chapter ↑7, Working with Plug-ins.



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

Element	Description
Plug-in column	Lists all available VST/AU plug-ins from the directories specified in the Locations pane (see below). This includes all enabled or disabled 32-bit VST/AU plug-ins, when MASCHINE is running in 32-bit mode or otherwise all enabled or disabled VST/AU 64-bit plug-ins, when MASCHINE is running in 64-bit mode. On the left of each plug-in in the list, a checkbox allows you to enable/disable this plug-in in MASCHINE. When a plug-in is disabled, it will not be available for loading in MASCHINE.
Default Config column	For each plug-in you can set a default preset that will be loaded with this plug-in when you load it. 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. To remove a default plug-in preset, click the little cross on the right.
Always Use Latest Version of NI Plug-ins checkbox	If a project was saved using older versions of plug-ins, such as older versions of REAKTOR or KONTAKT, the newest installed versions will be used when loading the project while this preference is enabled. 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 newest versions will be used even if this preference is turned off.
Rescan button	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 disabled 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 disabled (default setting), the AU versions of your Native Instruments plug-ins are still listed in the list above but they are disabled (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 (all of them 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 enabled in the list above and are available for loading in MASCHINE. In order to distinguish them from the VST versions, plug-in entries in the *Native Instruments* submenu of the Plug-in menus and in 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 enable one of them, the Use NI Audio Units checkbox is automatically activated.



The Use NI Audio Units checkbox relates only to AU plug-ins from Native Instruments. AU plug-ins from third-party manufacturers are not affected by this setting.

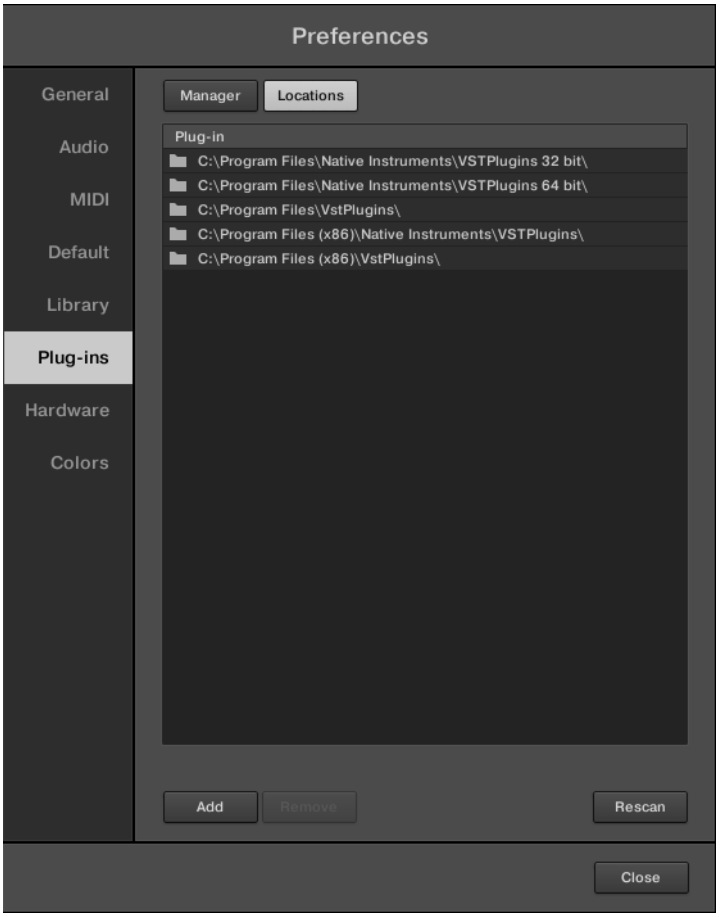


When the Use NI Audio Units checkbox is disabled or the AU version of a Native Instruments plug-in is disabled, you can still load Projects that use AU plug-ins.

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 column	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 button	Click Add to add plug-in directories.

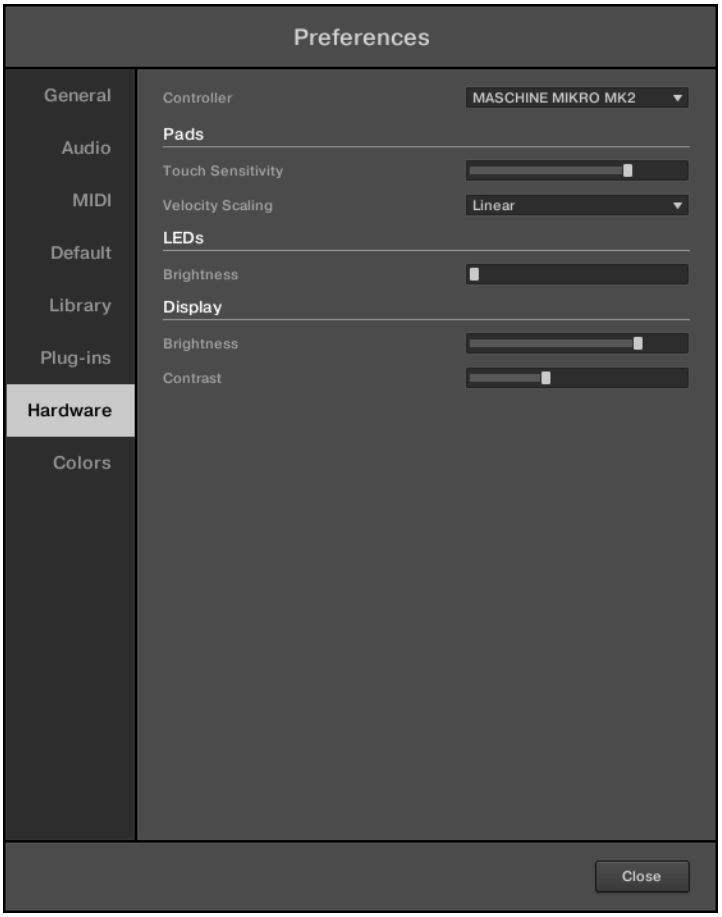
Element	Description
Remove button	Click Remove to remove the selected directory.
Rescan button	If you have changed the content of a directory (such as installed or removed plug-ins), you should rescan your plug-in directories in order to keep the list of available plug-ins up to date. Click Rescan to 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.

3.6.7 Preferences – Hardware Page

The Hardware page enables you to customize how the pads react to your playing and to adjust the brightness of the displays.

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

→ The settings of connected Native Instruments controllers can be selected and adjusted.



The Preferences panel – Hardware page.

Setting	Description
Controller	The *Controller menu* allows you to select a connected device and modify its settings. You can have two devices simultaneously focused on a MASCHINE instance: a controller from the MASCHINE family and a KOMPLETE KONTROL S-SERIES keyboard. After a new device has been selected from the *Controller menu*, the Hardware page will update to display the available options.
Pads	
Sensitivity	Use the Sensitivity slider to adjust how sensitive the pads respond to your touch. This sets the minimum threshold at which the MASCHINE MIKRO controller will register a "hit."
Velocity Scaling	Velocity Scaling determines how your playing is translated into velocity values: starting from *Soft 3* (a soft touch is enough to get a big velocity value) through *Linear* to *Hard 3* (you really have to hit the pad hard to get a big velocity value).
Display	
Brightness	The Brightness slider allows you to adjust the brightness of the display on your MASCHINE MIKRO controller.
Contrast	With this slider you can adjust the contrast of the display.

Adjusting the Settings from the Hardware

You also have access to the Sensitivity, Brightness, and Contrast settings from your controller. To do this, you first have to enter MIDI mode:

1. Press SHIFT + F1 (MIDI) to switch your controller to MIDI mode.
2. Press NAV + F3 (SETUP) to show the Setup Display mode.

- Press the Left Arrow button repeatedly until BRIGHTNESS appears in the display, and turn the Control encoder to adjust the Brightness parameter described above.
- Press the Right Arrow button to show the CONTRAST parameter in the display, and turn the Control encoder to adjust the Contrast parameter described above.

- Press the Right Arrow button to show the PAD SENSIVITY parameter in the display, and turn the Control encoder to adjust the Sensitivity parameter described above.

► When you're done, press SHIFT + F1 (MIDI) again to quit the MIDI mode and get back to MASCHINE mode.

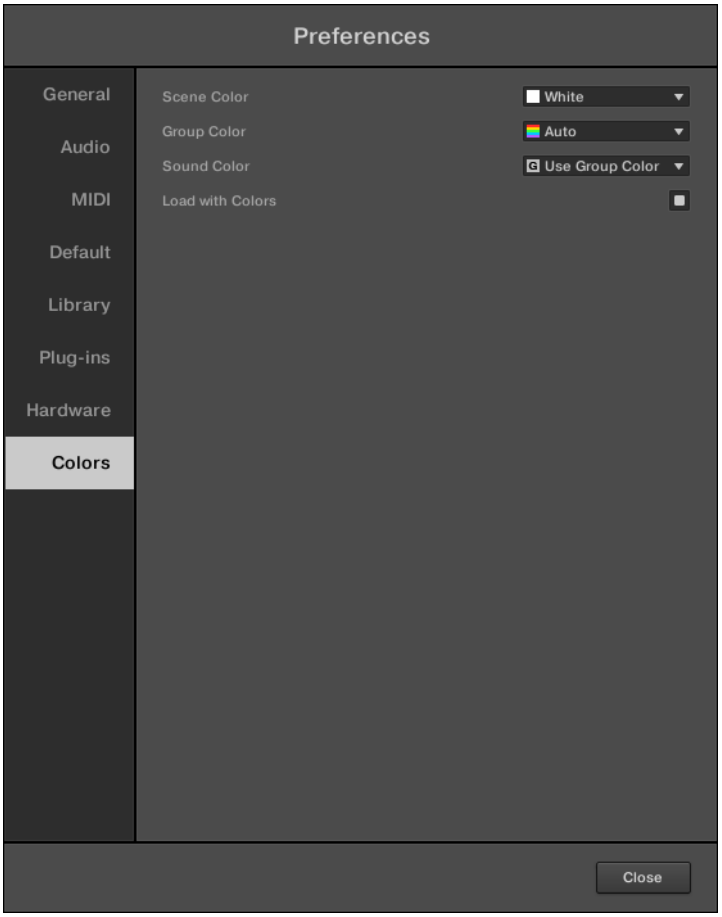


For more information on the MIDI mode, please refer to the Controller Editor Manual.

3.6.8 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	Select the default color for your Scenes. In the menu, you can select the desired color from the 16-color palette or *White* (default setting). The color selected as default is highlighted in the menu. If you select *Auto* each Scene will have a different default color.
Group Default	Select the default color for your Groups. In the menu, you can choose the desired color from the 16-color palette. The color selected as default is highlighted in the menu. If you select *Auto* (default setting) each Group will have a different default color.
Sound Default	Select the default color for your Sounds. In the menu, you can choose the desired color from the 16-color palette. The color selected as default is highlighted in the menu. If you select *Auto* each Sound will have a different default color. If you select *Use Group Color* (default setting) Sounds will by default mirror the color of the Group to which they belong.
Load with Colors	Click the checkbox to save 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. See ↑5.2.4, Changing the Sound's Color, ↑5.3.4, Changing the Group's Color, ↑11.7.7, Changing the Pattern's Color, and ↑16.2.13, 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.

3.7 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: ↑3.7.2, Sync to External MIDI Clock and ↑3.7.3, 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 ↑12.2, 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 ↑16.5, Triggering Sections or Scenes via MIDI.

3.7.1 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 ↑3.6.3, Preferences – MIDI Page).

3.7.2 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 hardware such as a drum machine, another groovebox or sequencer, or even another 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 ↑3.5, Stand-Alone and Plug-in Mode for more information on using MASCHINE as a plug-in.

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

1. Select *Preferences* entry from the File menu.
2. Select the MIDI page.
3. In the Sync section select *Slave (Receive Clock)* from the menu.
4. Select the Input button to see a list of connected devices.
5. Check the name of the device sending MIDI clock (the device you want MASCHINE to sync with).

→ MASCHINE can now receive MIDI Clock from an 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 *Slave (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 ↑12.2, Using MIDI Control and Host Automation, where this is described in detail.

3.7.3 Send MIDI 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 groovebox, or even another software sequencer.



If you use MASCHINE as a plug-in, it cannot send any MIDI Clock signal. See section ↑3.5, Stand-Alone and Plug-in Mode for more information on using MASCHINE as a plug-in.

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

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

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



You can adjust the MIDI Clock offset in the MIDI page of the Preferences panel. See ↑3.6.3, 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 ↑12.2.5, Sending MIDI from Sounds.

3.8 Syncing MASCHINE using Ableton Link

Ableton Link is a protocol that synchronizes beat, phase and tempo of Link-enabled applications on the same computer or over a shared network. This means 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.

3.8.1 Connecting to a Network

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

To ensure maximum security and reliability while using Link, there are several things you may want to consider:

- For reliability, connect to the local network using a router via an Ethernet cable.
- If you do use a Wi-Fi network, be sure to use a password to prevent excluded users from joining your session.
- For the most secure and reliable connection, create a Link session via a direct connection from one computer to another using a Thunderbolt or Ethernet cable.

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.

3.8.2 Joining and Leaving a Link Session

It is possible to join a Link session at any time by clicking the LINK button. When another Link-enabled application is connected, a moving bar within the LINK button is displayed even though MASCHINE's transport is not running. This bar represents the global phase of Link that all participating applications lock into.

After clicking the Play button, playback will resume on the downbeat once the moving bar within the LINK button is filled. 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.

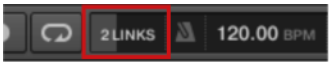
To start or join a Link session, proceed as follows:

1. Click the LINK button located in the header.



2. Start MASCHINE's playback by clicking the play button.
3. To stop using Link, and leave the session, click LINK again.

While connected, the LINK button displays how many other Link-enabled applications are connected via Link. The example below indicates that there are two other applications connected.



Active Link session with two other instances connected.

When Link is active, it is not possible to synchronize MASCHINE to incoming MIDI Clock as a slave. Link will take priority. Sending MIDI Clock from MASCHINE as a master is still possible.

4 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.

4.1 Browser Basics

This section describes some general concepts about the Browser.

4.1.1 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 ↑3.6.4, Preferences – Default Page.

4.1.2 Browsing the Library vs. Browsing Your Hard Disks

The **Browser** is your interface to the MASCHINE Library. It provides all necessary tools to search for the files you require — and suggest other files you might not have thought of. Beside 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:

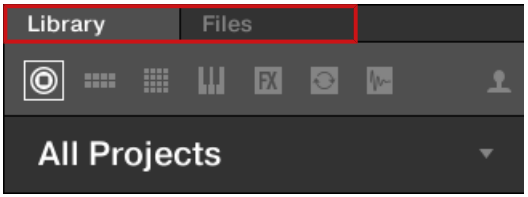
- The Library pane allows you to browse the MASCHINE Library. This is the preferred way to search for files meeting particular musical requirements. This pane also allows you to tag your own files to your liking.
- The Files pane allows you to browse your hard disks by using the hierarchical folder structure 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 ↑4.2, Searching and Loading Files from the Library, and the Files tab is described in section ↑4.6, Loading and Importing Files from Your File System.

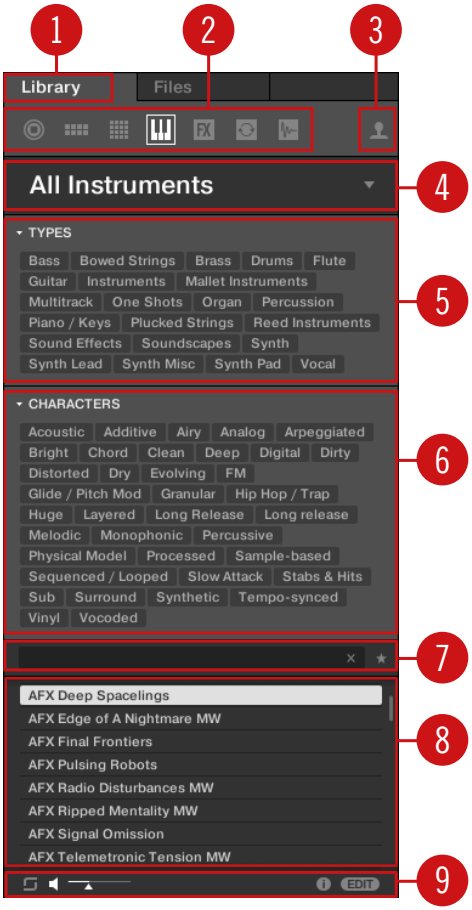
4.2 Searching and Loading Files from the Library

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.

4.2.1 Overview of the Library Pane

The Library pane contains 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 ↑4.2.4, 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 ↑4.2.5, 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 ↑4.2.3, 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 ↑4.2.6, Selecting Type and Character Tags.

(**6**) **CHARACTER filter** (Instrument/Effect presets only): allows you to search for files based on applied Character tags. See section ↑4.2.6, 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 ↑4.2.7, 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 ↑4.2.8, 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 Project, 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 ↑4.3.1, Loading the Selected Files Automatically.
- For Instruments Presets and Samples, enable the **Prehear button** and adjust the volume fader next to it in order to pre-listen to the selected items directly from the Browser in order to make a quick selection. See section ↑4.3.3, Auditioning Samples and ↑4.3.2, Auditioning Instrument Presets.
- For Groups, enable the Load Patterns checkbox to load the Group's Patterns together with the Group. See section ↑4.3.4, Loading Groups with Patterns.
- For all files, click the **Information button** (showing a little "i") near the EDIT button to display more information on the selected file(s). See section ↑4.3.6, Displaying File Information.

- For all files, click the EDIT button at the far right of the bar to open the **Attribute Editor** and modify the tags and properties assigned to the selected file(s). See section ↑4.5, 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.

4.2.1.1 [MM1, MM2] Browsing the Library on the Controller

► To enter or leave the Browser press BROWSE.



The Browser on your controller (showing the Filter page).

On the display of your controller, the Browser is organized as follows:

- When the F1 button (FILTER) is selected, you can narrow your search by using the F3 button, the Left/Right Arrow buttons, and the Control encoder to select the file type, the content type (factory or user files), the product/bank/sub-bank, and the desired Type (and possibly Mode) tags.
- When the F2 button (LIST) is selected, you see the corresponding search result list. Using the Control encoder you can select and load the desired file.

The above steps are described in detail in the following sections. In addition, you will find most of the browsing aids also available in the software, as described in section ↑4.3, Additional Browsing Tools.

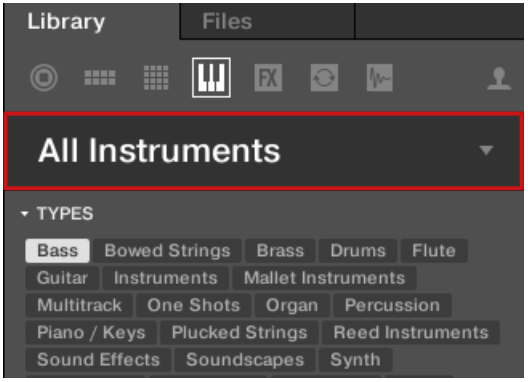


Tag all the files that you often use so they are easier to access using the controller.

4.2.2 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:

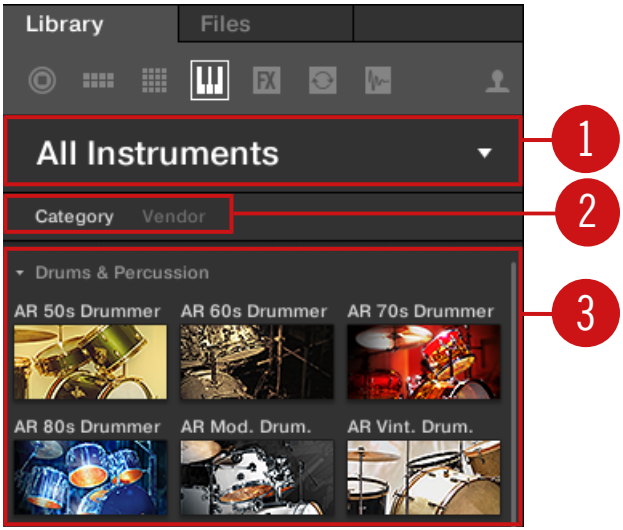


The closed Product selector header.

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 / Sounds.com

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.

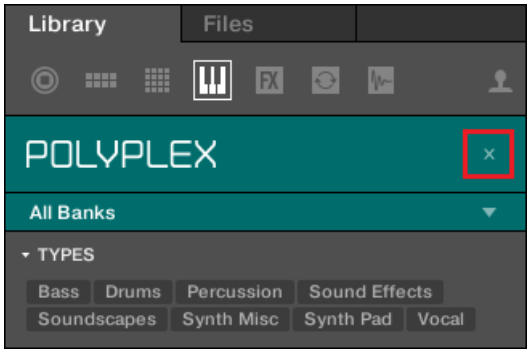
→ Upon your selection, the Product selector automatically closes, the product name and icon appear in the header, and the tag filter and results list below will be filtered accordingly.



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

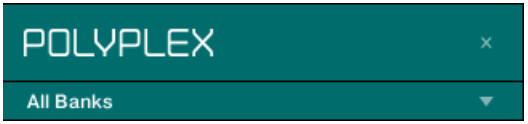
► To reset the selection made in the Product selector, click the little cross at the right of the product name:



→ 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:

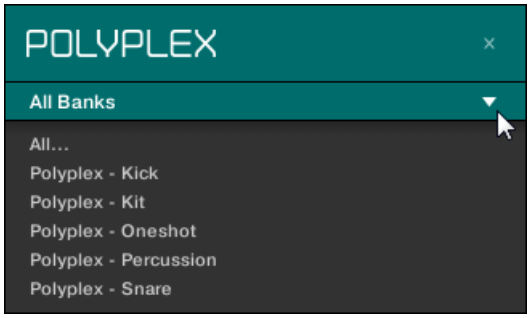


The Bank menu showing All Banks for POLYPLEX

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.



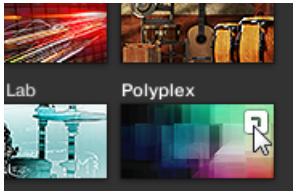
→ Upon your selection the Bank menu closes and displays the selected bank. The tag filter and results list underneath further narrow their content accordingly.

► 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.

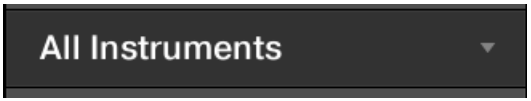


→ The product and the first preset from the results list for this product are loaded, and the result list only displays preset files only associated with this product.

4.2.3 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 (see section ↑4.2.4, Selecting a File Type):

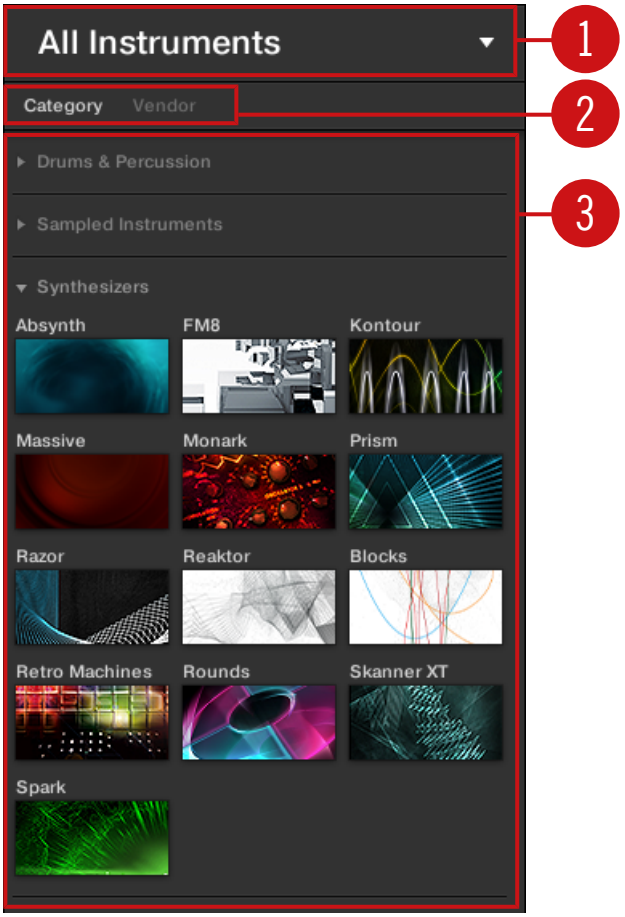


The closed Product selector without any Instrument selected.

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

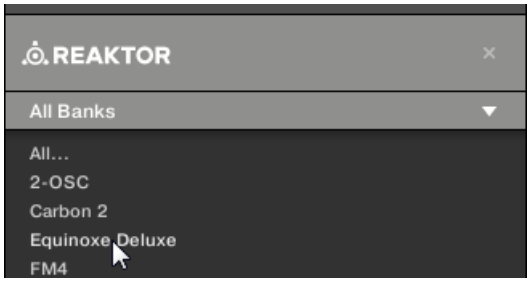
When you select specific products in the Product list (see description above), an additional **Bank menu** appears under the closed Product selector:



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.

4.2.3.1 Selecting a Product Category, a Product, a Bank, and a Sub-Bank on the Controller

On your controller in Browse mode:

1. Press F1 to select the FILTER page.
2. Press the Left/Right Arrow buttons to select the PRODUCT field.
3. Turn the Control encoder to select a product. Turn the Control encoder at full left to remove any particular selection (i.e. select all products).



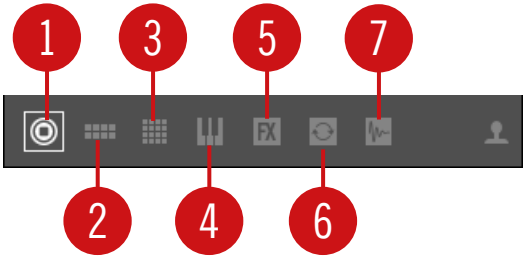
4. If the selected product contains any banks, press the Right Arrow button to select the BANK field, and turn the Control encoder to select a bank of the selected product. Turn the Control encoder at full left to remove any particular selection (i.e. to select all banks of the selected product).



5. If the selected bank contains any sub-banks, press the Right Arrow button to select the SUB-BANK field, and turn the Control encoder to select a sub-bank of the selected bank. Turn the Control encoder at full left to remove any particular selection (i.e. to select all sub-banks of the selected bank).

4.2.4 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)

(**7**) **One-Shots**: (.wav, .aiff)

► 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.

Selecting a File Type on the MASCHINE MIKRO Controller

On your controller in Browse mode:

1. Press F1 to select the FILTER page.
2. Press the Left Arrow button (if necessary, repeatedly) to select FILETYPE.
3. Turn the Control encoder to select the desired file type: PROJECT, GROUP, SOUND, INSTRUMENT, EFFECT, LOOPS, or ONE-SHOTS.

4.2.5 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.

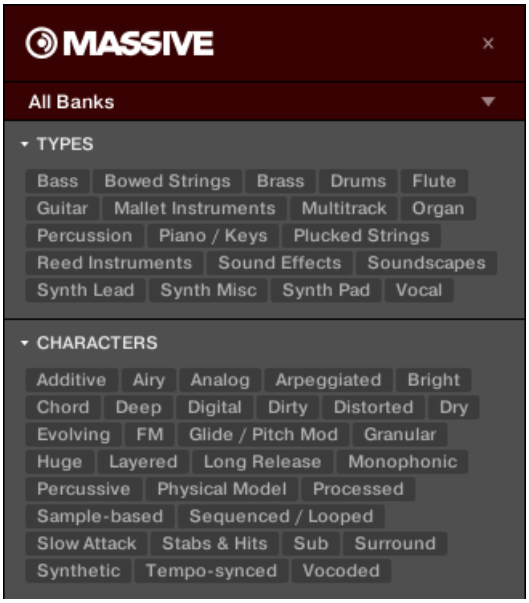
Choosing the Factory or User Content using the Controller

On your controller in Browse mode:

1. Press F1 to select the FILTER page.
2. Press F3 (USER) to browse the user content (button lit and USER label highlighted) or the factory content (button off and USER label not highlighted).

4.2.6 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, see section ↑4.2.3, 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.

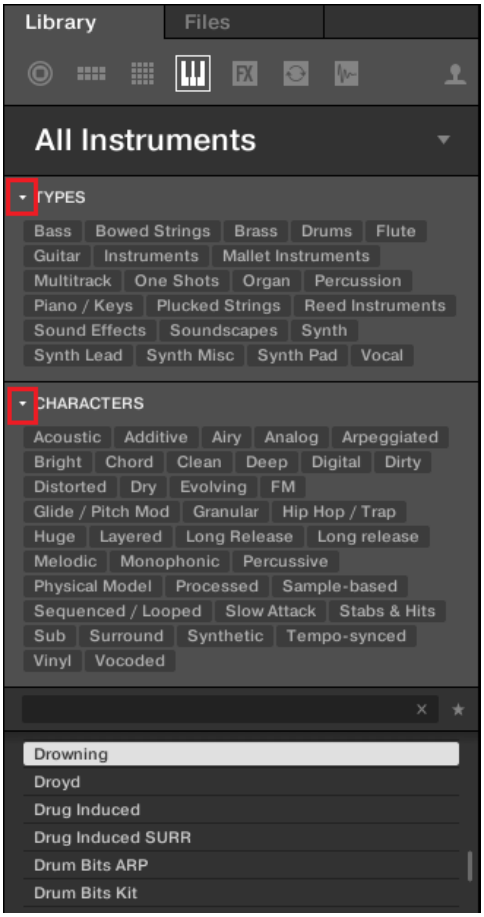
Opening and Collapsing the Attributes Sections

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.



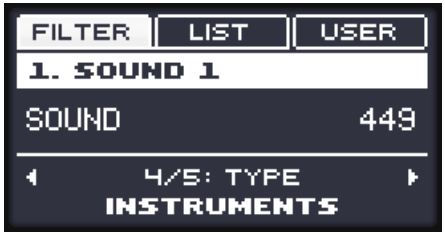
Highlighted triangle next to the Attributes (TYPES and CHARACTERS).

4.2.6.1 [MM1, MM2] Selecting Type and Character Tags on the MASCHINE MIKRO Controller

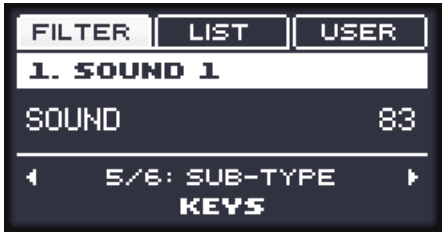
On your controller in Browse mode:

1. Press F1 to select the FILTER page.
2. Press the Left/Right Arrow buttons to select the TYPE field.

3. Turn the Control encoder to select a Type. Turn the Control encoder at full left to remove any particular selection (i.e. select all Types).



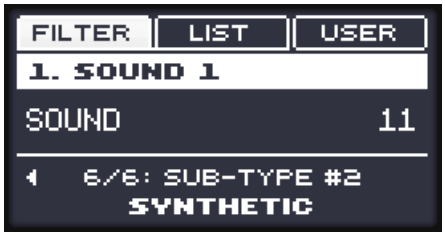
4. If the selected Type contains any Sub-Types, press the Right Arrow button to select the SUB-TYPE field, and turn the Control encoder to select a Sub-Type of the selected Type. Turn the Control encoder at full left to remove any particular selection (i.e. to select all Sub-Types of the selected Type).



Selecting Tags for Projects, Groups, Sounds, and Samples

When browsing Projects, Groups, Sounds or Samples, continue as follows:

- If the selected Sub-Type contains Sub-Types itself (these are then at the third and last level of the Type hierarchy), press the Right Arrow button to select the SUB-TYPE #2 field, and turn the Control encoder to select a Sub-Type of the selected Sub-Type. Turn the Control encoder at full left to remove any particular selection (i.e. to select all Sub-Types of the selected Sub-Type).



Selecting Tags for Instrument and Effect Presets

When browsing Instrument or Effect presets, continue as follows:

1. Press the Right Arrow button to select the CHARACTER field.
2. Turn the Control encoder to select a Character, if any. Turn the Control encoder at full left to remove any particular selection (i.e. to select all Characters).



4.2.7 Performing a Text Search

In the Search field you can enter your search query.



The Search field.

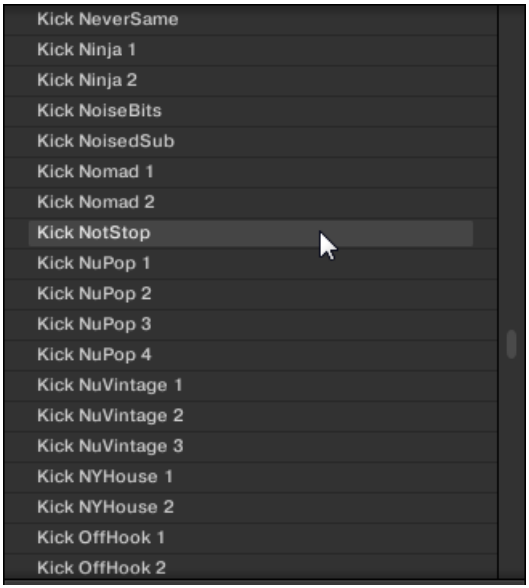
- Click in the Search field and type the desired text to limit the results to files containing this text.

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.

4.2.8 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 ↑4.5, 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 ↑17.5.7, 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, see section ↑17.5.7, 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.

4.2.8.1 Loading a File from the Result List on the MASCHINE MIKRO Controller

► Press F2 to select the LIST page.

→ You see the list of files corresponding to the settings you have chosen on the FILTER page.



The display showing a search result list with the BAROQUE Instrument preset selected.

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 (see section ↑3.3.4, 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 (see section ↑3.3.5, Switching Between the Master, Group, and Sound Level and ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area for more information). In any case, don't hesitate to press SHIFT + pad 1 / SHIFT + pad 2 to undo/redo your actions.

- The 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).

If you are loading a Project, it will replace the Project currently opened. If the current Project contains unsaved changes, a message appears in the displays asking you if you wish to save them. Press F3 (SAVE) to confirm, F2 (DISCARD) to close the current Project without saving the changes, or F1 (CANCEL) to cancel the operation and return to the current Project.

4.3 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 ↑4.5, Editing the Files' Tags and Properties for more information!

4.3.1 Loading the Selected Files Automatically

► Click the Autoload button to enable/disable Autoload.



The Autoload button.

When Autoload is enabled, 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 Prehear enabled — see section ↑4.3.3, Auditioning Samples.

Autoload is not only useful to look 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 normally would not use in that context.

Autoload using the Controller

On your controller in Browse mode:

1. Press F2 to select the LIST page.
2. Press the Left/Right Arrow buttons below the display to directly load the next or the previous file from the result list.

Autoload is not available when browsing Projects.

Autoload is not available when browsing Samples with Prehear enabled — see section ↑4.3.3, Auditioning Samples. When Prehear is enabled, Button 5 and 6 select the previous/next Sample in the result list without loading it automatically.

4.3.2 Auditioning Instrument Presets

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



The Prehear controls.

► Click the Prehear button (showing a little speaker icon) to enable/disable Prehear.

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

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

The Prehear 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, see section ↑13.2.6, Using the Cue Bus.

Auditioning Your Instrument Presets using the Controller

When browsing Instrument presets on your controller:

1. Press F2 to select the LIST page.
2. Press F3 (PREH.) to enable/disable the Prehear function.

When Prehear is enabled, following things happens:

- The Instrument preset selected in the result list can be triggered from the pad of the focused Sound or from any pad without being loaded into that Sound.
- Pressing any other pad triggers its Sound without changing the focus. To set the focus to another Sound you have to press SELECT + its pad or to disable Prehear.
- Turn the Control encoder to select the previous or next Instrument preset in the result list. Upon selection this Instrument preset is played back and the previous Instrument preset stops playing.
- The Left/Right Arrow buttons do not automatically load the Instrument preset they select as they usually do (see section ↑4.3.1, Loading the Selected Files Automatically), but instead they play it back as well.
- To load the Instrument preset, press the Control encoder.

When you disable Prehear, the playback of any Instrument preset still being pre-listened is stopped.



The Prehear signal is sent to the Cue bus of MASCHINE. For more information on the Cue bus, see section ↑13.2.6, Using the Cue Bus.

4.3.3 Auditioning Samples

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



The Prehear controls.

► Click the Prehear button (showing a little speaker icon) to enable/disable Prehear.

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

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

The Prehear signal is sent to the Cue bus of MASCHINE. This allows you to pre-listen to Samples on a distinct output pair (e.g., in your headphones) without affecting MASCHINE's main output! For more information on the Cue bus, see section ↑13.2.6, Using the Cue Bus.



Prehear and Autoload are mutually exclusive: Only one of them can be active at a time. For more information on the Autoload feature, see section ↑4.3.1, Loading the Selected Files Automatically.

Auditioning Samples using the Controller

When browsing Samples on your controller:

1. Press F2 to select the LIST page.
2. Press F3 (PREH.) to enable/disable the Prehear function.

When Prehear is enabled, following things happens:

- The Sample selected in the result list can be triggered from the pad of the focused Sound or from any pad without being loaded into that Sound.
- Pressing any other pad triggers its Sound without changing the focus. To set the focus to another Sound you have to press SELECT + its pad or to disable Prehear.
- Turn the Control encoder to select the previous or next Sample in the result list. Upon selection this Sample is played back and the previous Sample stops playing.

- The Left/Right Arrow buttons do not automatically load the Sample they select as they usually do (see section ↑4.3.1, Loading the Selected Files Automatically), but instead they play it back as well.
- To load the Sample, press the Control encoder.

When you disable Prehear, the playback of any Sample still being pre-listened is stopped.



The Prehear signal is sent to the Cue bus of MASCHINE. For more information on the Cue bus, see section ↑13.2.6, Using the Cue Bus.

4.3.4 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 enabled: 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 disabled: 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 Patterns using the Controller

When browsing Groups on your controller:

► Press F3 (+ PAT) to include or exclude Patterns when Groups are loaded.

→ When the option is enabled (F3 lit and + PAT label highlighted), Groups are loaded together with their Patterns.

4.3.5 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 enabled 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.

Loading Groups with Routing using the Controller

► Press SHIFT + Button 3 (+ ROUTING) to include or exclude routing when Groups are loaded.

→ When the option is enabled (Button 3 lit and + ROUTING label highlighted), Groups are loaded together with their audio and MIDI routing.

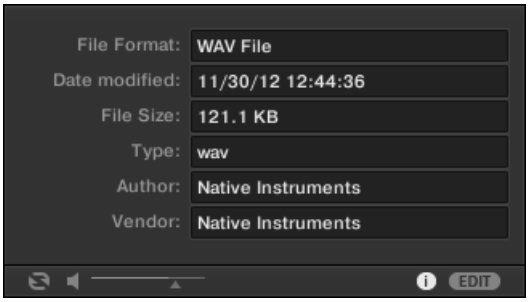
4.3.6 Displaying File Information



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 (see section ↑4.5, Editing the Files' Tags and Properties).



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

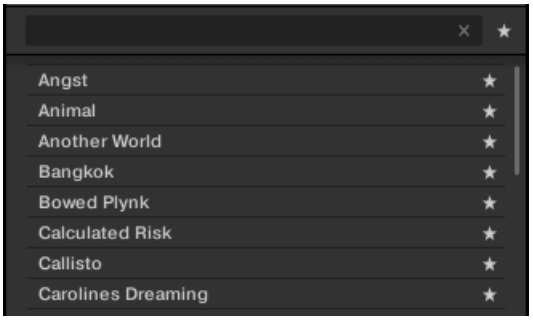
If the selected files have different characteristics, the corresponding fields in the Information box will read multi.

4.4 Using Favorites in the Browser

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. Any of these items can be assigned as a Favorite. The Favorites serve as an additional filter in the Browser. When activated, the results list will only show items that have been assigned as a Favorite, 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 the use of 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 tags.



The MASCHINE Browser showing all Favorite Instruments tagged with the Type Bass.

To activate the Favorites filter:

1. Click on the Filter Favorites control next to the search field to filter the results by Favorites:

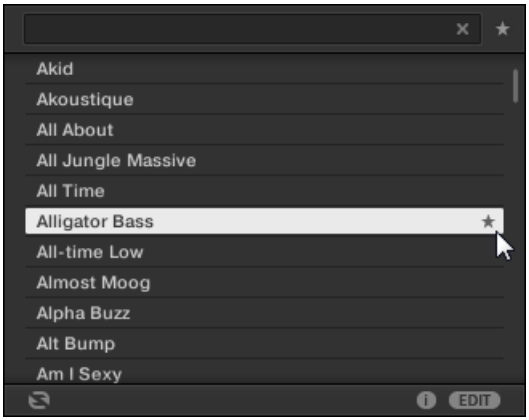


2. The Filter Favorites control is now lit and the results list shows all Favorites that match the selected search criteria.

Adding an Item to the Favorites List

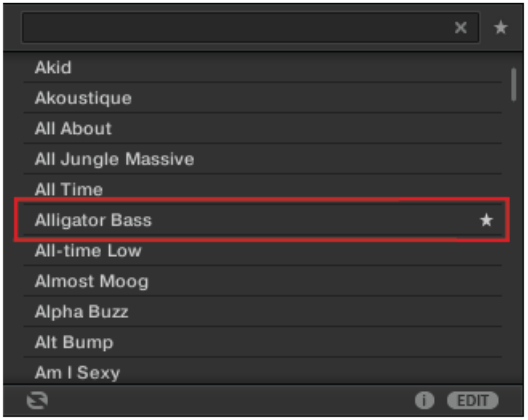
To add an item to the Favorites, follow the instructions below:

1. Place the mouse cursor over an entry in the results list to show the Set Favorite icon.



2. Click on the Set Favorite icon to add the corresponding item to the Favorites.

→ The item is added to the Favorites, indicated by the lit Set Favorite icon next to its name:





You can add any item in the results list to the Favorites, no matter if it is selected or not. The Set Favorites icon will appear as soon as you place the mouse cursor over the entry.

Removing a Preset from the Favorites List

To remove a preset from the Favorites, follow the instructions below:

► Click on the lit Set Favorite icon to remove the corresponding item from the Favorites.



→ The item is removed from the Favorites, indicated by the hidden Set Favorite icon. The next time you select the Favorites filter, the item will not be shown in the results list.

Using Favorites with the Controller

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

Activating the Favorites filter

To activate the Favorites filter from your controller:

1. Press the BROWSE button.
2. Press F1 to select FILTER.
3. Press the Left/Right Arrow button under the display to select page FAVORITES.
4. Turn the encoder to turn Favorites ON.



5. Press F2 to select LIST.

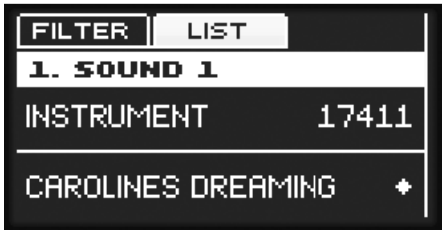


6. The Favorites filter is now activated and the results list shows all Favorites that match the selected search criteria.

Adding an Item to the Favorites

To add an item to the Favorites list:

1. Press the BROWSE button.
2. Press F1 to select FILTER.
3. Press the Left/Right Arrow buttons under the display to select FILETYPE.
4. Using the encoder, select the file type containing the item you want to set as a Favorite.
5. Press F2 to select LIST.
6. Using the encoder, scroll through the list and find the item you want to set as a Favorite.
7. Press SHIFT + Control encoder to set the selected preset as a Favorite.



8. Press F1 to select FILTER.
9. Press the Left/Right Arrow button under the display to select page FAVORITES.
10. Turn the encoder to turn Favorites ON.

11. The Favorites filter is now activated and the results list shows all Favorites that match the selected search criteria.

Removing an Item from the Favorites

To remove an item from the Favorites list:

1. Press the BROWSE button.
2. Press F2 to select LIST.
3. Using the encoder, scroll through the list and find the item you want to remove from the Favorites list.
4. Press SHIFT + Control encoder to remove the selected preset as a Favorite.

→ The item is removed from the Favorites list.

4.5 Editing the Files' Tags and Properties

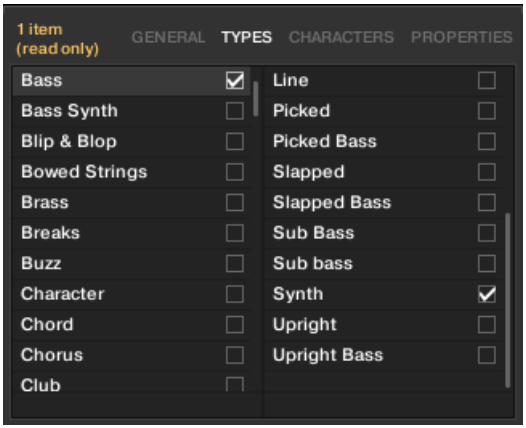
The Attribute Editor allows you to assign or edit tags and properties to your MASCHINE files to make it easier to find them later when browsing the MASCHINE Library in the Library pane (see section ↑4.2, Searching and Loading Files from the Library).

4.5.1 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 you changes and close the Attribute Editor. See section ↑4.2, Searching and Loading Files from the Library for more information on the Library pane.
- When importing folders to the MASCHINE Library from 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 ↑4.6, 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 (see section ↑4.2.8, Loading a File from the Result List) or the files within the folders selected for import in the Files pane (see section ↑4.6, 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.

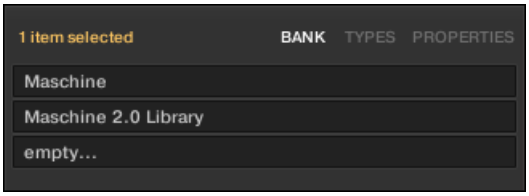
Displaying Attributes of Factory Files

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 item (read only) label.

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

4.5.2 The Bank Page

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



The BANK page of the Attribute Editor.

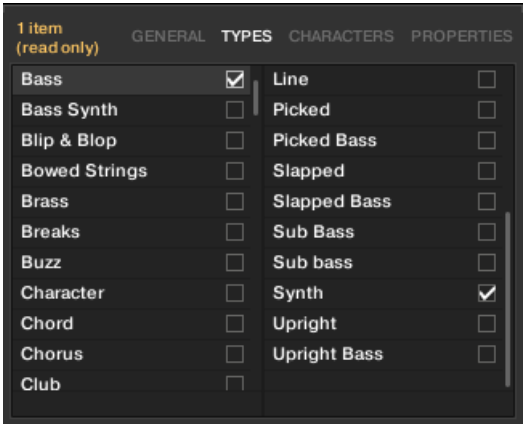
The BANK page shows you (from top to bottom) the product, bank, and sub-bank(s) of the selected file(s). If any of these attributes are not set the corresponding fields read empty….

You cannot modify the attributes shown in the BANK page — they are automatically assigned by MASCHINE.

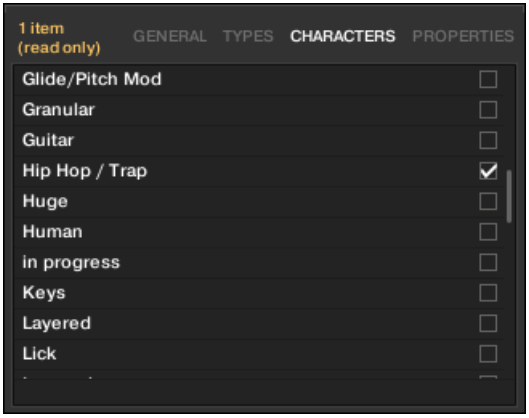
4.5.3 The Types and Characters Pages

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 (see section ↑4.2.6, 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

- In both TYPES and CHARACTERS pages, tags assigned to the selected files are marked with a check mark right of their name.
- In the TYPES page, click the name of a tag to select it and display its Sub-Types in the next column to the right. In each column only one tag can be selected.

Assigning Tags

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

→ A check mark 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 check mark right of the desired tag to unassign this tag from the selected files.

→ The check mark disappears.

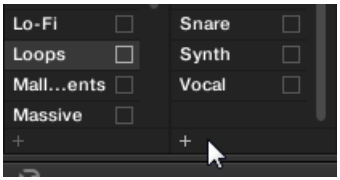


In the TYPES page, if you uncheck a tag for which some Sub-Type tags were selected in the columns on the right, these will automatically unassigned as you unassign their parent tag.

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.



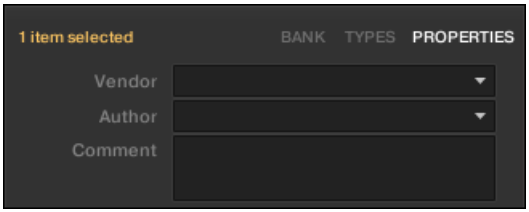
Adding a new Sub-Type for the Loops Type.

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.

4.5.4 The 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.

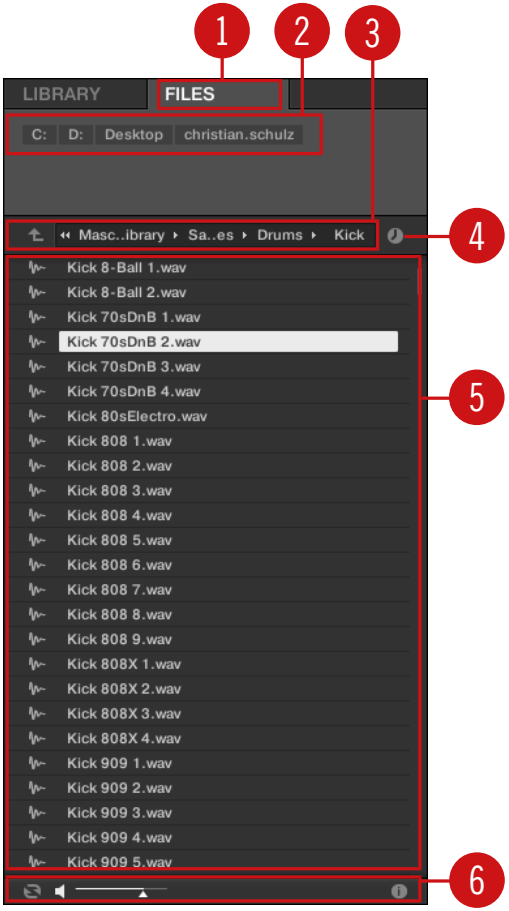
4.6 Loading and Importing Files from Your File System

The Browser's FILES pane allows you to browse your file system and import the desired folders to your MASCHINE Library.

► To display the FILES pane, click the FILES tab in the top left corner of the Browser.

4.6.1 Overview of the FILES Pane

The FILES pane contains 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 ↑4.6.2, Using Favorites.

(**3**) **Location bar**: Displays the selected path. The Location bar provides various tools to quickly navigate your file system. See section ↑4.6.3, Using the Location Bar.

(**4**) **Recent Locations button**: Click this button to see a list of the last visited locations and quickly jump any of them. See section ↑4.6.4, Navigating to Recent Locations.

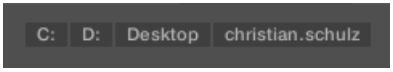
(**5**) **Result list**: The Result list displays the content (files and folders) of the folder loaded in the Location bar (**3**). Only MASCHINE-compatible files are displayed. See section ↑4.6.5, Using the Result List.

(**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 the files selected in the Result list:

- For all file types except Project, 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 ↑4.3.1, Loading the Selected Files Automatically.
- For Samples, enable the **Prehear button** and adjust the volume fader next to it in order to pre-listen to the selected Samples directly from the Browser in order to make a quick selection. See section ↑4.3.3, Auditioning Samples.
- For Groups, enable the Load Patterns checkbox to load the Group's Patterns together with the Group. See section ↑4.3.4, Loading Groups with Patterns.
- For all files, click the **Information button** (showing a little "i") near the EDIT button to display more information on the selected file(s). See section ↑4.3.6, Displaying File Information.
- When a folder is selected, click the IMPORT button at the far right of the bar 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 ↑4.5, Editing the Files' Tags and Properties.

4.6.2 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.

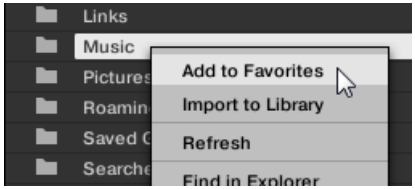
Favorites can be useful if you often return to the same location while browsing your file system in the FILES pane: Save this location as a Favorite, and at any time you will be only one click away from that location!

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 use as 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.

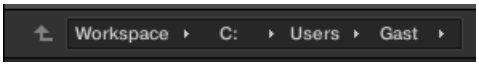


You can also remove any Favorite from the Favorite bar:

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

4.6.3 Using the Location Bar

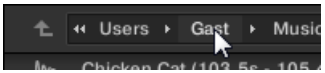
The Location bar shows and lets you modify the selected path. At any time the Result list will display the content of the path shown here.



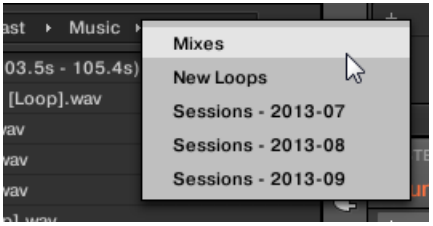
The Location bar.

The Location bar provides following tools:

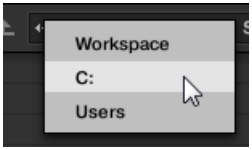
- **Up arrow**: Click the Up arrow on the left to go one level up in your file system.
- **Selected path**: Within the path displayed, you can:
  - Click any **folder name** to jump to that folder:



  - Click any **right-pointing arrow** after a folder name to open a list of its subfolders, and select any entry in the list to jump to that folder:

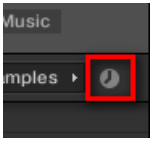


  - If all the levels cannot be displayed in the path, click the double left-pointing arrow left of the path to display the remaining upper levels (up to the Workspace, representing the highest level in your file system), and select any entry in the list to jump to that location:



4.6.4 Navigating to Recent Locations

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



The Recent Location button.

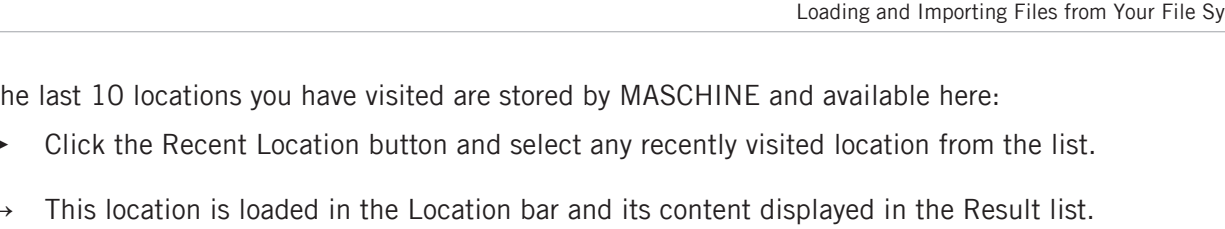
The last 10 locations you have visited are stored by MASCHINE and available here:

► Click the Recent Location button and select any recently visited location from the list.

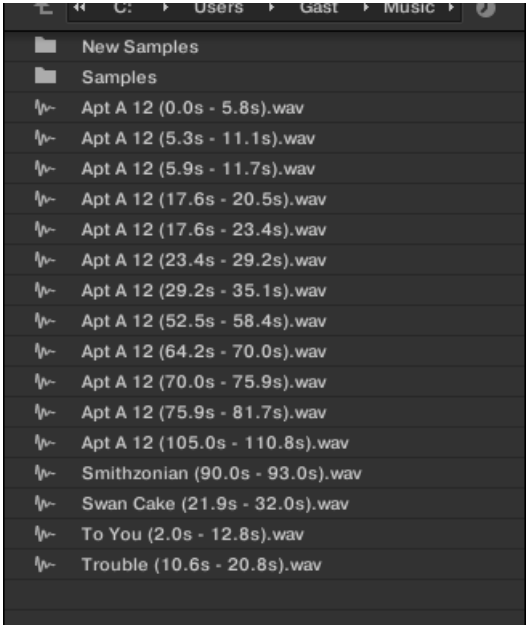
→ This location is loaded in the Location bar and its content displayed in the Result list.

4.6.5 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 (see section ↑4.6.3, Using the Location Bar).



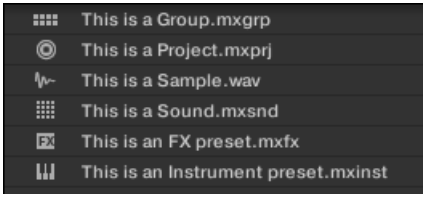
Only MASCHINE-compatible files are shown in the Result list.



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 folder:

► 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: ↑4.6.2, Using Favorites.
- Location bar: ↑4.6.3, Using the Location Bar.
- Recent Locations button: ↑4.6.4, 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 in-between.

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

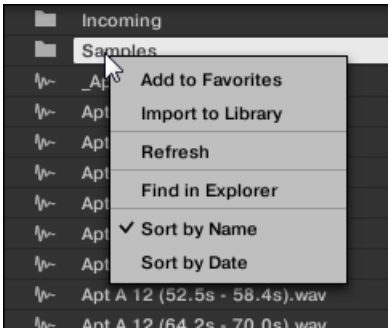
► Hold [Ctrl] ([Cmd] on macOS) and click all the files you want to select.

Loading Files 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 ↑4.2.8, 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 ↑4.6.2, Using Favorites for more information.
Import to Library (folders only)	Imports the selected folder(s) into the Library. See section ↑4.6.5, 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 Exporer / Find in Finder	Opens an Explorer/Finder window pointing to the selected folder.

Command	Description
Sort by Name	Sorts the Result list according to the item names.
Sort by Date	Sorts the Result list according to the item dates.

4.6.6 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 (see section ↑4.2, Searching and Loading Files from the Library).

For this you will have to import the files into the Library first. Importing files does not mean they will be moved from the directory they currently reside in, 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 ↑3.6.4, Preferences – Default 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 WAVE (.wav) and AIFF (.aiff) 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.

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. Select the desired folder as described above.
4. Click the IMPORT button at the bottom right of the Browser.
   You will be presented with the Attribute Editor.
5. In the Attribute Editor, tag the files you are about to import to the Library as described in section ↑4.5, Editing the Files' Tags and Properties.
6. 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, see section ↑4.2.5, 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 — see section ↑3.6.4, 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 (see section ↑4.2.4, Selecting a File Type).



You can also apply/remove tags at any time after they are 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

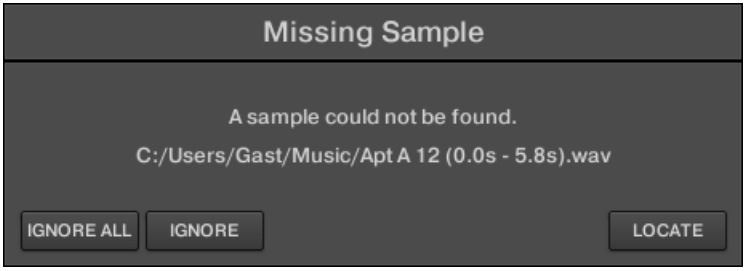
In addition to the Type (and possibly) Mode tags that you can manually assign to the files being imported (see above), other attributes are automatically set as follows:

- 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 bank.

- If Samples reside in a subfolder of this subfolder, the name of the lower subfolder will be used as sub-bank.

4.7 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 in which you can locate the missing Samples will appear.



The Missing Sample dialog allows you to locate missing Samples.

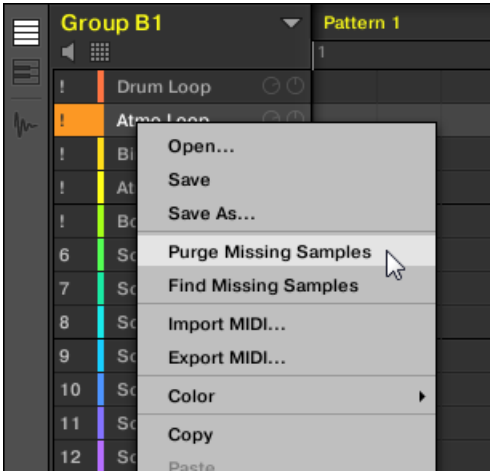
Sounds referencing missing Samples are marked with an exclamation mark. Additionally, their Groups are also marked with an exclamation mark when selected.

The Missing Sample dialog shows you which Sample cannot be found. Three buttons at the bottom of the dialog let you choose between 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 (see 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 (see 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 the 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 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.

4.8 Using Quick Browse

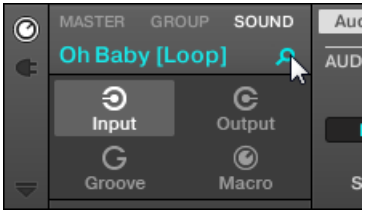
Quick Browse is a feature that allows you to quickly recall a search query you performed to get to a given file. Let's say you have loaded a kick Sample after browsing the Library, then loaded a snare Sample to another Sound slot and now you realize you are not satisfied with that kick Sample, but you 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-ins presets (Instruments and Effects), Sounds, Groups. Depending on the type of file you are looking for, the Quick Browse function is activated by clicking the magnifying glass in either of the following locations:

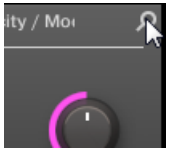
- **Quick Browse for Projects, Groups and Sounds**: Click the magnifying glass right of the colored file name appearing in the upper left part of the Control area to recall the search query that was used for that file. That file will be:
  - The focused Group if the GROUP tab is selected above:



  - The focused Sound if the SOUND tab is selected above:



- **Quick Browse for Instrument/Effect presets and for 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.



The Quick Browse function is also available from your controller! See below for more information.

If No Search Query Was Used for a File…

If a file of your Project wasn't loaded via 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.

Using Quick Browse on the Controller

Quick Browse is also available on your controller. To use it, you first have to select the desired file in your Project:

1. If you want to trigger Quick Browse for a Group or a Sound, set the focus to this Group or Sound — see section ↑3.3.4, Focusing on a Group or a Sound.
2. If you want to trigger Quick Browse for a Sample or a Plug-in preset, additionally select the slot of that Plug-in (for a Sample this is the Sampler) — see section ↑3.3.5, Switching Between the Master, Group, and Sound Level and ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.

Once the desired file is focused/selected, use the Browser of your controller:

1. Press BROWSE to enter the Browser.
2. Press F1 select the FILTER page.
3. Press the Left Arrow button (repeatedly if necessary) until the FILETYPE field is selected.
4. Turn the Control encoder to select the file type corresponding to the file you have focused/selected above.
5. Press SHIFT + F3 (LOCATE) to trigger the Quick Browse function.

→ The Browser of your controller automatically recalls the search query used for that file. Press F2 (LIST) to see the corresponding result list.

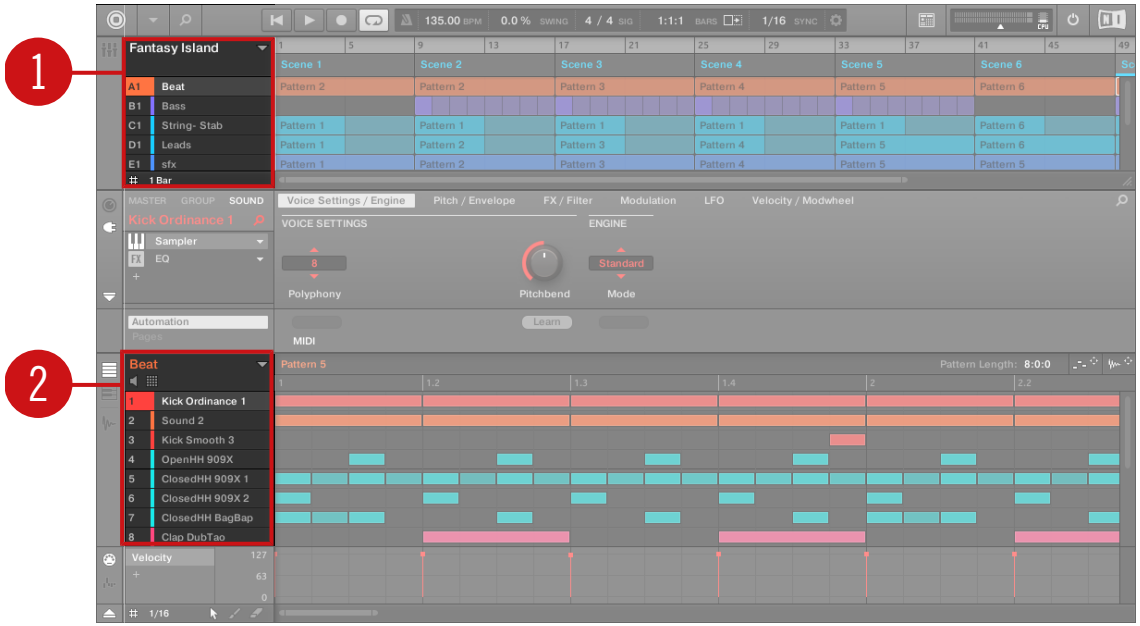
5 Managing Sounds, Groups, and Your Project

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

5.1 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 ↑7.1, 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 ↑11, Working with Patterns.
- 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.



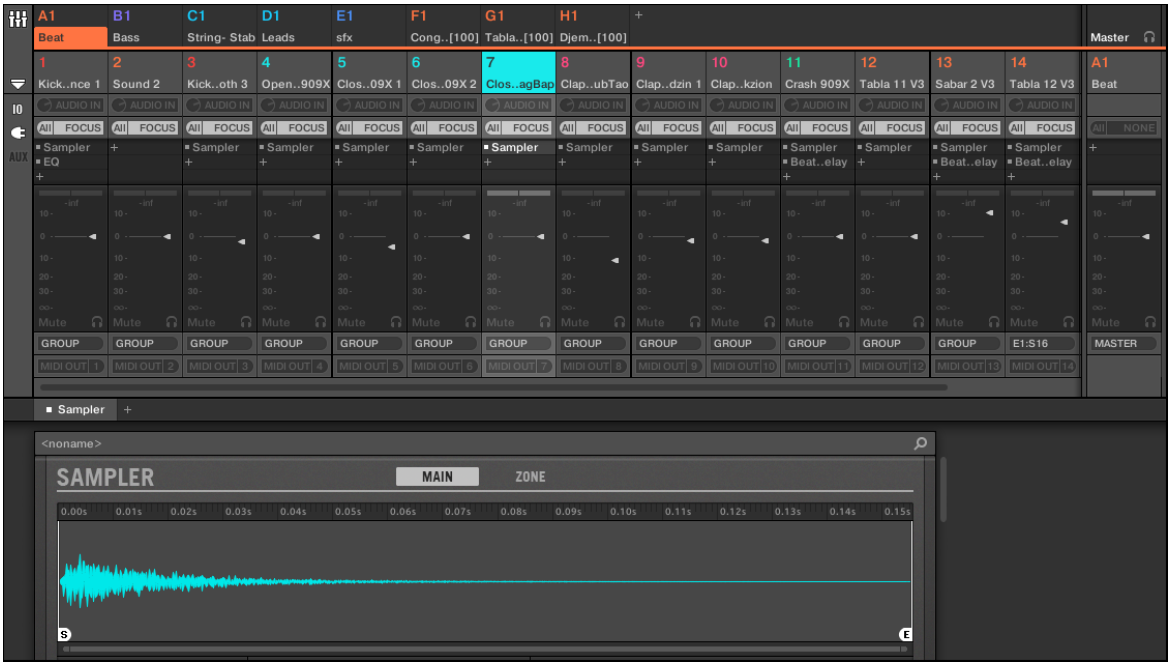
The Group List (1) and the Sound List (2) in the Arrange view of the software.

