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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.

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 remote sound modules.

Since you can integrate it into any sequencer that supports VST, AU or AAX plug-ins, you can reap the benefits of almost any software setup, or use it as a stand-alone application. You can try out several different versions of a song without ever having to stop the music.

Patterns can be intuitively combined and rearranged on the fly to form larger ideas. You can try new things and sample your own material, slice loops and rearrange them easily.

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Since you can integrate it into any sequencer that supports VST, AU or AAX plug-ins, you can try out several different versions of a song without ever having to stop the music.

Thank you for buying MASCHINE!
You will find more information on these subjects in the chapter Troubleshooting:

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

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:

- EN: We recommend that you follow along with these instructions while the respective plugin is running on your computer.

Other Online Resources:

- Tutorials videos: You can find a number of support videos on the Official Native Instruments YouTube channel.
- Controller Editor Manual: Besides using your MASCHINE hardware controller, 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. You can also use it as an additional MASCHINE software, which can be used together with your MASCHINE hardware controller.
- 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 plugin is running on your computer.

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

This section introduces you to the signage and text highlighting used in this manual.

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.

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 and wherever you see this formatting applied, you will find the same text appearing somewhere on the screen.

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

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
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.

Unlabeled Buttons on the Controller

The buttons and knobs above and below the displays on your MASCHINE controller do not have labels.
The unlabeled buttons and knobs on the MASCHINE STUDIO controller.

Audio Plug-in Improvements

- Support for KOMPLETE KONTROL A-Series keyboards.

New Hardware Support

The following new features have been added to MASCHINE:

1.3 New Features in MASCHINE 2.7.10

- Add an 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.
- Add an 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.

For better reference, we applied a special formatting here: Throughout the document, the elements are capitalized and numbered, so the buttons above the displays are written Button 1 to Button 8, while the knobs under the displays are written Knob 1 to Knob 8. Whenever you see an instruction such as “Press button Z to open the EDIT page,” you’ll know it’s the second button from the left above the displays.

Welcome to MASCHINE
to record a new one. If you abort the recording, the previously-playing Take will be restored.

• The Take Recording workflow has been improved by muting the previously-playing Take when you trigger a new recording so you're not distracted meaning the old Take while trying to record a new one.

• The Engine Modes are now listed in order of CPU load, from lowest (Re-pitch) to highest (Formant).

For more information, refer to 18, Using the Audio Plug-in.

• Audio plug-in improvements:

Welcome to MASCHINE

1.5 New Features in MASCHINE 2.7.7

• Support for MASCHINE MIKRO MK3 hardware
• Support for KOMPLETE KONTROL S88 MK2

New Hardware Support

The following new features have been added to MASCHINE:

1.4 New Features in MASCHINE 2.7.8

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

General Improvements

For more information on editing audio, refer to 18, Using the Audio Plug-in.

• Show waveform using musical units rather than samples.
• The loaded audio file that you wish to loop. The timeline along the top of the waveform now shows musical units rather than samples. The timeline above the top of the waveform now shows musical units rather than samples.

• Added Usable Play Range for Audio Plug-in: in the Edit tab of the Audio Plug-in, there are

Welcome to MASCHINE
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.

The Pattern Editor:

There are some changes to keyboard shortcut behavior as they relate to view switching in the Pattern Editor:

- Toggles Pencil/Paint on/off
- Toggles Sampling view on/off
- Toggles Group view and Keyboard view
- W = toggle between Group view and Keyboard view

Recording

W = toggle between Group view and Keyboard view

There are some changes to keyboard shortcut behavior as they relate to view switching in the Pattern Editor:

- Toggles Pencil/Paint on/off
- Toggles Sampling view on/off
- Toggles Group view and Keyboard view
- W = toggle between Group view and Keyboard view

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).

Recording

- E = toggle Pencil/Paint on/off
- S = toggle Sampling view on/off
- W = toggle between Group view and Keyboard view

There are some changes to keyboard shortcut behavior as they relate to view switching in the Pattern Editor:

- Toggles Pencil/Paint on/off
- Toggles Sampling view on/off
- Toggles Group view and Keyboard view
- W = toggle between Group view and Keyboard view

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).
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 and 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 file without getting the annoying "Could not load 1 or more plug-ins" error. For more information, see 3.6.6, Preferences – Plug-ins Page.

New Features in MASCHINE 2.7.4

The following new features have been added to MASCHINE:

Audio Plug-in Improvements

1.6

Welcome to MASCHINE

New Features in MASCHINE 2.7.4

New Features in MASCHINE 2.7.4
Welcome to MASCHINE

New Features in MASCHINE 2.7.4

• Added a Re-Pitch sync mode to the audio plug-in which simply re-tunes/repitches the loop.

• 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 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 start the recording again. Any recorded audio to that point will be discarded. If the recording is complete, holding the footswitch down for a few moments will trigger the recording. If recording is in progress, pressing the footswitch once will stop the recording, double-pressing will start the recording again. Any recorded audio to that point will be discarded. If the recording is complete, holding the footswitch down for a few moments will trigger the recording.

↑ 17.2.5, Using the Footswitch for Recording Audio

↑ 8, Using the Audio Plug-in
The following new features have been added to MASCHINE:

### New Features in MASCHINE 2.7.3

- **New Features in MASCHINE 2.7.3**

**MASCHINE STUDIO - Manual - 33**
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.

General Improvements

▪ Fixed an issue where the MASCHINE Transport Loop would influence ideas View playback when hosted in a DAW.

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.

General Improvements

▪ Added additional Scales from KOMPLETE 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 that 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.

Added velocity curves to controller editor for MASCHINE MK3.

Removed 32-bit versions of standalone application and plug-in.

Removed the modal dialog at startup that suggested to download sound preview files from Native Access. The preview files are still available for installation in Native Access.

Welcome to MASCHINE
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

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, GRID, 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**, **GRID**, **EVENTS**, **AUTO**, **REC** and **TAP** buttons:

Each of these buttons needs to be pressed in order to use the corresponding mode.
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., `GRID`.
2. Press Button 1 above the left display.

→ You can release the `GRID` button: The controller will remain in Grid mode until you press `GRID` again.

### 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.

#### Controlling the Software

To control the software views using the controller:

You can unpin any mode by pressing the mode button and Button 1.

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Ideas view</td>
<td>Button 2</td>
</tr>
<tr>
<td>Select Song view</td>
<td>Button 3</td>
</tr>
</tbody>
</table>

**General Navigation View**

Use the buttons above the screens navigate views:

- The Navigate screen appears.

Navigate mode (see ↑ 2.1.1, Controller Modes and Mode Pinning):

Press and hold the NAVIGATE button to enter Navigate mode. You can also press NAVI- GATE + Button 1 to pin the Navigate mode so that you can release NAVIGATE and stay in Navigate mode (see ↑ 2.1.1, Controller Modes and Mode Pinning).

Press and hold the NAVIGATE button to enter Navigate mode. You can also press NAVI- GATE + Button 1 to pin the Navigate mode so that you can release NAVIGATE and stay in Navigate mode (see ↑ 2.1.1, Controller Modes and Mode Pinning).

**Quick Reference**

Using Your Controller
### Quick Reference

#### Using Your Controller

**Page Navigation View**

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press pad 10</td>
<td>Zoom out Arranger (Song View only)</td>
</tr>
<tr>
<td>Press pad 14</td>
<td>Zoom in Arranger (Song View only)</td>
</tr>
<tr>
<td>Press pad 11</td>
<td>Scroll Arranger Right (Song View only)</td>
</tr>
<tr>
<td>Press pad 11</td>
<td>Scroll Arranger Left (Song View only)</td>
</tr>
<tr>
<td>Press pad 6</td>
<td>Zoom in Pattern</td>
</tr>
<tr>
<td>Press pad 2</td>
<td>Zoom out Pattern</td>
</tr>
<tr>
<td>Press pad 5</td>
<td>Scroll Pattern Right</td>
</tr>
<tr>
<td>Press pad 1</td>
<td>Scroll Pattern Left</td>
</tr>
</tbody>
</table>

#### Use the knobs to control the software.

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knob 6</td>
<td>Scroll Pattern Editor Left/Right</td>
</tr>
<tr>
<td>Knob 5</td>
<td>Zoom Pattern Editor In/out</td>
</tr>
<tr>
<td>Knob 2</td>
<td>Scroll Arranger Left/Right (Song View only)</td>
</tr>
<tr>
<td>Knob 1</td>
<td>Zoom Arranger In/out (Song View only)</td>
</tr>
</tbody>
</table>

#### Use the pads to navigate the software screen.

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Button 8</td>
<td>Select Follow</td>
</tr>
<tr>
<td>Button 7</td>
<td>Select Modulation Lane</td>
</tr>
<tr>
<td>Button 6</td>
<td>Compact/Full Mixer (Mixer View only)</td>
</tr>
<tr>
<td>Button 5</td>
<td>Select Browser</td>
</tr>
<tr>
<td>Button 4</td>
<td>Select Mixer View</td>
</tr>
</tbody>
</table>

**MASCHINE STUDIO - Manual - 39**
### Sound Content

The following section will explain these two aspects in detail.

#### 2.2.1 Sound Content

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

### MASCHINE Project Overview

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

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
<th>Channel Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Page Bank</td>
<td>Button 7 and 8</td>
<td></td>
</tr>
<tr>
<td>Select Page Bank</td>
<td>Button 5 and 6</td>
<td></td>
</tr>
<tr>
<td>Plug-in Mode</td>
<td>Button 7 and 8</td>
<td></td>
</tr>
<tr>
<td>Select Page Bank</td>
<td>Button 5 and 6</td>
<td></td>
</tr>
<tr>
<td>Output (Groove or Macro)</td>
<td>Button 7 and 8</td>
<td></td>
</tr>
<tr>
<td>Select Channel Properties (Input)</td>
<td>Button 5 and 6</td>
<td></td>
</tr>
<tr>
<td>Select Channel Properties (Input)</td>
<td>Button 7 and 8</td>
<td></td>
</tr>
<tr>
<td>Select Page Navigation</td>
<td>SHIFT + Button 2</td>
<td></td>
</tr>
</tbody>
</table>
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), i.e.
- 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 controls in the MASTER section affect the sound of the selected Group (A-H), i.e.

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
- 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 (1-16). Each Sound slot can be filled with samples or plug-ins.
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 Ideas view is best equipped to help you develop your Patterns and Scenes. Here you can create a number of Scenes that are ready to be arranged. Once you are 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:

1. You load samples or plug-ins into the Sound slots of the selected Group.
2. You record instances of your Sounds by playing the pads. A recorded instance of a Sound is called an event.
3. Together, the events add up to a Pattern for the selected Group.
4. All of this takes place in the Pattern Editor, where you can create several Patterns for each of your Groups.
5. You load samples or plug-ins into the Sound slots of the selected Group.
6. You record instances of your Sounds by playing the pads. A recorded instance of a Sound is called an event.
7. All of this takes place in the Pattern Editor, where you can create several Patterns for each of your Groups.

Quick Reference
MASCHINE Project Overview
MASCHINE STUDIO - Manual - 43
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).

In the Song view Scenes are assigned to Sections and placed on the Timeline of the Arranger.

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

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

The Song view of a MASCHINE Project.
This section quickly describes the areas and control elements on your hardware controller.

2.3.1 MASCHINE STUDIO Hardware Overview

- Change the position of a section by dragging the Sections slot.
Overview of the MASCHINE STUDIO hardware controller.

1 CONTROL section: Use this multi-purpose section to access all parameters of the mode 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 2.3.1.1, CONTROL Section.

2 I/O and Level section: Use this section to access all parameters related to metering via the controller and for selecting an audio input channel. There are an is a level meter, level knob and dedicated input/output buttons which allow you to select an input for sampling and an output destination. For more information on this section please view 2.3.2, I/O and Level Section.

Quick Reference

MASCHINE STUDIO - Manual - 46
This section gives an overview of the CONTROL section.

This section holds the multifunctional jog wheel in the middle which allows you to control the Tune, Swing, and Volume parameters, as well as scroll through lists in Browse mode, or scrub through a song. This section also provides dedicated buttons for editing groups of Sounds. For more information on this section please view 12.3.1.7, EDIT Section.

This section provides dedicated buttons and their evens. For more information on this section please view 12.3.1.7, EDIT Section.

This section allows you to instantly access each Group of Sounds. For more information on this section please view 12.3.1.4, GROUPS Section.

This section contains dedicated controls related to performance aspects of your project such a Tap Tempo, Step Mode and Macro. The NOTE REPEAT button is also posited here, ready to help with the creative process of making beats. For more information on this section please view 12.3.1.5, TRANSPORT Section.

This section holds the multifunctional jog wheel in the middle which allows you to instantly access each Group of Sounds. For more information on this section please view 12.3.1.4, GROUPS Section.

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Overview of the CONTROL section.

1. **CHANNEL** button: Press CHANNEL at any time to return to Channel mode. Use the Mix view to edit the level and panning of each Sound and Group.

2. **PLUG-IN** button: Press PLUG-IN at any time to return to Control mode — the default mode of the controller. In this mode, the pads represent the Sounds of the selected Group.

3. **ARRANGE** button: Press ARRANGE at any time to access the Arrange view. This mode allows you to edit your Scenes and Patterns to create the perfect arrangement.

4. **MIX** button: Press MIX at any time to access an overview of your mix. Use theMix view to enter Instance mode. In this mode, you can select which instance of the MASCHINE plug-in in your Digital Audio Workstation (DAW) you want to control from your hardware controller if you have more than one instance open in your DAW.

For detailed information on MIDI mode, please refer to the Controller Editor Manual.
This section gives an overview of the I/O and Level section.

2.3.1.2 I/O and Level Section

(12) Knobs 1–8: Each knob dynamically controls the parameter shown in the display above it.

(11) Displays: The displays are laid-out to provide you with all essential information — there’s no need to glance at the computer screen.

(10) Buttons 1–8: About one fourth of the hardware is occupied by the multi-functional control area, which forms the core of MASCHINE’s mouse-free workflow. The eight buttons above the displays access to the most important sub-sections and functions. The action they perform is shown by each button in the displays.

(9) AUTO button: In MASCHINE, modulation of almost any parameter on the Sound and Group level is achieved with one-touch simplicity. Press and hold this button while turning any of the eight knobs (or any combination) under the displays to record automation for the corresponding parameter(s). The Auto mode can be pinned: Press SHIFT + AUTO to pin/unpin the Auto mode. See ↑ 2.1.1, Controller Modes and Mode Pinning for more information.

(8) ALL button: The ALL button on its own currently does not have any functionality. However, use the ALL button to save your project by pressing SHIFT + ALL.

(7) Page buttons: Almost any feature of MASCHINE can be accessed using the hardware control pages — these are selected using the Page buttons.

(6) SAMPLING button: Press the SAMPLING button to access the Sample Editor.

(5) BROWSE button: Press the BROWSE button to access the Browser.

(4) Page buttons: About one fourth of the hardware is occupied by the multi-functional control area, which forms the core of MASCHINE’s mouse-free workflow. The eight buttons above the displays access to the most important sub-sections and functions. The action they perform is shown by each button in the displays.

(3) Displays: The displays are laid-out to provide you with all essential information — there’s no need to glance at the computer screen.

(2) Knobs 1–8: Each knob dynamically controls the parameter shown in the display above it.

(1) BROWSE button: Press the BROWSE button to access the Browser. Press the BROWSE button to access the Browser.
Overview of the I/O and Level section.

1. **Level meter**
   - Displays the volume level of the selected input/output. Select an input (3–6) or output (7–10) to display it in the Level meter.

2. **CUE button**
   - Press this button to display the Cue level in the Level meter (1) and use the Level knob (2) to adjust its volume level.

3. **GRP button**
   - Press this button to display the volume level of the selected Group in the Level meter (1) and use the Level knob (2) to adjust its volume level.

4. **SND button**
   - Press this button to display the volume level of the selected Sound in the Level meter (1) and use the Level knob (2) to adjust its volume level.

5. **CUE button**
   - Press this button to display the Cue level in the Level meter (1) and use the Level knob (2) to adjust its volume level.

6. **Level knob**
   - Turn the Level knob to adjust the level of the selected input/output.
2.3.1.3 PERFORMANCE Section

This section gives an overview of the PERFORMANCE section.

Quick Reference

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This section gives an overview of the TRANSPORT section.

2.3.1.5 TRANSPORT Section

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 rate selected in the right display. With Buttons 5–8, you can select different rates while playing. You can select new rate values for each of these buttons by turning Knobs 2–4.

The Note Repeat mode can be pinned: Press NOTE REPEAT + Button 1 to pin/unpin the Note Repeat mode. See ↑ 2.1.1, Controller Modes and Mode Pinning for more information.

GROUPS Section

This section gives an overview of the GROUPS section.

Group buttons: Press one of the eight dedicated Group buttons A–H to select the Group you want to work in. These buttons are also used to solo and mute Groups on the fly when SOLO or MUTE buttons are held — great for jamming out your Project and performing live!

Press SHIFT + Group buttons A–H to select a Group Bank. For more information on Group Banks please refer to the Manual.

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 \texttt{SHIFT} button to invoke secondary commands such as the Loop, Count-in and Rec Mode.

\begin{enumerate}
\item \texttt{RESTART} button: Press the \texttt{RESTART} button at anytime to restart from the beginning of the current loop range.
\item \texttt{METRO} button: Press \texttt{METRO} to turn the metronome on/off.
\item \texttt{EVENTS} button: \texttt{EVENTS} + pad to quickly select all events triggered by that pad in your Pattern. This notably allows you to precisely define which events your next edit will be applied to. For detailed information on the \texttt{EVENTS} button please see the Manual.
\item \texttt{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 transitions between scenes.
\item \texttt{PLAY} button: Press the \texttt{PLAY} button to activate playback. Press \texttt{PLAY} a second time to stop.
\end{enumerate}
This section gives an overview of the PADS section.

---

### 2.3.1.6 PADS Section

**REC button:** When playback is on, press REC to begin recording. Or when playback is off, press SHIFT + REC to begin recording with a Count-in. Press REC a second time to stop recording. Or when playback is on, press REC to begin recording. On when playback is off, press REC to begin recording.

**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. Hold a Group button to erase all its events at once. Use the shortcut ERASE + EVENTS + pad to quickly erase all events triggered by that pad in your Pattern. If you automated a parameter, hold ERASE and turn the corresponding Knob under the displays to erase the automation of this parameter.

**SHIFT button:** While the most important features are accessible through dedicated buttons, many shortcuts are available by holding the SHIFT button and other buttons (where labeled). All hardware shortcuts are explained in the Hardware Control Reference, available from the Help menu in the MASCHINE software.
Overview of the PADS section.

Arranger.

Arrange.

When you are satisfied with a Scene you can append it to the Scene mode. To append the selected Scene, press the pads. Half-lit pads show existing Scenes, while fully lit pads show the selected Scene in the Arranger during playback. You can switch Scenes for quick on-the-fly arrangement.

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.

Scene button: Enters Scene mode in Ideas view or Section mode in Song view. Use Scene mode to create, select and manage Scenes to prepare them for assignment to Sections in the Arranger.
Use Section mode to create, select, and manage Sections in order to create an arrange-ment. Here you can create Sections, assign a Scene to Section, position a Section on the Timeline, and set the length of a Section.

Quick Reference

MASCHINE STUDIO - Manual - 56
This section gives an overview of the EDIT section.

2.3.1.7 EDIT Section

The pads also have many functions depending on the controller mode that is currently active.

(9) Pads 1–16: The sixteen velocity sensitive pads can be used to play and select your Sounds.

(6) SELECT button: Enters Select mode. This mode allows you to select a Sound without having to play it. In Select mode press Button 8 to select multiple Sounds.

(7) SOLO button: Enters Solo mode. In this mode, you can instantly solo any Sound or Group without having to select it. In Solo mode press Button 8 to select multiple Sounds.

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

(10) MULTI button: Enters Multi mode. This mode allows you to select multiple Sounds without having to play them. In Multi mode press Button 8 to select multiple Sounds.

(11) The pads also have many functions depending on the controller mode that is currently active.
Overview of the EDIT Section

(1) COPY button: Press the COPY button to copy selected events.

(2) PASTE button: Press the PASTE button to paste selected events.

(3) NOTE button: Press the NOTE button and turn the jog wheel to change the selected events by one semitone per increment. Hold press and turn the jog wheel to change the selected events by one octave.

(4) NUDGE button: Press the NUDGE button and turn the jog wheel to move the selected events one step per increment. Press SHIFT + NUDGE for finer increments.

(5) CLEAR button: Press the CLEAR button to clear the selected events (or all events if no events are selected). Pressing SHIFT + CLEAR (CLR AUTO) will delete all modules.

Quick Reference

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QUANTIZE button: Press the QUANTIZE button to quantize the selected events (or all events if no events are selected) to the step grid. Press SHIFT + QUANTIZE (50%) to quantize the selected events (or all events if no events are selected) to the step grid. Press SHIFT + QUANTIZE (50%) to quantize the selected events (or all events if no events are selected) to the step grid.

REDO button: Press REDO to redo your last action. Press SHIFT + REDO to redo your last action.

UNDO button: Press UNDO to undo your last action. Press SHIFT + UNDO to undo your last action.

FUNCTION buttons: Press the left and right FUNCTION buttons to select between the TUNE, SWING or VOLUME functions when pressing a pad or Group button. When unlit, these buttons are equal to one increment of the Jog wheel when scrubbing through a song.

Jog wheel: By default you can use the jog wheel to scrub through a track according to the setting of the Pattern Grid (PATTERN + turn Knob 2), for example, if this is set to 1 BAR, you can use the jog wheel to scrub through the track 1 bar at a time. Hold SHIFT and turn the jog wheel one step at a time. When your controller is in Browse mode or when you browse plug-in lists, turn the jog wheel to scroll through the list and press it to load the selected entry. When TUNE, SWING or VOLUME are active (lit), the jog wheel acts as a tune, swing or volume control, respectively. Switch between TUNE, SWING or VOLUME by using the FUNCTION arrow buttons.

ENTER button: Press the ENTER button to move one step forward in the hierarchy of a project. See the BACK button (7) for more information. These buttons used in combination allow you to quickly navigate your project.

FUNCTION arrow buttons: Press the left and right FUNCTION arrow buttons to select between the TUNE, SWING or VOLUME functions when pressing a pad or Group button. When unlit, these buttons are equal to one increment of the jog wheel when scrubbing through a song.

BACK button: Press the BACK button to move one step back in the hierarchy of a project. For example, in ARRANGE view if you have PATTERN (Button 2) selected use the BACK button to move up the hierarchy to SCENE (Button 1). In another example in MIX view use the BACK button to move one step back in the hierarchy of a project.
2.4 MASCHINE Software Overview

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. **Display area**: The Display area shows the content of the selected project, including the arrangement of tracks, the current selection of samples, and the audio waveforms of the selected tracks.

4. **Transport controls**: The Transport controls allow you to control playback and recording, including play, stop, record, and transport markers.

5. **Master Volume slider**: The Master Volume slider controls the overall volume of the output mix.
**All Your Plug-ins**

In addition, it provides you with an intuitive interface for adjusting the parameters of all your Sounds, Groups, and the Master. You can quickly access the level and routing settings of all your Sounds, Groups, and the Master.

**Mix View Button**

Click the Mix view button to access the Mix View. The Mix view provides a wide range of controls to adjust the level and routing of your Sounds, Groups, and the Master.

**Browser Button**

Use the browser button to access 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 for your files or external drives to add new files. You may also prehear (audition) Samples directly from the browser and apply them to your music.

**Mix view button**

Click the Mix view button to access the Mix View. The Mix view provides quick access to the level and routing settings of all your Sounds, Groups, and the Master.

**Browser button**

Use the browser button to access 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 for your files or external drives to add new files. You may also prehear (audition) Samples directly from the browser and apply them to your music.

**Mix view button**

Click the Mix view button to access the Mix View. The Mix view provides 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 Sounds, Groups, and the Master.
Transport controls: The Transport controls contain buttons such as Play, Restart, Record and Loop.

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

Controller icon: This area displays an icon each MASCHINE controllers connected to your computer.

Master Volume slider: Shows and adjusts the level of the MASCHINE audio output.

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).

Audio Engine button: Click the Audio Engine button to disable the entire sound processing of MASCHINE.

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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).

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Audio Engine button: Click the Audio Engine button to disable the entire sound processing of MASCHINE.
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.
Setting any existing routings in the active Group.

When the +ROUTING button is on, the audio and MIDI routings stored in the Group will also be loaded (potentially overwriting previous routings in the selected Group). When the +ROUTING button is off, any audio and MIDI routings stored in the Group will not be loaded. This prevents any existing routings in the active Group.

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

Audition controls volume slider.

Sample selector in the Results list displays all files with tags that match your query.

Results list displays all files that match your query.

Tags: TYPES and MODES categories by clicking the tabs. Based on the TYPES and MODES categories, you can quickly find files based on their name or tag set.

+PATTERNS and +ROUTING in the Control bar of the Browser.

Audition control volume slider.

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Quick Reference
The button allows you to select whether a Group is loaded with or without a saved Pattern. This button conveniently allows you to load new kits without a Pattern so you can try them with your existing pattern, or load kits with Patterns you have previously created. When the button is selected the Sounds and Patterns of the selected Group will be loaded. When the button is deselected, only the Sounds of the selected Group will be loaded. When the button is deselected, you do not need a Pattern to load a new Kit, but without a Pattern, you can only load new kits with no predefined content.

Switching between Ideas View and Song View

2.4.3 Arranger

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. The Ideas View allows you to experiment with your musical ideas without being tied to a time-line 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 tags to groups and combine any kind of arrangement with your musical ideas without being tied to a time-line. The Ideas View allows you to experiment with your musical ideas, while the Song View represents the same content.

Switching between Ideas View and Song View:

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

Quick Reference

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---|---|

Switching between Ideas View and Song View:

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

1. **Scenes**
   - Displays all the current Scenes in your project. After creating a Scene by clicking a Scene slot, you can switch between Scenes to see how your musical ideas work together.

2. **Pattern area**
   - All Patterns in your Song are represented here. You can double-click a blank slot to create a new Pattern or click an existing Pattern to assign it to a Scene. Once assigned, a Pattern will become highlighted. Click it again to remove it from the selected Scene. You can also use right-click options to clear, duplicate, or delete Patterns. You can also organize your Patterns by selecting the Rename option.

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…). You can mute a Group by clicking the Group letter, for example A1, and right-click the name of a Group to access the many options available to manage them.

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

(1) **Groups**: The Group slots can hold one Group each. Select the desired slot to load a Group 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 Scenes placed on the Timeline. A Section can be moved freely by clicking the name of the Section and dragging 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 the menu to insert, duplicate, delete, clear or rename Sections as well as organize them.

(4) **Pattern area**: In each Section of the Arrangement, you can see the name of the Scene assigned. The Patterns seen here are the same as those seen when viewing the Scene in the Project, and are stacked vertically for each Group in the Scene. By selecting the name of the Group or Scene, you can change the name of the Scene or add your own name to the Scene.

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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.

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

Quick Reference
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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, click a Sound slot to display its events in the Step Grid.

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).

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 accordingly.

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

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

Control Lane button: The Control Lane button allows you to show/hide the Control Lane containing the parameters of each Group.
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.

3.1 Important Names and Concepts

We will start with a list (in alphabetical order) of the most important concepts and names.

Effect

The Master can hold any number of effects that can be applied as insert effects. The flexible
useNative instruments or third-party VST/AU effect plug-ins. Each sound, each group, and
each Scene has its own effects. Each plug-in can have its own settings.

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, 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 library
stores and tags all the factory libraries of any Native Instruments products installed on your
computer, including the factory libraries of any Native Instruments products installed on your
computer. You can also import other files into the Library and tag them as well. To learn more
about the Browser, please read chapter 4, Browser.

MASCHINE comes with many different effects in the form of internal plug-ins. You may also
useNative instruments or third-party VST/AU effect plug-ins. Each sound, each group, and
each Scene has its own effects. Each plug-in can have its own settings.

Important Names and Concepts 3

Before connecting your MIDI devices, you will also learn how to set up your audio interface and how
they relate to one another. This chapter will reintroduce you to MASCHINE’s main elements and terminology and explain

Basic Concepts

Important Names and Concepts
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.

Events are the individual drum hits or notes that make up a Pattern. In the Pattern Editor, you can see events for all Sounds of the selected Sound slot only (Keyoard view). Events are described in more detail in chapter 11, Working with Patterns.

A Pattern is a sequence that plays Sounds from a Group. If a Pattern 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. Events are visually represented by rectangles in the Event area. Depending on the current view in the Pattern Editor, the Events can either be displayed for all Sounds within that Sound slot or for the selected Sound slot only (Keyboard view). Events can be auditioned in the Event area. For more information on the Pattern Editor, refer to chapter 11, Working with Patterns.

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 effects. These are applied to all Sounds within the Group and are mixed to the Master channel. The Master channel also hosts any number of insert effects of its own. These effects might be used to adjust the mix of the Groups and Sounds. When you add Patterns to the Scene, a Group can contain any number of Patterns (grouped into banks of 16 Patterns each). A Group can also contain any number of Patterns (grouped into banks of 16 Patterns each). A Group can also be inserted into Sections in the Song view to create a larger musical structure. Scenes can then be added to Sections in the Song view to create a larger musical structure.

The Ideas view allows you to experiment with your musical ideas without having to worry about 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.
Plug-in

Each Sound, each Group, and the Master can hold any number of Plug-ins. Plug-ins can be instruments or effects, and they can be internal (included with MASCHINE), from other Native Instruments products (instruments or effects), or external (third-party VST/AU plug-ins). Instrument and Effect Plug-ins can be loaded in the first Plug-in slot of Sounds. The other Plug-in slots of Sounds, as well as the Plug-in slots of Groups and of the Master can hold Effect Plug-ins only. At each level (Sound, Group, and Master), Plug-ins process the audio in series, according to the order in which they are stacked up. For more information, please refer to chapter 7.3. 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. For more information, please refer to chapter 7.7. Working with Plug-ins.

Scene

A Scene is a combination of Patterns for each Group. They can be used to combine Patterns into musical ideas. Scenes are created in the Ideas view and then added to Sections in order to create musical ideas. Scenes are created in the Ideas view and then added to Sections in the Song view. They are used to combine Patterns in a complete overview of the MASCHINE Project structure. For more information, please refer to chapter 16.3. Using Song View.