5.1.1 The Sound, Group, and Master Channels

From a 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 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 ↑12, Audio Routing, Remote Control, and Macro Controls and section ↑6.3.3, 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 ↑13.2, The Mixer for more information.



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

5.1.2 Similarities and Differences in Handling Sounds and Groups

Sounds and Groups are handled in very similar ways — see section ↑5.2, Managing Sounds and ↑5.3, Managing Groups below for all details. We list here the main differences between both:

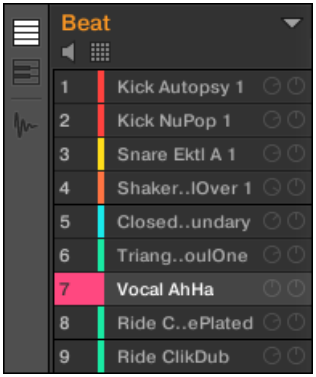
- In each Group you always have a **fixed number of Sound slots** — namely 16. Some of these Sound slots might be empty, and you can have gaps in your slots (i.e. some empty Sound slots between other slots containing Sounds), depending on how you prefer to play your Sounds from your pads. You cannot 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.

5.1.3 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!

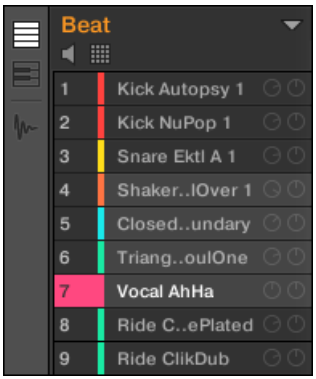
To achieve this, MASCHINE distinguishes the "focus" from the "selection":

- 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**, on the other hand, determines what will be affected by your actions (e.g., adjusting a parameter). For example, the focused Sound (i.e. 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 indeed 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.



Other Sounds were added to the selection (but they are not focused).

More precisely, if a Group or a Sound is currently focused, you can additionally select other Groups or Sounds, respectively. These will be also affected by your edits on the focused Group or Sound.



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, any change in the following settings of the focused Sound/Group will be mirrored in the other selected Sounds/Groups, respectively:

- **Channel properties**: Parameter adjustments apply to all selected Sounds/Groups for any parameter in any set of Channel properties. See chapter ↑12, 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. See chapter ↑7, 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. See section ↑6.1, Adjusting the Pads for more information on these settings.
- You can **move** multiple Sound slots or multiple Groups at once. See section ↑5.2.7, Moving Sounds and ↑5.3.7, Reordering Groups for more information.
- You can **reset** multiple Sound slots and **delete** multiple Groups at once. See section ↑5.2.8, Resetting Sound Slots and ↑5.3.8, 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/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)	
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 (see section ↑6.1.1, The Pad View in the Software).

Selecting Multiple Sounds/Groups on the Controller

On your controller, you can select multiple Sounds or Groups via the Select mode:

1. Press and hold SELECT to enter Select mode. You can also press SELECT + CONTROL to pin this mode and make it permanent.
2. Press F1 (QUIET) to select Sounds and Groups.

→ You are ready to select more than one Sound or Group.



Selecting Sounds and Groups via the Select mode.

You have following selection tools at your disposal:

Selection Tool	Description
Pads	Press any pad to set the focus to that particular Sound slot. The pad lights up to indicate that the Sound slot is focused (and selected). Unlit pads indicate unselected, empty Sound slots, and half-lit pads indicate unselected Sounds. The selection behavior depends on the state of the MULTI option (F3, see below).
GROUP then pads	Press GROUP, then any pad 9–16 to set the focus to that particular Group in the current Group bank. The pad lights up to indicate that the Group is focused (and selected). Unlit pads 9–16 cannot be pressed (they don't correspond to any existing Group), and half-lit pads indicate unselected Groups. The selection behavior depends on the state of the MULTI option (F3, see below).
Left/Right Arrow buttons (< BANK >)	Selects the previous/next Group bank, respectively.
F3 (MULTI)	Enables/disables the multiple selection mode. Toggling this button does nothing to the current focus nor selection but changes the behavior of the selection process — see below.

The MULTI option (F3) switches between single and multiple selection:

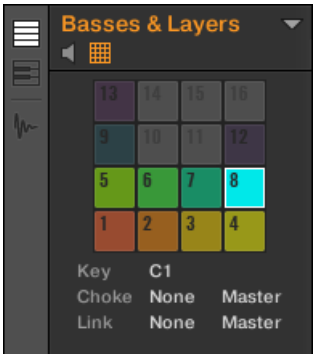
- When MULTI is disabled (F3 off):
  - Pressing GROUP then the pad of an **unselected** Group, or pressing the pad of an **unselected** Sound, sets the focus to that Group/Sound and clears the current Group/Sound selection (only the focused Group/Sound is then selected). The pad lights up.
  - Pressing GROUP then the pad of a **selected** Group, or pressing the pad of a **selected** Sound, sets the focus to that Group/Sound without changing the current Group/Sound selection. The pad stays fully lit.
- When MULTI is enabled (F3 on):
  - Pressing GROUP then the pad of an **unselected** Group, or pressing the pad of an **unselected** Sound, adds it to the current Group/Sound selection without changing the current focus. The pad lights up.
  - Pressing GROUP then the pad of a **selected** Group, or pressing the pad of a **selected** Sound, unselects it unless it is the focused Group/Sound. For Groups, the pad turns half lit; for Sounds, the pad turns half lit (if it contains a Sound) or off (if it is empty).

5.2 Managing Sounds

This section describes the global editing functions available for Sounds and Sound slots.

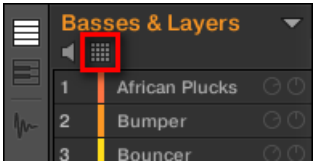
Sounds: Sound List or Pad View

With the exception of naming Sound slots, all 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.



The Pad view.

The Pad view can be shown by activating the Pad View button above the Sound List:



The Pad View button.

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

→ The Pad view replaces the Sound List on the left of the Pattern Editor.

In the Pad view, each cell represents a pad on your controller and corresponds to a Sound slot in the current Group. You can select Sound slots in either the Sound List or the Pad view as you see fit, both selections are strictly equivalent.



In addition to the Sound management features described in the following sections, the Pad view provides extra settings affecting the behavior of your pads. See section ↑6.1, Adjusting the Pads for more information.

5.2.1 Loading Sounds

You can load a readymade Sound from the Browser or from your operating system. The Sound can be included in the MASCHINE Library or any EXPANSION PACK 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:

- **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, see 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 currently loaded in the focused Sound slot. See section ↑4.8, Using Quick Browse for more information.



In your operating system, Sound files have the extension ".mxsnd" (MASCHINE 2) or ".msnd" (MASCHINE 1.x).



Please refer to chapter ↑4, Browser for more information on the Browser.

Loading Sounds on Your Controller

On your controller, use the Browser to load Sounds:

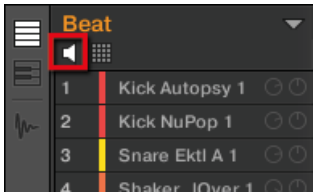
- You can browse your MASCHINE Library for the desired Sound. For more information on how to do this, please refer to section ↑4.2, Searching and Loading Files from the Library.

- Alternatively you can recall the search query that was used to find the Sound currently loaded in the focused Sound slot. See section ↑4.8, Using Quick Browse for more information.

5.2.2 Pre-listening to Sounds

You can pre-listen to the Sounds of the focused Group as you set the focus on them in the software. To do this:

► Click the speaker button above the Sound List (or the Pad view) to enable/disable Sound pre-listening in the focused Group:



→ When the speaker button is enabled, 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 Pre-listen (speaker button) is switched on.

Pre-listening to Sounds on the Controller

On your controller, pre-listening to Sounds actually is the default behavior: In Control 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, pre-listening to 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 you select. To do this, use the Select mode:

1. Press and hold the SELECT button.
2. Check that F1 (QUIET) is enabled — if necessary, press it to enable it.
3. Press the pad containing the desired Sound.

→ The Sound is focused without being triggered.

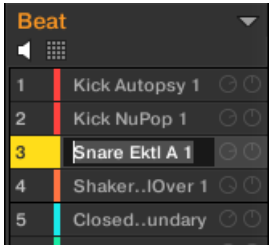
5.2.3 Renaming Sound Slots

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 also rename Sound slots manually. 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.

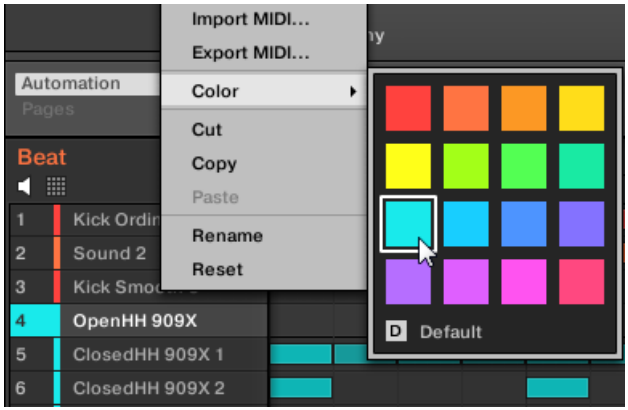


If you use MASCHINE as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the MASCHINE plug-in window to confirm the name you have entered.

5.2.4 Changing the Sound's Color

You can change the color of each individual Sound in the software. To do this:

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.

→ The pads of the MASCHINE STUDIO, MASCHINE MK3, MASCHINE MK2, and MASCHINE MIKRO MK2 controllers mirror the Sound colors you have selected.

Editing Multiple Sounds

You can apply the following commands to multiple selections of Sounds:

- **Sounds**:
  - Changing the selected Sounds' color.
  - Cutting, copying, and pasting the selected Sounds.
  - Resetting the selected Sounds.

These commands are available in the Sounds' context menu.

Notes on Changing the Color of Multiple Sounds

When opening the Color Palette (in order to set a new color setting for the selected Sounds):

- If the selected Sounds have the same color setting (a particular color or the default color), this color is highlighted in the Color Palette.
- If the selected Sounds have different color settings, no setting is highlighted in the Color Palette.

When you select a new color setting from the Color Palette it is applied to all selected Sounds.



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 ↑3.6.8, Preferences – Colors Page for more information.



Once you have set a custom color for a Sound as described above, 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.

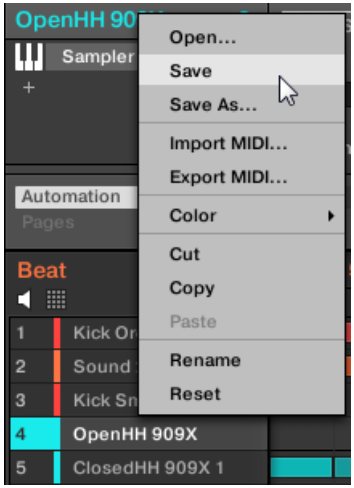
5.2.5 Saving Sounds

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.

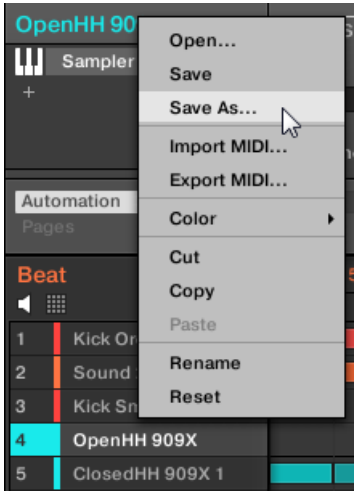
Even if you don't save a Sound individually, its current settings will still be saved with your Project. But once a Sound is saved and tagged, it is available in the Browser for use in other Groups and Projects.

You cannot save changes to factory files — 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. See next paragraph for more details. The same happens with Sounds you have built from scratch.

Saving Your Modified Sound as a New Sound

If you want to save modifications you have made on 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:

► 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*, see section ↑3.6.4, Preferences – Default Page for more information).

1. If you wish, choose another path and/or type another name with your computer keyboard.
2. 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 — see section ↑4.5, Editing the Files' Tags and Properties for more information on this.



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.

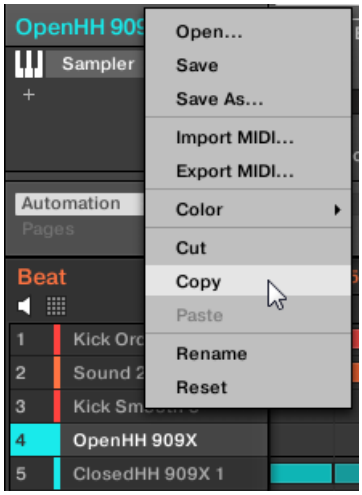
5.2.6 Copying and Pasting Sounds

You can copy and paste Sounds across Sound slots (and thereby across pads) and Groups in your Project.

In the software, Sounds are copied without their note content in the Pattern. To include the note content in the copying operation, use DUPLICATE on your controller (see below)!

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 *Copy* to copy the Sound.



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.

Cutting, Copying, and Pasting Multiple Sounds

The **cutting procedure** for multiple Sounds and Groups is as follows:

- When you cut a selection of Sounds, they are placed into the clipboard and removed from the Sound List. Their Sound slots are reset to their default state.

The **copying procedure** for multiple Sounds is as follows:

When you copy a selection of Sounds, they are both placed into the clipboard and kept in the Sound List.

The **pasting procedure** for multiple Sounds is as follows:

- When you paste a selection of 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 won't be pasted at all. Note that this is not affected by any multiple selection you might have made when pasting. **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.



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 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.

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, enable the +EVENT option (F1).
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 enabled the +EVENT option). The copied Sound will replace any Sound previously loaded in the target Sound slot.



Instead of holding DUPLICATE, you can also pin the Duplicate mode by pressing DUPLICATE + CONTROL. You can then release DUPLICATE: Your controller will stay in Duplicate mode until you press DUPLICATE again. See section ↑3.3.1, Pinning a Mode on the Controller for more information.

5.2.7 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.

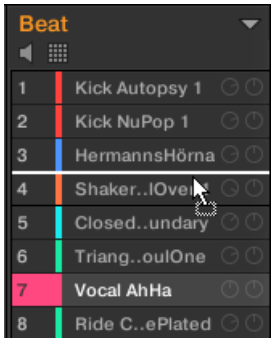


You can select multiple Sounds to move them all at once! See ↑5.1.3, Selecting Multiple Sounds or Groups for more information.

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 won't be moved.



Sounds cannot be moved within the Sound List when Pre-listen (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.

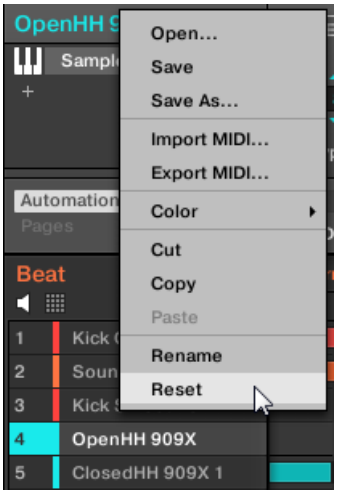
5.2.8 Resetting Sound Slots

Resetting a Sound slot will remove the Sound it contains and put 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 ↑5.1.3, 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 Your 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 is turned off.

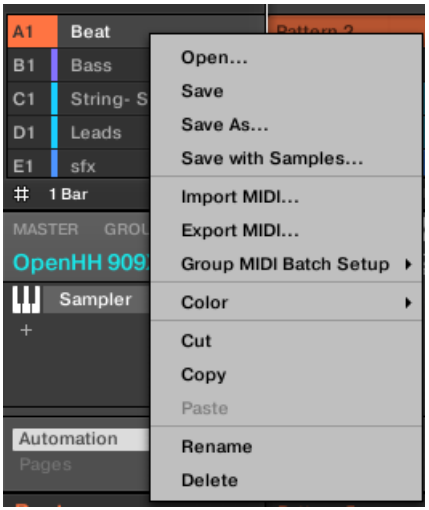
5.3 Managing Groups

This section describes the global editing functions available for Groups.

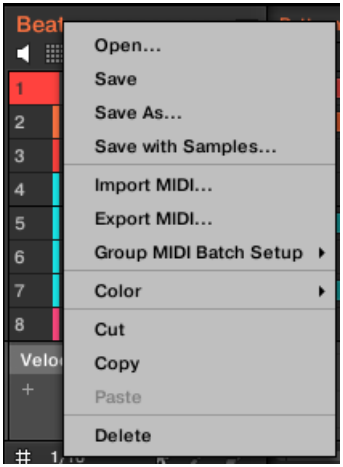
Group Menu

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:

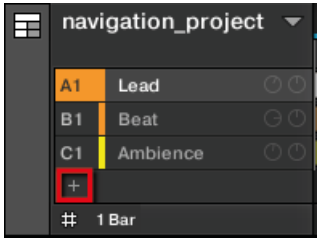


Both context menus are equivalent: Use either menu as you see fit.

5.3.1 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 doesn't correspond to any existing Group, but instead allows you to create another Group in your Project.

To create a new Group:

1. Hold GROUP and press the Right Arrow button repeatedly to navigate to the last Group bank.
2. While holding GROUP, press the dimmed white pad after all lit pads.

→ A new empty Group is created after the existing Groups with the default name and color.

Creating Groups via the Select Mode

You can also use the Select mode to create Groups from your controller:

1. Press and hold SELECT to enter Select mode. You can also pin the Select mode by pressing SELECT + CONTROL: You can then release SELECT: Your controller will stay in Select mode until you press SELECT again. See section ↑3.3.1, Pinning a Mode on the Controller for more information.
2. Press F1 to select QUIET.
3. Press GROUP.
4. Press the Right Arrow button repeatedly to navigate to the last Group bank.
5. Press the last half-lit pad to create a new empty Group.

Automatic Group Bank Management

In MASCHINE Group banks are managed automatically, so that you don't have to create or delete them manually. Group 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.

5.3.2 Loading Groups

You can load a readymade Group from the Browser or from your operating system. The Group can be included in the MASCHINE Library or any EXPANSION PACK 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 ↑4.8, Using Quick Browse for more information.

In your operating system, Group files have the extension ".mxgrp" (MASCHINE 2) or ".mgrp" (MASCHINE 1.x).

To learn more about the Browser, refer to ↑4, Browser.

Loading Groups on Your Controller

On your controller, use the Browser to load Groups:

- You can browse your MASCHINE Library for the desired Group. For more information on how to do this, please refer to section ↑4.2, Searching and Loading Files from the Library.
- Alternatively you can recall the search query that was used to find the Group currently loaded in the focused Sound slot. See section ↑4.8, Using Quick Browse for more information.

5.3.3 Renaming Groups

By default, new Groups are named Group Ax–Hx, "x" indicating the bank number (Group A1–H1, Group A2–H2, etc.).

You can rename Groups as you see fit. Naming is only available from within the software, but any changes will also show up on your controller.

Group renaming is performed like Sound renaming:

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.



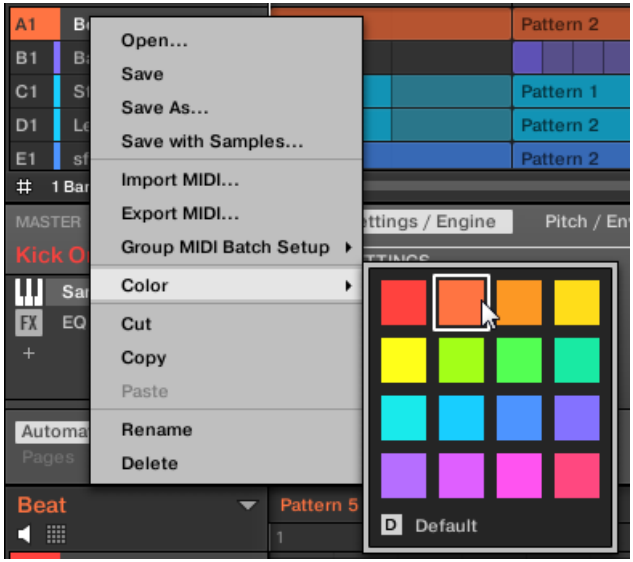
2. Modify the name of the Group. Press [Enter] on your computer keyboard to confirm.

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.

5.3.4 Changing the Group's Color

You can change the color of each individual Group in the software. To do this:

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 ↑3.6.8, 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.

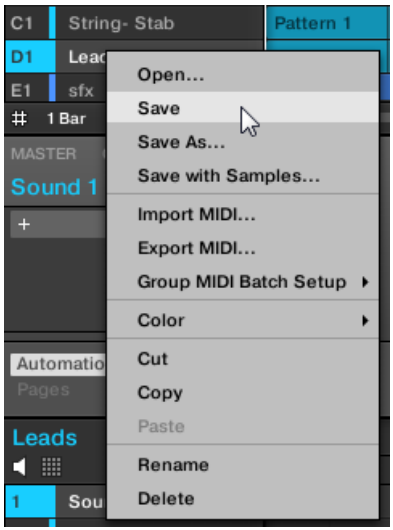
5.3.5 Saving Groups

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 Sound file.

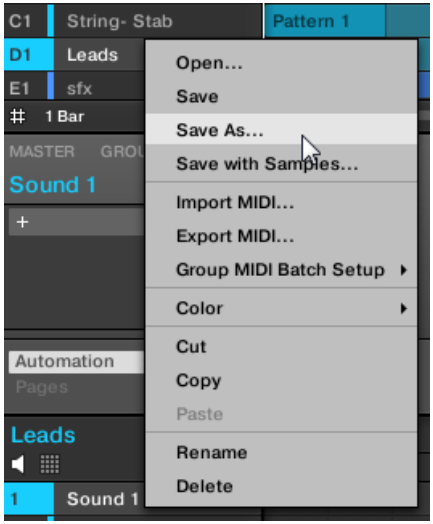
Even if you don't save a Group individually, its current settings will still be saved with your Project. But once a Group is saved and tagged, it is available in the Browser for use in other Projects.

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 Modified Group 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*, see section ↑3.6.4, 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 — see section ↑4.5, Editing the Files' Tags and Properties for more information on this.



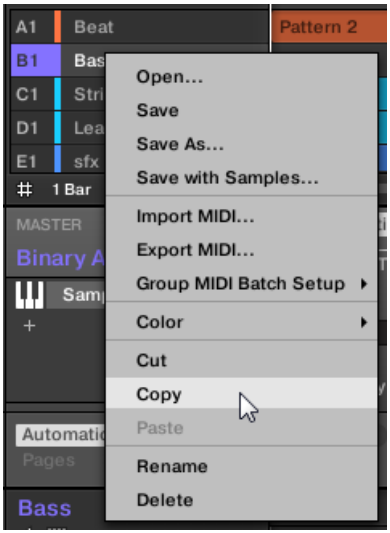
You can also save a Group together with all the Samples used in this Group. This can be useful to use a drum kit on another computer or share it with other users. See section ↑5.4.1, Saving a Group with its Samples for more information.

5.3.6 Copying and Pasting Groups

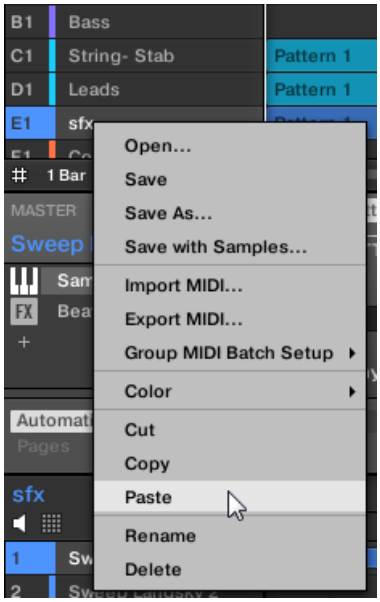
You can copy and paste Groups in your Project.

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.

Cutting, Copying, and Pasting Logic for Multiple Groups

The **cutting procedure** for multiple Sounds and Groups is as follows:

- 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.

The **copying procedure** for multiple Groups is as follows:

When you copy a selection of Groups, they are both placed into the clipboard and kept in the Group List.

The **pasting procedure** for multiple Groups is as follows:

- 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 didn't exist it is automatically created).



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.

Duplicating Groups on Your Controller

On your controller in Control mode, do the following to copy a Group to another:

1. Press and hold DUPLICATE.
2. If you want to duplicate a Group including its Patterns, enable the +EVENT option (F1).
3. While holding DUPLICATE, press GROUP, and press the pad of the Group you want to copy.
   The pad starts blinking.
4. 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 enabled the +EVENT 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.



Instead of holding DUPLICATE, you can also pin the Duplicate mode by pressing DUPLICATE + CONTROL. You can then release DUPLICATE: Your controller will stay in Duplicate mode until you press DUPLICATE again. See section ↑3.3.1, Pinning a Mode on the Controller for more information.

5.3.7 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 ↑5.1.3, Selecting Multiple Sounds or Groups for more information.

Reordering Groups is performed like reordering Sounds:

1. Click and hold the Group.
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. This new place is also mirrored on the pads of your controller.

5.3.8 Deleting Groups

Deleting a Group will remove it from the Group List.



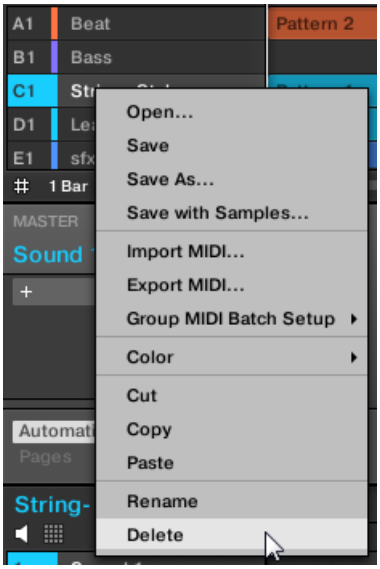
It is not possible to have a Project without any Groups; attempting to delete the last remaining Group in a Project will simply reset the Group to the default values.



You can select multiple Groups to delete them all at once! See ↑5.1.3, 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.

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.

5.4 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.



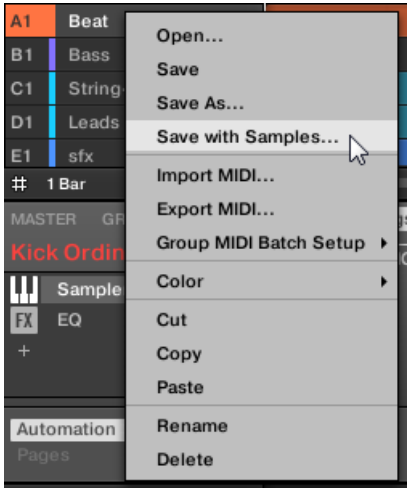
You can also export your Patterns as audio or MIDI files via drag and drop. This is described in section ↑11.8.1, Exporting Audio from Patterns and ↑11.8.2, Exporting MIDI from Patterns.

5.4.1 Saving a Group with its Samples

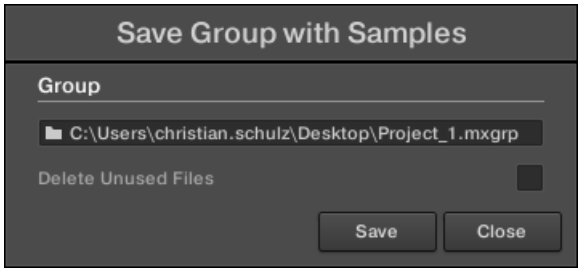
Sometimes it is useful to have the ability to save a Group with its Samples outside of the MASCHINE Library. If you want to take a Group to another studio or if you want to backup or share a custom drum kit with all the related files, this comes in handy.

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*, see section ↑3.6.4, 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.

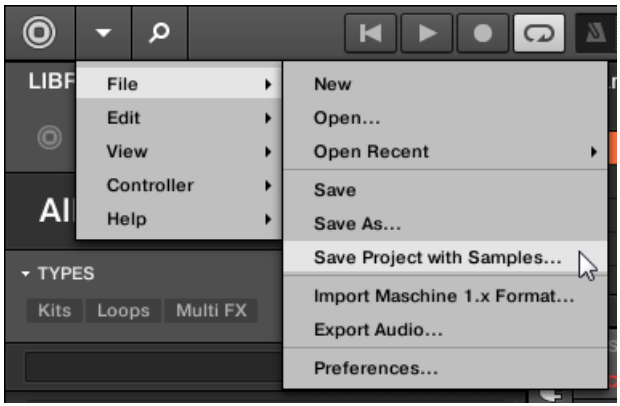


You can also save your whole Project with its Samples. See section ↑5.4.2, Saving a Project with its Samples.

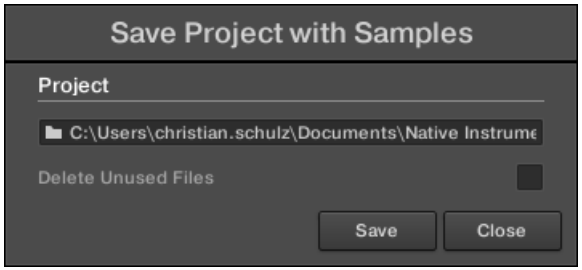
5.4.2 Saving a Project with its Samples

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*, see section ↑3.6.4, 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 ↑5.4.1, Saving a Group with its Samples.

5.4.3 Exporting Audio

Use the Export Audio panel in the software to export as your complete arrangement as audio from the Song view, or render individual Scenes or Sections as audio files in 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. See section ↑11.8.1, Exporting Audio from Patterns for more information.

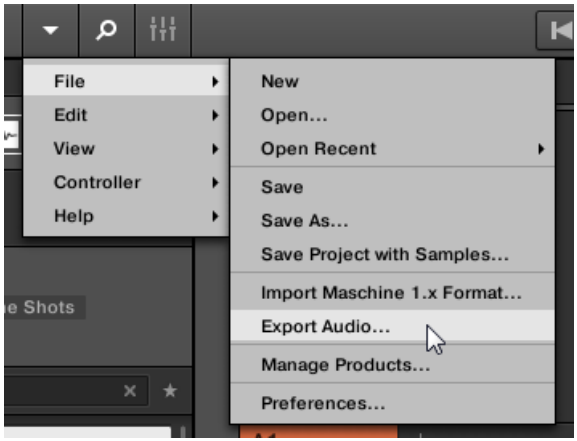
The Export Audio panel is available from both the Ideas view and Arrangement view. In the Ideas view the Export Audio panel can be used to export individual Scenes, or all Scenes at once.

In the Song view, the Export Audio panel can be used to export your complete Project arrangement or individual Sections of the arrangement depending on the Loop range. The exact length of the exported audio file depends on the Loop Optimize setting in the Option section (see description below).

The Export Audio panel also contains options that allow you to select the source you want to export such as the Master, Groups, or Sounds.

To export audio from MASCHINE:

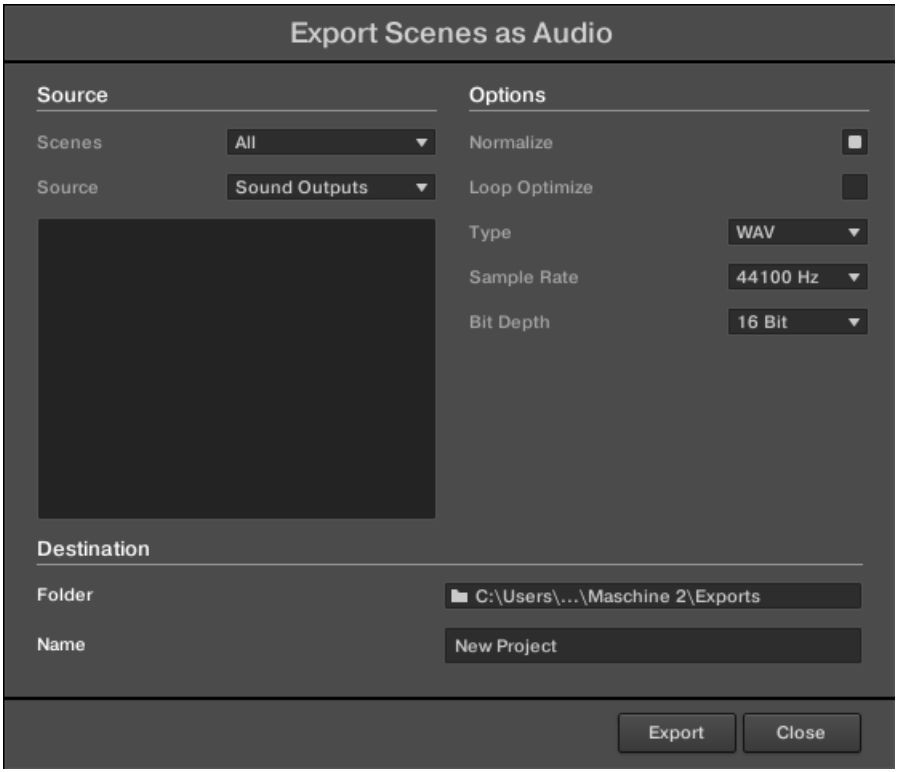
1. Set the Loop Range to the region that you want to export.
2. Choose *Export Audio...* from the File menu or from the *File* submenu in the MASCHINE menu.



   You will be presented with the Export Scenes as Audio panel (see picture below).
3. Select the Range and Source and then the destination (see description below).
4. If you wish, adjust the export options in the Options section (see description below).
5. 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 Scenes/Arrangement as Audio Panel

The Export 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 Arrangement view.



The Export Scenes as Audio panel.

The following parameters are available in the Export Audio panel, which 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	Set the range for the audio you want to export. The options here will differ depending on whether MASCHINE is in Ideas view or Song view. In Ideas view the following options are available: *All*: Select this option to export all Scenes as audio. *Selected*: Select this option to export the selected Scene as audio. In Song view the following options are available: *All*: Select this option to export all Sections in the arrangement as audio. *Loop*: Select this option to export the selected Section of the arrangement as audio.
Source	Select what you want to export. The content of the Output list under the menu depends on your selection in the menu: *Master Output*: 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). *Group Outputs*: 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 check boxes of the desired entries in the list to include/exclude the corresponding Groups. Only Groups with a check mark will be exported. *Sound Outputs*: 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 check boxes of the desired entries in the list to include/exclude the corresponding

Element	Description
	Sounds. Only Sounds with a check mark will be exported. The check box of Group entries allow 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
Options	
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: 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). 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	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.
Type	Select the required audio format : uncompressed *WAV* or *AIFF*. The audio format type selected here also affects audio exported using the Audio Dragger icon available in the Pattern Editor.

Element	Description
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	Select from three different bit depths (or bit resolutions) for the exported audio file(s): *16 Bit* is the bit depth of the audio CD format. *24 Bit* is well suited for mastering. *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.

Destination Section

The Destination section allows you to define where to save your audio and how it is named.

Element	Description
Options	
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 following rules:

- If *Master Output* is selected in the Output menu the audio file will be named as follows: **[Project name] - [BPM].wav/aiff**

- If *Group Outputs* is selected in the Output 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 Outputs* is selected in the Output 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.

5.5 Importing Third-Party File Formats

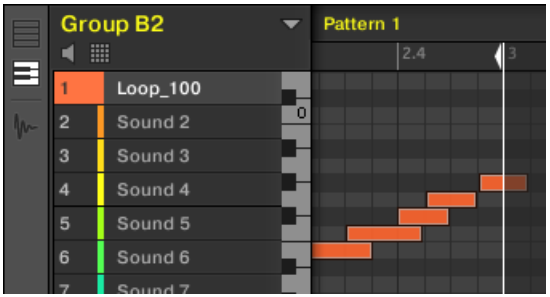
5.5.1 Loading REX Files into Sound Slots

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 ↑11.1.5, 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.

5.5.2 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.

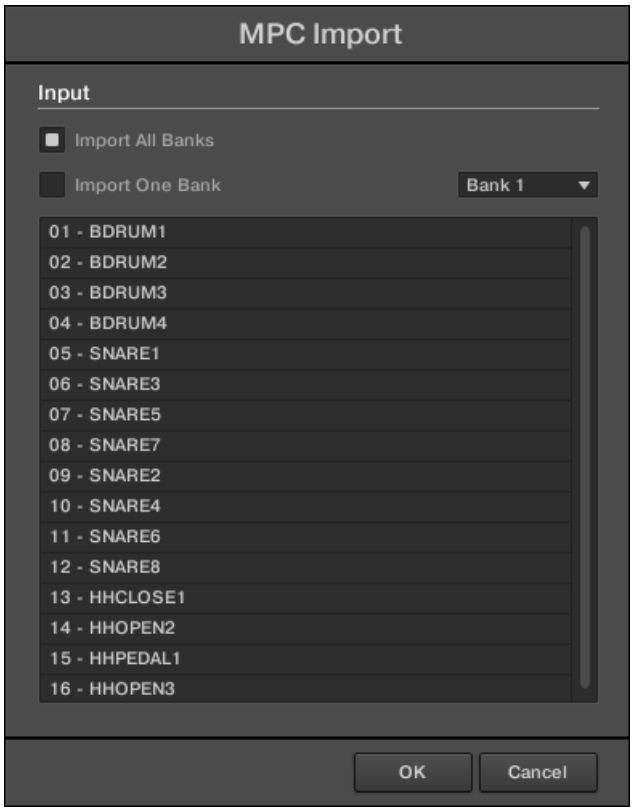
MPC Parameter	MPC500, 1000, 2500	MPC4000	MPC2000 (XL)	MPC3000	MASCHINE Parameter
Sample Name	x	x	x	x	Sample Name
Play Mode	x	x	–	–	Playback Type (ADSR, One-shot, AHD)
Sample Level	x	x	–	–	Zone Level
Sample Pan	–	x	–	–	Zone Pan
Range Lower/Higher	x	x	–	–	High/Low Key
Tuning	x	x	x	x	Tune
Attack	x	x	x	x	Attack
Decay	x	x	x	x	Decay

MPC Parameter	MPC500, 1000, 2500	MPC4000	MPC2000 (XL)	MPC3000	MASCHINE Parameter
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 (see 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.

6 Playing on the Controller

This chapter describes the numerous features available in MASCHINE to adjust and enhance your playing, both during live performances and when recording Patterns.

6.1 Adjusting the Pads

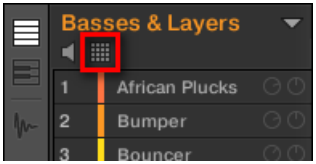
You can optimize and fine-tune the way the pads of your controller react to your playing:

- Choose a **pad mode** that best fit your playing needs: ↑6.1.1, The Pad View in the Software.
- Adjust the **base key** to set the pitch of the notes played by your pads: Adjusting the Base Key.
- Set **Choke groups** to selectively cancel Sounds when other Sounds are triggered: ↑6.1.4, Using Choke Groups.
- Create **Link groups** to trigger several Sounds by pressing only one pad: ↑6.1.5, Using Link Groups.

Most of the settings for your pads are available both in the software via the Pad view (see ↑6.1.1, The Pad View in the Software), and on your controller via the Pad Mode (see section ↑6.1.2, Choosing a Pad Input Mode).

6.1.1 The Pad View in the Software

In the software the settings for your pads are available in the **Pad view**, which is enabled 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 the Pad View button is enabled, 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** 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; pads without any Sound are off. The following actions are available in the grid:

- Click any pad to select the corresponding Sound slot. Upon selection, the parameters underneath, as well as the Control area above are updated accordingly.
- 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 (see section ↑5.2.7, Moving Sounds).
- Right-click ([Ctrl]-click on macOS) any pad to open the same context menu as in the Sound List — the management commands available in this menu are described in section ↑5.2, 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 simultaneously. For more information on multiple selection, see section ↑5.1.3, Selecting Multiple Sounds or Groups.

Under the grid of pads, you find following parameters:

Parameter	Description
Key	Adjusts the base key for the selected pad. See section Adjusting the Base Key below.
Choke	Configures the Choke Group for the selected pad. See section ↑6.1.4, Using Choke Groups below.
Link	Configures Pad Link for the selected pad. See section ↑6.1.5, Using Link Groups below.

6.1.2 Choosing a Pad Input Mode

By default, your pads play all Sounds of the selected Group — we call this **Pad Mode**. Furthermore they are velocity sensitive, meaning they will play louder if you hit them harder. You can change this behavior and choose another pad mode in order to adapt your pads to various situations.

Changing the behavior of the pads is done in Pad Mode:

- ► To enter Pad Mode, press and hold PAD MODE. You can also press PAD MODE + CONTROL to pin this mode and make it permanent.



The Pad Mode on the controller.

At the top of the display, following options are available:

Parameter	Description
KEYBD (F1)	Activates/deactivates **Keyboard mode**. In this mode your pads play notes of the focused Sound at sixteen different pitches. This is well suited for melodic instruments. See the next paragraph for a detailed description of the Keyboard mode. Please note that Keyboard mode is not compatible with 16 Velocities mode (see below).
16 VEL (F2)	Activates/deactivates **16 Velocities mode**. In this mode your pads 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 pitch of the played note is defined by the base key (see section Adjusting the Base Key). Please note that 16 Velocities mode is not compatible with Keyboard mode (see above) nor the Fixed Velocity option (see below).
FIX VEL (F3)	Activates/deactivates the **Fixed Velocity** option. This option is available when your pads are in Pad mode (default mode) or Keyboard mode. With this option enabled, your pads play at the same volume no matter how hard you hit the pads. Obviously, this option is not compatible with the 16 Velocities mode described above: hence, their buttons are mutually exclusive.

At the bottom of the display, use the Left/Right Arrow buttons and the Control encoder to select and adjust following parameters, respectively:

Parameter	Description
1/6: CHOKE GROUP	Selects a Choke group for the selected pad. See section ↑6.1.4, Using Choke Groups for more information.
2/6: CHOKE MODE	Selects a Choke mode for the selected pad. See section ↑6.1.4, Using Choke Groups for more information.
3/6: LINK GROUP	Selects a Link group for the selected pad. See section ↑6.1.5, Using Link Groups for more information.
4/6: LINK MODE	Selects a Link mode for the selected pad. See section ↑6.1.5, Using Link Groups for more information.

Parameter	Description
5/6: BASE KEY	Adjusts the base key for the selected pad. See section Adjusting the Base Key for more information.
6/6: FIX VEL	Here you can adjust the exact velocity value used in the Fixed Velocity mode (see above).

Using the Keyboard Mode

1. Select a Sound by pressing the pad it is assigned to.
2. Now enter Pad Mode by holding PAD MODE and lock it by pressing CONTROL (you can then release PAD MODE).
3. Press F1 (KEYBD) to enter Keyboard mode.

→ If you hit the pads now, you will hear that they all play the same Sound, but each with a different pitch. When you leave Pad Mode, the PAD MODE button stays dim lit to indicate that Keyboard mode is active.

Alternatively, you can use the following shortcut:

► In any mode, press SHIFT + PAD MODE to quickly switch your pads between Keyboard mode and Pad mode.

The pitch scale is divided in semitones, starting with pad 1 as the lowest pitch going up to pad 16 as the highest pitch.



Keyboard mode selected on the controller display in Pad Mode.

To shift the scale in octaves use F2 (OCT -) or F3 (OCT +). You can also adjust the scale in semitones via the parameter 5/6: BASE KEY described above.

See also

- Preferences – MIDI Page [→ 106]

6.1.3 Adjusting the Base Key

In Pad mode, the **base key** defines the key (or pitch) at which the selected Sound will be played when its pad is pressed. In Keyboard mode, it defines the key played by pad 1 on your controller; pads 2–16 will then play keys from [base key + 1 semitone] up to [base key + 15 semitones].

The base key also affects the pitch of events created via the step sequencer. See section ↑11.3.1, Step Mode Basics for more information on this.

Adjusting the base key only affects the notes played by the pads of your controller. It does not affect the notes recorded in your Patterns. To adjust the key of notes in Patterns, please refer to section ↑5.1.3, Selecting Multiple Sounds or Groups.

You can select multiple pads and quickly change the base key for all of them at once! See section ↑11.4, Editing Events to know how to do this.

Adjusting the Base Key in the Software

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

Adjusting the Base Key on the MASCHINE MIKRO Controller

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

1. Hold the PAD MODE button to enter Pad Mode (or press PAD MODE + CONTROL to pin it).

2. Use the Left/Right Arrow buttons to display the 5/6: BASE KEY parameter.
3. Turn the Control encoder to adjust the base key by semitones. In Keyboard mode you can additionally press F2 (OCT-) or F3 (OCT+) to shift the base key by octaves.
4. Release PAD MODE (or press it again if you pinned the mode).

6.1.4 Using Choke Groups

When your pads are in Pad Mode, **Choke groups** allow you to build sets of "mutually exclusive" pads: A Choke group lets you force each newly triggered Sound to cancel out all other Sounds still playing — in other terms, these Sounds would never play together, the newer Sound automatically "killing" the audio of the older one. This is a behavior 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 pad can be assigned to one of eight Choke groups. When you assign a pad to a Choke group, the pad may be set as a Master or Slave in the Choke group:

- If the pad is set to **Master** (default setting) it will kill the Sounds of other pads in the same Choke group.
- If the pad is set to **Slave** it won't kill any other pad of the Choke group — but be killed by pads set to Master within the same group.

You may set more than one pad as Master or Slave within the same group.



Choke groups affect not only the notes you play on the pads and the notes triggered by the Patterns, but also the MIDI notes controlling your Sounds.



You can select multiple Sounds and quickly assign them all to a particular Choke group at once!

To assign the selected Sound slot(s) to a Choke group and set its/their Choke mode (Master or Slave), 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.

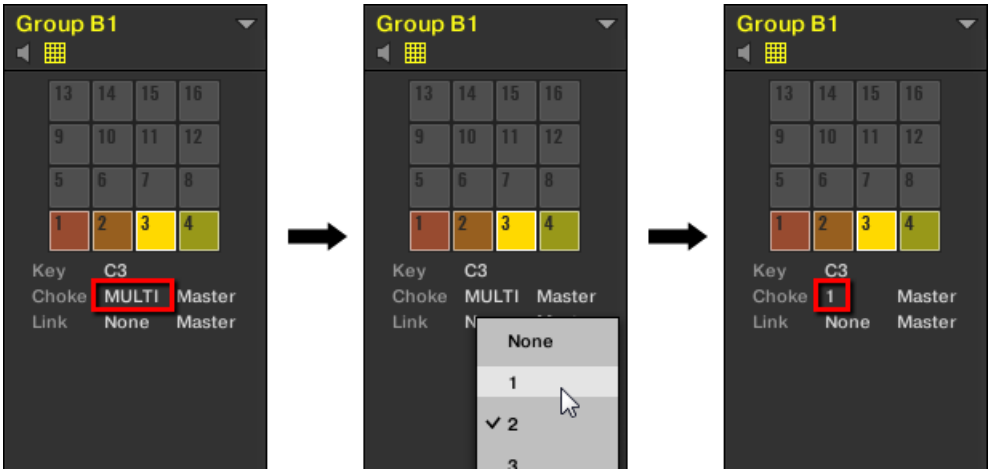
2. In the Choke section click the Group value and select the desired group *1–8* from the list or choose *None* (default setting) to remove the Sound from its current Choke group.
3. In the same Choke section click the Mode value (Master or Slave) to switch the Sound between Master (default setting) and Slave mode.
4. Repeat the steps above to assign other pads to the same Choke group.



The Hi-hat is an ideal candidate for making use of Choke groups! See ↑9.4.3, Hi-hat – Memory for more details!

Adjusting the Choke Multiple Sounds with different Choke Values

- Click the MULTI label next to Choke and select the desired value from the list to set all selected Sounds to that same Choke group. This also applies to the Master/Slave 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 from the list (middle), this new group is applied to all selected Sounds.

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

To assign the selected pad(s) / Sound slot(s) to a Choke group and set its/their Choke mode on your controller:

1. Hold the PAD MODE button to enter Pad Mode (or press PAD MODE + CONTROL to pin it).
2. Use the Left/Right Arrow buttons to display the 1/6: CHOKE GROUP parameter.
3. Turn the Control encoder to select the desired Choke group 1–8 for that pad or choose NONE (default setting) to remove the pad from its current Choke group.
4. Press the Right Arrow button to display the 2/6: CHOKE MODE parameter.
5. Turn the Control encoder to select the desired Choke mode from MASTER (default setting) or SLAVE for that pad.
6. Release PAD MODE (or press it again if you pinned the mode).

6.1.5 Using Link Groups

When your pads are in Pad Mode, **Link groups** allow you to link pads with each other: this can be used to trigger multiple Sounds when pressing only one pad. Each pad of a Group can be assigned to one of eight Link groups. A pad may be set as a Master or Slave in the Link group:

- If the pad is set to **Master** (default setting) it will trigger other pads in the same Link group.
- If the pad is set to **Slave** it will only trigger its own Sound, even if it is part of a Link group — but be triggered by pads set to Master within the same group.

You may set more than one pad as Master or Slave within the same group.



Link groups affect not only the notes you play on the pads and the notes triggered by the Patterns, but also 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 affect the notes recorded in your Patterns — in other terms notes won't be recorded for the linked pads! Notably, this allow you to modify your Link group assignments after recording. If you want to copy the notes from a Sound to another Sound in Patterns, please refer to section ↑11.4, Editing Events.



You can select multiple Sound slots and quickly assign them all to a particular Link group at once!

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

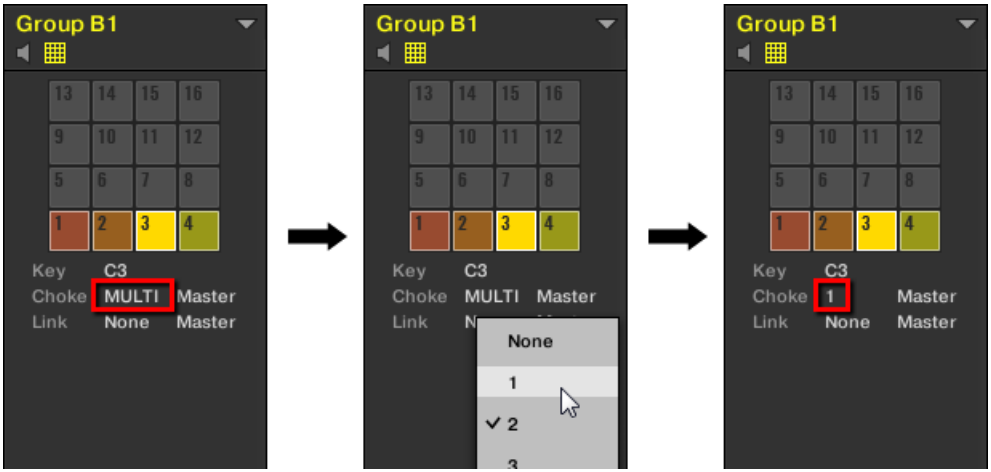
1. Click the Pad View button above the Sound List in the Pattern Editor to show the Pad view for the focused Group.
2. In the Link section click the Group value and select the desired group *1–8* from the list or choose *None* (default setting) to remove the Sound from its current Link group.
3. In the same Link section click the Mode value (Master or Slave) to switch the Sound between Master (default setting) and Slave mode.



A Link group makes sense only if more than one pad/Sound are assigned to it!

Adjusting the Link Parameter for Multiple Sounds with different Link Values

- Click the MULTI label next to Link and select the desired value from the list to set all selected Sounds to that same Link group. This also applies to the Master/Slave 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.

To assign the selected pad(s) / Sound slot(s) to a Link group and set its/their Link mode on your controller:

1. Hold the PAD MODE button to enter Pad Mode (or press PAD MODE + CONTROL to pin it).
2. Use the Left/Right Arrow buttons to display the 3/6: LINK GROUP parameter.
3. Turn the Control encoder to select the desired Link group 1–8 for that pad or choose NONE (default setting) to remove the pad from its current Link group.
4. Press the Right Arrow button to display the 4/6: LINK MODE parameter.
5. Turn the Control encoder to select the desired Link mode from MASTER (default setting) or SLAVE for that pad.
6. Release PAD MODE (or press it again if you pinned the mode).

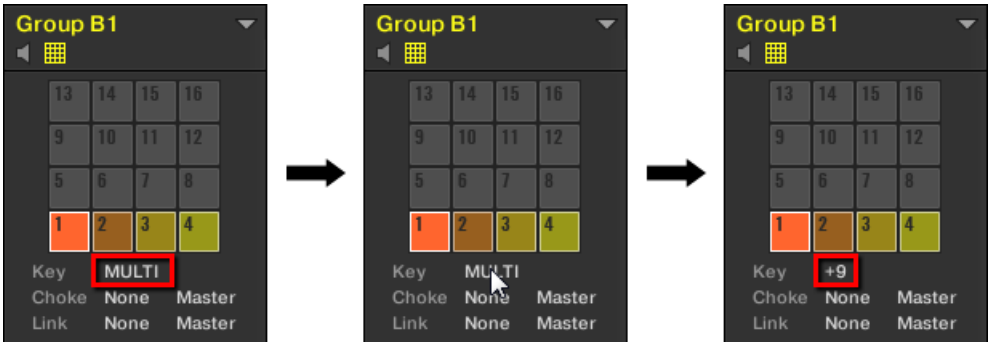
6.2 Adjusting the Key, Choke, and Link Parameters for Multiple Sounds

In the software, if you select multiple Sounds with different Key, Choke and/or Link values, the corresponding parameters in Pad view now display MULTI. On your controller in Pad Mode, the corresponding parameters now display (MULTI).

Moreover, you can adjust these parameters for the selected Sounds as described below.

Adjusting the Key Parameter 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.

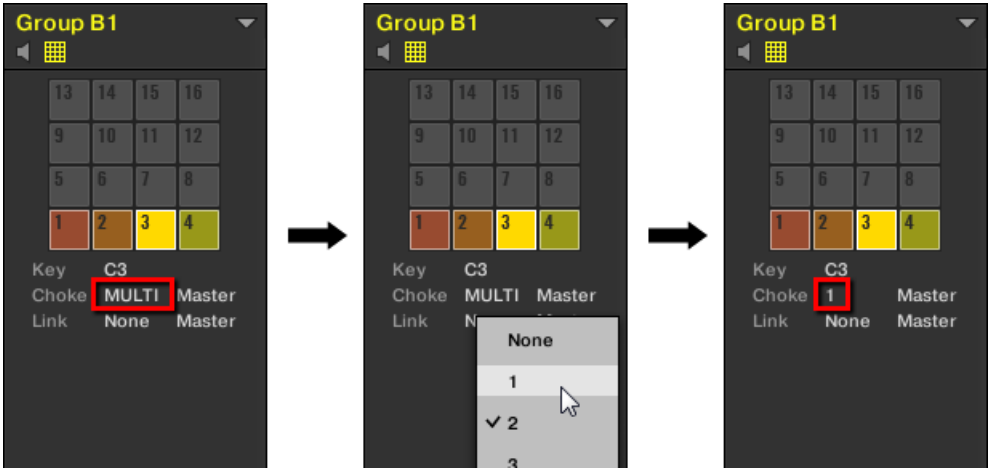


Sound slots 1 to 4 are selected. If they have different Key values, a MULTI label appears (left). When you drag it (middle), a transpose value appears (right) that will be applied to all selected Sounds when you will release the mouse button.

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

Adjusting the Choke or Link Parameter for Multiple Sounds with different Choke or Link Values

- 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 Master/Slave 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.

6.3 Playing Tools

On top of the various pad settings described in the previous section (see ↑6.1, Adjusting the Pads), MASCHINE also offers you a series of intuitive playing tools particularly useful when playing live:

- **Mute** and **Solo** allow you to selectively mute and solo Sounds and Groups: ↑6.3.1, Mute and Solo.
- **Choke All Notes** allow you to cut all playing audio: ↑6.3.2, Choke All Notes.
- **Groove** allows you to give a shuffling flair to individual Sounds/Groups or to your entire Project: ↑6.3.3, Groove.
- **Hardware Shortcuts** give you a quick access to the most important parameters of each channel (Sound, Group, and Master): ↑6.3.4, Level, Tempo, Tune, and Groove Shortcuts on Your Controller.

6.3.1 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.



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 ↑13.2.5, Adjusting Settings in the Channel Strips for more information.

Audio Mute vs. Event 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 (see section ↑12.1.2, 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.

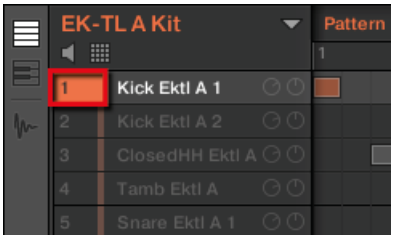


To momentarily mute all audio from all Sounds and Groups at once, please refer to section ↑6.3.2, Choke All Notes.

Mute and Solo in the Software

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.

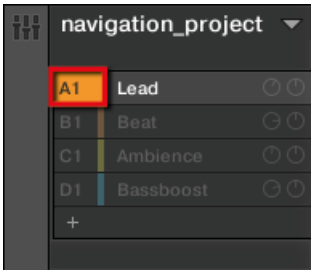


Soloing the first kick Sound.

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:

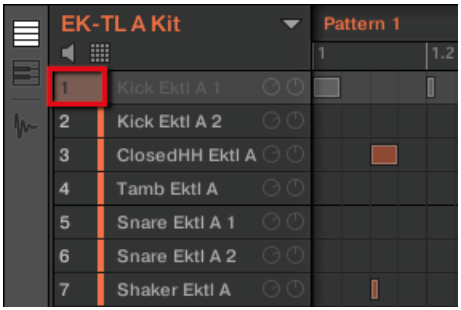


Soloing a Group.

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.



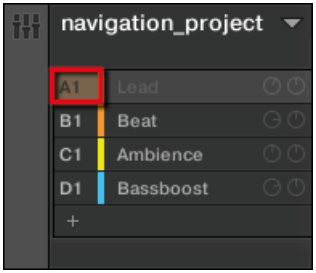
Muting a Sound.

2. To unmute the Sound, click the number again.

By default, the Mute on Sounds is an event 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

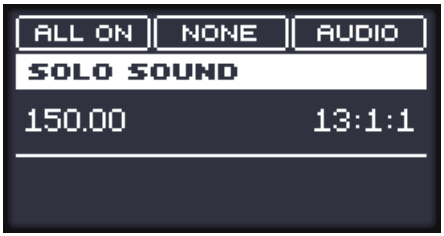
1. To mute a Group, click the Group index (letter + number) on the left side of the Group in the Arranger:



Muting a Group.

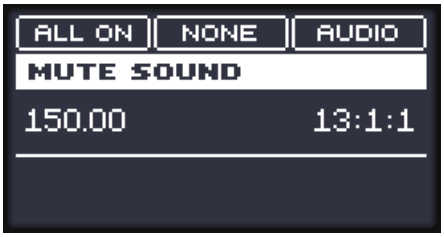
2. To unmute the Group, click the Group index again.

Mute and solo work in the same way:



The Solo mode on the controller.

1. Press and hold SOLO to enter Solo mode. You can also pin this mode to make it permanent (see section ↑3.3.1, Pinning a Mode on the Controller).
2. Solo Sounds by pressing their pads, and solo Groups of the current Group bank by pressing GROUP followed by the desired pads 9–16.



The Mute mode on the controller.

3. Press and hold MUTE to enter Mute mode. You can also pin this mode to make it permanent (see section ↑3.3.1, Pinning a Mode on the Controller).
4. Mute Sounds by pressing their pads, and mute Groups of the current Group bank by pressing 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).

In both modes the display provide a few more functions:

- ALL ON (F1) turns all Sounds on in the selected Group.
- NONE (F2) turns all Sounds off in the selected Group.
- When holding F3 (AUDIO) you can see on the pads which Sounds have audio mute enabled (see above): Sounds with audio mute enabled have fully lit pads, while Sounds with only event mute have dim lit pads. While holding F3 (AUDIO), press any pad to switch the audio mute for this Sound on or off.



Enabling/disabling audio mute for a Sound does not mute/unmute it! It only sets this Sound to get both its events and its audio muted when you will mute it via the usual way (pressing MUTE + its pad).



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.

6.3.2 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.

6.3.3 Groove

The groove controls 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:

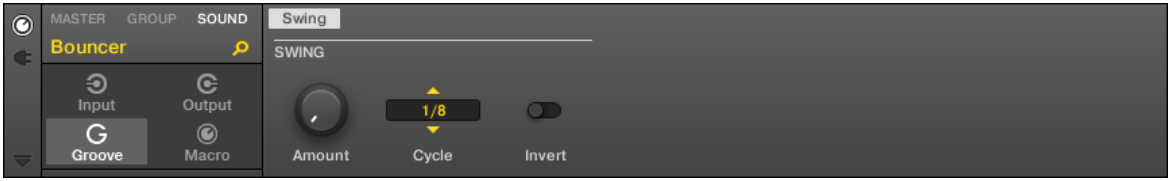
- At the Sound level, the Groove properties settings of a Sound affect that single Sound.
- At the Group level, the Groove properties settings of a Group affect all Sounds of the Group. The Group's swing is added to the groove set for each individual Sound via its own Groove properties.

- At the Master level, the Groove properties affect all Sounds of all Groups. The Master's swing is added to the groove set for each individual Group and Sound via their own Groove properties.

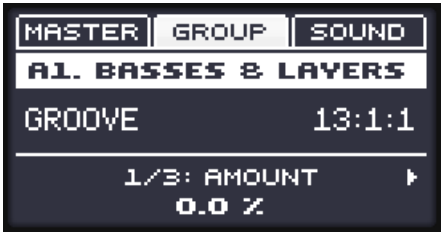
The Groove properties have a single Parameter page: **Swing**.



Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to display and navigate sets of Channel properties.



The Groove properties for a Sound in the software.



The Groove properties for a Sound on the controller.

Controls	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.

Controls	Description
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 enabled.



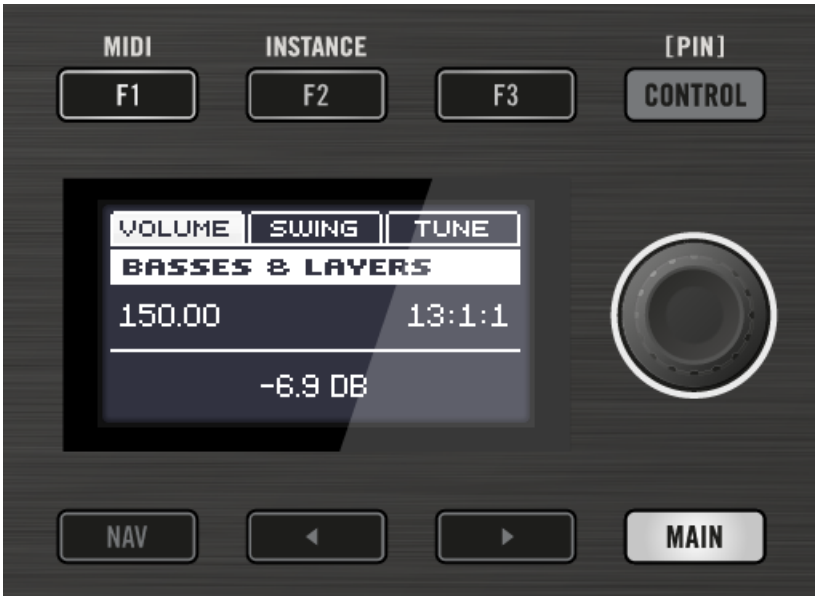
This is how the same regular rhythm would be heard with various groove settings.

The picture above only illustrates how the groove function affects the *sound* — adjusting the Groove properties will not effectively move events in the Patterns displayed in the Pattern Editor!

6.3.4 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 — especially useful during live performance.

You can quickly alter the output level, the tempo, and the groove of the Master as well as the output level, the tune, and the groove of any Group or Sound via the MAIN button on your controller.



Press the MAIN button to enter Main mode on your controller.

Level Shortcuts

1. Press MAIN to enter Main mode (the button must be lit).
2. Press F1 (VOLUME).
3. To change the output level of the Master (i.e. the overall output level of MASCHINE), simply turn the 4-D encoder.

4. To change the output level of a Group, hold the GROUP button, press the pad 9–16 of the desired Group (first navigate to its Group bank via the Left/Right Arrow buttons if necessary), and turn the 4-D encoder while holding GROUP.
5. To change the output level of an individual Sound, hold its pad (or hold SELECT + its pad if pads are in Keyboard mode) and turn the 4-D encoder. In Keyboard mode you can also press SELECT + the pad of the desired Sound, then hold any pad (i.e. any pitch of that Sound) and turn the 4-D encoder.
6. Press CONTROL to leave Main mode and return to the default Control mode.



Press and turn the 4-D encoder to adjust the value in finer increments.



These shortcuts control the LEVEL parameter in the AUDIO page of the Master's, Group's, and Sound's Output properties, respectively. See section --- MISSING LINK --- and --- MISSING LINK --- for a detailed description of these properties.

In the software you can also adjust the output level of the Master via the Master Volume slider in the Header:



The Master Volume slider in the software's Header.



To reset the output level of the Master to 0 dB, double-click the Master Volume slider.

Groove Shortcuts

1. Press MAIN to enter Main mode (the button must be lit).
2. Press F2 (SWING).
3. To change the groove of the Master (i.e. the overall output level of MASCHINE), simply turn the 4-D encoder.
4. To change the groove of a Group, hold the GROUP button, press the pad 9–16 of the desired Group (first navigate to its Group bank via the Left/Right Arrow buttons if necessary), and turn the 4-D encoder while holding GROUP.

5. To change the groove of an individual Sound, hold its pad (or hold SELECT + its pad if pads are in Keyboard mode) and turn the 4-D encoder. In Keyboard mode you can also press SELECT + the pad of the desired Sound, then hold any pad (i.e. any pitch of that Sound) and turn the 4-D encoder.
6. Press CONTROL to leave Main mode and return to the default Control mode.



Press and turn the 4-D encoder to adjust the value in finer increments.



These shortcuts control the AMOUNT parameter in the SWING page of the Master's, Group's, and Sound's Groove properties, respectively. See section --- MISSING LINK --- for a detailed description of these properties.

In the software you can also adjust the Swing amount of your Project via the SWING control in the Header:



The SWING control in the software's Header.