Section

A Section is a reference to a specific Scene on the Timeline of the Song view. They are used to arrange the Scenes into a larger musical structure. The benefit of using Sections is that any changes made to a Scene are replicated in each Section where the Scene is referenced there.
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.

3.2.1 Adjusting the MASCHINE User 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 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 user interface to suit your needs.

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

- Press the Arranger view button to toggle between Song View and Ideas 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:

1. Press NAVIGATE + Button 2 IDEAS to access the Ideas view.
2. Press NAVIGATE + Button 3 SONG to access the Song View.

→ The Arrangement area in the software switches to the Ideas View or Song View depending on which view has been selected.

You can also press SHIFT + SCENE to quickly toggle 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.

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

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.

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.

### 3.2.5 Show/Hiding the Control Lane

![Diagram](image)

- Click the arrow button at the bottom left of the Mixer to show and hide the Channel details.
3.3 Common Operations

This section 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 modes (CHANNEL or PLUG-IN), where one remains lit, you controller additionally 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** 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.

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

To pin a mode on your controller, press the relevant mode button (SCENE, PATTERN, etc.) + Button 1 above the left display.

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 + Button 1 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 Button 1 simultaneously:

- All buttons in the column at the left of the pads (SCENE, PATTERN, ...)
- NOTE REPEAT button
- GRID button
- AUTO button: Instead of using Button 1, press SHIFT + AUTO to pin the AUTO mode.

Moreover, when you leave this mode it is automatically unpinned — it will be temporary again next time you press AUTO. Additionally, when you leave this mode it is automatically unpinned — it will be temporary again next time you press AUTO.

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

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

Adjusting Volume

To adjust the overall volume level:

Adjusting Tempo

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

Adjusting Swing

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

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 an intuitive interface for adjusting the parameters of all your Plug-ins.
1. Select MST (Master) in the Input/Metering section on the right-hand side of your controller.

2. Turn the Level knob.

   Hold SHIFT and turn the Level knob to adjust the value in finer increments.

Adjusting Tune

To adjust the tune (pitch) of an individual Group or Sound:

1. Press and hold a Group button or pad then press the FUNCTION buttons (below the jog wheel) to select TUNE.

2. Press the GRP button in the Input/Metering section on the right.

3. Press the Group button you want to adjust.

   Hold SHIFT additionally to adjust the value in finer increments.

To adjust the volume of an individual Sound:

1. Press the pad you want to adjust.

2. Press the SND button in the Input/Metering section.

3. Turn the Level knob to adjust the volume of the sound you selected.

   Hold SHIFT additionally to adjust the value in finer increments.

To adjust the volume of a particular Group:

1. Press the pad you want to adjust.

2. Press the GRP button in the Input/Metering section on the right.

3. Press the Group button you want to adjust.

   Hold SHIFT and turn the Level knob to adjust the value in finer increments.

As you adjust the volume, the left 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 Tune

To adjust the tune (pitch) of an individual Group or Sound:

1. Press and hold a Group button or pad then press the FUNCTION buttons (below the jog wheel) to select TUNE.

2. Press the GRP button in the Input/Metering section on the right.

3. Press the Group button you want to adjust.

   Hold SHIFT additionally to adjust the value in finer increments.

As you adjust the volume, the left 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.
2. Turn the jog wheel to adjust the tune of the selected Sound. Hold SHIFT additionally to adjust the value in finer increments.

As you adjust the tune, the left 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.

6. Press Button 5 or 6 to select GROOVE.

7. Press the CHANNEL button.

3. Press Button 1 to select MASTER.

4. Turn Knob 1 to change the global swing amount.

To adjust the swing of your Project:

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.

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

Hold SHIFT additionally to adjust the value in finer increments.

You can also adjust the individual Swing values for Sounds and Groups by holding the desired Group button or pad as described above for the volume.

3.3.3 Undo/Redo

Your song by turning the jog wheel.

In the same manner, pressing the TAP button allows you to adjust the overall tempo of your song by turning the jog wheel.
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/Redo** is the classic undo/redo found in most applications. It cancels or re-executes each single action you have performed.

**Take Undo/Redo** is an extended undo/redo available while recording that allows you to cancel undo function 64 times in a row. This is what Take Undo has been made for!

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 after each note. This is what Take Undo has been made for!

### Basic Concepts

**Take undo**

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

1. To cancel your last action (Step Undo), press `[Ctrl]+[Shift]+[Z]` (on macOS), press `[Ctrl]+[Y]` (on macOS).
2. To re-execute your last action (Step Redo), press `[Ctrl]+[Shift]+[Z]` (on macOS), press `[Ctrl]+[Shift]+[Y]` (on macOS).

In the software use the following keyboard shortcuts for the Step Undo and Step Redo function:

- To cancel your last action (Step Undo), press `[Ctrl]+[Shift]+[Z]` (on macOS), press `[Ctrl]+[Y]` (on macOS).
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 show which action will be undone/redone.

Both Step Undo and Take Undo are also available on your controller:
1. On your controller, perform the Take Undo operation by pressing UNDO. To perform the Take Redo operation, press REDO.
2. On your controller, perform the Step Undo operation by pressing SHIFT + UNDO. To perform the Step Redo operation, press SHIFT + REDO.

Take Undo is available in the following situations:
- Recording modulation
- Recording in Step mode
- Recording in Control mode

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

### 3.3.4 List Overlay for Selectors

Many MASCHINE parameters are presented in the form of a selector providing a list of possible values for the parameter (e.g., the Mode parameter of the Saturator Plug-in or the Dest. parameter of the Audio page of the Sound’s/Group’s Output Channel settings).

The commands in the Edit menu additionally show which action will be undone/redone.
From your controller, you can adjust such a parameter by turning the corresponding Knob under the display of your controller. When you touch the Knob of that parameter, a list appears above the parameter on the display. This list shows you at a glance all possible values for the parameter along with the value currently selected, making the value selection much more intuitive.

Touch the Knob under a selector (here the MODE parameter under the left display) to open a list with all available values of that selector.

Only the list for the last-touched Knob will be shown. If you touch two or more Knobs that control selectors at the same time, only the list for the last-touched Knob will be shown. This list is displayed as long as you touch or turn the corresponding Knobs. When you release the Knob, the list disappears after a short delay.

3.3.5 Zoom and Scroll Overlays

When your controller is in particular modes, you can use Knobs 5 and 6 to respectively zoom and scroll horizontally through the content shown in the right display. In some cases, e.g., in Keyboard mode you can additionally use Knob 7 (in Pad Mode) to change the height of the Sound lane, or Knob 8 (except in Pad Mode) to scroll vertically through the display. If you are in a specific mode and touch a selector, you can additionally use Knob 7 (in Pad Mode) to change the height of the Sound lane, or Knob 8 (except in Pad Mode) to scroll vertically through the display.
The zooming and scrolling functions are indicated, when available, by little icons that appear as overlays above the relevant knobs as soon as you touch any of them. This way, in case of doubt, a simple touch on any knob below the right display will indicate if some zooming and scrolling functions are available.

When you touch any of the knobs 5–8, little icons appear above the knobs used for zooming/scrolling in the display.

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.

3.3.6 Focusing on a Group or a Sound

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

Setting the Focus on a Sound

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

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.

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.

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.

Can also extend the Arranger by dragging its lower right corner vertically with the mouse.

Basic Concepts

Common Operations
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.

---

Common Operations

Basic Concepts
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 15.1.3, Selecting Multiple Sounds or Groups for more information.

Once the Sound is focused you can use button 1-3 above the left display to quickly switch to the corresponding Sound in focus.

Focusing on a Group using the Hardware

1. If necessary, press \textit{SHIFT} + the desired Group button \textit{A}–\textit{H} to switch to the Group bank containing the desired Group.
2. Press the desired Group button \textit{A}–\textit{H}.

\textit{The corresponding Group is now in focus.}

3. If you want to set the focus on a Sound located in another Group, first set the focus on its Group as described above.

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 set the focus on its Group as described above.
2. Press \textit{SELECT} + the pad of the desired Sound (or simply press its pad if pads are in Pad Mode).

\textit{The corresponding Sound is now in focus.}

Once the Group is focused you can use button 1-3 above the left display to quickly switch between the Master, the focused Group and the last focused Sound in that Group. See section 13.3.7, Switching Between the Master, Group, and Sound Level for more information.

You can also select multiple Sounds at once to apply changes to all of them. See section 15.1.3, Selecting Multiple Sounds or Groups for more information.

Basic Concepts

Common Operations
3.3.7 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 and 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 on the left display (under the MASTER, GROUP, and SOUND tabs). 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

1. Press the CHANNEL or PLUG-IN button to enter Control mode.

2. Press Button 1 (MASTER), Button 2 (GROUP), or Button 3 (SOUND) above the left 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, the focused Group or the focused Sound appears on the left display (under the MASTER, GROUP, and SOUND tabs), and the Control area displays the Plug-in parameters and Channel properties of the Master, the focused Group, or the focused Sound, respectively.
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 \(3.3.6\), 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 Channel properties.

   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 Property selector (showing a square of four buttons representing the various sets of Channel properties available for the selected Sound, Group or the Master). The button lights up.

   The Channel Property selector appears in the left part of the Control area.

2. Click the Channel Property selector to select the desired Channel properties.

   We describe here how to display/edit any Plug-in parameters or Channel properties located in the Control Area.
that you can easily navigate with the hardware and software.

**Parameter Pages**

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).

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. Ex.

### NAVIGATING PARAMETER PAGES

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. Each Plug-in has a name and a sign indicating its status:
   - The icon lights up: The Plug-in is selected.
   - The icon appears dim: The Plug-in is not selected.

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.

### Selecting a Plug-in

1. Click the desired Plug-in slot in the Plug-in List to select that Plug-in.
2. Click the desired button (Input, Output, Groove, or Macro) in the Channel Property selector.
In the Parameter area, each parameter includes a control element and a label. Following types of control elements are available:

Adjusting the Parameters

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

Adjusting the Parameters

Click the left or right arrow to access additional pages.

Adjusting the Parameters

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.

Common Operations

Basic Concepts

Common Concepts
Navigating Channel Properties, Plug-Ins, and Parameter Pages using the Controller

On the MASCHINE STUDIO controller, do the following:

1. Set the focus on the desired Sound, Group or the Master (see section 3.3.6, Focusing on a Group or a Sound).

### Common Operations

<table>
<thead>
<tr>
<th>Element</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knob</td>
<td>Click the knob and drag your mouse vertically to change the parameter value. Hold [Shift] on your computer keyboard and drag your mouse in finer increments.</td>
</tr>
<tr>
<td>Selector</td>
<td>Click the displayed value to open the drop-down list, and click another value in the list to select it.</td>
</tr>
<tr>
<td>Button</td>
<td>Click the button to switch its state. When the button is enabled, it shows a small colored LED.</td>
</tr>
<tr>
<td>Sync</td>
<td>Click the button to sync the channel.</td>
</tr>
<tr>
<td>Reverse</td>
<td>Click the button to reverse the parameter value.</td>
</tr>
<tr>
<td>Lock</td>
<td>Click the button to lock the parameter value.</td>
</tr>
<tr>
<td>Free</td>
<td>Click the button to free the parameter value.</td>
</tr>
<tr>
<td>Sync</td>
<td>Click the button to sync the channel.</td>
</tr>
<tr>
<td>Reverse</td>
<td>Click the button to reverse the parameter value.</td>
</tr>
<tr>
<td>Lock</td>
<td>Click the button to lock the parameter value.</td>
</tr>
<tr>
<td>Free</td>
<td>Click the button to free the parameter value.</td>
</tr>
</tbody>
</table>
2. At the top left of your controller, press the CHANNEL button to display the Channel properties or the PLUG-IN button to display the Plug-in slots of the selected Sound, Group or the Master.

3. Press Button 1 (MASTER), Button 2 (GROUP) or Button 3 (SOUND) to display the Plug-ins and Channel properties of the Master, the focused Group or the focused Sound, respectively.

4. Press Button 5/6 to navigate the Channel properties or Plug-ins (the name of the selected Channel properties or Plug-in appears between the left and right arrows under Button 5 and 6).

Upon your selection the parameters of the selected Channel properties or Plug-in are shown on the displays of your controller.

Basic Concepts
Common Operations
5. Use the Page buttons left of the displays to navigate through the Parameter pages of the selected Channel properties or Plug-in.

Moreover, if there is another page available to the left or to the right of the current page, the corresponding Page button will be half lit on your controller.

6. Use knobs 1–8 under the displays to adjust the value of the parameters available on the selected page. For continuous parameters, hold \textit{SHIFT} while turning the knobs to adjust the values in finer increments.

The displays showing the Audio page from the Group’s OUTPUT properties.
The Navigate mode has two distinct submodes:

**Basic Concepts**

1. Hold NAVIGATE to enter Navigate mode (or pin it by pressing NAVIGATE + Button 1 above the left display so that your controller stays in Navigate mode by pressing NAVIGATE to enter Navigate mode. You can also pin Navigate mode by pressing Navigator + Button 1.)

2. Hold NAVIGATE to enter Navigate mode (or pin it by pressing NAVIGATE + Button 1.)

3. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

4. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

5. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

6. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

7. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

8. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

**Extended Navigate Mode on Your Controller**

The Navigate mode on your controller can be used to navigate the Parameter pages of Channel properties and Plug-ins and adjust the view settings of specific areas in the software interface.

1. Press and hold NAVIGATE to enter Navigate mode. You can also pin Navigate mode by pressing Navigator + Button 1 above the left display so that your controller stays in Navigate mode when you release NAVIGATE—see section Pinning a Mode on the Controller.

The Navigate mode has two distinct submodes:

**Common Operations**

1. Hold NAVIGATE to enter Navigate mode (or pin it by pressing NAVIGATE + Button 1.)

2. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

3. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

4. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

5. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

6. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

7. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.

8. Press NAVIGATE + Button 1 above the left display to enter Navigate mode.
The default Software Navigation mode lets you adjust the look of the software interface: You can show/hide specific elements and change zoom/scroll settings.

The Page Navigation mode allows you to navigate Channel properties, Plug-ins along with their Parameter pages.

You can switch between Software Navigation and Page Navigation mode at any time:

- When your controller is in Navigate mode, press SHIFT + Button 2 (PAGE NAV) to switch between Software Navigation and Page Navigation mode.
- When your controller is in Navigate mode, press PAGE NAV to switch between Software Navigation and Page Navigation mode.
- When PAGE NAV is on your controller is in Page Navigation mode.
- When PAGE NAV is off (default setting) your controller is in Software Navigation mode.

The Software Navigation mode allows you to customize the user interface of the MASCHINE software by showing or hiding specific parts of the interface and changing the zoom and scroll settings in the Ideas view, Song view and the Pattern Editor.

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn Knob 8 or press pad 8</td>
<td>Turn Knob 8</td>
<td>Pattern Editor Scroll up/down (Except Pad Mode)</td>
</tr>
<tr>
<td>Sound Lane Height (Pad Mode only)</td>
<td>Turn Knob 6 or press pad 1/3 Sound Lane Height (Pad Mode only)</td>
<td></td>
</tr>
<tr>
<td>Pattern Editor Scroll up/down</td>
<td>Turn Knob 5 or press pad 6/2 Pattern Editor Scroll up/down (Song view only)</td>
<td></td>
</tr>
<tr>
<td>Pattern Editor Zoom in/out</td>
<td>Turn Knob 2 or press pad 9/11 Pattern Editor Zoom in/out (Song view only)</td>
<td></td>
</tr>
<tr>
<td>Timeline Zoom in/out (Song view only)</td>
<td>Turn Knob 1 or press pad 14/10 Timeline Zoom in/out (Song view only)</td>
<td></td>
</tr>
<tr>
<td>Press Button 8 (FOLLOW)</td>
<td>Press Button 8 (FOLLOW)</td>
<td>Follow Song</td>
</tr>
<tr>
<td>Press Button 7 (MOD)</td>
<td>Press Button 7 (MOD)</td>
<td>Show/hide the Control Lane</td>
</tr>
<tr>
<td>Press Button 5 (BROWSER)</td>
<td>Press Button 5 (BROWSER)</td>
<td>Show/hide the Browser</td>
</tr>
<tr>
<td>Press Button 4 (MIXER)</td>
<td>Press Button 4 (MIXER)</td>
<td>Maximize/Minimize the Mixer</td>
</tr>
<tr>
<td>Press Button 3 (ARRANGER)</td>
<td>Press Button 3 (ARRANGER)</td>
<td>Access Song View</td>
</tr>
</tbody>
</table>

Basic Concepts

Common Operations
The Page Navigation mode allows you to navigate the Parameter pages available in the Channel properties and Plug-ins of the various channels (Sounds, Groups, and Master) in your Project.

To access Page Navigation mode:

**Flex**: Hold **SHIFT + VARIATION** (Navigate), then Button 2 (PAGE NAV) to enter Page Navigation mode.

**Plug-in**: After pressing a pad the selected page is displayed in the software, and on the controller:

- After pressing a pad the selected page is displayed in the software, and on the controller:

  - **Page Bank**: When there are more than sixteen pages for a Channel or Plug-in it is necessary to use the Page Bank.

When you exit Navigation mode by pressing the **PLUG-IN** button:

- After pressing a pad the selected page is displayed in the software, and on the controller:

  - **Page Bank**: When there are more than sixteen pages for a Channel or Plug-in it is necessary to use the Page Bank.

The right-hand display provides an overview of the available pages for the selected Channel or Plug-in:

- After selecting a Plug-in, the available pages are displayed in the software, and on the controller:

  - To access each Channel or Plug-in for the selected Sound, press buttons 5 and 6.

The left-hand display provides an overview of the selected Channels or Plug-ins of Plug-ins for the selected Sound.

- To access each page of the selected Channel or Plug-in, press pads 1–16.

- After pressing a pad the selected page is displayed in the software, and on the controller:

  - The selected page is displayed in the software, and on the controller:

  - When the Page Navigation mode is enabled, your controller displays the Page Navigation mode:

  - When the Page Navigation mode is enabled, your controller displays the Page Navigation mode:
To access another page with the Page Bank press Buttons 7 and 8.

When there are more than sixteen pages for a Channel or Plug-in it is necessary to use the Page Bank.

To access each page of the selected Channel or Plug-in, press pads 1–16.

When Page Navigation mode is enabled, your controller displays the Page Navigation mode.

To access each Channel or Plug-in, press Buttons 5 and 6.

After selecting a Plug-in, the available pages are displayed in the software, and on the right-hand display of your controller.

The left-hand display provides an overview of the selected Channels or Plug-ins for the selected Sound.

After pressing a pad the selected page is displayed in the software, and on the controller.

The right-hand display provides an overview of the available pages for the selected Channel or Plug-in.

To access another page with the Page Bank press Buttons 7 and 8.
### 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).

#### 3.3.9 Navigating the Pattern Editor

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom in (Arranger)</td>
<td>Press pad 14</td>
</tr>
<tr>
<td>Zoom out (Arranger)</td>
<td>Press pad 10</td>
</tr>
<tr>
<td>Scroll Arranger right</td>
<td>Press pad 11</td>
</tr>
<tr>
<td>Scroll Arranger left</td>
<td>Press pad 9</td>
</tr>
</tbody>
</table>

#### 3.3.10 Navigating the Song View

<table>
<thead>
<tr>
<th>Action</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scroll Arranger left</td>
<td>Press pad 1</td>
</tr>
<tr>
<td>Scroll Arranger right</td>
<td>Press pad 3</td>
</tr>
<tr>
<td>Zoom in (Arranger)</td>
<td>Press pad 14</td>
</tr>
<tr>
<td>Zoom out (Arranger)</td>
<td>Press pad 10</td>
</tr>
</tbody>
</table>

#### 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. 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 SHIF$ + 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 SHIF$ + 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 SHIF$ + 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 SHIF$ + F2, turn the Control encoder to select the desired instance, and press the Control encoder to load it.

▪ MASCHINE JAM controller: Press SHIF$ + 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.

3.3.11 Touch Auto-Write Option

Modulation recording also benefits from the touch sensitivity of Knobs 1-8 via the Touch Auto-Write option.

Reminder: To record modulation from your MASCHINE controller, activate playback, switch your controller to Auto-write mode by pressing and holding AUTO, and then turn the knobs 1-8 to adjust parameters. For more information, please refer to section 11.5.2, Recording Modulation.

Enabled by default, the Touch Auto-write option allows you to record modulation events as soon as you touch the knobs 1-8, even if you don't rotate them.

Touch Auto-Write Option

3.3.11 Touch Auto-Write Option

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

- Select the desired instance, and press the 4-D encoder to load it.

- Select the desired instance, and press the Control encoder to load it.

- Select the desired instance, and press the Control encoder to load it.

- To select the desired instance, and press the Control encoder to load it.

- To select the desired instance, and press Button 8 to load it.

- To select the desired instance, and press Button 8 to load it.

- To select the desired instance, and press Button 8 to load it.

- To select the desired instance, and press Button 8 to load it.

- To select the desired instance, and press Button 8 to load it.

- To select the desired instance, and press Button 8 to load it.
If you rotate the Knobs, the new modulation values are recorded for the corresponding parameters.

If you touch the Knobs but don’t rotate them, the last modulation values for these parameters keep being recorded as new events as the playhead moves forward, thereby overwriting any existing modulation events at the playhead position. Modulation stops being recorded when you release the Knob(s).

Enabling/Disabling Touch Auto-Write

The Touch Auto-write option can be enabled or disabled in the Hardware page of the Preferences panel.

The Touch Auto-write check box in the Hardware page of the Preferences panel.
To enable or disable the Touch Auto-write option, click the Touch Auto-write check box in the Touch-Sensitive Knobs section of the Hardware page in the Preferences panel.

Example of Use

Touch Auto-write can be very handy if a parameter already has some modulation recorded in the Pattern, and you want to re-record modulation for this parameter, this time at a constant value:

- With Touch Auto-write disabled (and in previous MASCHINE versions), you have to constantly rotate the Knob to ensure that the old modulation events are actually replaced by the current modulation value. To simulate a new constant modulation value, you had no other choice than slightly rotate the Knob around the desired value.

- With Touch Auto-write enabled, you just need to keep a finger on the Knob: The current modulation value is recorded in new modulation events as long as you touch the Knob, automatically replacing any old modulation events at these positions.

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.
- Same deep level as KOMPLETE Instruments.

Native Kontrol Standard (NKS) is a software instrument format that allows third-party developer to integrate with MASCHINE and KOMPLETE KONTROL hardware and software.

Basic Concepts

Native Kontrol Standard
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 Mode 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 KONTROL S-SERIES keyboards. Parameters are tagged in a meaningful way on each preset from your KOMPLETE KONTROL S-SERIES keyboards, as defined in the Browser views you navigate re-MASCHINE instruments. All of their tags are fully tagged, so filtering in the Browser gives you matching results from both KOMPLETE KONTROL and NKS instruments.

To install your KONTAKT instrument with NKS support and add it to the MASCHINE Browser, 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 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.

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 adds it to the MASCHINE and KOMPLETE KONTROL Libraries. If you are using KON- TAKT, 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 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 within the MASCHINE plug-in itself. These are synchronized to your host’s transport, but you cannot, e.g., manually start, stop, or re-start the playback in MASCHINE, nor modify the tempo of the time signature of your Project. Instead, you control the transport functions of your host’s sequencer via your MASCHINE controller, or in plug-in mode, via your host application. See section 3.5.4, 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 Logic Pro: [http://www.native-instruments.com/knowledge/questions/1711](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 instances of MASCHINE. Actually, you can load as many instances of MASCHINE as your computer and your host application can handle CPU-wise. In plug-in mode, you can also send MIDI Program Change messages from your host to switch between MASCHINE Scenes or between patches of other plug-ins loaded into MASCHINE or other plug-ins loaded into the host. In contrast to the stand-alone application, when you are using MASCHINE as a plug-in within a host application, you can open multiple instances of MASCHINE plug-ins and not only use it as a standalone application.

For more information on how to route MASCHINE to multiple tracks/outputs in the major hosts, please refer to 3.7, Integrating MASCHINE into a MIDI Setup.

Audio and MIDI Handling
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.

Switching Instances using the Controller

To switch from one MASCHINE instance to another:

1. Press \( \text{SHIFT} + \text{PLUG-IN} \).
2. Turn the jog wheel to select an instance.
3. Press Button 4 to load that instance.

You can also use Knob 5 or Button 5 and 6 to select the desired instance, and Button 8 to load it.

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 standalone 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, but note that the precedence rules apply:

  - Only one MASCHINE controller of any type can be connected to an instance at a time.
  - When you start a new instance of the MASCHINE software, it connects to one of the MASCHINE controllers according to the 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.

3.5.4 Controlling your Host's Transport Functions in Plug-in Mode

When you are using MASCHINE as a plug-in within a host application, the Host Transport Control feature allows you to split the control elements of your controller into two groups:

- All buttons in the TRANSPORT section except REC, SHIFT, and GRID will send MIDI data as specified in the Template loaded in the Controller Editor, while all other buttons on the Host Transport section (except REC, SHIFT, and GRID) will send MIDI data as specified in the Template loaded in the Controller Editor, while all other buttons on the Host Transport section (except REC, SHIFT, and GRID) will send MIDI data as specified in the Template loaded in the Controller Editor.

- All other elements control the MASCHINE plug-in instance.

The Host Transport Control can be activated in the MIDI Template loaded in the Controller Editor. When MASCHINE is loaded as a plug-in in your host application, do the following:

1. Start the Controller Editor.
2. In the Device menu in the top left corner of the Controller Editor window, select the entry corresponding to your controller in order to edit its MIDI assignments of your MASCHINE Studio Controller.
3. In the Templates page on the right, click the desired MIDI Template to load it.
4. Click the Host Transport Control option under the Template List to enable/disable it.

From now on, the buttons in the TRANSPORT section (except REC, SHIFT, and GRID) will send MIDI data as specified in the Template loaded in the Controller Editor, while all other buttons on the Host Transport section will send MIDI data as specified in the Template loaded in the Controller Editor.

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

The Preferences panel lets you specify various settings for MASCHINE.

To open the Preferences panel, click Preferences… in the File menu of the Application Menu Bar, or 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.
- **Libraries**: see ↑ 3.6.4, Preferences – Libraries Page.
- **Default**: see ↑ 3.6.5, Preferences – Default Page.
- **Plug-ins**: see ↑ 3.6.6, Preferences – Plug-ins Page.
- **Hardware**: see ↑ 3.6.7, Preferences – Hardware 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.

Colors: see 1.3.8, Preferences – Colors Page.
### Basic Concepts

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Startup</strong></td>
<td><strong>Reload Last Project</strong>&lt;br&gt;Click this checkbox to automatically reload the last Project on startup.</td>
</tr>
<tr>
<td><strong>Recording Audio</strong></td>
<td><strong>Prefer Project Folder</strong>&lt;br&gt;If this checkbox is marked, the Samples you record will be put in a subdirectory of the folder where your Project is saved. If this checkbox is unmarked, the Samples you record will be put in your standard user directory.</td>
</tr>
<tr>
<td><strong>Metronome</strong></td>
<td><strong>Enabled</strong>&lt;br&gt;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.</td>
</tr>
<tr>
<td><strong>Volume</strong></td>
<td><strong>Click the slider to adjust the volume of the metronome.</strong></td>
</tr>
</tbody>
</table>

---

### Preferences

- **Preferences – Default Page**
- **Preferences – Switcher**

### Using the Metronome

- **Enabled**
- **Click the checkbox to enable the Auto-Enable option.**
- **Click the checkbox to adjust the volume of the metronome.**
**Preferences**

**Basic concepts**
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. 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

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

The Audio page holds all the settings related to your audio interface.

The Audio page is part of MASCHINE and the physical inputs/outputs of 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.

The Audio page holds settings related to your audio interface.
## Preferences – Audio page

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
<td>Select the available devices if you have more than one audio interface connected.</td>
</tr>
<tr>
<td>Interface</td>
<td>Select your audio driver from the drop-down menu.</td>
</tr>
</tbody>
</table>

![Screenshot of the Preferences - Audio page interface](image-url)
### Setting Description Status

This confirms whether your audio interface is currently running.

**Sample Rate**
This displays the selected sample rate of your audio interface.

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<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Latency** | The selected ASIO driver. Click this button to open the settings window of the selected ASIO driver. The Audio and MIDI interface. This button displays an ASIO Configuration button instead of the Settings panel. If you are using an ASIO driver, the Audio and MIDI interface. This slider allows you to adjust the latency of your audio interface. Lower values result in a more immediate playing response, but are heavier on the CPU. Larger values result in a more immediate playing response, but are heavier on the CPU. Larger values may be impossible without overloading your CPU or introducing any audio artifacts. Please consult the documentation that came with your audio interface for more information. Click the "Open Panel" to access specific controls related to your audio interface. Please consult the documentation that came with your audio interface. The selected sample rate of your audio interface. This confirms whether your audio interface is currently running. 

**Sample Rate** | ASIO Configuration (Windows only) | Sample Rate | Status | Setting | Description |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Latency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Preferences

**Basic Concepts**

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## Basic Concepts

### Preferences

#### Preferences – MIDI Page

To display the MIDI Input and Output settings, click on the MIDI tab on the left of the Preferences panel.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>When sampling external sources, for example, the choices made here will determine which inputs can be used in the right column. Select the inputs of your audio interface. Clicking the fields will present a drop-down menu with all the available inputs.</td>
</tr>
<tr>
<td>Output</td>
<td>Select the outputs of your audio interface, e.g., the 16 stereo outputs from MASCHINE. Click the fields in the right column to select the desired outputs via a drop-down menu.</td>
</tr>
</tbody>
</table>

MASCHINE allows you to set up the MIDI input and output ports that you want to use with your audio interface.
The Preferences – MIDI page.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sync</td>
<td>Click the drop-down menu to set the MIDI Sync mode preference.</td>
</tr>
</tbody>
</table>

### MIDI Sync Modes

- **Off**: No MIDI sync mode is selected.
- **Master (Send Clock)**: If MASCHINE is running as a stand-alone application, it can act as a MIDI clock master to any device that supports MIDI Clock events.
- **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 receiving MIDI Clock events. This could be hardware such as a drum machine, another groove box, or even another software application.

### Clock Offset

Clock Offset will be compensated (in milliseconds) in the Master (Send Clock) and Slave (Receive Clock) mode.