Tempo and Tune Shortcuts

1. Press MAIN to enter Main mode (the button must be lit).
2. Press F3 (TEMPO).
3. To change the tempo of the Master (i.e. the tempo of your Project), simply turn the 4-D encoder.
4. To change the tune of all Sounds in a Group, hold the GROUP button, press the pad 9–16 of the desired Group (first navigate to its Group bank via the Left/Right Arrow buttons if necessary), and turn the 4-D encoder while holding GROUP.
5. To change the tune of an individual Sound, hold its pad (or hold SELECT + its pad if pads are in Keyboard mode) and turn the 4-D encoder. In Keyboard mode you can also press SELECT + the pad of the desired Sound, then hold any pad (i.e. any pitch of that Sound) and turn the 4-D encoder.
6. Press CONTROL to leave Main mode and return to the default Control mode.

Press and turn the 4-D encoder to adjust the value in finer increments.

At the Master level, the shortcut controls the Tempo parameter in the Header.



The Tempo parameter in the software's Header.

At the Group and Sound level, the shortcut works only with Sounds containing a Sampler or a Drumsynth Plug-in. The shortcuts control the TUNE parameter of the PITCH / GATE section in the PITCH / ENVELOPE page of the Sampler, and the TUNE parameter of the MAIN section in the MAIN page of any Drumsynth. If you hold a Group button, the shortcut will affect all Sounds of the Group that contain a Sampler or Drumsynth Plug-in. For more details on the TUNE parameter, please refer to section --- MISSING LINK --- for the Sampler and section --- MISSING LINK --- for the Drumsynths.

6.4 Performance Features

The Performance features of MASCHINE are inspired by similar features available in KOMPLETE KONTROL and on the KOMPLETE KONTROL S-SERIES keyboards. This tight integration offers a familiar and seamless workflow.

6.4.1 Overview of the Perform Features

The Perform features include the following engines:

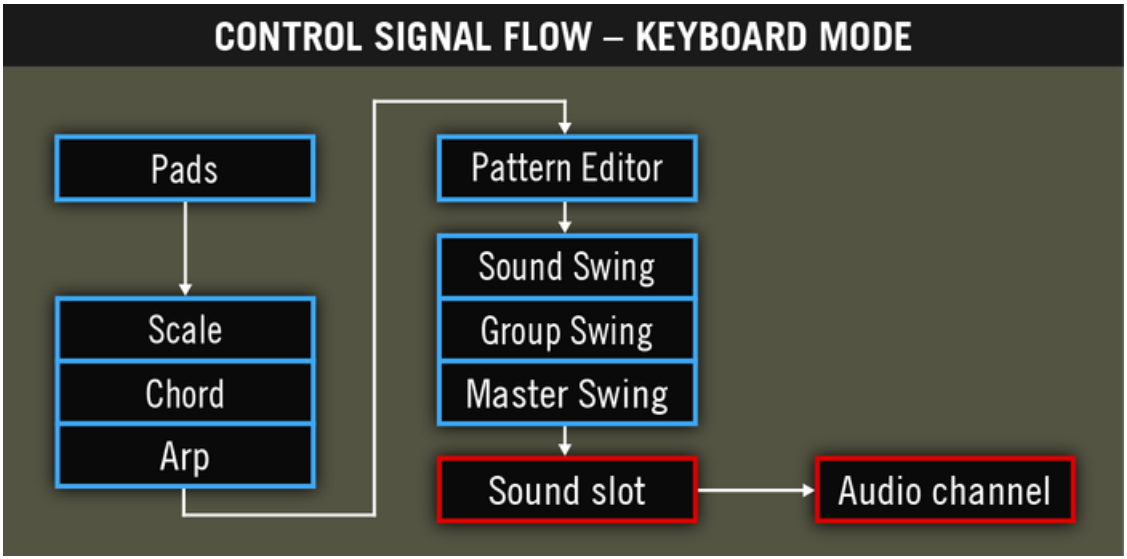
- The **Scale and Chords engine** allows you to assign the pads to notes within specific scales, and to play chords according to the selected scale by hitting single pads.
- The **Arp engine** allows you to create arpeggios based on the pads you press or the chord currently triggered.

Designed to enrich the melodic content of your Projects, these engines are available when your pads are in **Keyboard mode**. Furthermore, they are designed to be used live and, as such, they are available only from your hardware controller (like Note Repeat).

When your pads are in Pad Mode, you can use the Note Repeat engine, Choke groups, and Link groups as in previous MASCHINE versions.

The Control Signal Flow—Pads in Keyboard Mode

The following diagram illustrates MASCHINE s signal flow between your hits on the pads in Keyboard mode and the resulting sounds:



The signal flow including the new Perform features (Scale, Chord, and Arp) when your pads are in Keyboard mode.

In this picture, blue cells represent modules sending “control” signals, i.e. triggering messages (e.g., the note messages sent by the pads as you press them), whereas red cells represent modules sending audio signals (e.g., the sounds produced by the Instrument loaded in the Sound slot as it receives the aforementioned note messages).

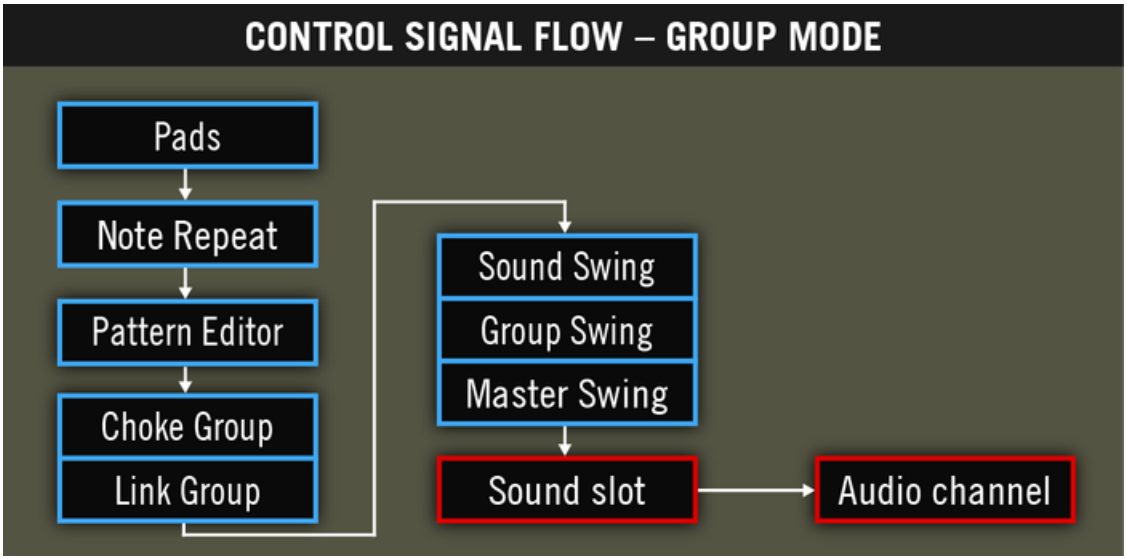
In this diagram you will notice the following:

- The Scale and Chord modules can feed the Arp module, the Scale module can also affect the Chord module, as we will see later.

- The notes played on your pads are first sent to the Perform features (Scale, Chord, and Arp engines), which send the resulting notes to the Pattern Editor. In other terms, you can record the generated scales, chords or arpeggiated notes into your Patterns. However, the Perform features do not process the content of your Patterns.

The Control Signal Flow—Pads in Pad Mode

The following diagram illustrates signal flow between your hits on the pads in Pad Mode and the resulting sounds:



The signal flow including the Perform features (Note Repeat, Choke Group, and Link Group) when your pads are in Pad Mode.

In this picture you will notice the following:

- Note Repeat takes the place of the Scale, Chord, and Arp modules between the live input on the pads and the Pattern Editor. In other terms, Note Repeat won't process your Patterns but you can record its output into a Pattern.
- The Choke Group and Link Group modules affect both your hits on the pads *and* the content of your Patterns, but their result cannot be recorded into Patterns.

6.4.2 Selecting a Scale and Creating Chords

MASCHINE comes equipped with a vast amount of scales and chords that you can select and use to play your Sounds. This opens up possibilities to play an instrument such as a piano according to, e.g., the minor pentatonic scale without hitting a "false" pad (note) on your controller, or to play chords that always fit by hitting single pads.



The Scale and Chord engine is available only when your pads are in Keyboard mode.

This section provides a hands-on introduction to the use of scales and chords from your controller. The corresponding parameters will be described in detail in section ↑6.4.3, Scale and Chord Parameters.

Let's choose a particular scale, say, minor pentatonic. On your controller, do the following:

1. Switch the focus to a Sound slot containing a polyphonic instrument, or load one into the desired Sound slot.
2. Hold the PAD MODE button to enter Pad Mode (or pin it via the usual method).
3. Press F1 (KEYBD) to enable Keyboard mode.
4. If necessary, use the Left/Right Arrow buttons to display the 2/4: SCALE TYPE parameter.
5. Turn the Control encoder to select MIN PENT.



→ Hit a few pads: They trigger only notes from the selected scale. The pads corresponding to the root note (C3 by default) and its octaves are fully lit.

Now let's start the scale on D3 instead of C3:

1. Press the Left Arrow button to select the 1/4: ROOT NOTE parameter.

2. Turn the Control encoder to set the root note to D3.

→ Hit a few pads: They trigger the notes from the minor pentatonic scale based on D. Furthermore all your pads were shifted two semitones up so that pad 1 still triggers the root note of the selected scale.

Now we want the pads to trigger chords instead of single notes. First we want chords based on the minor pentatonic scale currently selected:

1. Press the Right Arrow button twice to select the 3/4: CHORD MODE parameter.
2. Turn the Control encoder to select HARM.



3. Press the Right Arrow button to select the 4/5: CHORD TYPE parameter.
4. Turn the Control encoder to select 1-3.



→ Hit a few pads: Each pad triggers a chord containing the pad's original note (the "1" in 1-3) and the note two pads above (the "3" in 1-3). No matter which pads you hit, all chords use notes within the scale we have specified (the minor pentatonic scale based on D).

Finally, let's try the other chord mode available:

1. Press the Left Arrow button to select the 3/5: CHORD MODE parameter.

2. Turn the Control encoder to select CHD SET.



→ The light from the pads on the top row of your controller go off and the pads are disabled. The other 12 pads trigger various chords. You can switch to another set of 12 chords by selecting the 3/4: CHORD TYPE parameter and turning the Control encoder. These chords are not bound to the minor pentatonic scale anymore, however they are still based on the selected root note (indicated in the middle right of the display).



The last selected Scale is automatically assigned when a new Group is created.

6.4.3 Scale and Chord Parameters

This section describes the Scale and Chord engine and its parameters, and provides a list of all scales and chords available on your controller.

General Notes on Scales and Chords

- The Scale and Chord parameters are the same for all Sound slots in a particular Group, you can have different Scale and Chord parameters for each Group. The Scale and Chord parameters of each Group are saved with the Project. However, when you save a Group the Scale and Chord parameters are *not* saved with the Group.
- The Scale and Chord engine processes live input from the pads of your controller only. Input from third-party MIDI controllers and data recorded in the Pattern Editor are not processed by the Scale and Chord engine.



KOMPLETE KONTROL S-SERIES owners: Input from your KOMPLETE KONTROL S-SERIES keyboard can also be processed by the Scale and Chord engine. This is described in section Using the Perform Features.

- The output of the Scale and Chord engine is recorded into the Pattern Editor.
- The Scale and Chord parameters cannot be modulated nor automated in MASCHINE.
- Of course, if a Sound slot contains a KOMPLETE instrument providing control notes (e.g., key switches) on particular keys, these notes will not be triggered by the Scale and Chord engine.

Available Scales

The Scale engine is controlled via two parameters:

- **Root Note** (C3 by default): Defines both the root note of the scale and the particular key triggered by pad 1. As a direct consequence, pad 1 always triggers the root note of the selected scale.



The Root Note parameter replaces the Base Key parameter found in the Keyboard mode of previous MASCHINE versions and still available in Pad Mode. Although the Root Note is edited in the same way as the Base Key on your controller, keep in mind that both are independent of each other. Compared to the Base Key, the Root Note additionally defines the starting note of the selected scale. Furthermore, like all Scale and Chord parameters, the Root Note is common to all Sound slots in the Group, whereas the Base Key is set for each Sound slot independently.

- **Scale Type** (Chromatic by default): Selects the scale pattern whose notes will be mapped onto the pads of your controller: The Root Note is on pad 1, the 2nd note of the selected Scale Type is on pad 2, etc. Once all notes are mapped, the next pad triggers the root note in the next octave. The Root Note and its octaves are indicated by fully lit pads, while other pads are dimmed.

Following scale types are available:

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

By default, the Chromatic scale is selected — in other terms, by default your pads play every semitone, however, the last selected Scale is automatically assigned when a new Group is created.



The Scale Type parameter is not available if the Chord Mode parameter is set to Chord Set.

Available Chords

The Chord engine can automatically generate chords depending on the pad you hit and possibly the selected scale. The Chord engine is controlled via two parameters:

- **Chord Mode** (Off by default): Selects from three different modes for generating chords:
  - **Off**: No chords will be generated. Only the notes corresponding to the pads that you hit will be played.
  - **Harmonizer**: Generates chords based on the pads you hit and using notes from the selected scale, as specified by the Root Note and Scale Type parameters (see above). Use the Chord Type parameter to choose the particular notes to be used in the chord (see below). As the chord is triggered, pads of all included notes flash.
  - **Chord Set**: This special mode maps a set of chords onto the first 12 pads of your controller. These chords are not bound to any scale type, they are only affected by the selected Root Note. Use the Chord Type parameter to choose a particular set of chords to be mapped onto the pads (see below). In this mode, only the pad you actuate flashes.
- **Chord Type**: Selects which chords will be mapped to your pads. The available chord types depend on the selected Chord Mode and Scale Type:
  - If Chord Mode is set to Harmonizer, the Chord Type parameter offers different chords depending on whether Scale Type is set to Chromatic or to any other scale. All available chords are listed in the tables below.
  - If Chord Mode is set to Chord Set, the Chord Type parameter provides 16 different 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. The 12 chords are mapped onto the first 12 pads. Pads 13–16 are disabled.

When Chord Mode is set to **Harmonizer** and Scale Type is set to **Chromatic**, since this scale includes all semitones the chords can use any of them. Chord Type offers following chords:

Chord Type	Semitones Added above Played Note
Octave	12
Perfect 4	5
Perfect 5	7

Chord Type	Semitones Added above Played Note
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
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 the specified scale. Chord Type offers following chords:

Chord Type	Notes Added to 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

Scales and Chords: Visual Feedback on the Pads

When scales and/or chords are enabled, the LEDs of the pads keep you informed at any time on the current scale and chord configuration. The default lighting behavior of your pads is modified by the Scale and Chord engine as follows:

When **Chord Mode** is set to **Off** or **Harmonizer**, pads of root notes are fully lit:

Type of Pad (for Selected Scale)	LED in Default State	LED when Pad Triggered
Root notes	Fully lit	Flash
Other pads	Dimly lit	Flash

Note that if Chord Mode is set to Harmonizer, pads triggered as part of the chord will also flash.

When **Chord Mode** is set to **Chord Set**, pad 1 is fully lit:

Type of Pad	LED in Default State	LED when Pad Triggered
Pad 1	Fully lit	Flash
Pads 2–12	Dimly lit	Flash
Pads 13–16	Off (pad inactive)	

Enharmonic Spelling of the Root Note

On your controller, depending on the Scale Type, Chord Mode, and Chord Type you have selected, the enharmonic spelling of the Root Note will vary in order to optimize the spelling of the entire scale / chord set:

Condition	Enharmonic Spelling											
Scale Type is set to Chromatic	**All Keys**	**C**	**C#**	**D**	**D#**	**E**	**F**	**F#**	**G**	**G#**	**A**	**A#**
Scale Type is *not* set to Chromatic	**C**	**C#**	**D**	**E♭**	**E**	**F**	**F#**	**G**	**A♭**	**A**	**B♭**	**B**
Chord Mode is set to Chord Set and Chord Type is set to Major 1-8	**C**	**D♭**	**D**	**E♭**	**E**	**F**	**F#**	**G**	**A♭**	**A**	**B♭**	**B**
Chord Mode is set to Chord Set and Chord Type is set to Minor 1-8	**C**	**C#**	**D**	**D#**	**E**	**F**	**F#**	**G**	**G#**	**A**	**B♭**	**B**

Erasing Notes

When **erasing notes** from your controller, the notes effectively deleted vary with the Chord Mode currently selected:

- If Chord Mode is set to Off, the notes with the pitch corresponding to the pressed pad are deleted.
- If Chord Mode is set to Harmonizer, only the notes with the pitch of the pressed pad are deleted. The other notes in the triggered chord are *not* deleted.
- If Chord Mode is set to Chord Set, no notes are deleted, in other words erasing is disabled.

6.4.4 Creating Arpeggios and Repeated Notes

MASCHINE includes a flexible and versatile **Arp engine**, an arpeggiator that effectively lets you play your Sounds in note sequences. The arpeggios are created according to both the pads you hold and the chords configured with the Scale and Chord engine (see section ↑6.4.2, Selecting a Scale and Creating Chords).



If you have enabled chords, you can even press more than one pad to include the notes of all corresponding chords into your arpeggio!

Like the Scale and Chord engine, the Arp engine is **dedicated to Keyboard mode**.

The Arp engine can be seen as a melodic extension of the Note Repeat: Actually, Arp replaces and extends Note Repeat in Keyboard 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 Pad Mode or Keyboard mode, pressing NOTE REPEAT 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 live input from the pads of your controller only. Input from third-party MIDI controllers and data recorded in the Pattern Editor are not processed by the Scale and Chord engine.
- The Note Repeat / Arp engine detects and makes use of any changes in the pressure you apply on each 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.



KOMPLETE 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 KOMPLETE KONTROL S-SERIES keyboard will be synchronized even if the transport is not running.

Pads in Pad Mode: Note Repeat

Check that your Pattern is playing, if not, press PLAY to start the sequencer:

1. While holding NOTE REPEAT, hold any pad.
   The Sound of the pad is repeatedly triggered at the rate shown at the bottom of the controller's display.
2. Press F1, F2 or F3 above the display to select another repetition rate.

→ This is a handy way to add live ornaments to your Pattern!



Of course you can also use Note Repeat to program your Pattern (e.g., recording a continuous hi-hat).



Note Repeat mode seamlessly switches to Arp mode as soon as you switch your pads from Pad Mode to Keyboard mode (see below): All current values (including the LOCK state) are retained.

Pads in Keyboard mode: Arp

If your pads are in Keyboard mode, pressing NOTE REPEAT switches your controller to Arp mode:

In Arp mode you can customize the way the notes of the played chord will be arpeggiated by adjusting following settings:

Element	Description
LOCK (F3)	Keeps the Arp feature enabled even when you leave Arp mode. For example, this can be useful to adjust the chord settings, switch to another Pattern, adjust Plug-in parameters, etc., while keeping arpeggios running. If Arp is locked, when you switch to another controller mode the NOTE REPEAT button stays dimly lit to remind you that Arp is on.
F1–F2	Selects between four different presets — also while playing. By default F1 and F2 select the 1st and 2nd preset, respectively. To switch to the 3rd and 4th presets, press SHIFT + F3 (>>). To switch back to the first two presets, press SHIFT + F3 (<<) again. Each preset can store particular values for the TYPE; RATE, UNIT, SEQUENCE, and OCTAVES parameters (see below). The rate currently assigned to each button is indicated below on the display along with the UNIT value ("T" for triplet values or "D" for dotted values). The selected preset is highlighted.
TYPE	Sets the sequential order of the arpeggiated notes. You can choose from following settings: UP starts from the root note and plays the notes up through the chord. DOWN plays the notes the other way around. UP-DOWN plays the notes in both directions alternatively. PLAYED plays the notes in the order you pressed down the corresponding pads on your controller. 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. 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).

Element	Description
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.
SEQUENCE	Allows you to add interesting rhythms to your arpeggiated notes. Select one of eight different sequences and apply it to the arpeggio you are playing. Select OFF to use the default regular sequence.
OCTAVES	Adjusts the spread of the arpeggiated sequence. You can choose to play back your sequence within the octave of the pads you pressed on your controller only, or you can select up to eight octaves and let the notes of your chord (or the single note of your pad) be played back in as many octaves.
DYNAMIC	Amplifies or reduces the velocity derived from the pressure you apply on each single pad you hold (Polyphonic Aftertouch). Available values range from 1% to 200%. This setting applies globally to all rate presets.
GATE	Adjusts the ratio between the duration of the notes and the duration of the silences between them, measured as a percentage of the note value set by RATE (see above). Available values range from 0% to 200%: At low values the notes are very short. At 50% notes and silences are equal. At 100% (midcourse) each note last exactly until the next note is triggered. At higher values notes overlap (provided that the selected Sound is polyphonic). This setting applies globally to all rate presets.
HOLD	Allows the notes played by the arpeggiator to be latched. This means the pads can be released and the arpeggiated notes will continue to play.



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.

6.4.5 Swing on Note Repeat / Arp Output

The Swing engines (at the Master, Group, and Sound level) process notes coming **from the Pattern Editor and from the Arp engine** (pads in Keyboard mode) **or Note Repeat engine** (pads in Pad 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.



The applied swing is not recorded in the Pattern Editor. For an overview of the signal flow starting from your pads, have a look at the diagrams in section ↑6.4.1, Overview of the Perform Features.

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 (Keyboard mode) or Note Repeat (Pad Mode). If you press PLAY on your controller, the playback starts immediately and the swing cycle is reset.

7 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:

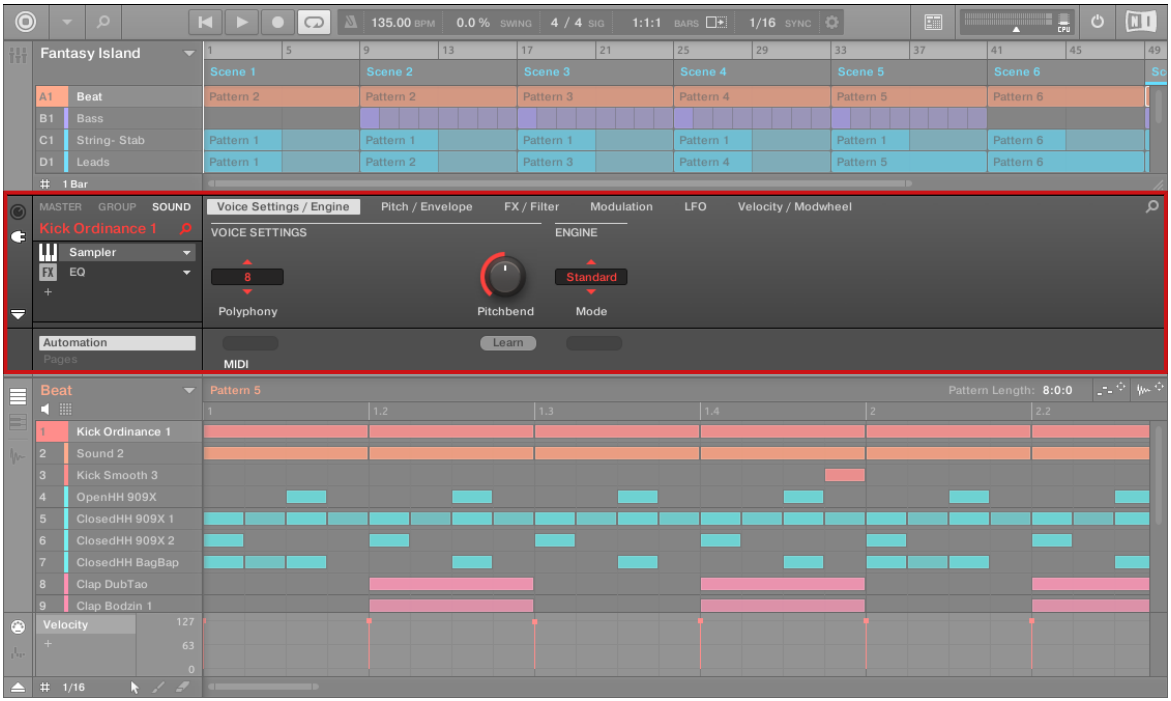
- An overview of Plug-ins and how to handle them (↑7.1, Plug-in Overview).
- An exhaustive description of an essential Internal Instrument Plug-in in charge of playing back all sample content in MASCHINE: the Sampler (↑7.2, The Sampler Plug-in).
- Specific information on Native Instruments and External Plug-ins (↑7.3, Using Native Instruments and External Plug-ins).

7.1 Plug-in Overview

This section describes Plug-ins in general: where you can find them, how you can adjust their settings, and how you can manage them.

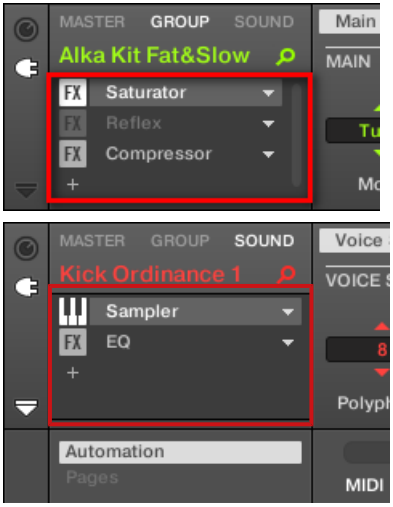
7.1.1 Plug-in Basics

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):

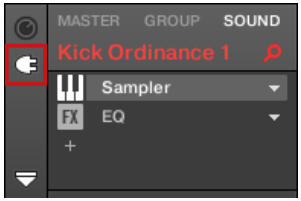


The Control area displaying the content of the Sound Kick Ordinance of the selected Sound slot 1.

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. These are described in section ↑6.3.3, Groove and in chapter ↑12, 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, Drumsynth, Bass 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 play back 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. See ↑8, Using the Audio Plug-in for more details.
  - **Sampler**: Included with MASCHINE, the Sampler Plug-in allows the selected Sound to play back Samples. Adding a Sample to the Sound slot will automatically load the Sampler in the first Plug-in slot of the Sound. See ↑7.2, The Sampler Plug-in for more details.
  - **Drumsynths**: Included with MASCHINE, these Plug-ins are mini-synths specialized in generating drum sounds. See chapter ↑9, Using the Drumsynths for more details.
  - **Bass Synth**: Included with MASCHINE, this Plug-in is a monophonic synthesizer specialized in generating bass sounds. See chapter ↑10, Using the Bass Synth for more details.
  - **Native Instruments**: You can use all Native Instruments KOMPLETE instruments installed on your computer as VST/AU plug-ins (e.g., MASSIVE, which is included with MASCHINE). Products from Native Instruments are tightly integrated in 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 details about each of the MASCHINE internal effects, and how to use them, please refer to chapter ↑12, Audio Routing, Remote Control, and Macro Controls and ↑15, 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 in 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.

7.1.2 First Plug-in Slot of Sounds: Choosing 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, Drumsynth, Native Instruments or External Instrument, see above), 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 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. See section ↑14.3.1, Step 1: Set Up a Sound or Group as Send Effect for more information.

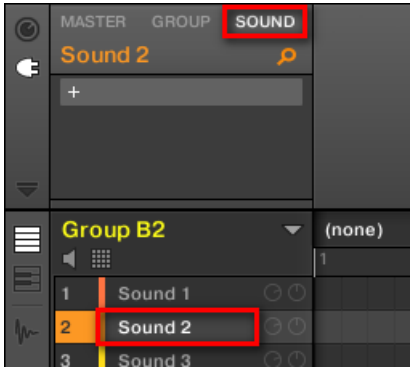


You can also sample directly to a Sound slot. This will automatically load a Sampler in its first Plug-in slot. Read chapter ↑15, Effect Reference for more details on this.

7.1.3 Loading, Removing, and Replacing a Plug-in

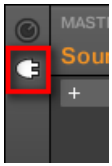
The procedure to load a Plug-in with its default settings is common to all levels (Sound, Group, and Master) and all Plug-in types (Internal, Native Instruments, and External, as well as Instrument and Effect):

1. Set the focus to the Sound, Group or the Master where you want to load the Plug-in (see section ↑3.3.4, 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.

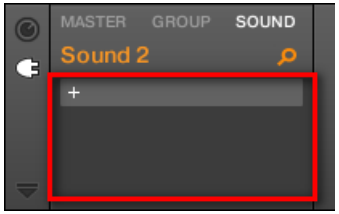


   The Control area will now show the content (Channel properties or Plug-ins) of the Sound we have just selected.

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 (see below for a detailed description of the entries contained in the Plug-in menu).



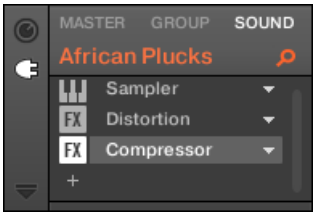
→ Upon your selection the selected Plug-in sits at the top of the Plug-in List, in the first Plug-in slot of the Sound (in our example). In addition, some Native Instruments and External Plug-ins will automatically open in a floating window (see section ↑7.3.1, Opening/Closing Plug-in Windows for more on this).

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. Please refer to chapter ↑4.2, Searching and Loading Files from the Library for more information.

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:



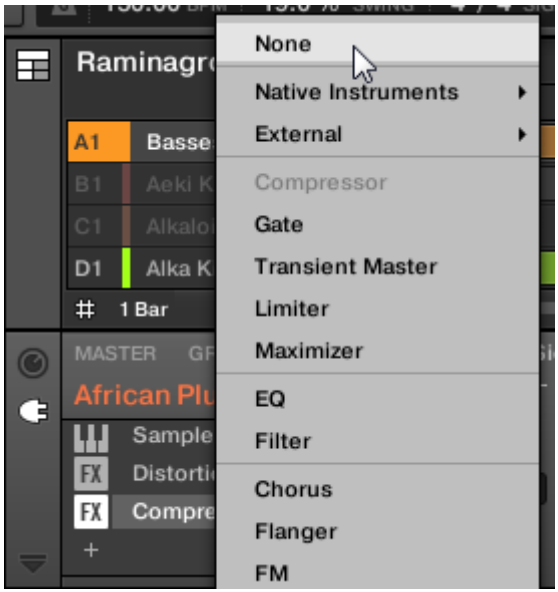
A few Plug-ins loaded.

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 (see section ↑4.8, Using Quick Browse for more information).

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 slots of Sounds** 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 all entries for Instrument Plug-ins.

The Plug-in menus can have 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. See section ↑7.3.4, Using VST/AU Plug-in Presets for more information.
None	Select *None* to remove the Plug-in currently loaded (see previous paragraph).
Native Instruments submenu	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)*. See section ↑7.3, Using Native Instruments and External Plug-ins for more information.
External submenu	Lists the available External Plug-ins, i.e. 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)*. See section ↑7.3, Using Native Instruments and External Plug-ins for more information.

Plug-in Menu Entry	Description
Sampler (first Plug-in slot of Sounds only)	The Sampler is the Internal Instrument Plug-in used to play back all Samples in MASCHINE — this essential Plug-in will be described in details in section ↑7.2, The Sampler Plug-in.
Drumsynth submenu (first Plug-in slot of Sounds only)	Lists the available Drumsynths: *Kick*, *Snare*, *Hi-hat*, *Tom*, and *Percussion*. Included with MASCHINE, these Instrument Plug-ins are synths specialized in generating drum sounds — for all details please refer to chapter ↑9, Using the Drumsynths.
All MASCHINE Internal Effects	Effect Plug-ins included with MASCHINE. Their entries are split into various categories (dynamics, filtering, modulation, reverb, etc.). See chapter ↑9.6.3, Percussion – Shaker for more details on their usage, and chapter ↑15, Effect Reference for an exhaustive description of each MASCHINE Internal Effect Plug-in.
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.

Plug-in Menu Entry	Description
Save As...	Allows you to save the current Plug-in settings as a preset for later use. This preset will appear in the Browser.
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 enabled in the Plug-ins page of the Preferences panel. For more on this, see section ↑3.6.6, 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 will be covered in section ↑7.1.7, Moving Plug-ins and ↑7.1.9, Saving and Recalling Plug-in Presets, respectively.

7.1.3.1 Loading, Removing, and Replacing a Plug-in on your Controller

On the MASCHINE MIKRO controller, do the following:

1. Press CONTROL to enter Control mode.
2. Select the Sound, Group or the Master where you want to load, remove or replace a Plug-in (see section ↑3.3.4, Focusing on a Group or a Sound).
3. Press NAV + F3 (PLUG-IN) to display the Plug-in slots of the selected Sound, Group or the Master.
4. While holding NAV, turn the Control encoder or press the dimmed pads to select the desired Plug-in slot.
   The name of the selected Plug-in appears in the display — if there are no Plug-ins in the channel this will read (NONE).

→ You are now ready to load, insert, remove or replace a Plug-in as described in the following paragraphs.

Loading a Plug-in in Place

To load a Plug-in into the selected Plug-in slot, do the following:

1. Press SHIFT + BROWSE to open the Plug-in Browser and browse the available Plug-ins.
2. Press F1 to select FILTER.
3. If you have selected the first Plug-in slot of a Sound, press the Left/Right Arrow button to select the 1/2: TYPE parameter, turn the Control encoder to select TYPE from INTERNAL, NI or EXTERNAL, then press the Right Arrow button to select the 2/2: SUBTYPE parameter, and turn the Control encoder to select the SUBTYPE from INSTRUMENT or EFFECT. The display shows the number of available Plug-ins corresponding to your selection.
4. If you have selected any other Plug-in slot, simply turn the Control encoder to select the TYPE from INTERNAL, NI or EXTERNAL.
   The display shows the number of available Plug-ins corresponding to your selection.
5. Press F2 (LIST) to show the filtered list.
6. Turn the Control encoder to browse the available Plug-ins corresponding to your selection.
7. When you have found the Plug-in you want to use, press the Control encoder to load it.
   The Plug-in is loaded into the selected Plug-in slot.
8. Press SHIFT + BROWSE again to leave the Plug-in Browser.



If the selected Plug-in slot was not empty, the previous Plug-in will be replaced with the new Plug-in!



Instead of using the Plug-in Browser, you can also use the common Browser to load a particular preset for a Plug-in. Please refer to section ↑4.2, Searching and Loading Files from the Library for more information.

Removing a Plug-in

To remove a Plug-in from its slot, use the same method as when loading a Plug-in:

- ► To remove the Plug-in currently loaded in the Plug-in slot, press SHIFT + BROWSE to enter the Plug-in Browser, press F2 (LIST) to display available Plug-ins, turn the Control encoder at full left to select (NONE), and press the Control encoder to confirm.

Replacing a Plug-in

► To replace a Plug-in, simply select its slot and load a new Plug-in as described above.



You can also recall the search query that was used to find the Plug-in preset currently loaded in the Plug-in slot (see section ↑4.8, Using Quick Browse for more information).

7.1.4 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. It is described in section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.



Native Instruments and External Plug-ins only: You can also adjust the Plug-in parameters via the own user interface of the VST/AU plug-in. More on this in ↑7.3, Using Native Instruments and External Plug-ins.

7.1.5 Bypassing Plug-in Slots

You can bypass (or "mute") any Plug-in slot. When a Plug-in slot is bypassed, the Plug-in it contains 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 its last Plug-in slot).

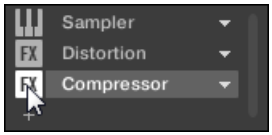
Bypassing Plug-in slots can be very useful in various situations, for example:

- 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?").

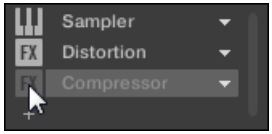
To bypass a Plug-in, do the following:

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 (e.g., a Sampler). Be careful: bypassing the slot will mute the whole Sound!

Bypassing a Plug-in Slot on the Controller

First select the desired Sound, Group, or the Master, and access the desired Plug-in slot:

1. Press the CONTROL button to enter Control mode.
2. If you want to bypass an effect of the Master, press F1 to select the MASTER tab.
3. If you want to bypass an effect of a Group, press F2 to select the GROUP tab and press GROUP + the pad 9–16 of the desired Group. If necessary, first press GROUP + the Left or Right Arrow button below the display to switch to the Group bank containing that Group.
4. If you want to bypass an effect of a Sound, press F3 to select the SOUND tab, select its parent Group as described in the previous step, and press SELECT + the pad of that Sound (or simply press its pad if pads are in Pad Mode).

5. Press NAV + F3 (PLUG-IN) to access the Plug-in slots.

To bypass a Plug-in:

- ► Hold SHIFT and NAV simultaneously, and press the fully lit pad of the desired Plug-in slot to bypass it.

→ The pad turns dim lit, the Plug-in is bypassed and does not affect the sound anymore.



Hold SHIFT and NAV and press the pad corresponding to the desired Plug-in in order to mute/unmute it.

Use the same method to unmute the Plug-in:

- ► To unmute a Plug-in, hold SHIFT + NAV and press the pad of the Plug-in slot again.

> In most cases the first Plug-in slot contains an Instrument Plug-in (e.g., a Sampler). Be careful: bypassing the slot will mute the whole Sound!

7.1.6 Using Side-Chain

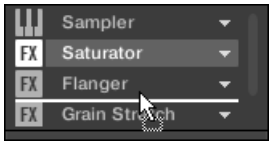
Some Plug-ins provide side-chaining. This allows you to control their influence on the audio via another audio signal sent to their secondary, side-chain input. This extra routing feature is described in details in section ↑14.1.3, Using the Side-Chain Input.

7.1.7 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 its 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, 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 (see section ↑3.3.4, 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 has now been 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!

7.1.8 Alternative: the Plug-in Strip

You can also manipulate your Plug-ins via the Plug-in Strip in the Mix view of MASCHINE. You will find all details on this feature in section ↑13.4, The Plug-in Strip.

7.1.9 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 (see section ↑4.2, 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.

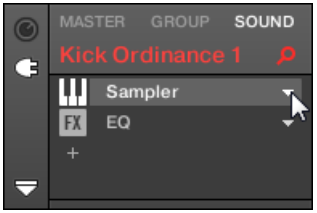
The MASCHINE file format for Native Instruments plug-ins allows you to save a preset in the format native to the plug-in and freely exchange files between the plug-in instrument in standalone mode, MASCHINE, and KOMPLETE KONTROL.



To use this feature you must ensure all installed Native Instruments plug-ins are up-to-date. Please check Service Center or log-in to your Native Instruments account to find the latest updates.

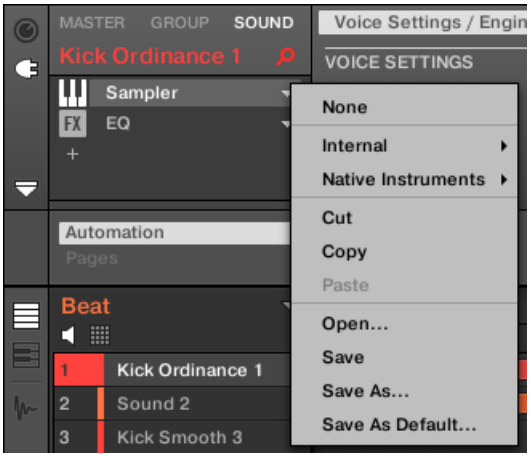
7.1.9.1 Saving Plug-in Presets

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 and assignments as the default preset for the Plug-in. This default preset will be loaded with this Plug-in the next time it is opened.
Remove Default Preset	Removes the default preset for the current plug-in. This menu item only appears after a preset has been saved using the *Save As Default...* menu item.



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! See ↑7.3.4, Using VST/AU Plug-in Presets section for more on this.

7.1.9.2 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. You can find each Plug-in preset 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, and how to assign tags to the Plug-in presets that you saved, please refer to chapter ↑4, Browser.

In addition, the MASCHINE library already provides a collection of Plug-in presets for MASCHINE 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 presets directly from MASCHINE, ready for loading.



You can assign tags to the Plug-in presets that you saved. This is done in the Browser in the MASCHINE software. For more information, please refer to section ↑4.5, Editing the Files' Tags and Properties.



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, please start the Service Center.

You can also 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).

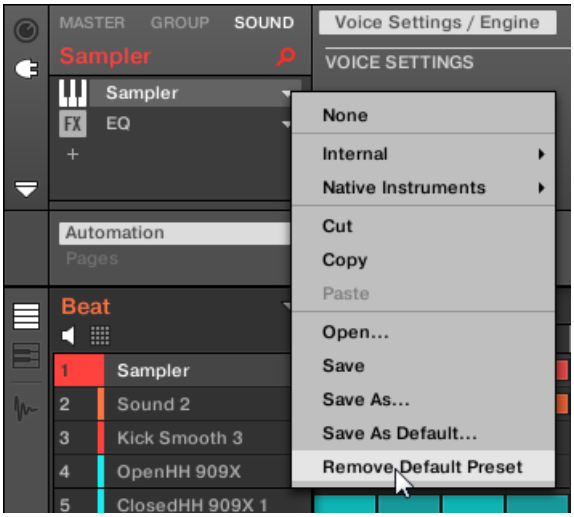
7.1.9.3 Removing a Default Plug-in Preset

For each plug-in you can set a default preset that is loaded automatically every time the plug-in is opened. If the default plug-in preset is no longer required, use the Plug-in menu to remove the saved default preset.

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 plug-in preset is removed and the plug-in will load with its initialized settings next time it is opened.

You can also use the Plug-in Manager in the Preferences panel to gain an overview of your default plug-in presets and also remove them if required.



Removing the default preset for a plug-in is a software only feature.

7.2 The Sampler Plug-in

The Sampler Plug-in allows you to play back 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 these parameters can be modulated and automated! For more information, see section ↑11.5, Recording and Editing Modulation and ↑12.2.3, Controlling Parameters via MIDI and Host Automation, respectively.

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. Please refer to section ↑4.7, Locating Missing Samples for more information.

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), please refer to section ↑7.1, Plug-in Overview.

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. This panel is described in section ↑13.4.3, Panel for the Sampler.

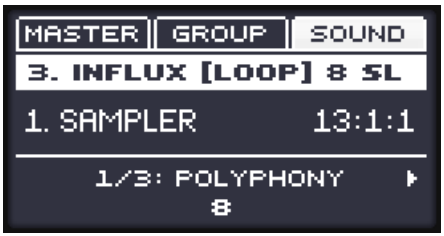
The Sampler parameters are organized in 6 pages:

- Page 1: Voice Settings / Engine: ↑7.2.1, Page 1: Voice Settings / Engine.
- Page 2: Pitch / Envelope: ↑7.2.2, Page 2: Pitch / Envelope.
- Page 3: FX / Filter: ↑7.2.3, Page 3: FX / Filter.
- Page 4: Modulation: ↑7.2.4, Page 4: Modulation.
- Page 5: LFO: ↑7.2.5, Page 5: LFO.
- Page 6: Velocity / Modwheel: ↑7.2.6, Page 6: Velocity / Modwheel.

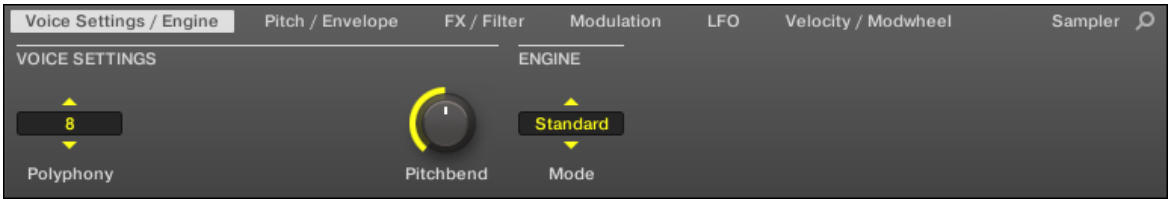
These Parameter pages can be selected for displaying/editing via the usual way as described in section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area. For example:

► To display a particular Parameter page in the software, click its label at the top of the Control area.

7.2.1 Page 1: Voice Settings / Engine



Sampler parameters – page 1 of 6: VOICE SETTINGS and ENGINE on the controller.



Sampler parameters – page 1 of 6: VOICE SETTINGS and ENGINE in the software.

Parameter	Description
VOICE SETTINGS	
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	If *Legato* is selected for the Polyphony parameter, this allows to adjust the duration of the transition between consecutive notes.
Pitchbend	Here you can adjust how the Sound reacts on incoming MIDI Pitchbend messages from an external MIDI controller or your host application. For more information on how to setup your Sounds to receive MIDI, refer to section ↑12.2.1, Triggering Sounds via MIDI Notes.
ENGINE	
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, i.e. low-pass filtering), *S1200 LM* (for Low-Mid, i.e. low-mid-pass filtering), *S1200 HM* (for High-Mid, i.e. mid-high-pass filtering), and *S1200 High* (for High, i.e. high-pass filtering).

7.2.2 Page 2: Pitch / Envelope



Sampler parameters – page 2 of 6: PITCH / GATE and AMPLITUDE ENVELOPE on the controller.

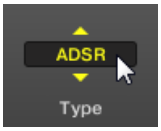


Sampler parameters – page 2 of 6: PITCH / GATE and AMPLITUDE ENVELOPE in the software.

Parameter	Description
PITCH / GATE	
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, see ↑7.2.5, Page 5: LFO.
Reverse	If Reverse is activated, the Sample will be played backwards.
Type	Selects from three different types of amplitude envelopes. See below for more information.

AMPLITUDE ENVELOPE

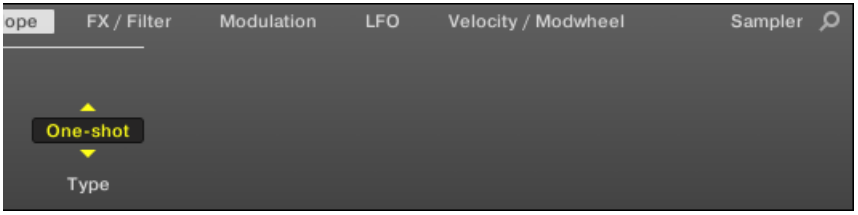
The AMPLITUDE ENVELOPE section allows you to tailor your Sample in terms of its loudness over time.



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.



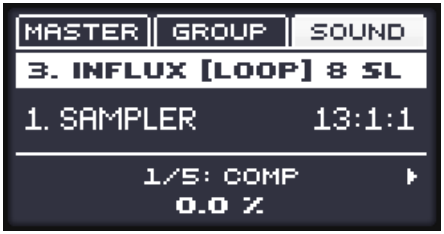
- *ADSR*: Typically, the ADSR envelope is used for longer, sustained Samples that require complex dynamic control.



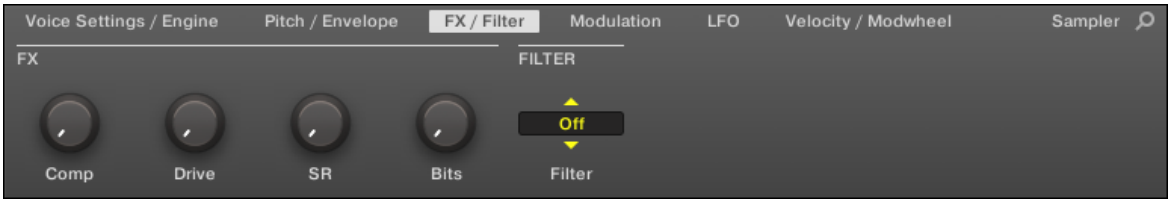
Unlike many other hardware devices, the pads on MASCHINE are sensitive not only to being hit, but also to being held — so using the ADSR envelope, you can make the pads behave like a MIDI keyboard and sustain a note only for as long as it is held down.

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, see ↑7.2.5, Page 5: LFO.
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.

7.2.3 Page 3: FX / Filter



Sampler parameters – page 3 of 6: FX and FILTER on the controller.



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 ↑15, Effect Reference.

Parameter	Description
FX	
Comp	Basic compressor allowing 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.
EQ	The EQ is an equalizer with Frequency, Bandwidth and Gain parameters.

7.2.4 Page 4: Modulation



Sampler parameters – page 4 of 6: MODULATION ENVELOPE and DESTINATION on the controller.



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 (see ↑7.2.1, Page 1: Voice Settings / Engine), 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.

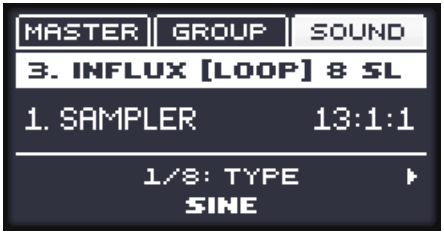
Envelope Controls	Description
Attack	The time it takes for the envelope to reach its maximum level.
Hold	How long the envelope will stay at its maximum level.
Decay	With Decay you adjust how fast the envelope drops to the sustain level in ADSR mode; in AHD mode it is used to adjust how fast the envelope fades out.
Sustain	The envelope level that will be maintained 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 (see ↑12.1.2, Configuring the Main Output of Sounds and Groups for more information).

7.2.5 Page 5: LFO



Sampler parameters – page 5 of 6: LFO and DESTINATION on the controller.



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 enabled, 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 ↑12.1.2, Configuring the Main Output of Sounds and Groups for more information).

7.2.6 Page 6: Velocity / Modwheel



Sampler parameters – page 6 of 6: VELOCITY DESTINATION and MODWHEEL DESTINATION on the controller.



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. 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).

Parameter	Modulation Destination
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 ↑12.1.2, Configuring the Main Output of Sounds and Groups for more information).

7.3 Using Native Instruments and External Plug-ins

MASCHINE allows you to load VST/AU plug-ins from Native Instruments (Native Instruments Plug-ins) or any third-party manufacturer (External Plug-ins) and to use them like the MASCHINE Internal Plug-ins.

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 (e.g., loading, adjusting Plug-in parameters, etc.), please refer to section ↑7.1, Plug-in Overview.

7.3.1 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 user interface of that Native Instruments or third-party instrument/effect.

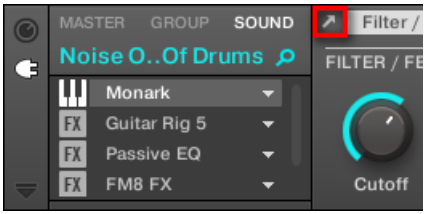


Plug-ins of Native Instruments platform products (REAKTOR, KONTAKT, GUITAR RIG) are automatically opened in floating windows when loaded from the Plug-in menu. All other Native Instruments Plug-ins as well as all External Plug-ins won't be opened in floating windows by default — however they will recall 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, select this Plug-in 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, Group or the Master, all open floating windows disappear, possibly replaced by those for Native Instruments and/or External Plug-ins loaded in the newly focused Sound/Group/Master.

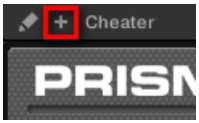


Plug-in selection is described in section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.

Native Instruments Plug-ins: Default, Additional, and Edit View

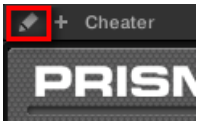
Native Instruments Plug-ins provide the following extra features in the floating window:

- **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, please refer to section ↑13.4.4, 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 Default and Additional view 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, please refer to section ↑13.4.4, 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:



Opening/Closing Plug-in Windows on the Controller

On the MASCHINE MIKRO controller, do the following:

1. Select the desired Native Instruments or External Plug-in (see section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area).
2. Press NAV + the lit pad (indicating the selected Plug-in) to open the plug-in in a separate floating window. Press NAV + the same lit pad again to close the plug-in window.

7.3.2 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 (see section ↑7.3.1, Opening/Closing Plug-in Windows above). But MASCHINE also allows 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.

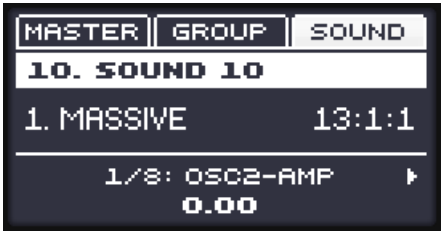
Having the Plug-in parameters on Parameter pages in MASCHINE has the following benefits:

- 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 (see section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area).
- The Plug-in parameters can be automated the same way as any other parameters (see section ↑11.5, Recording and Editing Modulation).

- The current state of the Plug-in parameters can be saved to the Browser as a preset for total recall of the Plug-in (see section ↑7.1.9, Saving and Recalling Plug-in Presets for more on this).



An auto-mapped Parameter page of the Massive Plug-in in the software.



An auto-mapped Parameter page of the MASSIVE Plug-in on the controller.

Furthermore, for Native Instruments Plug-ins these Parameter pages group the Plug-in parameters in an intelligent way that fits the particular workflows of each Plug-in. For example in the MASSIVE Plug-in, the eight Macro Controls of MASSIVE will be grouped into a single Parameter page, the main parameters for Oscillator 1 will be grouped into another Parameter page, etc.

7.3.3 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** (see section ↑7.3.2, Using the VST/AU Plug-in Parameters above) 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 — this is also true in the MASCHINE software.

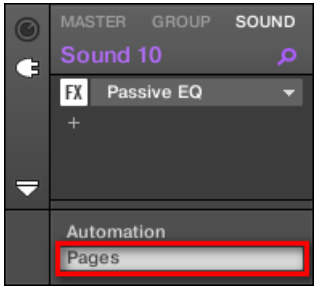
A parameter of a Native Instruments or External Plug-in can be assigned to one knob only!

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:



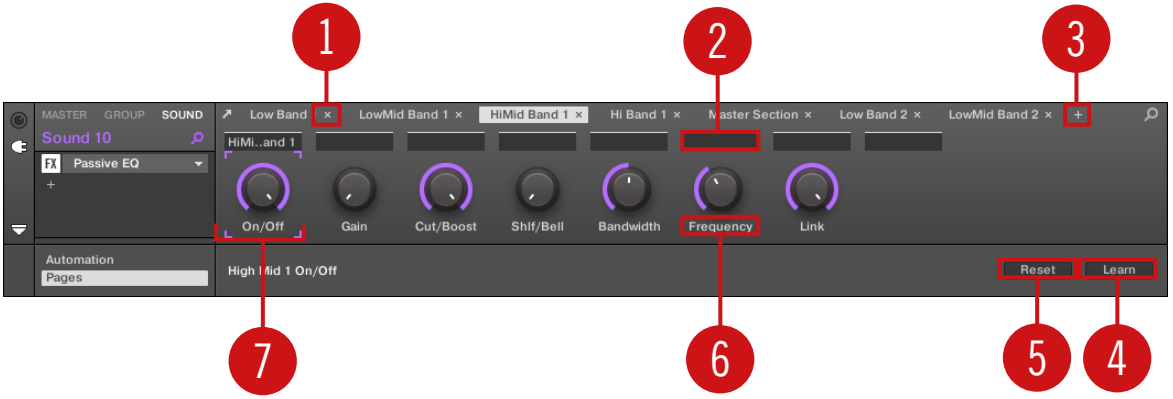
3. Click the Pages tab in the left part of the Assignment area:



→ 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 the Macro properties and defining Macro Controls, please refer to ↑12.3, 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 will mirror the label(s) of its section(s) — if there is more than one section, the page label 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**) — see above.

(**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 (see section ↑7.3.1, 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 plug-in parameters into Parameter pages, you can also use MASCHINE Macro Controls to pick the most commonly used parameters, e.g., for live performances. For more information about Macro Controls, please refer to section ↑12.3, 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

Pages Name - 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.	

7.3.4 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 directly in the Browser by selecting the corresponding file type (Instruments or Effects) in the File Type selector, then se-

lecting the factory content by clicking the NI logo on the right, then choosing the desired NI product in the drop-down list underneath — and of course, you will find all these presets in the same locations in the Browser on your controller.

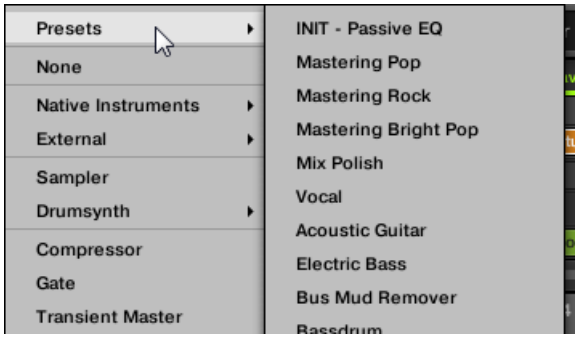


You can also add to the MASCHINE library the user presets you might have created for any Native Instruments product installed on your computer. To do this, simply add the corresponding path(s) to the list found on the User pane of the Library page in the Preferences panel. See section ↑3.6.4, Preferences – Default Page for more details.

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 (see section ↑7.1.3, 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 located under the *Native Instruments* and *External* submenus:



   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 in this 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 both as 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 (e.g., by adding a suffix "[FX]" to the effect presets).

MASCHINE allows you also to change the preset in your Native Instruments or third-party VST/AU plug-in via MIDI Program Change messages. For more information, see section ↑12.2.3, Controlling Parameters via MIDI and Host Automation.

Saving VST/AU Presets as MASCHINE Plug-in Presets

Once 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 (see section ↑7.1.9, 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.

7.3.5 Multiple-Output Plug-ins and Multitimbral Plug-ins

MASCHINE allows an 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 on configuring audio inputs for Sounds, please refer to section ↑12.1.1, 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 additional port in the Dest. menu on the MIDI page of the Output properties for these Sounds. For more information on configuring MIDI output for Sounds, please refer to section ↑12.2.5, Sending MIDI from Sounds.

8 Using the Audio Plug-in

The Audio Plug-in can playback Samples (drums, percussion, basslines, 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 (e.g. note C3 will play 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 module 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 Patten Length, the overall tuning, adjust 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.

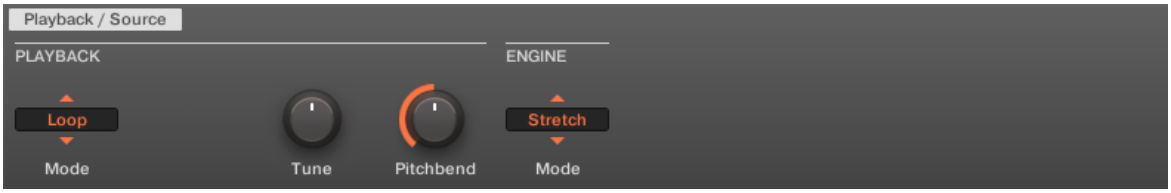


For more information on recording your own loops, refer to the chapter: ↑17, Sampling and Sample Mapping.

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 adjust the Audio Plug-in parameters and load/save default presets, refer to the section ↑7, Working with Plug-ins.

Once an Audio Plug-in is loaded it becomes visible in both the MASCHINE software and on the controller.



MASCHINE Audio Plug-in

Here is an overview of the Audio Plug-in parameters:

Element	Description
PLAYBACK Section	
Mode	Select the mode of playback: Loop or Gate. 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. 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)	Set a simple 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.

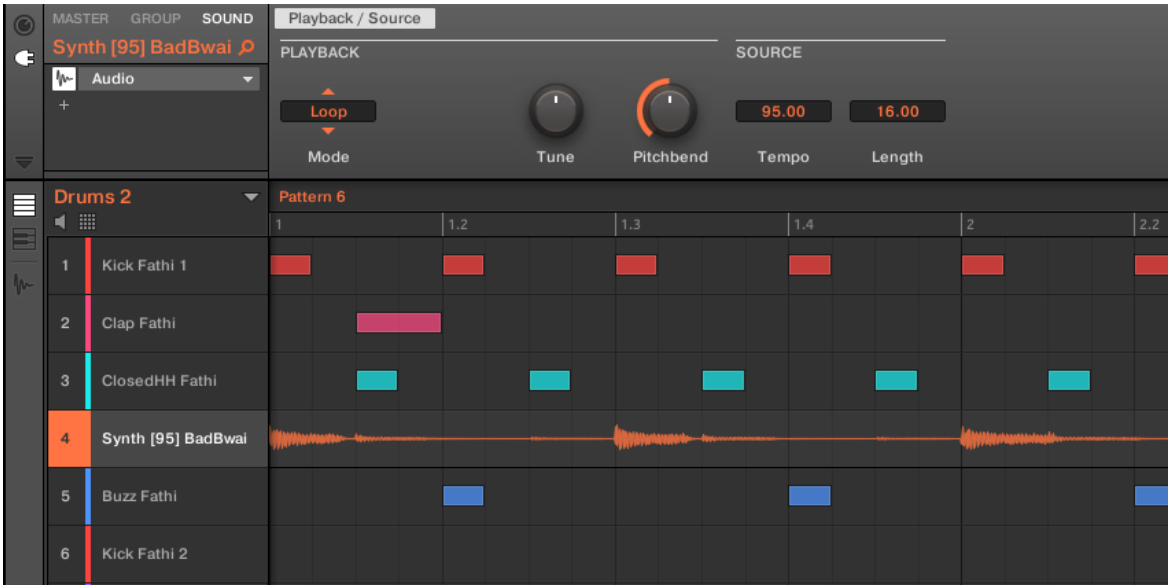
Element	Description
Tune	Transpose the tune (range: -36 – +36 semitones) of the Audio Plug-in. You can use this knob to set the playback pitch of the loop to 'C', and then the loop's pitch will match the pitch of Notes programmed into the Pattern. To increase the tuning of the Sample in semitones, turn 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	Set 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. 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 the undesirable cartoonlike effects on vocals when they are pitched upwards or downwards.
SOURCE Section	
Tempo	Set 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. 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	Set 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. 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.

8.1 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 soundcard, 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 ↑4.2.6, 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 place the Sample 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 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 Gate mode, refer the following section ↑8.3, Using Loop Mode.



If you are using a Sample with the Sampler Plug-in and decide you want to use it with the Audio Plug-in, you can quickly switch from one Plug-in to another using the controller. This functionality can be handy if attempting to load a loop which does not have the Loops tag as these files will load into the Sampler Plug-in if they are missing the Loops tag. For more information on selecting plug-ins, refer to the section Browser Plug-in Slot Selection.

8.2 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 loops loaded into the Audio plug-in.

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 to put it under focus. For more details on how to set the focus to a Sound, please see section ↑3.3.4, 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: ↑17.2, Recording Audio.

- The Edit page allows you to apply destructive edits to existing audio: ↑17.3, Editing a Sample.

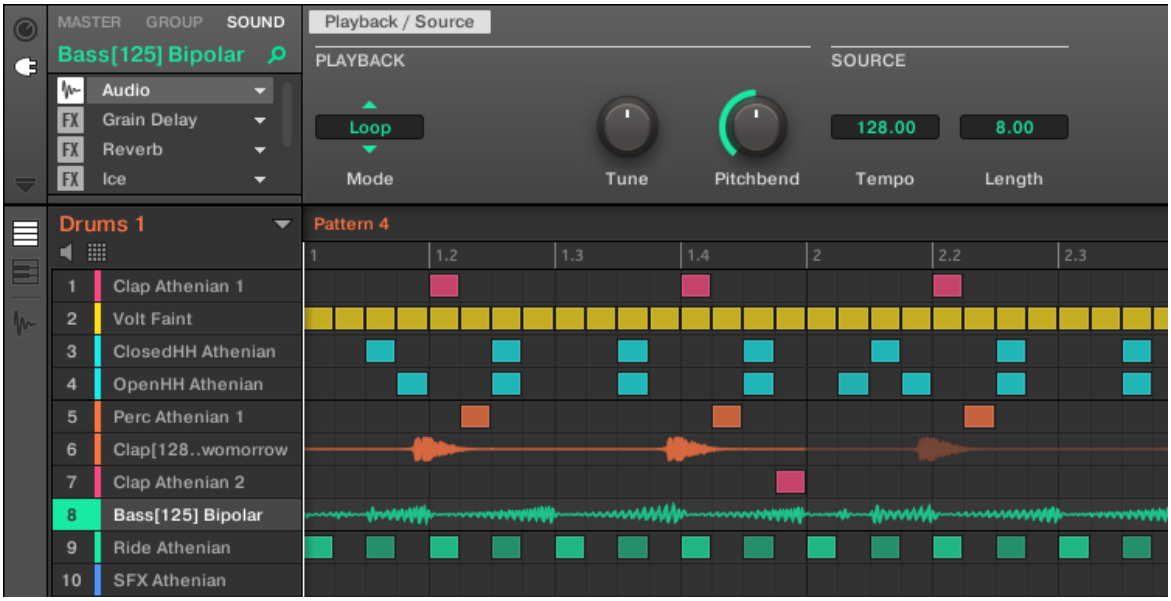
The destructive audio editing features here are the same as those found in the Sample Editor, for more information on using the destructive audio editing features, refer to ↑17.3, Editing a Sample.

8.3 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 ↑11.1.6, Adjusting the Arrange Grid and the Pattern Length.

The process of using Loop mode is as follows; load an audio file onto a Sound, 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

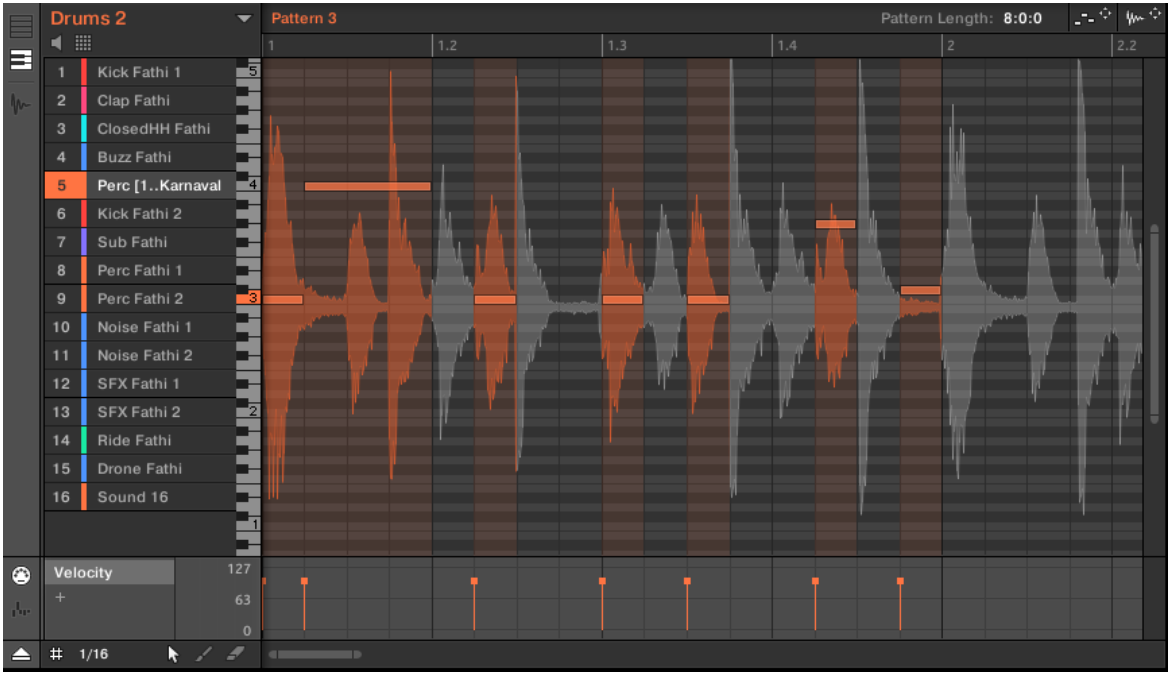
When using Loop mode with the Audio plug-in, it is possible to enable and disable audio in the current Pattern in the Pattern Editor. By default, when audio is recorded using the Audio plug-in, or if it is tagged as a 'Loop' and loaded directly from the Browser, it will be enabled in the Pattern and 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.