Please note that if the Slave (Receive Clock) mode is set to Link, the Clock Offset is not available.

### 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 corresponding port.

### Basic Concepts

- **Syncing MASCHINE using Ableton Link**: For more information on Link, see section 3.8.

  - Please note that the Slave (Receive Clock) option is not available when LINK is active.
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.

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click Output to display a list of all the available MIDI outputs of the corresponding port.</td>
<td>The fields in the Status column, which displays the current status of your system. You can activate/deactivate each output by clicking the fields in the Status column.</td>
<td></td>
</tr>
</tbody>
</table>
The Preferences – Default Page.
Here you can select a Project to load automatically when you start a new Project in MASCHINE used as a stand-alone application. The fields display 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 Project with your preferred instruments and effects.

Here you can select a Project to load automatically when you start a new Project in MASCHINE used as a plug-in within a Digital Audio Workstation. The folder 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 Project with your preferred instruments and effects.

Here you can select audio files to be used as up and down beat samples for the metronome. 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.

Here you can select a Project to load automatically when you start a new Project in MASCHINE used as a stand-alone application. The fields display 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 Project with your preferred instruments and effects.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSSCHINE</td>
<td>Select from the drop-down menu how the Duplicate function in MASCHINE will operate when duplicating Scenes.</td>
</tr>
<tr>
<td>Scene Only</td>
<td>Only the Scene is duplicated. The result is a new unlinked Scene with the same Patterns referenced.</td>
</tr>
<tr>
<td>Scene and Patterns</td>
<td>The Scene itself and additionally all Patterns are duplicated. The new Scene and Patterns are now completely independent.</td>
</tr>
<tr>
<td>Link when duplicating Sections</td>
<td>Click the checkbox to enable a linked copy of a Section when using the Duplicate function. By default, this feature is disabled.</td>
</tr>
<tr>
<td>Pattern Length</td>
<td>Enter the default length of new Patterns. The length is measured in bars, beats, and sixteenths.</td>
</tr>
<tr>
<td>Sound Lane Height</td>
<td>Select the default height of the Sound lane in the Pattern Editor by choosing between normal (1x) or 2x zoom from the menu.</td>
</tr>
</tbody>
</table>

**Basic Concepts**

**Preferences**
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.
- **MIDI Channel**: Allows you to set the MIDI channel(s) to use for triggering the Sound. By default, the focused Sound will trigger on MIDI channel 1.

At the top of the page, the **Factory** and **User** buttons allow you to switch between the Factory and User panes. To display the Library page click the Library tab on the left of the Preferences panel.

The **Library** pane of the Browser is described in section 4.2, *Searching and Loading Files from the Library*. The **Library** pane 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 **Factory** pane allows you to edit the locations of all Factory Files (both Factory and User) that appear in the **Factory** pane of the Browser.
The Preferences panel – the Library page’s Factory pane.

The Factory pane displays all factory libraries available. These include the MASCHINE Factory Libraries, as well as 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.
To display the User pane, click the User button at the top of the Library page.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>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.</td>
</tr>
<tr>
<td>Product</td>
<td>Displays the name of each product. These names cannot be edited.</td>
</tr>
<tr>
<td>Rescan button</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.
### Basic Concepts

#### Preferences

**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 folders. 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.

#### User pane of the Library page

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Displays the alias stored for each library. Click an alias to edit it.</td>
</tr>
<tr>
<td>Location</td>
<td>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.</td>
</tr>
<tr>
<td>Description</td>
<td>This column shows a description for each library.</td>
</tr>
<tr>
<td>Add button</td>
<td>Click to manually add directories to the user library. See below for more details.</td>
</tr>
<tr>
<td>Remove button</td>
<td>Click to remove the selected user library. Files will only be removed from the MASCHINE Browser, not from your hard disk.</td>
</tr>
<tr>
<td>Rescan button</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Scan user content for changes during start-up</strong></td>
<td>This checkbox allows MASCHINE to scan for changes to the User Content directory during start-up.</td>
</tr>
</tbody>
</table>

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

The Standard User Directory cannot be removed from the list in the Location column. You can modify its path in the Location column.

In the Library pane 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 now includes a Cancel button.

The Updating Database dialog includes a CANCEL button allowing you to interrupt the scan without harming the database permanently.

Cancelling Library Rescan
If you want to cancel the scan, click "Cancel Rescan" in the update database dialog to interrupt 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.

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.

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 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.

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 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.

Using Aliases

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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.
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.

   - 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.
   - The product will be set to the name of the folder you have selected.
   - 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 as follows:
     - For Samples, the product/bank/sub-bank attributes are empty, they will be set to the folders in which the Samples are located.

Furthermore, the imported files will have their attributes (product/bank/sub-bank, Type/Sub-)

Paths to folders added via the **IMPORT** button in the Browser's **FILES** pane will also show up here.

Loading Files from the Library.

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**. 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**. For more information on how to use the **LIBRARY** pane of the Browser, please refer to section 4.2, **Searching and Loading Files**.

The only difference between adding folders via the **Add** button in the Browser’s **FILES** pane and adding folders via the **IMPORT** button in the Browser’s **FILES** pane 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 use the **LIBRARY** pane of the Browser.

Preferences

Basic Concepts
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 in the Use as Factory pane if MASCHINE deletes such a folder as you press OK. Please note that the selected folder cannot contain, or be contained within, a folder already

Removing Folders from the User Library

You can also remove any user folder from your Library — except the default user.

Manager Pane

The Manager pane allows you to manage Native Instruments and External Plug-ins in your Library.

Preferences – Plug-ins Page

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

Preferences

To display the Plug-ins pane, click the Plug-ins tab on the left of the Preferences panel.

Preferremes – Plug-ins Page

The Plug-ins pane allows you to manage your Native Instruments and External Plug-ins. You want

Removing Folders from the User Library

OK to return to the folder selection dialog and select another folder on your computer.

Preferences

Basic Concepts

For more information on Native Instruments, 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.
### Preferences

#### Basic Concepts

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug-in column</td>
<td>Lists all available VST/AU plug-ins from the directories specified in the Locations pane (see below). You should rescan your plug-in locations frequently to keep the list of available external plug-ins up to date.</td>
</tr>
<tr>
<td>Default Config column</td>
<td>For each plug-in, you can set a default preset via the Save As Default… entry in the Plug-in menu. If no default is set here, the plug-in’s parameters will be auto-mapped when loading into a plug-in slot. You can also map default plug-in parameters to any of your MASCHINE instrument’s pads. The plug-in-list column lists all available VST/AU plug-ins.</td>
</tr>
<tr>
<td>Always Use Latest Version of NI Plug-ins checkbox</td>
<td>Enables the newest versions of the plug-ins when creating the project. Additionally, if only older versions of a plug-in are installed, the newest versions will be used when loading projects that were created with older plug-in versions.</td>
</tr>
<tr>
<td>Rescan button</td>
<td>If you have changed the content of any directory specified in the Locations pane, you should rescan your plug-in locations 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 detect 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.</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
</tr>
</tbody>
</table>

- To remove a default plug-in preset, click the little cross on the right.
- To map a default plug-in preset, click the little cross on the right.
- To change the default preset of this plug-in, load it into a plug-in slot.
- To change the default preset of this plug-in, load it into a plug-in slot.
- To change the default preset of this plug-in, load it into a plug-in slot.
- To change the default preset of this plug-in, load it into a plug-in slot.
- To change the default preset of this plug-in, load it into a plug-in slot.
- To change the default preset of this plug-in, load it into a plug-in slot.
**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 these plug-ins 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.

You can also 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.

References

Basic Concepts
The Preferences panel – the Plug-ins page's Locations pane. The Locations pane also contains the following controls:

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug-in column</td>
<td>Lists all plug-in directories used in MASCHINE.</td>
</tr>
<tr>
<td>Plug-in</td>
<td>Click to add plug-in directories.</td>
</tr>
<tr>
<td>Add button</td>
<td>Click to add plug-in directories.</td>
</tr>
<tr>
<td>Control</td>
<td>Allows you to change the path of a plug-in directory.</td>
</tr>
</tbody>
</table>

Click Add to add plug-in directories.
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.

<table>
<thead>
<tr>
<th>Description</th>
<th>Remove button</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click Remove to remove the selected directory.</td>
<td></td>
</tr>
</tbody>
</table>
The Preferences panel – Hardware Page.

Basic Concepts
### 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

Use the **Sensitivity** slider to adjust how sensitive the pads respond to your touch. This sets the minimum threshold at which the **PADS** controller will register a "hit." Touch-sensitive knobs.

### Display

The **Brightness** slider allows you to adjust the brightness of both left and right displays of the *MASCHINE STUDIO* controller.

### Touch-Sensitive Knobs

The **Brightness** slider allows you to adjust the brightness of both left and right displays of the *MASCHINE STUDIO* controller.

### Velocity Scaling

Velocity Scaling determines how your playing is translated into velocity values: starting from Soft 1 (a soft touch is enough to get a big velocity value) through a Linear phase (you really need to put some force to get a big velocity value) to Hard 3 (you really have to hit the pad hard to get a big velocity value).

### Preferences

- **Controller**
- **Display**
- **Pads**
- **Brightness**
- **Velocity Scaling**
- **Sensitivity**

**Basic Concepts**
Setting Description

Touch Sensitivity

The Touch Sensitivity slider allows you to adjust the touch sensitivity of Knobs 1–8. Drag the slider left to decrease the sensitivity or drag the slider to the right to increase it. The current sensitivity value is indicated by the number left of the slider. Additionally, this number provides a visual feedback that helps you quickly find the sensitivity that best fits your needs.

Touch Auto-write

Use the Touch Auto-write checkbox to enable or disable the Touch Auto-write option. Touch Auto-write can be very useful if you want to re-record modulation for a parameter at a constant value. With Touch Auto-write enabled, you only need to keep a finger on a parameter knob (1–8). The current sensitivity value is unaltered as long as you touch the knob, automatically replacing any old modulation events at the position in the Pattern. For many old modulation events, you only need to keep a finger on a parameter knob (1–8). The current sensitivity value is unaltered as long as you touch the knob, automatically replacing any old modulation events at the position in the Pattern. For

Adjusting the Settings from the Hardware

You also have access to the Sensitivity and Brightness settings from your controller. To do this,

1. Press SHIFT + CHANNEL (MIDI) to switch your controller to MIDI mode.
2. Press SHIFT + Button 3 (SETTINGS) to show the Settings Display mode.
3. Turn Knob 1 (PADSENS) to adjust the Pad Sensitivity described above.
4. Press SHIFT + Button 4 (CALIBRATION) to show the Calibration Display mode.
5. Turn Knob 4 to adjust the brightness described above.
6. Press SHIFT + CHANNEL (MIDI) to switch your controller to MIDI mode.

You also have access to the Touch Auto-write option. Touch Auto-write can be very useful if you want to re-record modulation for a parameter at a constant value. With Touch Auto-write enabled, you only need to keep a finger on a parameter knob (1–8). The current sensitivity value is unaltered as long as you touch the knob, automatically replacing any old modulation events at the position in the Pattern. For

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

For more information on the Touch Sensitivity slider, refer to the MASCHINE STUDIO - Manual - 142.
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 Colors page enables you to choose default colors for your Scenes, Groups, and Sounds.
**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, 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 object will not follow the object — the object will instead take the color of its new "position" in the list. In the example of a Scene, if you move the Scene to another position, it will take the color of the new position. You move the Scene to another position by pressing + to select the Scene, then pressing the right arrow key to move the Scene to another position and then pressing + again to select another Scene. The Scene will then be selected in the list and will have the color of its new position. The color of the Scene in the list will be highlighted in the menu. If you select Auto, each Scene will have a different default color. If you select Use Group Color (default setting), Scenes will by default mirror the color of the Group to which they belong.

In this Colors page, the default colors set not be used next time you load the files. The default colors set in this Colors page will be used instead. If you select Load with Colors (checked by default), saved colors will be used next time you load the files. 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.

Click the checkbox to save your Color settings with your MASCHINE files (Projects, Groups, Sounds, etc.). If you select Load with Colors (checked by default), saved colors will be used next time you load the files. 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.

If you select Auto, each Group will have a different default color. If you select Use Group Color (default setting), each Group will have a different default color. If you select Load with Colors (checked by default), saved colors will be used next time you load the files. 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.

If you select Auto, each Sound will have a different default color. If you select Use Group Color (default setting), each Sound will have a different default color. If you select Load with Colors (checked by default), saved colors will be used next time you load the files. 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.

If you select Auto, each Scene will have a different default color. If you select Use Group Color (default setting), each Scene will have a different default color. If you select Load with Colors (checked by default), saved colors will be used next time you load the files. 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.
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.

▪ You can use MIDI in MASCHINE in various ways. Notably:

1. Hook it up to your external MIDI equipment:
   To connect your external MIDI equipment:
   The MIDI sockets on the rear panel of the MASCHINE STUDIO controller:
   ▪ Connect it to the MASCHINE STUDIO controller’s MIDI IN or MIDI OUT 1-3 socket on the rear panel.
   ▪ Hook it up to the MASCHINE STUDIO controller’s MIDI IN or MIDI OUT 1-3 socket on the rear panel.
   ▪ Hook it up to the MASCHINE STUDIO controller’s MIDI IN or MIDI OUT 1-3 socket on the rear panel.

2. Connecting External MIDI Equipment

The MIDI sockets on the rear panel of the MASCHINE STUDIO controller.
If MASCHINE is running as a stand-alone application, activate the corresponding MIDI input and/or output(s) of your MASCHINE STUDIO controller in the MIDI page of the Preferences panel (see \[↑\] 3.6.3, Preferences – MIDI Page).

If MASCHINE is running as a plug-in, it is automatically synchronized to the host application so you don’t have to activate external 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.

3.7.2 Sync to External MIDI Clock

Showing you at anytime the MIDI activity of the controller.

- **IN** indicator lights up when MIDI data is received on the MIDI IN socket of your controller.
- **OUT1–3** indicators light up when MIDI data is sent on the MIDI OUT 1–3 socket, respectively.

The IN indicator lights up when MIDI data is received on the MIDI IN socket of your controller.

The MIDI indicators on the top panel of your controller:

The MIDI indicators on the top panel of your controller.

MASCHINE STUDIO - Manual - 146
To configure MASCHINE to receive MIDI Clock from an external device:

1. Select Preferences entry from the File menu.

2. Select 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 sync with.

Send MIDI Clock

If MASCHINE is running as a stand-alone application, it can also send a MIDI Clock signal.

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 control MASCHINE notes and parameters via MIDI, you must also define at least one MIDI output device via MIDI in the Devices section of the MIDI page.

If you use MASCHINE as a plug-in, it cannot send any MIDI Clock signal. See section 13.5, Stand-Alone and Plug-in Mode for more information on using MASCHINE as a plug-in.

For more information on using MASCHINE as a plug-in, please refer to section 12.2, Integrating MASCHINE into a MIDI Setup.

For more information on using MASCHINE as a plug-in, please refer to section 12.2, Integrating MASCHINE into a MIDI Setup.
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. This can either be a local network or an ad-hoc (computer-to-computer) connection. 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.

Applications that support Ableton Link can join a Link session when connected to the same network.

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.
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- If you do use a Wi-Fi network, be sure to use a password to prevent excluded users from joining your session.

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.
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 \nJoining and Leaving a Link Session

It is possible to join a Link session at any time by clicking the \textbf{LINK} button. When another \textit{Link}-enabled application is connected, all participating applications lock into their own \textit{Link}-enabled application’s transport. This bar represents the \textit{Global} phase of Link that all participants can change. After clicking the \textbf{Play} button, playback will resume on the downbeat once the moving bar fills. 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 \textbf{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 \textbf{LINK} again.

While connected, the \textbf{LINK} button displays how many other Link-enabled applications are connected. The example below indicates that there are two other instances connected.

---

\textit{Basic Concepts}

\textbf{Syncing \textit{MASCHINE} using \textit{Ableton Link}}
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.

3.9 Using Footswitches with the MASCHINE Controller

Your MASCHINE STUDIO Controller provides two footswitch inputs in the form of 1/4" sockets on its rear panel. These sockets allow you to control the transport in MASCHINE via footswitches:

- **FOOTSWITCH 1**: Starts/stop the playback in MASCHINE. This is equivalent to the PLAY button on your controller and the Play button in the software's Header.

- **FOOTSWITCH 2**: Engages/disengages recording in MASCHINE. This is equivalent to the REC button on your controller and the Record button in the software's Header.

- **FOOTSWITCH 3**: Starts/stop the playback in MASCHINE. This is equivalent to the PLAY button on your controller and the Play button in the software's Header.

You can use "toggle" switches (press it once to turn it on, press it again to turn it off) or "gate" switches (hold it to turn it on, release to turn it off) for either footswitch input as you see fit. For example, we recommend you to plug a toggle switch into the FOOTSWITCH 1 socket to control the playback, and a gate switch into the FOOTSWITCH 2 socket to momentarily engage recording as you see fit.
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

Each file included in the library can be described according to the following aspects:

▪ The file type: Project, Group, Sound, etc.
▪ The type of the file: What file it originates from: a product's factory library or it was created by a user.
▪ The product which the files comes from — this can include, e.g., a hierarchical structure.
▪ 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, any type of aspect.

To help you find the right file quickly and efficiently, the library implements various features, such as search functions and filters, to narrow down your search.

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. In this case, such as a very big screen and a QWERTY-keyboard, we will start with the software first.
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.

To show the LIBRARY pane of the Browser, click the corresponding tab at the top of the Browser.

**Switching between LIBRARY and FILES Pane**

In contrast to the software, the Browser on your controller can only load files that have already been imported into the MASCHINE Library — and you can import them from there. 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. This is the preferred way to search for files meeting particular musical requirements. The LIBRARY pane allows you to tag your own files to your liking. The FILES pane also allows you to tag your own files to your liking.

The Browser is your interface to the MASCHINE Library. It provides all necessary tools to describe the hierarchy of your hard disks.

**Browsing the Library vs. Browsing Your Hard Disks**

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

- **LIBRARY** pane allows you to browse the MASCHINE Library. This is the preferred way to search for files meeting particular musical requirements.
- **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.

The Browser allows you to tag your own files to your liking.

**MASCHINE STUDIO - Manual - 152**
Click the desired tab to show the corresponding pane of the browser.

The **Library** pane contains following elements:

4.2.1 Overview of the Library Pane

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

The browser's Library pane allows you to search for any file in the MASCHINE Library.

### Searching and Loading Files from the Library

4.2

The **Library** pane is described in section 4.6, Loading and Importing Files from Your File System. The **Files** tab is described in section 4.2.2, Searching and Loading Files from the Library.

Click the desired tab to show the corresponding pane of the browser.
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 six icons, each representing the different file types of MASCHINE. From the left to right these file types are Project, Group, Sound, Instrument preset, Effect preset, and Sample. By clicking one of them it causes only the files of the selected type to be displayed in the Result list (8). See section 4.2.4, Selecting a File Type.

Searching and Loading Files from the Library

Browser
Searching and Loading Files from the Library

Browser

(3) Content selector: Click the NI icon (on the left) to select factory content or the User icon (on the right) to select user content instead. Only the files of the content selected here will be displayed in the Result list. See section ↑4.2.5, Choosing Between Factory and User Content.

(4) Product selector: Click to open a drop-down menu where you can select a product, a 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. 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 Type and Sub-Type tags that have been applied to them. See section ↑4.2.6, Selecting Type and Mode Tags.

(6) Modes filter (Instrument/effect presets only): Allows you to search for files based on Mode tags that have been applied to them. See section ↑4.2.6, Selecting Type and Mode Tags.

(7) Search field: Enter any character string into the search field to find the search results to apply to them. See section ↑4.2.8, 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 ↑4.2.9, 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.

▪ 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 audition them. See section ↑4.3.2, Auditioning Instrument Presets and 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 files. 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.

1. Choose a file type in the File Type selector (2).
2. Select tags in the TYPES filter (5) — and the MODES filter (6) for Instrument and Effect presets — describing what you are looking for.
3. 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.
4. 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 Browsing the Library on the MASCHINE STUDIO Controller

Press BROWSE to enter or leave the Browser.
The Browser on your controller.

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

- The left display allows you to narrow your search by selecting the file type, the content type (factory or user files), as well as a product category, a product, a bank, and a sub-bank.

- The right display allows you to further refine your search by selecting the desired Type (and possibly Mode) tags. It also shows you the corresponding result list. Turn the jog wheel or Knob 8 to select any entry from the list, and press the jog wheel or Button 8 (LOAD) to load it.

As usual on your controller, each parameter visible at the bottom of either display can be adjusted by the Knob directly underneath. This is also true in Browse mode, as you will see in the next sections.

Additional Browsing Tools

You will find most of the browsing aids available in the software, as described in section 4.3, Additional Browsing Tools. The above steps are described in detail in the following sections. In addition, on your controller:

- The right display allows you to narrow your search by selecting the desired Type and possibly Mode tags. It also shows you the corresponding result list.
- The left display allows you to narrow your search by selecting the file type, the content type, a product category, a product, a bank, and a sub-bank.

Make sure you tag all the files extensively that you want to use often, as this makes them much easier to access using the controller.

Browsing Your Library Using the Jog Wheel and the FUNCTION Buttons

As usual on your controller, each parameter visible at the bottom of either display can be adjusted by the Knob directly underneath. This is also true in Browse mode, as you will see in the next sections.

However, the Browse mode additionally provides an alternative, unified method for adjusting any field appearing at the bottom of the displays: using the jog wheel and the two FUNCTION buttons below.
The jog wheel and the FUNCTION buttons in Browse mode.

1. Press the Left/Right FUNCTION buttons to select the field you want to control from the jog wheel. The selected field is indicated by thin brackets:

2. Turn the jog wheel to change the value in the selected field. This way you can control the product selection (left display), the tag filter (right display), as well as the result list (right display) with the scrolling comfort of the jog wheel.

By default the jog wheel controls the result list — the rightmost parameter at the bottom of the right display. In this way you can control the product selection (left display), the tag filter (right display), and the result list with the scrolling comfort of the jog wheel.

Press the Left/Right FUNCTION buttons in Browse mode.
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 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).

Selecting a Product Category

Click on the Product selector header to open it.

Selecting or Loading a Product and Selecting a Bank from the Browser

[Image: Product selector interface showing categories and options]
The opened Product selector.

1. **Product selector header**: The header shows the selected product—if there is no selection it shows a generic label (All Instruments). 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
   - Synthesizers
   - Sampled Instruments
   - Other

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

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

---

**Browser Searching and Loading Files from the Library**
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 Service Center.

**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 Instru-**
ments. 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 product name: **POLYPLEX**

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

**Info**

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 Service Center.
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 instance, different sets of drum sounds for POLYPLEX, as shown above.

The Bank menu allows you to select a particular bank of files for the selected product (POLYPLEX).
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, you can do so directly 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.

4.2.2.1 Browsing by Product Category Using MASCHINE STUDIO

The MASCHINE Browser can filter your search by product category.

To filter products by Category in the Browser using the controller:

1. Press BROWSE to show the Browser.
2. Press Button 2 to select a product.
3. Press and hold SHIFT to access the filters for CATEGORIES / VENDORS.
4. Press Button 1 to select CATEGORIES if you want to browse by product category.
5. Turn Knob 1 to select a particular product.
6. Turn Knob 2 to filter your selection further by choosing a particular product.
7. Turn Knob 3 to select a product from the All Categories list.
8. Turn Knob 8 to select a preset.
9. Turn Knob 8 to load the selected preset.
4.2.2.2 Browsing by Product Vendor Using MASCHINE STUDIO

The MASCHINE Browser can filter your search by product vendor.

To filter products by Vendor in the Browser using the controller:

1. Press **BROWSE** to show the Browser.
2. Press Button 2 to select a product.
3. Press and hold **SHIFT** to access the filters for **CATEGORIES/VENDORS**.
4. Press Button 2 to select **VENDORS** if you want to browse by Vendors.
5. Turn Knob 1 to select a vendor from the **All Vendors** list.
6. Turn Knob 2 to filter your selection further by choosing a particular product.
7. Turn Knob 8 to select a preset.
8. Press Button 8 to load a preset.

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 certain product categories, 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, except for **All Projects**, **All Groups**, **All Sounds**, **All Instruments**, **All Effects**, or **All Samples** according to the type of the selected file in the File Type selector.

The Product selector shows you to limit your search to certain product categories, a particular product, a specific bank, or even a sub-bank, if appropriate.

To filter products by Vendor in the Browser using the controller:

The MASCHINE Browser can filter your search by product vendor.
The opened Product selector (for Instrument presets).

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.

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.

1. Product selector header
2. Product Category filter
3. Product list
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 MODES filter, if present) along with the Result list will be filtered by that category.

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.

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.

Resetting the Product Selection

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Browser

Searching and Loading Files from the Library

For all products.

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.

---

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.

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Browser

Searching and Loading Files from the Library

For all products.

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.

---

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.
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 (MASHINE 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.

Similarly, some banks are split into several sub-banks. In that case a Sub-Bank menu appears.

To select a particular sub-bank, click the Sub-Bank menu under the Bank menu, and choose a sub-bank from the available entries.
On your controller in Browse mode:

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

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 was saved (e.g., Sampler, Kick, Reverb, etc.).
  - Presets for Native Instruments Plug-ins: The product is set to the particular Native Instruments product. The bank and sub-bank will vary with each Native Instruments plug-in.
  - Presets for External Plug-ins: The product is set to the manufacturer of the VST/AU plug-in, while the bank is set to Maschine. When the preset is loaded, the sub-bank is left empty.
- When you save your own MASCHINE files, they are automatically assigned to products, banks, and sub-banks as follows:

Products and Banks for User Content

The cross at the right of the bank or sub-bank name in the closed menu:

As with the product above, you can remove the selected bank and sub-bank by clicking the little "x" mark next to it.
Turn Knob 1–4 under the left display to select a product category (if any), a particular product, a bank of that product (if any), and a sub-bank in that bank (if any), respectively.

Turn a Knob at full left to remove any particular selection at this level (c. e. to select all items at this level).

4.2.4 Selecting a File Type

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

1. Browser
2. Searching and Loading Files from the Library
4.2.5 Choosing Between Factory and User Content

The Content selector shows two icons representing the factory content on the left, and the user content on the right:

The Content selector.

► Click the NI icon to search the factory content, or click the User icon to search the user content.

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

Result list:

- Click the desired icon in the File Type selector to display only the files of that type in the list.
- (6) Samples: (.wav, .aiff)
- (5) Effect Plug-in Presets: (.mxprj)
- (4) Instrument Plug-in Presets: (.mxinst)
- (3) Sounds: (.mxsnd)
- (2) Groups: (.mxgrp)
- (1) Project: (.mxprj)

Selecting a File Type on the Hardware

On your controller in Browse mode:

At the top left of the left display, press Button 1 or 2 to select the desired file type.

In Projects, Groups, Sounds, Instruments, Effects, or Samples.

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

Selecting a File Type on the Hardware

At the top left of the left display, press Button 1 or 2 to select the desired file type:

On your controller in Browse mode:

Projects, Groups, Sounds, Instruments, Effects, or Samples.

Click the desired icon in the File Type selector to display only the files of that type in the list.
Choosing the Factory or User Content using the Controller

On your controller in Browse mode:

► At the top right of the left display, press Button 4 (USER) to browse the user content (button off and USER label not highlighted). Press Button 4 (USER) to browse the user content (button off and USER label not highlighted).

4.2.6 Selecting Type and Mode 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.

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

First the TYPES filter displays the available top-level tags only.

4.2.6 Selecting Type and Mode 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.

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

First the TYPES filter displays the available top-level tags only.

Click the desired tags in the tag filter to select them and limit the search to the files marked with them. Click the selected tags again to deselect them and broaden the search.

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

First the TYPES filter displays the available top-level tags only.

Click the desired tags in the tag filter to select them and limit the search to the files marked with them. Click the selected tags again to deselect them and broaden the search.

Click the desired tags in the tag filter to select them and limit the search to the files marked with them. Click the selected tags again to deselect them and broaden the search.

Click the desired tags in the tag filter to select them and limit the search to the files marked with them. Click the selected tags again to deselect them and broaden the search.
As soon as you select a tag at the top level, the second level appears underneath with sub-tags like Acoustic, Analog, etc. 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 shaker sample from the MASCHINE factory library...
By selecting any of these tags, say, Acoustic, you will narrow your search to this particular Sub-Type of shakers:

Now imagine that you have loaded an acoustic shaker Sample and want to find a Sample for another drum instrument, e.g., a tom: You leave the Drums tag selected at the top level of the TYPES filter and directly go to the second level, where you select Tom instead of Shaker. As you select Tom, the whole set of Sub-Types underneath (third level) will be replaced with the Sub-Types of the Tom tag. However, instead of the acoustic sound, the Tags for Instrument and Effect Presets: 2 Type Levels and 1 Mode Level characteristics — here, an acoustic sound. This allows you to quickly find various Samples (even for different instruments) with similar

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.
In general, Mode tags will rather refer to technical terms (e.g., Arpeggiated, Percussive, Synthetic, etc.). The MODES filter is always displayed. You can start your search with the MODES filter before (or even without) using the TYPES filter. More room for the results list on smaller display resolutions.

The Attributes sections (TYPES and MODES) in the browser library can be collapsed to make more room for the results list on smaller display resolutions.

The Attributes sections will collapse results will be shown depending on the amount of space available. Click the triangle to open or close the sections.

To collapse the Attributes sections:

1. Click the small triangle located to the left of the Attributes (TYPES or MODES).

Selecting Multiple Tags from the Same Level

In both TYPES and MODES 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] (or [Cmd] on macOS) on your computer keyboard and click any number of tags at these levels and all tags in-between.

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 MODES) in the browser library can be collapsed to make more room for the results list on smaller display resolutions.

To collapse the Attributes sections:

1. Click the small triangle located to the left of the Attributes (TYPES or MODES).

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

The Result list will include all files satisfying at least one of the selected tags. However, the list of tags available in the MODES filter will vary depending on the tags selected in the TYPES filter. If no file contains both the Type and Mode tags that you have selected, the Type tags will prevail and the Mode tags will be deselected.