8.4 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 ↑11, Working with Patterns.



To zoom into a Pattern, double-click on the vertical scroll bar to the right of the Pattern Editor.

9 Using the Drumsynths

Drumsynths 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.

Drumsynths have been designed for extreme playability, both from the high-quality pads of your 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 automate them like any other Plug-in!



See section ↑11.5, Recording and Editing Modulation for more information on automation.

In this chapter you will find:

- An overview of the Drumsynths and a presentation of their **common features**: ↑9.1, Drumsynths – General Handling.
- A detailed description of each particular Drumsynth:
  - The Kick Plug-in: ↑9.2, The Kicks.
  - The Snare Plug-in: ↑9.3, The Snares.
  - The Hi-hat Plug-in: ↑9.4, The Hi-hats.
  - The Tom Plug-in: ↑9.5, The Toms.
  - The Percussion Plug-in: ↑9.6, The Percussions.



We describe here the specific handling and parameters of the Drumsynths. For a description of the features and characteristics of Plug-ins in general (including the Drumsynths), please refer to section ↑7.1, Plug-in Overview.

9.1 Drumsynths – General Handling

This section describes the general use and features of the Drumsynths.

Managing Drumsynths

Drumsynths are MASCHINE Plug-ins and, as such, they support all usual Plug-in actions and procedures. Hence, to know how to load, remove, replace, insert, move, copy/paste Drumsynths, as well as how to adjust the Drumsynth parameters and load/save presets, please refer to section ↑7.1, Plug-in Overview, where these are described in detail.

9.1.1 Engines: Many Different Drums per Drumsynth

Each of the available Drumsynths (Kick, Snare, Hi-hat, Tom, and Percussion) actually provides many different drums: Indeed, each Drumsynth allows you to select a particular **engine** for generating the drum sound. In the same Drumsynth 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.

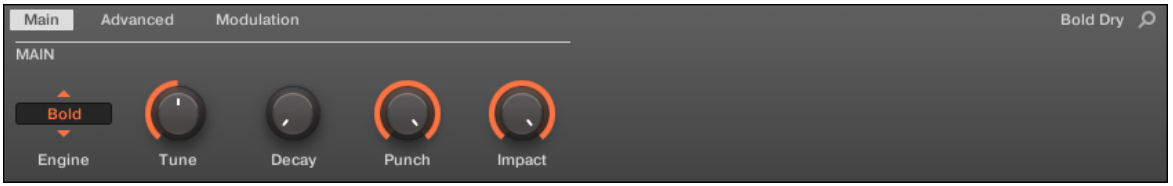
In each Drumsynth the first parameter (Engine) lets you select the engine you want to use. Most of the other parameters will depend on the selected engine.

9.1.2 Common Parameter Organization

All Drumsynths 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 Drumsynths are grouped in similar ways in the Control area:



All Drumsynths 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 Drumsynth and engine.

Common Layout in the Plug-in Strip (Mix View)

In Mix view, the Plug-in panels of all Drumsynths have a similar layout in the Plug-in Strip:



All Drumsynths 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 ↑13.4, The Plug-in Strip.

9.1.3 Shared Parameters

Within each Drumsynth, 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 Drumsynth. 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 Drumsynth (e.g., if you replace the Kick sitting in a Plug-in slot with a Hi-hat) parameter positions will not be kept!

9.1.4 Various Velocity Responses

Each engine of each Drumsynth 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.

9.1.5 Pitch Range, Tuning, and MIDI Notes

All Drumsynths 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 %).

9.2 The Kicks

The Kick Drumsynth 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 Drumsynth, 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 following engines:

- **Sub** (default): ↑9.2.1, Kick – Sub.
- **Tronic**: ↑9.2.2, Kick – Tronic.
- **Dusty**: ↑9.2.3, Kick – Dusty.
- **Rasper**: ↑9.2.5, Kick – Rasper.
- **Snappy**: ↑9.2.6, Kick – Snappy.

- **Bold**: ↑9.2.7, Kick – Bold.
- **Maple**: ↑9.2.8, Kick – Maple.
- **Push**: ↑9.2.9, Kick – Push.

For more information on engines, see ↑9.1.1, Engines: Many Different Drums per Drumsynth. For general information on the Kick and the other Drumsynths, see ↑9.1, Drumsynths – General Handling.

9.2.1 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 which can be very effectively abused as a 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 ↑13.4, 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 ↑9.2, 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 ↑9.1.5, 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
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.
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 Drumsynths, 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.

9.2.2 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 ↑13.4, 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 ↑9.2, The Kicks.

Element	Description
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 ↑9.1.5, 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 %).

Element	Description
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 Drumsynths, 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.

9.2.3 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 ↑13.4, 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 ↑9.2, 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 ↑9.1.5, 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 Drumsynths, 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.

9.2.4 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%).
Gate	When enabled, the decay of the drum is choked by the end of the note. When disabled, 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 (see 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	

Element	Description
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 (see 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 Drumsynths, 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.

9.2.5 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 ↑13.4, 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 ↑9.2, 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 ↑9.1.5, 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.

Element	Description
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 Drumsynths, 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.

9.2.6 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 ↑13.4, The Plug-in Strip for more information on this.

Element	Description
MAIN Section	
Engine	Selects the engine used in the Kick Plug-in. If you change this setting, please refer to ↑9.2, 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 ↑9.1.5, 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 Drumsynths, 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.

9.2.7 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 ↑9.1.5, 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 ↑9.2, The Kicks.

Element	Description
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 ↑9.1.5, 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 Drumsynths, 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.

9.2.8 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 ↑9.1.5, 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 ↑9.2, 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 ↑9.1.5, 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*.

Element	Description
Size	Adjusts the size of the room, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).
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 Drumsynths, 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.

9.2.9 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 ↑13.4, 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 ↑9.2, 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 ↑9.1.5, 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 %.

Advanced Page

For this engine the Advanced page does not contain any parameters.

Modulation Page

As with all other engines and Drumsynths, 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.

9.3 The Snares

The Snare Drumsynth 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 Drumsynth, 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 following engines:

- **Volt** (default): ↑9.3.1, Snare – Volt
- **Bit**: ↑9.3.2, Snare – Bit
- **Pow**: ↑9.3.3, Snare – Pow
- **Sharp**: ↑9.3.4, Snare – Sharp
- **Airy**: ↑9.3.5, Snare – Airy

- **Vintage**: ↑9.3.6, Snare – Vintage
- **Chrome**: ↑9.3.7, Snare – Chrome
- **Iron**: ↑9.3.8, Snare – Iron
- **Clap**: ↑9.3.9, Snare – Clap

For more information on engines, see ↑9.1.1, Engines: Many Different Drums per Drumsynth. For general information on the Snare and the other Drumsynths, see ↑9.1, Drumsynths – General Handling.

9.3.1 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 ↑13.4, 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 ↑9.3, 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 ↑9.1.5, 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
Gate	When enabled, the decay of the drum is choked by the end of the MIDI note. When disabled (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 Drumsynths, 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.

9.3.2 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 ↑13.4, 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 ↑9.3, 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 ↑9.1.5, Pitch Range, Tuning, and MIDI Notes.
Decay	Adjusts the duration of the sound's tail, measured as a percentage (default: 50.0 %).

Element	Description
Gate	When enabled, the decay of the drum is choked by the end of the MIDI note. When disabled (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 Drumsynths, 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.

9.3.3 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 ↑13.4, 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 ↑9.3, 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 ↑9.1.5, 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 Drumsynths, 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.

9.3.4 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 ↑13.4, 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 ↑9.3, The Snares.

Element	Description
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 ↑9.1.5, 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 Drumsynths, 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.

9.3.5 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 ↑13.4, 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 ↑9.3, 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 ↑9.1.5, 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 %).
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 Drumsynths, 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.

9.3.6 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 ↑13.4, 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 ↑9.3, 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 ↑9.1.5, 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 %).
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 Drumsynths, 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.

9.3.7 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 ↑13.4, 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 ↑9.3, 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 ↑9.1.5, 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. 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*.
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 Drumsynths, 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.

9.3.8 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 ↑13.4, 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 ↑9.3, 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 ↑9.1.5, 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 %).
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 Drumsynths, 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.

9.3.9 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 ↑13.4, 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 ↑9.3, 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 ↑9.1.5, Pitch Range, Tuning, and MIDI Notes.

Element	Description
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 Drumsynths, 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.

9.3.10 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 ↑13.4, 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 ↑9.3, 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 Drumsynths, 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.

9.4 The Hi-hats

The Hi-hat Drumsynth 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 Drumsynth, 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 following engines:

- **Silver** (default): ↑9.4.1, Hi-hat – Silver.
- **Circuit**: ↑9.4.2, Hi-hat – Circuit.
- **Memory**: ↑9.4.3, Hi-hat – Memory.

In addition, we mention how to use Choke groups with Hi-hat Plug-ins to emulate a closed vs. open hi-hat set up: ↑9.4.5, Creating a Pattern with Closed and Open Hi-hats.



For more information on engines, see ↑9.1.1, Engines: Many Different Drums per Drumsynth. For general information on the Snare and the other Drumsynths, see ↑9.1, Drumsynths – General Handling.

9.4.1 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 ↑13.4, 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 ↑9.4, The Hi-hats.

Element	Description
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 ↑9.1.5, 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 enabled, the decay of the cymbal is choked by the end of the note. When disabled (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 (see 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 %).
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 Drumsynths, 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.

9.4.2 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 ↑13.4, 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 ↑9.4, 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 ↑9.1.5, 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 enabled, the decay of the cymbal is choked by the end of the note. When disabled (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 (see 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 %).

Element	Description
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 Drumsynths, 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.

9.4.3 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 ↑13.4, 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 ↑9.4, 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 ↑9.1.5, 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 enabled, the decay of the cymbal is choked by the end of the note. When disabled (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 (see 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.

Element	Description
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 Drumsynths, 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.

9.4.4 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 ↑13.4, 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 ↑9.4, 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 Drumsynths, 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.

9.4.5 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

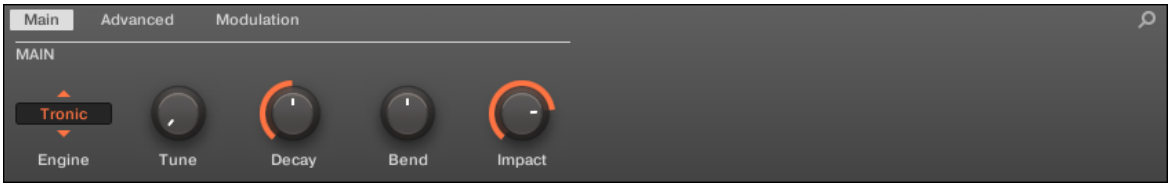
when played, like on a real drum set. By the way you are not limited to two hi-hat sounds — e.g., you could add to the same Choke group a third Sound containing a half-opened hi-hat. To know how to do this, please refer to section ↑6.1.4, Using Choke Groups where Choke groups are explained in detail.



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!

9.5 The Toms

The Tom Drumsynth 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 Drumsynth, 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 following engines:

- **Tronic** (default): ↑9.5.1, Tom – Tronic.
- **Fractal**: ↑9.5.2, Tom – Fractal.
- **Floor**: ↑9.5.3, Tom – Floor.

For more information on engines, see ↑9.1.1, Engines: Many Different Drums per Drumsynth. For general information on the Snare and the other Drumsynths, see ↑9.1, Drumsynths – General Handling.

9.5.1 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 ↑13.4, 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 ↑9.5, 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 ↑9.1.5, 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
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 Drumsynths, 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.

9.5.2 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, see ↑9.6.1, 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 ↑13.4, 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 ↑9.5, 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 see↑9.1.5, 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 %).
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 %.

Element	Description
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*. In *Harmonic* mode all oscillators track the Tune parameter (on the Main page, see 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. 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 %.

Element	Description
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).
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 Drumsynths, 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.

9.5.3 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 ↑13.4, 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 ↑9.5, 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 ↑9.1.5, 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 Drumsynths, 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.

9.5.4 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 ↑13.4, 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 ↑9.5, 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%).

Element	Description
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 Drumsynths, 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.

9.6 The Percussions

The Percussion Drumsynth 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 Drumsynth, 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): ↑9.6.1, Percussion – Fractal.
- **Kettle**: ↑9.6.2, Percussion – Kettle.
- **Shaker**: ↑9.6.3, Percussion – Shaker.

For more information on engines, see ↑9.1.1, Engines: Many Different Drums per Drumsynth. For general information on the Snare and the other Drumsynths, see ↑9.1, Drumsynths – General Handling.

9.6.1 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 ↑9.5.2, 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 ↑13.4, 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 ↑9.6, 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 ↑9.1.5, 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).

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 %).
Tune Hold	When Tune Hold is enabled, the tuning behavior is that of the Fractal tom: the tuning is fixed until the next note is received (see ↑9.5.1, Tom – Tronic). This allows you to create arpeggiated patterns by adjusting the Tune parameter while a sequence of notes is playing. When Tune Hold is disabled (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*. In *Harmonic* mode all oscillators track the Tune parameter (on the Main page, see 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. 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.
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 Drumsynths, 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.

9.6.2 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 ↑13.4, 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 ↑9.6, The Percussions.

Element	Description
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 ↑9.1.5, 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 Drumsynths, 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.

9.6.3 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 ↑13.4, 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 ↑9.6, 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 ↑9.1.5, Pitch Range, Tuning, and MIDI Notes.

Element	Description
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*. In *Realistic* mode the envelope uses curved attack and release stages for a more natural sound. In *Machine* mode the envelope uses linear attack, hold, and release stages for a static, machine-like sound. 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 %.

Element	Description
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%).
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). 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*. 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. In *Retrig* mode, the shaker pattern (including accents) is retriggered on every note on, without quantizing to the nearest beat. 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). 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 Drumsynths, 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.

9.7 The Cymbals

The Cymbal Drumsynth 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 Drumsynth, 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): ↑9.7.1, Cymbal – Crash.
- **Ride**: ↑9.7.2, Cymbal – Ride.

For more information on engines, see ↑9.1.1, Engines: Many Different Drums per Drumsynth. For general information on the Cymbals and the other Drumsynths, see ↑9.1, Drumsynths – General Handling.

9.7.1 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 ↑13.4, 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%).

Element	Description
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 Drumsynths, 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.

9.7.2 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 ↑13.4, 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%).

Element	Description
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%).
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 Drumsynths, 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.

10 Using the Bass Synth

Bass Synth is an internal fun and easy to use monophonic synthesizer module that allows you to quickly create expressive basslines. Like any other Instrument Plug-in, load it into the first Plug-in slot of a Sound to gain full control over its parameters in the Control Panel or direct from your hardware controller. Create rich bass tones and program acid lines with ease.

You can enhance the sound of the Bass Synth further by adding internal effects, tweaking parameters during a live performance, or by automating them like any other plug-in.

Bass Synth key features:

- One Oscillator (monophonic)
- Seamlessly morph between sine to saw to square wave – and all spots in between
- Octave switch
- Filter, Mod envelope, Decay, Drive (bi-polar saturation/distortion), and Glide Time
- 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 Bass Synth with MASCHINE JAM, please read the MASCHINE JAM Manual available from the *Help* menu and Native Instruments website.



See section ↑11.5, Recording and Editing Modulation for more information on automation.

In this chapter you will find:

- An overview of the Bass Synth: ↑10.1, Bass Synth – General Handling.
- A description of the Bass Synth parameters: ↑10.1.2, Bass Synth Parameters.



The specific handling and parameters of the Drumsynths are described in this chapter. For a general description of the features and characteristics of Plug-ins (including the Bass Synth), please refer to section ↑7.1, Plug-in Overview.

10.1 Bass Synth – General Handling

This section describes the general use and features of the Bass Synth.

Managing the Bass Synth

Bass 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 Bass Synth, as well as how to adjust the Bass Synth parameters, and load/save presets, please refer to section ↑7.1, Plug-in Overview, where these are described in detail.



Bass Synth presets can be loaded from the Browser by selecting: SOUNDS, MASCHINE, BASS SYNTH.

10.1.1 Parameter Organization

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 are grouped in the Control area:



Bass Synth parameter organization in the Control area.

- The parameters are grouped into two Parameter pages:

- The **Main page** groups the most important parameters. Here you can adjust the Shape of the oscillator waveform, the filter Cutoff and Resonance, the envelope modulation (Mod. Amt.) and envelope Decay amounts, the Drive amount and the Glide Time.
- The **Advanced page** provides access to the Glide on/off parameter.

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 waveform:



The Bass Synth layout in the Plug-in Strip.

- In the top row of the panel are the envelope Mod. Amt. (modulation amount) and Decay parameters, followed by the main Shape (oscillator waveform), the Octave range, and the Drive parameters.
- In the bottom row of the panel you find the filter Cutoff, Resonance and Glide Time parameters.

For more information on the various Plug-in panels found in the Plug-in Strip, please refer to section ↑13.4, The Plug-in Strip.

10.1.2 Bass Synth Parameters

Available from the both the Control area of the Arrange view and in the Plug-in Strip of the Mix view, the parameters are as follows:



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 ↑13.4, The Plug-in Strip for more information on this.

Main Page

Element	Description
OSC Section	
Shape	Adjusts the waveform shape continuously from sine to square. To adjust the waveform shape, turn the Shape knob by clicking and dragging upwards or downwards. The waveform shape can be viewed in the Plug-in Strip of the Mix view.
Octave	Transposes the base key of the Bass Synth (range: -3 – 3). To transpose the base key, turn the Octave knob by clicking and dragging upwards or downwards.
Filter Section	
Cutoff	Adjusts the frequency of the low-pass filter (range: 14.6 Hz – 23.7 KHz). To adjust the cutoff frequency, turn the Cutoff knob by clicking and dragging upwards or downwards.
Resonance	Adjusts the amount of boost around the cutoff frequency (range: 0.0% – 120%), Resonance can start to self-oscillate when increasing the amount over 100.0 %. To adjust the amount of resonance, turn the Resonance knob by clicking and dragging upwards or downwards.
Envelope Section	

Element	Description
Mod. Amt.	Adjusts the amount of envelope applied to the filter cutoff (range: 0.0% – 100%). To increase the amount of modulation applied to the Cutoff, turn the Mod. Amt. knob clockwise by clicking and dragging upwards.
Decay	Adjusts the rate at which the sound fades to silence (range: 0.0% – 100%). To increase the decay amount, turn the Decay knob clockwise by clicking and dragging upwards.
Tone Section	
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. To adjust the amount of drive, turn the Drive knob by clicking and dragging upwards or downwards.
Note Section	
Glide Time	Adjusts the time it takes to glide from one pitch to the next (range: 10 ms – 1000 ms). To adjust the amount of glide time, turn the Glide Time knob by clicking and dragging upwards or downwards.

Advanced Page

For this module the Advanced page contains just one parameter.

Element	Description
Note Section	
Glide	Globally enables the glide parameter. Once set to on, the note will continuously play in a monophonic manner.

11 Working with Patterns

Creating a Pattern is where the fun starts, because the sequencer really is the core of MASCHINE. Both your controller and the software provide you with many powerful tools to create and edit your own beats.

This chapter is organized as follows:

- General points on Patterns and the Pattern Editor: ↑11.1, Pattern Basics.
- How to record Patterns in real time from your controller: ↑11.2, Recording Patterns in Real Time.
- How to record Patterns with the step sequencer of your controller: ↑11.3, Recording Patterns with the Step Sequencer.
- How to create and modify events/notes in your Patterns: ↑11.4, Editing Events.
- How to create and modify modulation in your Patterns: ↑11.5, Recording and Editing Modulation.
- How to create MIDI tracks in your Patterns: ↑11.6, Creating MIDI Tracks from Scratch in MASCHINE.
- How to organize your Patterns in your Project: ↑11.7, Managing Patterns.
- How to import/export MIDI to/from Patterns, and how to export audio from Patterns: ↑11.8, Importing/Exporting Audio and MIDI to/from Patterns.

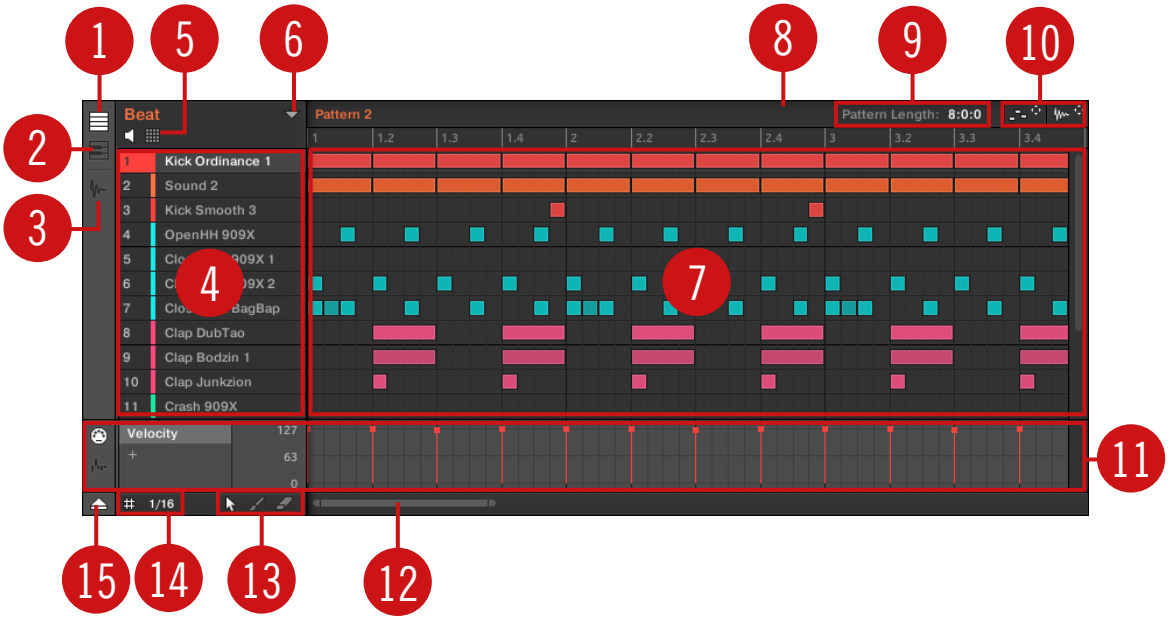
11.1 Pattern Basics

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.

11.1.1 Pattern Editor Overview

The Pattern Editor is the all-in-one Pattern editing tool of the MASCHINE software.

This overview of the Pattern Editor introduces you its main parts and control elements.



The Pattern Editor (Group view depicted).

(**1**) **Group View button**: Click this button to switch to Group view. See section ↑11.1.5, Group View and Keyboard View.

(**2**) **Keyboard View button**: Click this button to switch to Keyboard view. See section ↑11.1.5, 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 ↑17, 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. See section ↑6.1.1, The Pad View in the Software.

(**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 in the current Scene of the Arranger. It also provides various Pattern management commands (see section ↑11.7.1, The Pattern Manager and 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 (see section ↑11.1.4, 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**), see section ↑11.1.6, 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. See section ↑11.1.6, 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. See section ↑11.8.1, Exporting Audio from Patterns and ↑11.8.2, Exporting MIDI from Patterns for more information.

(**11**) **Control Lane**: The Control Lane provides a visual overview and editing tools for the modulation and the MIDI/host automation of each parameter. See section ↑11.5, Recording and Editing Modulation and ↑12.2, Using MIDI Control and Host Automation for more information.

(**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 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 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. See section ↑11.1.2, Navigating the Event Area for more information.

(**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. See ↑11.4.1, Editing Events with the Mouse: an Overview for more information.

(**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. See section ↑11.1.7, Adjusting the Step Grid and the Nudge Grid for more information.

(**15**) **Control Lane button**: Click the Control Lane button to show/hide the Control Lane (**11**).

11.1.1.1 Patterns on the Controller

Your controller provides various modes to work on your Patterns:

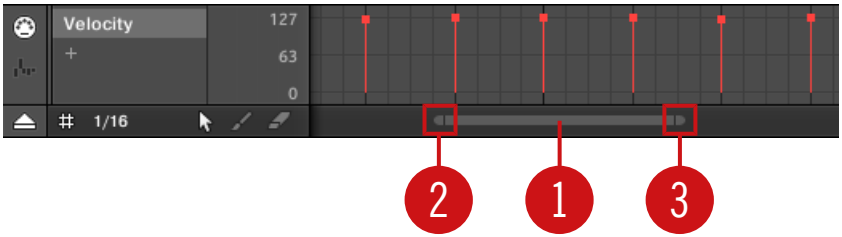
- The Pattern mode allows you to select and manage your Patterns: ↑11.7, Managing Patterns.
- The Control mode (default mode of your controller) allows you to record Patterns in real time using various recording modes: ↑11.2, Recording Patterns in Real Time.
- The Step mode allows you to record Patterns in the step sequencer: ↑11.3, Recording Patterns with the Step Sequencer.
- The Select mode allows you to select and edit the desired events: ↑11.4.3, Selecting Events/Notes and ↑11.4.4, Editing Selected Events/Notes.
- The Grid mode lets you adjust the Step Grid: ↑11.1.7, Adjusting the Step Grid and the Nudge Grid.

11.1.2 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 fix positioned 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. See section ↑11.5.3, Creating and Editing Modulation in the Control Lane for more information on the Control Lane.

Navigating the Pattern Editor Vertically (Sounds or Pitches)

When the Pattern Editor is in Group view, a classic scroll bar is available 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, see section ↑11.1.5, Group View and Keyboard View.

You can also adjust the height of the Pattern Editor in order to display more/less Sound slots at once by resizing the Arranger above — see section ↑16.1.1, Navigating Song View.

Navigating the Event Area from the Controller

Use the View mode of your controller to navigate the Pattern Editor in the software:

1. From Control mode, press and hold VIEW to enter Navigate mode. You can also press VIEW + CONTROL to pin the View mode so that you can release the VIEW button and stay in View mode (see ↑3.3.1, Pinning a Mode on the Controller).
2. Press F2 to select PAT (for "Pattern") and use the pads in the table below to navigate the Pattern Editor view.

Action	Shortcut
Scroll Pattern left	Press pad 1
Scroll Pattern right	Press pad 3
Zoom in (Pattern Editor)	Press pad 6
Zoom out (Pattern Editor)	Press pad 2

Action	Shortcut
Keyboard mode only:	
Scroll Pattern up	Press pad 8
Scroll Pattern down	Press pad 4



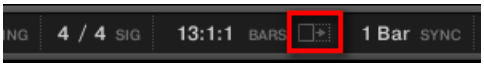
You can also use the Left/Right Arrow buttons and the Control encoder to adjust the zoom factor and scroll position on the display.



In View mode, pads 13–15 additionally allow you to show/hide (or maximize/minimize) the Browser, the Control Lane, and the Mixer (in Mix view) in the software, respectively. See section ↑3.2, Adjusting the MASCHINE User Interface for more information.

11.1.3 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 disabled 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 (see section ↑16.1.2, Following the Playback Position in Your Project for more information on the Follow function in Song view).

Following the Playback Position on the Controller

To follow the playhead position in the Event area during playback:

1. Press NAVIGATE to enter Navigate mode.
2. Press Button 8 (FOLLOW).

→ Both Button 8 and the FOLLOW label light up. The software follows the playback position of the song.



The Follow function is disabled as soon as you manually scroll to another position in the song.

The Follow function simultaneously affects various displays in the software and on your controller:

- In the software the Follow function affects both the Pattern Editor and the Arranger.
- On your controller the Follow function affects the displays in Scene mode when Arrange submode is enabled. Additionally, in Step mode the Follow function affects the pads: With Follow enabled, when the playhead has gone across all 16 steps shown by the pads on your controller, the pads switch to the next 16 steps of the Pattern, if any. See section ↑11.3, Recording Patterns with the Step Sequencer for more information on Step mode.

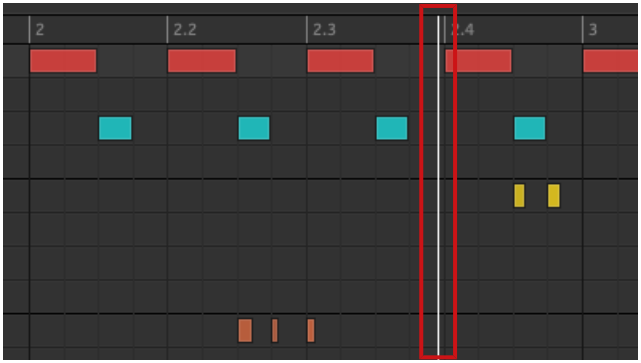


The follow function does not work if the playback position is outside the selected Pattern.

11.1.4 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 without waiting for the whole Loop Range to be looped.

In the timeline above the Event area, a playhead (the little white vertical line) indicates the current play position in the Pattern.



The playhead in the timeline shows you the current play 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 (see ↑16.4.1, 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 disabled, the playhead jumps to the exact position you have clicked.

For more information on the Step Grid, see section ↑11.1.7, 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 (i.e. disabled) or Quick, the playhead position is retained relative to the current bar.

For more information on the Pattern Grid, see section ↑11.1.6, Adjusting the Arrange Grid and the Pattern Length.

Example with playback on: 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.

Controlling the Playback Position in the Pattern on Your Controller

You can also control the playback position from your controller via the Locate buttons as described in section ↑16.4.1, Jumping to another Playback Position in Your Project. As a reminder:

- Press the Locate buttons (showing left/right arrows) in the TRANSPORT section to jump to the previous/next Pattern Grid division. Hold SHIFT while pressing the Locate buttons to jump to the previous/next step instead.

If playback is on, the jumps retain the playhead position relative to the grid resolution (Pattern Grid without SHIFT, Step Grid with SHIFT).

Using your controller, you can jump outside the current Pattern. For more details, please see section ↑16.4.1, Jumping to another Playback Position in Your Project.

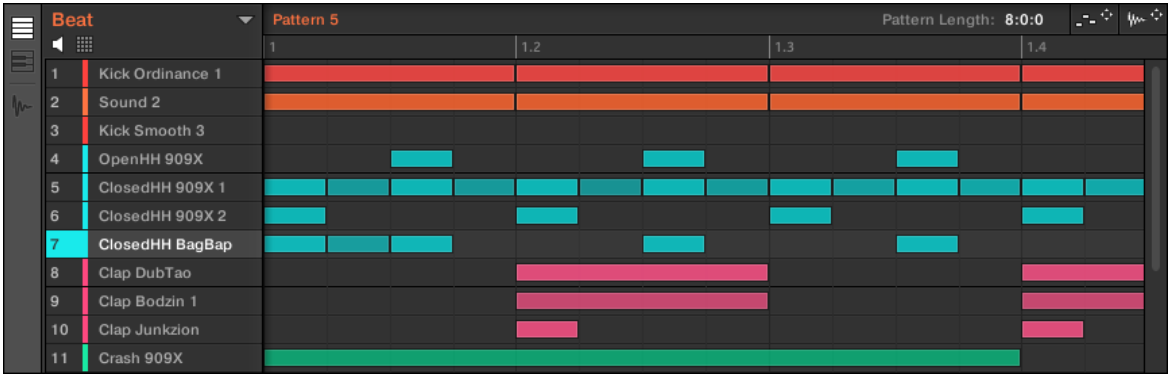
11.1.5 Group View and Keyboard View

The Pattern Editor allows you to edit the events for all 16 Sound slots of the selected Group: this is called the **Group view**.

- Click the Group View button (showing little rows) on the left of the Pattern Editor to switch it to Group view:



In Group view each row of the Event area represents a different Sound slot.



In Group view, the Pattern Editor shows the events for all Sounds in the Group.

This view is well suited for rhythmic instruments (e.g., 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.

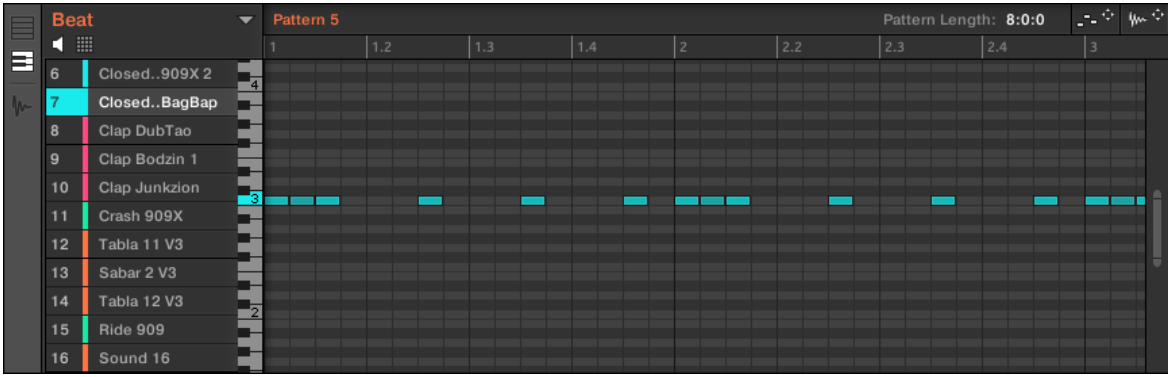
The Keyboard View

Alternatively, you can switch the Pattern Editor to **Keyboard view**:

► Click the Keyboard View button (showing a little keyboard) on the left of the Pattern Editor to switch it to Keyboard view:



→ The Event area now only shows notes 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 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 whole Event area will switch to the notes for that Sound.

On the left of the Event area, a vertical piano roll indicates the note corresponding to each row in the Event area. Octaves are indicated by a number on each C key: e.g., the middle C, which is noted C3 in the MASCHINE convention, will read "3." Click any note on the piano roll to trigger the selected Sound at that particular pitch.

This view is well suited for melodic instruments (e.g., a piano), since you can focus on a particular Sound, and edit notes at every pitch.

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 between Pad Mode and Keyboard mode on your controller (and inversely).

As a consequence, to switch the Pattern Editor between Group and Keyboard view, you simply need to switch your pads between Group and Keyboard mode:

- Press SHIFT + PAD MODE on your controller to switch the Pattern Editor between Group and Keyboard view.

See ↑6.1.1, The Pad View in the Software for more details on the various pad modes available on your controller.

11.1.6 Adjusting the Arrange Grid and the Pattern Length

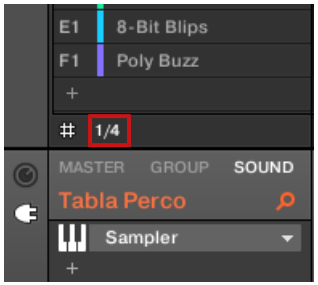
The **Arrange Grid** defines regularly spaced-out timings notably used in following situations:

- Adjusting the Pattern length (see below).
- Adjusting the Section lengths.

Adjusting the Arrange Grid

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 disabled. 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

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 (see ↑11.7.3, Creating Patterns), the Pattern has the default length as defined in the Default page of the Preferences panel (see ↑3.6.1, 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. See section ↑11.4, Editing Events for more information on editing events.

Adjusting the Arrange Grid and Pattern Length on the Controller

On your controller, the length of the selected Pattern, along with the Arrange Grid resolution used to modify this length, can both be adjusted using various methods: via the Pattern mode, the Grid mode, or the Record Prepare mode. Choose the method that best fits your current workflow.

Adjusting the Pattern Length on the Controller

In Pattern mode you can adjust both the Pattern Length of the current Pattern:

1. Press and hold PATTERN to enter Pattern mode. You can also pin Pattern mode in order to keep it active when you release PATTERN (see ↑3.3.1, Pinning a Mode on the Controller).
2. Press the Left Arrow button to select the LENGTH parameter (Pattern Length).
3. Turn the Control encoder to adjust the Pattern Length according to the current resolution of the Pattern Grid.

Adjusting the Grid on the Controller

In Grid mode you can adjust the various grids used in MASCHINE, including the Pattern Grid resolution:

1. Press and hold GRID to enter Grid mode. You can also pin Grid mode in order to keep it active when you release GRID (see ↑3.3.1, Pinning a Mode on the Controller).
2. Press F2 (ARNG) to access the Arrange Grid settings.
3. Turn the Control encoder to adjust the resolution of the Arrange Grid.

To disable the Pattern Grid:

1. Press the Right Arrow button to select the ENABLE parameter.
2. Turn the Control encoder to select the OFF value.



You don't need to explicitly enable the Pattern Grid on your controller: It is enabled as soon as you select a resolution other than OFF.

Adjusting the Grid Using Record Prepare Mode

This extra method is very useful if you are about to start a new recording. Indeed, the Record Prepare mode (accessed by pressing the unlit REC button and holding it) is tightly integrated into the recording workflow of Control mode. For all details please refer to section ↑11.2.2, The Record Prepare Mode.

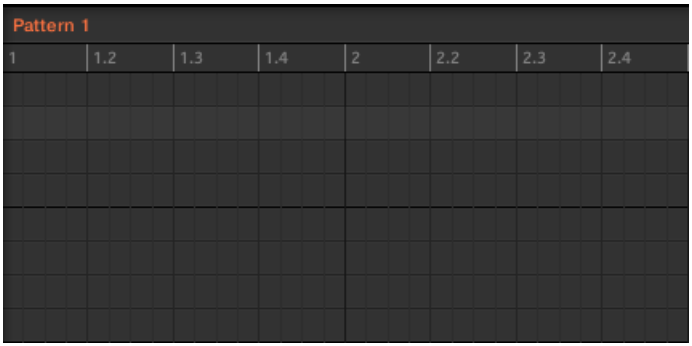
11.1.7 Adjusting the Step Grid and the Nudge Grid

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 (see ↑11.4.7, Quantizing Events/Notes section for more on quantization).



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. See ↑11.4.2, Creating Events/Notes for more information on 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

► 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 enabled.

Adjusting the Step Grid

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.

The Nudge Grid

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. See ↑11.4.4, Editing Selected Events/Notes for more information.

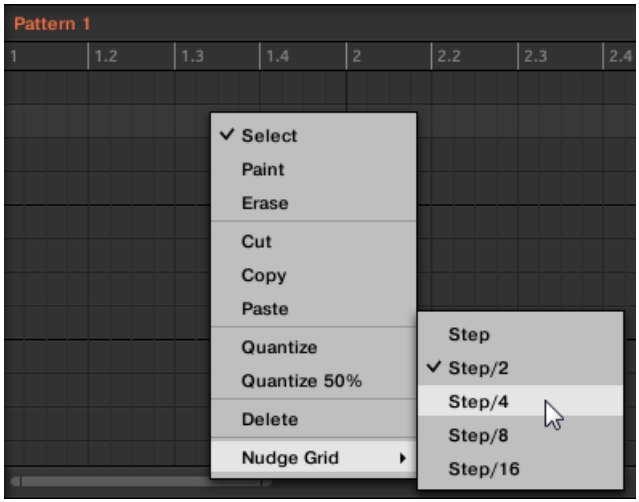
The Nudge Grid is based on the Step Grid:

- The Nudge Grid is active when the Step Grid is active. If the Step Grid is disabled, 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 Your Controller

You can enable/disable the Step Grid and adjust the Step Grid and Nudge Grid resolution from your controller.

Enabling or Disabling the Step Grid

To enable or disable the Step Grid:

1. Hold GRID to enter Grid mode. You can also pin Grid mode in order to keep it active when you release GRID (see ↑3.3.1, Pinning a Mode on the Controller).
2. Press F3 (STEP) to access the Step and Nudge Grid settings.
3. Use the Left/Right Arrow button under the display to select the ENABLE parameter at the bottom of the display:



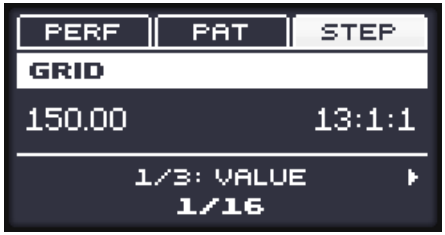
4. Turn the Control encoder to set the parameter value to ON (Step Grid enabled) or OFF (Step Grid disabled).
5. If you have pinned Grid mode at the first step, press the lit GRID button to leave Grid mode.

Adjusting the Step Grid

To change the Step Grid resolution:

1. Hold GRID to enter Grid mode.
2. Press F3 (STEP) to access the Step and Nudge Grid settings.

3. Use the Left Arrow button under the display to select the VALUE parameter at the bottom of the display:



4. Select a step size by turning the Control encoder.

Adjusting the Nudge Grid

To change the Nudge Grid resolution:

1. Hold GRID to enter Grid mode.
2. Press F3 (STEP) to access the Step and Nudge Grid settings.
3. Use the Right Arrow button under the display to select the NUDGE parameter at the bottom of the display:



4. Turn the Control encoder to select the desired Nudge Grid resolution.

→ The new Nudge Grid resolution is directly in use — provided that the Step Grid is enabled (see above).

11.2 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 ↑11.2.1, Recording Your Patterns Live.
- Right before you record a new Pattern, you can quickly enter Record Prepare mode to adjust a few important settings for your Pattern: ↑11.2.2, The Record Prepare Mode.
- At any time you can enable and customize the metronome: ↑11.2.3, Using the Metronome.
- You can also start the recording with a count-in: ↑11.2.4, Recording with Count-in.
- While recording you can let MASCHINE automatically quantize what you play on the pads: ↑11.2.5, Quantizing while Recording.

11.2.1 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 personal taste — you will have even more fun playing and recording with your controller! These settings can be found in *Preferences > Hardware > Pads*. See ↑3.6.6, Preferences – Plug-ins Page for more information.

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: In Pad Mode you can select multiple Sounds (see section ↑5.1.3, Selecting Multiple Sounds or Groups); 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 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 (see section ↑11.1.4, 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 (see section ↑11.4.5, 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 empty Pattern with the default Pattern Length. The new Pattern is used at the beginning of the current Scene and repeated all along the Scene.



You can adjust the default Pattern Length in the Defaults page of the Preferences panel. See section ↑3.6.1, Preferences – General Page for more information.

When you get ready to record, you can also use the Record Prepare mode on your controller to quickly create a new Pattern with the desired length and directly start the recording! See section ↑11.2.2, The Record Prepare Mode for more on this.

11.2.2 The Record Prepare Mode

The Record Prepare mode is very useful when you are about to start a new recording. Indeed, it allows you to adjust the Pattern Length and the resolution of the Pattern Grid right before starting a recording. This way you can quickly create a new Pattern with the desired pattern length and directly start recording events in it!



You can also use the Record Prepare mode to adjust the length of an existing Pattern.

The Record Prepare Mode on the Controller

1. With REC disabled, press and hold REC to enter Record Prepare mode.
   After a second, the following display appears:



2. While holding REC, press the Right Arrow button to select PATGRID and turn the Control encoder to adjust the Pattern Grid resolution.
3. While holding REC, press the Left Arrow button to select LENGTH and turn the Control encoder to adjust the Pattern Length for the Pattern in which you are about to record. You can also press F1–F3 to directly select from the three length presets available: 2, 4, or 8 bars.

4. Release REC.

→ The Record mode is engaged (REC is lit) and the Pattern in which you are recording has the length you have just defined. Press PLAY to start the sequencer (if you haven't already) and play the pads to start recording! See section ↑11.2, Recording Patterns in Real Time for more information on recording Patterns.

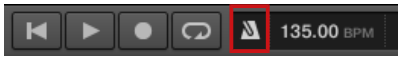


You can also enter Record Prepare mode while starting a recording in Replace mode (see ↑11.2.1, Recording Your Patterns Live): Simply press ERASE + REC and hold REC until your controller switches to Record Prepare mode. This is also true when using the Count-in (see ↑11.2.4, Recording with Count-in).

11.2.3 Using the Metronome

The metronome will help you to keep time when recording in real time.

► 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, see section ↑13.2.6, 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 (see section ↑3.6.1, Preferences – General Page for more details).
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences' Default page (see section ↑3.6.4, Preferences – Default Page for more details).



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).

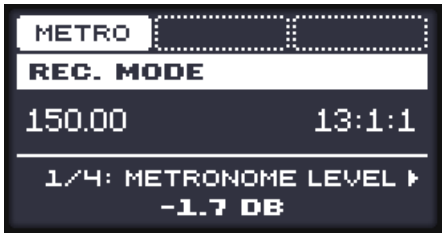
On the controller:

► Press SHIFT + PLAY to activate or deactivate the metronome.

Adjusting the Metronome's Volume and Time Signature

On your controller you can adjust the volume and time signature of the metronome in the recording settings:

1. Press SHIFT + GRID to show the recording settings.
2. Press the Left Arrow button repeatedly until METRONOME LEVEL appears on the display and turn the Control encoder to adjust the metronome volume.



3. Press the Left/Right Arrow button to select TIME on the display and turn the Control encoder to select a time signature.

While adjusting the metronome settings you can enable/disable the metronome via F1 (METRO). This is strictly equivalent to pressing SHIFT + PLAY as mentioned above.

11.2.4 Recording with Count-in

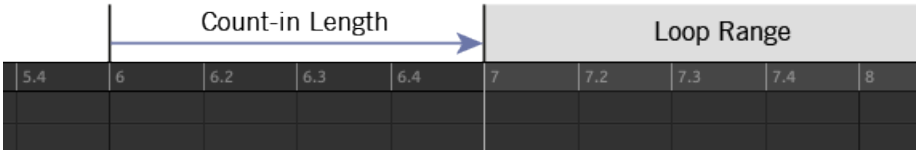
Count-in allows you to start the metronome before the sequencer and recording begins. This is very handy if you want to start recording a Pattern exactly on the downbeat.

When recording starts with a Count-in, the following happens:

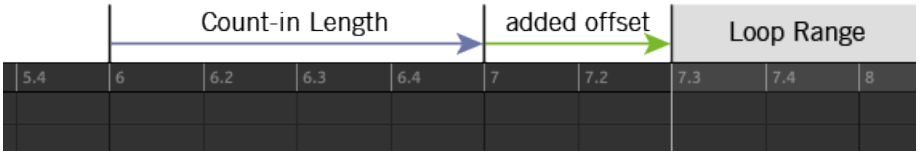
- The playhead jumps to the beginning of the Loop Range.
- You hear the metronome alone during the count-in phase (1, 2 or 4 bars).
- After the count-in phase, the recording starts in Overdub mode (see ↑11.2.1, Recording Your Patterns Live). The metronome turns off if it was off before the Count-in, otherwise it stays on.

You can adjust the metronome's volume, time signature, and downbeat/upbeat sounds. See section ↑11.2.3, Using the Metronome for more information.

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 in which the beginning of the Loop Range is placed 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 doesn't 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

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. See section ↑3.6.1, Preferences – General Page for more details on the Count-in and metronome settings available in the Preferences panel.

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 (see section ↑11.2.1, Recording Your Patterns Live for more information on the Replace mode).

Adjusting the Count-in Duration

You can adjust the duration of the Count-in in the recording settings:

1. Press SHIFT + GRID to show the recording settings.
2. Press the Left/Right Arrow button to select COUNT-IN LENGTH on the display and turn the Control encoder to select a duration for the Count-in.



11.2.5 Quantizing while Recording

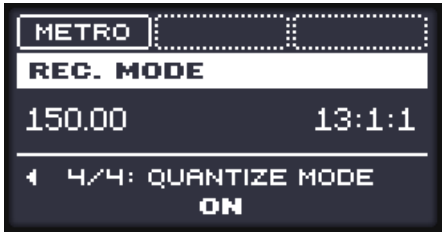
You can choose to have notes automatically quantized as you record. This is called **Input Quantization**.

You can also quantize recorded notes at any time. See section ↑11.4.7, Quantizing Events/Notes for more information.

Using Input Quantize on Your Controller

1. Press SHIFT + GRID to show the record settings.

2. Press the Right Arrow button repeatedly to select the QUANTIZE MODE parameter at the bottom of the display.



3. Turn the Control encoder to enable (ON) or disable (OFF) Input Quantization.

→ With Input Quantization enabled, as you are recording the pads your notes 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 ↑11.1.7, Adjusting the Step Grid and the Nudge Grid for more information on the Step Grid and the step size.

11.3 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.

11.3.1 Step Mode Basics

On your controller the step sequencer is available via the **Step mode**. The Step mode allows you to program the steps to be played by the focused Sound in the current Group.

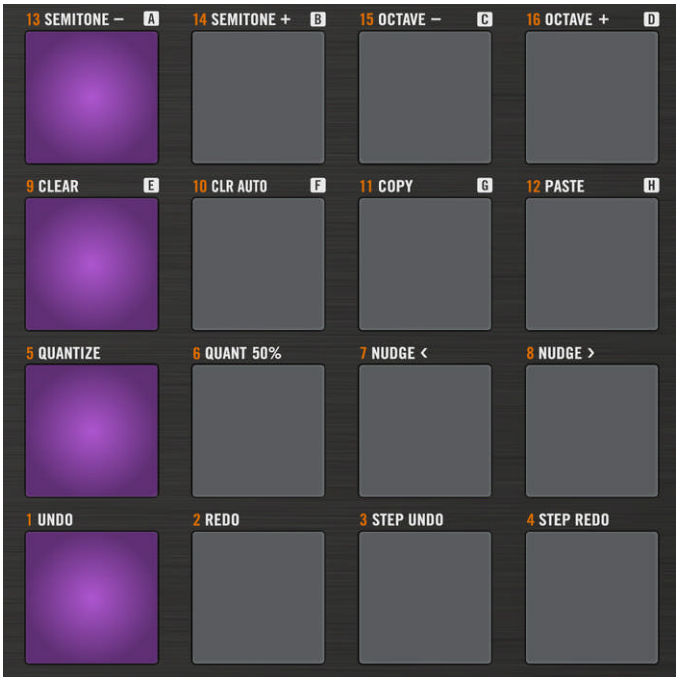
Entering Step Mode on Your Controller

► Press SHIFT + GROUP 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 events on the corresponding steps.

For more information on the Step Grid, see section ↑11.1.7, Adjusting the Step Grid and the Nudge Grid.

This way it's easy to quickly put some drums together.

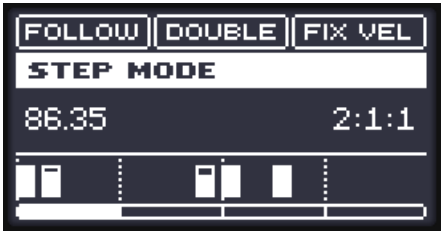


A typical 4/4 line in Step mode.

In Step mode events are created with following settings:

- The event **pitch** is set to the Sound's base key. To know how to change the base key of your Sounds, see section Adjusting the Base Key.
- The event **velocity** is defined by how hard you hit the pads, unless you have enabled 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



The Step mode on the controller displays: the first bar of a four-bar Pattern.

The display of your controller provides more information on the sequence:

- Individual events are represented by rectangular blocks. These always mirror the steps currently represented by your pads. The event velocities are indicated by vertical bars within blocks (the higher the bar, the higher the velocity).
- The playback position in the Pattern is indicated by a playhead travelling from left to right.
- A grid is displayed in the background with a marker after every fourth step (after every third step if the Step Grid resolution is set to a triplet value).
- A scroll bar under the steps indicates which part of the Pattern is currently represented in the display and on your pads. By default this corresponds to the first 16 steps.

To switch the display and your pads to another part of the sequence, you have two possibilities:

► Press F1 (FOLLOW) to enable/disable the Follow function.

→ When Follow is enabled, the display and 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. See ↑11.1.3, Following the Playback Position in the Pattern for more information.

Otherwise you can manually switch to the previous/next steps:

► Press the Left/Right Arrow buttons to manually switch to the previous/next 16 steps both on your pads and on the right display.

Doubling Your Pattern

You can quickly double the content of the Pattern:

► Press F2 (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 via Pattern mode — see section ↑11.4.9, Doubling a Pattern for more information.

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 F3 (FIX VEL) to enable/disable the Fixed Velocity option.

- If Fixed Velocity is enabled, 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 disabled, 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 don't modify the velocity of existing events.

11.3.2 Editing Events in Step Mode

In Step mode you can quickly adjust the parameters of events on particular steps.

Editing Events in Step Mode on the Controller

In Step mode on your controller, each event you create is automatically selected (and the previous selection is dropped). You can then adjust the pitch and position of this last created event via the various commands available on your pads while holding SHIFT — see section

↑11.4.4, Editing Selected Events/Notes, ↑11.4.5, Deleting Events/Notes, ↑11.4.6, Cut, Copy, and Paste Events/Notes, and ↑11.4.7, Quantizing Events/Notes for more information on the available commands.

11.4 Editing Events

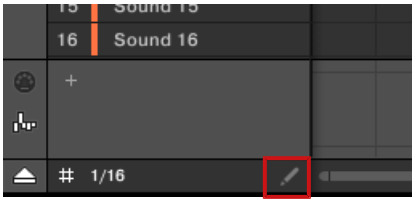
Many creation and editing commands on events/notes are available directly via mouse actions in the Event area of the Pattern Editor. They will be applied according to the selected Step Grid resolution (see ↑11.1.7, Adjusting the Step Grid and the Nudge Grid). In Group view, the Sound in focus will change according to the row you click in. Selected notes are highlighted.

Events vs. Notes

Basically events and notes are the same thing: a trigger for a Sound with a particular velocity, pitch, length, etc. If the word "note" is used 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.

11.4.1 Editing Events with the Mouse: an Overview

In the software you can choose between Select mode and Pencil mode. Each of them provide different mouse actions in the Event area.



The Edit Mode selector.

- To toggle between Select mode and Pencil mode, click the Pencil icon at the bottom left of the Pattern Editor. You can also select these modes from the *Edit* menu, or by pressing the letter E on your computer keyboard.

- **Select mode**: Provides an exhaustive set of actions for creating, selecting, editing, and deleting events/notes.
- **Pencil mode**: Provides quick actions for creating, resizing and deleting events/notes.

Listed here are all available mouse actions from the Mouse Edit modes. For more details on specific actions, please refer to the other sections in ↑11.4, Editing Events.

Mouse in Select Mode

The following table is an overview of available mouse actions in Select mode (works in both Group view and Keyboard view, see ↑11.1.5, Group View and Keyboard View).

Action	Function
Creating Notes (see ↑11.4.2, Creating Events/Notes for details)	
Double-click in Event area's background	Creates a note.
Deleting Notes (see ↑11.4.5, Deleting Events/Notes for details)	
Double-click note	Delete selected notes.
Right-click (macOS: [Ctrl]-click) and select *Delete* from the menu.	Delete selected notes.
Selecting Notes (see ↑11.4.3, Selecting Events/Notes for details)	
Click unselected note	Select a note.
[Shift] + click unselected note	Add note to current selection.
[Shift] + click selected note	Remove note from selection.
Drag in Event area's background	Multiple selection (selection frame).

Action	Function
Click in Event area's background	Deselect all notes.
Editing Selected Notes* (see ↑11.4.4, Editing Selected Events/Notes for details)	
Drag note horizontally	Moves selected notes in time according to the Step Grid.
[Ctrl] + drag note horizontally (macOS: [Cmd] + drag note)	Freely moves selected notes in time (overrides the Step Grid quantization).
[Alt] + drag note	Duplicates selected notes. When you drag horizontally, the copies are moved in time according to the Step Grid.
Drag left/right note border	Moves the start/end of selected notes according to the Step Grid, thereby resizing the notes.
[Ctrl] + drag left/right note border (macOS: [Cmd] + drag left/right border)	Freely moves the start/end of selected notes (overrides the Step Grid quantization), thereby resizing the notes.
Drag note vertically	Group view: Moves selected notes to another Sound of the Group. Keyboard view: Transposes selected notes.

* When editing, mouse actions can be performed on any of the selected notes — they will apply to all selected notes.

Mouse in Pencil Mode

When Pencil mode is enabled, you can use the mouse draw events or notes:

- ► Click in the background of the Event area and drag the mouse with the button pressed to set notes wherever you move the cursor. Notes are created for the selected Sound.

The other way round:

► Click a note and move the mouse cursor with the button pressed to erase all notes under the mouse cursor. Only Notes for the selected Sound are erased.

11.4.2 Creating Events/Notes

In the software you can create new events anywhere in the Event area using your mouse. The procedure depends on the active Mouse Edit mode (Select or Pencil).

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 disabled, 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 Pencil Mode

► To create a new event in Pencil mode, simply click at the desired location. Click and hold your mouse and move the cursor 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 Pattern Grid division after the new event so that the Pattern includes this new event.

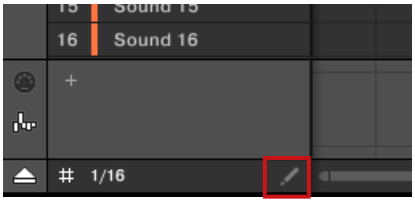


For more information on the Pattern Length and the Pattern Grid, see section ↑11.1.6, Adjusting the Arrange Grid and the Pattern Length.

Your controller offers numerous ways to create events — on your controller this is referred to as "recording Patterns." For details on this please refer to section ↑11.2, Recording Patterns in Real Time and ↑11.3, Recording Patterns with the Step Sequencer.

11.4.3 Selecting Events/Notes

Use Select mode to select events/notes in your Pattern. Select mode is the default mode indicated by the unhighlighted Pencil icon. Notably, the Select mode allows you to define which events you apply your edits.



Select mode indicated by the unhighlighted Pencil icon.

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
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 Pad 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 pad mode (Pad Mode or Keyboard mode, see ↑6.1.1, The Pad View in the Software), events will be selected differently:

- In **Pad 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).

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.

Quick Selecting Events and Notes

The quickest and easiest way to select events is the following:

- ► Press SHIFT + SELECT + any dimmed pad to select all events for that Sound (if pads are in Pad Mode) or to select all notes at that pitch for the focused Sound (if pads are in Keyboard mode).

→ The selected pad lights up and all its events are selected. While holding SHIFT + SELECT you can press other dimmed pads to add their events to your selection, or press any fully lit pad to remove its events from the selection (the pad turns dimmed).

Unlit pad indicate Sounds (in Pad Mode) or pitches (in Keyboard mode) for which the Pattern has no events. Hence, if you press them nothing happens.



For example in Pad 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!

Selecting Events and Notes via the Select Mode

In order to make more complex selections, your controller provides you with a useful tool: the Select mode.

To select events in your Pattern:

1. Hold SELECT to enter Select mode — or pin the Select mode via the usual shortcut (see section ↑3.3.1, Pinning a Mode on the Controller).
2. Press F2 (EVENTS).
   F2 lights up and EVENTS is highlighted in the display.



The Select mode on your controller: selecting events and notes.

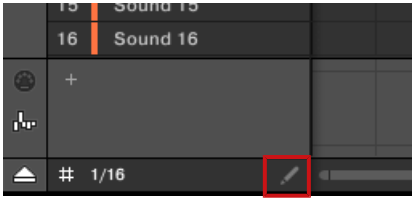
You can now select notes and events using the pads. Depending on the current pad mode (Pad Mode or Keyboard mode, see ↑6.1.1, The Pad View in the Software), events will be selected differently:

- In **Pad 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).

11.4.4 Editing Selected Events/Notes

Once you have selected particular events, you can edit them in various ways.

In the software you can edit events with your mouse only if **Select mode** is selected in the Edit Mode selector. Select mode is the default mode indicated by the unhighlighted Pencil icon:



Select mode indicated by the unhighlighted Pencil icon.

Action	Function
Editing Selected Notes	
Drag note horizontally	Moves selected notes in time according to the Step Grid (see quantizing rules below).
[Ctrl] + drag note horizontally (macOS: [Cmd] + drag note)	Freely moves selected notes in time (overrides the Step Grid quantization).
[Alt] + drag note	Duplicates selected notes. When you drag horizontally, the copies are moved in time according to the Step Grid (see quantizing rules below).
Drag left/right note border	Moves the start/end of selected notes according to the Step Grid, thereby resizing the notes (see quantizing rules below).
[Ctrl] + drag left/right note border (macOS: [Cmd] + drag left/right border)	Freely moves the start/end of selected notes (overrides the Step Grid quantization), thereby resizing the notes.

Action	Function
Drag note vertically	Group view: Moves selected notes to another Sound of the Group. Keyboard view: Transposes selected notes.
Double-click note	Deletes selected notes.
Right-click (macOS: [Ctrl]-click)	Deletes 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.

If you perform any of the actions listed above on 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.

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 a perfect timing while keeping its feel untouched.

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 (see section ↑11.1.7, 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 enabled will alternate between snapping to Step Grid divisions and snapping to positions that preserve its original offset with the Step Grid (see quantization rule above).

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.

See the hardware section below for more information on the Nudge command.

Nudge Events and Notes

Nudging allows you to shift selected events by the Nudge Grid resolution (the events' offsets 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. See section ↑11.1.7, Adjusting the Step Grid and the Nudge Grid for more details.

► 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 event/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!).

Transpose Events and Notes

You can transpose selected events by semitones or octaves to match their pitch to your requirements.

1. To transpose the selected events down in semitones press SHIFT + pad 13 (SEMITONE -); to transpose the selected events up press SHIFT + pad 14 (SEMITONE +). If nothing is selected, all event/notes in the Pattern will be affected.
2. To transpose the selected events down in octaves press SHIFT + pad 15 (OCTAVE -); to transpose the selected events up press SHIFT + pad 16 (OCTAVE +). If nothing is selected, all events in the Pattern will be affected.

11.4.5 Deleting Events/Notes

In the software you can delete events in the Event area using your mouse. The procedure depends on the active Mouse Edit mode (Select or Pencil).

Mouse in Select Mode

- To delete events in a Pattern, double-click them, alternatively, right-click (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. See section ↑11.4.3, Selecting Events/Notes to know how to select events.

Mouse in Pencil Mode

- To delete an event, simply click it. Click and hold an event and move the cursor to quickly delete series of events.

Deleting Events/Notes on the Controller

Your controller provides you with several tools to delete notes/events from the current Pattern.

Quick Erasing Events or Notes

The quickest and easiest way to delete events is the following:

► Press SELECT + ERASE + the desired pads to delete from the Pattern all of their events.

As soon as you hold ERASE + SELECT, some pads light up to indicate where there is something to delete:

- If your pads are in Pad Mode, the lit pads show you the Sounds for which the Pattern contains events.
- If your pads are in Keyboard mode and EVENTS (F2) is **enabled** in the left display, the lit pads show you the pitches (of the focused Sound) for which the Pattern contains events.
- If your pads are in Keyboard mode and EVENTS (F2) is **disabled** in the left display, the lit pads show you the Sounds for which the Pattern contains events (as in Pad Mode).



For more information on pad modes, please refer to section ↑6.1.1, The Pad View in the Software.

In other terms when holding SELECT + ERASE you don't need to press any unlit pad, since there are no events to delete there.



If Select mode is pinned, you can release SELECT and only hold ERASE when pressing the pads to erase the desired events. See section ↑3.3.1, Pinning a Mode on the Controller for more information on pinning modes.



If you accidentally deleted events, press SHIFT + pad 1 to undo it!

Deleting the Selected Events or Notes

Once you have selected particular events (see ↑11.4.3, 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 event/notes in the Pattern will be affected.

Deleting Events or 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 Pad 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, SHIFT + pad 2) to get back to where you were before.

Deleting Events for the Entire Group at Playback Position

▶ While the Pattern is playing, hold ERASE + GROUP + the desired pad 9–16 to progressively delete events for all Sounds in that Group as they are reached by the playhead.

Deleting Events or Notes via the Transport Functions

If the sequencer is not playing, you can erase events on either side of the playhead by manually moving the playhead:

▶ While playback is off, hold ERASE and press the Locate buttons (in the TRANSPORT section) to jump to the previous/next step and delete all events found on the way for the selected Sound(s).

Please note the following:

- If multiple Sounds are selected, all of them will be affected. See section ↑5.1.3, Selecting Multiple Sounds or Groups for more information.
- The jumps are based on the step size that is on the Step Grid setting. See section ↑11.1.7, Adjusting the Step Grid and the Nudge Grid for more information.

- The command has the same effect whether your pads are in Pad Mode or in Keyboard mode.

11.4.6 Cut, Copy, and Paste Events/Notes

You can also cut, copy and paste selected events to another location in the same Pattern or to a different Pattern and for the same Sound or another one (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 (see section ↑11.7.1, The Pattern Manager and 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 (see section ↑11.1.5, 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, see section ↑11.1.4, 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 Your 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 (see section ↑11.1.5, Group View and Keyboard View for more information on Group view and Keyboard view).



You can also copy events from one Pattern to another: to do this, copy the selected events, select the Pattern you want to copy them to and then paste them.

11.4.7 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 ↑11.1.7, Adjusting the Step Grid and the Nudge Grid above for more information on the Step Grid and the step size.

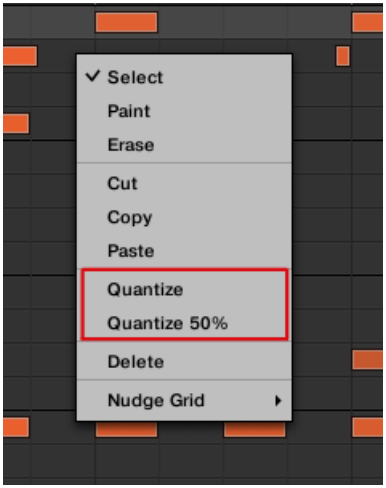
There are two strengths of quantization:

- **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 half way 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 using 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 via the Pattern Editor Context Menu

Quantize and *Quantize 50%* are available from the Pattern Editor context menu. This menu provides the same functionality as pressing QUANTIZE and QUANTIZE 50% on the MASCHINE hardware.



Quantize and *Quantize 50%* in the Pattern Editor context menu.

To apply full or half quantization using the MASCHINE software:

1. Select the events in the Pattern Editor 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 the mouse 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 the mouse and select *Quantize 50%* from the context menu.
4. To undo/redo Quantize use hotkeys: Ctrl+Z/Ctrl+Y (Cmd+Z/Cmd+Y on 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. See section ↑11.1.7, Adjusting the Step Grid and the Nudge Grid for more information on the Step Grid and the step size.



You can also choose to have notes automatically quantized as you record them on the pads! See section ↑11.2.5, Quantizing while Recording for more information.

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. See ↑11.4.3, 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.

11.4.8 Quantization While Playing

Input Quantization mode allows you to quantize events also *as you play them* on the pads.

The Input Quantization settings previously available have been renamed to include the new Input Quantization mode — now Input Quantization can be set to following modes in the Preferences:

- **None**: Input Quantization is disabled. 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 the Input Quantization can be configured via the Quantize setting available in the Input section at the bottom 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).

Choosing an Input Quantization on Your Controller

On your controller the Input Quantization can be configured via the recording settings:

1. Press SHIFT + GRID to show the recording settings.
2. Press the Right Arrow button repeatedly to display the QUANTIZE MODE parameter (the last parameter).
3. Turn the Control encoder to select the desired Input Quantization mode from the three modes available (see their description above).

11.4.9 Doubling a Pattern

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 F1 (DBL).

→ The Pattern is doubled.



Keep in mind that doubling a Pattern twice results in a Pattern that is four times as long.

11.4.10 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 Pad mode and Keyboard mode and can be applied to a Sound. In Keyboard mode the Variation Random mode contains extra parameters that allow you to add variety to melodic content.



When adding Variation to your Patterns, please be aware Random mode conforms to the selected Scale.

To access Variation mode:

1. Select the Group (A–H) containing the Sound to which you want to apply the variation.
2. Press SELECT + Sound (1–16).
3. Press SHIFT + PATTERN to access the Variation controls.
4. Press CONTROL to pin the Variation page.
5. Press F1 (HUMAN) to select Humanize mode or F2 (RANDOM) to select Randomize mode.
6. Press the left and right page buttons to access the parameters.

7. After adjusting the parameters press F3 (APPLY) to apply your settings.

The displays contain the following parameters depending on whether you are Pad mode or Keyboard mode:

Element	Description
F1 HUMAN	This mode provides natural rhythmic fluctuations to your programmed sequences based on the values of the parameters of this mode.
F2 RANDOM	This mode creates randomly generated versions of your beats and melodies based on the values of the parameters of this mode.
F3 APPLY	Applies the current settings to the selected Sound.

Humanize Mode Parameters

Element	Description
Apply	Applies the current settings to the selected Sound.
VELOCITY RANGE	
Velocity Lo	Adjust notes with a velocity no lower than the set value.
Velocity Hi	Adjust notes with a velocity no higher than the set value.
TIME SHIFT	
Step	Set the amount of time shift per step. The value is applied to all notes and will move them randomly in both plus and minus values according to the overall percentage set here. Step can be changed from +/- 0-50% in 5% increments. Press SHIFT to change in finer increments of 1%.

Random Mode Parameters

Element	Description
PROBABILITY (Keyboard mode)	
PROBABILITY	Set the probability of how often a note is created. At 50% a note may or may not be created at each step. At 100% a note will be created at every step of pattern. Probability can be changed from 10-100% in 10% increments. Press SHIFT to change in finer increments of 1%.
NOTE RANGE (Keyboard mode)	
NOTE LO	Create notes no lower than the set value.
NOTE HI	Create notes no higher than the set value.
VELOCITY RANGE	
VELOCITY LO	Create notes with a velocity no lower than the set value.
VELOCITY HI	Create notes with a velocity no higher than the set value.
CHORDS (Keyboard mode)	
NOTE COUNT	Set the amount of notes that are available to make up a chord per step. This is also calculated in relation to Note Count set in the DISTRIBUTIONS section. The Note Count range is from 1 to 6.
NOTE LENGTH	
STEPS	Set the length of a note in steps. The value ranges from 1 to 6 steps per note. Press SHIFT to change in finer increments.
TIME SHIFT	

Element	Description
STEP	Set the amount of time shift per step. The value is applied to all notes and will move them randomly in both plus and minus values according to the overall percentage set here. Time shift can be changed from +/- 0-50% in 5% increments. Press SHIFT to change in finer increments of 1%.
DISTRIBUTIONS	
NOTE COUNT (Keyboard mode)	FIXED: The note count is fixed. The value set in the Note Count of the CHORDS section will take precedent here. EQUAL: The note count will be evenly distributed across the NOTE RANGE. GAUSS: The note count is likely to be distributed to the middle section of the NOTE RANGE. ½ GAUSS: The note count more is likely to be distributed to the middle and lower section of the NOTE RANGE.
NOTES (Keyboard mode)	EQUAL: Notes will be evenly distributed across the Pattern in accordance with the Step Grid. GAUSS: Notes are more is likely to be distributed to the middle part of the note range. ½ GAUSS: Notes are more likely to be distributed to the middle and lower part of the Pattern in accordance with the Step Grid.
NOTE LENGTH	FIXED: Notes will have the same length across the Pattern. EQUAL: Note lengths will be evenly distributed across the Pattern. GAUSS: Note lengths in the middle part of the pattern are more likely to be shorter. ½ GAUSS: Note lengths in the middle to lower part of the pattern are more likely to be shorter.

11.5 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** (e.g., manual changes recorded via Auto-write…). Value changes are:

- **Temporary**: The modified value is valid only until the end of the 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 both deal 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 (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 (see below)	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 using automation, please refer to section ↑12.2.3, 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 (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.



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 assigning this Cutoff parameter to a MIDI control or an automation ID (see section ↑12.2.3, Controlling Parameters via MIDI and Host Automation to know how to do this) you can create a filter sweep that automatically moves across frequencies!

11.5.1 Which Parameters Are Modulatable?

All the modulatable parameters are found in Plug-ins or Channel properties (e.g., you cannot modulate the Pattern Length or the Step Grid resolution). This means that all modulatable parameters are found in 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 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 — however 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 will not be modulatable — but the same Plug-in loaded at the Group or Sound level will have its parameters modulatable.

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 (Drumsynth): 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 are both automatable and modulatable. For more information on automation please refer to section ↑12.2.3, Controlling Parameters via MIDI and Host Automation.

Also note that your Macro Controls will be modulatable if, and only if, their target parameters are themselves modulatable. For more information on Macro Controls please refer to section ↑12.3, Creating Custom Sets of Parameters with the Macro Controls.

11.5.2 Recording Modulation

If you take a closer look at the knobs in the software Parameter pages of the Control area you will notice they have an outer ring that changes its color to light grey as soon as you hover over it with the cursor.



Drag the outer ring of the knobs to record modulation.

► To record modulation for a knob in real time, click its outer ring and then drag it up and down during playback.

→ Your movement are recorded into the Pattern and will be recalled as the playback is looped.

As soon as you create modulation for a parameter, the following happens:

- On the outer ring of the knob, the colored section (usually indicating the current parameter value) is replaced by a **little segment** indicating the modulated value. During playback this little segment follows the movement you have just 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 this non-modulated value, you can turn the knob to define the reference value from which the recorded modulation will deviate.
- A modulation track is created for this parameter in the Modulation pane of the Control area (at the bottom of the Pattern Editor) containing the modulation points you have just recorded. You can further edit the modulation track from there — see section ↑11.5.3, Creating and Editing Modulation in the Control Lane.

Removing Modulation

You can also use the outer ring to remove the entire modulation for the knob:

► To remove the entire modulation for a knob, simply right-click (on macOS: [Ctrl]+click) its outer ring.



You can also create and edit modulation tracks directly in the Control Lane. See section ↑11.2.2, The Record Prepare Mode for more information.

To modulate a parameter with the controller:

1. Press the CONTROL button to enter Control mode.
2. Make sure the song is playing (PLAY must be lit).
3. Navigate to the parameter you want to modulate. To do this, put the focus on the desired Group or Sound (see ↑3.3.4, 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 (see ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area).
4. Hold SHIFT to enter Auto-write mode.
   At the bottom of the display, if the parameter is not modulatable its value disappears. If the parameter is modulatable and continuous its value is replaced by a percentage.
5. While holding SHIFT, turn the Control encoder.

→ Your modulation gets recorded now. Each encoder movement is stored in your Pattern as an modulation event. It will be automatically played with your Pattern upon its next cycle.

From your controller you can also delete all modulation events for all parameters of the channel:

► Press SHIFT + pad 10 (CLR AUTO) to delete all modulation for all parameters of the focused Sound or Group.

11.5.3 Creating and Editing Modulation in the Control Lane

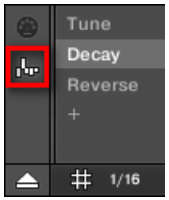
You can also create, select, and edit individual modulation points in the **Modulation pane** of the **Control Lane**.

Displaying the Modulation Pane in the Control Lane

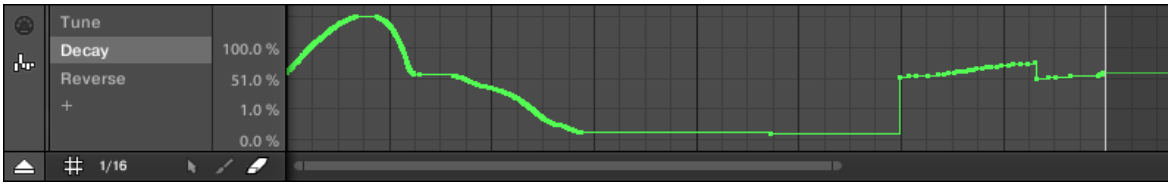
1. To see and edit modulation for parameters of a Sound, click the desired Sound in the Sound List (left of the Pattern Editor) and click the SOUND tab in the Control area.
2. To see and edit modulation for parameters of a Group, click the desired Group in the Group List (left of the Arranger) and click the GROUP tab in the Control area.
3. 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.



4. Click the little bar icon left of the Control Lane to display the Modulation pane.



→ The Modulation pane appears.



The Modulation pane showing the modulation track for the Decay parameter (see on the left).

The Modulation pane contains following elements:

- The left part shows the **Modulator List** showing all parameters currently modulated in the focused Sound or Group. Click any entry 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 particular parameter selected in the Modulator List on the left:
  - Each modulation track contains a variable number of **modulation points**, each of them defining a new value for the parameter.
  - The zoom factor and scroll position of the modulation track is always synchronized to those of the Event area above.
  - Left of the modulation track, a vertical scale indicates the value range for that parameter. In the modulation track you can create, edit, and delete modulation points (see below).



The range of the vertical value scale left of the modulation track depends on the current, non-modulated value of the selected parameter: Since modulation points set new values *relative* to the non-modulated value of the parameter, this scale allows you to see at any time the real values that will be set by the various modulation points in the track.

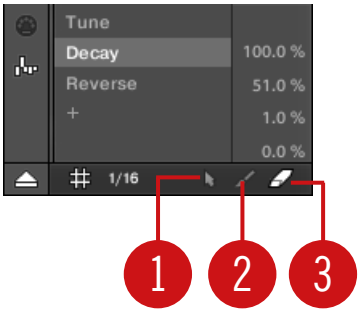


You can adjust the height of the Control Lane by dragging its upper border with the mouse.

As soon as some modulation is recorded for a parameter in a particular Pattern of the Group, the corresponding Modulator and modulation track **appear for all Patterns** of the Group. The track will be empty for Patterns in which you haven't recorded any modulation for this parameter yet. Similarly, if you delete this Modulator in the Modulator List and its modulation track (see below to know how) in a Pattern, it will be **deleted in all other Patterns** of the Group as well.

Editing Modulation Points

You can create, edit, and delete modulation points in the displayed modulation track with your mouse. As for the Event area above, the mouse behavior in the Control Lane will depend on the Mouse Edit mode selected in the Edit Mode selector, at the bottom left of the Pattern Editor:



The Edit Mode selector.

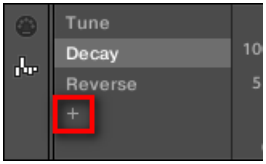
All actions in the Control Lane are quantized according to the Step Grid. For more information on the Step Grid, please refer to section ↑11.1.7, Adjusting the Step Grid and the Nudge Grid.

Mouse Edit Mode	Available Mouse Actions
(**1**) **Select mode**	To create modulation points, double-click in the Control Lane — other points on this step will be replaced. To delete a modulation point, right-click it ([Ctrl]-click it on macOS). To edit an existing modulation point, drag it vertically (you can also drag the horizontal segment following the point instead). When hovering the mouse over a modulation point or the following segment, the parameter value at this point appears. The displayed value is updated as you drag your mouse vertically. You can select several modulation points in the Control Lane together by clicking and dragging a rectangle around them; now you can edit them together by dragging them up or down — they will keep their relative offsets until any of them reaches the minimum or maximum value.
(**2**) **Paint mode**	Click and drag to set modulation points wherever you move the cursor.
(**3**) **Erase mode**	Click and drag to delete modulation points wherever you move the cursor.

Adding a Modulation Track

As soon as you record modulation for a new parameter in the software or from your controller, a new modulation track is automatically created and contains your recorded movements in form of modulation points. But you can also create a new modulation track from scratch in the Control Lane. Here is how.

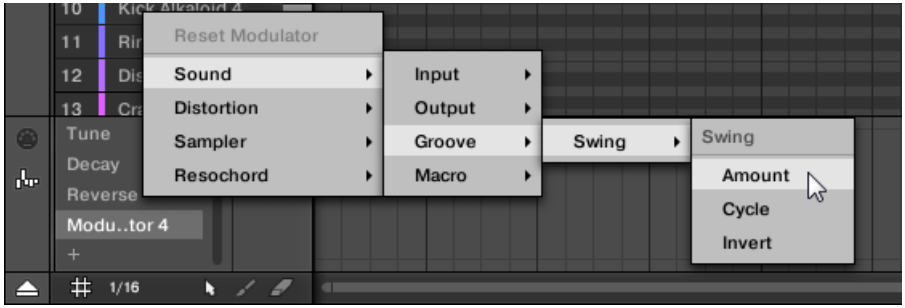
At the end of the Modulator List (in the left part of the Control Lane) you can use the "+" symbol to create a new modulation track.



Click the "+" symbol to add a new 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.
2. 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.
3. 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 appears at the end of the list (X is an ordering number) and it is automatically selected. The corresponding modulation track is still empty. Moreover you cannot create any modulation point in the track yet, you first need to assign it to a parameter of your choice.
4. Right-click ([Ctrl]-click on macOS) the Modulator X label to open a structured menu containing all modulatable parameters in that channel.
5. Navigate the structure of the menu down to the desired parameter: For a parameter located in Channel properties select *Sound > [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 in the menu the parameter name appears in place of Modulator X in the Modulator List and the modulation track on the right is editable.

→ 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 Patterns of the Group and you can directly create different modulation points in other Patterns for that track.

When you load a Plug-in in a channel (Sound or Group) its modulatable parameters will automatically show up in the menu of available parameters when this channel is focused.

Resetting a Modulation Track

- ► To reset the modulation track of a parameter, right-click ([Ctrl]-click on macOS) the desired entry in the Modulator List and select *Reset Modulator* at the top of the menu.

→ All modulation points are deleted in all Patterns of the Group and you can start designing a new modulation for that parameter from scratch.

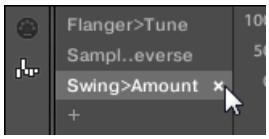
Re-Assigning a Modulation Track

- ► To change the parameter assignment of a modulation track, right-click ([Ctrl]-click on macOS) the desired entry in the Modulator List and select another parameter from the hierarchical menu as described above.

→ Upon your selection all modulation points are deleted and the track is assigned to 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 its 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.

11.6 Creating MIDI Tracks from Scratch in MASCHINE

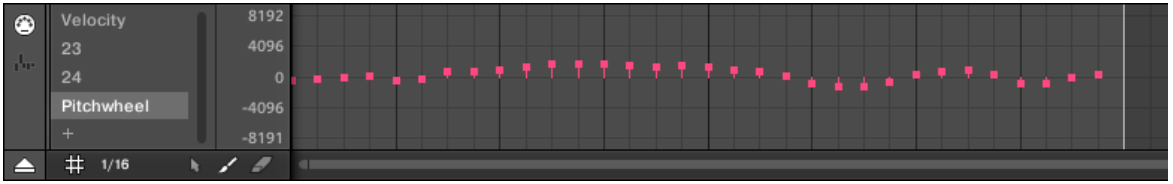
Within MASCHINE you can create MIDI tracks from scratch for any Sound of your Project. MASCHINE's MIDI automation tracks can have two purposes:

- 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 enabled). Configuring the MIDI output of Sounds is done in the MIDI page of the Sound's Output properties — see section ↑12.2.5, Sending MIDI from Sounds for more information.
- When exporting your Pattern as a MIDI file for use in another environment, MIDI automation tracks will be included in the exported MIDI file. See section ↑11.8.2, Exporting MIDI from Patterns for more information.



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.

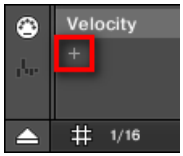
1. Click the desired Sound in the Sound List on the left of the Pattern Editor.
2. If the Control Lane is not visible at the bottom of the Pattern Editor, click the up-pointing arrow in the bottom left corner of the Pattern Editor to show it.



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 same editing tools as for modulation tracks (see ↑11.5.3, Creating and Editing Modulation in the Control Lane).

→ You have just created a new MIDI track!

> You will notice that one MIDI track is always present in the MIDI pane: the Velocity track. This track holds the velocities for all the events 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.

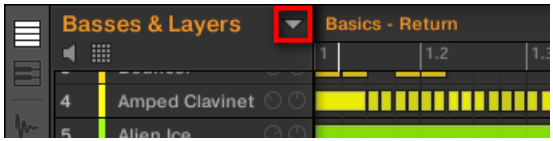
11.7 Managing Patterns

This section describes how to organize your Patterns, Pattern slots, and Pattern banks.

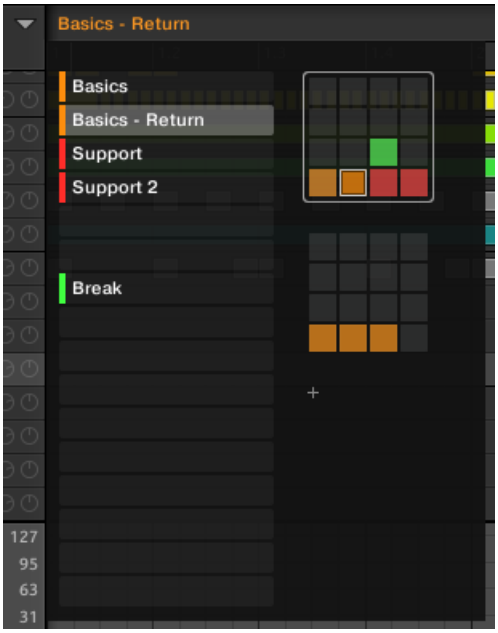
11.7.1 The Pattern Manager and Pattern Mode

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

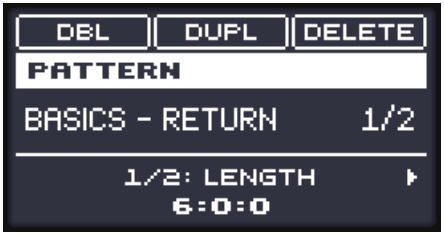
► To close the Pattern Manager, click anywhere outside it.

Pattern Mode on Your Controller

Pattern mode is where you select and manage your Patterns.

► To enter Pattern mode on your controller, press and hold PATTERN (you can pin it by pressing CONTROL at the same time).

→ Your controller switches to Pattern mode. This is indicated by the lit PATTERN button.



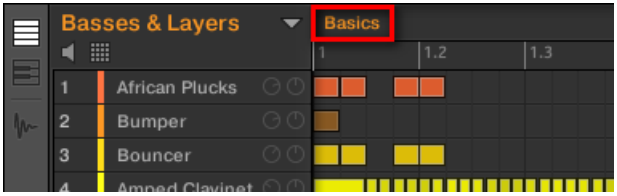
The hardware display in Pattern mode.

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.

11.7.2 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.

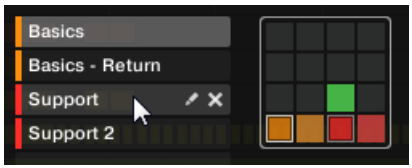
Selecting a Pattern:

1. Open the Pattern Manager (see ↑11.7.1, The Pattern Manager and Pattern Mode).
2. If it is not already selected, 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 the left part of the Pattern Manager displays the Pattern slots in that bank.

3. Select the desired Pattern by clicking its name in the list on the left 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 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 (see chapter ↑16.3, Using Song View for more on this).

Selecting a Pattern

► To select a Pattern in the current Pattern bank, press PATTERN + the dim lit pad corresponding to the cell of the desired Pattern on the right display.

→ Selecting a Pattern has the following consequences:

- 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 by a Clip for the selected Group in the current Scene. This Clip replaces any previous Clip for the Group in that Scene (see chapter ↑16.3, Using Song View for more on this).

Selecting Patterns and Pattern Banks on the Controller

Selecting a Pattern Bank

To select a Pattern located in another Pattern bank, you first need to select another 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

▶ 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 (see chapter ↑16.3, Using Song View for more on this).

Selecting Patterns and Pattern Banks on the Controller

Selecting a Pattern Bank

To select a Pattern located in another Pattern bank than the one selected, you first need to select that other Pattern bank:

1. Press and hold PATTERN to enter Pattern mode.
2. Press SHIFT + Left/Right Arrow button to select the previous/next Pattern bank, respectively.



If the last Pattern bank is selected and not empty, pressing SHIFT + Right Arrow button will create a new, empty Pattern bank — see section ↑11.7.5, Creating and Deleting Pattern Banks for more information.

Selecting a Pattern

▶ To select a Pattern in the current Pattern bank, press PATTERN + the dim lit pad corresponding to this Pattern.

→ Selecting a Pattern has the following consequences:

- 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 (see chapter ↑16.3, Using Song View for more on this).



If you only want to quickly select another Pattern without using any from the editing commands available, we recommend you to unpin the Pattern mode so you can quickly use the shortcut PATTERN + pad to select the desired Pattern.

11.7.3 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 create an event (in the empty Event area of the software or by recording pads on your controller) a new Pattern will be created for it! See section ↑11.4.2, Creating Events/Notes for more information on creating 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 (see section ↑16.2.3, Assigning and Removing Patterns).

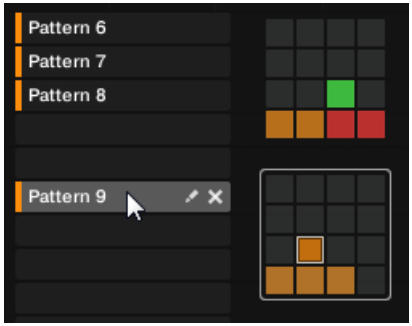
You can still manually create a new empty Pattern in the software:

1. Open the Pattern Manager (see ↑11.7.1, The Pattern Manager and 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 (see chapter ↑16.3, Using Song View for more on this).

11.7.3.1 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. Additionally:

- The new Pattern is selected and displayed in the software's Pattern Editor. You can then 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 Scene. This Clip replaces any previous Clip for the Group in that Scene (see chapter ↑16.3, Using Song View for more on this).

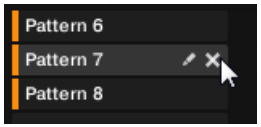


You don't need to explicitly create a new empty Pattern before filling it with events: If no Pattern is selected, as soon as you record events a new Pattern will be created for them! See section ↑11.4.2, Creating Events/Notes for more information on creating events.

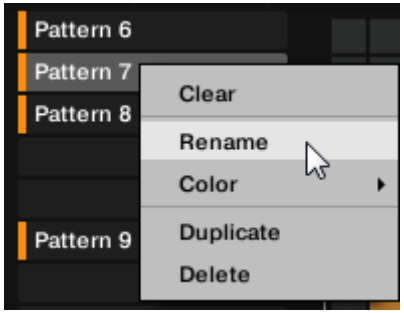
11.7.4 Deleting Patterns

To delete a Pattern:

1. Open the Pattern Manager (see ↑11.7.1, The Pattern Manager and 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. On the right of the Pattern slot, 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 Your Controller

1. Press and hold PATTERN to enter Pattern mode.
2. Press SHIFT + Left/Right Arrow to select the desired Pattern bank.

3. Press the pad corresponding to the Pattern you want to delete.
4. Press F3 (DELETE).

→ The Pattern is deleted.

Alternate Method

1. Press and hold PATTERN to enter Pattern mode.
2. Press SHIFT + Left/Right Arrow to select the desired Pattern bank.
3. Press ERASE + the pad corresponding to the Pattern you want to delete.

→ The Pattern is deleted.



If the desired Pattern bank is already selected (or if there is only one Pattern bank), this alternate method can be simplified as follows: Press ERASE + PATTERN + pad to delete the corresponding Pattern!



If the Pattern was referenced by Clips in the Arranger, these Clips will be removed as well!

11.7.5 Creating and Deleting Pattern Banks

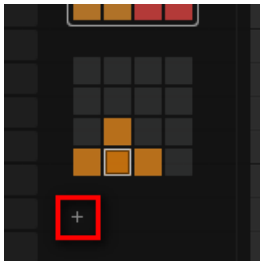
You can create and delete Pattern banks in order to organize your Patterns to your liking.

Creating a Pattern Bank

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 (see ↑11.7.1, The Pattern Manager and 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

To delete a Pattern bank:

1. Open the Pattern Manager (see ↑11.7.1, The Pattern Manager and 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!

Creating a Pattern Bank on Your Controller

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. Press and hold PATTERN to enter Pattern mode.
2. Press Button 8 repeatedly to select the last Pattern bank.
   If this last bank contains at least one Pattern, the label under Button 8 turns to a "+" symbol.
3. Press Button 8 once more to create another Pattern bank.

→ A new empty Pattern bank is created and its content appears on the right display.

If the last Pattern bank is empty, there is no "+" symbol under Button 8 and you cannot create any new Pattern bank.

Deleting a Pattern Bank on Your Controller

To delete a Pattern bank:

1. Press and hold PATTERN to enter Pattern mode.
2. Press Button 7 and 8 to select the desired Pattern bank.
3. Press SHIFT + Button 6 (DELETE) to delete the selected 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!

Creating Pattern Banks on the Controller

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. Press and hold PATTERN to enter Pattern mode.
2. Press SHIFT + Right Arrow button repeatedly to select the last Pattern bank.
3. Press SHIFT + Right Arrow button once more to create another Pattern bank.

→ A new empty Pattern bank is created and its content appears on the right display.

If the last Pattern bank is empty, you cannot create any new Pattern bank.

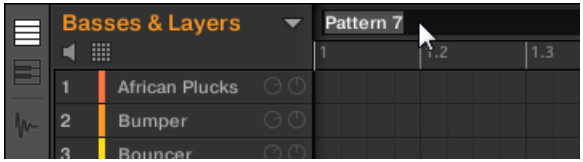
11.7.6 Naming Patterns

You can replace the Patterns' default names with custom names of your own. This can be done in the Pattern Editor, in the Pattern Manager or 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:



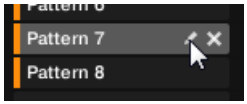
2. Type a name and press [Enter] on your computer keyboard to confirm (or press [Esc] to cancel you change).

→ The Pattern is renamed. In the Arranger, all Clips referencing this Pattern in the Arranger will mirror the new Pattern name.

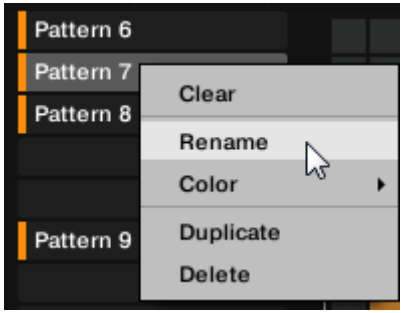
Renaming Patterns in the Pattern Manager

To rename any Pattern even if it is not selected:

1. Open the Pattern Manager (see ↑11.7.1, The Pattern Manager and 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. 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 cancel you change).

→ The Pattern is renamed. In the Arranger, all Clips referencing this Pattern will mirror the new Pattern name.

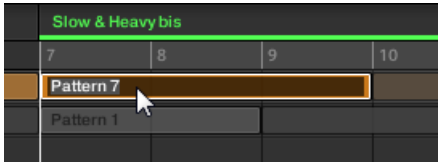


If you use MASCHINE as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the MASCHINE plug-in window to confirm the name you have entered.

Renaming Patterns in the Arranger

You can also rename a Pattern in the Arranger via any Clip referencing this Pattern:

1. Double-click any Clip referencing the Pattern you want to name.
   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.

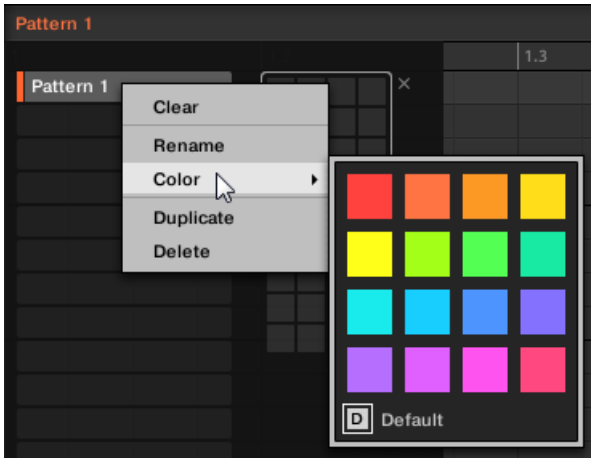
If you use MASCHINE as a plug-in, some hosts will utilize the [Enter] key, as it is mapped to some function of the host software. In this case, click anywhere else in the MASCHINE plug-in window to confirm the name you have entered.

11.7.7 Changing the Pattern's Color

By default, Patterns take the color of the Group they belong to. But you can adapt the color of each individual Pattern to your needs. To do this:

1. Open the Pattern Manager (see ↑11.7.1, The Pattern Manager and 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 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.



By default Patterns inherit the color of their Group.

11.7.8 Duplicating, Copying, and Pasting Patterns

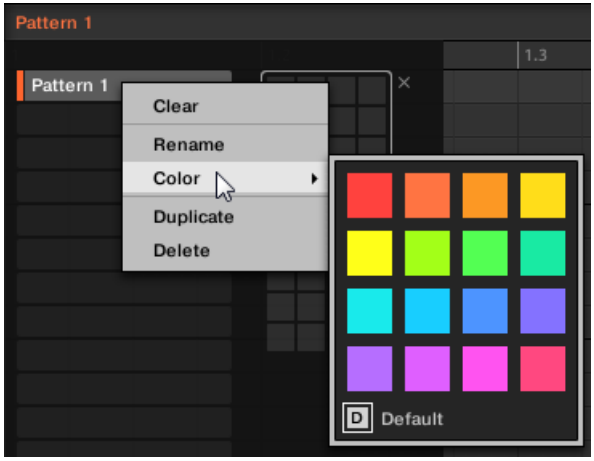
MASCHINE provides different ways of copying/pasting Patterns.

Duplicating a Pattern

To duplicate a Pattern:

1. Open the Pattern Manager (see ↑11.7.1, The Pattern Manager and 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:



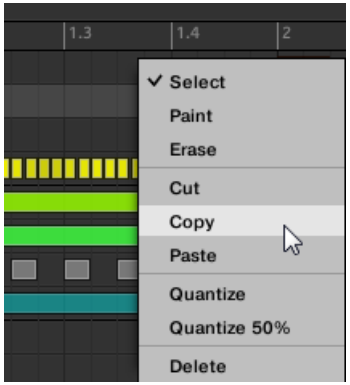
→ A Pattern copy is inserted right after the original Pattern in the Pattern bank — all following Patterns are shifted to the next slot.

Copying and Pasting a Pattern

To cut or copy the content of a Pattern and paste it in 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! See ↑11.7.1, The Pattern Manager and Pattern Mode for more on this.

Duplicating, Copying, and Pasting Patterns on Your Controller

Your controller provides different ways of copying/pasting Patterns.

Duplicating a Pattern

To duplicate a Pattern:

1. Press and hold PATTERN to enter Pattern mode.
2. If necessary, use SHIFT + Left/Right Arrow button to select the Pattern bank containing the Pattern you want to duplicate.
3. Press the pad of the Pattern you want to duplicate.

4. Press F2 (DUPL).

→ A copy of the Pattern is inserted right after the original Pattern in the Pattern bank — all following Patterns are shifted to the next slot.

Copy and Paste a Pattern

While the duplicating method described above is the quickest one, you can also copy a Pattern to the Pattern slot of your choice via the DUPLICATE button of your controller:

1. Press and hold PATTERN to enter Pattern mode.
2. Press and hold DUPLICATE.
3. Press the pad of the Pattern you want to copy.
4. Press the target pad for the Pattern copy.

→ The Pattern is copied to the target pad.

This procedure has 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.
- You can select the target slot in another Pattern bank: After you have selected the source Pattern, switch to the desired Pattern bank using SHIFT + Left/Right Arrow button before you select the target Pattern slot.
- Last but not least, this command is also available outside the Pattern mode: Simply press and hold DUPLICATE + PATTERN (instead of DUPLICATE alone in Pattern mode) before selecting the source and target slots!



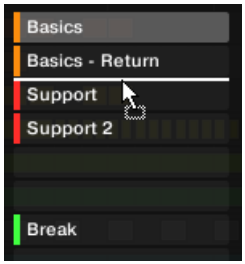
Please note that the copy-paste described here affects the Pattern as a whole. You can also copy-paste particular events within the Pattern or between Patterns. See ↑11.4.4, Editing Selected Events/Notes for more on this.

11.7.9 Moving Patterns

You can reorder Patterns via drag and drop in the software. It can be helpful to organize your Patterns more conveniently (e.g., to bring together variations of the same rhythm).

To move Patterns:

1. Open the Pattern Manager (see ↑11.7.1, The Pattern Manager and 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 at the potential places 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, the current Pattern in that slot is replaced (if any). The Clips that were referencing this Pattern will reference the moved Pattern instead.

Of course, all Clips referencing the moved Patterns still reference it after the move.



You can also drag a Pattern from the pad grid onto the Pad List, and inversely!

11.7.10 Adjusting Pattern Length in Fine Increments

Patten Length can be adjusted in fine increments to create irregular pattern lengths by temporarily pressing the [Shift] button on your computer keyboard or SHIFT on the MASCHINE controller while adjusting the Pattern Length. The size of fine increments are defined using the Step Grid.

1. Press GRID and then F3 to access STEP.
2. Turn the Control encoder to select the required Step Grid size.
3. Press PATTERN.
4. Press and turn the Control encoder to adjust Pattern Length in fine increments.

→ The Pattern Length can now be adjusted in finer increments according to the value of the Step Grid.

11.8 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.

11.8.1 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 host software by simply dragging it onto the target location or application. This function is only available in the software.

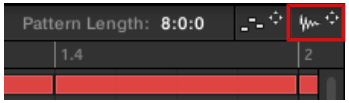
The audio will be exported as a WAV audio file and according to the current settings of the Export Audio panel (see section ↑5.4.3, Exporting Audio for more information on these settings) with following exceptions:

- 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.

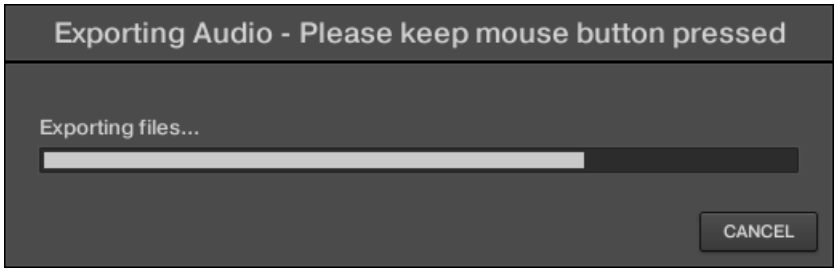
- The audio file will be named as follows:
  - Export in Group view: [Group name] - [Pattern name] - [BPM].wav
  - Export in Keyboard view: [Group name] - [Pattern name] [Sound name] - [BPM].wav

To render Patterns to audio files:

1. Select the Pattern you want to export audio from (see section ↑11.7.2, 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 (see section ↑6.3.1, 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 (see section ↑6.3.1, 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 drag the exported audio file to your desktop, into an audio channel of your host application, 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.

11.8.2 Exporting MIDI from Patterns

You can export MIDI files from selected 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 — see section ↑12.2.5, Sending MIDI from Sounds for more on these parameters.

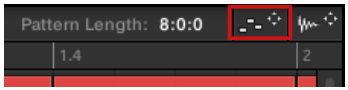
You can export MIDI files using two methods: via drag-and-drop or via the Group/Sound context menu.

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 (see section ↑11.7.2, 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. See section ↑11.1.5, Group View and Keyboard View to know how to do this.

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.



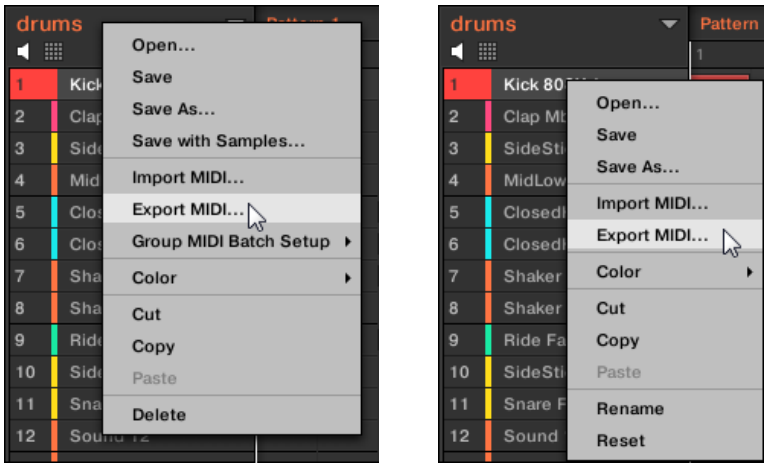
You can even drag the MIDI Dragger icon onto another Sound or Group in MASCHINE! In this case the MIDI file will be directly imported into a Pattern of the selected Group according to the rules described in section ↑11.8.3, Importing MIDI to Patterns.

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 (see section ↑11.7.2, 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 which 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.

11.8.3 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 (see section ↑3.3.3, Undo/Redo).

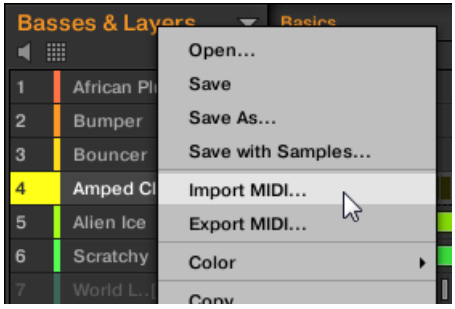
You can import MIDI files into Groups or into individual Sounds. You can do this via three methods: via the context menu of the Group/Sound, via drag-and-drop, or via the FILES pane of the Browser. You can even import multiple MIDI files at once. The following paragraphs describe each of these situations.

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 drum beat 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.

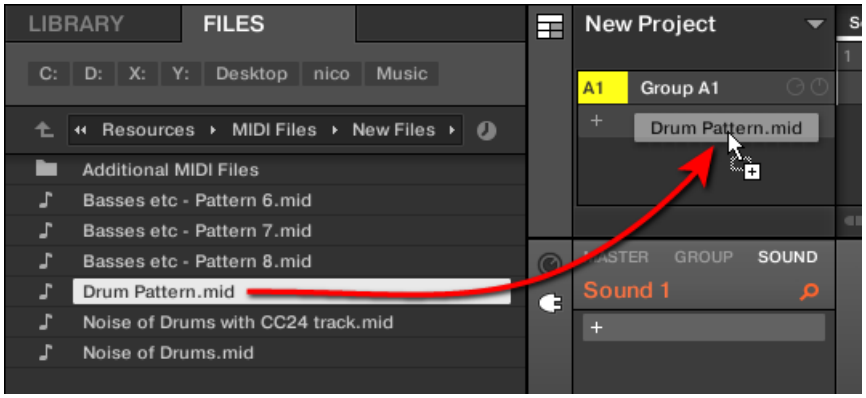


   You can alternatively right-click ([Ctrl]-click on macOS) the Group name in the header above the Sound List and select the same entry.
4. In the Import MIDI dialog that opens, navigate to the desired MIDI file on your computer and click Open to confirm.

→ 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 – import 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 — see section ↑12.2.1, 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.

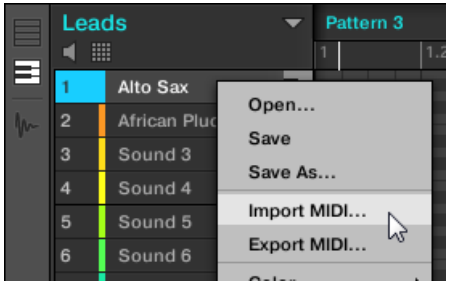
- If the MIDI file contains data on **multiple MIDI channels**, the data from the individual channels will be imported to individual Sounds:
  - If any channel from the MIDI file corresponds to the MIDI input channel of a particular Sound in your Group, the data on that channel will be imported to that Sound. The MIDI input channel of each Sound is defined by the Channel parameter in the MIDI page of the Sound's Input properties — see section ↑12.2.1, 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.
    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.



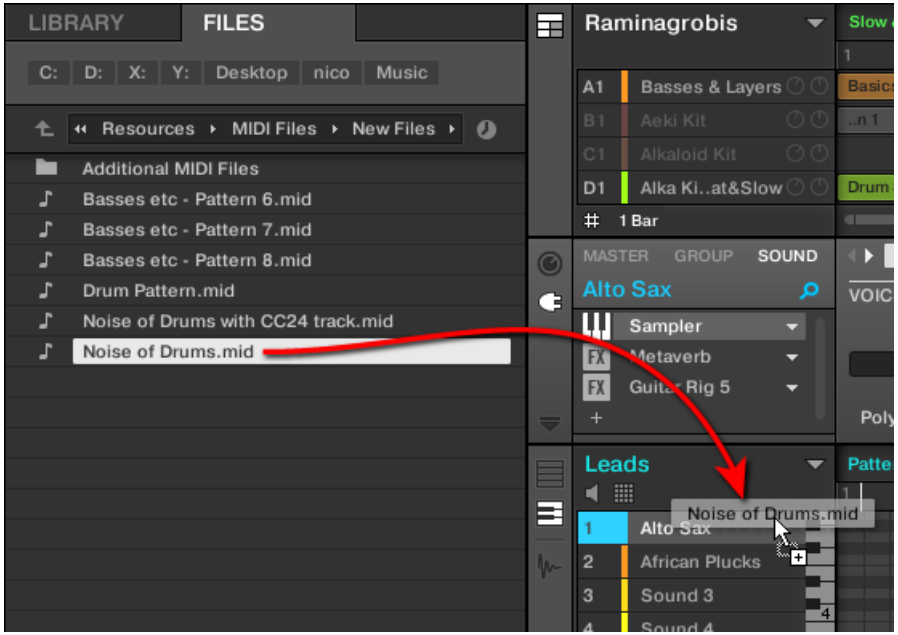
4. In the Import MIDI dialog that opens, navigate to the desired MIDI file on your computer and click Open to confirm.

→ 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 (see section ↑4.6, Loading and Importing Files from Your File System to know 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!

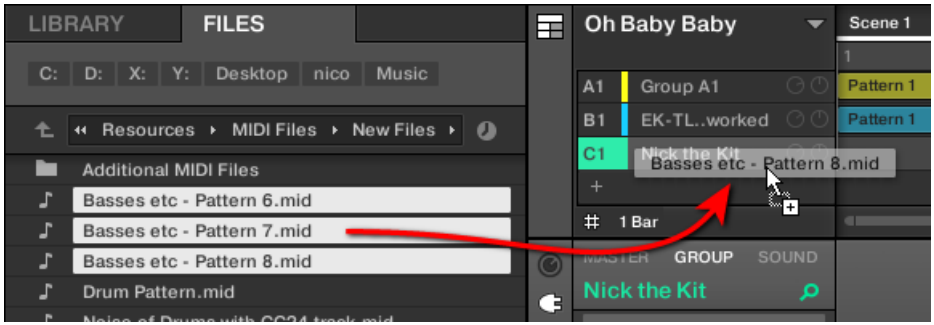
Contrary to the single-file import described above, importing multiple files doesn't replace the content of the selected Pattern — instead, for each MIDI file in the selection a new Pattern will be created.



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 multiple selection onto the desired Group in the Group List.

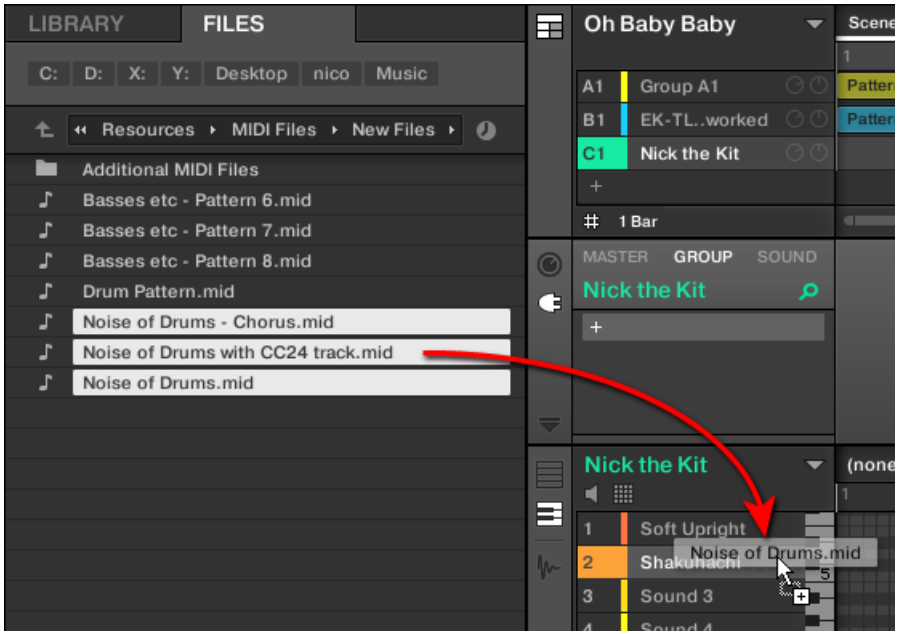


→ New Patterns will be created for that Group. Apart from this, each new Pattern receiving the data from one of the MIDI files. Apart from this, each MIDI file will be imported as a single MIDI file to that Group — see above for a detailed description.

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 multiple selection 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 — see 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 multiple selection to the focused Sound!

12 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: ↑12.1, 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: ↑12.2, 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: ↑12.3, Creating Custom Sets of Parameters with the Macro Controls.

The Channel Properties

Most of the features described here 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 its Plug-in slots.

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 ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area 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 ↑6.3.3, Groove.

12.1 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 channel. The output of the Sound's channel is sent to its parent Group.
- At the mid-level, each Group has its own 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 basic configuration can be customized in numerous ways. Using the audio settings available in the Input and Output properties at the Sound, Group, and Master level, you can build complex routings that cover a wide range of situations, as you will see in the next sections:

- Feed external audio to the input of your Sounds: ↑12.1.1, Sending External Audio to Sounds.
- Adjust the main output of your Sounds and Groups, and route it to various destinations: ↑12.1.2, Configuring the Main Output of Sounds and Groups.
- Send auxiliary outputs of your Sounds and Groups to other destinations: ↑12.1.3, 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: ↑12.1.4, 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 way to do: 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, please refer to chapter ↑13, Controlling Your Mix.

You will also find useful examples of the various routings described here in chapter ↑14, Using Effects.

Configuring the Audio Routing from Your Controller

All the procedures described in the following sections make use of the Channel properties. As a consequence, they can also be done from your controller! To do this, switch your controller to Control mode and navigate to the desired Channel properties as described in section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.

12.1.1 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 stereo input. The same external signal can be fed into any number of Sounds.

For example, this allows you to have any external audio signal be processed by the Plug-ins loaded in that Sound, and more generally, integrate external audio signals into the MASCHINE routing and processing system. See also section ↑14.2, Applying Effects to External Audio for an example of use and step-by-step instructions.

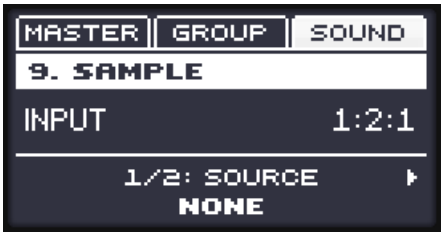
The configuration of external audio inputs for a Sound is done on the Audio page of the Sound's Input properties.

The Audio page of the Input properties is available for Sounds only.

MASCHINE 1.x owners: The Audio page of the Sound's Input properties replaces and extends the features of the Input Module available in previous MASCHINE versions.



The Audio page of the Input properties for a Sound in the software.



The AUDIO page of the Input properties for a Sound on the controller.

Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to access the Audio page of the Input properties in the software and from your controller.

Controls	Description
AUDIO Section	
Source	Selects an external audio input to be routed to the Sound. Available entries are *None* (no external input) and the four external stereo inputs *Ext. 1–4*, as well as any additional output(s) of multiple-output Plug-ins loaded in other Sounds of the same Group. Check the Routing page of the Audio and MIDI Settings panel to route the physical inputs of your audio interface to the virtual audio inputs of MASCHINE.
Gain	Adjusts the gain of the incoming signal.



If MASCHINE is running as a plug-in, the external stereo inputs *Ext. 1–4* available in the Source selector of the MAIN section will correspond to virtual inputs in your host. This allows you to send mixer channels from your DAW to individual Sounds within MASCHINE, for example. Please refer to your host documentation to know how to route signals to the virtual audio inputs of your MASCHINE plug-in.



As any Parameter page of any Channel properties or Plug-in, this page is also available on your controller. To access it and change its parameters, simply use the common workflow described in ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area. Furthermore, you will find a step-by-step use case in ↑14.2, Applying Effects to External Audio.

Configuring External 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.

12.1.2 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.

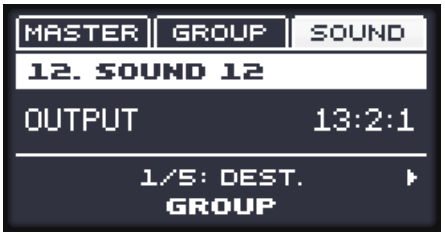
This default behavior can be customized to your liking: You can adjust the level and panoramic position of the channel output, or send it to the Cue bus for pre-listening. Furthermore, you could send individual Sounds or whole Groups to other pairs of outputs on your audio interface in order to process them separately at a later stage. The output routing configuration is done on the Audio page of the Output properties for Sounds and Groups.



We describe here the Audio page of the Output properties for Sounds and Groups only. The equivalent page for the Master will be described in section ↑12.1.4, Configuring the Master and Cue Outputs of MASCHINE.



The Audio page of the Output properties (here for a Sound) in the software.



The AUDIO page of the Output properties (here for a Sound) on the controller.



Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to access the Audio page of the Output properties in the software and from your controller.

Controls	Description
AUDIO Section	
Dest.	Selects where you want to send the main audio output of your channel. For Sounds, 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*. For Groups, 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*. The available bussing points are labeled as described below.
Cue	When Cue is enabled, the main output of the channel is sent to the Cue bus instead of its normal target (defined in Dest., see above). For example, this is very useful to pre-listen a channel before you mix it in your performance. See also section ↑13.2.6, Using the Cue Bus for more information. Note that when Cue is enabled, the channel's Aux 1 and Aux 2 outputs are muted as well — but they are not sent to the Cue bus (see ↑12.1.3, Setting Up Auxiliary Outputs for Sounds and Groups).
Level	Adjusts the overall volume level of the channel.

Controls	Description
Pan	Defines the pan position of the channel in the stereo field.
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 ↑6.3.1, Mute and Solo for more information.



If MASCHINE is running as a plug-in, the external stereo outputs *Ext. 1–16* available in the Dest. selector of the MAIN section will correspond to virtual outputs in your host. This allows you to send individual Sounds or Groups from MASCHINE to their own mixer channels within your DAW, for example.

Labels for Bussing Points in the Dest. Selector

The various bussing points available in the Dest. selector (described in the table above) are labelled 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).



On your controller the bussing points available in the DEST. parameter are labeled as in the selector display described above.

Level and Pan Shortcuts for Sounds and Group

You can quickly access the Level and Pan parameters described above via the little knobs available in the Sound List and in the Group List, at the left of the Pattern Editor and the Arranger, respectively: For each channel (Sound or Group) the left knob adjusts the level and the right knob adjusts the panoramic position.



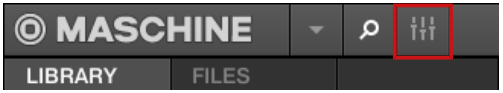
The pair of knobs for each Sound/Group allows you to quickly adjust the channel level and panoramic position.

For Sound slots, the knobs are visible only when the Pattern Editor is in Pad Mode. In Keyboard mode, the knobs are not visible.

Configuring the Main Outputs of Sounds and Groups in Mix View

You can also easily configure the outputs 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:

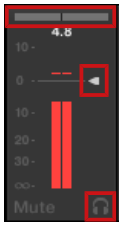


2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:



   Navigate to the channel of which you want to configure the 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).

3. To adjust the level, panoramic position or Cue state of a channel, use the channel's fader, balance control (above the fader) or headphone button (below the fader), respectively.



   This is equivalent to setting the Level, Pan, and Cue parameters described above, respectively.

4. To select another destination for the channel's output, click the first area under the level meter, and select the desired destination in the menu.



This is equivalent to setting the Dest. parameter described above.

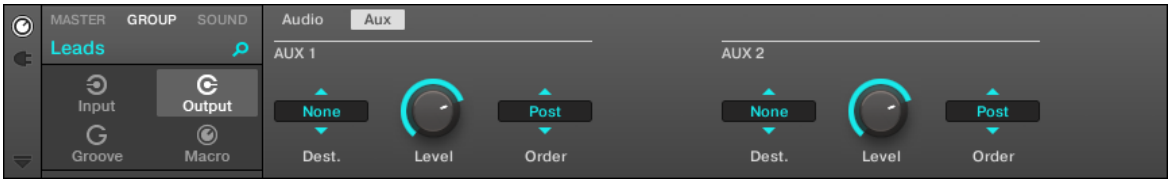
12.1.3 Setting Up Auxiliary Outputs for Sounds and Groups

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 — see section ↑14.3, 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.



The AUX page of the Output properties (here for a Group) on the controller.

Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to access the Aux page of the Output properties in the software and from your controller.

Controls	Description
AUX 1 / AUX 2 Section	
Dest.	Selects where you want to send the Aux 1 or Aux 2 output of your channel. Available options are the same as for the Dest. selector of the Audio page (see ↑12.1.2, 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 of the MAIN section on 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 plug-in, the external stereo outputs *Ext. 1–16* available in the Dest. selectors of the AUX 1 and AUX 2 section will correspond to virtual outputs in your host. This allows you to send auxiliary outputs of individual Sounds or Groups from MASCHINE to their own mixer channels within your DAW, for example.

Setting Up the Auxiliary Outputs of 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:
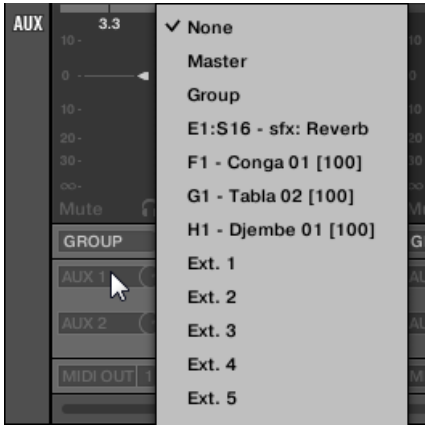


2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:



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.

12.1.4 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.

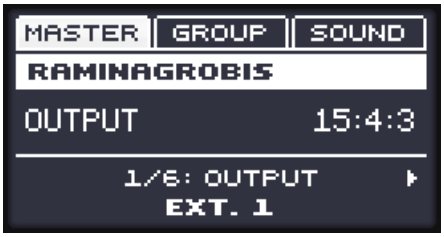


For more information on how to use the Cue bus, see section ↑13.2.6, Using the Cue Bus.

You can choose to which outputs (on your audio interface or in your host) both Master and 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.



The AUDIO page of the Output properties for the Master on the controller.



Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to access the Audio page of the Output properties in the software and from your controller.

Controls	Description
AUDIO Section	
Output	Selects where you want to send the master output of your MASCHINE Project. 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. 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 channel(s) currently sent to the Cue bus. To send a channel to the Cue bus, enable the Cue switch in the Audio page of its Output properties (see section ↑12.1.2, 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.



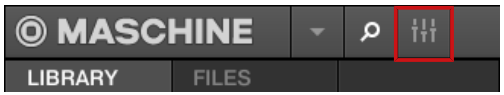
If MASCHINE is running as a plug-in, the external stereo outputs *Ext. 1–16* available in the Output selector of the MAIN and CUE sections will correspond to virtual outputs in your host.

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:

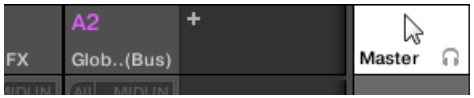
1. Click the Mix View button on the left of the Arranger to switch from Arrange view to Mix view:



2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:



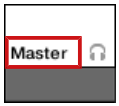
3. Click the background of the last header in the top right corner of the Mixer.



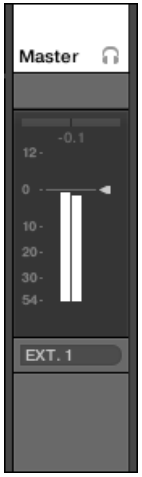
The Master/Cue channel strip appears underneath.

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 MAIN section, respectively (see above).

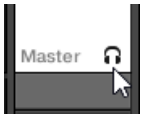
3. To select another destination for the Master output, click the first area under the level meter and select the desired destination in the menu.



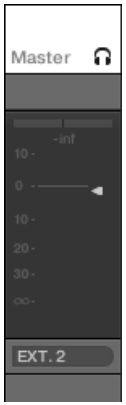
   This is equivalent to setting the Output parameter in the MAIN section (see above).

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, respectively (see 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 MAIN section (see above).

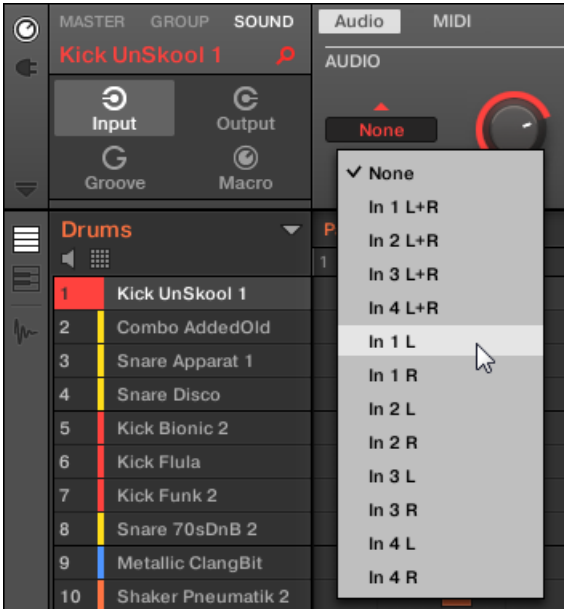
12.1.5 Mono Audio Inputs

Each Sound can be configured to receive external stereo or mono audio signals. You may use audio signals from 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).

MASCHINE offers either 4 stereo inputs or 8 mono inputs, so 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 process any external audio signal using the plug-ins loaded in a Sound, and more generally, integrate external audio signals into the MASCHINE routing and processing system.

The external audio inputs for a Sound can be configured on the Audio page of the Sound's Input properties.



Configuring External Audio Inputs in the Input Properties.

For more information on audio routing and sending external audio to Sounds, please read chapter 8 of the MASCHINE Manual.

12.1.5.1 Configuring External Inputs for Sounds in Mix View

You can also easily send stereo or mono 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:

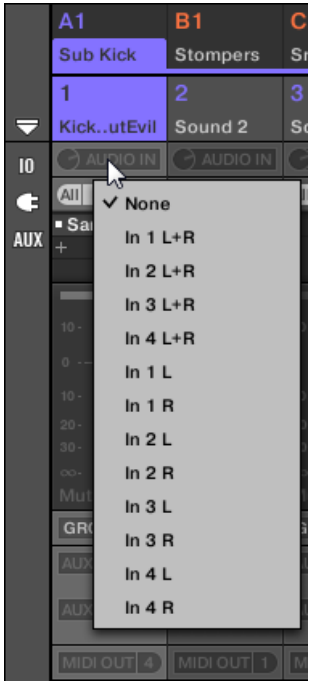


3. Check that the IO button is active on the left of the Mixer — if not, click it to enable it and display the input/output settings of each channel strip.



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.

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.



6. Turn the little knob on its left to adjust the input gain.

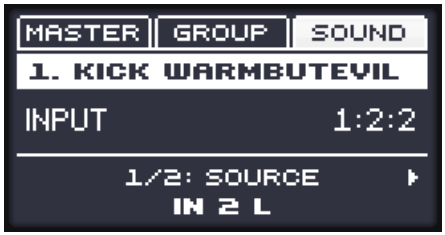


12.1.5.2 Configuring External Inputs for Sounds in MASCHINE MIKRO

All input channels, including Individual mono L and R channels can be found at the bottom of the input selection drop-down menus. The metering of mono inputs is shown as dual-mono.

To configure an external input for a Sound:

1. Select the Group and Sound for external sound source input.
2. Press the F3 button to select SOUND.
3. Press and hold the NAV button.
4. Press the F2 button to select CHNL. (Channel).
5. Turn the Control encoder to select IN or press Pad 13.
6. Release the NAV button.
7. Turn the Control encoder to select the input source.



→ The list of stereo and mono inputs are available for selection.

12.2 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 the host (when MASCHINE is running as a plug-in), both globally and individually:

- By default, all MIDI data incoming on the enabled MIDI input port(s) will be received by the focused Sound of the focused Group. See ↑3.6.3, 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 ↑12.2.1, 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 ↑12.2.3, 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 ↑12.2.4, 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 using MIDI notes or MIDI Program Change messages. Please refer to section ↑16.5, Triggering Sections or Scenes via MIDI for more information on this.

Outgoing MIDI

You can also **sending MIDI data from Sounds**. For example, when MASCHINE is running as a plug-in in a host environment, this allows you to record your performance on the pads as a MIDI pattern in your host application. This is described in section ↑12.2.5, Sending MIDI from Sounds.

12.2.1 Triggering Sounds via MIDI Notes

MASCHINE allows you play your Sound(s) via MIDI (e.g., 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 focused.

To play one or more Sounds via MIDI notes independently of the Sound currently focused, 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 Sounds 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:

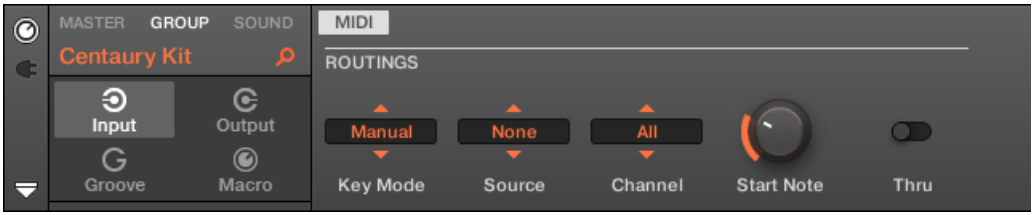
- **MIDI input settings for a Group** affect all Sounds in the Group: Each Sound will be triggered by a different MIDI note. Typically, this allows you to quickly set up a MIDI remote control for an entire drum kit.
- **MIDI input settings for a Sound** affect only that Sound: Incoming MIDI notes will 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 enabled (see section ↑12.2.5, 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 ↑12.2.4, 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 ↑11.8.3, 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 ↑12.2.3, Controlling Parameters via MIDI and Host Automation.



The MIDI page of the Input properties (here for a Group) in the software.



The MIDI page of the Input properties (here for a Group) on the controller.

Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area 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:

Controls	Description
MIDI ROUTING Section	
Key Mode (Pad Mode only)	Enables the MIDI note input for the selected Group (disabled by default). Please refer to your host documentation to find out how to route MIDI signals to your MASCHINE plug-in. Key Mode offers the following options: *Off*: Select this option to disable MIDI note input for the selected Group. *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. 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. 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: ↑11.8, Importing/Exporting Audio and MIDI to/from Patterns. *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.

Controls	Description
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 disabled, default setting), *All* (MIDI notes are received on all enabled input ports), and each enabled 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 (see section ↑3.6.3, 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. The Channel parameter of a Sound is also used when importing a multi-channel MIDI file to its Group — see section ↑11.8.3, Importing MIDI to Patterns for more on this.
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. The Start Note parameter is also used when importing a single-channel MIDI file to the Group — see section ↑11.8.3, 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. 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 ↑11.8.3, 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 ↑16.5, Triggering Sections or Scenes via MIDI.

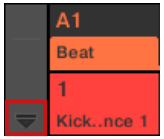
Configuring MIDI Note Input for Sounds and Groups in Mix View

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:



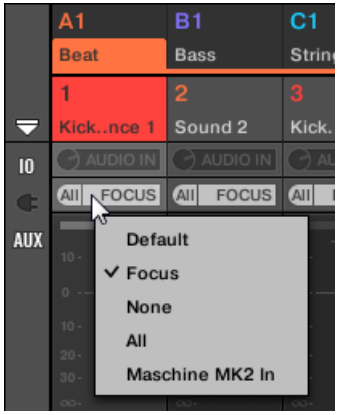
2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mixer:



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.

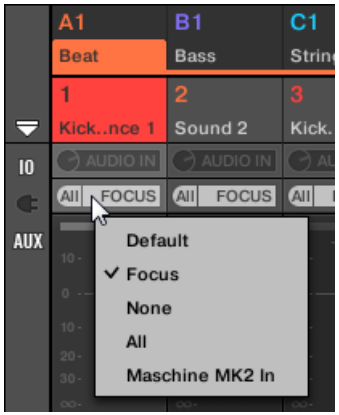


This is equivalent to setting the Source parameter described above.
If MASCHINE is running as a plug-in you see a MIDI IN button instead. Click it to enable the MIDI input from the host.



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.

12.2.2 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 send 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*.
2. 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.
3. 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.

4. 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.

5. For more information on MIDI Lock Changes refer to Triggering Lock Snapshots via MIDI.

12.2.3 Controlling Parameters via MIDI and Host Automation

You can assign many parameters of the Channel properties and Plug-ins located in your various channels (Sounds, Groups, and Master) of your Project 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 host.



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 ↑11.5, 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.

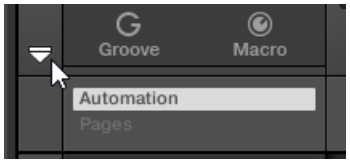
Using the Automation Pane in the Assignment Area

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 ↑12.3, 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 (see 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 (Drumsynth): 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.

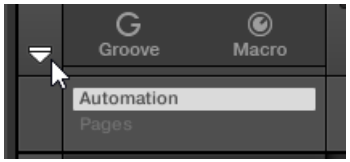


You will notice that the rules for automatable parameters are the same as for modulatable parameters except that modulatable parameters can only be found in Sounds and Groups (not in the Master). In other words, at the Sound and Group level the same parameters are both automatable and modulatable. For more information on modulation please refer to section ↑11.5, 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 ↑12.3, 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.