Selecting multiple tags will include all files satisfying any of their tags. If you don’t select any tag in the TYPES or MODES filter, the Result list will include all files.
Selecting Type and Mode Tags on the MASCHINE STUDIO Controller

On your controller in Browse mode:

► Turn a Knob at full left to remove any particular selection at this level (i.e. to select all items at this level).

Turn Knob 5-7 under the right display to select tags at the three levels of the tag filter.
Selecting Type and Mode tags on your controller (here for Instrument presets).

- When browsing Projects, Groups, Sounds or Samples, Knob 5–7 allow you to select Type tags in the three hierarchical levels.
- When browsing Instrument or Effect presets (as in the picture above), Knob 5 and 6 allow you to select a Type and a Sub-Type, respectively; Knob 7 allows you to select a Mode.

4.2.7 List and Tag Overlays in the Browser

When browsing your Library from the controller, the touch-sensitive Knobs 1–8 provide you with handy browsing aids.

For general information on how to use the Browse mode of your controller to browse the MASCHINE Library, please refer to section 3.2 “Searching and Loading Files from the Library” in the MASCHINE Manual.

List Overlays for Product Category, Bank, and Sub-Bank

As you select a product category, bank or sub-bank via Knobs 1, 3, and 4 under the left display, respectively), the corresponding list overlay appears above. These overlays are similar to those for selectors described in section 3.3.4, List Overlay for Selectors. In each list, the selected item is highlighted.
The left display, here when browsing Instruments: Selecting the Bass Type via Knob 5 (left picture) and the Digital Bass bank via Knob 6 (on the right).

The right display, here when browsing Instruments: Selecting the Bass Type via Knob 1 (on the left), the 2.0 Library bank via Knob 3 (in the middle), and all sub-banks via Knob 4 (on the right).

A little down-pointing arrow under the cloud indicates which tag cloud is currently displayed.

Like in the software, the Type and Sub-Type tags share the same tag cloud, while the Mode tag is its own cloud.

As you select a Type/Sub-Type(s), and/or Mode via Knobs 5–7 under the right display, a tag cloud appears above. The tag cloud mirrors that of the Browser in the software. It shows all tags for which items have been found in the Library. In this cloud, the selected tag is highlighted.

Like in the software, each of these lists includes an ‘All…’ entry at the top allowing you to select any tagged item. Turn the corresponding Knob at full left to select this entry.

Tag Overlays for Type, Sub-Type, and Mode
Using the Jog Wheel with the List and Tag Overlays

When your MASCHINE STUDIO controller is in Browse mode, you can also make use of the jog wheel and FUNCTION buttons to navigate the Library (for all details, see the MASCHINE Manual):

- Press the FUNCTION buttons to put the jog wheel's focus on the desired field at the bottom of the displays (the focused field is indicated by the surrounding brackets).
- Turn the jog wheel to change the value in the focused field. If the result field (last field on the right) is focused, turning the jog wheel will navigate the result list, and pressing it will load the selected item.

You can also use the jog wheel to interact with the list and tag overlays described above:

- When the jog wheel is focused on a list overlay (product category, bank, and sub-bank), or a tag overlay (type, sub-type, and mode), pressing and holding the jog wheel opens the overlay. The overlay disappears as you release the jog wheel. If you turn the jog wheel without pressing it, no overlay will show up, and the value of the focused field will be changed as in previous MASCHINE versions.
- When the jog wheel is focused on the result field (default focus, Knob 8), turning the jog wheel closes any displayed overlay.

4.2.8 Performing a Text Search

In the Search field you can enter your search query.

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 tags and the properties directly as you type.

When the jog wheel is focused on the result field (default focus, Knob 8), turning the jog wheel closes any displayed overlay.
On the right of the Search field, click the Reset button (showing a little cross) to reset both text

4.2.9 Loading a File from the Result List

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

The Result list allows you to:

- Navigate to the selected file(s) in your operating system.
- Delete the selected file(s) from your hard disk and from the Library.
- Load the selected file(s) into your Project (or load another Project).
- Select the desired file(s).

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 shows kicks from the MASCHINE Library.

4.2.9 Loading a File from the Result List
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 14.5, “Displaying and Loading Files from the Library.”
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 currently 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 the 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 replace that 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 between two existing Groups (where the insertion line appears), the dropped Groups will be inserted between these two Groups.

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

Once you have selected multiple files from the Result list (see description above), you can drag and drop them to the desired location in MASCHINE.
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 pattern 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.

When dragging several Effect presets, you have the 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 the 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, the Samples will spread over the entire velocity and note range.

You cannot load multiple Projects at once.
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) 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.

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:
1. 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. If you want to find out the location of a particular file shown in the Result list, do the follow-

4.2.9.1 Loading a File from the Result List on the MASCHINE STUDIO & MK3 Controller

In Browse mode the right display of your controller shows you the Result list that corresponds to your query. It allows you to select and load the desired file. Additionally the number of results in the current list is indicated in the lower right corner of the right display.

Dragging and dropping Groups and Sounds is possible only in Arrange view.

Searching and loading files from the library.
Check the desired group or Sound slot is focused and the desired Plug-in slot is selected.

In Browse mode, the Jog Wheel can control any of the parameters at the bottom of the screen.

When parameter press the Function button under the Jog Wheel.

scrolls the result list (frame on the number of results at the far right). To switch the Jog Wheel to any display, the parameter currently controlled is indicated by thin brackets. By default, the Jog Wheel displays the parameter currently controlled is indicated by thin brackets. By default, the Jog Wheel

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 "Save" to confirm, "Discard" to close the current Project without saving the changes, or "Cancel" to cancel the operation and return to the Browser.

If you are loading a Project, it will be loaded in the first Plug-in slot of the focused Sound.

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).

Check that the desired group or Sound slot is focused and the desired Plug-in slot is selected.

The right display showing a result list with the Markadellic Sound selected.

Check that the desired group or Sound slot is focused and the desired Plug-in slot is selected.

Search and loading files from the Library.

Browser
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.

4.3.1 Loading the Selected Files Automatically

Click the Autoload button to enable/disable Autoload.

When Autoload is enabled, any item that you select in the Result list of the 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 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:

► Press Buttons 5 (PREV) and 6 (NEXT) above the right 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 of the LIBRARY pane or FILES pane.

◄ Drag the Prehear Volume slider next to the Prehear button to adjust the volume of the Ini.

When Prehear is enabled, you can directly hear Instrument presets as you select them in the result list of the LIBRARY pane.

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

The Prehear Volume slider next to the Prehear button is visible next to the Autoload button.

When you are browsing Instrument presets, a Prehear button and Prehear Volume slider appear.

The Prehear Volume slider next to the Prehear button is visible next to the Autoload button.

When you are browsing Instrument presets, a Prehear button and Prehear Volume slider appear.

Additional Browsing Tools

Auditioning Instrument Presets

When you are browsing Instrument presets, a Prehear button and Prehear Volume slider appear.
4.3.3 Auditioning Samples

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

To load the Instrument preset, press Button 8 (LOAD), and press the pad to disable Prehear.

When Prehear is disabled:
- Press SHIFT + Button 8 (PREHEAR) to enable/disable the Prehear function.
- Prehear is particularly useful on your controller. See below for more details.

Additional Browsing Tools

When browsing Instrument presets on your controller:
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. 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.

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

Additional Browsing Tools

Auditioning Samples using the Controller

When browsing Samples on your controller:

► Press SHIFT + Button 8 (PREHEAR) to enable/disable the Prehear function.

When Prehear is enabled:

▪ To load the Sample, press the Jog wheel or Button 8 (LOAD).

▪ 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 Jog wheel or Knob 8 to select the previous or next Sample in the result list. Upon selection this Sample is played back and the previous Sample stops playing.

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 of 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 on the Browser:

- + PATTERNS button enabled: Groups will be loaded together with 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. 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.

Loading Groups with Patterns using the Controller

When browsing Groups on your controller:

► Press SHIFT + Button 4 (+ PATTERNS) to include or exclude Patterns when Groups are loaded.

→ When the option is enabled (Button 4 lit and + PATTERNS label highlighted), Groups are loaded together with their Patterns.

When browsing Groups on your controller:

+ PATTERNS is only available when browsing Groups.
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.

4.3.6 Displaying File Information

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).
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, and Samples. Any of these items can be assigned as a Favorite, serve as an addition-.

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 rescaned or deleted and later added again to the database, all files retain their favorite tags.
- Favorites are automatically shared across MASCHINE and KOMPLETE KONTROL browser databases on one computer.

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

The Information box provides various information on the selected files.
To activate the Favorites filter:

The MASCHINE Browser showing all Favorite Instruments tagged with the Type Bass.
1. Click on the Filter Favorites control next to the search field to show the Set Favorite Icon.

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 control next to the search field to filter the results by Favorite.
To remove a preset from the Favorites, follow the instructions below:

Removing a Preset from the Favorites List

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

2. Click on the Set Favorite icon to add the corresponding item to the Favorites.
1. Click on the lit Set Favorite icon to remove the corresponding item from the Favorites.

2. 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 your 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.

Using Favorites in the Browser

1. Click on the lit Set Favorite icon to remove the corresponding item from the Favorites.
2. Press the Button 7 to activate the Favorites filter.

3. To filter the list of Favorites, use knobs 5 to 8.

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

Adding an Item to the Favorites

1. Press the BROWSE button.
2. Press Button 1 or 2 to select the type of item you want to set as a Favorite.
3. Turn the Control encoder to select the item you want to set as a Favorite.
4. Press SHIFT + Control encoder or SHIFT + Button 7 to set the selected item as a Favorite.

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

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

2. Press the BROWSE button.

3. To filter the list of Favorites, use knobs 5 to 8.
The item is added to the Favorites, indicated by the Favorite icon next to its name:

Removing an Item from the Favorites

1. Press the BROWSE button.
2. Turn the Control encoder to select the item you want to remove from the Favorites list.
3. Press SHIFT + Control encoder or SHIFT + Button 7 to remove the selected item from the Favorites list.

At any time you can edit the tags and properties of user files already in the Library by pressing:

The Attribute Editor is used in the following situations:

4.5.1 Attribute Editor Basics

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.

4.5 Editing the Files' Tags and Properties

The Attribute Editor allows you to edit tags and properties of your MASCHINE files:

1. Press the BROWSE button.
2. Turn the Control encoder to select the item you want to remove from the Favorites list.
3. Press SHIFT + Control encoder or SHIFT + Button 7 to remove the selected item from the Favorites list.

The item is removed from the Favorites list.
The Attribute Editor is organized into various pages:

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

The Attribute Editor affects the files selected in the Result list of the **LIBRARY** pane (see section ↑ 4.2.9, 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:

- **LIBRARY** pane:
  - **BANK**
  - **TYPES**
  - **MODES**
  - **PROPERTIES**

- **FILES** pane:
  - **TYPES**
  - **MODES**

The Attribute Editor affects the files selected in the Result list of the **LIBRARY** pane (see section ↑ 4.2.9, 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).

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

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 importing files to the MASCHINE Library from the Browser's **FILES** 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.

For more information on the **LIBRARY** pane, see section ↑ 4.2.9, Searching and Loading Files from the Library.

**Browser**

**Editing the Files' Tags and Properties**
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), they will be indicated by a yellow read only item label next to the EDIT button at the bottom of the Browser.

The BANK page of the Attribute Editor.

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

The BANK page shows you (from top to bottom) the product, bank, and sub-bank(s) of the selected file(s).

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

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

When browsing in the LIBRARY pane, all the files selected in the Result list are factory files.

Disabling Attributes of Factory Files

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

You can adjust the overall height of the Attribute Editor by dragging its upper border.
4.5.3 The TYPES and MODES Pages

The TYPES and MODES 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. It shows three columns (for Projects, Groups, Sounds, and Samples) or two columns (for Instrument and Effect presets) according to the hierarchical levels of the Type tags (see section 4.2.6, Selecting Type and Mode Tags)

▪ The MODES 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 MODES page is always available, however it will be taken into account only if Instrument or Effect presets are imported. The MODES page shows only one column:
In both TYPES and MODES pages, tags assigned to the selected files are marked with a check mark right of their name:

**Assigning Tags**

1. 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.
2. Additionally, when you check a tag on the TYPES page:
   - If another column is available on the right of 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**

1. Click the check mark right of the desired tag to unassign this tag from the selected files.
   - The check mark disappears.

**Displaying Tags**

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. The selected tag is highlighted:

- 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 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 MODES pages.

Adding a new Sub-Type for the Loops Type.

Deleting Tags

Tags in the TYPES and MODES 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.
4.6 Loading and Importing Files from Your File System

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

4.6.1 Overview of the FILES Pane

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

The FILES pane contains the following elements:

- **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 only be modified if you have selected user files in the Result list. The attributes of factory files cannot be edited.

 Browser
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. 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. **Browser**: Loading and Importing Files from Your File System.
Recent Locations button: Click this button to see a list of the last visited locations and quickly jump to any of them. See section ↑4.6.4, Navigating to Recent Locations.

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.

Control bar: At the bottom of the Browser, the Control bar provides a few useful tools when browsing your file system:

- 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 opens 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.

Favorites are shortcuts to specific locations in your file system.

The Favorite bar at the top of the FILES pane.

Located at the top of the FILES pane, the Favorite bar displays all your Favorites.
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:

1. To remove a Favorite, right-click it ([Ctrl]-click on macOS) in the Favorite bar and select Remove from Favorites from the context menu.
2. This folder appears in the Result list.
3. Navigate to the parent folder containing the folder you want to use as Favorite, so that this folder appears in the Result list.

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.

Loading and Importing Files from Your File System
4.6.4 Navigating to Recent Locations

The Location bar provides the following tools:

- **Up arrow**: Click the Up arrow on the left to go one level up in your file system.
- **Selected path**: Within the path displayed, you can:
  - **Click any folder name** to jump to that folder.
  - **Click any right-pointing arrow** after a folder name to open a list of its 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.

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

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

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 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).

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.

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.

4.6.5 Using the Result List

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

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

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

Using the Result List

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

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

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

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

To select adjacent files in the Result 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.

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

Selecting Files and Folders in the Result List

Recent locations button: 4.6.4, Navigating to Recent Locations.

Location bar: 4.6.3, Using the Location Bar.

Favorites: 4.6.2, Using Favorites.

Use the various tools located above the Result list:

To return to the previous folder or to select any folder outside the folder currently displayed,

Double-click a folder to display its content.

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

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

Loading and Importing Files from Your File System
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 \[\text{\textsuperscript{4.2.9}}\], 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.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add to Favorites (folders only)</td>
<td>Adds the selected folder to your Favorites. See section [\text{\textsuperscript{4.6.2}}], Using Favorites for more information.</td>
</tr>
<tr>
<td>Import to Library (folders only)</td>
<td>Imports the selected folder(s) into the Library. See section [\text{\textsuperscript{4.6.5}}], Using the Result List for more information.</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refreshes the display of the list, in case items have been modified in that folder.</td>
</tr>
<tr>
<td>Find in Explorer / Find in Finder</td>
<td>Opens an Explorer/Finder window pointing to the selected folder.</td>
</tr>
</tbody>
</table>

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

**Additional Features in the Result List**

\[\text{\textsuperscript{4.2.9}}\], Loading a File 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 \[\text{\textsuperscript{4.2.9}}\], Loading a File from the Result List.
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 reason, you will have to import the files into the MASCHINE Library, when working on a Project.

This section describes how to import files into the MASCHINE Library. When working on a Project, you can also save individual objects (Groups, Sounds, Plug-ins, 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 fixed.

The FILES pane allows you to import whole folders. All MASCHINE-compatible files found in the selected folders 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. Click the FILES tab at the top of the Browser to open the FILES pane.

3. In the FILES pane, navigate to the folder containing the folder you want to import. To do so, use the various tools described in the previous sections. The selected folders will be imported.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort by date</td>
<td>Sorts the Result list according to the item dates.</td>
</tr>
<tr>
<td>Sort by Name</td>
<td>Sorts the Result list according to the item names.</td>
</tr>
</tbody>
</table>

This manual.
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 folders (and possibly) whose tags that you can manually assign to the files be-

Other Attributes Set During Import

In addition to the file (and possibly) whose tags that you can manually assign to the files be-

In the Attribute Editor, the following attributes will be assigned:

- For Sounds: the product/bank/sub-bank attributes will be assigned to the files.
- For all file types, any attributes already assigned to the files will be retained.
- If imported (see above), other attributes are automatically set as follows:
  - 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
    the bank.

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) whose tags that you can manually assign to the files be-

In the Attribute Editor, the following attributes will be assigned:

- For all file types, any attributes already assigned to the files will be retained.
- For Sounds: the product/bank/sub-bank attributes will be assigned to the files.
- If imported (see above), other attributes are automatically set as follows:
  - 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
    the bank.

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.
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 opens a locate selection dialog in which you can manually locate the missing Sample.

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. 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.

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 allows you to locate missing Samples.

If you are loading a MASCHINE Project and one or more referenced Sample(s) cannot be found be used as sub-bank.

- **If Samples reside in a subfolder of this subfolder, the name of the lower subfolder will be used as sub-bank.**
Locating or Purging Missing Samples at a Later Time

When Sample references cannot be resolved, two additional commands appear in the context menu of the affected Sound(s) in the Sound List:

- **Purge Missing Samples**
- **Find Missing Samples**

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 the missing Samples for that Sound.

These commands also appear in the context menu of the parent Group in the Group List, as well as in the File submenu of the MASCHINE menu (in the MASCHINE Header):

- In the context menu of the parent Group, these commands will affect all Sounds with missing Samples in that Group.
- In the File submenu of the MASCHINE menu, these commands will affect all Sounds with missing Samples in your Project.
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 is easy to use:

1. Load a sample.
2. Select the Quick Browse feature in the toolbar.
3. Click the magnifying glass icon.
4. The sample will be loaded again.

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.

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 used to display the file. The file will be shown in the Result list. The 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 search query for the corresponding file will be used for the file. 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 in the Zone List.
Quick Browse from Control Mode on the Controller

From your controller you can easily access Quick Browse for Samples and Plug-in presets directly from Control mode:

1. Press PLUG-IN to enter Control mode and access your Plug-ins.

2. Press PLUG-IN to enter Control mode and access your Plug-ins.

3. In this channel, select the desired Plug-in (for a Sample, select the Sampler Plug-in in which it is loaded) — see section 1.3.5. Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.

4. Press PLUG-IN to enter Control mode and access your Plug-ins.

Furthermore, at the bottom right of your controller the Jog Wheel’s ring and the BROWSE indicator light on as well, indicating that the Jog Wheel is ready for browsing!
5. Turn the jog wheel to select the desired Plug-in preset or Sample from the list, and press the jog wheel to load it.

→ The selected file replaces the previous file in your Project.

4. Turn the jog wheel or Knob 8 to select the desired Plug-in preset or Sample from the list.

The Browser automatically recalls the search query used when you loaded that file.

3. Press Button 3 (showing a magnifying glass) to trigger the Quick Browse function.

→ Selected above.

2. Press Button 1 and 2 to select the file type corresponding to the file you have focused.

1. Press Browser to enter the Browser.

Once you have focused/selected the desired file, switch your controller to Browse mode to continue:

1. Press BROWSE to enter the Browser.

2. Press Button 1 and 2 to select the file type corresponding to the file you have focused.

3. Press Button 3 (showing a magnifying glass) to trigger the Quick Browse function.

The Browser automatically recalls the search query used when you loaded that file.

4. Turn the jog wheel or Knob 8 to select the desired Plug-in preset or Sample from the list, and press the jog wheel or Button 8 (LOAD) to load it.

→ The selected file replaces the previous file in your Project.

Quick Browse from Browse Mode on the Controller

You can also access Quick Browse from the Browser on your controller. This notably allows you to perform Quick Browse on Sounds and Groups as well:

1. Press PLUG-IN to enter control mode.

2. If you want to trigger Quick Browse for a Group or a Sound, set the focus to this Group or Sound — see section ↑ 3.3.6, Focusing on a Group or a Sound.

3. If you want to trigger Quick Browse for a Plug-in, set the focus to this Plug-in — see section ↑ 3.3.7, Switching between the Master, Group, and Sound Level and ↑ 3.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.

Quick Browse From Browse Mode on the Controller

You can also access Quick Browse from Sounds and Groups as well:

1. Press PLUG-IN to enter control mode.

2. If you want to trigger Quick Browse for a Group or a Sound, set the focus to this Group or Sound — see section ↑ 3.3.6, Focusing on a Group or a Sound.

3. If you want to trigger Quick Browse for a Plug-in, set the focus to this Plug-in — see section ↑ 3.3.7, Switching between the Master, Group, and Sound Level and ↑ 3.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.

This notably allows you to perform Quick Browse on Sounds and Groups as well:
Managing Sounds, Groups, and Your Project

This chapter explains how to handle the various objects that structure any MASCHINE Project:

5.1 Overview of the Sounds, Groups, and Master

Sounds, Groups, and the Master

This chapter explains how to handle the various objects that structure any MASCHINE Project:

- **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.

- **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 Groups are displayed in the column at the left of the Arranger: the Group List.

- **Sounds** are played by the pads. They are loaded into Sound slots. In the software, in Arrange view Sounds are displayed in the column at the left of the Pattern Editor: the Sound List. 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 on any pad. Sounds are made up of any number of Plug-ins that process the audio signals. In MASCHINE, Sounds are the only objects 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 processing point, respectively). For more information on Plug-ins and how they define the Sounds role, please refer to section 7.1, Plug-in Overview.

In a MASCHINE Project, objects are organized into three hierarchical levels, from the lowest to the highest: Sounds, Groups, and the Master.
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 16.3.3, 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, Managing Sounds and Groups for more information.

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 Groups below for all details. We list here the main differences between both:

- **Managing Sounds, Groups, and Your Project**: Overview of the Sounds, Groups, and Master when the software is in Mix view. Sounds, Groups, and the Master are represented by channel strips in the Mixer.
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 auto-generated.

5.1.3 Selecting Multiple Sounds or Groups

In MASCHINE you can select multiple Sounds or multiple Groups at a time. 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 the parameters (Channel properties, Plug-ins, etc.) of that Sound. For each level (Sound and Group) there is always one object 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.

To change a parameter value for all selected Sounds/Groups at a time, you can select multiple Sounds or multiple Groups.
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 altered. The set of parameters is the current selection. This just means that the Sound List is multipletly selected — nothing special here.

Managing Sounds, Groups, and Your Project

Each Group remembers its own Sound selection and focus.

You cannot select Sounds and Groups simultaneously.

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 an already selected Group or Sound, the selection is moved and the focus is retained.

- A Sound that is out of focus cannot be selected.

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

- 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 List is multipletly selected — nothing special here.
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 these settings.

- **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.

- **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.

- **You can move multiple Sound slots and 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 multiple Groups for more information.** See section 15.2.8, Resetting Sound Slots and 15.3.8, Deleting Groups for more information.

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 parameters (button or selector)**: the values in all selected Sounds/Groups are set to the value of the focused Sound/Group.

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

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:

- **You can adjust the Parameters for the entire selection.** 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 while keeping the ability to modify parameters for the entire selection.
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:

<table>
<thead>
<tr>
<th>Action</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting Objects (Sounds or Groups)</td>
<td></td>
</tr>
<tr>
<td>Click unselected object</td>
<td>Selects the object and sets the focus to it.</td>
</tr>
<tr>
<td>Click selected object</td>
<td>Sets the focus to this object while retaining the focus.</td>
</tr>
<tr>
<td>[Ctrl]-click (Cmd)-click on macOS) unselected object</td>
<td>Adds the object to the selection.</td>
</tr>
<tr>
<td>[Ctrl]-click (Cmd)-click on macOS) selected object</td>
<td>Deselects the object — except for the focused object, which cannot be deselected.</td>
</tr>
<tr>
<td>[Shift]-click object</td>
<td>Selects all objects between the focused one and the [Shift]-clicked one.</td>
</tr>
<tr>
<td>[Ctrl] + [A] (Cmd + [A] on macOS) if some objects are not selected</td>
<td>Selects all objects in the list.</td>
</tr>
<tr>
<td>[Ctrl] + [A] (Cmd + [A] on macOS) if all objects are selected in the list</td>
<td>Deselects all objects except the focused one, which cannot be deselected.</td>
</tr>
</tbody>
</table>

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:

- To select multiple Sounds, use the Select mode: Selecting Objects (Sounds or Groups) function.
- To select multiple Groups, use the Select mode: Selecting Objects (Sounds or Groups) function.
### Selection Tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pads</td>
<td>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 Sounds. The selection behavior depends on the state of the MULTI option (button 8, see below).</td>
</tr>
<tr>
<td>Group buttons A–H</td>
<td>Press any group button to set the focus to that particular Group in the current Group bank. The button lights up to indicate that the Group is focused (and selected). Unlit group buttons cannot be pressed (they correspond to any existing Group), and half-lit group buttons indicate unselected Groups. The selection behavior depends on the state of the MULTI option (Button 8, see below).</td>
</tr>
<tr>
<td>Button 3/4 (PREV/NEXT)</td>
<td>Selects the previous/next Group bank, respectively.</td>
</tr>
<tr>
<td>Button 5 (ALL)</td>
<td>Selects all Sounds in the current Group without changing the focus.</td>
</tr>
</tbody>
</table>

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

Press and hold SELECT to enter Select mode. You can also press SELECT + Button 1 to pin this mode and make it permanent.
Managing Sounds

5.2 Managing Sounds

The Selection Tool controller.

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

Controller.

Selection Tool

Description

Button 6 (NONE)

Deselects all Sounds in the current Group except the focused Sound.

Button 8 (MULTI)

Enables/disables the multiple selection mode. Toggling this button does nothing to the current focus or selection but changes the behavior of the selection process — see below.

The MULTI option (Button 8) switches between single and multiple selection:

- When MULTI is enabled (Button 8 on):
  - Pressing the Group button / pad of a selected Group/Sound selects that Group/Sound without changing the current focus. The Group button / pad lights up.
  - Pressing the Group button / pad of an unselected Group/Sound adds it to the current Group/Sound selection without changing the current focus. The Group button / pad lights up.
- When MULTI is disabled (Button 8 off):
  - Pressing the Group button / pad of an unselected Group/Sound sets the focus to that Group/Sound and clears the current Group/Sound selection.
  - Pressing the Group button / pad of a selected Group/Sound only sets the focus to that Group/Sound and clears the current Group/Sound selection (only the focused Group/Sound sets the focus to that Group/Sound).

The MULTI option (Button 8) switches between single and multiple selection.

<table>
<thead>
<tr>
<th>Description</th>
<th>Button 6 (NONE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deselects all Sounds in the current Group except the focused Sound.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Button 8 (MULTI)</td>
</tr>
</tbody>
</table>

- Enables/disables the multiple selection mode. Toggling this button does nothing to the current focus or selection but changes the behavior of the selection process — see above.

Sounds: Sound List or Pad View

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

Managing Sounds, Groups, and Your Project
The Pad view can be shown by activating the Pad View button above the Sound List:

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 16.1, Adjusting the Pads for more information.

You see it, both selections are strictly equivalent.

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

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

The Pad view can be shown by activating the Pad View button above the Sound List.
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 from your operating system and drop it onto the desired Sound slot in the Sound List or the corresponding cell of the pad grid. 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 the context menu, select "Open…" to load the Sound.

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 14, 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.

▪ 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.
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, use the Select mode:

1. In the focused Group, pre-listen to Sounds in the focused Group is working out of the box. You don't need to enable anything.

2. When you press a pad, you both trigger its Sound and bring it into focus at once. Hence, you can pre-listen to Sounds actually is the default behavior: In control mode, Sounds cannot be moved within the Sound List when Pre-listen (speaker button) is switched on.

3. 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.

4. To pre-listen to Sounds in the focused Group:
   - Click the speaker button above the Sound List (or in Pad view) to enable/disable Sound pre-listening in the focused Group.
   - You can pre-listen to the Sounds of the focused Group as you set the focus on them in the focused Group.

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

5.2.4 Changing the Sound's Color

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.
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, so 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.

5.2.3 Renaming Sound Slots

By default, Sound slots are named Sound 1-16. If you load a Sound, a Plugin preset or a Sample (e.g., from the Browser), 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, or from your controller.

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.

The Sound slot's name is now highlighted and editable.

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.
2. Modify the name of the Sound slot via your computer keyboard. Press [Enter] on your computer keyboard to confirm.
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:

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

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):

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

**Managing Sounds**

**Managing Sounds, Groups, and Your Project**

- 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.

When you move a Sound in the Sound List, the Sound is moved as a whole object. If you move a Sound, its position and size are preserved. The Sound is moved to a new position in the Sound List.

By default, Sounds in a Group inherit the color of their Group. But you can choose another default color for Sounds in a Group. See section ▲ 3.6.8, Preferences – Colors Page.

When you move a Sound, the Sound moves in the Sound List as well. You can move Sounds to different positions in the Sound List. Each Sound can be in a different position in the Sound List.

Saving Sounds

You can save your Sounds as individual files (extension „.mxisnd“). This can be only done in the software.

5.2.5 Saving Sounds

You can save your Modifications into the Original Sound File.

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.
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.

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

### 5.2.6 Copying and Pasting Sounds

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 will be saved in your User library (as defined in Preferences > Default Page, see section 
↑ 3.6.4, Preferences – Default Page for more information). If you don’t save a Sound individually, its current settings will still be saved with your Project.

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

Even if you don’t save a Sound individually, its current settings will still be saved with your Project.

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Even if you don’t save a Sound individually, its current settings will still be saved with 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 (macOS: [Ctrl]-click) the Sound slot (in the Sound List or in the Pad view).
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).

→ 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:

1. 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.

Managing Sounds, Groups, and Your Project

Managing Sounds
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:

1. Press and hold DUPLICATE.
2. If you want to duplicate a Sound including its Pattern content, enable the EVENTS option.
3. 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.

The copying procedure for multiple Sounds is as follows:

1. Press DUPLICATE.
2. Enable the EVENTS option if you want to duplicate a Sound including its Pattern content.
3. When you copy a selection of Sounds, they are both placed into the clipboard and kept in the Sound List. 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! 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 Pattern list (as in the source Group). 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.

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 the existing Sounds in the Sound slots 14, 15, and 16, respectively, while the Sound 7 won't be pasted at all.
4. Press the pad of the target sound slot (this can also be in another Group, in which case, first press the desired Group button).