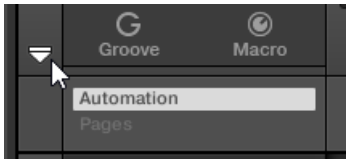


For more information on how to automate VST/AU plug-in parameters from your host, please refer to your host documentation.

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 enabled 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 ↑3.6.3, 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 ↑3.5, Stand-Alone and Plug-in Mode.

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.

12.2.4 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. 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 ↑12.2.1, Triggering Sounds via MIDI Notes above.

12.2.5 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 enabled, 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 ↑11.6, 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 ↑12.2.1, Triggering Sounds via MIDI Notes.

The MIDI output of Sounds is configured on the MIDI page of the Output properties for Sounds.

The MIDI page of the Output properties is available for Sounds only.

MASCHINE 1.x owners: The MIDI page of the Sound Output properties replaces and extends the features of the MIDI Out Module available in previous MASCHINE versions.



The MIDI page of the Output properties for a Sound in the software.



The MIDI page of the Output properties for a Sound on the controller.

Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to access the MIDI page of the Output properties in the software and from your controller.

Control	Description
MIDI Section	
Dest.	Selects the MIDI port on which the Sound will send MIDI data. If MASCHINE is running in **stand-alone mode**, available entries are *None* (MIDI output disabled, default setting), every enabled 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 ↑3.6.3, Preferences – MIDI Page). If MASCHINE is running **as a plug-in** in a host application, the entries for the enabled MIDI output ports are *None* (MIDI output disabled, 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.

Control	Description
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 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.



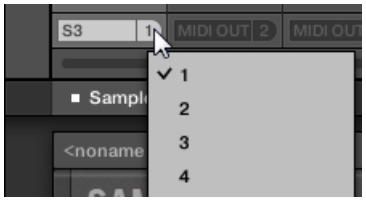
The Mixer displays the channel strips of all Sounds in the selected Group.

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.

12.3 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.

MASCHINE 1.x owners: In MASCHINE 1.x Macro Controls were additionally used to automate MASCHINE parameters via MIDI or host automation. This is not the case in MASCHINE 2.0 anymore: automation and Macro Controls now are totally independent. Now MASCHINE parameters can be directly assigned to MIDI controls or host automation IDs (as described in section ↑12.1.4, Configuring the Master and Cue Outputs of MASCHINE), while Macro Controls are plain shortcuts of the desired parameters, at all levels of MASCHINE, and without any limitation in number.

The Macro Controls are available in the **Macro properties**.



The Macro properties (here for a Sound) in the software.



The Macro properties (here for a Sound) on the controller.

Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to access the Macro properties in the software and from your controller.

12.3.1 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.

Obviously, the Macro properties (even of 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 level (but not if you switch to another Sound or Group, of course).

12.3.2 Assigning Macro Controls Using the Software

Macro Controls can be assigned in two different ways. 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 the Macro Controls is only possible using the software.

Assigning Macro Controls from Parameters

Assigning a parameter as 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. Select Channel or Plug-in icon depending on where the parameter you want to assign is situated.
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.

4. To remove a Macro, right-click the parameter again and select Remove Macro.

→ The selected Macro is removed.

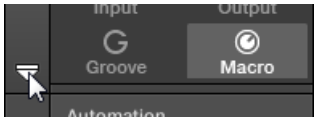
Assigning Macro Controls Using the Pages Pane

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 (see section ↑7.3.3, Setting Up Your Own Parameter Pages).

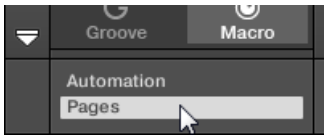
Opening the Pages Pane in the Assignment Area

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 ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.
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:



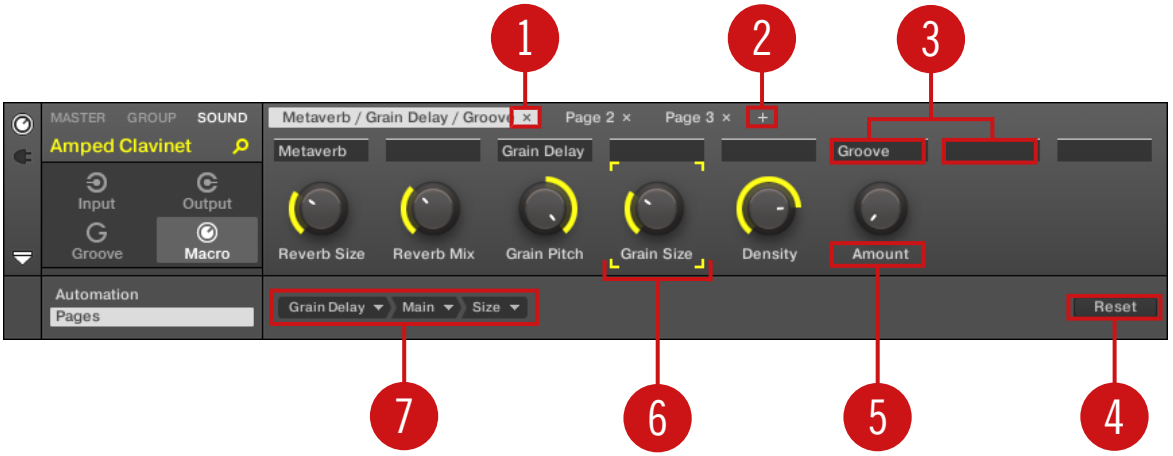
→ The Pages tab lights up and the Pages pane appears on its right. You are now ready to assign Macro Controls to parameters.



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 Plug-ins, External MIDI device Control Change assignments, and for 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 how to assign parameters of Native Instruments or External Plug-ins to Parameter pages, please refer to ↑7.3.3, 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.

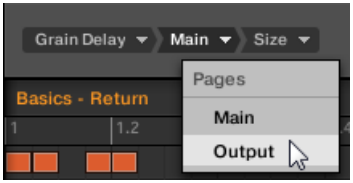
(**5**) **Parameter Label fields**: Double-click these fields to enter custom labels for your parameters (press [Enter] to confirm). These labels will be mirrored everywhere in MASCHINE for the corresponding parameters.

(**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.

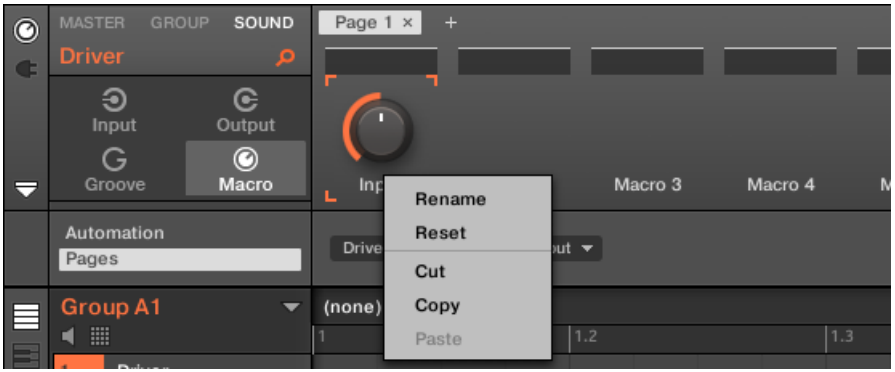
Note that the whole path to this parameter stays visible in the Target selector: this lets you modify a single selection without starting from the topmost channel and going through the entire selection process again:

► 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 Assignment – Context Menu

When the Assignment area is opened and the Pages tab is selected, right-click on an assigned or unassigned Macro slot to access the context menu.



The Macro properties context menu.

The context menu contains following items:

Menu Item	Description	Keyboard Shortcuts
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-click on a Page opens a context menu.



The Control Area Assignment 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.	

13 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 / Sampler 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, 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, e.g., when building custom drum kits, setting up send effects, creating advanced routings… and, last but not least, during live performances.

13.1 Mix View Basics

This section describes the basic operation of the Mix view.

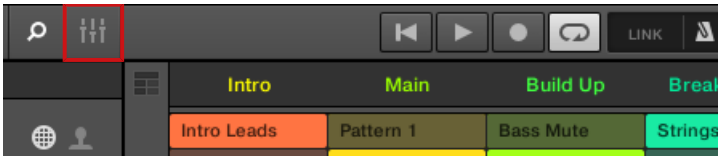
Mix View vs. Arranger Views

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 Arranger views (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.

13.1.1 Switching between Arrange View and Mix View

You can switch the MASCHINE software at any time between the Arranger views (Ideas view and Song view) and Mix view:



The Mix View button.

- Click the Mix View button at the top left of the Arranger to switch between the Arrange views and the Mix view.
- Press SHIFT + VIEW to switch between the Arrange view and the Mix view in the MASCHINE software.

13.1.2 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 (1) at the top, the Plug-in Chain (2) in the middle, and the Plug-in Strip (3) at the bottom.

(**1**) **Mixer**: At the top, 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 ↑13.2, The Mixer for a detailed description.

(**2**) **Plug-in Chain**: In the middle, the Plug-in Chain lists all Plug-ins loaded in the focused channel (Sound, Group, or Master). See section ↑13.3, The Plug-in Chain for a detailed description.

(**3**) **Plug-in Strip**: At the bottom, the Plug-in Strip displays the series of Plug-ins loaded in the focused channel (Sound, Group, or Master). You can directly adjust the parameters of each Plug-in in its own interface. See section ↑13.4, The Plug-in Strip for a detailed description.

13.2 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: ↑13.2.1, Displaying Groups vs. Displaying Sounds.
- Whether the Mixer is minimized or not, and which sections are enabled for display: ↑13.2.2, Adjusting the Mixer Layout.

13.2.1 Displaying Groups vs. Displaying 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 of 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 Group and Sound Level

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!

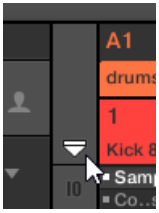
13.2.2 Adjusting the Mixer Layout

No matter which of the Group or Sound level is currently displayed in the Mixer, you can adjust its layout as described below in order to focus on your current task.

Maximizing/Minimizing the Mixer

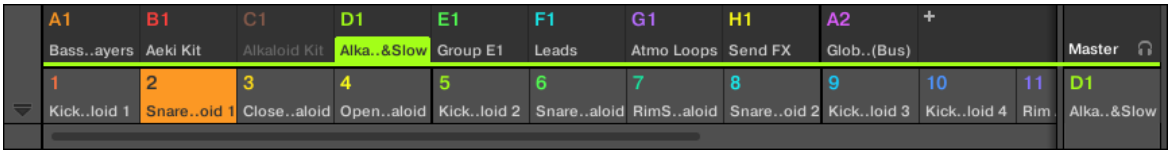
You can minimize/maximize the Mixer so that it shows only the Group and Sound headers or the entire channel strips:

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



Minimizing/maximizing the Mixer.

When the Mixer is minimized, the channel strips are shrinked to 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 strips currently displayed. This is done via 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 disabled.

For a detailed description of the settings available in the channel strips, see section ↑13.2.5, Adjusting Settings in the Channel Strips below.

Minimizing the Mixer on the Controller

► Press VIEW + pad 15 to show/hide the channel details in the Mixer.

13.2.3 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 as in the Arrange view:

- To set the focus to a particular channel (Sound or Group), click 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) or use the usual commands on your controller (see section ↑3.3.4, Focusing on a Group or a Sound). The header of the focused channel is highlighted.
- Setting the focus to a particular channel strip in the Mixer will automatically set the focus to the corresponding Sound, Group, or the Master in Arrange view, and inversely.
- When the Mixer displays the Sound strips of a Group, when you click another Group header in the top row the Mixer will stay at the Sound level and directly display to the Sound strips of this other Group.
- You can select more than one channel strip among the strips displayed. The focused strip is always selected. The multiple selection follows the same rules as in Arrange view (see section ↑5.1.3, Selecting Multiple Sounds or Groups).

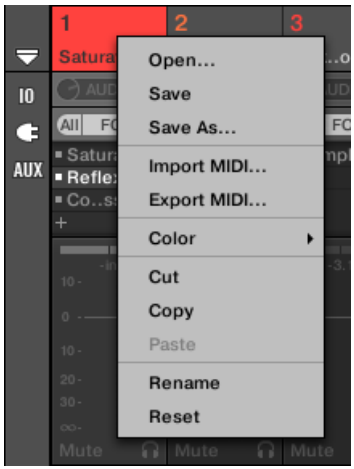


Whichever channel strip is focused, the Plug-in Strip at the bottom of the Mix view shows the Plug-ins loaded in that particular channel (see section ↑13.4, The Plug-in Strip).

13.2.4 Managing Your Channels in the Mixer

The Mixer provides the same Sound and Group management commands as the 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 on 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*. See section ↑5.2.3, Renaming Sound Slots and ↑5.3.3, Renaming Groups.
Changing the channel's color	Open the channel's context menu and select *Color*. See section ↑5.2.4, Changing the Sound's Color and ↑5.3.4, Changing the Group's Color.

Management Command	Action
Copying/pasting channels	Open the channel's context menu and select *Copy* or *Paste*. See section ↑5.2.6, Copying and Pasting Sounds and ↑5.3.6, Copying and Pasting Groups.
Resetting Sound channels	Open the Sound channel's context menu and select *Reset*. See section ↑5.2.8, Resetting Sound Slots.
Deleting Group channels	Open the Group channel's context menu and select *Delete*. See section ↑5.3.8, Deleting Groups.
Saving channels	Open the channel's context menu and select *Save As…*. See section ↑5.2.5, Saving Sounds and ↑5.3.5, Saving Groups.



You cannot move Sounds and Groups via drag and drop in the Mixer. This is only possible in Arrange view — see section ↑5.2.7, Moving Sounds and ↑5.3.7, Reordering Groups for more details.

13.2.5 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 (see 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.



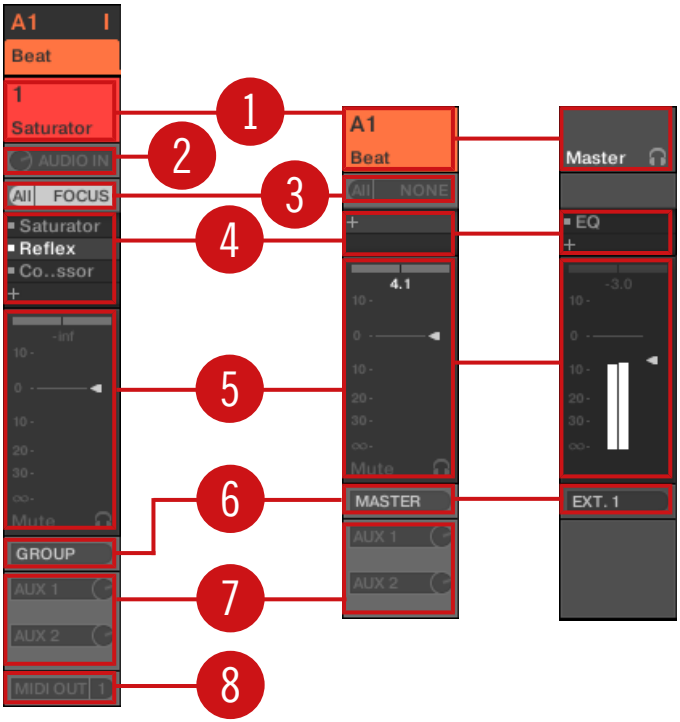
For example, if a kick drum is too loud in a drum kit, while decreasing its level you can check at the far right how your change affects the overall Group level — and you can quickly adjust this Group level if needed.

Available Settings in Sound/Group Channel Strips

We list here all the elements available in a full channel strip. For each element we indicate the basic operation and the corresponding parameter in Arrange view.



If some of the settings are not visible, check that the Mixer is not minimized and that the relevant button is enabled at the left of the Mixer — see section ↑13.2.2, Adjusting the Mixer Layout for more information.



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 (see section ↑13.2.1, Displaying Groups vs. Displaying Sounds).
- Focus/select particular channels (see section ↑13.2.3, 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 (see section ↑13.2.4, 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 enabled 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. See section ↑12.1.1, Sending External Audio to Sounds for more information.

(**3**) **MIDI input settings**: Allows you to adjust the MIDI input routing. Visible only if the IO button is enabled 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. See section ↑12.2.1, Triggering Sounds via MIDI Notes for more information.

(**4**) **Plug-in List**: Shows the Plug-ins loaded in the channel. Visible only if the Plug-in icon is enabled 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 (see section ↑13.4, 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 all details, see section ↑7.1, 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 (see ↑12.1.2, 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 (see ↑12.1.2, 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). See section ↑6.3.1, Mute and Solo for more information.
- 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. See section ↑13.2.6, Using the Cue Bus for more information.

(**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 (see ↑12.1.2, Configuring the Main Output of Sounds and Groups) and for the Master (see ↑12.1.4, 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 enabled 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 (see ↑12.1.3, 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 enabled 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 (see ↑12.2.5, 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. See section ↑11.5, Recording and Editing Modulation for more on modulating parameters.

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.

13.2.6 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 (see section ↑4.3.3, Auditioning Samples).
- Metronome (see section ↑11.2.3, Using the Metronome).
- Pre-listening functions in the Sample Editor when recording (see section ↑17.2.2, Selecting the Source and the Recording Mode) or slicing Samples (see section ↑17.4, 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 defined in its output settings, simply click again on the headphones button.

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 (see section ↑12.1.2, 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.

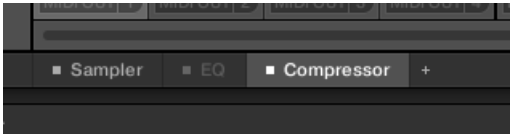
2. Click the headphone icon in the Master header.



→ 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 ↑12.1.4, Configuring the Master and Cue Outputs of MASCHINE.

13.3 The Plug-in Chain

In the middle of the Mix view, right under the Mixer, you see an horizontal bar listing all Plug-ins loaded in the focused channel: the **Plug-in Chain**. In the Plug-in Chain, Plug-ins are arranged into an horizontal series, the audio travelling from left to right through each Plug-in of that channel.



A Plug-in Chain with the Compressor selected and the EQ bypassed.

Except for its horizontal layout, the Plug-in Chain has the same functionality as the Plug-in List found in the channel strips of the Mixer above — namely to organize the Plug-ins of that channel:

- Click a Plug-in name to select it. If this Plug-in is currently hidden in the Plug-in Strip underneath, it automatically scrolls to show the interface of that Plug-in.
- Click the little "+" icon at the end of the chain and select a Plug-in in the Plug-in menu to load it at the end of the chain, or right-click (macOS: [Ctrl]-click) a Plug-in name to replace this Plug-in with another one. See section ↑7.1.3, Loading, Removing, and Replacing a Plug-in for more information.
- Click the little square on the left of a Plug-in name to bypass this Plug-in slot (bypassed slots are grayed out). Click the little square again to unmute the Plug-in slot and insert the Plug-in back into the processing chain. See section ↑7.1.5, Bypassing Plug-in Slots for more information.

- Right-click (macOS: [Ctrl]-click) a Plug-in name and use the *Open...*, *Save As...*, and *Save As Default...* (Native Instruments and External Plug-ins only) commands to manage your Plug-in presets. See section ↑7.1.9, Saving and Recalling Plug-in Presets and ↑7.3.4, Using VST/AU Plug-in Presets for more information.



You cannot move Plug-ins within the Plug-in Chain. To do this, use for example the Plug-in List in the channels of the Mixer above (see the Plug-in List description in section ↑13.2.5, Adjusting Settings in the Channel Strips).

13.4 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.

As in the little Plug-in Chain above, the Plug-ins are arranged into an horizontal series, the audio travelling from left to right through each Plug-in of that channel.



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: ↑13.4.1, The Plug-in Header.
- **Internal Effects and Drumsynths** have their own custom panels: ↑13.4.2, Panels for Drumsynths and Internal Effects.
- The **Sampler** Plug-in has a special, extended panel: ↑13.4.3, Panel for the Sampler.

- **Native Instruments Plug-ins** provide dedicated panels inspired from the user interface of each particular Native Instruments product: ↑13.4.4, Custom Panels for Native Instruments Plug-ins.
- Native Instruments and External Plug-ins can also be **undocked** and opened in a floating window: ↑13.4.5, 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 for all your Plug-in panels to be displayed in the Plug-in Strip to be displayed entirely, click the name of the desired Plug-in in the Plug-in Chain above to make the Plug-in Strip scroll to its panel:



Click a Plug-in in the Plug-in Chain to display its panel in the Plug-in Strip below.

If the MASCHINE window is not wide enough for all Plug-in panels to be displayed at once, an horizontal scroll bar appears at the bottom of the Plug-in Strip to display the hidden part.



Use the horizontal scroll bar to display the other Plug-in panels.

If the MASCHINE window is not high enough for any Plug-in panel to be displayed entirely, a vertical scroll bar appears on the right of the panel to display the hidden part:



Use the vertical scroll bar to display the rest of the Plug-in.

13.4.1 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 ↑13.4.4, 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 ↑13.4.4, 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.

13.4.2 Panels for Drumsynths and Internal Effects

For Drumsynths 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 Drumsynth and two Internal Effects.

As with all other Plug-ins, the panels for Drumsynths 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 ↑13.4.1, 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 Drumsynths 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 ↑9, Using the Drumsynths for Drumsynths and chapter ↑15, 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 ↑11.5, Recording and Editing Modulation for more on modulating parameters.

13.4.3 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.

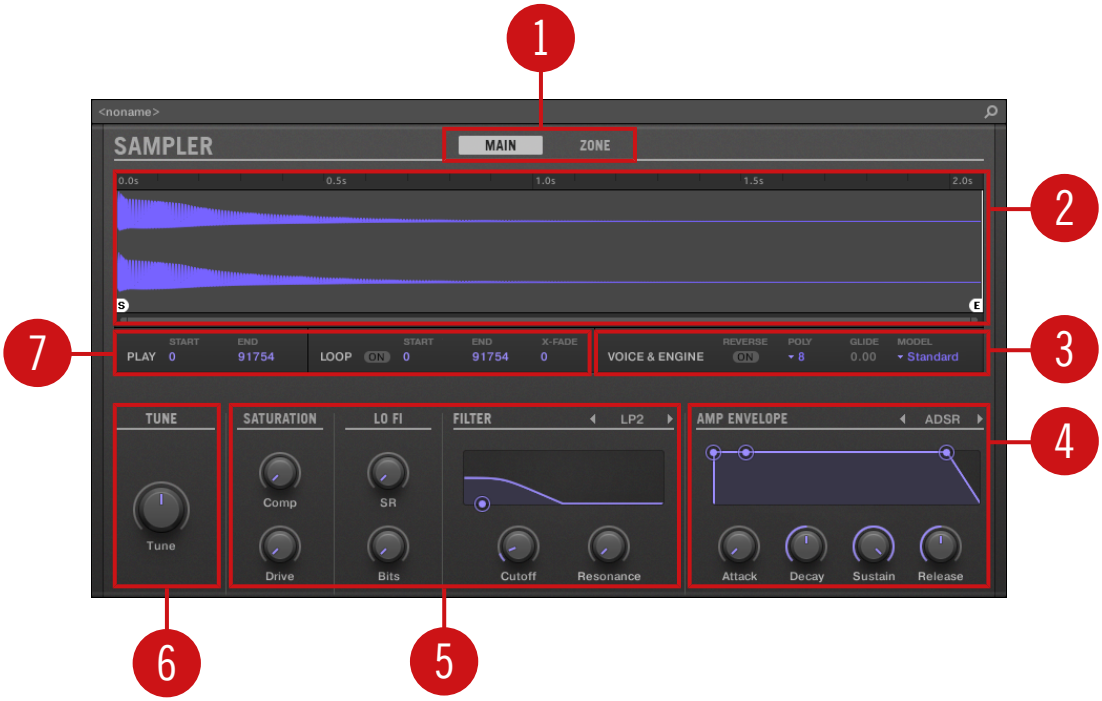
As with all other Plug-ins, the panel for the Sampler shows the Plug-in Header at the top. This Header contains the name of the current preset and the Quick Browse icon — see section ↑13.4.1, The Plug-in Header above for more details.

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 ↑11.5, 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, see section ↑17, 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, see section ↑7.2.1, Page 1: Voice Settings / Engine and ↑7.2.2, Page 2: Pitch / Envelope, respectively.

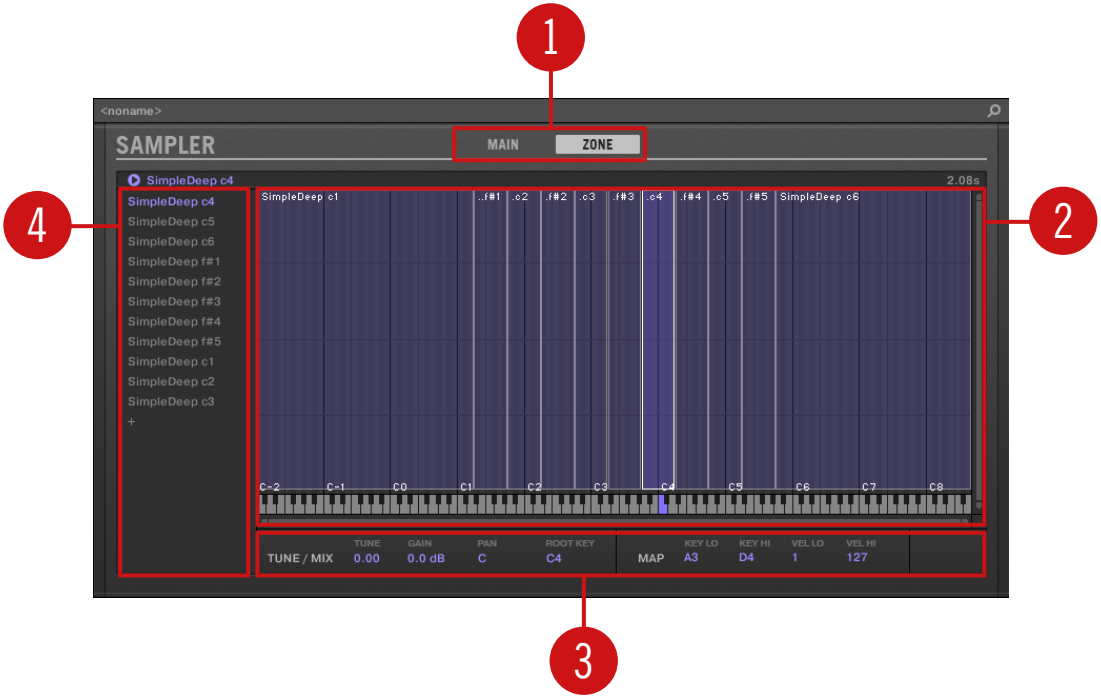
(**4**) **AMP ENVELOPE section**: Allows you to adjust the Type parameter and the envelope parameters from the Pitch/Envelope page in the Control area. For more details, see section ↑7.2.2, Page 2: Pitch / Envelope.

(**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, see section ↑7.2.3, 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, see section ↑7.2.2, 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, see section ↑17, 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, see section ↑17, 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, see section ↑17.5.6, 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, see section ↑17, 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 ↑11.5, Recording and Editing Modulation for more on modulating parameters.

13.4.4 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 ↑13.4.1, 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:



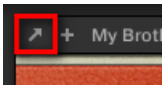
Click the little "+" in the Header to switch between Default and Additional view.

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 ↑3.6.6, 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 ↑13.4.5, Undocking a Plug-in Panel (Native Instruments and External Plug-ins Only) for more information.

13.4.5 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 ↑7.3.1, Opening/Closing Plug-in Windows for more on this.

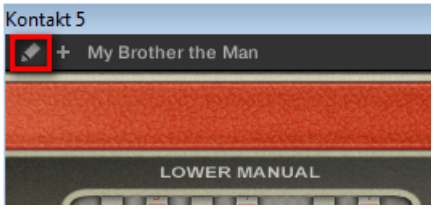
Undocking a Native Instruments Plug-in

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 ↑13.4.4, 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.

14 Using Effects

At each Project level (Sound, Group and Master) it is possible to add effects in 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, Drumsynth, Native Instruments or External Plug-in) — this allows the Sound to generate its own audio. If instead you plug an effect to 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 Sounds and Groups. See section ↑14.1, Applying Effects to a Sound, a Group or the Master below for more information.

Most of the features used in the procedures mentioned in this chapter have been already described in chapter ↑7, 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.

14.1 Applying Effects to a Sound, a Group or the Master

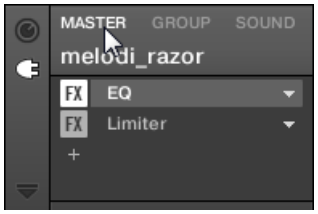
The procedures for applying an effect at the Sound, Group or Master level are very similar.

14.1.1 Adding an Effect

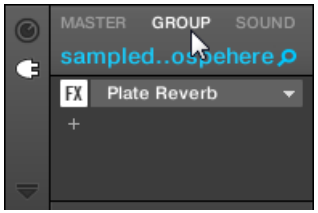
Let's add an Effect Plug-in somewhere in the Project. We first describe the detailed procedure in Arrange view, then we will show the equivalent procedure in Mix view.

Choose the Channel in Which the Effect Is to Be Inserted

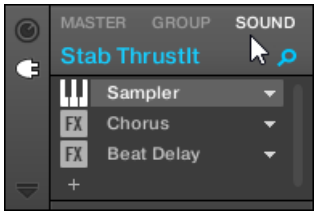
1. If you want to apply the effect to the Master (to process the audio of the whole Project), click the MASTER tab in the top left corner of the Control area.



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.

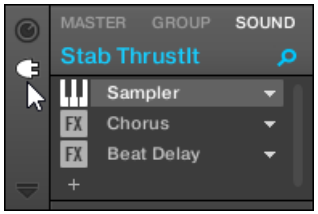


3. If you want to apply the effect to a Sound, click its parent Group in the Group List (on the left of the Arranger), click the desired Sound slot in the Sound List (on the left of the Pattern Editor), and click the SOUND tab in the top left corner of the Control area.

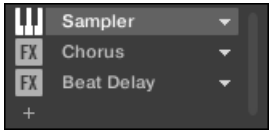


Load the Effect in a New Slot

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

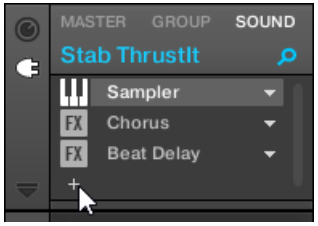


The icon lights up. The Plug-in List appears nearby, showing a stack of all Plug-ins already loaded in the channel:

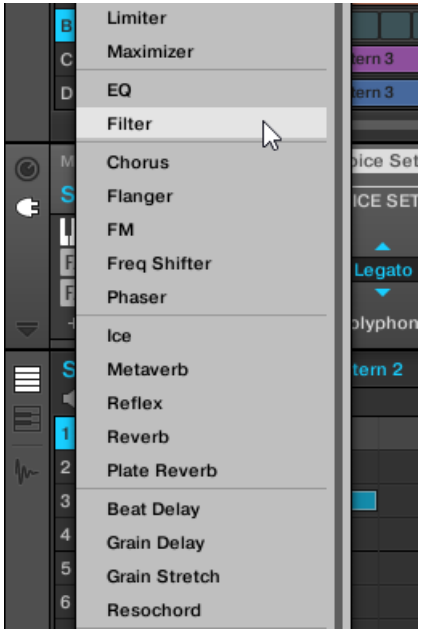


In the Plug-in List each Plug-in has its own slot.

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. Please refer to section ↑4.2, Searching and Loading Files from the Library for more information. Alternatively you can use Quick Browse to recall the search query that was used to load a particular Plug-in preset — see section ↑4.8, Using Quick Browse for more information on this.
- For all details on the parameters for each MASCHINE effect, please refer to chapter ↑15, Effect Reference.
- For additional, specific information on VST/AU plug-ins, see ↑7.3, 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 details, see ↑7.1.9, 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 the one described above for the Arrange view.



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. See section ↑13.2.1, Displaying Groups vs. Displaying Sounds for more information.

First, display the Plug-in List in Mix view:

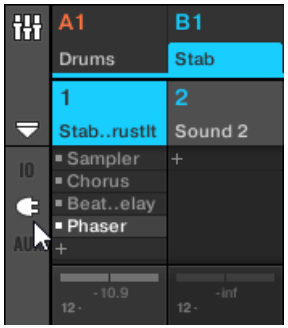
1. Click the Mix View button (showing three little faders) at the left of the Arranger to switch from Arrange view to Mix view:



2. If it's not already open, open the extended view of the Mixer by clicking the down-pointing arrow at the left of the Mixer:

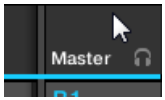


3. Check that the Plug-in icon is active on the left of the Mixer — if not, click it to display the Plug-in List in each channel strip.



Then, put the focus on the channel (Master, Group or Sound) in which you want to load the effect:

1. To set the focus to 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.



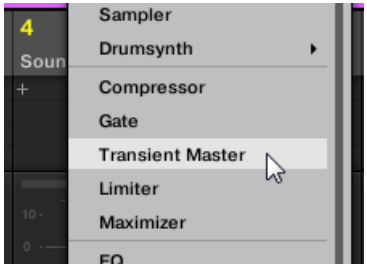
   If necessary click Master in that header to switch from the Cue channel to the Master channel.

2. To set the focus to 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 to 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 directly 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 afterwards.



For more information on the Mixer and the Mix view in MASCHINE, please refer to section ↑13.2, The Mixer.

Adding an Effect on the Controller

1. Press the CONTROL button to enter Control mode.

2. If you want to apply the effect to the Master (to process the audio of the whole Project), press F1 to select the MASTER tab.
3. If you want to apply the effect to a Group (to process the audio of the whole Group), press F2 to select the GROUP tab and press GROUP + the pad 9–16 corresponding to the desired Group. If the desired Group is in another bank, before you select the Group you first need to press GROUP + the Left or Right Arrow button below the display to switch to the Group bank containing that Group.
4. If you want to apply the effect to a Sound, press F3 to select the SOUND tab, select the Group containing that Sound (see previous step), and press SELECT + the pad of that Sound (or simply press its pad if pads are in Pad Mode).
5. Press NAV + F3 (PLUG-IN) to display the Plug-in slots of the selected channel (Sound, Group or Master).



6. While holding NAV, turn the Control encoder or press the dimmed pads to select the desired Plug-in slot (the name of the Plug-in currently loaded in the selected slot appears in the middle of the display). If you want to add the effect in addition to the existing Plug-ins, turn the Control encoder clockwise until the "+" is highlighted on the display, or press the last dimmed pad.



7. Press SHIFT + BROWSE to open the Plug-in Browser and browse the available Effect Plug-ins.

8. Press F1 to select FILTER.
9. If you have selected the first Plug-in slot of a Sound, press the Left/Right Arrow button to select the 1/2: TYPE parameter. If you have selected any other Plug-in slot the TYPE field is the only field available.
10. Turn the Control encoder to set the TYPE to INTERNAL for MASCHINE effects, NI for VST/AU effects from Native Instruments, or EXTERNAL for VST/AU effects from third-party manufacturers.
11. If you have selected the first Plug-in slot of a Sound, press the Right Arrow button to select the 2/2: SUBTYPE parameter, and turn the Control encoder to set the SUBTYPE to EFFECT.
    If you have selected any other Plug-in slot the SUBTYPE field is not available.
12. Press F2 (LIST) to show the filtered list.
13. Turn the Control encoder to browse the available effect Plug-ins.
14. When you have found the effect you want to use, press the Control encoder to load it.
    The effect is loaded into the selected Plug-in slot.
15. Leave the Plug-in Browser and switch back to Control mode by pressing CONTROL (or by pressing SHIFT + BROWSE again).

→ The effect is automatically displayed on your controller. Now you can edit the effect parameters — see section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area for more information.

Notes and Hints on Loading Effects from Your Controller

- If you have selected a Plug-in slot already containing a Plug-in, this Plug-in will be replaced with the new Effect Plug-in. If you have instead selected the "+" entry, the new Effect Plug-in will be appended to the list of loaded Plug-ins.
- Instead of using the Plug-in Browser, you can also press BROWSE and use the global Browser to load a particular preset for an Effect Plug-in. Please refer to section ↑4.2, Searching and Loading Files from the Library for more information.

- You can quickly load effects in several Plug-in slots in a row: Instead of leaving the Plug-in Browser at the last step above, hold NAV and turn the Control encoder (or press any dimmed pad) to select another Plug-in slot, then release NAV and you can directly load another effect into this other slot.
- For all details on the parameters for each MASCHINE effect, please refer to chapter ↑15, Effect Reference.
- For additional, specific information on VST/AU plug-ins, see ↑7.3, 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 in the software. For more details, see ↑7.1.9, Saving and Recalling Plug-in Presets.

14.1.2 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 other Plug-in slots, saving and recalling effect presets, etc.

Here we provide a reminder of every operation available on the effects both in 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.

Action	Procedure
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 ↑4, 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). 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 ↑7.1, Plug-in Overview. For more details on the specific operations available for Native Instruments and External Effects, see ↑7.3, Using Native Instruments and External Plug-ins.

Other Effect Operations on the Controller

Once you have selected an Effect Plug-in in a Sound, in a Group or in the Master, following actions are available:

Action	Procedure
Replace the effect	Select the effect to be replaced and use the Plug-in Browser (press SHIFT + BROWSE) or the Browser (BROWSE) as descibed in section ↑14.1.1, Adding an Effect above.
Remove the effect	Select the effect to be removed, press SHIFT + BROWSE to open the Plug-in Browser, press F2 (LIST) to display the list of available effects, turn the Control encoder at full left to select (NONE), and press the Control encoder to confirm. The effect is removed from the Plug-in slot and all following effects are shifted one slot up to fill the gap.
Bypass the effect	Press NAV + SHIFT + the lit pad of the selected Effect.
Recall an effect preset	Use the Browser (press BROWSE) to access and load any effect preset. See section ↑4.2, Searching and Loading Files from the Library for more on this.
Native Instruments and External Effects	
Open/close the effect window	Press NAV + the lit pad of the selected Effect.

You will find more details on Plug-in operation in section ↑7.1, Plug-in Overview. For more details on the specific operations available for Native Instruments and External Effects, see ↑7.3, Using Native Instruments and External Plug-ins.

14.1.3 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 to 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 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:

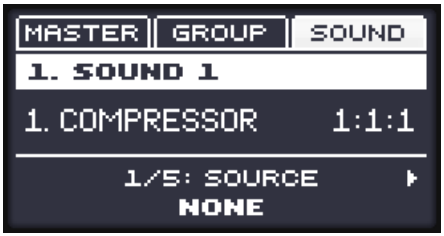
- Internal Plug-ins: Compressor, Maximizer, Limiter, Gate, Filter.
- AU plug-ins (Native Instruments and External): Any AU plug-in with side-chain input.
- VST plug-ins (Native Instruments and External): Any VST plug-in with multiple inputs.

When you load any of these Plug-ins in 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 (i.e. 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.



The SIDE-CHAIN INPUT page of the Compressor Plug-in on the controller.

Please refer to section ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to access Parameter pages.

The parameters of the side-chain input are not available in the Plug-in panel of the Plug-in Strip.

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 disabled, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups. In the menu these outputs are labeled as follows: For Groups: **[Group name]** (e.g., *Drums*) For Sounds: **[Group name]: [Sound name]** (e.g., *Drums: Kick*) In the selector display these outputs are labeled as follows: For Groups: **[Group name]** (e.g., Drums) 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	

Parameter	Description
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 the side-chain setup.

14.2 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 host if MASCHINE is used as a plug-in.

To do this, we will choose a Sound and make use of the **Audio page** in its **Input properties**.

14.2.1 Step 1: Configure MASCHINE Audio Inputs

MASCHINE's audio input configuration can be done in the software only. Furthermore, this configuration is necessary only if you use MASCHINE as stand-alone application.



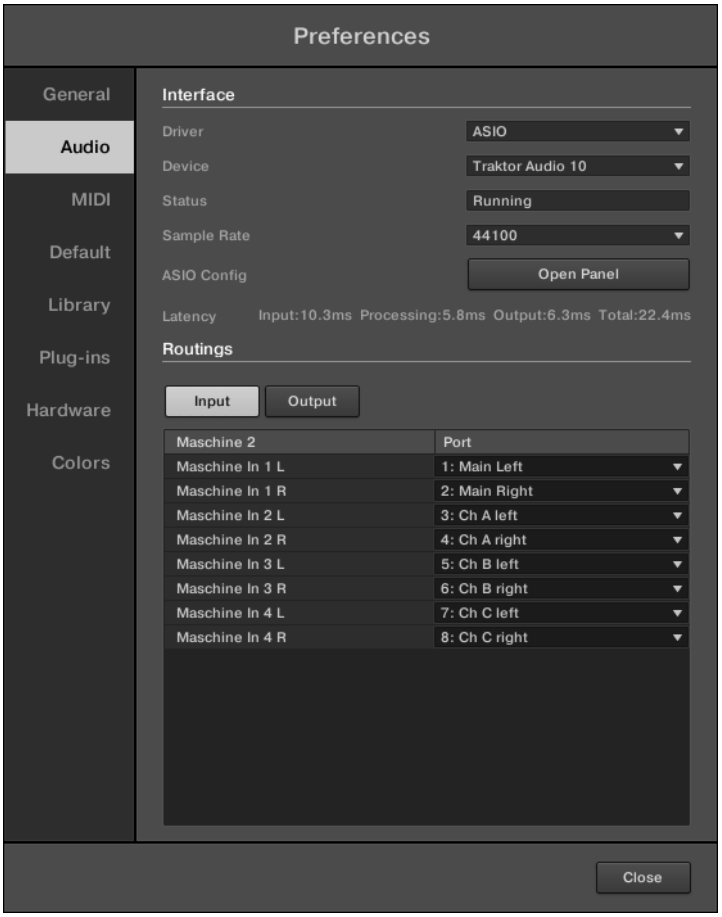
If you are using MASCHINE as a plug-in in a host application, MASCHINE can receive audio from your host on any of its eight mono virtual inputs. To know how to route audio in your host to the virtual inputs of the MASCHINE plug-in, please refer to your host documentation. When this is done, go directly to section ↑14.2.2, 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 inputs of the audio interface are activated. To do this:

1. Select the *Preferences…* entry from the File menu to open the Preferences panel.
2. In the Audio page click the Input button, activate the desired inputs by clicking their field in the Port column and selecting a physical input from the drop-down menu, then click 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 ↑3.6.2, 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.

14.2.2 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 — see section ↑12.1.1, 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 ↑12.1.1, Sending External Audio to Sounds.

On your controller:

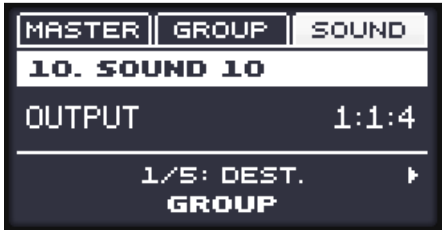
1. Press the CONTROL button to enter Control mode.
2. Press F3 to select the SOUND tab.
3. Press GROUP + the pad 9–16 corresponding to the Group containing the empty Sound you want to use. If the Group in question is in another bank, before you select the Group you first need to press GROUP + the Left or Right Arrow button below the display to switch to the Group bank containing that Group.
4. Press SELECT + the unlit pad of the empty Sound you want to use (or simply hit its unlit pad if pads are in Pad Mode).
5. Press NAV + F2 (CHNL.) to show the Channel properties of the selected Sound.



6. While holding NAV, turn the Control encoder at full left or simply press pad 13 to select the Input properties for that Sound.
7. While holding NAV, press the Left Arrow button to select the AUDIO Parameter page.

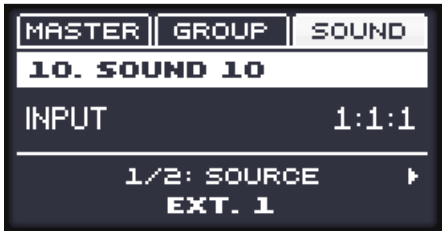


8. Release NAV and the AUDIO page appears on the display.



This page holds two parameters: SOURCE (which selects the source) and GAIN (which adjusts the level of the input).

9. Press the Left Arrow button to select 1/2: SOURCE.
10. Turn the Control encoder to set SOURCE to EXT. 1.



→ Now the external audio is routed to your Sound! You can adjust the level of the incoming signal by adjusting the GAIN parameter (press the Right Arrow button, then turn the Control encoder).

14.2.3 Step 3: Load an Effect to Process an Input



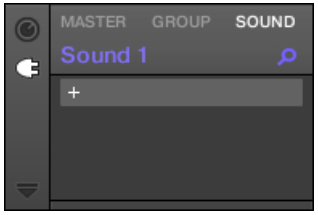
Here we describe the procedure in Arrange view. You can also do this in Mix view — see section ↑14.1.1, Adding an Effect.

You can now insert an Effect Plug-in into this Sound so that it processes the incoming audio.

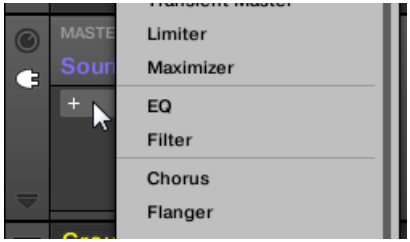
1. At the far left of the Control area, click the Plug-in icon to display the Plug-ins of the Sound:

   The icon lights up. The Plug-in List appears nearby. Since we have chosen an empty Sound in section ↑14.2.2, 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!

Loading an Effect to Process an Input on the Controller

On your controller:

1. Press NAV + F3 (PLUG-IN) to show the Plug-in slots of the selected Sound.



   Since we have selected an empty Sound, while holding NAV you see (NONE) on the display (i.e. there are no Plug-ins to navigate yet).

2. Press SHIFT + BROWSE to open the Plug-in Browser and browse the available Instrument and Effect Plug-ins.
3. Press F1 to select FILTER.
4. Press the Left Arrow button under the display to select 1/2: TYPE.
5. Turn the Control encoder to choose EFFECT.
6. Press the Right Arrow button under the display to select 2/2: VENDOR.
7. Turn the Control encoder to select the vendor, e.g., INTERNAL.
8. Press F2 (LIST) to show the filtered list of results.
9. Turn the Control encoder to select an effect and press the Control encoder to load it.

→ The selected effect is loaded in a new Plug-in slot and directly starts to process your external audio! By pressing CONTROL or SHIFT + BROWSE again you can switch back to Control mode and adjust the effect.

14.3 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: ↑14.3.1, 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 via the Output properties of the corresponding Sounds and Groups: ↑14.3.2, Step 2: Route Audio to the Send Effect.

14.3.1 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 destination for other channels of your Project!

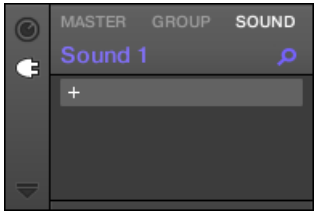
The procedure in Arrange view is described here. You can also do this in Mix view — see section ↑14.1.1, Adding an Effect.

In this example we will use an empty Sound:

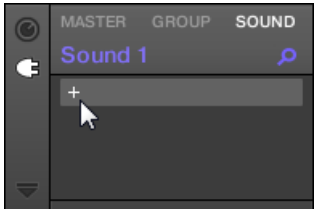
1. Choose the empty Sound you want to use as send effect: On the left of the Arranger click the Group containing that Sound, on the left of the Pattern Editor click the desired Sound slot, and click the SOUND tab in the top left corner of the Control area.
2. At the far left of the Control area, click the Plug-in icon to display the Plug-ins of the Sound:



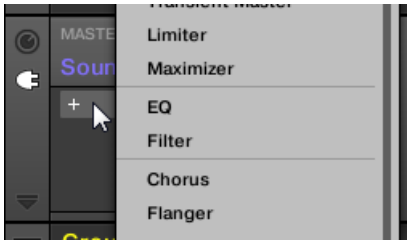
The icon lights up. The Plug-in List appears. Since we have chosen an empty Sound, the Plug-in List should be empty:



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 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 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, see ↑4.2, 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 (see section ↑14.3.2, Step 2: Route Audio to the Send Effect below). 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, see section ↑5.2.3, Renaming Sound Slots.

Set Up a Sound as Send Effect on the Controller

First, select the first Plug-in slot of an empty Sound:

1. Press the CONTROL button to enter Control mode.
2. Press F3 to select the SOUND tab.
3. Press GROUP + the pad 9–16 corresponding to the Group containing the empty Sound you want to use. If the Group in question is in another bank, before you select the Group you first need to press GROUP + the Left or Right Arrow button below the display to switch to the Group bank containing that Group.
4. Press SELECT + the unlit pad of the empty Sound you want to use (or simply hit its unlit pad if pads are in Pad Mode).

5. Press NAV + F3 (PLUG-IN) to show the Plug-in slots of the selected Sound.



   Since we have selected an empty Sound, while holding NAV you see (NONE) on the display (i.e. there is no Plug-ins to navigate yet).

→ Plug-in slot 1 is automatically selected since it's the only existing Plug-in slot for now.

Now load the desired effect into that Plug-in slot:

1. Press SHIFT + BROWSE to browse Plug-ins.
2. Press F1 to select FILTER.
3. Check that FILTER is selected at the top left of the display. If not, press F1 to select it.
4. Press the Left Arrow button under the display to select 1/2: TYPE.
5. Turn the Control encoder to choose EFFECT.
6. Press the Right Arrow button under the display to select 2/2: VENDOR.
7. Turn the Control encoder to select the vendor, e.g., INTERNAL.
8. Press F2 (LIST) to show the filtered list of results.
9. Turn the Control encoder to select an effect (e.g., the MASCHINE Compressor) and press the Control encoder to load it.

→ The selected effect is loaded in a new Plug-in slot. By pressing CONTROL or SHIFT + BROWSE again you can switch back to Control mode and adjust the effect via the usual methods (see ↑3.3.6, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control 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 terms, 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, see ↑4.2, 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 (see section ↑14.3.2, Step 2: Route Audio to the Send Effect below). You can rename the Sound slot in the software as follows:

1. Double-click the name of the Sound slot in the Sound List.
   The name gets 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, see section ↑5.2.3, Renaming Sound Slots.

14.3.2 Step 2: Route Audio to the Send Effect

Once you have configured a Sound or Group as send effect (see ↑14.3.1, 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.



Here we describe the procedure in Arrange view. You can also do this in Mix view — see section ↑12.1.2, 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.

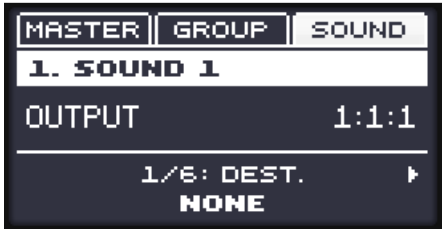
Routing Audio to the Send Effect on the Controller

1. Press the CONTROL button to enter Control mode.

2. If you want to route a Group's output to the send effect, press F2 to select the GROUP tab, if necessary press GROUP + Left/Right Arrow to select the bank containing that Group, and press GROUP + the pad 9–16 of the desired Group.
3. If you want to route a Sound's output to the send effect, press F3 to select the SOUND tab, select the Sound's parent Group as described in the previous step, and press SELECT + the pad of that Sound (or simply press its pad if pads are in Pad Mode).
4. Press NAV + F2 (CHNL.) to access the Channel properties of the selected Sound/Group.
5. While holding NAV, press pad 14 to select the Output properties (OUT).
6. While holding NAV, press the Left/Right Arrow buttons to select the AUX page of parameters.

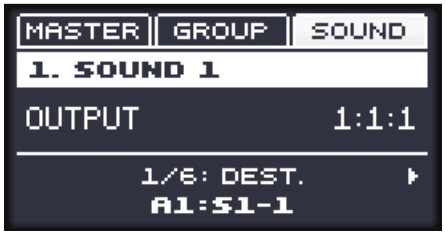


7. Release NAV and the AUX page appears on the display.



8. Press the Left Arrow button (if necessary repeatedly) to select 1/6: DEST..
9. Turn the Control encoder to assign that auxiliary output to the desired send effect. In addition to the usual outputs available in the field, you will find all the Sounds and Groups with an Effect Plug-in loaded in their first Plug-in slot — see ↑14.3.1, Step 1: Set Up a Sound or Group as Send Effect. For each Sound, the entry shows the Group letter and

number followed by the Sound number (in the example underneath we selected the entry A1:S1-1 for the AUX 1 output).



10. Press the Right Arrow button to select 2/6: LEVEL, and turn the Control encoder to adjust the level of the signal sent through the auxiliary output.

The signal of each auxiliary output is taken by default after the main output level control has been applied. This can be changed via the 3/6: ORDER parameter of the same page. For more information, please see section ↑12.1.3, Setting Up Auxiliary Outputs for 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 another send effect send using AUX 2.

14.3.3 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 (see ↑14.3.2, 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 on each Sound/Group via the respective Level controls in their Output properties.
- **MIDI control**: As with any other Sound, Sounds used as send effects can be controlled via MIDI! This is not only true for all effect parameters (see ↑12.2.3, Controlling Parameters via MIDI and Host Automation), but also for effects that require incoming notes (e.g., a vocoder). See ↑12.2.1, 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 automation in Control or Step mode for the desired effect parameters — or even record notes for effects requiring incoming notes (e.g., the vocoder mentioned above).

14.4 Creating Multi-Effects

Creating a multi-effect unit is basically 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 ↑14.3, 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 into Several Sounds

If you plan to build a 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, e.g.:

- The Sound List lets 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 a better control on 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 ↑14.3, Creating a Send Effect to send the output of each Sound to the input of the next one in the sequence.

Which of the Main, Aux 1, and Aux 2 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 than any of its auxiliary outputs because it provides a few useful additional features not available on the auxiliary outputs:

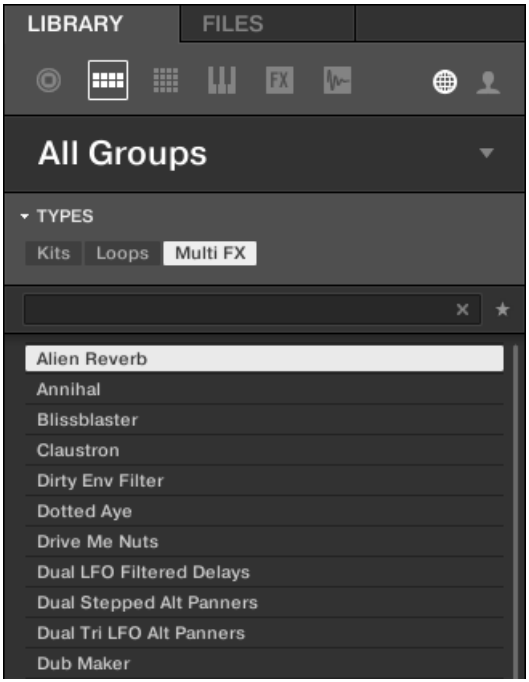
- Cue switch: You can send the Main output of any Sound to the Cue bus and pre-listen the channel on a distinct MASCHINE output (typically your headphones). Note that enabling the Cue switch automatically mutes both Aux 1 and Aux 2 outputs as well, but it doesn't send them to the Cue bus!
- Hardware 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 is overkill, you can afterwards still add more effects on the multi-effect Group itself — 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 time to name every Sound in this multi-effect Group after the effect(s) inserted and to give it a name that allows you to 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:



Groups of the Multi FX type in the LIBRARY pane.

15 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. Fore more information on how to use effects within your Project, please read chapter ↑14, 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 following categories:

- **Dynamics**: Compressor, Gate, Transient Master, Limiter, and Maximizer. See section ↑15.1, Dynamics.
- **Filtering effects**: EQ and Filter. See section ↑15.2, Filtering Effects.
- **Modulation effects**: Chorus, Flanger, FM, Freq Shifter, and Phaser. See section ↑15.3, Modulation Effects.
- **Spatial and Reverb effects**: Ice, Metaverb, Reflex, Reverb, and Plate Reverb. See section ↑15.4, Spatial and Reverb Effects.
- **Delays**: Beat Delay, Grain Delay, Grain Stretch, and Resochord. See section ↑15.5, Delays.
- **Distortion effects**: Distortion, Lofi, and Saturation. See section ↑15.6, Distortion Effects.
- **Performance FX**: Designed for spontaneous, tactile control in recording or live performance, these complex multi-effects alter motion, space, dynamics, and more for added expression. See section ↑15.7, Perform FX.

15.1 Dynamics

15.1.1 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	
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.



The Compressor on the controller: MAIN page.

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 disabled, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups. In the menu these outputs are labeled as follows: For Groups: **[Group name]** (e.g., *Drums*) For Sounds: **[Group name]: [Sound name]** (e.g., *Drums: Kick*) In the selector display these outputs are labeled as follows: For Groups: **[Group name]** (e.g., Drums) 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 ↑14.1.3, Using the Side-Chain Input.



The Compressor on the controller: SIDE-CHAIN INPUT page.

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.

15.1.2 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).



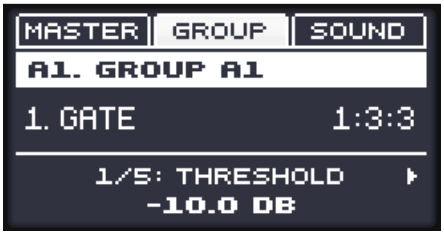
The Gate panel in the Plug-in Strip.

Main Page



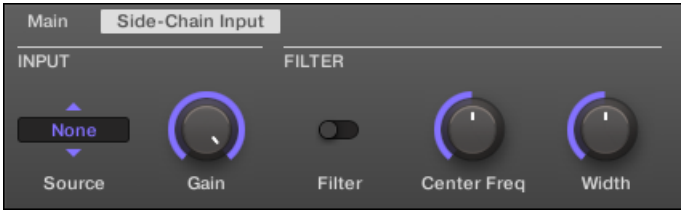
The Gate in the Control area: Main page.

Parameter	Description
DEPTH Section	
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.



The Gate on the controller: MAIN page.

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 disabled, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups. In the menu these outputs are labeled as follows: For Groups: **[Group name]** (e.g., *Drums*) For Sounds: **[Group name]: [Sound name]** (e.g., *Drums: Kick*) In the selector display these outputs are labeled as follows: For Groups: **[Group name]** (e.g., Drums) 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 ↑14.1.3, 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.

15.1.3 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.

Parameter	Description
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.



The Transient Master on the controller.

15.1.4 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



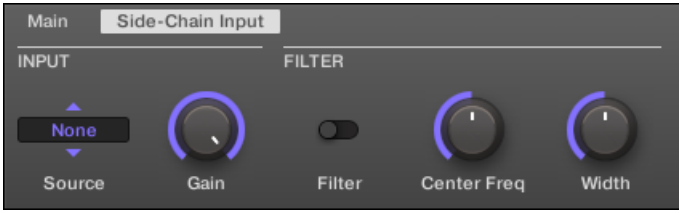
The Limiter in the Control area: Main page.

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).



The Limiter on the controller: MAIN page.

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	
Source	Selects the audio signal you want to use as side-chain signal to control the Plug-in. Available options are **None** (side-chain disabled, default setting), the outputs of all (other) Sounds, and the outputs of all (other) Groups. In the menu these outputs are labeled as follows: ▪ For Groups: **[Group name]** (e.g., Drums) ▪ For Sounds: **[Group name]**: **[Sound name]** (e.g., Drums: Kick) ▪ In the selector display these outputs are labeled as follows: ▪ For Groups: **[Group name]** (e.g., **Drums**) ▪ 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).

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 ↑14.1.3, Using the Side-Chain Input.



The Limiter on the controller: SIDE-CHAIN INPUT page.

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.

15.1.5 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



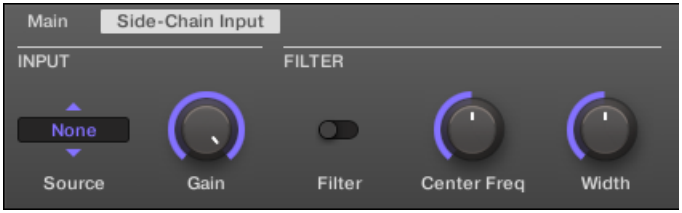
The Maximizer in the Control area: Main page.

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.



The Maximizer on the controller: MAIN page.

Side-Chain Input Page



The Maximizer 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 disabled, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups. In the menu these outputs are labeled as follows: For Groups: **[Group name]** (e.g., *Drums*) For Sounds: **[Group name]: [Sound name]** (e.g., *Drums: Kick*) In the selector display these outputs are labeled as follows: For Groups: **[Group name]** (e.g., Drums) 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 ↑14.1.3, Using the Side-Chain Input.



The Maximizer on the controller: SIDE-CHAIN INPUT page.

15.2 Filtering Effects

15.2.1 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.

Parameter	Description
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.



The EQ on the controller: FREQ / GAIN page.

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.



The EQ on the controller: WIDTH / OUTPUT page.

15.2.2 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.

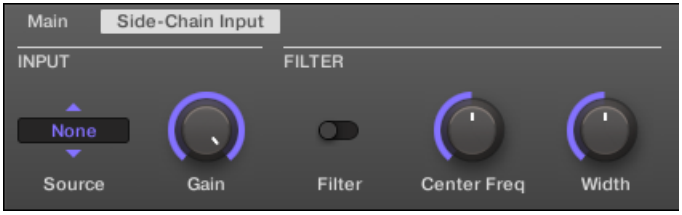
Parameter	Description
TYPE Section	
Mode	Select between four different filter modes: *LP* (low-pass), *BP* (band-pass), *HP* (high-pass), and *Notch*. Depending on the mode selected, the following parameters vary as indicated.
FREQ Section	
Cutoff	Controls the cutoff frequency of the filter.
Resonance	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	

Parameter	Description
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.



The Filter on the controller: MAIN page.

Side-Chain Input Page



The Filter 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 disabled, default setting), the outputs of all (other) Sounds , and the outputs of all (other) Groups. In the menu these outputs are labeled as follows: For Groups: **[Group name]** (e.g., *Drums*) For Sounds: **[Group name]: [Sound name]** (e.g., *Drums: Kick*) In the selector display these outputs are labeled as follows: For Groups: **[Group name]** (e.g., Drums) 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 ↑14.1.3, Using the Side-Chain Input.



The Filter on the controller: SIDE-CHAIN INPUT page.

15.2.3 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: ▪ American Cabinet ▪ British Cabinet ▪ Vintage Cabinet ▪ Modern Cabinet
MICROPHONE Section	

Element	Description
Microphone	Selects from six different microphone types, which includes: ▪ Dynamic 57 ▪ Dynamic 421 ▪ Dynamic 441 ▪ Ribbon 121 ▪ Condenser 47 ▪ 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	
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%).

15.3 Modulation Effects

15.3.1 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.

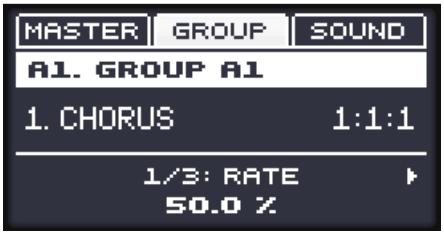


The Chorus panel in the Plug-in Strip.



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.



The Chorus on the controller.

15.3.2 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.



The Flanger on the controller.

15.3.3 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.



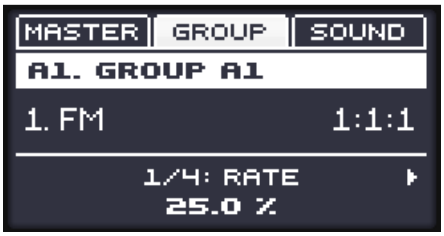
The FM panel in the Plug-in Strip.



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. With high Split settings, the effect becomes more “gritty” and crackling.

Parameter	Description
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.



The FM on the controller.

15.3.4 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.

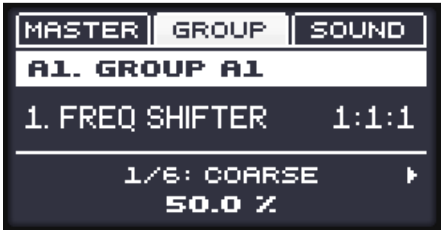


The Freq Shifter panel in the Plug-in Strip.



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.



The Freq Shifter on the controller.

15.3.5 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.
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.

Parameter	Description
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.



The Phaser on the controller.

15.4 Spatial and Reverb Effects

15.4.1 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.



The Ice on the controller.

15.4.2 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.

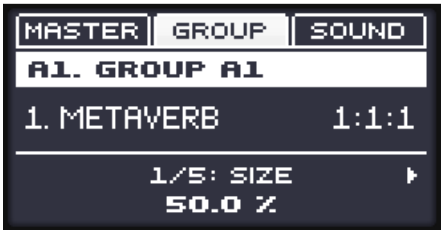


The Metaverb panel in the Plug-in Strip.



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	
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.



The Metaverb on the controller.

15.4.3 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.



The Reflex reverb on the controller.

15.4.4 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.



The Reverb on the controller.

15.4.5 Reverb

The Reverb effect provides three different modes which are described in this section.



The Room Reverb panel in the Plug-in Strip.

15.4.5.1 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%).
COLOR Section	

Element	Description
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).

15.4.5.2 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%).

Element	Description
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).
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).

15.4.5.3 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	
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.

Parameter	Description
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.



The Plate Reverb on the controller.

15.5 Delays

15.5.1 Beat Delay

The Beat Delay is specialized for 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 a lot of 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.

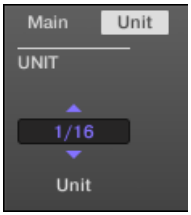
Parameter	Description
DELAY Section	
Time	The Time parameter defines the delay length in note values. The available values depend on the unit defined by the Unit parameter on the Unit page (see below). They range from half a unit to 16 units.
Offset	This parameter is used to shift the start of the delay 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.

Parameter	Description
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 left and right channel. At full left, this control is disabled.
OUTPUT Section	
Stereo	This parameter widens the stereo field of the effect. Values go from -100.0 % to 100 % — 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.



The Beat Delay on the controller: MAIN page.

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.



The Beat Delay on the controller: UNIT page.

15.5.2 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	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.



The Grain Delay on the controller: MAIN page.

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).



The Grain Delay on the controller: OUTPUT page.

15.5.3 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.

Parameter	Description
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.



The Grain Stretch on the controller.

15.5.4 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.

Parameter	Description
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.



The Resochord on the controller.

15.6 Distortion Effects

15.6.1 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.

Parameter	Description
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.
Release	This parameter determines how fast the distorted sound dies down when the Gate is enabled.

Analog Distortion

Analog mode adds grit to Drums and Percussion, Lead Synths and Guitars.

Element	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.

Element	Description
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%).



The Distortion on the controller.

15.6.2 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.



The Lofi on the controller.

15.6.3 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.

Classic Mode – Parameter	Description
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.



The Saturator in Classic mode on the controller.

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.

Tube Mode – Parameter	Description
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 disabled. 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.