To move one or more sounds:

1. Click and hold the desired Sound slot(s) in the Sound List or in the Pad view.

All parameters of the Sound will be copied (including the Pattern content for that Sound if you have enabled the +EVENTS option). The copied Sound will replace any Sound previously loaded in the target slot.

You will notice that once you have pasted the Sound, the target pad starts blinking itself, indicating that it is ready to be pressed to play the Sound.

For more information, see 5.2.7, Moving Sounds.

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

You can reorder Sounds via drag-and-drop in the software. It can be helpful to organize your Sounds more conveniently. Helpful, this allows you to move your Sounds to other pads, and create a group that is easier to play from the pads.

Instead of holding DUPLICATE, you can also pin the Duplicate mode by pressing DUPLICATE + Button 1. You can then release DUPLICATE: Your controller will stay in Duplicate mode until you instead of holding DUPLICATE again. See 5.2.7, Moving Sounds, 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.

All parameters of the Sound will be copied (including the Pattern content for that Sound if you have enabled the +EVENTS option). The copied Sound will replace any Sound previously loaded in the target slot.

You will notice that once you have pasted the Sound, the target pad starts blinking itself, indicating that it is ready to be pressed to play the Sound.

For more information, see 5.2.7, Moving Sounds.

You can select multiple Sounds to move them all at once! See ↑ 5.1.3, Selecting Multiple Sounds or Groups for more information.
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(s) to the "+" at the end of the Group List, a new Group is automatically created.

3. When the insertion line appears at the desired location in the Sound List or on 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.

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.

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

If you drag the Sounds to the "+" at the end of the Group List, a new Group will automatically get created. The Sounds will be inserted in the first empty Sound slots of that Group, and that Group will automatically get the focus. The Sounds will be triggered by the pads whose numbers appear left of the Sound slots in the Sound List or on the Pad view. 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 Pad view.
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 Sound is removed from the pad, and the pad is turned off.

To reset a Sound slot on your controller:

1. 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.

The content of the Sound slot is removed and the Sound slot is reset to its default settings and name.

Managing Sounds

Managing Sounds, Groups, and Your Project
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.
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.

Both context menus are equivalent; use either menu as you see fit.
Creating Groups on Your Controller

On your controller, existing Groups are indicated by the lit Group buttons A–H:

- The focused Group is indicated by the fully lit Group button.
- The other Groups of your Project are indicated by half-lit Group buttons, each Group button showing the color of the corresponding Group.
- In the last Group bank the last half-lit Group button 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 SHIFT and press the last lit Group button to select the last Group bank.
2. Release SHIFT.
3. Press the dimmed white Group button after all other lit Group buttons.

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

If the last Group bank already contains eight Groups, a new Group bank is automatically created in that bank. As long as the last Group bank contains less than eight Groups, the new Group is created in the last Group bank.

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 the last Group 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.

Managing Sounds, Groups, and Your Project
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 name in the top left corner of the Pattern Editor.

- **Context menu**: Right-click (Alt-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 ↑ 4.2, Searching and Loading Files from the Library.

You can also 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.

### 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 Group slot. See section ↑ 4.8, Using Quick Browse for more information.

To learn more about the Browser, refer to ↑ 4.2, Searching and Loading Files from the Library.

You have many methods at your disposal to load a Group whether you are in Ideas view or Song view.
5.3.3 Renaming Groups

By default, new Groups are named Group A\textsubscript{x} – H\textsubscript{x}, “x” indicating the bank number (Group A1 – H1, Group A2 – H2, etc.).

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

1. Double-click the name of the desired Group in the Group List or right-click (\text{[Ctrl]}-click on macOS) the Group and select Rename from the context menu. Group renaming is performed like Sound renaming.
2. Modify the name of the Group. Press \text{[Enter]} on your computer keyboard to confirm.

If you use MASCHINE as a plug-in, some hosts will utilize the \text{[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:

- By default, new Groups are named Group A\textsubscript{x} – H\textsubscript{x}, “x” indicating the bank number (Group A1 – H1, Group A2 – H2, etc.).
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, and MASCHINE MIKRO MK2 controllers, and the pads of the MASCHINE MIKRO MK3 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 13.6.8, 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 project. 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 described above. The Group will retain its color.

3. 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 13.6.8, Preferences – Colors Page for more information.
5.3.5 Saving Groups

You can save your Groups as individual files (extension "*.mxgrp"). This can only be 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:

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 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.
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.

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 13.6.4, 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.

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.

To copy and paste groups in the software:

You can copy and paste groups in your Project.

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.
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 multiple Groups, they are both placed into the clipboard and kept in the Group List.
When you paste a selection of Groups onto an existing Group, the pasted Groups replace that Group and the following Groups.

Example: If you paste the Groups A1 and B1 onto the Group E2, the duplicates of A1 and B1 will replace the Groups E2 and F2, respectively (if, say, F2 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.

Duplicating Groups on Your Controller

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

1. Press and hold DUPLICATE.
2. If you want to duplicate a Group including its Patterns, enable the +EVENT option (but otherwise leave the Groups selected).
3. Press the Group button of the Group you want to copy.

Another: when you paste a selection of Groups onto an existing Group, the pasted Groups replace that Group and the following Groups.

Managing Groups, Sounds, and Your Project

Managing Groups
4. Press the Group button of your target Group (this can also be in another Group bank, in this case first press Button 3/4 to select the Group bank). If you want to paste the Group without affecting the existing Groups, press the dim white Group button after the last colored Group button 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 Group button 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 Group button you just have to press all the desired target Group buttons in a row.

Press DUPLICATE again. See section 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.
3. When the insertion line appears at the desired location, release the mouse button.

As the mouse cursor moves, an insertion line appears at the potential places where you intend to drop the Group.

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

5.3.7 Reordering Groups
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 for more information.

To delete a Group, select it in the Group List and press [Del] on your computer keyboard.

The Group is removed. All following Groups are shifted up in the Group List to fill the gap.

If the last Group bank is empty after the Groups have been shifted, the bank is deleted.
Deleting a Group on Your Controller

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

► To delete a Group, hold **SHIFT** + **ERASE** and press the Group button of the Group you want to delete.

→ The Group is removed. All following Groups are shifted left to fill the gap.

Exporting MASCHINE Objects and Audio

This section describes how to save single Groups or whole Projects for use in another MASCHINE installation, and how to export audio from various sources in your Project.

You can also export your Patterns as audio or MIDI files via drag and drop. This is described in section 5.4. Exporting MASCHINE Objects and Audio.

Exporting Audio from Patterns

Drag and drop your Patterns as audio files into a MASCHINE installation to load them into Groups.

Exporting MIDI from Patterns

Drag and drop your Patterns as MIDI files into a MASCHINE installation to load them into Groups.
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.

Managing Sounds, Groups, and Your Project

Exporting MASCHINE Objects and Audio

5.4.1 Saving a Group with its Samples

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Group name</td>
</tr>
<tr>
<td>Pattern</td>
<td>Pattern name</td>
</tr>
<tr>
<td>Color</td>
<td>Group color</td>
</tr>
<tr>
<td>Export Media</td>
<td>Export media settings</td>
</tr>
<tr>
<td>Open Media</td>
<td>Open media settings</td>
</tr>
<tr>
<td>Save With</td>
<td>Save with samples</td>
</tr>
<tr>
<td>Save Files</td>
<td>Save files</td>
</tr>
<tr>
<td>Export MIDI</td>
<td>Export MIDI</td>
</tr>
<tr>
<td>Import MIDI</td>
<td>Import MIDI</td>
</tr>
<tr>
<td>Save As</td>
<td>Save as</td>
</tr>
<tr>
<td>Open</td>
<td>Open</td>
</tr>
</tbody>
</table>

Sometimes it is useful to have the ability to save a Group with its Samples outside of the MA-
## 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.

**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.

<table>
<thead>
<tr>
<th>Controls</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Displays the name and location of the Group file to be created.</td>
</tr>
<tr>
<td></td>
<td>Delete Unused Files</td>
</tr>
<tr>
<td></td>
<td>Enable this checkbox to delete unused files, thereby minimizing the amount of audio data to be exported.</td>
</tr>
<tr>
<td></td>
<td>Right to choose another name and/or path.</td>
</tr>
</tbody>
</table>

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.
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.

Managing Sounds, Groups, and Your Project
Exporting MASCHINE Objects and Audio
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 of your complete arrangement as audio files. In the Song view, the Export Audio panel can be used to export any individual Sections of the arrangement as audio files. See section ↑ 5.4.1, Saving a Group with Its Samples, for more information.

### Exporting Audio

- **Export Audio Panel:**
  - Available from both the Ideas view and Arrangement view.
  - In the Ideas view, can export individual Scenes or all Scenes at once.
  - In the Song view, can export your complete Project arrangement depending on the Loop range.

- **Export Settings:**
  - The exact length of the exported audio file depends on the Loop Optimize setting in the Option section.
  - Export settings for the exported audio file are determined by the particular Sound/Group and the exported region.

- **Source Selection:**
  - The Export Audio panel contains options to select the source you want to export such as the Master, Groups, or Sounds.

- **Unused Files:**
  - Enable this checkbox to delete unused files, thereby minimizing the amount of audio data to be exported.

- **Folder Icon:**
  - Click the folder icon on the right to select another name and path.

- **Project:**
  - Displays the name and location of the Project file to be created. The Project file will be saved in the same location as defined in Preferences > Library > User Location. By default, the Project file inherits the name of the Project directory, which is defined in Preferences > Library > User Directory > Projects.

- **Description:**
  - Describes the name and location of the Project file to be created.

- **Delete Unused Files:**
  - Option to delete unused files upon exporting.

### Exporting MASCHINE Objects and Audio

- Managing Sounds, Groups, and Your Project

---

**Managing Sounds, Groups, and Your Project**

- **Project:**
  - Displays the name and location of the Project file to be created. The Project file will be saved in the same location as defined in Preferences > Library > User Directory > Projects.

- **Delete Unused Files:**
  - Option to delete unused files upon exporting.

- **Export Audio Panel:**
  - Available from both the Ideas view and Arrangement view.
  - In the Ideas view, can export individual Scenes or all Scenes at once.
  - In the Song view, can export your complete Project arrangement depending on the Loop range.

- **Export Settings:**
  - The exact length of the exported audio file depends on the Loop Optimize setting in the Option section.
  - Export settings for the exported audio file are determined by the particular Sound/Group and the exported region.

- **Source Selection:**
  - The Export Audio panel contains options 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.

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.

You will be presented with the Export Scenes as Audio panel (see picture below).
The **Source** section allows you to define exactly what will be exported.

**Source Section**

The following parameters are available in the Export Audio panel, which is split into three distinct sections:

- **Source**
- **Options**
- **Destination**

![Diagram of the Export Scenes as Audio panel]

**Managing Sounds, Groups, and Your Project**

**MASCHINE STUDIO - Manual - 260**
### 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**
- **All**: Select this option to export all Scenes as audio.
- **Selected**: Select this option to export the selected Scene as audio.

**In Song view**
- **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 Source 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 containing only empty Sound slots are not listed. Click the check boxes of the desired Groups in the list to include/exclude the corresponding Groups.
- **Sound Outputs**: Select this to export the output signals of specific Sounds to individual audio files. When this option is selected, the Output list underneath shows all Sounds available for exporting. Empty Sounds containing only empty Sound slots are not listed. Click the check boxes of the desired Sounds in the list to include/exclude the corresponding Sounds.

---

### Managing Sounds, Groups, and Your Project

**Exporting MASCHINE Objects and Audio**

Managing Sounds, Groups, and Your Project
Exporting MASCHINE Objects and Audio

### Managing Sounds, Groups, and Your Project

**Element**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 &quot;dimmed checked.&quot;</td>
</tr>
</tbody>
</table>

**Options Section**

The Options section allows you to make settings related to the quality of the audio export.

<table>
<thead>
<tr>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option</td>
</tr>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Options</td>
</tr>
<tr>
<td>Normalize</td>
</tr>
<tr>
<td>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).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Options</td>
</tr>
<tr>
<td>Loop Optimize</td>
</tr>
<tr>
<td>Check this option to export audio within the loop brackets. If the loop spans multiple Section, 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. For example, to keep the tail of a reverb, the end of the exported audio will always correspond to a bar division.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Options</td>
</tr>
<tr>
<td>Split By Section</td>
</tr>
<tr>
<td>Check this option to export audio within the loop brackets. If the loop spans multiple Section, 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. For example, to keep the tail of a reverb, the end of the exported audio will always correspond to a bar division.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Options</td>
</tr>
<tr>
<td>Type</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>
### 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
- 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 but also expect to export 16 or 24-bit audio files. This setting will also allow greater headroom when using other audio processing plug-ins.

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Options</td>
<td>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.</td>
</tr>
<tr>
<td>Name</td>
<td>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 name of the destination file.</td>
</tr>
</tbody>
</table>

#### 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 **Master Output** is selected in the **Output** menu the audio file will be named as follows:

  - **[Project name] - [Sample Rate] Sample Rate - [Bit Depth].wav/aiff**

- If **Master Output** is selected in the **Output** menu the audio file will be named as follows:

  - **[Project name] - [Sample Rate] Sample Rate - [Bit Depth] - [Folder].wav/aiff**

- If **Master Output** is selected in the **Output** menu the audio file will be named as follows:

  - **[Project name] - [Sample Rate] Sample Rate - [Bit Depth] - [Folder] - [Name].wav/aiff**

- If **Master Output** is selected in the **Output** menu the audio file will be named as follows:

  - **[Project name] - [Sample Rate] Sample Rate - [Bit Depth] - [Folder] - [Name] - [Extension].wav/aiff**

- If **Master Output** is selected in the **Output** menu the audio file will be named as follows:

  - **[Project name] - [Sample Rate] Sample Rate - [Bit Depth] - [Folder] - [Name] - [Extension] - [File Number].wav/aiff**

- If **Master Output** is selected in the **Output** menu the audio file will be named as follows:


### Managing Sounds, Groups, and Your Project
Exporting MASCHINE Objects and Audio
If Group Outputs is selected in the Output menu the audio files will be named as follows:

\[ \text{[Project name]} - \text{[Group order number]} \text{ [Group index (letter + number)]} \text{ [Group name]} - \text{[BPM]}.\text{wav/aiff} \]

The Group order number is a two-digit number indicating the “order of appearance” of the Group on 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:

\[ \text{[Project name]} - \text{[Sound name]} - \text{[BPM]}.\text{wav/aiff} \]

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,” “ - ”, “ - Z” 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.

MASCHINE supports REX (ReCycle) files to be loaded. REX files are loops that are already sliced and mapped to MIDI notes.

The Samples are loaded into the Sound slot. A new Pattern is created in that Group and loaded into the Sound slot. A new Pattern is created in that Group and

- The Samples are loaded into the Sound slot. A new Pattern is created in that Group and

Managing Sounds, Groups, and Your Project
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.

Supported Parameters:

<table>
<thead>
<tr>
<th>Parameter Type</th>
<th>MPC Parameter</th>
<th>MASCHINE Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-shot, AHD</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Playback Type (ADSR)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Sample Name</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Sample Pan</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Zone Pan</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Zone Level</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Sample Level</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Note: This table represents the supported parameters for importing MPC Program files into MASCHINE. 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.

Importing Third-Party File Formats

MASCHINE STUDIO - Manual - 265
1. To import an MPC Program file, open the Browser in the MASCHINE software and click the FILES tab.

### Importing MPC Program Files

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MPC2000 (XL)</th>
<th>MPC3000</th>
<th>MPC400</th>
<th>MPC500, 1000, 2500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mute Group</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Track Pan</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Track Level</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Filter1 Type</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Filter1 Frequency</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Filter1 Resonance</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Filter1 Velocity to Frequency</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Track Pan</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Mute Level</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Frequency</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Filter1 Velocity to Resonance</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Filter1 Type</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Voice Overlap</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Managing Sounds, Groups, and Your Project

Importing Third-Party File Formats
2. Navigate to the MPC Program file you want to import and double-click it.

You will be prompted with the MPC Import panel:

You can select one of the import options (see table below).

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).
<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import All Banks</td>
<td>Select this to import all Banks of the MPC Program file. Each Bank will be loaded into a separate Group.</td>
</tr>
<tr>
<td>Import One Bank</td>
<td>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.</td>
</tr>
</tbody>
</table>

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

6.1.1, 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.

Most of the settings for your pads are available both in the software via the Pad View (see section 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).

- Create Link Groups to trigger several Sounds by pressing only one pad: 6.1.5, Using Link Groups.
- Set Choke Groups to selectively cancel Sounds when other Sounds are triggered: 6.1.4.
- Adjust the base key to set the pitch of the notes played by your pads: 6.1.3, Adjusting the Base.
- Choose a pad mode that best fit your playing needs: 6.1.2, The Pad View in the Software.

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

6.1 Adjusting the Pads

6.1.1, The Pad View in the Software

6.1.2, Choosing a Pad Input Mode

6.1.3, Adjusting the Base

6.1.4, Using Choke Groups

6.1.5, Using Link Groups
Under the grid of pads, you find following parameters:

- Playing on the Controller
- Adjusting the Pads
- Playing on the Control

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 15.2.7, Moving Sounds).
- Right-click ([Ctrl]-click on macOS) any pad to open the same context menu as in the Sound List (see section 15.2, Managing Sounds). The management commands available in this menu are described in section 15.2, Managing Sounds.
- You can select multiple pads in the grid of pads as you can in the Sound List, and adjust parameters for all of them simultaneously. For more information on multiple selection, see section 15.1.3, Selecting Multiple Sounds or Groups.

The Pad view replaces the Sound List.
### 6.1.2 Choosing a Pad Input Mode

By default, your pads play all Sounds of the selected Group (Pad Mode). Further, the Sound played by each pad is velocity sensitive, meaning they will play louder if you hit them harder.

#### Playing on the Controller

![Image of the controller with pads and displays showing pad modes and parameters.](image)

#### Adjusting the Pads

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key</td>
<td>Adjusts the base key for the selected pad. See section 6.1.5, Adjusting the Base Key below.</td>
</tr>
<tr>
<td>Choice</td>
<td>Configures the Choke Group for the selected pad. See section 6.1.4, Using Choke Groups below.</td>
</tr>
<tr>
<td>Link</td>
<td>Configures Pad Link for the selected pad. See section 6.1.4, Using Pad Link Groups below.</td>
</tr>
</tbody>
</table>

#### To enter Pad Mode

Press and hold the PAD MODE button. You can also press PAD MODE + Button 1 to pin this mode and make it permanent.

#### Changing the behavior of the pads using Pad Mode

Change this behavior and choose another pad mode in order to adapt your pads to various situations. By default, your pads play all Sounds of the selected Group — we call this Pad Mode.
### Parameter Description

#### KEYBOARD (Button 2)
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. The right display indicates the pitches played by each pad (all are shown in the color of the focused Sound). See the next paragraph for a detailed description. Please note that Keyboard mode is not compatible with 16 Velocities mode (see below).

#### 16 VELOCITIES (Button 3)
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 right display indicates the velocity values for each pad (all are shown in the color of the focused Sound). Please note that 16 Velocities mode is not compatible with Keyboard mode (see above) nor the Fixed Velocity option (see below).

#### FIXED VEL (Button 4)
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.

#### OCTAVE- (Button 5-8)
Adjust the base key for the selected pad. See Section Adjusting the Base Key below.

#### Choke section (Knob 1 and 2)
Configures the Choke group for the selected pad. See Section 6.1.4, Using Choke Groups for more information.

#### Link section (Knob 3 and 4)
Configures the Link group for the selected pad. See Section 6.1.5, Using Link Groups for more information.
Using 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 Button 1 (you can select a Sound by pressing the pad it is assigned to).
3. Press Button 2 to enter Keyboard mode.

---

Adapting the Pads

Parameter Description

Fixed Velocity (Knob 1)

Page 2

Description Parameter

Playing on the Controller

Keyboard mode selected on the controller displays in 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. The current scale is indicated on the right display.

Alternatively, you can use the following shortcut:

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 to indicate that Keyboard mode is active.

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.
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. It does not affect the notes recorded in your Patterns.

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 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.

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. 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.

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. 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.
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 Pads on Your Controller

1. Hold the PAD MODE button to enter Pad Mode. On the right display, the key indicated for pad 1 (in the bottom left corner) is the current base key.

2. Hold the PAD MODE button to enter Pad Mode. To change the base key of the selected pad(s) / Sound slot(s) on your controller:

   - Click the Key value and drag your mouse vertically, or double-click it, enter a new value.

3. Release PAD MODE (or press it again if you pinned the mode). The new values are indicated for all pads on the right display.
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!
When your pads are in Pad Mode, link groups allow you to link pads with each other. This can be assigned to one of eight link groups. A pad may be set as a master or slave in the link group:

1. Hold the PAD MODE button to enter Pad Mode.
2. If necessary, press the Page Left button to switch to the first Parameter page of the Pad Mode.
3. Turn Knob 1 (CHOKE GROUP) 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. Turn Knob 2 (CHOKE MODE) to select the Choke mode from MASTER (default setting) or SLAVE for that pad.
5. 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 set as a master or slave in the link group:

1. Hold the PAD MODE button to enter Pad Mode.
2. If necessary, press the Page Left button to switch to the first Parameter page of the Pad Mode.
3. Turn Knob 1 (CHOKE GROUP) 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. Turn Knob 2 (CHOKE MODE) to select the Choke mode from MASTER (default setting) or SLAVE for that pad.
5. Release PAD MODE (or press it again if you pinned the mode).

6. Adjusting the Pads

When adjusting the pads, you can:

- Select a Pad from the list (middle). The new pad is applied to all selected sounds.
- Select a Choke from the list (bottom). The new Choke is applied to all selected sounds.
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 with the same group. A Link group makes sense only if more than one pad/sound are assigned to it.

3. In the same 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.

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.

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

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

- **Click the Pad View button above the Sound List in the Pattern Editor to show the Pad view for the focused Group.**
- 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.
- In the **Link** section click the **Mode** value (**Master** or **Slave**). To switch the Sound between **Master** (default setting) and **Slave** mode.

A Link group only affects 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 allows 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*.

Link groups are a “live” feature: They only affect the note triggers in Record mode. Link groups can’t also be changed during playback. But the MIDI notes controlling your Sounds.

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

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

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

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.

Adjusting the Link Parameter for Multiple Sounds with different Link Values

Playing on the Controller

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Adjusting the Pads

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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 slots 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 + Button 1 to pin it).
2. If necessary, press the Page Left button to switch to the first Parameter page of the Pad Mode.
3. Turn Knob 3 (LINK GROUP) 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. Turn Knob 4 (LINK MODE) to select the Link mode from MASTER (default setting) or SLAVE for that pad.
5. Release PAD MODE (or press it again if you pinned the mode).

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

Playing on the Controller:

Adjusting the Pads

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

In the software, if you select multiple Sounds with different Key, Choke, or Link values, the corresponding parameters (left) display a multi value for all selected Sounds. While dragging the MULTI label next to Key and Link, you can transpose the base key and link value for all selected Sounds. When you release the mouse button, a transpose value appears (right) that will be applied to all selected Sounds. This also applies when adjusting the parameters from your controller.

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/-x value indicating the transposition that will apply to all Sounds as you release the mouse button.

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 the same Choke or Link group, respectively. This also applies when adjusting the parameter from your controller.

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

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

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

▪ **Groove** allows you to give a shuffling flair to individual Sounds/Grooves or to your entire Project: 6.3.2, Groove.

▪ **Choke All Notes** allow you to cut all playing audio: 6.3.2, Choke All Notes.

Your Controller.

- **Hardware Shortcuts** give you a quick access to the most important parameters of each channel (Sound, Group, and Master): 76.3.4, Level, Tune, Tempo, and Groove shortcuts on.

Playing on the Controller.
6.3.1 Mute and Solo

Muting is used to silence a Sound or a Group, whereas 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 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.

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

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.

Playing on the Controller

To solo a Sound, right-click (on macOS: [Ctrl]-click) the number on the left side of the Sound slot in the Pattern Editor.

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.

Playing Tools

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Muting a Sound

1. To mute a Sound, click the number on the left side of the Sound slot in the Pattern Editor.

2. To unsolo a Group, right-click (on macOS: [Ctrl]-click) the Group index 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.

2. To unsolo a Group, right-click (on macOS: [Ctrl]-click) the number again.
Muting a Sound.

1. To mute the Sound, click the number again.

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:

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

In Control mode, press Button 4 (SOLO) to solo the focused Sound or Group.

This controller provides an additional shortcut for the Solo function:

► In Control mode, press Button 4 (SOLO) to solo the focused Sound or Group.

Your MASCHINE STUDIO controller provides an additional shortcut for the Solo function:

In Control mode, press Button 4 (SOLO) to solo the focused Sound or Group.

Playing on the Controller

Playing on the Controller

More Information:

Note also mute for Sounds to mute both events and audio — see the beginning of this section for more details. 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, but this is less common.

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.
At the Sound level, the Groove properties settings of a Sound affect that single Sound.

A groove configured for a channel affects all the contained channels:

The groove can be adjusted for each channel individually via its Groove properties.

Groove

6.3.2

Choke All Notes

The Choke All Notes feature allows you to kill any note or event currently playing in your Project or Master. By shifting some of the events, you can e.g. give a shuffle/terrany touch to your Patterns.

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 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.

▪ as a workflow aid, to stop long one-shot Samples that continue playing after you have stopped the sequencer.

▪ as a creative tool in a live performance, e.g., to create stutter breaks.

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 re-activated 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 shuffle/terrany touch to your Patterns.

The groove can be adjusted for each channel individually via its Groove properties.

Groove properties

A groove configured for a channel affects all the contained channels:

▪ At the Sound level, the Groove properties settings of a Sound affect that single Sound.

Groove

Playing Tools

Pressing Button 4 (Solo) again will unsolo the Sound/Group.
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.

- At the Master level, the Groove properties affect all Sounds of all Groups.
- At the Group level, the Groove properties settings of a Group affect all Sounds of the Group.
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.

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. The following settings are allowed:

- Bottom: Amount at 0.0% and Invert enabled.
- Middle: Amount at 100.0% and Invert off.
- Top: Amount at 0.0% (no groove).

This is how the same regular rhythm would sound with various groove settings:

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 0.0% and Invert enabled.

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.

How Groove Affects the Rhythm: An Example

<table>
<thead>
<tr>
<th>Description</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invert</td>
<td>Cycle</td>
</tr>
<tr>
<td>Amount</td>
<td>Swing Section</td>
</tr>
</tbody>
</table>

Playing on the Controller
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 various sets of shortcuts:

Level Shortcuts in the Master Section

• Finally you can quickly adjust the output level of the Master or any Sound/Group via the TAP button.
• You can also quickly alter the output level, the tune, and the groove of any Group or Sound via the Quick Edit functions available in the EDIT section of the controller.
• You can quickly alter the output level of the Master (for both the main and cue outputs) of any Sound/Group via the Master section of the controller.
• You can quickly adjust the tempo of your Project via the TAP button.

Playing on the Controller

Playing Tools

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1. To change the output level of the Master (i.e., the overall output level of MASCHINE), press \textit{MST} and turn the Level knob.

2. To change the output level of the Cue bus, press \textit{CUE} and turn the Level knob.

3. To change the output level of a Group, press \textit{GRP} in the Master section, and turn the Level knob.

4. To change the output level of an individual Sound, press \textit{SND} in the Master section, and turn the Level knob.

The \textit{SHIFT} button allows you to adjust the value in finer increments. These shortcuts control the \textit{LEVEL} parameter of the Audio and Cue sections in the Audio and Cue sections of the Audio page of the Audio and Cue section, respectively.
In the software you can also adjust the output level of the Master via the Master Volume slider in the right part of the Header:

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

Level, Tune, and Groove Shortcuts via the Quick Edit functions

In the EDIT section of your controller you can use quick edit functions to quickly adjust the output level, the tune, and the groove of your individual Groups and Sounds.

If you want to adjust the level, tune and/or swing values for a Sound, hold its pad (or hold SELECT + the pad of the desired Sound, then hold any pad (let's any pitch of that Sound)).

Press SELECT + its pad if the pads are in Keyboard mode; in Keyboard mode you can also select + its pad if the pads are in Keyboard mode. In Keyboard mode you can also hold its pad (or hold SELECT + its pad if the pads are in Keyboard mode).

In the EDIT section of your controller, here with the TUNE function active:
2. If you want to adjust the level, tune and/or swing values for a Group, hold its Group button (first navigate to its Group bank if necessary).

3. While holding the pad or group button, use the Left/Right FUNCTION buttons at the bottom of the EDIT section to select the desired function (TUNE, SWING or VOLUME lit under the jog wheel), and turn the jog wheel to adjust the corresponding value.

Press and turn the jog wheel (or hold SHIFT while you turn it) to adjust the value in finer increments.

The following parameters are affected:

- When VOLUME is selected (lit), the shortcut controls the LEVEL parameter in the Audio page of the Output properties for the selected Group or Sound. See section 12.1.2, Configuring the Main Output of Sounds and Groups for a detailed description of these Channel properties.
- When SWING is selected (lit), the shortcut controls the AMOUNT parameter in the Swing page of the Groove properties for the selected Group or Sound. See section 6.3.3, Groove for a detailed description of these Channel properties.
- When TUNE is selected (lit), the shortcut works only with Sounds containing a Sampler or Drumsynth Plug-in. The shortcut controls the TUNE parameter of the Pitch / Gate section in the Pitch / Envelope page of the Sampler, and the TUNE parameter of the Main section 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 12.1, Page 1: Voice Settings / Engine for the Sampler and section 9.1.5, Pitch Range, Tuning, and MIDI Notes for the Drumsynths.

Tempo Shortcut

You can quickly define the tempo of your Project via the TAP button in the PERFORMANCE section of the controller:

- Repeatedly tap the TAP button to set the desired tempo.
- Hold TAP and turn the jog wheel to quickly adjust the tempo of your Project.
- You can also use the TAP button to adjust the current tempo.

You can quickly define the tempo of your Project via the TAP button in the PERFORMANCE section of the controller:

- Repeatedly tap the TAP button to set the desired tempo.
- Hold TAP and turn the jog wheel to quickly adjust the tempo of your Project.
- You can also use the TAP button to adjust the current tempo.

Playing on the Controller

Playing Tools
Press and turn the jog wheel (or hold SHIFT while you turn it) to adjust the value in finer increments.

These shortcuts control the Tempo parameter of MASCHINE. In the software this parameter is available in the Header:

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

The Performance features of MASCHINE are inspired by similar features available in KOMPLET 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 following features 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).