15.7 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-modelled LP/BP/HP filter with additional saturation parameters and resonance that can be pushed into self-oscillation. For more information see section ↑15.7.1, 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 ↑15.7.2, Flanger.
- **Brst 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 ↑15.7.3, 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 ↑15.7.4, 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 ↑15.7.5, Ring.
- **Stutter**: Stutter is a beat-mangling effect, great for adding glitches and fills to drum patterns and more. For more information see section ↑15.7.6, Stutter.
- **Tremolo**: Tremolo is a tremolo/vibrato effect, useful for adding expression and movement on the fly. For more information see section ↑15.7.7, 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 pitchshifter 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 ↑15.7.8, Scratcher.

For information on how to control a Perform FX parameter using the Smart Strip, refer to Perform Mode.

15.7.1 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	

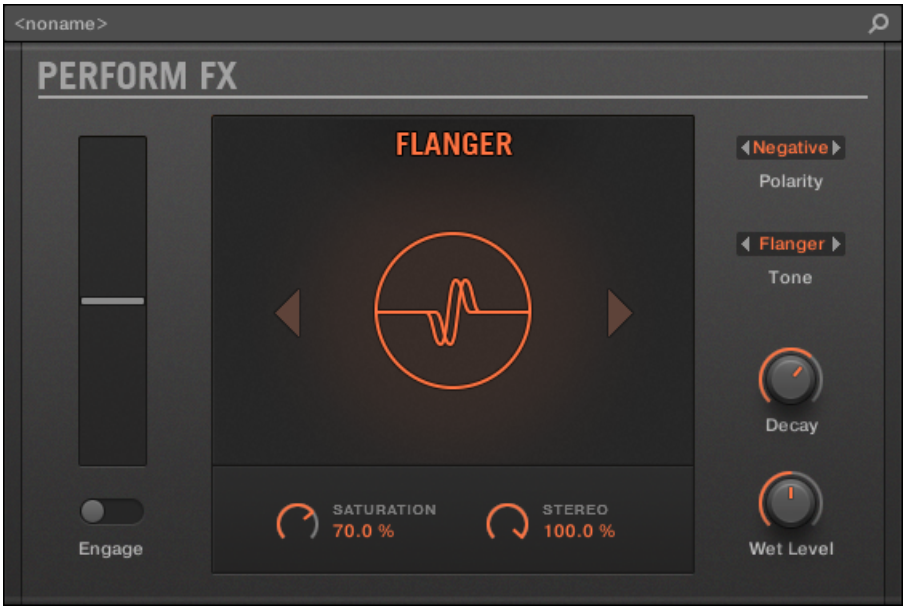
Parameter	Description
Engage	Activates the filter.
Frequency	Sets the cutoff frequency according to the min/max range parameters.
FILTER	
Type	Selects from Low Pass, Band Pass and High Pass modes.
Resonance	Sets the resonance of the filter. Values over 100% will lead to self-oscillation—be careful! Turn 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.

15.7.2 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

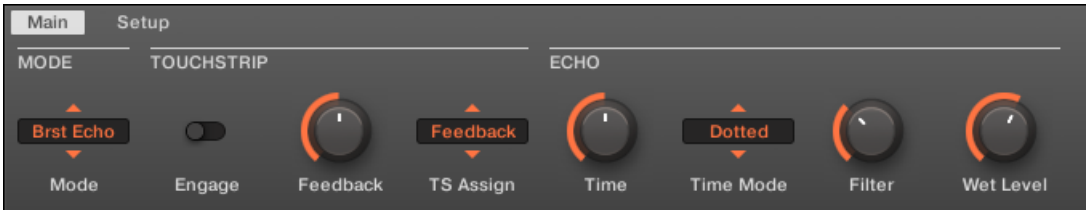
Parameter	Description
COLOR	
Polarity	Flips the phase of the signal in the feedback loop. Negative polarity lowers the pitch by an octave and produces a slightly hollower sound.
Tone	Offers the choice between Flanger mode, essentially a straightforward comb filter or short delay, and Phaser mode, which shifts the phase of the signal in the feedback loop to produce a more rounded, hollow tone.

15.7.3 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.
TS Assign	Assigns the control to Feedback or Time. 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: ▪ In Mix mode, the dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level parameter. ▪ In Replace mode, the dry signal is muted after the first repetition, leaving only the delay tail audible until the effect is released. ▪ 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.

15.7.4 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.
Mix Mode	Sets the routing of the signal: - In Mix mode, the dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level parameter. - 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. - 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.

15.7.5 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: ▪ In Mix mode, the dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level parameter. ▪ 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.

15.7.6 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	
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.

Parameter	Description
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.

15.7.7 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	
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%.

15.7.8 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 disabled. 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.

16 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.

16.1 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 Ideas view is active, when the button is lit 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 (see ↑2.4.5, Pattern Editor) and the Group's Channel properties and Plug-in parameters in the Control area

(see ↑2.4.4, 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 (see ↑2.4.5, Pattern Editor) and the Group's Channel properties and Plug-in parameters in the Control area (see ↑2.4.4, 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 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.

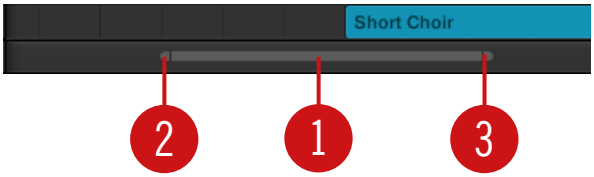
(**4**) **Pattern area**: In each Section of the Arrangement, you can see the name of the Scene assigned to the Section along with the Scene's Patterns stacked vertically for each Group in the Project. The Patterns seen here are the same as those seen when viewing the same Scene in the Ideas view.

16.1.1 Navigating Song View

Song view can be scrolled and zoomed in or out to fit your current needs.

Navigating Song View Horizontally

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 in 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 Arranger from the Controller

Use the View mode of your controller to navigate the Song view in the software:

1. Press and hold the VIEW button to enter View mode. You can also press VIEW + CONTROL to pin the View mode so that you can release VIEW and stay in View mode (see ↑3.3.1, Pinning a Mode on the Controller).
2. Press F1 to select TMEL and use the pads in the table below to navigate the Arranger Song view.

Action	Shortcut
Scroll Arranger left	Press pad 1
Scroll Arranger right	Press pad 3
Zoom in (Arranger)	Press pad 6
Zoom out (Arranger)	Press pad 2



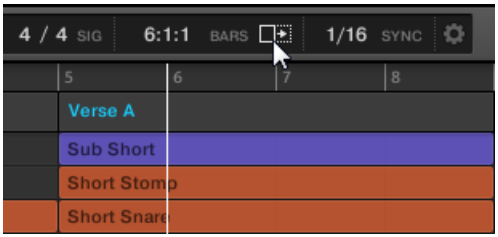
You can also use the Left/Right Arrow buttons and the Control encoder to adjust the zoom factor and scroll position on the display.



In View mode, pads 13–15 additionally allow you to show/hide (or maximize/minimize) the Browser, the Control Lane, and the Mixer (in Mix view) in the software, respectively. See section ↑3.2, Adjusting the MASCHINE User Interface for more information.

16.1.2 Following the Playback Position in Your Project

If the Arranger doesn't display the entire Loop Range currently selected, 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 disabled 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 (see section ↑11.1.3, Following the Playback Position in the Pattern for more information on the Follow function in the Pattern Editor).

16.1.3 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 enabled, 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 disabled (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.

16.1.3.1 Jumping between Scene 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**.

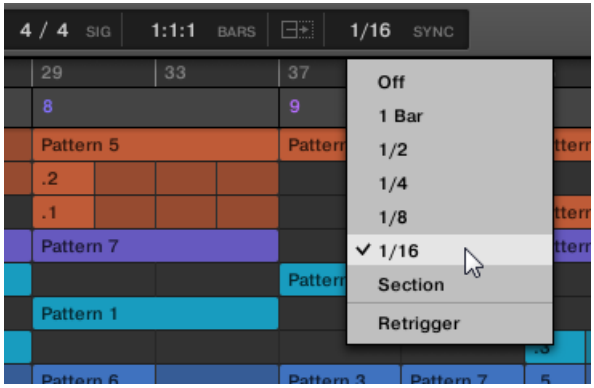
To set the Perform Grid and the Retrigger settings:

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.

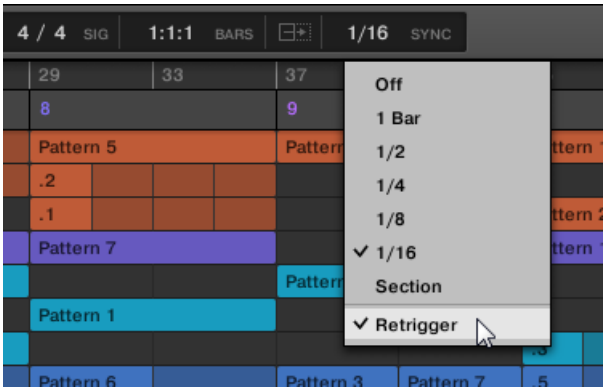


2. To adjust the Perform Grid, click the Performance Grid menu in the Header and select the desired division from the menu:



→ 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 enabled) or from the same position as where it left the current Scene/Section (Retrigger disabled).

16.1.3.2 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 grid for the jump between **Sections**.

To set the Perform Grid and the Retrigger settings:

1. Press SHIFT + SCENE to select Scene mode or 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 and hold GRID to enter Grid mode (or pin it by pressing GRID + CONTROL).
4. Press F1 to select PERF.

⇨ At the bottom of 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 Control knob 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 SHIFT + SCENE to select Scene mode.
2. Press and hold SCENE to enter Scene mode (or pin it by pressing SCENE + CONTROL).
3. At the bottom of 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.

Adjusting the Section Retrigger Setting

To adjust the Scene Retrigger setting:

1. Press SHIFT + SCENE to select Section mode.

2. Press and hold SCENE to enter Scene mode (or pin it by pressing SCENE + CONTROL).
3. Press the Right Page button to access page 4.
4. At the bottom of the display you see the current Retrigger value (OFF by default).
5. Turn the Control knob to select ON.

→ The next time you select a new Section or loop range, it will start from the beginning.

16.2 Using 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.

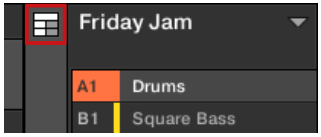
In Ideas view, MASCHINE provides a perfect overview of all your Scenes, Patterns and Groups. Here you can create a Scene by selecting a Pattern for each Group, duplicate your Scenes, clear a Scene and more importantly trigger your Scenes to so you can hear how they sound when played in a particular order.

Pressing a pad in Scene mode will trigger a Scene and in turn trigger all the assigned Patterns. In addition to creating ideas, Scene mode is fantastic for improvisation during a performance.

16.2.1 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.

Scene Mode on the Controller

The **Scene mode** is where you select and manage your Scenes.

To enter Scene mode on your controller:

1. Press SCENE to enter Ideas view.
2. Press and hold SCENE (you can pin it by pressing CONTROL at the same time).

→ Your controller switches to Scene mode. This is indicated by the lit SCENE button.

Now the pads on your controller represent the 16 Scene slots of the current Scene bank:

- The fully lit pad indicates the selected Scene slot.
- Dim lit pads indicate Scene slots containing a Scene.
- Unlit pads represent empty Scene slots.

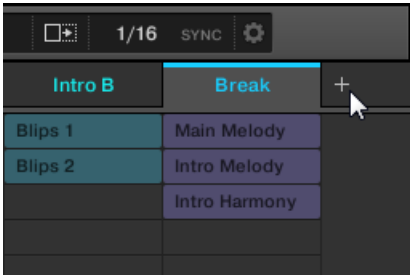
In addition, the Scene mode provides useful Scene management commands. These are described in the following sections.

16.2.2 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 New Scene on the Controller

Using the controller you can create a new Scene in Ideas view.

1. Press SHIFT + SCENE to enter Ideas view.
2. Press SCENE + 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 using your controller and software — see section ↑16.2.3, Assigning and Removing Patterns.

16.2.3 Assigning and Removing Patterns

Each Pattern placed in the Arranger (Ideas view or Song view) references one of the Patterns available in the Pattern Editor for 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 Ideas view or Song view are one and the same.

Assigning and Removing a Pattern in Ideas View

1. Select a Scene slot.



2. Then click the Pattern slot you want to assign or remove for that Scene.



→ Upon your selection, the Pattern is inserted into the selected Scene:

- The Pattern replaces any previous Pattern for that Group in the Scene.
- The Pattern displays its name and color.
- The corresponding Pattern will now be played by that Scene.
- Additionally this Pattern is loaded in the Pattern Editor, ready to be modified.



Patterns and the Pattern Editor are described in chapter ↑11, Working with Patterns.

Creating a New Empty Pattern in Ideas View

You can also create a new empty Pattern in Ideas view:

► In the Ideas view, double-click the empty Pattern slot located in the column of the desired Group.

→ A new empty Pattern is created.

Removing a Pattern in Ideas View

You can also 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:

- The corresponding Pattern will not be played by that Scene anymore.
- The Pattern itself is left untouched.

Assigning a Pattern on the Controller

Assigning a Pattern is done in Pattern mode.

First select the Scene in which you want to assign a Pattern:

1. Press and hold SCENE to enter Scene mode.
2. Press SHIFT + Left/Right Arrow buttons to select the desired Scene bank.
3. Press the pad corresponding to the Scene in which you want to assign a Pattern.

Then create 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.
3. Lit pads indicate the available Patterns. If a Pattern already exists in the selected Scene for that Group, the corresponding Pattern is indicated by the fully lit pad.
4. While you are holding PATTERN, press SHIFT + Left/Right Arrow buttons to select the desired Pattern bank, then press the desired pad to select the Pattern you want to use in that Scene.

→ If you have pressed a dim lit pad, a Pattern is inserted into the selected Scene. If you have pressed an unlit pad, a new empty Pattern is automatically created in the selected Scene. In both cases, any Pattern previously existing for that Group in the Scene will be replaced.

Furthermore, the following happens:

- In the Arranger (Ideas view and Song view) the Pattern displays the name and color of the Pattern.
- 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 regarding the Pattern mode, please refer to section ↑11.7, Managing Patterns.

Removing a Pattern on the Controller

Removing a Pattern is also done in Pattern mode:

► To remove the Pattern for the selected Group from the selected Scene, press PATTERN + SHIFT + F3 (REMOVE).

→ The Pattern is removed from the Scene:

- The corresponding Pattern will not be played by that Scene anymore.
- The Pattern itself is left untouched.
- If the Pattern was the longest one in the Scene, the Scene is automatically reduced to the next longest Pattern.

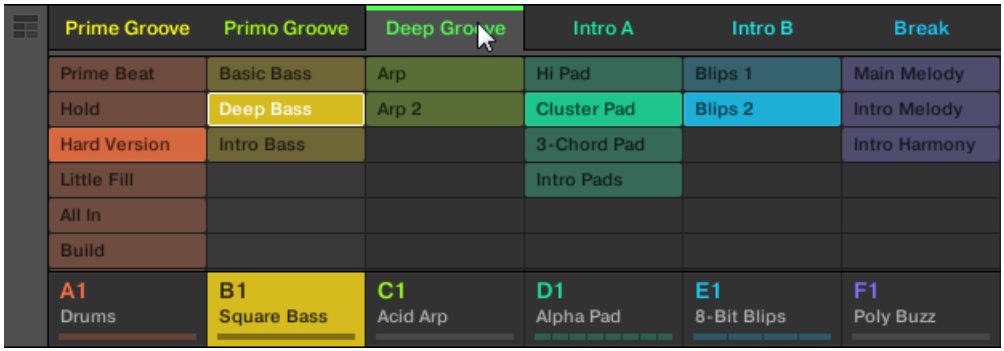
16.2.4 Selecting Scenes

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 Pattern slot with a white frame is displayed in the Pattern Editor. Unselected Pattern slots are dimmed. If there are no Patterns slots select 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:

1. Press SHIFT + SCENE to enter Ideas view.
2. Press and hold SCENE to enter Scene mode.
3. Press SHIFT + Left/Right Arrow button to select the previous/next Scene bank.

If the last Scene bank is selected and not empty, pressing SHIFT + Right Arrow button will create a new, empty Scene bank — see section ↑16.2.6, Creating and Deleting Scene Banks for more info.

Selecting a Scene

To select a Scene in the current Scene bank:

1. Press SHIFT + SCENE to enter Ideas view.
2. Press SCENE + the dim lit pad corresponding to this Scene.

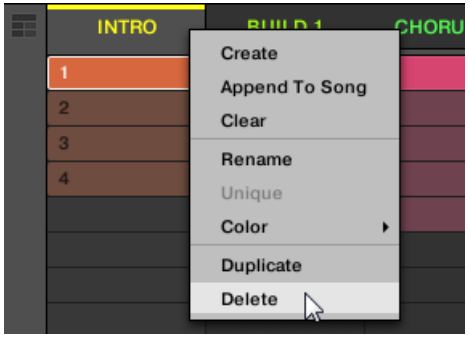
After your selection, the following happens:

- 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. If playback is on the playhead jumps according to the Perform Grid settings — see section Jumping to Other Scenes.

16.2.5 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 will stay in your arrangement, but empty. For more information on clearing Scenes, see section ↑16.2.7, Clearing Scenes.

Deleting Scenes on the Controller

To delete a Scene on your controller:

1. Press SHIFT + SCENE to enter Ideas view.
2. Press and hold SCENE to enter Scene mode.
3. Press SHIFT + Left/Right Arrow to select the desired Scene bank.
4. Press the pad corresponding to the Scene you want to delete.
5. Press F3 (DELETE).

→ The Scene is deleted with all its Patterns. Scenes to the right shift to fill the gap.

Alternate Method

1. Press SHIFT + SCENE to enter Ideas view.
2. Press and hold SCENE to enter Scene mode.
3. Press SHIFT + Left/Right Arrow to select the desired Scene bank.
4. 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.



If the desired Scene bank is already selected (or if there is only one Scene bank), this alternate method can be simplified as follows: Press ERASE + SCENE + pad to delete the corresponding Scene.

16.2.6 Creating and Deleting Scene Banks

A new Scene bank is automatically created once you fill an entire bank with Scenes.

16.2.7 Clearing Scenes

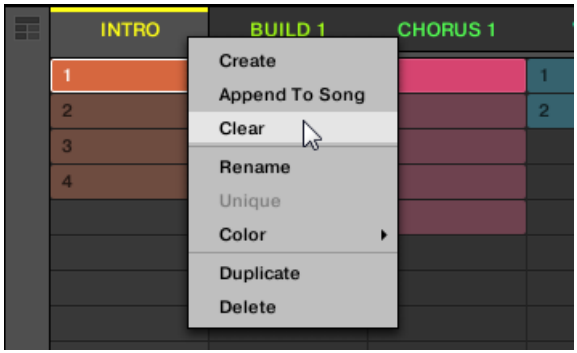
Clearing a Scene allows you to remove all its Patterns, leaving the Scene empty. Clearing Scenes is only available from within the software.



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, see section ↑16.2.5, 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.



→ The Scene is cleared of all Patterns.

16.2.8 Duplicating Scenes

The Ideas view allows you to duplicate a Scene. This feature works in connection with settings made in the Default page of the Preferences.

Together they offer you options to:

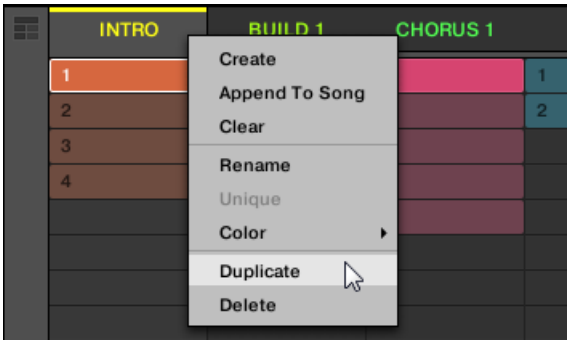
- duplicate Scenes
- duplicate Scenes and Patterns
- link when duplicating Sections

For more information on the Default page of the Preferences, read: ↑3.6.4, Preferences – Default Page.

Duplicating a Scene in the Software

To duplicate a Scene in the software:

► Right-click ([Ctrl]-click on macOS), and select *Duplicate* from the context menu.



- The selected Scene is duplicated in accordance with the setting in the Default page of the Preferences.

You can also duplicate a Scene by clicking the Scene slot header while holding [Alt] key (or [Ctrl] on PC), and dragging the mouse. After the mouse is released a duplicate copy of the Scene is created.

Duplicating a Scene on Your Controller

To duplicate a Scene on your controller:

1. Press SHIFT + SCENE to enter Ideas view.
2. Press and hold SCENE to enter Scene mode (or pin it by pressing SCENE + CONTROL).
3. Press SHIFT + Left/Right Arrow to select the desired Scene bank.
4. Press the pad corresponding to the Scene you want to duplicate.
5. Press any unlit pad or F2 (DUPL) to duplicate the Scene.

→ The selected Scene is duplicated in accordance with the setting in the Default page of the Preferences. For more information, read: ↑3.6.4, Preferences – Default Page.

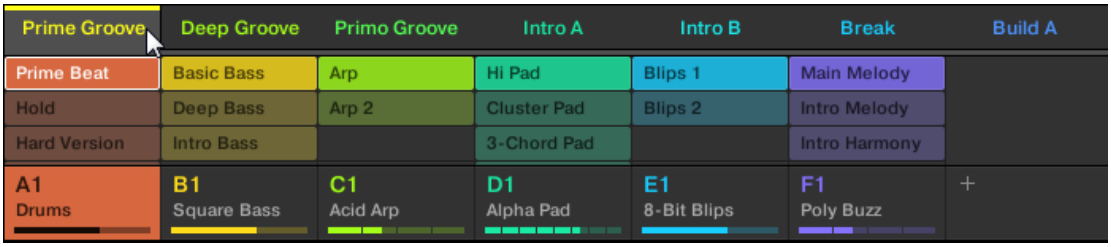
16.2.9 Reordering Scenes

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.

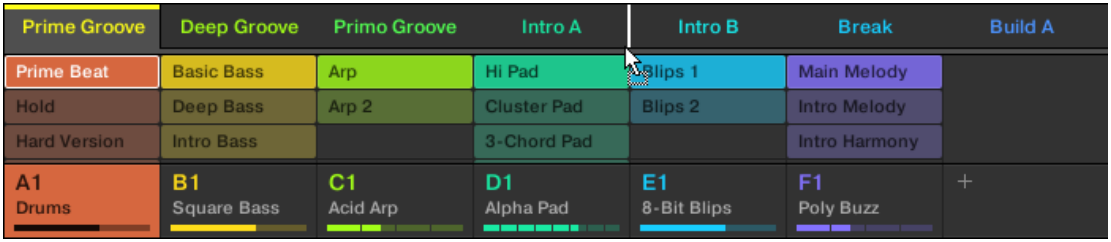
To reorder Scenes:

1. Click and hold the Scene name in the Ideas view.

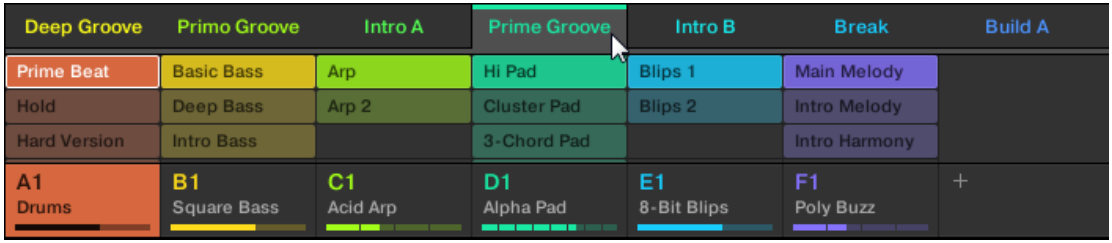


2. While holding the mouse button, drag your mouse horizontally to the desired location. As the mouse cursor moves, an insertion line appears at the potential places where you can drop the Scene.

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.

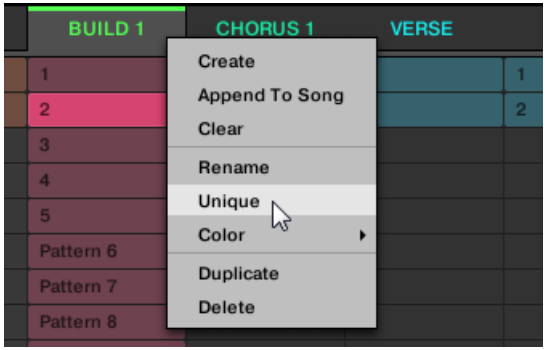


16.2.10 Making Scenes Unique

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: ↑16.2.8, 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.

Making Scenes Unique Using the Controller

To make a Scene unique using your controller:

1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press and hold SCENE to enter Scene mode.
3. Press SHIFT + Left/Right Arrow to select the desired Scene bank.
4. Press the pad corresponding to the Scene you want to make unique.
5. Press F1 (UNIQUE).

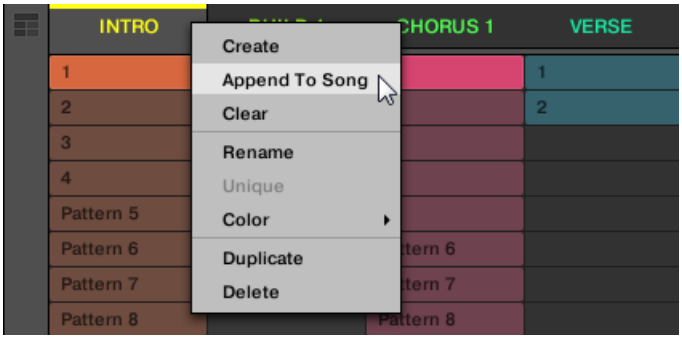
→ A unique copy of the Scene and its Patterns are created.

16.2.11 Appending Scenes to Arrangement

Once you are satisfied with a Scene you can append it directly to your arrangement in the Song view.

Appending 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.

Appending a Scene to the Arrangement Using the Controller

Using your controller you can append a Scene to the arrangement.

1. Press SHIFT + SCENE to enter Ideas view.
2. Press and hold SCENE to enter Scene mode.
3. Press SHIFT + Left/Right Arrow to select the desired Scene bank.
4. Press SHIFT + F3 (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.

→ Release the SCENE button or turn off APPEND when done.

16.2.12 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. Naming is only available from within the software, but any changes will also show up on your controller.

Renaming Scenes in the Arranger

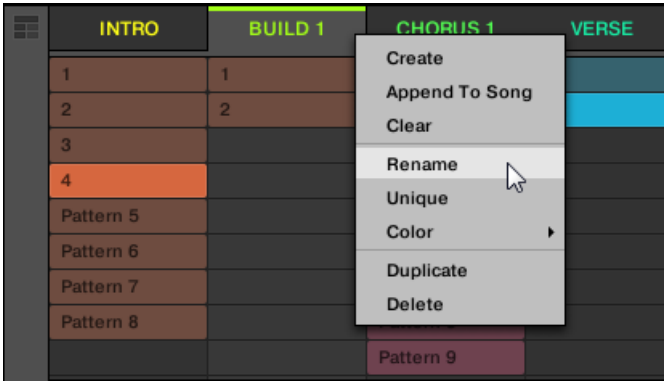
To rename a Scene in the Arranger:

1. Double-click the Scene name at the top of the Arranger:



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).

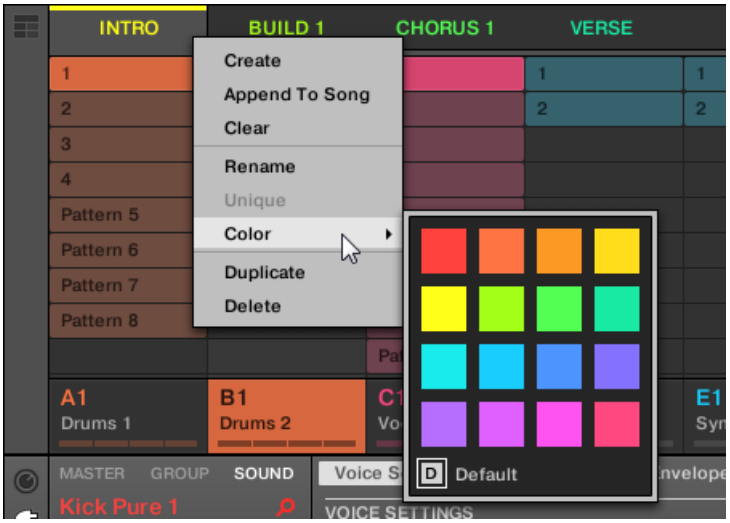
→ The Scene is renamed.

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.

16.2.13 Changing the Color of a Scene

You can change the color of each Scene in the software. To do this:

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.

By default, Scenes are white. But you can choose another default color for Scenes in *Preferences* > *Colors* > *Scene Default*. See section ↑3.6.8, 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 Song 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.

16.3 Using 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 to the Timeline in the Song view you can start to organize your track.

The Song view is where you can sequence Scenes to create your final arrangement. This process involves creating a Section on the Timeline and assigning a Scene to it. 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.

16.3.1 Section Management Overview

In the software, all Sections can be managed from the Song view.

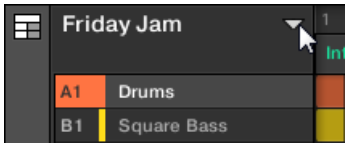
To open the Section Manager:

1. To open Song view, click the Arranger View button on the left of the Arranger.

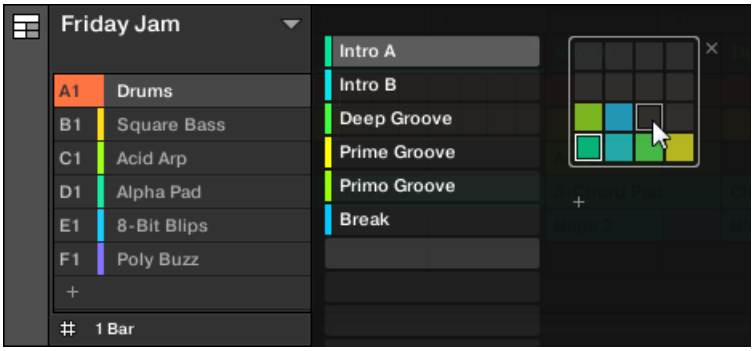


⇨ The Song view appears on the right.

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.

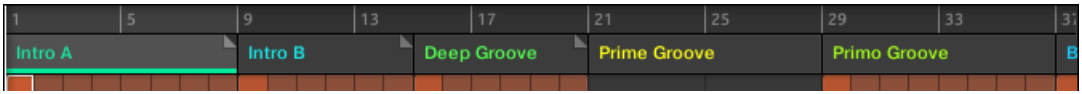
- On the left you can see the list of the 16 Section slots in the selected Section bank. Slots containing a Section show a colored or white bar on the left along with the Section name. The other slots contain no Section. The selected Section is highlighted (Intro A in the image above).
- On the right 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 and hold SCENE (you can pin it by pressing CONTROL at the same time).

→ Your controller switches to Section mode. This is indicated by the lit SCENE 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.

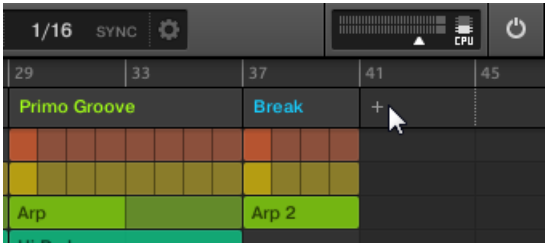
In addition, the Section mode provides useful Section management commands. These are described in the following sections.

16.3.2 Creating Sections

You can create a new Section directly in the Song view.

Creating a Section using the Software

▶ To create a new Section, click the "+" button located after all existing Section names in the top row of the Song view.



Click the "+" button to create a new Section.

- A new empty Section is created after all existing Sections. You can then assign a Scene using your controller and software, see section: ↑16.3.3, Assigning a Scene to a Section.

Creating a New Section on Your Controller

To create a new Section on your controller:

1. Press SHIFT + SCENE to enter Song view.
2. Press and hold SCENE to enter Section mode (or pin it by pressing SCENE + CONTROL).
3. Press SHIFT + Left/Right Arrow to select the desired Section bank.
4. Press the unlit pad corresponding to the Section you want to create.

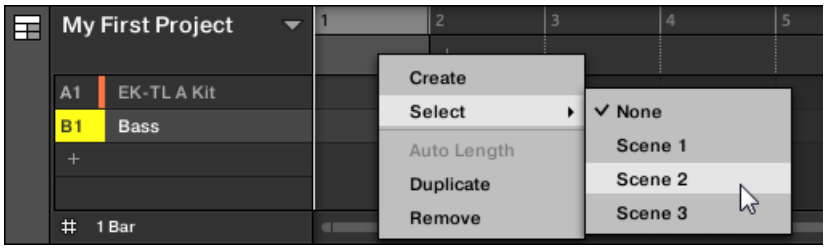
→ A new empty Section is created. You can then assign a Scene using your controller and software, see section: ↑16.3.3, Assigning a Scene to a Section.

16.3.3 Assigning a Scene to a Section

Now 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 add a Scene to a Section on the timeline of the Arranger:

- ▶ Right-click ([Cmd] + click on macOS) a Section slot and select *Append* in the context menu, then for example, select *Scene 2* from the submenu.



→ The selected Scene is added to the Section.

By repeating this for each new Section, you can quickly add Scenes to the Arranger.

To add a Scene to a Section in the Song view using your controller:

1. Press SHIFT + SCENE to access the Song view.
2. Press SCENE, then 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.

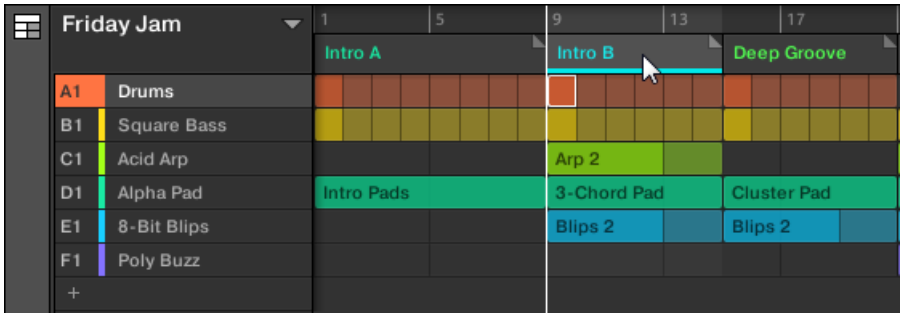
16.3.4 Selecting Sections and Section Banks

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

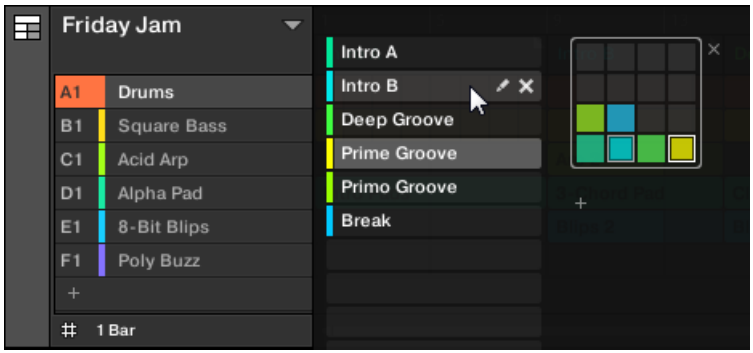
To select a Section in the Section Manager, do the following:

1. Open the Section Manager (see ↑16.3.1, 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 ↑16.3.1, Section Management Overview. For more info on the Perform Grid settings see section ↑16.3.1, 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 to enter Song view.
2. Press and hold SCENE to enter Scene mode (or pin it by pressing SCENE + MAIN).
3. Press SHIFT + Left/Right Arrow button to select the previous/next Section bank, respectively.



If the last Section bank is selected and not empty, pressing SHIFT + Right Arrow button will create a new, empty Section bank, see section ↑16.3.12, Creating and Deleting Section Banks for more info.

Selecting a Section

► To select a Section in the current Section bank, press SCENE + the dim lit pad corresponding to this Section.

Upon your selection, the following happens:

- The Pattern Editor displays the Pattern for 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.
- The Loop Range is set to the selected Section, see section Selecting a Loop Range.
- 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, see section Jumping to Other Scenes.

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 to enter Song view.
2. Press and hold SCENE to enter Scene mode (or pin it by pressing SCENE + CONTROL).

3. Press SHIFT + Left/Right Arrow button to select the previous/next Section bank, respectively.

> If the last Section bank is selected and not empty, pressing SHIFT + Right Arrow button will create a new, empty Section bank, see section ↑16.3.12, Creating and Deleting Section Banks for more info.

Selecting a Section

► To select a Section in the current Section bank, press SCENE + the dim lit pad corresponding to this Section.

Upon your selection, the following happens:

- The Pattern Editor displays the Pattern for 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.
- The Loop Range is set to the selected Section, see section Selecting a Loop Range.
- 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, see section Jumping to Other Scenes.

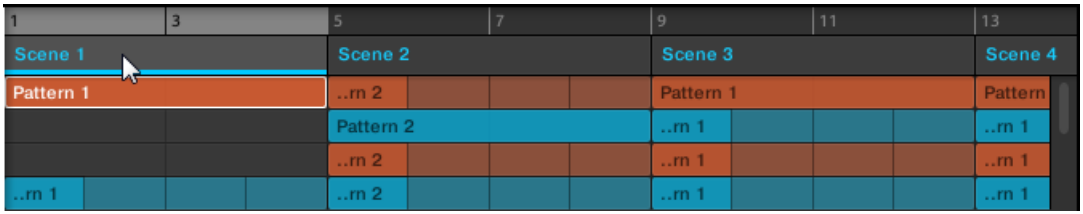
16.3.5 Reorganizing Sections

Reordering Sections is essential to organize your Sections and arrange your song.

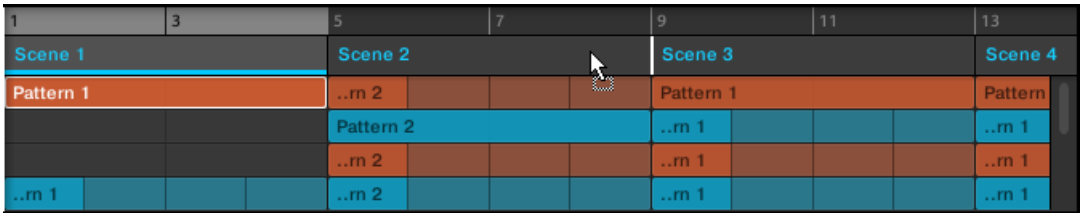
In the software you can reorganize sections both in the Arranger and in the Section Manager.

To move a Section:

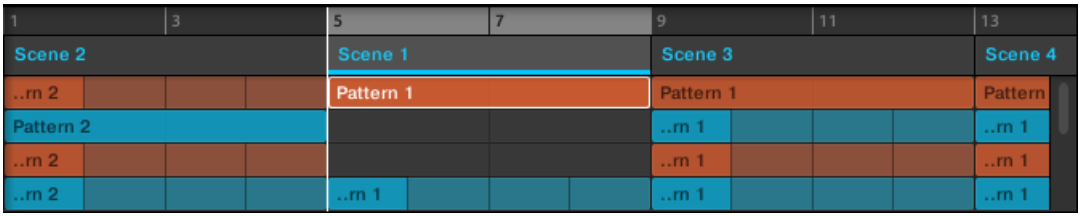
1. Click and hold the Section name in the Arranger.



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 using the Controller

To move a Section using your controller:

1. Press SHIFT + SCENE to access Song view (if you are not already in the Song view).
2. Press and hold SCENE to enter Section mode (you can pin it by pressing CONTROL).
3. Press SHIFT + Left/Right Arrow buttons to select the Section bank containing the Section you want to move.
4. Press the pad of the Section you want to move.
5. Press the Left Arrow button to select the POSITION parameter at the bottom of the display.
6. Turn the Control encoder to move the selected Section to another position in your arrangement.

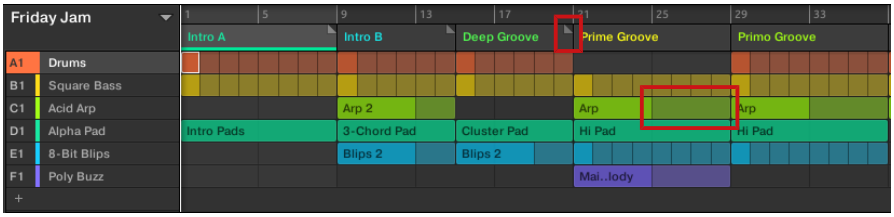
→ The Section takes its new place. In Section mode you can now select this Section via the pad corresponding to its new location.

16.3.6 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 set 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 by using your MASCHINE 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.

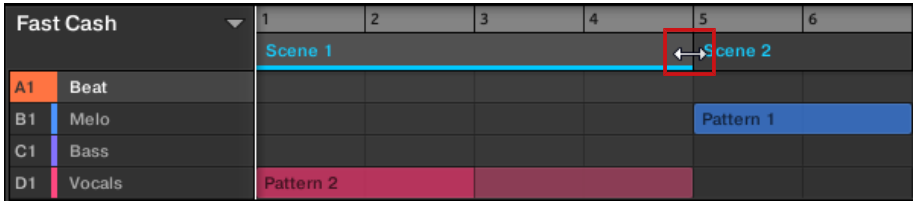
16.3.6.1 Adjusting the Length of a Section Using the Software

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 part visible part of the Patterns are audible.

To lengthen a Section:

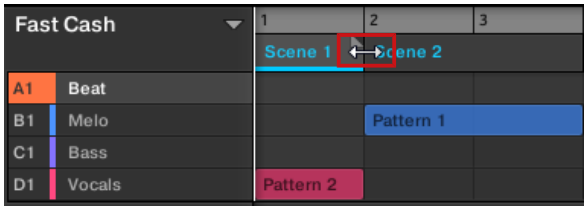
► Click and drag the end marker of the Section to the right.



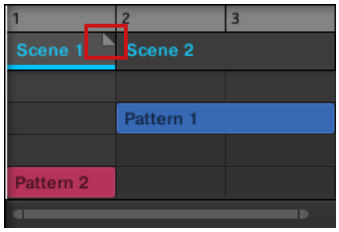
→ The Scene will be repeated if the adjustment is longer than the referenced Pattern.

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 Clip 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 audible during playback.



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: ↑16.6, 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: ↑11.1.7, 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.

16.3.6.2 Adjusting the Length of a Section Using the Controller

To adjust the length of a Section using your hardware controller:

1. Press the SCENE button to enter the Section mode.
2. Press MAIN/CONTROL (PIN) to pin the page if required.
3. Select the pad relating to the Section you want to adjust.
4. Press the right arrow below the display to select LENGTH.

5. Turn the Control encoder to adjust the length of the Section as required. Turning the encoder left will shorten the Section, turning it right will lengthen the Section.
6. Press and turn the Control encoder to change the Section length in smaller increments.

→ The Section length is adjusted accordingly.

16.3.7 Clearing a Pattern in Song View

Clearing a Pattern allows you to remove all its contents, leaving the Pattern empty.

To clear a Pattern in Song view:

1. Right-click ([Ctrl]-click on macOS) the name of the Pattern you want to clear.
2. Select *Clear* from the context menu.

→ The Pattern is cleared of all its contents.

16.3.8 Duplicating Sections

The Song view allows you to duplicate a Section. This feature works in connection with settings made in the Default page of the Preferences.

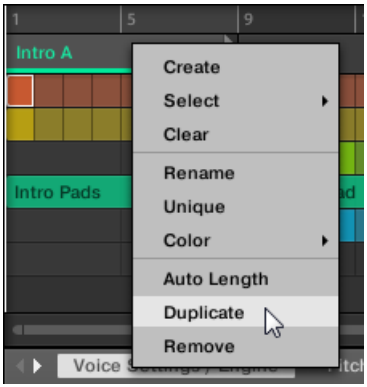
Together they offer you options to:

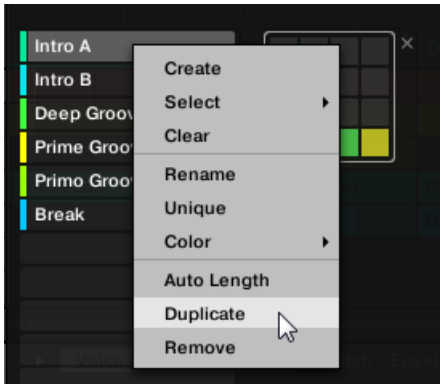
- duplicate Scenes,
- duplicate Scenes and Patterns,
- link when duplicating Sections

For more information on the Default page of the Preferences, see ↑3.6.4, Preferences – Default Page.

Duplicating a Section

► Right-click ([Ctrl]-click on macOS), and select *Duplicate* from the context menu.





- The selected Section is duplicated in accordance with Scene / Section settings in the Default page of the Preferences.

Duplicating a Section on Your Controller

To duplicate a Section using your controller:

1. Press SHIFT + SCENE to enter Song view.
2. Press and hold SCENE to enter SECTION mode (or pin it by pressing SCENE + CONTROL).
3. If required, press SHIFT + Left/Right Arrow to select the desired Section bank.
4. Press the pad to select the Section you want to duplicate.
5. Press any pad or F2 (DUPL) to duplicate the Section

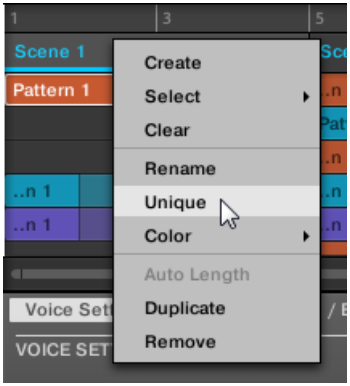
→ The selected Section is duplicated in accordance with Scene / Section settings in the Default page of the Preferences. For more information on the Default page, see ↑3.6.4, Preferences – Default Page.

16.3.8.1 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.

Making a Section Unique on the Hardware

To make a Section unique on the hardware:

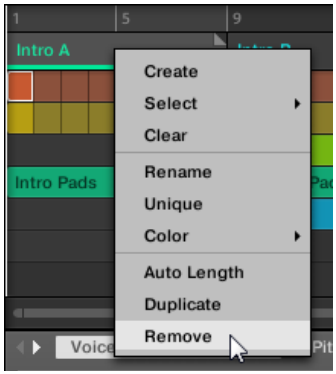
1. Press SCENE.
2. Select the Section you want to make unique by pressing the pad.
3. Press button F1 UNIQUE.

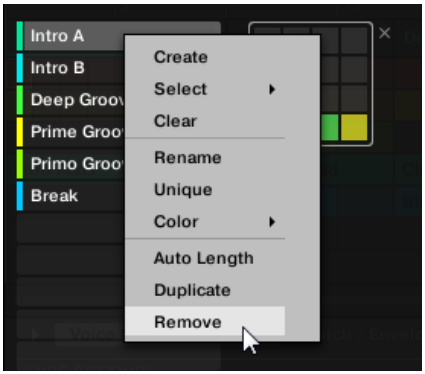
→ The Section will become independent of any Sections it was linked to and the Patterns can be edited without affecting any the original Sections.

16.3.9 Removing Sections

To 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 *Remove* from the context menu:





→ The Section is removed from the arrangement. The next Sections shift ahead to fill the gap.

Instead of removing the Section, which removes it entirely, you can also clear the Section: This will only remove its content, the Section will stay in your arrangement, but empty. For more information on clearing Sections, see section ↑16.3.11, Clearing Sections.

Removing Sections on the Controller

To remove a Section using your controller:

1. Press SHIFT + SCENE to enter Song view.
2. Press and hold SCENE to enter Section mode.
3. Press SHIFT + Left/Right Arrow to select the desired Section bank.
4. Press the pad corresponding to the Section you want to remove.

5. Press F3 (REMOVE).

→ The Section is removed from the arrangement. The next Sections shift ahead to fill the gap.

Alternate Method

1. Press SHIFT + SCENE to enter Song view.
2. Press and hold SCENE to enter Section mode.
3. Press SHIFT + Left/Right Arrow to select the desired Section bank.
4. 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.



If the desired Section bank is already selected (or if there is only one Section bank), this alternate method can be simplified as follows: Press ERASE + SCENE + pad to remove the corresponding Section!

16.3.10 Renaming Scenes

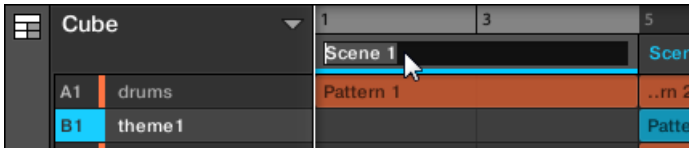
Sections are displayed in the software using the names of the Scene they reference. Sections do not have separate names from the Scene they represent. On the controller, they are referenced by their position, for example, #4.

To organize your song, you can rename Scenes and use custom names of your own. Naming is only available from within the software, but any changes will also show up in both views of the Arranger (Ideas view and Song view) and on your controller.

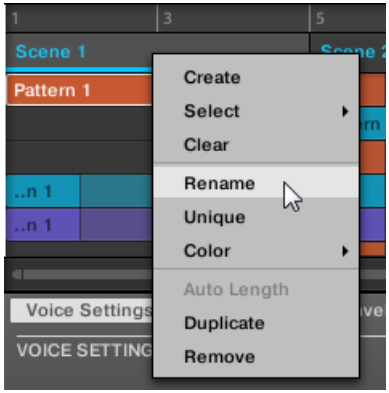
Renaming Scenes in the Song view

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.

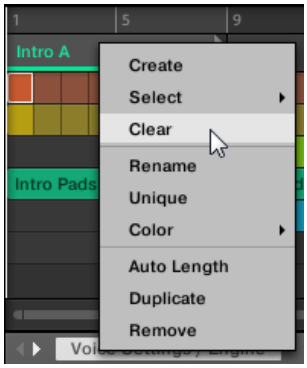
16.3.11 Clearing Sections

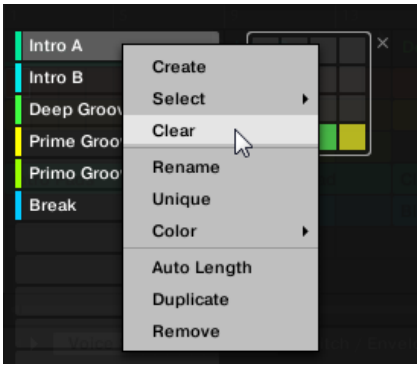
Clearing a Section allows you to remove the referenced Scene, leaving the Section empty. Clearing Sections is only available from within the software.

While deleting a Section removes it entirely from your arrangement, clearing it only removes its content, the Section stays in your arrangement, but empty. For information on deleting Sections, see section ↑16.3.9, Removing Sections.

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.





→ The Section is cleared.

16.3.12 Creating and Deleting Section Banks

A new Section bank is automatically created once you fill an entire bank with Sections.

16.3.13 Working with Patterns in Song view

By right-clicking on a Pattern in the Arranger Song view you can access the context menu with many useful options for arranging and interacting with Patterns.

16.3.13.1 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.

16.3.13.2 Selecting a Pattern in Song View

In Song view use the right-click context menu to select an alternative Pattern for a Section.

To select a Pattern in Song view:

► Right-click ([Ctrl]-click on macOS) the Pattern you want to change, and click *Select* in the menu.

→ A new Pattern is selected for this Scene and will appear in each Section where the Scene is used.

16.3.13.3 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.

→ The contents of the selected Pattern are cleared.

16.3.13.4 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.

16.3.13.5 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.

16.3.13.6 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 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 ↑16.3.13.2, Selecting a Pattern in Song View.

16.3.13.7 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.

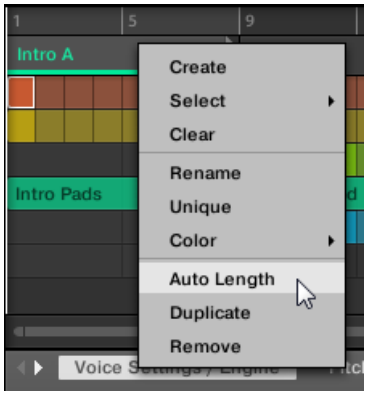
16.3.14 Enabling Auto Length

By default a Section is set to Auto Length allowing it to resize automatically to the content within the Section. If the length of a Section is manually adjusted by truncating or lengthening the Section end marker, Auto Length is discarded and the Section automatically set to Manual Length.

Using the software or controller it is possible to quickly reset a Section to back to Auto Length in order to return to the Section to its default state and reveal any truncated (hidden) content. When Auto Length is enabled, the Manual Length settings are discarded and the Section is resized according to the Patterns in the assigned Scene, and will continue to resize with the content unless the length is again manually adjusted.

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 enabled 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.

To enable Auto Length for a Section using your controller:

1. Press SCENE to access the Section page.
2. Press the corresponding pad to select a Section.

3. Press SHIFT + F3 (AUT LEN) to enable Auto Length.

→ Auto Length is enabled and the selected Section is automatically resized to fit the content of the Patterns within the assigned Scene.

16.3.15 Looping

Activate a Loop to repeatedly play a section of the Arrangement. Once a loop is activated the Sections within the range of the Loop play until the loop is deactivated. You can use the range to repeatedly play a particular part of a song. This can be good for composing, practicing a part before recording, recording multiple takes, etc. The loop range is permanently visible, (even when it is deactivate) and the range of the loop can be altered at any time using the left and right end points.

16.3.15.1 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 using the software:

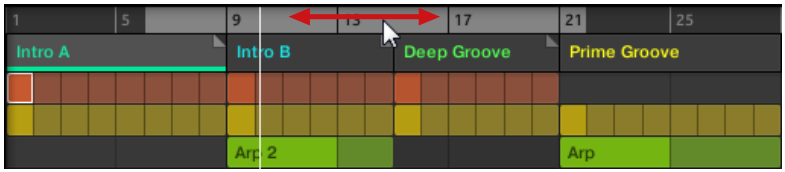
► Drag the left or right end of the Loop marker to make it longer.



→ 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.

16.3.15.2 Setting the Loop Range Using the Controller

Set the start, end and position of the loop using the dedicated Loop page.

To set the loop range using MASCHINE MIKRO:

1. Press and hold SHIFT + RESTART to access the Loop screen.
2. Press F3 LOOP to activate the loop.
3. Press the right arrow below the display to select START.
4. Turn the Control encoder to set the start point of the loop.
5. Press the right arrow below the display to select LENGTH.
6. Turn the Control encoder to set the length of the loop.

→ The start and end points of the loop range are set.

► Press the left arrow below the display to select POSITION and turn the Control encoder to alter the position of the whole loop.

→ The position of the loop range is adjusted.

Activating or Deactivating a Loop Using MASCHINE MIKRO

To activate a Loop using the controller:

▶ Press SHIFT + RESTART to activate or deactivate the loop.

→ When the loop is activated the Scenes within the Loop range are repeated. When the loop is deactivated the Scenes in the loop will play once only.

16.4 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.



Please refer to section ↑5.4.3, Exporting Audio for information on exporting audio.

Alternatively, if you are preparing a track for performing live, you will probably want 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 host sequencer 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.

16.4.1 Jumping to another Playback Position in Your Project

You can use the timeline above the Scene 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 (i.e. disabled), 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. disabled) 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. See section ↑11.1.6, Adjusting the Arrange Grid and the Pattern Length for more information.

From your controller, you can control the playback position in two different resolutions.

Jumps Based on the Arrange Grid

► Press the Locate buttons (showing left/right arrows) in the TRANSPORT section to jump to the previous/next Arrange Grid division.

→ Depending on the playback state, the following will happen:

- If playback is off, the playhead jumps to the beginning of the previous/next Arrange Grid division.

- If playback is on, the playhead jumps to the same relative position in the previous/next Arrange Grid division. This allows seamless jumps that don't break the rhythm of your music.

If the Arrange Grid is set to OFF (i.e. disabled) or QUICK, the jumps are based on bars.



For more information on the Arrange Grid, see section ↑11.1.6, Adjusting the Arrange Grid and the Pattern Length.

Jumps Based on the Step Grid

You can also jump by finer increments:

► Hold SHIFT and press the Locate buttons (showing left/right arrows) in the TRANSPORT section to jump to the previous/next step, according to the current Step Grid settings.

→ Depending on the playback state, the following will happen:

- If playback is off, the playhead jumps to the beginning of the previous/next step.
- If playback is on, the playhead jumps to the same relative position in the previous/next step.

If the Step Grid is disabled (i.e. set to OFF), the jumps are based on bars.



For more information on the Step Grid, see section ↑11.1.7, Adjusting the Step Grid and the Nudge Grid.

16.5 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 host to the MASCHINE plug-in or MIDI controller.

When this feature is enabled, 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
…	…	…
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.

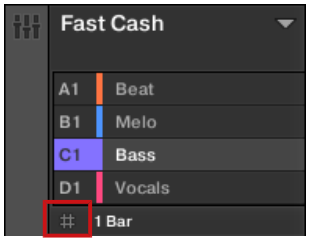
16.6 The Arrange Grid

The Arrange Grid is used to quantize all modifications related to the timeline. The value set here is used for following features:

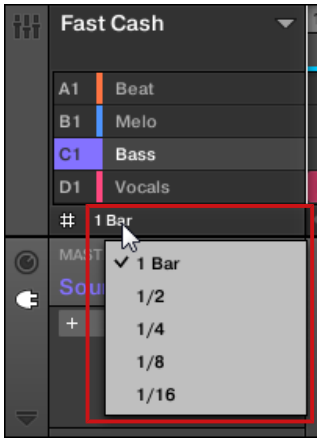
- Loop start / length
- Loop position
- Pattern length
- Scene length
- Song Clip start / length
- Playhead relocation

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.

On your controller:

1. Press the GRID button to access the Grid page.
2. Press F2 to select ARNG (Arrange).
3. Press the left arrow to step through the menu to select VALUE.
4. Turn the Control encoder to select an Arrange Grid value.

→ The selected Arrange Grid value is applied.

To enable/disable the Arrange Grid

1. Press the right arrow to step through the menu to select ENABLE.
2. Turn the Control encoder to select ON or OFF.

→ The Arrange Grid is enabled or disabled.

16.7 Quick Grid

The Quick Grid setting allows you to quickly and conveniently set the most common Pattern lengths using your controller.



Quick Grid is only accessible from your controller.

When the Quick Grid is used, the following rules apply:

- The available Pattern lengths are as follows:1 bar, 2 bars, 4 bars, 8 bars, 12 bars, 16 bars, etc. (+ 4 bars each time starting from 4 bars).
- The Quick Grid is exclusively applied to Pattern Length. For all other features related to the Grid (for example, adjusting the playback position or the Loop Range), the Arrange Grid is used.
- The Quick Grid setting is global and applies to all Patterns.

- When the Quick Grid is set to OFF, the Arrange Grid is used.

To enable the Quick Grid on your controller:

1. Press GRID to access the Grid page.
2. Press F2 to select ARNG (Arrange).
3. Press the right arrow to step through the menu to select QUICK.
4. Turn the Control encoder to select ON.

→ Quick Grid is enabled and globally applied to all Patterns.

17 Sampling and Sample Mapping

MASCHINE allows you to record internal or external audio signals without having to stop the sequencer. This is a useful feature if you want to record your own 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 in order to make them playable at any tempo without changing their pitch or timing. It is also useful to extract single Samples from loops (e.g., a snare sound from a drum loop) quickly or to 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, but also allows for a large amount of Samples in only one Sound.

All this can be done in the Sample Editor.

Make sure you check out the tutorial videos regarding sampling on the Native Instruments website (http://www.native-instruments.com).



Before recording an external source please consult the documentation that came with your audio interface for information on connecting audio devices and instruments.

17.1 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 details on how to set the focus to a Sound, please see section ↑3.3.4, 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: ↑17.2, Recording Audio.
- The Edit page allows you to apply destructive edits to existing Samples: ↑17.3, Editing a Sample.
- The Slice page allows you to create Slices from your existing Samples: ↑17.4, 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: ↑17.5, 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 Control 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 ↑3.3.4, Focusing on a Group or a Sound.

2. Press SAMPLING to enter Sampling mode and access the Sample content of the focused Sound:



3. Press NAV + pad 13–16 or (hold NAV and turn the Control encoder) to select the desired page:

- The Record page allows you to record audio: ↑17.2, Recording Audio.
- The Edit page allows you to apply destructive edits to existing Samples: ↑17.3, Editing a Sample.
- The Slice page allows you to create Slices from your existing Samples: ↑17.4, 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: ↑17.5, Mapping Samples to Zones.



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. The page currently displayed in the Sample Editor / Sampling mode is also in sync.

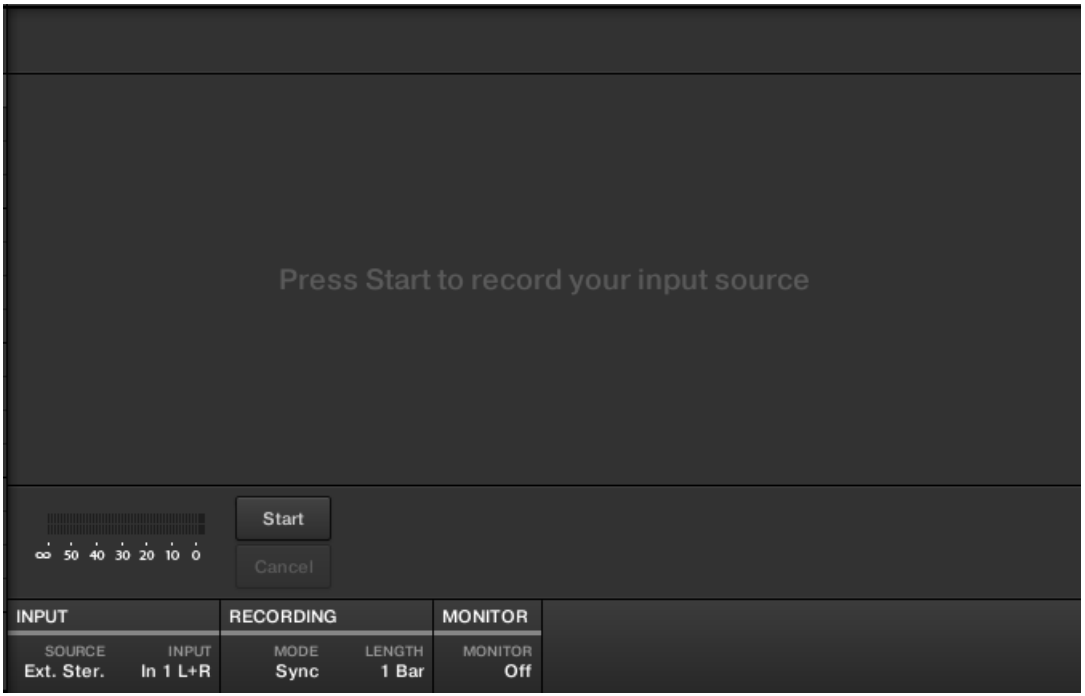
17.2 Recording Audio

MASCHINE provides everything you need to record audio.

17.2.1 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 further tabs are visible. The Record page tab, plus additional tabs, will become visible once audio has been recorded.

The Record page looks as follows:



The Record page in the software.

Opening the RECORD Page on the Controller

- In Sampling mode, press NAV + pad 13 to access the RECORD page. You can also hold NAV and turn the Control encoder.

The RECORD page looks as follows:

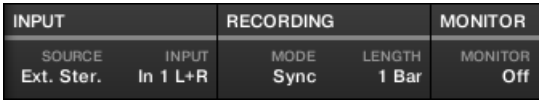


The RECORD page on the controller.

1. To select the parameters described in the following sections, press the Left/Right Arrow buttons.
2. To adjust the selected parameter, turn the Control encoder (for continuous parameters, press and turn the Control encoder to adjust the value in finer increments).

17.2.2 Selecting the Source and the Recording Mode

At the bottom of the Record page, the parameters in 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.

Selecting the Source to Record

► Click the SOURCE selector on the left 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 inputs:

- If SOURCE is set to Ext. Ster., you can select either of MASCHINE's four external stereo inputs *In 1–4*.

- If SOURCE is set to Ext. Mono, you can select either of MASCHINE's eight external mono inputs: the left ("*L*") or right ("*R*") channel of each input pair *In 1–4*.
- If SOURCE is set to Internal, you can select 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!

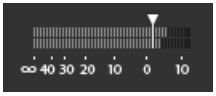


You can also set SOURCE to Internal, choose as INPUT a Group with a drum kit loaded, and record your live improvisations on the pads while playing this drum kit. You will then have your own improvisations recorded as Samples, ready to be used, edited, sliced, etc., as any other Samples in MASCHINE.

Choosing a Recording Mode

► Click the MODE selector to select from the three 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, then the recorded audio will be loaded automatically into a Sampler plug-in for the first Take. You must trigger the Sampler with MIDI Events, such as those in a Pattern, to play back the audio.
  - If Detect is selected, you can set a certain threshold using the level THRESHOLD control on the right. After you clicked 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 Sampler plug-in, then the recorded Sample will be loaded automatically into a Sampler plug-in as the first Take. You must trigger the Sampler with MIDI Events, such as those in a Pattern, to play back the audio.
    - When Sync is selected recording starts in sync with the sequencer after you click Start. 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. At any time you can click Stop to end recording, 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 play back 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, then after that, each additional recording will simply 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 in a similar way to the Sound Target described above, except that each new recording will also be assigned to a new Pattern on its own. This mode can be useful when you want to record different variations of a part and then review the variations easily by playing each Pattern. For example, the first recording made 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 then switch back to the previous Pattern, you'll hear only the previous recording (the newest will automatically be disabled in the previous Pattern).

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 additionally provide a fader adjusting the threshold level, 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 (e.g., your headphones) the audio source that is about to be recorded.



For more information on how to use the Cue bus, please refer to section ↑13.2.6, Using the Cue Bus.

Selecting the Source and the Recording Mode on Your Controller

At the bottom of the display, the parameters in the RECORDING section allow you to adjust which source should be recorded and how the recording should start and stop.



Adjusting the source and mode of the recording on your controller.

1. To select the parameters described below press the Left/Right Arrow button.
2. To adjust the selected parameter, turn the Control encoder. For continuous parameters, press and turn the Control encoder to adjust the value in finer increments.

Selecting the Source to Record

First choose which source you want to record using the SOURCE and INPUT parameters:

Parameter	Description
SOURCE	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.
INPUT	Choose between the available inputs. The available inputs depend on the SOURCE setting (see above). If SOURCE is set to EXT. STER. you can select from the four external stereo inputs IN 1–4 available in MASCHINE. If SOURCE is set to EXT. MONO you can select either of MASCHINE's eight external mono inputs: the left ("L") or right ("R") channel of each input pair IN 1–4. If SOURCE is set to INTERNAL you can select 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 own improvisations recorded as Samples, ready to be used, edited, sliced, etc., as any other Samples in MASCHINE.