- **The Scale and Chords engine** allows you to assign the pads to notes within specific scales.

- **The Arpeggio engine** allows you to create arpeggios based on the pads you press on the chord.

- **The Arpeggio engine** allows you to create arpeggios based on the pads you press on the chord.

This tight integration offers a familiar and seamless workflow.

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 (e.g., the Scale module), red cells represent modules sending audio signals (e.g., the Chord module). The Scale and Chord modules can feed the Arp module, the Scale module can also affect the Chord module, whereas red cells represent message (e.g., "note messages" sent by the pads as you press them), whereas red cells represent message (e.g., "note messages" sent by the pads as you press them).

In the diagram, blue cells represent modules sending "control" signals, i.e., triggering messages. In this picture, blue cells represent modules sending "control" signals, i.e., triggering messages. The notes played on your pads are first sent to the Perform features (Scale, Chord, and Arp) the Chord module, a we will see later.

The Scale module can also affect the Chord module, as we will see later. The Scale and Chord modules can feed the Arp module, the Scale module can also affect the Chord module, whereas red cells represent message (e.g., "note messages" sent by the pads as you press them), whereas red cells represent message (e.g., "note messages" sent by the pads as you press them).

In this diagram, you will notice the following:

The notes played on your pads are sent to the Perform features (Scale, Chord, and Arp) when your pads are in Keyboard mode.
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.
- **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.

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

Playing on the Controller
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 1.4.3, 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. Press the PAD MODE button to enter Pad Mode (or press PAD MODE Button 1 to pin it).
3. Press Button 2 (KEYBOARD) to enable Keyboard mode.
4. Check that the first page of parameters are selected (1/2 displayed at the bottom right of the left display), if it's not the case press the dimmed left Page button to select it.
5. Turn Knob 1 (SCALE TYPE) to select Minor Pentatonic.

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

Hit a few pads: They trigger the notes from the Minor Pentatonic scale on D. Furtbere more the root octaves are highlighted and the corresponding pads on your controller are fully lit.

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

Press Button 8 (SEMITONE+) twice.

→ Hit a few pads: They trigger only notes from the selected scale. The right display shows the particular note played by each pad. Furthermore the root note (C3) by default (and its octaves) are highlighted and the corresponding pads on your controller are fully lit.

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

Playing on the Controller

Performance Features

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1. Turn Knob 3 (Chord MODE) to select Harmonizer.

2. Turn Knob 4 (Chord TYPE) 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:

   ► Turn Knob 3 (Chord MODE) to select Chord Set.

   In the left display the Scale TYPE parameter (Knob 1) disappears and the Chord TYPE parameter (Knob 4) offers other entries. The light from the pads on the top row of your controller goes off and the pads are disabled. The other 12 pads trigger various chords indicated in the right display. You can switch to another set of 12 chords by turning Knob 4. Remember (Knob 4) offers other entries. The light from the pads on the top row of your controller goes off and the pads are disabled. These chords are not bound to the minor pentatonic scale anymore, however. They are still based on the selected root note (indicated in the top right of the left display).
The Scale and Chord 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.
- **Scale** (all available scales are listed):

### Available Scales

#### Performance Features

- The Scale and Chord engine is recorded into the Pattern Editor.
- The output of the Scale and Chord engine is processed by the Scale and Chord engine.
- The Scale and Chord engine processes live input from the pads of your controller.
- The Scale and Chord engine parameters are not saved with the Group.
- The Scale and Chord 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.
  - **Scale** (all available scales are listed):

### General Notes on Scales and Chords

- 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.
- The Scale and Chord engine processes live input from the pads of your controller.
- The Scale and Chord engine parameters are not saved with the Group.
- The Scale and Chord engine parameters are the same for all Sound slots in a particular Group.

#### 6.4.3 Scale and Chord Parameters

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

Pads are dimmed.

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:

- **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.

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. Conditionally defined the starting note of the selected scale, whereas the Base Key is set for each Sound slot independently.
### Main Scales

<table>
<thead>
<tr>
<th>Scale Type</th>
<th>Degree Formula</th>
<th>Bank</th>
<th>Main Scale</th>
<th>Type</th>
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<td>Major</td>
<td>1 2 3 4 5 6 7</td>
<td>Main</td>
<td>Major</td>
<td>Main</td>
</tr>
<tr>
<td>Minor</td>
<td>1 2 3 4 5 6 7</td>
<td>Main</td>
<td>Minor</td>
<td>Main</td>
</tr>
<tr>
<td>Major</td>
<td>1 2 3 4 5 6 7</td>
<td>Main</td>
<td>Major</td>
<td>Main</td>
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<tr>
<td>Minor</td>
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<td>Minor</td>
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<tr>
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<td>Chromatic</td>
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<tr>
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<td>1 2 3 4 5 6 7</td>
<td>Main</td>
<td>Major</td>
<td>Main</td>
</tr>
<tr>
<td>Minor</td>
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Performance Features

Playing on the Controller
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<td>1 2 3 ♭4 5 6 7</td>
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<td>1 2 3 ♭4 5 6 7</td>
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**Playing on the Controller**
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<td>Mix #9 #13</td>
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**Jazz Scales**

**Playing on the Controller**

**Performance Features**

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<tr>
<th>Scale</th>
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<td>World</td>
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</tr>
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<td>Type</td>
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<td>1 2 3 4 5 7</td>
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<td>1 2 3 5 6</td>
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<td>1 2 3 4 6 7</td>
<td>Hindolam</td>
<td>5-Tone</td>
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<td>Bhupali</td>
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</tr>
<tr>
<td>1 2 3 4 6</td>
<td>Ahoi</td>
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<tr>
<td>1 2 3 5 6</td>
<td>Fentai</td>
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**Playing on the Controller**
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<th>Scale</th>
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<td>Modern Augmented</td>
<td>Augmented</td>
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<td>Modern Tritone</td>
<td>Tritone</td>
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<td>Modern</td>
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<td>Tcherepnin</td>
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<td>Modern Messiaen VII</td>
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Playing on the Controller

**Modern Scales**
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<thead>
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<th>Bank</th>
<th>Scale</th>
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</thead>
<tbody>
<tr>
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<td>1 2 3 4 5 6 7</td>
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<td>Lydian Major</td>
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<td>Pentatonic 2</td>
<td>Major</td>
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<tr>
<td>Mixolydian Major</td>
<td>1 2 ♭3 4 5 6 7</td>
<td>Pentatonic 1</td>
<td>Major</td>
</tr>
<tr>
<td>Major Minor</td>
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<tr>
<td>Harmonic Major</td>
<td>1 2 ♭3 4 5 ♭6 7</td>
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<td>Major</td>
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<td>Neapolitan Major</td>
<td>1 ♭2 3 4 5 6 7</td>
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<td>Loci</td>
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Performance Features
Playing on the Controller
### Minor Scales

<table>
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<th>Degree Formula</th>
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<td>2</td>
<td>1 3 5 7</td>
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<td>3</td>
<td>1 2 3 5 6 7</td>
<td>Natural Phrygian</td>
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<td>4</td>
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<td>7</td>
<td>1 2 3 4 5 6 7</td>
<td>Major Minor</td>
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<td>1 2 3 4 5 6 7</td>
<td>Major Major Minor</td>
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<td>12</td>
<td>1 2 3 4 5 6</td>
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<td>13</td>
<td>1 2 3 4 5 6 7</td>
<td>Blues Major</td>
</tr>
<tr>
<td>14</td>
<td>1 2 3 4 5 6 7</td>
<td>Whole Tone Minor</td>
</tr>
<tr>
<td>15</td>
<td>1 2 3 4 5 6 7</td>
<td>Whole Tone Major</td>
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</tbody>
</table>

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 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. The chord engine can automatically generate chords depending on the pad you hit and possibly the selected scale. The Chord engine is controlled by the two parameters:
  - **Chord Mode** (Off by default): Selects from three different modes for generating chords:
  - **Chord Type**: Selects which chords will be mapped to your pads. The available chord types depend on the selected Chord Mode and Scale Type:
    - **Chord Type**
      - **Octave**: The 12 pads are mapped to the pads 1-12. The 12 pads are mapped onto the first 12 pads.
      - **Perfect 5**: The 12 pads are mapped onto the first 12 pads.
      - **Perfect 4**: The 12 pads are mapped onto the first 12 pads.
      - **Perfect 5**: The 12 pads are mapped onto the first 12 pads.
      - **Octave**: The 12 pads are mapped onto the first 12 pads.
      - **Perfect 5**: The 12 pads are mapped onto the first 12 pads.
      - **Perfect 4**: The 12 pads are mapped onto the first 12 pads.
      - **Octave**: The 12 pads are mapped onto the first 12 pads.
      - **Perfect 5**: The 12 pads are mapped onto the first 12 pads.
      - **Perfect 4**: The 12 pads are mapped onto the first 12 pads.
      - **Octave**: The 12 pads are mapped onto the first 12 pads.
      - **Perfect 5**: The 12 pads are mapped onto the first 12 pads.
      - **Perfect 4**: The 12 pads are mapped onto the first 12 pads.

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 the following chords:

<table>
<thead>
<tr>
<th>Chord Type</th>
<th>Semitones Added Above Played Note</th>
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<tbody>
<tr>
<td>Octave</td>
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</tr>
<tr>
<td>Perfect 4</td>
<td>5</td>
</tr>
<tr>
<td>Perfect 5</td>
<td>7</td>
</tr>
</tbody>
</table>

Playing on the Controller

Performance Features

Available Chords
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 the following chords:

<table>
<thead>
<tr>
<th>Chord Type</th>
<th>Notes Added to Played Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octave</td>
<td>5th and 7th</td>
</tr>
<tr>
<td>Octave</td>
<td>3rd, 5th, and 7th</td>
</tr>
<tr>
<td>4th and 5th</td>
<td>7th</td>
</tr>
<tr>
<td>3rd and 5th</td>
<td></td>
</tr>
<tr>
<td>5th</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td></td>
</tr>
<tr>
<td>Octave</td>
<td></td>
</tr>
</tbody>
</table>

Playing on the Controller
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:

<table>
<thead>
<tr>
<th>Type of Pad (for Selected Scale)</th>
<th>LED in Default State</th>
<th>LED when Pad Triggered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root notes</td>
<td>Fully lit</td>
<td>Flash</td>
</tr>
<tr>
<td>Other pads</td>
<td>Dimmed lit</td>
<td>Flash</td>
</tr>
<tr>
<td>Pads 13–16</td>
<td>LED when Pad Triggered</td>
<td></td>
</tr>
</tbody>
</table>

Note that the enharmonic spelling of the root note will vary in order to optimize the spelling of the entire scale / chord set. 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 as follows:

<table>
<thead>
<tr>
<th>Type of Pad</th>
<th>LED in Default State</th>
<th>LED when Pad Triggered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pads 13–16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other pads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root notes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When Chord Mode is set to Off or Harmonizer, pads of root notes are fully lit. When Chord Mode is set to Chord Set, pad 1 is fully lit:

<table>
<thead>
<tr>
<th>Type of Pad</th>
<th>LED in Default State</th>
<th>LED when Pad Triggered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pad 1</td>
<td>Fully lit</td>
<td>Flash</td>
</tr>
<tr>
<td>Pads 2–12</td>
<td>Dimmed lit</td>
<td>Flash</td>
</tr>
<tr>
<td>Pads 13–16</td>
<td>Off (pad inactive)</td>
<td></td>
</tr>
</tbody>
</table>

When Chord Mode is set to Harmonizer, pads Triggered as part of the chord will also flash.

Performance Features

Playing on the Controller

Scales and Chords: Visual Feedback on the Pads
6.4.4 Creating Arpeggios and Repeated Notes

MASCHINE includes a flexible and versatile Arpeggiator that effectively lets you play your Sounds in note sequences. The arpeggios are created according to both the pads you play your Sounds in note sequences and the Chord Set and Chord Type is set to Major 1-8

Erasing Notes

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

<table>
<thead>
<tr>
<th>Chord Mode</th>
<th>Tonic</th>
<th>Chromatic</th>
<th>Enharmonic Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>C</td>
<td>Scale Type is not set to Chromatic</td>
<td>C, D, E, F, G, A, B</td>
</tr>
<tr>
<td>Harmonizer</td>
<td>C</td>
<td>Scale Type is set to Harmonizer</td>
<td>C, D, E, F, G, A, B</td>
</tr>
<tr>
<td>Chord Set</td>
<td>C</td>
<td>Scale Type is set to Chromatic</td>
<td>C, D, E, F, G, A, B</td>
</tr>
<tr>
<td>Chord Set</td>
<td>C</td>
<td>Scale Type is set to Chromatic</td>
<td>C, D, E, F, G, A, B</td>
</tr>
</tbody>
</table>

When Chord Mode is set to Off, the notes with the pitch corresponding to the pressed pad are deleted.

When Chord Mode is set to Harmonizer, only the notes with the pitch of the pressed pad are deleted.

When Chord Mode is set to Chord Set, no notes are deleted, in other words erasing is disabled.
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 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 parameters are the same for all Sound slots in all groups of your Project.

### Playing on the Controller

#### Pads in Pad Mode: Note Repeat

1. Hold the NOTE REPEAT button.

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

KOMPLETE KONTROL S-SERIES owners: The central clock is shared by all connected devices, so 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.

The Note Repeat / Arp parameters cannot be modulated or automated in Maschine.

The output of the Note Repeat / Arp engine is recorded into the Pattern Editor.

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!
2. 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.

3. While holding NOTE REPEAT, press Button 5, 6, 7 or 8 above the right display to select another repetition rate.

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

Even if Note Repeat is locked, it won’t be applied to your pads when your controller is displaying the SLICE page of Sampling mode.

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

Pads in Keyboard mode: Arp

If your pads are in Keyboard mode, press Lock. All current values (including the LOCK state) are retained. 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 are retained.

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 are retained.
The Arp mode on your controller.

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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCK</td>
<td>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 the arpeggiated notes continuing to play. Press LOCK at any time to enable or disable LOCK. You can also use the shortcut: \texttt{SHIFT + NOTE REPEAT}. If Arp is locked, when you switch to another controller mode, the LOCK button stays dimly lit to remind you that Arp is on.</td>
</tr>
<tr>
<td>HOLD</td>
<td>Allows the notes played by the arpeggiator to be latched. This means arpeggaed notes will continue to play even if you release the pads. Press HOLD again to stop the arpeggiator.</td>
</tr>
<tr>
<td>GATE RESET</td>
<td>Press this button at any time to reset the GATE parameter to its default value of 100%. Press this button to play; press HOLD (Button 3) again to stop.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GATE RESET</td>
<td>Press this button at any time to reset the GATE parameter to its default value of 100%. Press this button to play; press HOLD (Button 3) again to stop.</td>
</tr>
<tr>
<td>HOLD</td>
<td>Allows the notes played by the arpeggiator to be latched. This means arpeggiated notes will continue to play even if you release the pads. Press HOLD again to stop the arpeggiator.</td>
</tr>
</tbody>
</table>

**Playing on the Controller**

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

#### Playing on the Controller

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE (knob 2)</td>
<td>Up/Down: Plays the notes in both directions alternatively. Down: Plays the notes the other way around. Up: Starts from the root note and plays the notes up through the chord.</td>
</tr>
<tr>
<td>UNIT (knob 4)</td>
<td>Up (1/2) Bar and a series of note values ranging from 1/2 (half note) until 1/128 (a hundred twenty-eighth note).</td>
</tr>
<tr>
<td>RATE (knob 3)</td>
<td>Chord plays all notes of the chord together repeatedly. Order Played: Plays the notes in the order you pressed down the corresponding pads on your controller. If you have configured chords, the arpeggio first plays 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.</td>
</tr>
</tbody>
</table>

**Button 5–8**

Selects between four different presets, even during playing. Each preset can store particular values for the TYPE, RATE, UNIT, SEQUENCE, and OCTAVES parameters at the position of the display. Sequences can store particular values for the TYPE, RATE, UNIT, SEQUENCE, and OCTAVES parameters at the position of the display.
### 6.4.5 Swing on Note Repeat / Arp Output

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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GATE</td>
<td>Attenuates the ratio between the duration of the notes and the duration of the silences, available values range from 0% to 200%. At 0% the notes are very short. At 50% notes and silences are equal. At 100% (midcourse) each note lasts exactly until the next note is triggered. At higher values notes overlap (provided that the slices are equal). Values above 100% are possible, enabling polyphony for 8 octaves.</td>
</tr>
<tr>
<td>DYNAMIC</td>
<td>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%, i.e., velocities are multiplied or divided by this factor.</td>
</tr>
<tr>
<td>OCTAVES</td>
<td>Adjusts the spread of the arpeggiated sequence; you can choose to select one of eight different sequences and apply it to the arpeggio sequence of your pads.</td>
</tr>
<tr>
<td>SEQUENCE</td>
<td>Select one of eight different sequences and apply it to the arpeggio sequence of your pads.</td>
</tr>
<tr>
<td>ELEMENT</td>
<td>Allows you to add interesting rhythms to your arpeggiated notes.</td>
</tr>
</tbody>
</table>

Note: 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.

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.

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

6.5 Using Lock Snapshots

Snapshots allow you to create up to sixty-four snapshots spread across four banks of sixteen pads providing a local up to sixty-four snapshot slots for every Project. Each snapshot contains every modulatable parameter in your Project, including your Solo and Mute settings.

Once created, you can switch between these instantly, or morph between them synchronized to the tempo of your Project. Use the Lock button to capture, update or recall a single lock snapshot.

6.5.1 Creating a Lock Snapshot

Use the Lock button to capture, update or recall a single lock snapshot.

1. Press the CHANNEL or PLUG-IN button.
2. Press Button 4 LOCK to take a snapshot.
   - The LOCK button is highlighted to indicate a single snapshot has been taken. You are now free to change parameters or Mute and Solo settings. Safe in the knowledge you can recall your snapshot, proceed to update them, clear unwanted changes, or render new compositions.

Extended lock snapshots can be managed: allowing you to update them, clear unwanted changes, and when used in addition with tempo map of your Project, lock snapshots are a powerful tool for creating new compositions.

To switch between these instantly, or morph between them synchronized to the tempo of your Project, including your Solo and Mute settings, once created, you can use EX-Lock mode to switch between these instantly, or morph between them synchronized to the tempo map of your Project. Lock snapshots are a powerful tool for creating new compositions, but also very useful to compare mixes, or to switch up snapshots during a live performance.

The LOCK button is used to create and recall a single snapshot. You can update or recall snapshots and manage them.

Lock allows you to create up to sixty-four snapshots spread across four banks of sixteen pads.
1. Press CHANNEL or PLUG-IN button.

To update a stored Lock snapshot:


The Lock snapshot is recalled and LOCK ceases to be highlighted. You can access your snapshot in Extended Lock mode. For more information on Extended Lock read 6.5.2, Using Extended Lock.

If you have created a Lock snapshot but find better settings you can update the Lock snapshot:

### 6.5.3 Updating a Lock Snapshot

1. Press the CHANNEL or PLUG-IN button.

The pads change to provide an overview of all your Lock snapshots. The dimly-lit click-pads represent your stored snapshots. The brightly lit pad represents the selected snapshot. You can also set options for morphing between snapshots. Extended Lock presents an overview of all your Lock snapshots. Here you can recall, update, or clear your snapshots.

#### 6.5.2 Using Extended Lock

See also

Press SHIFT + ALL (SAVE) to save your project.

Using Extended Lock. If you find better settings press the Lock button again to update the snapshot. If you find better settings press the Lock button again to update the snapshot. If you find better settings press the Lock button again to update the snapshot.

The Lock snapshot is recalled and LOCK ceases to be highlighted. You can access your snap-
3. Press Button 4 (EXT LOCK) to exit Extended Lock view.
4. Press Button 4 (EXT LOCK) to exit Extended Lock view.
5. Adjust the settings on your controller until you are ready to update the snapshot. You can
6. Use Button 5 and 6 to switch between Channel parameters and Plug-in parameters.
7. Press Button 5 UPDATE to update your snapshot.
To recall a lock snapshot:
1. Press the CHANNEL or PLUG-IN button.
2. Press SHIFT + Button 4 EXT LOCK.
3. Select the snapshot you want to recall from the pads. If necessary, press Button 7 or 8 to
access a lock snapshot from another bank.
When switching between two stored snapshots, you can set MASCHINE to morph between the two settings:

6.5.5 Morphing Between Lock Snapshots

The snapshots are recalled and parameters return to their stored settings. You can also morph be-

6.5.4 Recalling a Lock Snapshot

Repeat the process to update other lock snapshots.

![Controller Image]

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4. Adjust the Morph mode and time to your requirement. A description of each mode is de-
scribed in the table below.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORPHING</td>
<td>Select to switch morphing ON or OFF mode.</td>
</tr>
<tr>
<td>MODE</td>
<td>TRAVEL will morph the selected snapshots without syncing to the grid. The duration of the morph is set according to the Grid value set here.</td>
</tr>
<tr>
<td>TIME/GRID</td>
<td>The selected Grid value. The duration of the morph is set according to the Grid value set here.</td>
</tr>
</tbody>
</table>
| TARGET    | TRAVEL will morph in sync to the downbeat when set to Bar or to%
|           | the selected Grid value. The duration of the morph is set according to the Grid value set here. |

6.5.6 Deleting a Lock Snapshot

Within Extended Lock you can delete a stored lock snapshot.

To delete a lock snapshot:
1. Press the CHANNEL or PLUG-IN button.
2. Press SHIF + Button 4 EXT LOCK.
3. Press the CHANNEL or PLUG-IN button.
4. Press button 6 DELETE to delete a snapshot.
5. Press button 6 DELETE to delete a snapshot.
6. Press button 6 DELETE to delete a snapshot.
6.5.7 Triggering Lock Snapshots via MIDI

If MASCHINE is running as a plug-in in a host environment, you can trigger and change Lock snapshots using MIDI Note or MIDI Program Change messages sent from your host to the MASCHINE plug-in.

When this feature is enabled, MIDI notes or Program Change messages sent from your host to the MASCHINE plug-in are linked to Lock snapshots. Whether they contain a snapshot or not:

<table>
<thead>
<tr>
<th>Matrix Click-Pad/Snapshot</th>
<th>MIDI Note Number</th>
<th>Program Change Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>63 (D#3)</td>
<td>64</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>3</td>
<td>2 (D-2)</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>1 (C#-2)</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>0 (C-2)</td>
<td>1</td>
</tr>
</tbody>
</table>

The primary use case for triggering Lock snapshots via MIDI is when using MASCHINE in plug-in mode. However, it is also possible using an external MIDI device such as a keyboard to trigger a snapshot.

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 find out 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 snapshot 1, PC 1 will trigger snapshot 2, and so on. Please refer to the documentation of your host to know in which range it sends Program Change numbers.

Enabling the MIDI Lock Change

To enable or disable the MIDI Lock Change feature, do the following:

1. Click **Edit > MIDI Change**.

The snapshot is cleared.
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. None will disable the feature.

3. Then select MIDI Note to trigger your Lock snapshots via MIDI notes, or Program Change to trigger your Lock snapshots via MIDI Program Change messages.

4. If necessary, reopen the same submenu and select the MIDI channel the Lock changes should receive MIDI messages from (channel 1 by default).

5. Then select MIDI Note to trigger your Lock snapshots via MIDI notes, or Program Change.

6. 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.

For more information on triggering Lock snapshots using your DAW (Digital Audio Workstation), please check the Knowledge Base on the Native Instruments website.

Playing on the Controller

Using Lock Snapshots
Working with Plug-ins

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 Plug-in Basics

7.1.1 Plug-in Overview

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).
- Specific information on Native Instruments and External Plug-ins (7.3. Using Native-In.
- An exhaustive description of an essential Internal Instrument Plug-in in charge of playing

7.1 Plug-in Overview
The Control area displaying the content of the Sound Kick Ordinance of the selected Sound slot 1.

In the Plug-in List, on the left of the Control area, Sounds, Groups, and the Master can each hold any number of Plug-ins. These are stacked up.

The control area displaying the content of the Sound Kick Ordinance of the selected Sound slot 1.
Plug-ins can be of different types:

Different Types of Plug-ins

In the Plug-in List, the processing order is always from top to bottom.

To show the Plug-in List, click the little Plug-in icon at the far left of the Control area:

Different Types of Plug-ins

Plug-ins can be of different types:

Different Types of Plug-ins

In the Plug-in List, the processing order is always from top to bottom.

To show the Plug-in List, click the little Plug-in icon at the far left of the Control area:

Different Types of Plug-ins

Plug-ins can be of different types:

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In the Plug-in List, the processing order is always from top to bottom.

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Different Types of Plug-ins

Plug-ins can be of different types:

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To show the Plug-in List, click the little Plug-in icon at the far left of the Control area:

Different Types of Plug-ins

Plug-ins can be of different types:

Different Types of Plug-ins

In the Plug-in List, the processing order is always from top to bottom.

To show the Plug-in List, click the little Plug-in icon at the far left of the Control area:
**Instrument Plug-ins**

- **Audio**: Included with MASCHINE, the Audio Plug-in allows audio loops to play back in time with the tempo of your Project. Adding audio loops to your Project via the Loops tab from the browser will automatically load the Audio Plugin in 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 only be loaded in the first Plug-in slot of a Sound. See chapter 10, 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 chapter 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. Third-party instruments from any third-party manufacturer are also available. 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).

- **External**: You can also use VST/AU instrument plug-ins from any third-party manufacturer.

**Effects**

- **Internal Plug-ins**: You can use all Native Instruments KOMPLETE effects included with MASCHINE. Third-party effects from any third-party manufacturer are also available.

- **External**: You can also use VST/AU effect plug-ins from any third-party manufacturer.

**Plug-in Overview**

<table>
<thead>
<tr>
<th>Instrument Plug-ins</th>
<th>Effect Plug-ins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio</td>
<td></td>
</tr>
<tr>
<td>Sampler</td>
<td></td>
</tr>
<tr>
<td>Drumsynths</td>
<td></td>
</tr>
<tr>
<td>Bass Synth</td>
<td></td>
</tr>
<tr>
<td>Native Instruments</td>
<td></td>
</tr>
<tr>
<td>External Instruments</td>
<td></td>
</tr>
</tbody>
</table>
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.

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.

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), 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 a bussing point for other signals (from within MASCHINE, and external signals, if possible). 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 to external audio, for more details on how to use this feature.

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

Working with Plug-ins
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 13.3.6, Focusing on a Group or a Sound). In the picture below we click on an empty Sound slot in the Sound List of the Pattern Editor.

   The Control area will now show the content (Channel properties or Plug-ins) of the Sound above.

   This displays the Plug-in List on the left of the Control area.

2. At the far left of the Control area, click the little plug icon to display the Plug-ins.

   We have just selected a Sound in the Sound List of the Pattern Editor and click the Plug-in tab in the Control.

   The Control area will now show the content (Channel properties or Plug-ins) of the Sound above.

   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).
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).

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. This can come in handy to insert a new Plug-in between two existing Plug-ins or samples. Additionally, some Native Instruments and External Plugins will automatically open in a floating window (see section 7.3.2, 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 the Sound, and so on.

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.

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). To insert a new Plug-in between two existing Plug-ins in the Plug-in List, in the first Plug-in slot of the Sound (in our example).
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 that slot.

In the Plug-in menu for that slot, you can also right-click (Ctrl-click on macOS) the Plug-in in the Plug-in menu list. Click the down-pointing arrow at the right of a Plug-in name to open the Plug-in menu to open or remove the loaded 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:

Working with Plug-ins
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.

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 at the top of 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 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 accept 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 accept only accept Effect Plug-ins. Therefore, their Plug-in menus and submenus provide the same entries except all entries available in their Plug-in menu are listed in the following table.

The Plug-in menus can have following entries, from top to bottom:

1. Plug-in Menu Entry
2. Description
3. Submenu
4. External submenu

### Plug-ins

#### Presets submenu (only when a Native Instruments or External Plug-in is loaded)

Lists all available Native Instruments, Instruments, and Effects Plug-ins. 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.

#### None

Select None to remove the Plug-in currently loaded (see previous paragraph).

#### Native Instruments

Lists available Native Instruments, Instruments, and Effects Plug-ins. 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

<table>
<thead>
<tr>
<th>Description</th>
<th>Preset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampler</td>
<td>The Sampler is the Internal Instrument Plug-in used to play back all Samples in MASCHINE — this essential Plug-in will be described in detail in section 7.2, The Sampler Plug-in.</td>
</tr>
<tr>
<td>Drumsynth</td>
<td>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.</td>
</tr>
<tr>
<td>All MASCHINE Internal Effects</td>
<td>Contains a comprehensive description of each MASCHINE Internal Effect Plug-in. Each of these effects is detailed in its own chapter (effects, dynamics, filtering, modulation, reverb, etc.).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Edit Commands</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>Allows you to open a Plug-in preset you have previously saved.</td>
</tr>
<tr>
<td>Paste</td>
<td>Loads into the current slot the Plug-in and all its settings that were copied or pasted from another slot. This effectively allows you to reuse a Plug-in in different locations (Sounds, Groups, Master).</td>
</tr>
<tr>
<td>Copy</td>
<td>Copies the Plug-in and all its settings to the clipboard for later use.</td>
</tr>
<tr>
<td>Cut</td>
<td>Removes the Plug-in from its current slot and stores the Plug-in and all its settings to the clipboard for later use.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plug-in Menu Entry</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug-in in slot of Sounds only</td>
<td>The Sampler is the Internal Instrument Plug-in used to play back all Samples in MASCHINE — this essential Plug-in will be described in detail in section 7.2, The Sampler Plug-in.</td>
</tr>
<tr>
<td>Drumsynth submenu (first Plug-in in slot)</td>
<td>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.</td>
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</tr>
</tbody>
</table>

**Plug-in Overview**

**Working with Plug-ins**
The focus slot can be selected from the browser:

1. Press the BROWSE button.
2. Press SHIFT, then press button 7 or 8 to select a plug-in slot.

To change the focus of the plug-in slot from the browser:

1. Press the BROWSE button.
2. Press SHIFT, then press button 5 or 6 to select a plug-in slot.

To change the focus of the plug-in slot from the browser:

1. Press the BROWSE button.
2. Press SHIFT, then press button 5 or 6 to select a plug-in slot.

The focus slot can be selected from the browser.

Note that the first two menus in the Plug-in menu will be covered in section 7.1.2.3.1, Moving Plug-ins and 7.1.2.3.2, Saving and Recalling Plug-in Presets, respectively.

The edit commands (Cut, Copy, and Paste) and preset management commands (Open, Save As...) are available at the bottom of the Plug-in menu. These commands can be accessed in all three levels of the Plug-in menu: in Sounds, in Groups, and in the Master.

7.1.3.1 BROWSER PLUG-IN SLOT SELECTION

Plug-in Overview

Working with Plug-ins

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…

Allows you to save the current Plug-in settings as a default preset. This default preset will be recalled each time you load a plug-in with the Plug-in menu.

Note that the Plug-in menu will not load any default presets when you load Plug-ins. To load a default preset, you must select a preset from the Browser.

Plug-in Menu Entry

Save As…

Allows you to save the current Plug-in settings as a preset for later use. This preset will appear in the Browser.

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Allows you to save the current Plug-in settings as a default preset. This default preset will be recalled each time you load a plug-in with the Plug-in menu.

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Plug-in Overview

Working with Plug-ins

Plug-in Menu Entry

Description

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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…

Allows you to save the current Plug-in settings as a default preset. This default preset will be recalled each time you load a plug-in with the Plug-in menu.

Note that the Plug-in menu will not load any default presets when you load Plug-ins. To load a default preset, you must select a preset from the Browser.

Plug-in Overview

Working with Plug-ins

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…

Allows you to save the current Plug-in settings as a default preset. This default preset will be recalled each time you load a plug-in with the Plug-in menu.

Note that the Plug-in menu will not load any default presets when you load Plug-ins. To load a default preset, you must select a preset from the Browser.
7.1.3.2 Loading, Removing, and Replacing a Plug-in on your Controller

On the controller, do the following:

1. At the top left of your controller, press the PLUG-IN button to enter Control mode and display the Plug-in slots of the selected Sound, Group or the Master.

2. Select the Sound, Group or the Master where the Plug-in is located (see section 3.3.6, Focusing on a Group or a Sound).

3. Press Button 5/6 to navigate to the desired Plug-in. The name of the selected Plug-in appears in the field between the left and right arrows under Button 5 and 6. If there are no Plug-ins in the channel this will read EMPTY.

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

**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. On the left display, turn Knob 1 to select the TYPE from Instrument or Effect. The right display shows the list of available instruments or effect Plug-ins.

3. If you have selected the first Plug-in slot of a Sound, turn Knob 2 to select the VENDOR from INTERNAL, or the name of the vendor, e.g. Native Instruments. If you have selected any other Plug-in slot the TYPE field is not available — only Effect Plug-ins will be listed in the right display.

4. Turn the Jog wheel or Knob 8 to browse the Plug-ins corresponding to your TYPE (and possibly VENDOR) selection.

5. When you have found the Plug-in you want to use, press the Jog wheel or button 8 (LOAD) to load it. You can also use Buttons 5 and 6 to step through the list and load each effect directly.

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 pre-set for a Plug-in (see section 14.8, Using Quick Browse for more information).

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

**Inserting a Plug-in**

1. Press `SHIFT + Button 3 (INSERT)`. This automatically opens the Browser on your controller and locks the File Type to **EF-EFFECT** (Button 1 and 2, normally used in the Browser to select the desired File Type, are here disabled).

2. Choose and load the desired Plug-in preset via the usual workflow in the Browser (see section 3.3.6, Focusing on a Group or a Sound).

   - When you finally press the jog wheel or Button 8 (LOAD), your controller automatically switches back to Control mode and the new Plug-in is loaded in the next Plug-in slot. All following Plug-ins are shifted one slot downwards to make room for the new Plug-in.

**Removing a Plug-in**

To remove a Plug-in from its slot, do the following:

1. Press `SHIFT + Button 8 (REMOVE)`.

   - The Plug-in is unloaded from the slot. All following Plug-ins are shifted one slot upwards to fill the gap.

2. Alternatively, you can press `SHIFT + BROWSE`, turn the jog wheel (or Knob 5) to select (none), and press the jog wheel or Button 8 (LOAD).

**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 3.3.8, 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 the last Plug-in slot.

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

▪ Bypassing and re-enabling an effect during a live performance.
▪ Troubleshooting complex effect chains and routings (“Where does this strange reverb tail come from?”).
▪ Comparing the sound with and without an effect.

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 desired Group on the left of the Arranger, and 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.

Working with Plug-ins
Plug-ins and Parameter Pages in the Control Area.

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 3.3.8, Navigating Channel Properties.
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.

5. Press Button 5/6 to select the desired Plug-in slot. The name of the selected Plug-in appears in the field between the left and right arrows under Button 5 and 6. If there are no Plug-ins in the channel this will read EMPTY.

In most cases the first Plug-in in a slot contains an Instrument Plug-in (e.g., a Sampler), be careful by-passing it to mute the whole Sound!

To activate the bypassed slot again, click its grayed out icon.

Use the same method to unmute the Plug-in:

This slot is now bypassed.

The Plug-in does not affect the sound anymore. The icon is grayed out to indicate that for an Effect Plug-in (or for an Instrument Plug-in, keys for an Instrument Plug-in,

4. If you want to bypass a Plug-in in a Sound, press Button 3 to select the SOUND tab. Press Button 5 to select the desired Plug-in slot. If you want to bypass a Plug-in in a Group, press the Group button A–H corresponding to the desired Group. If necessary, first press SHIFT + the desired Group button A–H to switch to the Group bank containing that Group.

3. If you want to bypass a Plug-in of the Master, press Button 1 to select the MASTER tab.

2. Press the PLUG-IN button to enter control mode and display Plug-in slots.

1. Press the PLUG-IN button to enter control mode and display Plug-in slots.

By-passing a Plug-in Slot on the Controller:

1. Press the PLUG-IN button to enter control mode and display Plug-in slots.

2. Press the PLUG-IN button to enter control mode and display Plug-in slots.

3. Press the PLUG-IN button to enter control mode and display Plug-in slots.

4. Press the PLUG-IN button to enter control mode and display Plug-in slots.

5. Press the PLUG-IN button to enter control mode and display Plug-in slots.

6. Press the PLUG-IN button to enter control mode and display Plug-in slots.
6. Press SHIFT + Button 7 (BYPASS) above the right display to bypass the selected Plug-in.

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.

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

Moving Plug-ins Across Sounds and 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 3.3.6, Focusing on a Group or a Sound).
4. Click the down-pointing arrow of the slot containing the Plug-in that you want to move.
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.

Dragging Plug-ins can be very useful if you want to quickly change the effects' processing order in the channel.
Duplicating Plug-ins Across Sounds and Groups

Instead of selecting Copy in the Plug-in menu of the original slot (see above), select Copy to duplicate the Plug-in to another slot!

Moving a Plug-in on the Controller

On your controller in Control mode, you can move a Plug-in to another slot of the same Sound, or between the Plug-ins in the same Sound. To do this:

1. Select the desired Plug-in (see section 13.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area). On your controller in Control mode, you can move a Plug-in to another slot of the same Sound.

Moving a Plug-in on the Controller

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!
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. The commands for saving Plug-in presets are found at the bottom of 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.

---

For more information on how to load Plug-in presets in the Browser and how to assign tags to the Plug-in presets you saved, please refer to chapter 4, Browser.

---

**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 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.

---

**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.**

---

**Plug-in Presets**

<table>
<thead>
<tr>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default... menu item</td>
<td>Removes the default preset for the current plug-in.</td>
</tr>
<tr>
<td>Next time it is opened.</td>
<td>Save As Default...</td>
</tr>
<tr>
<td>The default preset will be loaded with this Plug-in.</td>
<td>Save As...</td>
</tr>
<tr>
<td>Saves the current settings and assignments as a new preset on your hard disk.</td>
<td>Save As...</td>
</tr>
<tr>
<td>Saves your changes to the preset currently loaded.</td>
<td>Save As...</td>
</tr>
</tbody>
</table>
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 "mxfxp" for MASCHINE 1.x Module presets).

To remove a 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. To remove the default preset of a Plug-in in using the Plug-in menu:
   - Move the saved default 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.
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.

The Sampler Plug-in

The Sampler Plug-in allows you to play back any Sample in MASCHINE — including all Sounds and Groups of the factory library.

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

7.2

The Sampler Plug-in

- 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.

- The Sampler Plug-in 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 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.

The Sampler parameters are organized in 6 pages:

- Page 1: Voice Settings / Engine
- Page 2: Pitch / Envelope
- Page 3: FX / Filter
- Page 4: Modulation
- Page 5: LFO
- Page 6: Velocity / Modwheel

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.

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

- To display a particular Parameter page in the software, click its label at the top of the Control area.
Sampler parameters – Page 1 of 6: VOICE SETTINGS and ENGINE in the software.

Working with Plug-ins

The Sampler Plug-in
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOICE SETTINGS</td>
<td></td>
</tr>
<tr>
<td>Polyphony</td>
<td>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 the notes. 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 the notes.</td>
</tr>
<tr>
<td>Glide</td>
<td>This allows you to select between different models for the sampling engine. Besides the default Standard setting, the following options are available: 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 L (for Low), S1200 HM (for High-Mid), S1200 HM (for High-Mid), S1200 L (for Low).</td>
</tr>
<tr>
<td>Pitchbend</td>
<td>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.</td>
</tr>
</tbody>
</table>

---

Working with Plug-ins

The Sampler Plug-in
### Sampler parameters – page 2 of 6: PITCH / GATE and AMPLITUDE ENVELOPE in the software.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Selects from three different types of amplitude envelopes. See below</td>
</tr>
<tr>
<td><strong>Start</strong></td>
<td>Determines the start point of the Sample. This parameter can also be modulated by the Velocity control, see ↑ 7.2.5, Page 5: LFO.</td>
</tr>
<tr>
<td><strong>Reverse</strong></td>
<td>If Reverse is activated, the Sample will be played backwards.</td>
</tr>
<tr>
<td><strong>Tune</strong></td>
<td>Defines the basic pitch of your Sample. Tune the knob to the right for a higher pitch and to the left for a lower pitch.</td>
</tr>
</tbody>
</table>

---

**Pitch / Gate**

---

**Parameter**

---

**Description**

---

The Sampler Plug-in.

---

Working with Plug-ins.
The AMPLITUDE ENVELOPE section allows you to tailor your Sample in terms of its loudness over time. The Type selector allows you to choose from three different types of amplitude envelopes.

- One-shot: This is typical with the 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: This type replaces the Sustain and Release controls of the ADSR envelope (see below). AHD mode disables the sustain and release controls of the ADSR envelope, 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.
- One-shot: This is typical with the 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.

The Type selector allows you to choose from three different types of amplitude envelopes.

- One-shot: This is typical with the 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: This type replaces the Sustain and Release controls of the ADSR envelope (see below). AHD mode disables the sustain and release controls of the ADSR envelope, 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.
- One-shot: This is typical with the 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.
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 key.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attack</strong></td>
<td>determines how quickly the sound reaches full volume after the note has ended.</td>
</tr>
<tr>
<td><strong>Decay</strong></td>
<td>(AHD and ADSR) 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. The parameter can also be modulated by the Velocity control, see ↑ 7.2.5, Page 5: LFO.</td>
</tr>
<tr>
<td><strong>Sustain</strong></td>
<td>(ADSR only) determines the constant level being kept after the Decay level. This can also be controlled by an external MIDI controller, using the MIDI Control Change 64.</td>
</tr>
<tr>
<td><strong>Release</strong></td>
<td>(ADSR only) determines how long the sound takes to fade out after the note has ended.</td>
</tr>
</tbody>
</table>

Working with Plug-ins

The Sampler Plug-in
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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comp</td>
<td>Basic compressor allowing you to give a Sound more density.</td>
</tr>
<tr>
<td>Drive</td>
<td>Defines the amount of saturation applied to a Sound.</td>
</tr>
</tbody>
</table>

**FX**

Working with Plug-Ins.
Parameter

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 different filter types and parameters to the right of it, you can choose from different filter types set:
- Off
- LP2
- BP2
- HP2
- EQ

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 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 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 is an equalizer with Frequency, Bandwidth and Gain parameters.
The MODULATION ENVELOPE section offers an additional envelope allowing further 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.

**Envelope Controls**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attack</td>
</tr>
<tr>
<td>Hold</td>
</tr>
</tbody>
</table>

Working with Plug-ins - page 4 of 6: MODULATION ENVELOPE and DESTINATION in the software.
### Envelope Controls

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td>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.</td>
</tr>
<tr>
<td>Sustain</td>
<td>The envelope level that will be maintained as long as the note is pressed.</td>
</tr>
<tr>
<td>Release</td>
<td>The time for the sustain level to return to zero after the note has ended.</td>
</tr>
<tr>
<td>Played</td>
<td>The envelope level that will be maintained as long as the note is played.</td>
</tr>
</tbody>
</table>

### Targets:

You want this envelope to control. The knobs adjust the amount of modulation for the following parameters:

<table>
<thead>
<tr>
<th>Target</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>Tweak parameter of the Pitch / Gate section on the Pitch / Envelope Page (page 1).</td>
</tr>
<tr>
<td>Tune (page 2)</td>
<td>Tune parameter of the Pitch / Gate section on the Pitch / Envelope Page (page 2).</td>
</tr>
<tr>
<td>Cutoff</td>
<td>Cut-off parameter of the Filter section (with filter types LP2, HP2, BP2 only) on the Pitch / Gate page (page 3).</td>
</tr>
<tr>
<td>Drive</td>
<td>Drive parameter of the FX section on the Pitch / Gate page (page 3).</td>
</tr>
<tr>
<td>Pan</td>
<td>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).</td>
</tr>
</tbody>
</table>

### More Information:

Working with Plug-ins
The LFO (Low Frequency Oscillator) is another modulation source based on waveforms with different shapes.

**LFO Controls**

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Here you can choose the shape of the LFO waveform. Available shapes are Sine, Tri (Triangle), Rect (Rectangle), Saw, and Random.</td>
<td>Sine, Tri, Rect, Saw, Random</td>
</tr>
<tr>
<td>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.</td>
<td>Speed</td>
</tr>
</tbody>
</table>

**Working with Plug-ins**

The Sampler Plug-in is another modulation source based on waveforms with different shapes.
### Description

- **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:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Modulation Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch</td>
<td>Tune parameter of the Pitch / Gate section on the Pitch / Envelope page.</td>
</tr>
<tr>
<td>Cutoff</td>
<td>Cutoff parameter of the Filter section (with filter types LP2, HP2).</td>
</tr>
<tr>
<td>Drive</td>
<td>Drive parameter of the FX section on the FX / Filter page (page 3).</td>
</tr>
<tr>
<td>Pan</td>
<td>Pan parameter on the Audio page of the Sound's Output properties (see [12.1.2, Configuring the Main Output of Sounds and Groups]).</td>
</tr>
</tbody>
</table>

---

### LFO Controls

- **Phase**
  Determines the initial phase of the LFO waveform, from \(-0.50\) to \(0.50\).

- **Sync**
  Synchronization with the Project tempo.
This section allows you to use the input velocity in order to modulate various parameters.

### VELOCITY DESTINATION

The Sampler Plug-in

**Sampler parameters — page 6 of 6: VELOCITY DESTINATION and MODWHEEL DESTINATION on the controller.**
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Modulation Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>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 &quot;snappier&quot; when you play hard, and &quot;muffled&quot; or muted when you play softly.</td>
</tr>
<tr>
<td>Decay</td>
<td>parameter of the AMPLITUDE ENVELOPE section on the Pitch / Envelope page (page 2). Days: a typical example for this parameter is setting it so that the beginning of the Sample is quieter as you play harder. When you play hard, and negative 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. The &quot;muffled&quot; or muted when you play softly. This makes it sound &quot;snappier&quot; when you play hard, and &quot;muffled&quot; or muted when you play softly.</td>
</tr>
<tr>
<td>Cutoff</td>
<td>Cutoff parameter of the FILTER section (with filter types LP2, HP2, BP2 only) on the FX / Filter page (page 3).</td>
</tr>
<tr>
<td>Volume</td>
<td>This allows you to modulate the volume, which is what velocity normally is used for.</td>
</tr>
<tr>
<td>Pan</td>
<td>Modulation Destination</td>
</tr>
</tbody>
</table>

Here you can determine how incoming MIDI data sent by the Modulation Wheel affects various parameters.
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 (Native Instruments Plug-ins) or any third-party manufacturer (External Plug-ins) and to use them like the MASCHINE Internal Plug-ins.

### 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 floatable window containing the user interface of that Native Instruments or third-party instrument.

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 loaded state: If such a Plug-in was previously been opened in its floating window, it will recall that state the next time it's loaded. When you load a Native Instruments or External Plug-in into a Plug-in slot, you can open a floatable window containing the user interface of that Native Instruments or third-party instrument.

**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 loaded state: If such a Plug-in was previously been opened in its floating window, it will recall that state the next time it's loaded. When you load a Native Instruments or External Plug-in into a Plug-in slot, you can open a floatable window containing the user interface of that Native Instruments or third-party instrument.**
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:

To open or close the floating window of a Native Instruments or External Plug-in, select the little diagonal arrow next to the Parameter pages' tabs.

The little diagonal arrow next to the Parameter pages' tabs.

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.

MASCHINE showing the user interfaces of a few Native Instruments Plug-ins: MONARK, PASSIVE EQ, GUITAR RIG, and FM8.
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 3.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area.

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 (Mix view in the software). 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 of two views. 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.

These views are also available in the Plug-ins 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.
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 controller, to open/close a floating window for a Native Instruments or External Plug-in do the following:

1. Select the desired Native Instruments or External Plug-in (see section ↑3.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area).
2. Press `SHIFT` + Button 3 (EDIT) to open the Plug-in’s user interface in a separate floating window. Press `SHIFT` + Button 3 again to close the floating 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 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:

- **Parameter pages that will appear both in the software’s Control area and on your controller in Control mode — exactly like Internal Plug-ins.**
- **Parametric Auto-Mapping:** Once loading these parameters, the Plug-in’s parameters are organized into Parameter pages that will appear both in the software’s Control area and on your controller in Control mode. These Parameter pages can be opened/closed using the Parameter button (see section ↑3.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area).

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 Plug-in (see section ↑3.3.8, 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, allowing for total recall of the Plug-in (see section 7.1.9, Saving and Recalling Plug-in Presets for more).

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. For Native Instruments Plug-ins, these Parameter pages group the Plug-in parameters in a 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.

Furthermore, for Native Instruments Plug-ins, these Parameter pages group the Plug-in parameters on the controller.

As with any Plug-in, the parameters can be saved to the Browser as a preset, allowing for total recall of the Plug-in parameters.
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 page, and define custom labels for parameters, sections, and entire Parameter pages. 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 pane 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 pane 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:

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 Parameter page will mirror all of them, separated by slashes.

The Control area with the Pages pane active in the Assignment area underneath.

Using Native Instruments and External Plug-ins
Working with Plug-ins
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.

Focus frame: Indicates the knob being assigned. Click any knob to edit its assignment.

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.

Reset button: Click Reset to remove the assignment for the selected knob.

Learn button: Click Learn to enter Learn mode. Learn mode is an intuitive learn process that allows you to quickly assign the desired knobs in the desired order to any of your Plug-in parameters. Once you have organized plug-in parameters into Parameter pages, you can also use the Macro Controls to pick the most commonly used parameters 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

Once you have assigned plug-in parameters into Parameter pages, you can also use the Macro Controls to pick the most commonly used parameters for live performances. For more information about Macro Controls, please refer to section 12.3, Creating Custom Sets of Parameters with the Macro Controls.

Working with Plug-ins
Using Native Instruments and External Plug-ins

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.

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rename</td>
<td>Rename the Parameter.</td>
</tr>
<tr>
<td>Ctrl + R / Command + R</td>
<td>Paste a cut or copied Macro to a new position.</td>
</tr>
<tr>
<td>Ctrl + C / Command + C</td>
<td>Copy the Parameter.</td>
</tr>
<tr>
<td>Ctrl + X / Command + X</td>
<td>Cut another position.</td>
</tr>
<tr>
<td>Ctrl + + Command + X</td>
<td>Cut the Parameter to paste it in another position.</td>
</tr>
<tr>
<td>Ctrl + R / Command + R</td>
<td>Rename the Parameter.</td>
</tr>
<tr>
<td>Learn</td>
<td>Activates the Learn Mode.</td>
</tr>
<tr>
<td>Reset</td>
<td>Reset the Parameter.</td>
</tr>
</tbody>
</table>

**Keyboard Shortcuts**

The context menu contains the following items:

- Paste
- Copy
- Cut
- Paste
- Rename
- Learn
- Reset
- Menu Item

Using Native Instruments and External Plug-Ins

Working with Plug-Ins
The Parameter pages’ context menu. The context menu contains the following items:

<table>
<thead>
<tr>
<th>Keyboard Shortcuts</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menu Item</td>
<td></td>
</tr>
<tr>
<td>Keyboard Shortcuts</td>
<td></td>
</tr>
<tr>
<td>Clear All</td>
<td>Deletes all of the Pages. Deletes all the assignments, and clears all assignments. Deletes current Page with all assignments.</td>
</tr>
</tbody>
</table>

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. Accessing these factory presets of your Native Instruments and effects is straightforward. Accessing factory presets of your Native Instruments and effects is straightforward:

Saving presets can be done in the MASCHINE software only.

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. Accessing these factory presets of your Native Instruments and effects is straightforward.
Select the desired preset in this submenu.

3. Accessing Other VST/AU Presets

To access user presets of your third-party VST/AU plug-ins, you need to load the corresponding Native Instruments or External Plug-in into the Plug-in slot.

1. Load the desired Native Instruments or External Plug-in into a Plug-in slot.

2. Open the Plug-in menu by clicking the little arrow at the right of the Plug-in.

The Plug-in menu now contains an additional Presets submenu located under the Native Instruments and External plug-ins:

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.

→ Variety of plug-ins and external plug-ins.

Using Native Instruments and External Plug-ins

Working with Plug-ins
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, that the preset for an instrument plug-in is not effectively loaded instead of an effect plug-in. When loading a preset for a multi-output plug-in, be aware that 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]” or “[INST]” after the preset name).

MASCHINE also allows you 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 plug-in) using the method described above, you can save it as a Plug-in preset in MASCHINE via the Save command of the Plug-in menu (see section 12.2.3, Controlling Parameters via MIDI and Host Automation). Once you have loaded a VST/AU plug-in (user preset of a native Instruments instrument/effect), the plug-in will appear in the Presets submenu of the Plug-in menu. For example, in MASSIVE, ABSYNTH 5, and FM8, you need to enable the Program List and fill it set of presets to the host.

Each VST/AU instrument or effect might handle its presets (or patches, programs…) differently.
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 MIDI from Sounds. When a multitimbral Plug-in is loaded into a Sound, the other Sounds of the same Group can send MIDI data to this Plug-in: The Plug-in will appear as an additional port in the Dest. 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.

Multitimbral Plug-ins are Plug-ins that can receive MIDI on top of the host control.

Multitimbral Plug-ins are Plug-ins that can receive MIDI on top of the host control. Multitimbral Plug-ins are Plug-ins that can receive MIDI on top of the host control. Multitimbral Plug-ins are Plug-ins that can receive MIDI on top of the host control. Multitimbral Plug-ins are Plug-ins that can receive MIDI on top of the host control.
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 note. For example, note C3 will play the Sample at its original pitch, while C4 plays the Sample one octave higher.

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.

Once a loop has been loaded, it will appear as a waveform in the Pattern Editor. You can quickly audition your Samples from within the Browser and then drag and drop them onto a Sound. If you drag a Sample containing the loops tag onto an empty Sound the Audio module will load automatically.

Audio module will load automatically.

For more information on working with 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 settings, refer to the section 7, Working with Plug-ins.

For more information on recording your own loops, refer to the chapter: 17, Sampling and Sample Mapping.

Using the Audio Plug-in
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:

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLAYBACK Section</strong></td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>Select the mode of playback: Loop or Gate.</td>
</tr>
</tbody>
</table>

#### PLAYBACK Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode</strong></td>
<td>Select the mode of playback: Loop or Gate.</td>
</tr>
<tr>
<td><strong>Fade</strong></td>
<td>(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.</td>
</tr>
<tr>
<td><strong>Loop</strong></td>
<td>The default mode for playback. In this mode, playback and source parameters can be manipulated such as Tune, Pitch Bend, Tempo, and Length.</td>
</tr>
<tr>
<td><strong>Gate</strong></td>
<td>When Gate mode is selected the sample is only heard when triggered by a MIDI note event. The sample is heard for the duration indicated by this note event.</td>
</tr>
<tr>
<td><strong>Sample</strong></td>
<td>The sample is heard at the point it is triggered by a MIDI note event.</td>
</tr>
<tr>
<td><strong>Tune</strong></td>
<td>When the Gate mode is selected, the sample is only heard when triggered by a MIDI note event. The sample is heard at the point it is triggered by a MIDI note event.</td>
</tr>
</tbody>
</table>

#### Controller

Once an Audio Plug-in is loaded it becomes visible in both the MASCHINE software and on the controller.

![MASCHINE Audio Plug-in Controller](image)
### Tune

This playback engine simply matches the tempo of the Loop to the Project's tempo. This engine is therefore more suitable for pitched material, like drums and percussion, and has the special feature that the transients of sounds remain intact. The range is not independently adjustable, since tempo and pitch are not independent. Using the Audio Plug-in, you may pitch automation you may have done on your computer keyboard while listening to the loop online. Press the [SHIFT] key on your computer keyboard while clicking up/down the Tune knob. To increase the range of the Tune, turn the Pitchbend knob counter-clockwise by clicking and dragging down. To decrease the range of the Tune, turn the Pitchbend knob clockwise by clicking and dragging up. Pressing the [SHIFT] key on your computer keyboard while turning the Pitchbend knob will result in pitch changes to the loop. Like a real-time pitch correction, this parameter controls the effect of the Pitch Wheel/Slider on your MIDI controller. 

### Pitchbend

This playback engine simply matches the tempo of the Loop to the Project's tempo. This engine is therefore more suitable for pitched material, like drums and percussion, and has the special feature that the transients of sounds remain intact. The range is not independently adjustable, since tempo and pitch are not independent. Using the Audio Plug-in, you may pitch automation you may have done on your computer keyboard while listening to the loop online. Press the [SHIFT] key on your computer keyboard while clicking up/down the Tune knob. To increase the range of the Tune, turn the Pitchbend knob counter-clockwise by clicking and dragging down. To decrease the range of the Tune, turn the Pitchbend knob clockwise by clicking and dragging up. Pressing the [SHIFT] key on your computer keyboard while turning the Pitchbend knob will result in pitch changes to the loop. Like a real-time pitch correction, this parameter controls the effect of the Pitch Wheel/Slider on your MIDI controller. 

<table>
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<tr>
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</tr>
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<tbody>
<tr>
<td>Tune</td>
<td>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.</td>
</tr>
<tr>
<td>Pitchbend</td>
<td>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.</td>
</tr>
</tbody>
</table>

#### ENGINE Section

Re-pitching

This playback engine simply matches the tempo of the Loop to the Project's tempo. This engine is therefore more suitable for pitched material, like drums and percussion, and has the special feature that the transients of sounds remain intact. The range is not independently adjustable, since tempo and pitch are not independent. Using the Audio Plug-in, you may pitch automation you may have done on your computer keyboard while listening to the loop online. Press the [SHIFT] key on your computer keyboard while clicking up/down the Tune knob. To increase the range of the Tune, turn the Pitchbend knob counter-clockwise by clicking and dragging down. To decrease the range of the Tune, turn the Pitchbend knob clockwise by clicking and dragging up. Pressing the [SHIFT] key on your computer keyboard while turning the Pitchbend knob will result in pitch changes to the loop. Like a real-time pitch correction, this parameter controls the effect of the Pitch Wheel/Slider on your MIDI controller. 

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</tr>
<tr>
<td>Pitchbend</td>
<td>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.</td>
</tr>
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#### ENGINE Section

Re-pitching

This playback engine simply matches the tempo of the Loop to the Project's tempo. This engine is therefore more suitable for pitched material, like drums and percussion, and has the special feature that the transients of sounds remain intact. The range is not independently adjustable, since tempo and pitch are not independent. Using the Audio Plug-in, you may pitch automation you may have done on your computer keyboard while listening to the loop online. Press the [SHIFT] key on your computer keyboard while clicking up/down the Tune knob. To increase the range of the Tune, turn the Pitchbend knob counter-clockwise by clicking and dragging down. To decrease the range of the Tune, turn the Pitchbend knob clockwise by clicking and dragging up. Pressing the [SHIFT] key on your computer keyboard while turning the Pitchbend knob will result in pitch changes to the loop. Like a real-time pitch correction, this parameter controls the effect of the Pitch Wheel/Slider on your MIDI controller. 

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</tr>
<tr>
<td>Pitchbend</td>
<td>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.</td>
</tr>
<tr>
<td>Description</td>
<td>Element</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>Stretch</td>
<td>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 allows you to choose the tempo and pitch you want for your project. This engine is useful when you choose for your accuracy play it in sync. No matter which tempo you choose for your accuracy, you can play the audio plug-in in sync.</td>
</tr>
<tr>
<td>Formant</td>
<td>This playback engine is best suited to pitched (tonal) audio as it preserves the formant of the sound. By preserving the formant, it preserves the intrinsic character and voiced any shifts in pitch that would normally result in undesirable changes to the quality of the sound.</td>
</tr>
<tr>
<td>Length</td>
<td>When the samples are pitched upwards or downwards, the playback would normally result in undesirable changes to the quality of the sound. By preserving the formant, it preserves the intrinsic character and voiced any shifts in pitch that would normally result in undesirable changes to the quality of the sound.</td>
</tr>
<tr>
<td>Tempo</td>
<td>Set the original tempo of your sample so that the Audio Plug-in can play it in sync, no matter what tempo you choose for your Project. 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.</td>
</tr>
<tr>
<td>Source Section</td>
<td>Use the Audio Plug-in to increase or decrease the tempo while playing back the sample. This allows you to choose the tempo and pitch you want for your project. This engine is useful when you choose for your accuracy play it in sync. No matter which tempo you choose for your accuracy, you can play the audio plug-in in sync.</td>
</tr>
</tbody>
</table>

Using the Audio Plug-in
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 connected to your soundcard, to create your own loops. Alternatively, you can quickly audition loops within the MASCHINE Library by using the Browser’s Library view. To learn how to use the Browser to find and audition loops, refer to the section 4.2.6, Selecting Type and Mode Tags.