Choosing a Recording Mode

Once you have selected the desired source, choose a recording mode:

Parameter	Description
MODE	Select from three available recording modes: **DETECT**: Select DETECT mode to record audio after the set threshold is has been exceeded. This mode will automatically load the Sampler Plug-in. The selected Take must be triggered using MIDI Events in the Pattern Editor. If DETECT is selected, you can set a certain threshold using the next parameter (THRESHOLD). The threshold is indicated by a little arrow above the level meters on the display. After you pressed F1 (START), the input signal level exceeding this threshold will start the recording. Manually stop the recording by pressing F1 (STOP) again. This is useful to record a singer or an instrumentalist, for example. **SYNC**: Select Sync to record audio to the Pattern Grid. This mode will automatically load the Sampler Plug-in. The selected Take must be triggered using MIDI Events in the Pattern Editor. If SYNC is selected, you can synchronize the recording function to the sequencer, so that the recording starts in sync with the sequencer after you press F1 (START). The recording will start at the top of the next bar. Using the last parameter (LENGTH), you can choose a length for the Sample to be recorded: either 1, 2, 4, 8, or 16 bars, or choose FREE if you don't want to set any duration limit to the recording. At any time you can press F1 (STOP) to stop the recording before the duration defined by LENGTH has been reached, the recording will then 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:

Parameter	Description
	▪ 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 play back 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, then after that, each additional recording will simply 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 in a similar way to Sound Target described above, except that each new recording will also be assigned to a new Pattern on its own. This mode can be useful when you want to record different variations of a part and then review the variations easily by playing each Pattern. For example, the first recording made 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 then switch back to the previous Pattern, you'll hear only the previous recording (the newest will automatically be disabled in the previous Pattern).

Monitoring the Input Signal

The level meters in the middle of the display 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 provide a little down-pointing arrow indicating the threshold level.



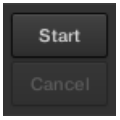
Monitoring the input signal.

Furthermore, if you have selected an external signal (EXT. STER. or EXT. MONO selected in SOURCE), an additional MONITOR section is available by pressing NAV + Right Arrow button. In this section, You can set MONITOR to ON in order to send the input signal to the Cue bus of MASCHINE, allowing you to hear on a separate channel (e.g., your headphones) the audio source that is about to be recorded.



For more information on how to use the Cue bus, please refer to section ↑13.2.6, Using the Cue Bus.

17.2.3 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, see section ↑17.2.2, 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 (see section ↑17.2.2, 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 (see section ↑17.2.2, 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 (see section ↑17.2.6, 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 (see section ↑17.2.5, 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, see section ↑17.5, 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.

17.2.4 Arming, Starting, and Stopping the Recording on Your Controller



Starting and stopping the recording.

► Press F1 (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, see section ↑17.2.2, 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 F1 button flashes and a WAITING FOR INPUT… message appears at the bottom of the display. During this waiting phase you can also start the recording manually by pressing F1 or cancel the recording by pressing F2 (CANCEL).
  - Once the recording has started, press F1 (STOP) to stop the recording (it stops immediately) or F2 (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 F1 button flashes and a WAITING FOR NEXT BAR… message appears at the bottom of the display.
  - Once the recording has started, the audio is recorded for the duration set by the LENGTH control (see section ↑17.2.2, Selecting the Source and the Recording Mode above). You can also press F1 (STOP) beforehand to stop the recording at the next bar, or F2 (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, set the MODE to DETECT, dial the THRESHOLD down to OFF and start the recording by pressing START (F1). To stop recording, press STOP (F1).

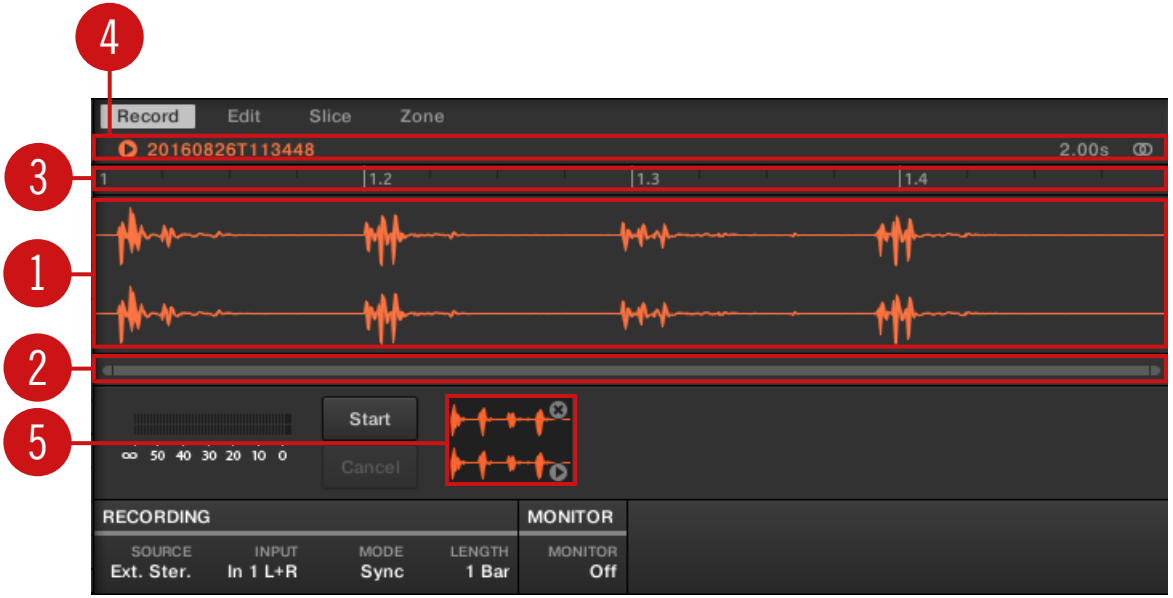
In any case the recorded audio will be stored in the Sound that was under focus as you started the recording.

See also

- Location and Name of Your Recorded Samples [→ 830]
- Checking Your Recordings [→ 826]
- Mapping Samples to Zones [→ 865]

17.2.5 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 (see section ↑13.2.6, 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.
- 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).

Checking Your Takes on the Controller

You can check the last recordings you have made in the current Sound on your controller:



The name of the recorded Sample is shown on the display.

The name of the Sample are indicated on the display.

Using the Audio Pool

All the recordings you have made since you opened the current Project are stored in the Audio Pool. The following actions are available:

- To navigate your various recordings, press Button 7 (PREV) and Button 8 (NEXT).
- The selected recording is automatically loaded in the Plug-in and ready to be played.
    - If you are using the Sampler plug-in you can further edit the selected recording via the other pages of the Sampling mode. 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.
    - If you are using the Audio plug-in you can set the Playback mode, the Engine mode and Source Tempo and Length.
- If you used the Sampler plug-in you can press the fully lit pad (the focused Sound slot) to listen to the displayed recording on the Cue bus (see section ↑13.2.6, Using the Cue Bus for more information).
- Press SHIFT + F3 (DELETE) to delete the selected recording.



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 unless you explicitly delete them (via the MASCHINE software or in your operating system).

17.2.6 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 ↑3.6.4, Preferences – Default Page). If you activate the Prefer Project Folder option on the General page of the Preferences panel (see ↑3.6.1, 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).

17.3 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.



Sample Editing can only be done in the Sampler plug-in, not using the Audio plug-in. If you want to edit a Sample in the Audio plug-in, you must first switch it to a Sampler Plug-in, make the edit, and then switch back to the Audio Plug-in again.

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 (see section ↑17.5.3, 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 Recording History (by default the last recorded Sample) will appear here, see section ↑17.2.5, Checking Your Recordings for more information on the Recording History.
- 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. See section ↑17.4, Slicing a Sample for more information on slicing Samples.

17.3.1 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 ↑17.5.4, 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.
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 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 (see section ↑13.2.6, 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 ↑17.3.2, Audio Editing Functions below.



You can also edit the play and loop ranges on the Zone page. See section ↑17.5.6, Adjusting the Zone Settings for more information.

Using the EDIT Page on Your Controller

- In Sampling mode, press NAV + pad 14 to access the EDIT page. You can also hold NAV and turn the Control encoder.

The EDIT page looks as follows:



The EDIT page on the controller.

The display shows you the **waveform** of the selected Sample. You can adjust the waveform view as follows:

1. Press and hold the VIEW button to enter View mode. You can also pin the View mode so that you can release VIEW and stay in View mode (see ↑3.3.1, Pinning a Mode on the Controller).

2. Press F2 to select WAVE.
3. Press pad 2/6 to zoom in on the waveform of the Sample and pad 1/3 to scroll through it.
4. When you are done, don't forget to press the lit VIEW button again to leave View mode and switch back to Sampling mode.

The waveform provides the following additional information:

- Above the waveform, the information bar indicates the name and length of the Sample.
- The Sample can be played back at any time by pressing the corresponding pad on your controller. When the Sample is played back, the playhead indicator (vertical line) shows you the current play position within the waveform on the right display.
- The grayed out and highlighted parts on the waveform indicate you where the play and selection ranges are located (see details below).

The parameters available at the bottom of the display are spread over two pages:

1. Press NAV + Left/Right Arrow button to access the desired page of parameters.
2. Press the Left/Right Arrow buttons to select the parameters within each page.
3. To adjust the selected parameter, turn the Control encoder. For continuous parameters, press and turn the Control encoder to adjust the value in finer increments.

Page 1 – PLAY RANGE Parameters

The parameters in the PLAY RANGE page allow you to adjust the range that will be played when you trigger a note.



The EDIT page on the controller, page 1 of 2: adjusting the play range of the Sample.

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 and turn the Control encoder to adjust the parameters in finer increments.

In the waveform on the display, the regions outside the play range are grayed out.

If a loop has been defined in the Sample, it is also indicated on the waveform. Loops can be created and adjusted in the ZONE page — see section ↑17.5.4, Selecting and Editing Zones in the Map View. Note that the loop will always stay within the region defined by the start and end points of the Sample. Therefore, when moving the Sample's start and end points closer to each other, keep in mind that it might also shrink the loop!

Page 2 – SELECTION RANGE Parameters

The parameters in the SELECTION RANGE page allow you to adjust the range to which audio processing functions will be applied.



The EDIT page on the controller, page 2 of 2: adjusting the selection range of the Sample.

Parameter	Description
START	Adjusts the start point of the selection range in the Sample.
END	Adjusts the end point of the selection range in the Sample.

Press and turn the Control encoder to adjust the parameters in finer increments.

In the waveform on the display, the selection range is highlighted.



Changing the play range automatically resets the selection range to the new play range.

Audio Editing

The EDIT page provides several audio editing functions to process your Sample. Available via the F1–F3 buttons above the right display, these functions are described in detail in the next section ↑17.3.2, Audio Editing Functions.

17.3.2 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 (see ↑17.3.1, 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.



These audio editing functions are destructive, i.e. 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!



The playback settings of the Sample (e.g., tune, amplitude envelope, etc.) can be adjusted on the Zone page. See section ↑17.5.4, Selecting and Editing Zones in the Map View for more information.



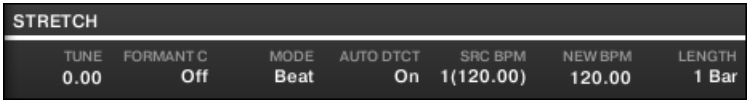
The Audio Toolbar.

The Audio Toolbar provides following audio processing functions:

Command	Description
TRUNCATE	This deletes the part of the Sample that is outside of the selected region.
NORM. (Normalize)	This adjusts the level of the selected region to the maximum possible value without clipping.
REVERSE	This reverses the selected region of the Sample.
FADE IN	This applies a fade in to the selected region of the Sample.
FADE OUT	This applies a fade out to the selected region of the Sample.
DC CORRECT	This 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	This silences the selected region of the Sample.
CUT	This deletes the selected region from the Sample and places it into the clipboard for later use.
COPY	This copies the selected region of the Sample to the clipboard for later use.
PASTE	This pastes the cut/copied region of the Sample, replacing the region of the Sample currently selected.
DUPL. (Duplicate)	This duplicates the selected region of the Sample. The copy is placed right after the original region.
STRETCH	This allows you to apply time stretching and/or pitch shifting to the selected region of the Sample. See below for a detailed description.

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: 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). 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 (see below).
AUTO DTCT (Auto Detection, Beat mode only)	If enabled, MASCHINE automatically detects the tempo of the original audio.

Parameter	Description
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: If AUTO DTCT is enabled, 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. If AUTO DTCT is disabled, you can directly define the tempo of the original audio (in BPM).
NEW BPM (Beat Mode only)	Defines the target tempo of the time-shifted audio (in BPM).
LENGTH (Stretch Length, Beat mode with Auto Detection enabled only)	If AUTO DTCT is enabled, you can define the length of the target audio (in bars). Please note that any change to the SRC BPM value (see 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 (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 disabled. 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.

Audio Editing Functions on the Controller

The EDIT page additionally provides several audio editing functions to process your Sample.



Audio editing functions at the top of the display on the controller.

1. Use F1 and F3 to select the desired audio function.
2. Press F2 to perform the selected audio function.

→ The audio function will be performed on the selected region in your Sample, as defined by the START and END parameters of the SELECTION RANGE section on page 2 (see ↑17.3.1, Using the Edit Page).

These audio processing functions are destructive, i.e. 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!

The playback settings of the Sample (e.g., tune, amplitude envelope, etc.) can be adjusted on the ZONE page. See section ↑17.5.4, Selecting and Editing Zones in the Map View for more information.

Available functions are:

Parameter	Description
TRUNC (Truncate)	This deletes the part of the Sample that is outside of the selected region.
NORM (Normalize)	This adjusts the level of the selected region to the maximum possible value without clipping.
REV (Reverse)	This reverses the selected region of the Sample.
FD IN (Fade In)	This applies a fade in to the selected region of the Sample.
FD OUT (Fade Out)	This applies a fade out to the selected region of the Sample.

Parameter	Description
FIX DC	This 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	This silences the selected region of the Sample.
CUT	This deletes the selected region from the Sample and places it into the clipboard for later use.
COPY	This copies the selected region of the Sample to the clipboard for later use.
PASTE	This pastes the cut/copied region of the Sample, replacing the region of the Sample currently selected.
DUPL (Duplicate)	This duplicates the selected region of the Sample. The copy is placed right after the original region.
STRCH (Stretch)	This allows you to apply time stretching and/or pitch shifting to the selected region of the Sample. See below for a detailed description.

Time Stretching / Pitch Shifting

When you select STRCH (using F1/F3), pressing F2 (STRCH) doesn't directly perform the time stretching / pitch shifting function. Instead, it allows you to adjust the parameters of the time stretching / pitch shifting before you apply it to the selected region.

- ► After you have selected STRCH and pressed F2 (STRCH), use the Left/Right Arrow buttons and the Control encoder to select and adjust the parameters. Pitch shifting and time stretching can be applied independently.



Parameters for the Stretch function.

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 from the two available time shifting modes. **BEAT**: 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). **FREE**: 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 (see below).
AUTO DTCT (Auto Detection, Beat mode only)	If AUTO DTCT (Auto Detection) is enabled, MASCHINE automatically detects the tempo of the original audio.

Parameter	Description
SRC BPM (Source BPM, Beat mode only)	SRC BPM (Source BPM) allows to define the tempo of the original audio (in BPM). This tempo is defined in different ways according to the AUTO DTCT value: If AUTO DTCT is enabled, 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. If AUTO DTCT is disabled, you can directly define the tempo of the original audio (in BPM).
NEW BPM (Beat mode only)	Defines the target tempo of the time-shifted audio (in BPM).
LENGTH (Stretch Length, Beat mode with Auto Detection enabled only)	If AUTO DTCT is enabled, you can define the length of the target audio (in bars). Please note that any change to the SRC BPM value (see 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 (Free mode only)	Adjusts the new tempo relative to the original tempo (in percentage). The minimum value is 10 %.

► Once you have set the parameters to the desired values, press F3 (APPLY) to apply the pitch shifting and/or time stretching to the selected region in the Sample. If you don't want to use the Stretch function, press F2 (STRCH) again to switch back to the EDIT page.



In Beat mode, if you set a target tempo (NEW BPM) that is smaller than a tenth of the original tempo (SRC BPM), an exclamation mark (!) will appear next to the value of the target tempo, the APPLY label will have a dotted frame and the F3 button will be disabled. Set a higher target tempo to enable the button again!

17.4 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): ↑17.4.1, Opening the Slice Page.
2. Choose a method for slicing along with a few settings depending on the chosen method: ↑17.4.2, Adjusting the Slicing Settings.
3. If you wish, manually adjust the proposed Slices: ↑17.4.4, Manually Adjusting Your Slices.
4. Apply the slicing to your Sample and export the Slices — whether in place or to another Sound/Group: ↑17.4.5, 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 (see section ↑17.5.3, 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 Recording History (by default the last recorded Sample) will appear here — see section ↑17.2, 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.

See also

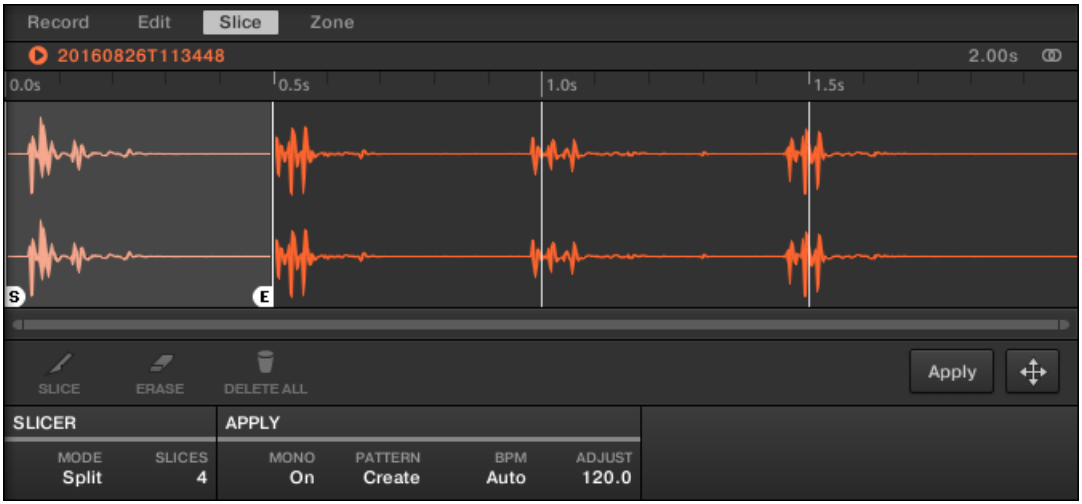
- Selecting and Managing Zones in the Zone List [→ 868]
- Recording Audio [→ 812]

17.4.1 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:

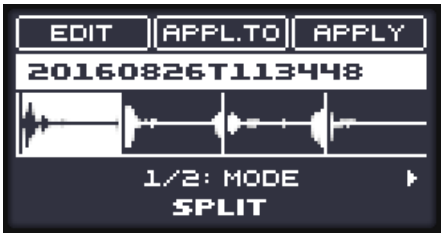


The Slice page in the software.

Opening the SLICE Page on Your Controller

► In Sampling mode, press NAV + pad 15 to access the SLICE page. You can also hold NAV and turn the Control encoder.

The SLICE page looks as follows:



The SLICE page on the controller.

1. To select the parameters described in the following sections, press the Left/Right Arrow buttons.
2. To adjust the selected parameter, turn the Control encoder (for continuous parameters, press and turn the Control encoder to adjust the value in finer increments).

17.4.2 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 prelisten to the proposed Slices on the Cue bus (see section ↑13.2.6, 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*: **Detect mode**: The Sample will be sliced according to its transients. **Split mode**: The Sample will be sliced into equally spread Slices. **Grid mode**: The Sample will be sliced according to note values. **Manual mode**: Manually enter slice points using the pads on your controller, or adjust the start and end points of a slice.
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. 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	

Parameter	Description
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. 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.

Adjusting the Slicing Settings on the Controller

At the bottom of the display, you can adjust the settings used to define where the various Slices will be created in the Sample.



Adjusting the slicing settings.

Any change to these settings will directly affect the number and position of the Slice markers shown in the waveform on the display.

Selecting and Prelistening the Slices with the Pads

At any time the proposed Slices are also available on your pads: The fully lit pad indicates the selected Slice, while the dim lit pads indicate the other Slices.

- Press any fully or dim lit pad to play back the corresponding Slice on the Cue bus (see section ↑13.2.6, Using the Cue Bus for more information).

> For more information on the Cue channel, please refer to section ↑13.2.6, Using the Cue Bus.

If there are more than 16 Slices, you can select which set of 16 Slices should be triggered by your pads:

- If there are more than 16 Slices, press SHIFT + Left/Right Arrow button to switch your pads to the previous/next 16 Slices, respectively.

> Note that we haven't applied any slicing yet: For now your pads only allow you to prelisten how the proposed *would sound* after you apply the slicing. Applying the slicing will be described in section ↑17.4.5, Applying the Slicing.

Slicing Parameters

1. To select the parameters described below, press the Left/Right Arrow buttons.
2. To adjust the selected parameter, turn the Control encoder (for continuous parameters, press and turn the Control encoder to adjust the value in finer increments).

Following parameters are available:

Parameter	Description
TIME Section	
MODE	Here you can select either SPLIT, GRID, DETECT or MANUAL: **Split mode**: The Sample will be sliced into equally spread Slices. **Grid mode**: The Sample will be sliced according to note values. **Detect mode**: The Sample will be sliced according to its transients. **Manual mode**: You can manually slice the Sample as you see fit.
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. 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.
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.
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.

When MODE is set to DETECT, a second section of parameters is available at the bottom of the display: the ENGINE section.

- When MODE is set to DETECT, press NAV + the Right Arrow button to show the ENGINE section.



The ENGINE section.

This ENGINE section contains a single parameter: ZERO-X.

Parameter	Description
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.

17.4.3 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.

17.4.3.1 Live Slicing Using MASCHINE MIKRO

To manually add Slices to a sample using the pads on your controller:

1. Press the SAMPLING button to enter the Sampling page.
2. Press NAV and turn the Control encoder to select SLICE.
3. Press an Arrow button below the display screen to select Manual mode.

4. Press Pad 1 to add the first Slice to the sample.
5. Press Pad 2 to add the second slice point.
6. Continue to press subsequent pads as they flash to add more slices.

→ When playback of the sample stops you may fine-tune the start and end points of your slices by entering EDIT mode.



Press SHIFT + MUTE if you want to stop playback of a long sample.



Press SHIFT + Arrow buttons to access each bank of Slices.

17.4.3.2 Delete All Slices

The DELETE ALL option in SAMPLING EDIT mode is a quick and convenient way to delete all Slices at once from a sample using your controller.

Use the DEL ALL option to delete all slices at once from a sample.

To delete all Slices from a sample:

1. Press the SAMPLING button to enter the Sampler.
2. Press NAV and turn the Control encoder to select SLICE.
3. Press F1 to select EDIT mode.
4. Press SHIFT + F3 to select DEL ALL to delete all slices.

→ All slices are deleted from the current sample.

Deleting All Slices after They Have Been Applied to the Pattern Editor

If you have committed your Slices using the APPLY option, you must return to Edit mode and apply the DELETE ALL option to fully remove them from the Keyzone and Pattern.

To delete all Slices after they have been applied:

1. Press the SAMPLING button to enter the Sampler.

2. Press NAV and turn the Control encoder to select SLICE.
3. Press F1 to select EDIT mode.
4. Press SHIFT + F3 to select DEL ALL to delete all slices.
5. Press F1 (EDIT) to exit EDIT Mode.
6. Press F3 APPLY to remove the Slices from the Sound or Group.

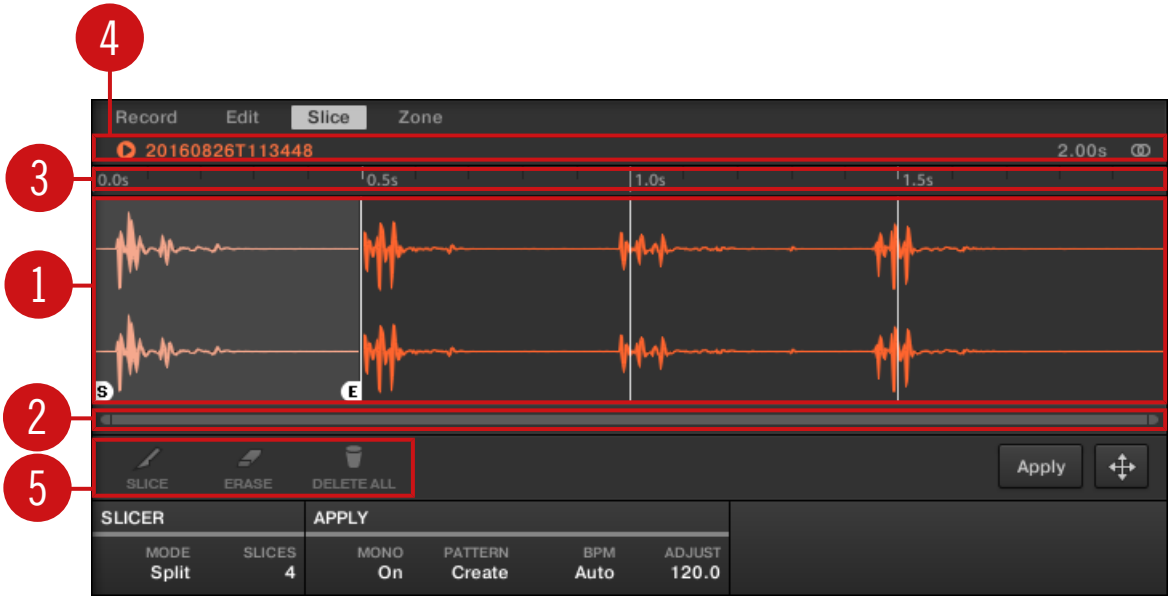
→ All extra Slices and Keyzones will be deleted leaving just the first Keyzone in place.

17.4.4 Manually Adjusting Your Slices

In addition to the Detect, Split, Grid, and Manual modes that create Slices automatically (see section ↑17.4.2, 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 ↑17.4.2, 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 (see section ↑13.2.6, 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 disabled 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 (see section ↑13.2.6, 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 enabled, 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 enabled, 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 enabled, you can still prelisten to your individual Slices by pressing the corresponding pads on your controller!

Manually Adjusting Slices Using Your Controller

Your controller provides a dedicated Slice Edit mode that allows you to select and fine-tune each particular Slice.

- ► On the SLICE page of the Sampling mode, press F1 (EDIT) to enter/leave Slice Edit mode.

→ When Slice Edit mode is active, F1 is fully lit and the EDIT label underneath is highlighted.



The Edit mode in the SLICE page.

1. To select the parameters described below, press the Left/Right Arrow buttons.
2. To adjust the selected parameter, turn the Control encoder (for continuous parameters, press and turn the Control encoder to adjust the value in finer increments).

In Edit mode following parameters and commands are available:

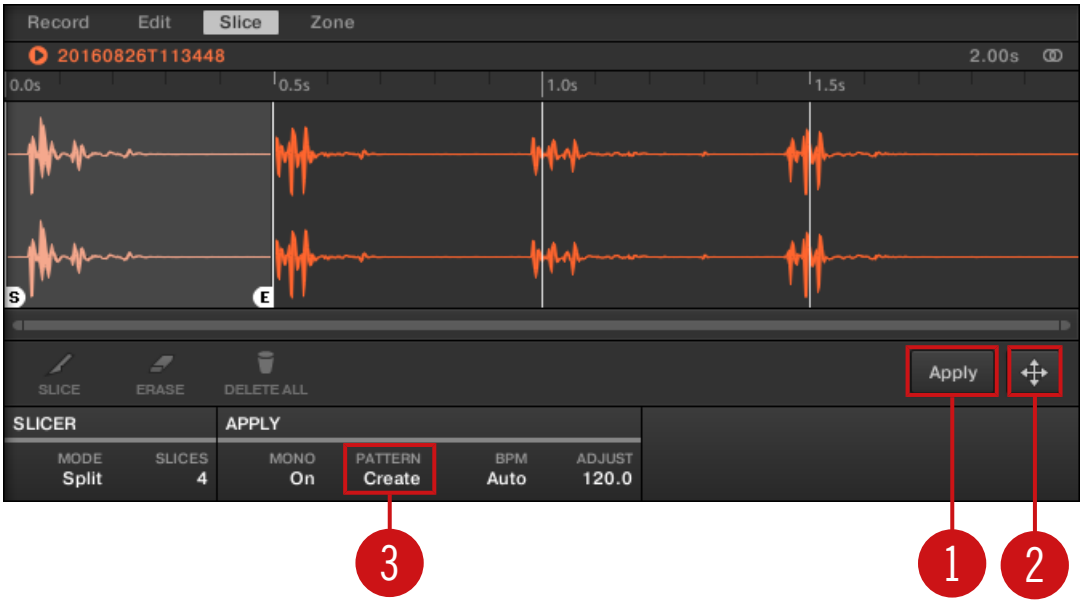
Parameter	Description
SELECTION section	
SLICE	Selects the Slice to edit. The display will show you which Slice is currently selected. You can also use the pads to select Slices starting from pad 1.
START	Adjusts the start point of the selected Slice. If the start point of the Slice and the end point of the previous Slice are still joined, moving the start point of the Slice simultaneously moves the end point of the previous Slice, so that both Slices stay joined.

Parameter	Description
END	Adjusts the end point of the selected Slice. Note that moving the end point of a Slice does *not* simultaneously move the start point of the next Slice — in opposition to adjusting the START parameter (see above).
F2 and F3	
ADD (F2)	Adds another Slice according to the current slicing settings.
REMOVE (F3)	Removes the start border of the selected Slice, thereby joining this Slice with the previous Slice.

- After you have performed your Slice edits, confirm them by pressing F1 (EDIT) again to leave Slice Edit mode (EDIT turns off).

17.4.5 Applying the Slicing

Once you are satisfied with the proposed and/or manually adjusted Slices (see section ↑17.4.2, Adjusting the Slicing Settings), you can apply the slicing in order to actually cut the original Sample and create these 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).

(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 (see section 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).



In other words, the Apply button (**1**) is just a shortcut for dragging the Slice Dragger to the focused Sound itself!

- 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.

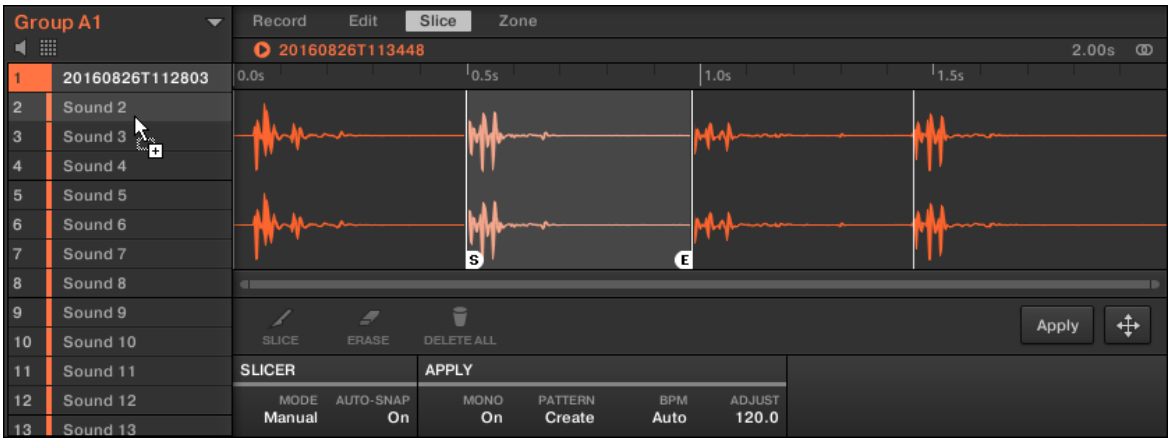


Play around with the slicing feature by removing some of these notes, quantizing or completely rearranging them!

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.

Exporting the Slices on the Controller

Once you are satisfied with the proposed and/or manually adjusted Slices (see section ↑17.4.2, Adjusting the Slicing Settings), you can apply the slicing in order to actually cut the original Sample and create these Slices. This is done via the two commands at the top of the display: APPL.TO (F2) and APPLY (F3).

Exporting the Slices to a Sound

1. Press F2 (APPL.TO).
   The F2 button lights up, the APPL.TO label is highlighted, and a message at the bottom of the display invites you to select a Sound or a Group to export the Slices to.
2. Press GROUP to start selecting the Group containing the target Sound.
   The GROUP button turns fully lit.
3. Press the desired pad 9–16 to select the Group. If your Project has more than eight Groups, once you have pressed GROUP you can use the Left/Right Arrow button to switch to another Group bank.
   The selected pad starts flashing.
4. Press the lit GROUP button again.
   The GROUP button turns back dim lit and the pads now represent the Sound slots of the Group you have just selected.
5. Select the target Sound by pressing its pad.
   The selected pad starts flashing to indicate that it is now the target.

6. Press F3 (APPLY) to export the Slices.

→ The Slices will be mapped to individual notes of the selected 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 (see section Adjusting the Base Key for more information on the base key). Any previous content in the Sound will be replaced. Your controller will leave Sample mode and return to Control mode. The pads 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 in the Slice page of the software, notes will be automatically created for each Slice (see above for more information).



At any time you can press the lit F2 button (APPL.TO) to cancel the export and return to the SLICE page.

Exporting the Slices to a Group

1. Press F2 (APPL.TO).
   The F2 button lights up, the APPL.TO label is highlighted, and a message at the bottom of the display invites you to select a Sound or a Group to export the Slices to.
2. Press GROUP to start selecting the Group containing the target Sound.
   The GROUP button turns fully lit.
3. Press the desired pad 9–16 to select the Group. If your Project has more than eight Groups, once you have pressed GROUP you can use the Left/Right Arrow button to switch to another Group bank.
   The selected pad starts flashing.
4. Press F3 (APPLY) to export the Slices.

→ The Slices will be mapped to individual Sound slots, replacing their current content (if any). Only the first 16 Slices will be exported. Your controller will leave Sample mode and return to Control mode. The pads will switch to Group mode so that you can directly play your Slices on the pads. Additionally, depending on the setting of the Pattern Creation selector in the Slice page of the software, notes will be automatically created for each Slice (see below).



At any time you can press the lit F2 button (APPL.TO) to cancel the export and return to the SLICE page.

Exporting a Single Slice

Instead of exporting all Slices, you can also export the selected Slice only:

1. On the SLICE page, select the Slice you want to export by pressing its pad.
2. Press F2 (APPL.TO).
3. Press F1 (EDIT) to edit the Slices further.
4. Press F3 (APPLY) to export the selected Slice.

APPLY: Exporting the Slices to the Same Sound

► On the SLICE page, press F3 (APPLY) to export all Slices to the focused Sound itself.

→ The Sample currently loaded in that Sound will be replaced by its own Slices, each of them being mapped to a particular note.

This is equivalent to pressing F2 (APPLY TO) and selecting the Sound in which you already are preparing the Slices.

17.5 Mapping Samples to Zones

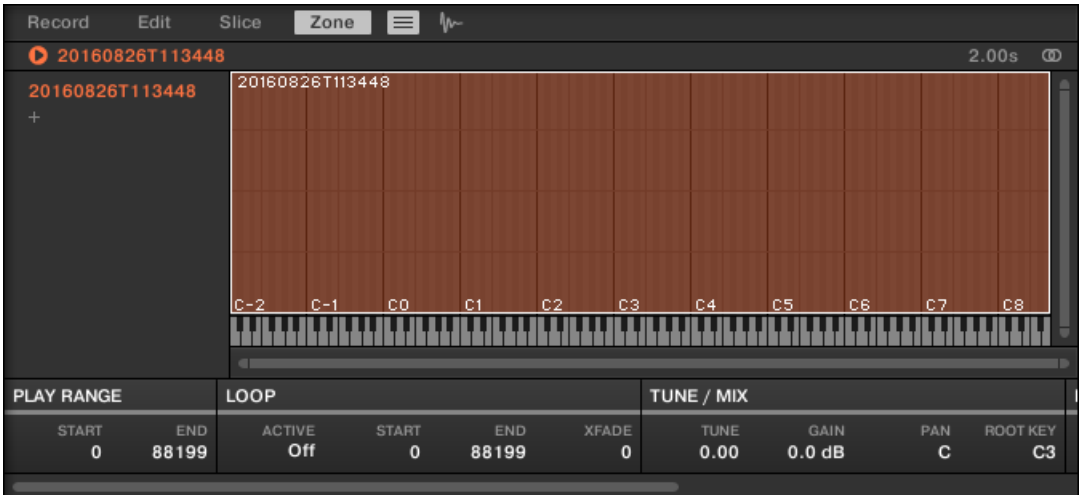
Mapping Samples is a way to create Sounds with more than one Sample across the MIDI keyboard and with different velocities. You can create and adjust **Zones** that define a key (or pitch) range and a velocity range for each Sample included in the Sound. In other terms, the Sample will be triggered only if the played note is within its Zone's key range and velocity range.

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.

17.5.1 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).

Opening the ZONE Page on Your Controller

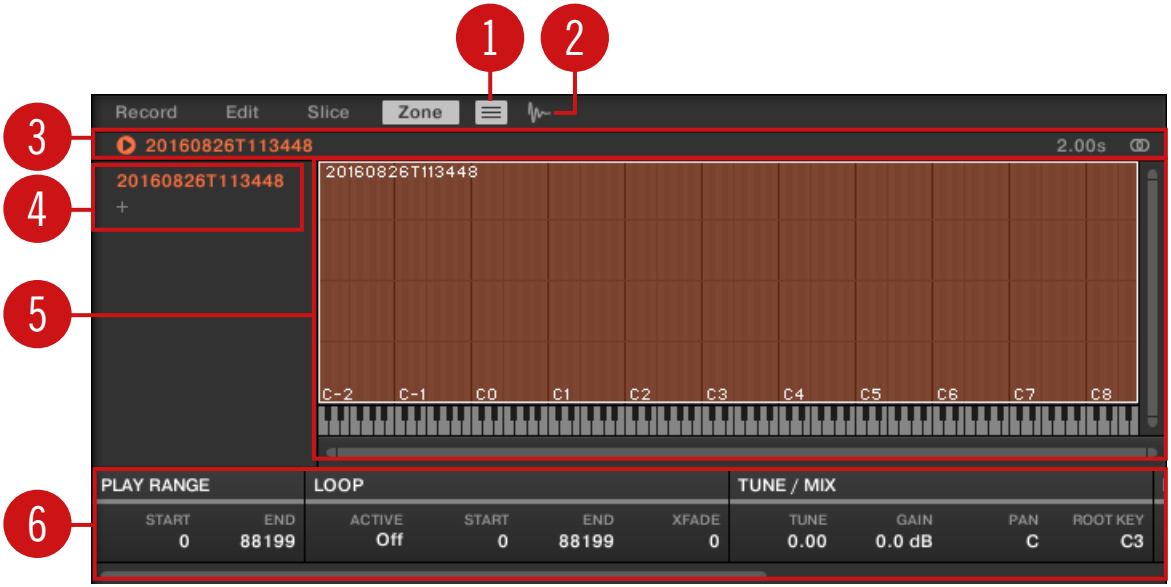
► In Sampling mode, press NAV + pad 16 to show the ZONE page. You can also hold NAV and turn the Control encoder.



The ZONE page on the controller.

17.5.2 Zone Page Overview

The Zone page provides 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 (see section ↑13.2.6, 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 ↑17.5.3, Selecting and Managing Zones in the Zone List for a complete description of the Zone List.

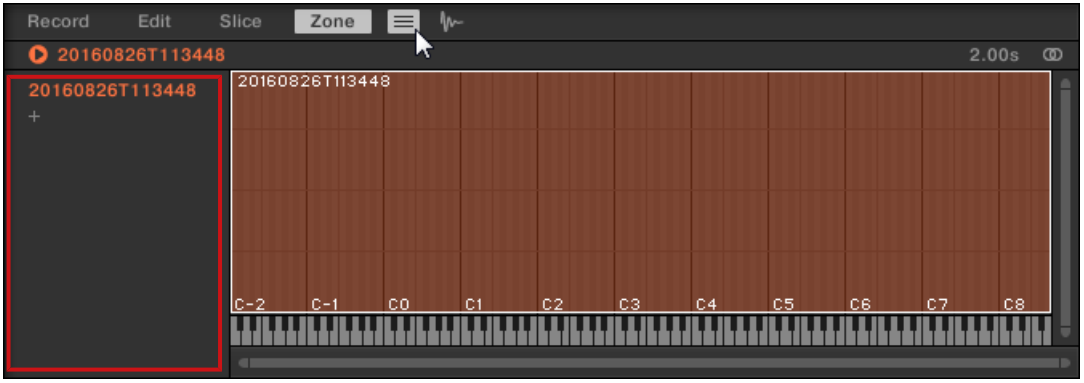
(**5**) **Map view / Sample view**: The Map view is the default view (pictured above). It shows and lets you edit all Zones contained in your Sound. The Sample view shows the waveform of the Sample for the focused Zone and lets you edit some of its settings. Click the Sample View but-

ton (**2**) to switch between the Map view and the Sample view (the Sample view is visible when the Sample View button is enabled). The Map and Sample views are explained in detail in section ↑17.5.4, Selecting and Editing Zones in the Map View and ↑17.5.5, Editing Zones in the Sample View, respectively.

(**6**) **Zone settings**: Displays the parameters for the focused Zone. See section ↑17.5.6, Adjusting the Zone Settings for a detailed description of the available parameters.

17.5.3 Selecting and Managing Zones in the Zone List

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: It will creates as many new Zones!

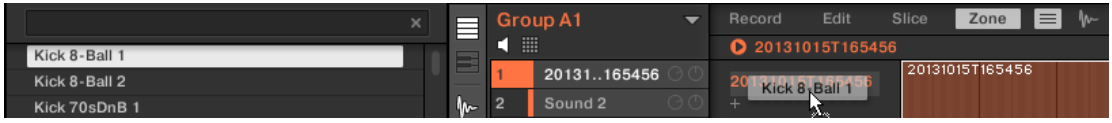


You can also add Zones to your Sound by dragging and dropping Samples directly onto the Sample Map of the Map view. See section ↑17.5.7, Adding Samples to the Sample Map for more on this.

Replacing the Sample of an Existing Zone

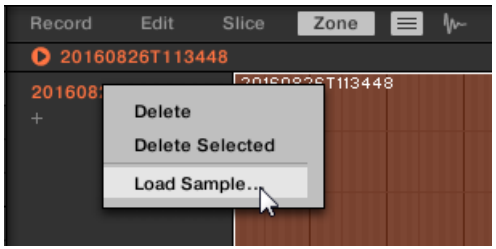
You can also put a new Sample into an existing Zone, thereby replacing the Sample currently contained in that Zone. Again, you have two methods at your disposal:

► 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 in 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 ↑17.5.6, 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 ↑17.3, Editing a Sample and ↑17.4, Slicing a Sample, respectively.

Selecting Multiple Zones in 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 (see section ↑17.5.4, 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

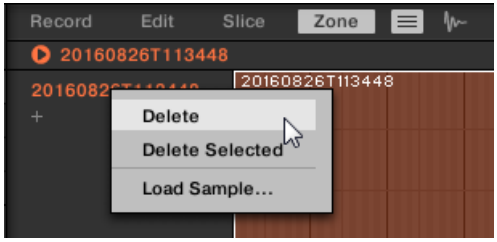
To remove one or more Zone(s) from the Zone List:

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 ↑17.5.4, Selecting and Editing Zones in the Map View for more information on the Sample Map.

Selecting and Managing Zones on Your Controller

You can select and remove Zones on your controller.

Selecting a Zone

► On the ZONE page of Sampling mode, press F1 (PREV) or F2 (NEXT) to set the focus to the previous or next Zone in the Zone List, respectively.

→ The waveform of the Sample in this focused Zone appears on the display, and the Zone settings appear at the bottom of the display.

Multiple selection is not possible from the controller. Hence, setting the focus to the previous/next Zone automatically deselects any other Zone, the focused Zone now being the only selected Zone.

The Sample can be played back on the Cue channel at any time by pressing the corresponding pad on your controller. When the Sample is played back, the Playhead indicator (vertical line) shows you the current play position within the waveform on the right display.

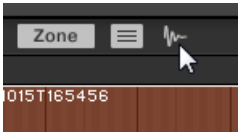
For more information on the Cur channel, please refer to section ↑13.2.6, Using the Cue Bus.

Removing a Zone

- On the ZONE page of Sampling mode, press SHIFT + F3 (REMOVE) to remove the focused Zone from the Sound.

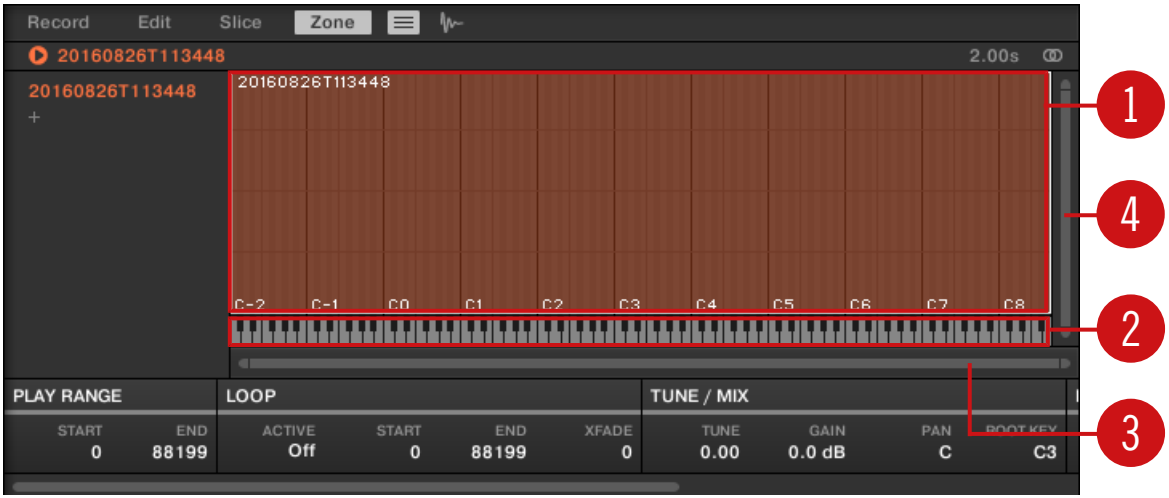
17.5.4 Selecting and Editing Zones in the Map View

The Map view is visible when the Sample View button (showing a little waveform icon at the right of the Zone tab) is disabled.



Disable the Sample View button to see the Map view.

The Map view contains 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 ↑17.5.7, 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 ↑17.5.6, Adjusting the Zone Settings for a detailed description.



For more information on the Edit and Slice pages, please refer to section ↑17.3, Editing a Sample and ↑17.4, 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.
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.

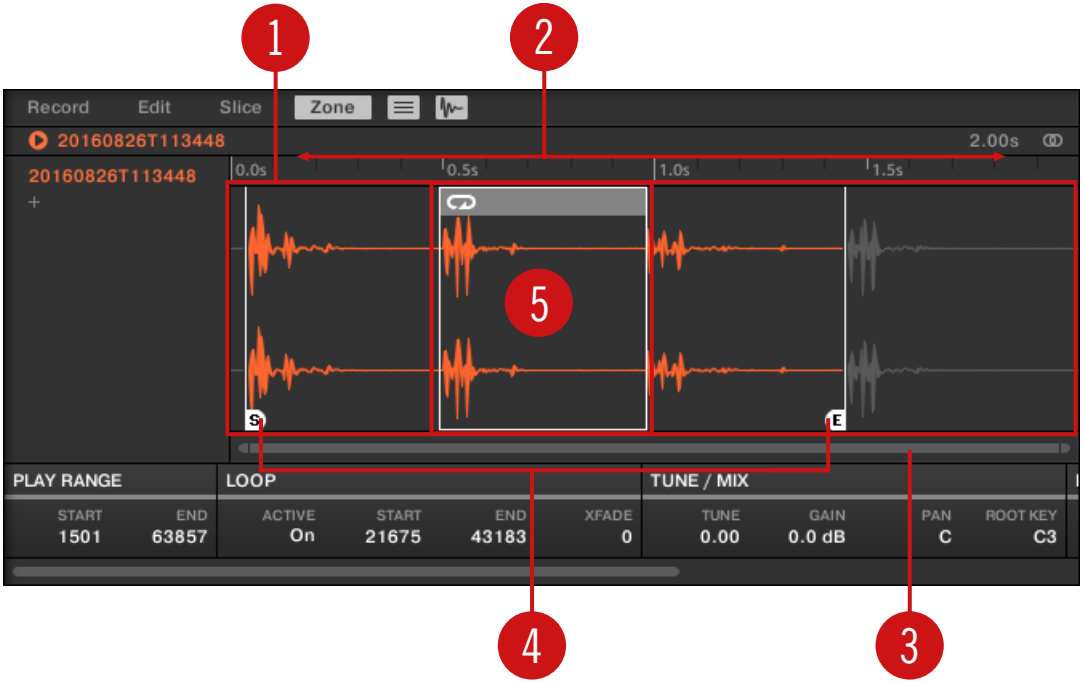
17.5.5 Editing Zones in the Sample View

The Sample view is visible when the Sample View button (showing a little waveform icon at the right of the Zone tab) is enabled.



Enable the Sample View button to see the Sample view.

The Sample view contains 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

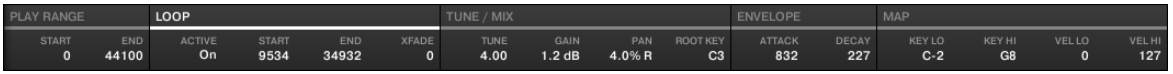
The S and E markers indicate the start and end points of the play range, respectively. Drag them with the mouse to modify the portion of the Sample that will be played back. This can also be done in the PLAY RANGE section of the Zone settings, under the waveform display (see section ↑17.5.6, Adjusting 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 (see section ↑17.5.6, 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!

17.5.6 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 (see ↑7.2.2, 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.

Parameter	Description
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.

Editing Your Zones on the Controller

At the bottom of the display, the Zone settings allow you to adjust how each Zone should be played back.



The Zone settings on the controller.

The various parameters always display the values **for the focused Zone**.

The parameters available in the Zone settings are spread over five pages. To access these parameters do the following:

1. If it's not done already, press SAMPLING to enter Sampling mode and press NAV + pad 16 to select the ZONE page. You can also hold NAV and turn the Control encoder.
2. Press NAV + Left/Right Arrow button to access the desired page of parameters.
   While you hold NAV, you see the name of the current page at the bottom of the display:

3. Press the Left/Right Arrow buttons to select a particular parameter on the selected page.
4. To adjust the selected parameter, turn the Control encoder. For continuous parameters, press and turn the Control encoder to adjust the value in finer increments.

Page 1 – PLAY RANGE Parameters

The parameters in the PLAY RANGE page allow you to adjust the portion of Sample that will be played back when the Zone is triggered.



The ZONE page on the controller – page 1 of 5: PLAY RANGE parameters.

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.

Press and turn the Control encoder to adjust the parameters in finer increments.

In the waveform on the display, the regions outside the play range are grayed out.

Page 2 – LOOP Parameters

The parameters in the LOOP page allow you to define and adjust a portion that will play in loop while the note is held.



The ZONE page on the controller, page 2 of 5: LOOP parameters.

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 in the PITCH / GATE section (Parameter page 2, see ↑7.2.2, Page 2: Pitch / Envelope).
START	Adjusts the start point of the loop.
END	Adjusts the end point of the loop.
XFADE	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.

Press and turn the Control encoder to adjust the parameters in finer increments.

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.

Page 3 – TUNE / MIX Parameters

The TUNE / MIX page contains parameters controlling pitch- and level-related aspects of the Sample playback.



The ZONE page on the controller, page 3 of 5: TUNE / MIX parameters.

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.

Page 4 – ENVELOPE Parameters

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.



The ZONE page on the controller, page 4 of 5: ENVELOPE parameters.

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.



Press and turn the Control encoder to adjust the parameters in finer increments.

Page 5 – MAP Parameters

The MAP page contains the parameters defining the key and velocity ranges of the Zone.



The ZONE page on the controller, page 5 of 5: MAP parameters.

Parameter	Description
KEY LO (Lowest Key)	Sets the lowest note (key) of the focused Zone.
KEY HI (Highest Key)	Sets the highest note (key) of the focused Zone.
VEL LO (Lowest Velocity)	Defines the lowest velocity of the focused Zone.
VEL HI (Highest Velocity)	Defines the highest velocity of the focused Zone.

At any time you can visually check the key and velocity ranges of the Zone in the Map view of the Slice page in the software. See section ↑17.5.4, Selecting and Editing Zones in the Map View for more information on the Map view.

17.5.7 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 disabled 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.

Adding a Sample to the Sample Map on the Controller

To add a new Sample to the Sample Map of the current Sound:

1. Press SAMPLING to enter Sampling mode and press NAV + pad 16 to open the ZONE page.
2. Press F3 (ADD).
   Your controller automatically switches to the Browser with the SAMPLE type preselected.

3. In the Browser, select the Sample you want to add to the map of the current Sound (see ↑4.2, Searching and Loading Files from the Library for more information on using the Browser on your controller).
4. Press the Control encoder to load the Sample.

→ A new Zone is created that contains the added Sample. Your controller automatically switches back to Sampling mode and the new Zone is selected and appears on the display, ready to be tweaked.

18 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.

18.1 Preparations

18.1.1 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.

18.1.2 Customize the Pads of the Hardware

Take your time to setup the pad sensitivity and velocity scaling to your personal taste (see section ↑3.6.6, Preferences – Plug-ins Page to learn how to do that) — you will have even more fun playing MASCHINE.

18.1.3 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 amount 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. Have a look at the CPU meter in the MASCHINE software's Header to ensure it never turns red. If necessary, increase the Latency value (see ↑3.6.1, Preferences – General Page).

18.1.4 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 something that is very interesting, but it certainly pays off in a hectic live situation.

18.1.5 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! See ↑15.1.4, Limiter for more information.

18.1.6 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 ↑3.7, Integrating MASCHINE into a MIDI Setup for more information on these features. Make sure you also setup the Sync Offset Slave value correctly (see chapter ↑3.6.1, Preferences – General Page) so that all your devices and MASCHINE are tightly synchronized.

18.1.7 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 as well as for the audience. Something unexpected or even plain mistakes can be the key for inspiring tracks and performances as well as just jamming around with your Sounds and Samples!

18.2 Basic Techniques

18.2.1 Use Mute and Solo

Mute and Solo are a good way to build up a live set especially on the MASCHINE controller as you can mute and solo Groups and Sounds at the same time.

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. See ↑18.2.3, Use Note Repeat for more on this.

18.2.2 Create Variations of Your Drum Patterns in the Step Sequencer

You can easily create interesting 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. See ↑11.3, Recording Patterns with the Step Sequencer for more information on the step sequencer.

18.2.3 Use Note Repeat

Note Repeat is a very useful 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. See Note Repeat for more information.

18.2.4 Set Up Your Own Multi-effect Groups and Automate Them

You can setup 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 be able 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. See section ↑14.4, Creating Multi-Effects for more details!

18.3 Special Tricks

18.3.1 Changing Pattern Length for Variation

Try a short Pattern Grid resolution like a quarter or eighth note and change the Pattern Length (see section ↑11.1.6, 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.

18.3.2 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 (see ↑7.2.1, Page 1: Voice Settings / Engine). If you load a long audio file, you can create interesting variations by tweaking (…or modulating) the start point.

19 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.

19.1 Knowledge Base

The Online Knowledge Base gathers useful information about your Native Instruments product and can be of great help to solve possible issues you may encounter. You can reach the Knowledge Base via: www.native-instruments.com/knowledge.

19.2 Technical Support

If no Knowledge Base entry matches your problem, or if the matching entry does not solve the problem, you can use the Online Support Form to contact the Technical Support team of Native Instruments. The Online Support Form will ask you to enter information about your hardware and software setup. This information is essential for our Support team to be able to provide you with quality assistance. You can reach the Online Support via: www.native-instruments.com/suppform.

When communicating with the Native Instruments Support team, keep in mind that the more details you can provide about your hardware, your operating system, the version of the software you are running, and the problem you are experiencing, the better they will be able to help you.

In your description, you should mention:

- How to reproduce the problem
- What you have already tried to fix the problem
- A description of your setup, including all hardware and the version of your software

- The brand and specifications of your computer

When installing new software or software updates, a Readme file is included that contains late breaking news and new information that was not yet included in the documentation. Please open and read this Readme file before contacting Technical Support.

19.3 Registration Support

If problems occur during the product activation procedure, please contact our Registration Support team: www.native-instruments.com/regsuppfrm.

19.4 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.

20 Glossary

In this glossary you will find short definitions for numerous terms used in the MASCHINE context. If you have any doubts about the meaning of a word, this is the place to check!

Arranger

The Arranger is the big area located in the upper part of the MASCHINE window, right under the Header. It contains two views: Ideas view and Song View.

Song View

The Song view allows you to combine Sections (references to Scenes), and arrange them into a song on the Timeline.

Autoload

When Autoload is enabled, any Group, Sound, Pattern, Plug-in preset (instrument or effect), or Sample that you select in the Browser is instantly loaded into the selected Group slot, Sound slot, Pattern slot or Plug-in slot. This way, you can listen to this object in the current context of your song.

Browser

The Browser is the front end for accessing all MASCHINE objects: Projects, Groups, Sounds, Patterns, presets for instrument and effect Plug-ins, and Samples. Each of these can be stored, "tagged," and categorized in a way that allows you easy access to all of them. MASCHINE's factory library is already completely tagged, and you can also import your own files to the Library and tag them as well.

Bussing Point

A bussing point is a point in the signal flow that can accept signals coming from various locations in the audio routing system. In MASCHINE for example, the first Plug-in slot of a Sound usually contains a sound source (which you will hear by pressing the corresponding pad on your controller). If you load an effect plug-in in this first Plug-in slot, though, the Sound won't generate audio itself but instead it becomes available for other Sounds and Groups to process

their audio. You then only have to set up the desired Sound(s) and Group(s) of your Project to send some of their audio to this bussing point. This basically is the way to set up send effects in MASCHINE!

Channel Properties

Channel properties are sets of parameters available at each Project level (i.e. for each Sound, each Group, and for the Master) that are independent of the Plug-ins loaded in that Sound/Group/Master. Like the Plug-in parameters, in the software the Channel properties are displayed in the Control area. For example, the volume, pan or swing controls are properties of their respective Sound/Group/Master channel.

Control Area

The Control area is located in the middle of the MASCHINE window, between the Arranger (above) and the Pattern Editor (below). This area allows you to adjust all Plug-in parameters and Channel properties for the selected Sound/Group or the Master level: routing, effects, Macro Controls, etc.

Control Lane

Located at the bottom of the Pattern Editor in the MASCHINE window, the Control Lane shows and lets you edit the recorded automation in form of automation points for each automated parameter. You can add, remove, or manipulate existing automation points as well as add new parameters to automate.

Control Mode

Control mode is the default mode of your controller. In this mode, you can play or record your actions in real-time. Control mode also allows you to easily adjust any parameter of your Groups and Sounds via the Control section of your controller.

Effect (FX)

An effect modifies the audio material it receives. MASCHINE already includes many different effects. You may also use VST/AU plug-in effects. Effects can be loaded as Plug-ins in any Plug-in slot of the Sound, Group, and Master levels. MASCHINE's flexible routing allows you not only to apply insert effects but also to create send effects and multi-effects.

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 Step Grid. Depending on the current view in the Pattern Editor, you can see events for all Sounds slots (Group view) or for the select Sound slots only (Keyboard view).

Groove Properties

The Groove properties control the rhythmic relationship between events for the selected Group/Sound or the Master level. By shifting some of the events, you can e.g. give a shuffling, ternary touch to your Patterns. The main parameter of the Groove properties is the Swing control.

Group

A Group contains 16 Sound slots, each of which can hold one Sound. In addition to the effects applied to individual Sounds, a Group can have insert effects loaded in its Plug-in slots. These affect all the Sounds in the Group. A Group can also contain an unlimited amount of Patterns organized into Pattern Banks.

Group View

Group view is the view of the Pattern Editor in which events for all 16 Sound slots of the selected Group are visible and editable. In Group view, each row of the Step Grid represents a different Sound slot. This mode is well suited for rhythmic instruments (e.g., a drum kit).

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. These Scenes can then be added to Sections in the Song view to create a larger musical structure.

Insert Effect

An insert effect is an effect directly inserted in the signal path of the audio to be processed.

Header

The Header is the topmost row of controls in the MASCHINE software window. It contains global settings, such as the Master Volume slider, the Transport controls, controls for global swing, tempo, time signature, etc.

Keyboard View

Keyboard view is the view of the Pattern Editor in which only events of the selected Sound are visible and editable. The Keyboard view provides a vertical on-screen keyboard that indicates the pitch of each event (one row per semi-tone). This mode is well suited for melodic instruments (e.g., synthesizer). The Keyboard view of the Pattern Editor and the Keyboard mode on your controller are bound together: If you enable Keyboard view in the Pattern Editor, your controller automatically switches to Keyboard mode, and inversely.

Macro Control

Each Sound/Group/Master channel provides a page of eight Macro Controls to which you can assign almost any parameter from that level or the underlying one. This way you can define for, e.g., each Group or Sound a set of eight parameters that are quickly accessible. Furthermore, Macro Controls can be assigned to MIDI CCs to be controlled by an external MIDI controller or application. Last but not least, if you use MASCHINE as a plug-in in a host, Macro Controls are available for modulation in your host too.

Master

The Master is where all audio signals from each of the Groups and Sounds come together and get mixed. The Master bus can also have insert effects loaded in its Plug-in slots. These effects are applied to all Groups and the Sounds within them.

Modulation

Modulation allows you to record changes of parameter values so that you don't need to actuate these parameters in real-time. Any modulated parameter is displayed both in the Control Lane (at the bottom of the Pattern Editor) and as a movement of the chosen parameter itself in the Control area.

Mute and Solo

Muting allows you to bypass a Sound or a Group, whereas Soloing is pretty much the opposite: It mutes all other Sounds or Groups so that only the soloed Sound or Group is played. The combination of muting and soloing is a useful means both to play live and to test different sequences together.

Pad Mode

Your controller offers various Pad modes that allow you to play your Sounds from the pads in different ways: Depending on the selected Pad mode, you can either assign one Sound to all 16 pads (Keyboard mode and 16 Velocities mode) or trigger each Sound with a distinct pad (default mode and Fixed Velocity mode). The Keyboard mode on your controller and the Keyboard view in the software's Pattern Editor are bound together: If you enter Keyboard mode on the controller, Keyboard view gets automatically enabled in the software, and inversely.

Parameter Pages

The Parameter pages constitute the biggest part of the Control area in the MASCHINE window. They contain the adjustable Plug-in parameters and Channel properties of the selected Sound/Group or those of the Master.

Pattern

A Pattern is a sequence that plays Sounds from a Group. Patterns are the building blocks for Scenes. One Pattern from each Group can be added to a Scene. 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 Arranger.

Pattern Editor

Located at the bottom of the MASCHINE window, the Pattern Editor allows you to select Sound slots (on the left), display and edit your Patterns, change the Step Grid settings and create/edit automation.

Plug-in

A Plug-in is an instrument or effect unit, either Internal or External (by Native Instruments or a third-party manufacturer), that can be loaded into a Plug-in slot to produce or alter sound. When a Plug-in is loaded into a Plug-in slot, the Plug-in appears in the Plug-in List in the left part of the Control area.

Prehear

The Prehear feature allows you to listen to Samples directly from the Browser without loading them into Sound slots first. This way, you can quietly choose a Sample before modifying anything in your Project.

Project

A Project contains all data needed for a song: all Groups, Patterns, Sounds, Samples, Scenes and all settings, automation, effects, routings, etc. It's like a snapshot of the entire state of MASCHINE.

Quantization

To quantize a Pattern is to make its events snap to a set of equally distributed locations known as steps. This ensures that these events are on beat. You can also let MASCHINE automatically quantize events that you play and/or record live. Quantization makes it easier to get a rhythm going, but too much use can make the Pattern seem stiff or lifeless.

Sample

A Sample is any piece of audio that can be used e.g. to build a drum kit or a melodic instrument, or as a distinct loop in your song. You can load one or more Samples into each Sound slot.

Sample Editor

The Sample Editor can be displayed in place of the Pattern Editor. The Sample Editor is the all-in-one editor for Samples. It notably allows you to record Samples, edit them, split them into slices and map them across notes and velocities on your keyboard.

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.

Section

Sections are references to a specific Scenes on the Timeline of the Song view and 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.

Send Effect

A send effect is an effect available for audio signals located on other Sounds and/or Groups. These audio signals can be routed to a variable extent to the send effect for the effect to process them. Send effects notably allow you to reuse the same effect on different Sounds and/or Groups, thereby limiting the overall CPU load.

Sequencer

Generally speaking, a sequencer is a hardware unit or software tool that arranges musical sequences, e.g. drum patterns or chord progressions. Hardware sequencers typically function as a set of steps, where every step can be filled with musical content. The steps are then played back as a musical sequence. MASCHINE has its own sequencing abilities: you can record and play single Patterns as well as arrange Patterns into Scenes and Scenes into full songs.

Solo

See Mute and Solo.

Sound

Sounds are the building blocks of all sound content in MASCHINE. They are organized into Groups that can hold up to 16 Sounds each. Sounds can be played directly from the pads on your controller. A Sound can be loaded with Plug-ins of various types (sound source or effect, Internal or External, etc.).

Step

Steps are elementary time blocks. They are notably used to apply quantization or to compose Patterns from your controller in Step mode. All steps together make up the Step Grid. In the software's Pattern Editor, steps are visualized by vertical lines. You can adjust the step size, e.g., to apply different quantization to different events or to divide the Step Grid into finer blocks to edit your Pattern more precisely.

Step Grid

The Step Grid is a set of parallel lines that divide the Pattern into steps. By changing the resolution of the Step Grid (i.e. the step size), you can adjust the note values at which you can quantize your Pattern and the number of steps available in Step mode on your controller.

Step Mode

In Step mode, your controller can be used as a traditional step sequencer, where each of the 16 pads represent a step in the Step Grid. Just as on classical drum machines, a light representing the sequence runs from pad 1 up to pad 16, highlighting each step during playback. Select a Sound and put events at chosen steps in the sequence by pressing the corresponding pads. By repeating the process Sound by Sound you build up the whole Pattern.

Swing

The Swing parameter allows you to shift some of the events in your Pattern to create a shuffling effect.

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