It is possible to load a Sample tagged as "Loops" directly from the Browser by dragging it onto an empty Sound, which will place the Sample directly within the Pattern. As the Sample is loaded into the Pattern, its waveform 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 to the following section 8.3, Using Gate 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 is very useful if you need to load loops into the Audio Plug-in and perform destructive audio edits to them. Once the loops are loaded into the Audio Plug-in, you can quickly switch between Plug-ins and perform destructive audio edits to the Sample. 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 3.3.6, 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 Sound List left of the Pattern Editor, click the desired Sound to put it under focus.

To access the Audio Plug-in in Editor in the software, do the following:

1. Click the Sample Editor button on the left of the Pattern Editor to switch to the Sample Editor.
2. In the Sound List left of the Pattern Editor, click the desired Sound to put it under focus.

The Audio Plug-in Editor contains an Edit tab which, when clicked, opens the audio plug-in editing features. Here you can change the Playable Range Start and End markers to isolate only a portion of the loaded audio file that you wish to loop, and also perform destructive audio edits to the Sample. If you are using a Sample with the Sampler Plug-in, then you can quickly switch between Plug-ins and perform destructive audio edits to the Sample. If you are using a Sample with the Sampler Plug-in, then you can quickly switch between Plug-ins and perform destructive audio edits to the Sample.
The Edit page allows you to apply destructive edits to existing audio:

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 \textit{\textbf{17.3, Editing a Sample}}.

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.

Using Loop Mode

Loop mode is the default mode for the Audio Plug-in and is used to playback an audio file in pattern 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. 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 \textit{\textbf{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.
Enabling and Disabling Audio per Pattern

By clicking the same area again the audio can be reactivated for the pattern.

To disable audio and temporarily remove it from the pattern simply double-click its waveform.

Pattern and play back when you press Play.

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 with the Audio plug-

in, it is tagged as a loop and loaded directly from the Browser, it will be enabled in the

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 Sample's 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.

Using Gate Mode

Gate mode is used to chop and pitch selected parts of your Sample by applying MIDI note 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.
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 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 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 offer a unique 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.
9.1 Drumsynths – General Handling

This section describes the general use and features of the Drumsynths.

9.1.1 Engines: Many Different Drums per Drumsynth

In each Drumsynth, the first parameter (Engine) lets you select the engine you want to use. 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 each one of the available drums. Some engines will create acoustic drums while others will rather produce electronic sounds. Some engines will create highly defined, organic sounds, while others will provide more generic, but still very distinct, drum kits.

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. All Drumsynths are MASCHINE Plug-ins and, as such, they support all usual Plug-in actions and procedures. Hence, to know how to load, replace, insert, move, copy/paste Drumsynth parameters and load/save presets, please refer to section 7.1, Plug-in Overview, where these are described in detail.

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.

In Mix view, the Plug-in panels of all Drumsynths have a similar layout in the Plug-in Strip:

Common Layout in the Plug-in Strip (Mix View)

- The **Main page** always starts with a **Main section**. The other sections on the page differ with each Drumsynth and engine.
- The **Modulation page** allows to adjust the playability of the drum by setting its velocity response.
- The **Advanced page** provides access to more complex and finer adjustments to the drum sounds.
- 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.
- Their parameters are grouped into the same three Parameter pages:

![Image of a custom panel with sections for Engine, Main, and Advanced]
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 can adjust the Tune parameter, select the desired engine, and adjust 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 Tune (e.g., the Tune parameter). Shared parameters refer to the sound of various engines. Within each Drumsynth, some parameters are shared between several engines (e.g., the Tune parameter).

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 generally less velocity-dependent. Most of them only use velocity to modulate the output volume of the sound.
- **Electronic sounding engines** are heavily velocity-dependent: the velocity affects many characteristics of the generated sound, which allows you to play these drums very expressively.

The overall velocity sensitivity for both acoustic and electronic types of engines can be adjusted on the Modulation page via the Velocity control.
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 46 to 84, while the Iron engine can play pitches from MIDI note 46 to 70. If the pitch of an incoming MIDI note falls outside the pitch range of the engine, the pitch will be bounded to that engine's allowable pitch range.
- Some engines have an unlimited pitch range. For example, the Kick's Sub engine, the Tom's Fractal and Tronic engines, and the Percussion's Fractal engine.
- In some drum engines it is impossible to set an exact tuning in MIDI notes. For them, the Tune parameter is set in percents (from 0 % to 100 %).

The Kick Drumsynth can generate a myriad of kick sounds.

### The Kicks

The Kick Drumsynth can generate a myriad of kick sounds.

### Using the Drumsynths

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.
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**: 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

Using the Drumsynths
### 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 played as a sub bass, tom or even a bleepy lead.

#### Using the Drumsynths

**General information on engines, see 9.1.1, Engines: Many Different Drums per Drumsynth.**

For more information on engines, see 9.1.1.

- Push: 9.2.9, Kick – Push
- Maple: 9.2.8, Kick – Maple
- Bold: 9.2.7, Kick – Bold

#### PARAMETERS

<table>
<thead>
<tr>
<th>Description</th>
<th>Main Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engine</strong></td>
<td>Selects the engine used in the Kick Plug-in. If you change this setting, please refer to 9.2, The Kicks.</td>
</tr>
<tr>
<td><strong>Tune</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Decay</strong></td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
</tbody>
</table>

For more information on engines, see 9.1.1, Engines: Many Different Drums per Drumsynth.
The Drumsynths

Using the Drumsynths

### 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 throughout its entire duration (no pitch drop). As the Bend value is increased, an increasing moment of pitch envelope is applied to the punch sound, resulting in a higher starting pitch.

- **Time**
  Adjusts the decay 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 — if the Time value is too long compared to the Decay value, the Decay value is ignored. This means that the pitch of the drum starts at a higher value and falls to the original value as the sound decays. The Decay time is measured as a percentage of the sound duration (around) 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 throughout its entire duration (no pitch drop).

### Advanced Page
For this engine, the Advanced page does not contain any parameters.
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/pads. From the mid position, turning the knob to the left decreases the positive velocity response and makes the drum more and more sensitive to the velocities at which you hit the keys/pads. From the mid position, lowering the knob to the left increases the positive velocity response and makes the drum more and more sensitive to the velocities at which you hit the keys/pads. From that mid position, by turning the knob to the right, you invert the velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads. From that mid position, by turning the knob to the left, you invert the velocity response and make the drum more and more sensitive to the velocities at which you hit the keys/pads.

**Engine Section**

**Velocity**

As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

**Main Page**

**Engine**

Selects the engine used in the Kick Plug-in. If you change this setting, please refer to 9.2, The Kicks.

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 (Arranger 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.

Using the Drumsynths
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Value Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>Allows the color of the distortion, measured as a percentage.</td>
<td>0.0 to 100.0% (default: 75.0%)</td>
</tr>
<tr>
<td>Gain</td>
<td>To get a more distorted drum sound.</td>
<td>0.0 to 100.0% (default: 7.0%)</td>
</tr>
<tr>
<td>Bend</td>
<td>Adjusts the amount of attack. Applied throughout the sound.</td>
<td>0.0 to 100.0% (default: 50.0%)</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage.</td>
<td>0.0 to 100.0% (default: 50.0%)</td>
</tr>
<tr>
<td>MIDI Note</td>
<td>Adjusts the pitch of the drum played by the MIDI Note.</td>
<td>31.00 to 55.00 (default: 43.00)</td>
</tr>
</tbody>
</table>

The Advanced Page contains controls for the distortion.

**DISTORTION Section**

- **Gain**: Adjusts the distortion gain, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%). Increase Gain to get a more distorted drum sound.
- **Tone**: Adjusts the color of the distortion, measured as a percentage. Available values range from 0.0 to 100.0% (default: 25.0%).
### Bias
Adjusts the timbre of the distortion, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). At zero, the distortion is symmetrical and introduces mostly odd harmonics. As the Bias value is increased, the distortion becomes more asymmetric and more even harmonics are introduced, resulting in a different tonality, especially at more subtle Gain settings.

### Mix
Adjusts the mix between the clean and distorted signal, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %). At zero, none of the distorted drum will be heard. At 100.0 %, only the distorted drum will be heard.

### Modulation Page
As with all other engines and Drum synths, the Modulation Page contains one parameter: Velocity. Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value).

### SCALE Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default: 50.0 %). At zero, the drum is played at full velocity, no matter how hard you hit the key/pad. From the mid position, by tuning the knob to the right you increase the positive velocity response, which makes the drum more sensitive to the velocities at which you hit the key/pad. As you turn the knob to the left, the inverse effect is observed: the harder you hit the key/pad, the softer the resulting drum sound will be. This allows for a more nuanced control over the drum's response, especially when used in combination with other modulating parameters.</td>
</tr>
</tbody>
</table>

### Changes to the distortion parameters are only audible when the Mix parameter is set above 0 %.
### Using the Drumsynths

#### 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.

### Parameters

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Engine</strong></td>
<td>Selects the engine used in the Kick Plug-in. If you change this setting, please refer to 9.2.4. The Plug-in Strip for more information on this.</td>
</tr>
<tr>
<td><strong>Tune</strong></td>
<td>Adjusts the pitch of the drum played by the middle C, measured as a percentage of the pitch of the drum played by the middle C. Available values range from 0.0% (default: 4.0%) to 100.0%. This setting is only available in the Plug-in panel.</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
<td>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%.</td>
</tr>
<tr>
<td><strong>Decay</strong></td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0% (default: 0.0%) to 100.0%.</td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td>Adjusts the amount of noise, measured as a percentage. Available values range from 0.0% to 100.0% (default: 10.0%). For more details see 9.1.5. Pitch Range, Tuning, and MIDI Notes.</td>
</tr>
<tr>
<td><strong>Filter</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

### MIDI Notes

- The default pitch is 43.5.
- The pitch range is 0 to 100.0% (default: 43.5%).

### The Plug-in Strip

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.
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.

### Velocity

**Description**

Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value: 0% or mid course). The higher the Velocity knob, the higher the velocity threshold at which the drum is played. The higher the Velocity knob, the less sensitive to velocity the drum response will be.

**Parameter**

Velocity

Using the Drumsynths

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 like the best of them. At high tunings, especially with extreme “Aero Grind” and “Aero Amount” values, it becomes very gritty and punchy, 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.
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN Section</strong></td>
<td></td>
</tr>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Kick Plug-in. If you change this setting, please refer to section 10.2 &quot;The Kicks&quot; in the MASCHINE 2.0 Manual.</td>
</tr>
<tr>
<td>Tune</td>
<td>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. 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 the note. Although the sound duration will still depend on the Decay parameter (see above), switching Gate on and setting the Decay parameter to a value below 100% will result in a punchier, more aggressive character than simply using short Decay values with Gate.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts the amount of attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 75.0%).</td>
</tr>
<tr>
<td>Bend</td>
<td>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%).</td>
</tr>
<tr>
<td>Gate</td>
<td>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 the note. 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 the note. Although the sound duration will still depend on the Decay parameter (see above), switching Gate on and setting the Decay parameter to a value below 100% will result in a punchier, more aggressive character than simply using short Decay values with Gate.</td>
</tr>
</tbody>
</table>

**AERO Section**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>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. 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 the note. Although the sound duration will still depend on the Decay parameter (see above), switching Gate on and setting the Decay parameter to a value below 100% will result in a punchier, more aggressive character than simply using short Decay values with Gate.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts the amount of attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 75.0%).</td>
</tr>
<tr>
<td>Bend</td>
<td>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%).</td>
</tr>
<tr>
<td>Gate</td>
<td>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 the note. Although the sound duration will still depend on the Decay parameter (see above), switching Gate on and setting the Decay parameter to a value below 100% will result in a punchier, more aggressive character than simply using short Decay values with Gate.</td>
</tr>
</tbody>
</table>

---

**Using the Drumsynths**

**The Kicks**
### 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. Above zero, you increase the positive velocity response and make the drum more sensitive to the velocity at which you hit the keys or pad. Below zero, by turning the knob to the right (or pad), you decrease the velocity and make the drum more sensitive. A value of -100% means the drum is played at full velocity, no matter how hard you hit the keys. A value of 100% (default value) means the drum is played at a constant velocity, no matter how hard you hit the keys.

### Advanced Page

**Grind**
- Adjusts the grittiness, or "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%).

**Ve-**
- For this engine, the Advanced page contains one parameter: Velocity.

Like with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.
**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) and in the Plug-in panel within the Plug-in Strip (Mix view). See ↑ 13.4, The Plug-in Strip for more information on this.

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. The parameters described below are presented as they appear in the Control area (Arrange view). See for a wide range of bass drums.

### Parameters

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN Section</strong></td>
<td></td>
</tr>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Kick Plug-in. If you change this setting, please refer to ↑ 9.2, The Kicks.</td>
</tr>
<tr>
<td>Tune</td>
<td>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 62.00. The default value is 50.00. For more details see ↑ 9.1.5, Pitch Range, Tuning, and MIDI Notes.</td>
</tr>
<tr>
<td>Punch</td>
<td>Simultaneously adjusts the amount of noise of the attack. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound’s tail, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts how hard the drum is hit. Available values range from 0.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRISPNESS Section</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode A</td>
<td>Selects a tambourine-like sound.</td>
</tr>
<tr>
<td>Mode B</td>
<td>Selects a snare-like sound.</td>
</tr>
</tbody>
</table>
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.

### Scale Section

**Velocity**
- **Description**: Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value: 0.0%).
- **Parameter row**: Velocity

### Modulation Page

As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

### Advanced Page

<table>
<thead>
<tr>
<th>Description</th>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusts the amount of crispness effect, measured as a percentage. Available values range from 0.0% to 100.0% (default: 50.0%).</td>
<td>Amount</td>
</tr>
<tr>
<td>Adjusts the duration of the crispness effect, measured as a percentage. Available values range from 0.0% to 100.0% (default: 34.0%).</td>
<td>Decay</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN Section</strong></td>
<td></td>
</tr>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Kick Plug-in. If you change this setting, please refer to 9.2, The Kicks.</td>
</tr>
<tr>
<td>Tune</td>
<td>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.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the punch, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>Snap</td>
<td>Emulates the air movement caused by the beater before the drum is hit. Therefore, it produces a snap in the waveform of the drum sound. The default value is 75.0 %.</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts how hard the drum is hit, measured as a percentage. Available values range from 0.0 % (softest) to 100.0 % (hardest).</td>
</tr>
<tr>
<td><strong>PUNCH Section</strong></td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>Selects from two different punch modes: A (default) and B.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the punch, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>Amount</td>
<td>Adjusts the amount of punch, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 50.0 %).</td>
</tr>
</tbody>
</table>

For this engine the Advanced page does not contain any parameters.
As with all other engines and Drumsynths, the Modulation page contains one parameter:

**Velocity**

**Element**

**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/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 that mid position, by 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 light 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.

<table>
<thead>
<tr>
<th>Engine</th>
<th>MAIN Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modulation Page</td>
<td>Description</td>
</tr>
<tr>
<td><strong>Engine</strong></td>
<td>Selects the engine used in the Kick Plug-in. If you change this setting, please refer to ↑ 9.2, The Kicks.</td>
</tr>
<tr>
<td><strong>MAX Section</strong></td>
<td>Element</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>ENGINE</td>
</tr>
</tbody>
</table>
### Element Description

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>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.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound’s tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>Punch</td>
<td>Simultaneously adjusts the amplitude and decay time of the noise.</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts how hard the drum is hit, measured as a percentage. Available values range from -100.0 % (softest) to 100.0 % (hardest). The default value is 75.0 %.</td>
</tr>
<tr>
<td>Velocity</td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid range), 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 sensitive to the velocities at which you hit the keys (or pads), from the mid position, by turning the knob to the left you increase the negative velocity response and make the drum less sensitive to the velocities at which you hit the keys (or pads).</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts how hard the drum is hit, measured as a percentage. Available values range from -100.0 % (softest) to 100.0 % (hardest).</td>
</tr>
</tbody>
</table>

### SCALE Section

- **Velocity**
  - Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). At zero (mid range), 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 sensitive to the velocities at which you hit the keys (or pads). From the mid position, by turning the knob to the left you increase the negative velocity response and make the drum less sensitive to the velocities at which you hit the keys (or pads).

### 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.
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 seamlessly into any mix.

### Using the Drumsynths

#### 9.2.8 Kick – Maple

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN Section</strong></td>
<td></td>
</tr>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Kick Plug-in. If you change this setting, please refer to <a href="#">9.2, The Kicks</a> for more information on this.</td>
</tr>
<tr>
<td>Tune</td>
<td>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 <a href="#">9.1.5, Pitch Range, Tuning, and MIDI Notes</a>.</td>
</tr>
<tr>
<td>Skin Tune</td>
<td>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%).</td>
</tr>
<tr>
<td>Impact</td>
<td>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%.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. The default value is 50.0%.</td>
</tr>
</tbody>
</table>

#### ROOM Section

<table>
<thead>
<tr>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>The default value is 75.0%. Available values range from 0.0% (softest) to 100.0% (hardest).</td>
</tr>
</tbody>
</table>

The parameters described below are presented as they appear in the Control area (Arrange view) and 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.

The Maple kick is an acoustic bass drum emulation that provides a realistic and organic sound.
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.

### Kick – Push

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCALE Section</td>
<td>Velocity</td>
</tr>
<tr>
<td></td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value: 0.0 %).</td>
</tr>
</tbody>
</table>

For this engine the Advanced page does not contain any 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.

As with all other engines and Drumsynths, the Modulation page contains one parameter: Veloc-

**Modulation Page**

For this engine the Advanced page does not contain any parameters.

**Advanced Page**

<table>
<thead>
<tr>
<th>Main Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td><strong>Engine</strong></td>
<td>Selects the engine used in the Kick Plug-in. If you change this setting, please refer to 9.2, The Kicks.</td>
</tr>
<tr>
<td><strong>Tune</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Decay</strong></td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0% to 100.0% (default: 50.0%). The default value is 50.0%.</td>
</tr>
<tr>
<td><strong>Punch</strong></td>
<td>Simultaneously adjusts the amount of the attack envelope and the amount of noise of the attack. Available values range from 0.0% to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
<td>Adjusts how hard the drum is hit. Available values range from 0.0% (softest) to 100.0% (hardest). The default value is 75.0%.</td>
</tr>
</tbody>
</table>

**Using the Drumsynths**

The Snare Drumsynth can generate a multitude of snare sounds.

<table>
<thead>
<tr>
<th>SCALE Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>Adjust 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 the drum becomes more and more sensitive to the velocities at which you hit the keys. From the mid position, turning the knob to the left is the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be.</td>
</tr>
</tbody>
</table>

The Snare Drumsynth has a velocity section that allows you to adjust 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, turning the knob to the right increases the positive velocity response and the drum becomes more and more sensitive to the velocities at which you hit the keys. From the mid position, turning the knob to the left is the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be.
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): 9.3.3, 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

Using the Drumsynths
### 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.

#### Main Page

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Snare Plug-in. If you change this setting, please refer to 9.3, The Snares.</td>
</tr>
<tr>
<td>Tune</td>
<td>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.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0% to 100.0% (default: 50.0%).</td>
</tr>
</tbody>
</table>

For more information on engines, see 9.1, Drumsynths – General Handling.

For general information on the Snare and the other Drumsynths, see 9.1, Drumsynths – General Handling.

#### Using the Drumsynths

- **Clap**: 9.3.9, Snare – Clap
- **Iron**: 9.3.8, Snare – Iron
- **Chrome**: 9.3.7, Snare – Chrome
- **Vintedge**: 9.3.6, Snare – Vintedge
**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 **Osc 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 %).

**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 %).

---

**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 %).

---

**Modulation Page**

As with all other engines and Drumsynths, the **Modulation** page contains one parameter: **Veloc-**

---

**Advanced Page**

For this engine the **Advanced** page does not contain any parameters.
9.3.2 Snare – Bit

The Bit snare is a thin, harsh, digital snare.

### 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 (default: 50.0 %). For more details see 9.1.5, Pitch Range.

### Decay
Adjusts the duration of the sound's tail, measured as a percentage (default: 50.0 %).

### 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 it. From -100.0 % to 100.0 %, the harder you hit the keys (or pads), the more sensitive the velocity response and the shorter the resulting drum sound will be.

### Scale Section
- **Velocity**
- **Decay**
- **Tune**
- **Engine**
- **Scale Section**
- **Description**

### Using the Drumsynths

**The Snares**

MASCHINE STUDIO - Manual - 410
### 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: 30.0 %).

### 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 %).

### 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 sound, i.e. until the end of its tail, no matter when the note is released. From the mid position, turning the knob to the left will have the inverse effect: the harder you hit the keys (or pads), the softer the sound.

### Using the Drumsynths
As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

### Advanced Page
For this engine the Advanced page does not contain any parameters.
### Using the Drumsynths

#### The Snares

**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 sound.

The parameters described below are presented as they appear in the Control area (Arrange view). See \[13.4, The Plug-in Strip\] for more information on this.

#### The Plug-in Strip

The 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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Engine</strong></td>
<td>Selects the engine used in the Snare Plug-in. If you change this setting, please refer to [9.3, The Snares].</td>
</tr>
<tr>
<td><strong>Tune</strong></td>
<td>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].</td>
</tr>
<tr>
<td><strong>Bend</strong></td>
<td>Adjusts the pitch sweep of the sound, measured as a percentage. Available values range from -100.0 % to 100.0 % (default: 0.0 %).</td>
</tr>
<tr>
<td><strong>Focus</strong></td>
<td>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 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td><strong>Advanced Page</strong></td>
<td>For this engine the Advanced page does not contain any parameters.</td>
</tr>
</tbody>
</table>

---

*For this engine the Advanced page does not contain any parameters.*
As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCALE Section</td>
<td>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 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 velocities at which you hit the keys/pads. From that mid position, by turning the knob to the left you increase the positive velocity response and make the drum less sensitive to the velocities at which you hit the keys/pads (or pads). The harder you hit the keys/pads, the softer the resulting drum sound will be.</td>
</tr>
</tbody>
</table>

### 9.3.4 Snare – Sharp

The Sharp snare is an acoustic snare drum emulation inspired by the sound of 1970s disco. 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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN Section</td>
<td>Engine Selects the engine used in the Snare Plug-in. If you change this setting, please refer to ↑ 9.3, The Snares.</td>
</tr>
</tbody>
</table>

Using the Drumsynths
### Element Description

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>Adjusts the level and duration of the drum’s sound applied to the drum, measured as a percentage. Available values range from 0.0% to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td>Noise</td>
<td>Adjusts the noise level applied to the drum, measured as a percentage. Available values range from 0.0% to 100.0% (default: 40.0%).</td>
</tr>
</tbody>
</table>
| Body | Adjusts the level of the snare body independently from the wires, measured as a percentage. The default value is 50.0%.

### Tuning and MIDI Notes

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>Adjusts the pitch of the drum played by the MIDI note of the drum, measured as a percentage. Available values range from 0.0% to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td>Pitch Range</td>
<td>For more details see 19.1.3. Pitch Range.</td>
</tr>
<tr>
<td>MIDI Notes</td>
<td>For more details see 19.1.5. Pitch Range.</td>
</tr>
</tbody>
</table>

### Advanced Page

As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

For this engine, the Advanced page does not contain any parameters.
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Snare Plug-in. If you change this setting, please refer to [9.3, The Snares].</td>
</tr>
<tr>
<td>Tune</td>
<td>Adjusts the pitch of the drum played by the middle C, measured in MIDI note numbers and cents. Available values range from 5200 to 7600. The default value is 6400. For more details see [9.1.5, Pitch Range, Tuning, and MIDI Notes].</td>
</tr>
<tr>
<td>Scale</td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0 % to 100.0 % (default value). From zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys/pads. From that mid position, turning the knob to the right increases the positive velocity response and makes the drum more and more sensitive to the velocities at which you hit the keys/pads. From that mid position, by turning the knob to the right you increase the positive velocity response and make the drum sound more attacky. The drum is played at full velocity, no matter how hard you hit the keys/pads. From zero (mid course), turning the knob to the left decreases the velocity response and makes the drum more and more insensitive to the velocities at which you hit the keys/pads. From that mid position, by turning the knob to the left you decrease the negative velocity response and make the drum sound more attacky. The drum is played at full velocity, no matter how hard you hit the keys/pads.</td>
</tr>
</tbody>
</table>
| Velocity      | Adjusts the velocity response of the drum. Available values range from 0 to 100 (default value). At zero, the drum is played at full velocity, no matter how hard you hit the keys/pads.
### 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 %.

### Decay
Adjusts the duration 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 %).

### Tune
Provides an independent tuning for the snare wires. 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 %).

### Mode
Selects from two different noise types that simulate the wires of the drum. Available modes are A (default) and B.

### Spectra Section
The Spectra Section contains parameters controlling the wires’ sound of the drum.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td>Adjusts the sound of the snare wires, independently from the main Decay parameter. Available values range from 0.0 % to 100.0 % (default: 40.0 %).</td>
</tr>
<tr>
<td>Tune</td>
<td>Provides an independent tuning of the snare wires. 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 %).</td>
</tr>
<tr>
<td>Mode</td>
<td>Selects from two different noise types that simulate the wires of the drum. Available modes are A (default) and B.</td>
</tr>
</tbody>
</table>

### Advanced Page
The Advanced page contains parameters controlling the wires’ sound of the drum.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 %.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 %).

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound of the snare wires, independently from the main Decay parameter. Available values range from 0.0 % to 100.0 % (default: 40.0 %).</td>
</tr>
</tbody>
</table>

### Modulation Page
As with all other Engines and Drumsynths, the Modulation page contains one parameter: Velocity.
**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/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. 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.

**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.

**Engine**

Selects the engine used in the Snare Plug-in. If you change this setting, please refer to 9.3, The Snares.

---

**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 parameter.

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.

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.

---

**USING THE DRUMSYNTHS**
### Element Description

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>Skin Tune</td>
<td>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 %).</td>
</tr>
<tr>
<td>Impact</td>
<td>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 %.</td>
</tr>
</tbody>
</table>

### Advanced Page

The Advanced page contains parameters controlling the wires' sound of the drum.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td>Controls the length of the wire sound independently from the main Decay parameter on the Main page. Available values range from 0.0 to 100.0 % (default: 40.0 %).</td>
</tr>
<tr>
<td>Mode</td>
<td>Selects from two different noise types that simulate the wires of the drum. Mode A (default) and B.</td>
</tr>
<tr>
<td>Amount</td>
<td>Adjusts the amount of wire sound applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %).</td>
</tr>
</tbody>
</table>

### Modulation Page

As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>Selects from two different noise types that simulate the wires of the drum.</td>
</tr>
<tr>
<td>Amount</td>
<td>Adjusts the amount of wire sound applied to the drum, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 75.0 %).</td>
</tr>
<tr>
<td>Decay</td>
<td>Controls the length of the wire sound independently from the main Decay parameter on the Main page. Available values range from 0.0 to 100.0 % (default: 40.0 %).</td>
</tr>
<tr>
<td>Tune</td>
<td>Provides an independent tuning of the wire noise. It relates to the wires tension of a real snare drum. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>Mode</td>
<td>Selects from two different noise types that simulate the wires of the drum. Mode A (default) and B.</td>
</tr>
</tbody>
</table>

As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.
**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. From that mid position, by turning the knob to the left, you increase the positive velocity response and make the drum less sensitive to velocities. If you hit the keys from 10.0 % to 100.0 % (default value, at zero) and course), adjust the velocity response of the drum. Available values range from 0.0 % to 100.0 %.

---

**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.

---

**Main Section**

- **Main**: 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.

---

**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 %).

---

**Using the Drum synthesizers**

---

**The Snares**

---

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The Advanced page contains parameters controlling the wires' sound of the drum.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td>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%).</td>
</tr>
<tr>
<td>Tune</td>
<td>Provides an independent tuning of the snare wires. If set to 0.0% of the drum, available noise modes are A (default) and B. Selects from two different noise types that simulate the snare wires of a real snare drum.</td>
</tr>
<tr>
<td>Mode</td>
<td>Selects from two different noise types that simulate the snare wires of a real snare drum. Available modes are A (default) and B.</td>
</tr>
</tbody>
</table>

### SpecTra Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>Provides an independent tuning of the snare wires. If set to 0.0% of the drum, available noise modes are A (default) and B. Selects from two different noise types that simulate the snare wires of a real snare drum.</td>
</tr>
</tbody>
</table>

### Modulation Page

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>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%).</td>
</tr>
<tr>
<td>Decay</td>
<td>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%).</td>
</tr>
<tr>
<td>Tune</td>
<td>Provides an independent tuning of the snare wires. If set to 0.0% of the drum, available noise modes are A (default) and B. Selects from two different noise types that simulate the snare wires of a real snare drum.</td>
</tr>
</tbody>
</table>

### 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%.

As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.
### 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/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 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.

### Engine

Selects the engine used in the Snare Plug-in. If you change this setting, please refer to 9.3. The Snares.

### 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.

### 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.**

#### 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.

#### 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/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 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.
## 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 wires independently from the main Decay parameter on the Main page. 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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td>Controls the length of the snare wires' sound independently from the Main page Decay parameter. Available values range from 0.0 to 100.0 % (default: 40.0 %).</td>
</tr>
<tr>
<td>Amount</td>
<td>Advises the amount of sound wires' sound applied to the drum, measured as a percentage from 0.0 to 100.0 % (default: 75.0 %).</td>
</tr>
<tr>
<td>Mode</td>
<td>Selects from two different noise types that simulate the snare wires' sound. Available modes are A (default) and B.</td>
</tr>
</tbody>
</table>

### SPECTRA Section

#### Mode
Selects from two different noise types that simulate the snare wires' sound. 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
Advises the amount of sound wires' sound applied to the drum, measured as a percentage 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**.

---

**The Snares**

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<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCALE Section</td>
<td></td>
</tr>
<tr>
<td>Velocity</td>
<td>Adjusts the velocity response of the drum. Available values range from 0.0% to 100.0% (default value). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys/ 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, by turning the knob to the left you increase the negative velocity response and make the drum less and less sensitive to the velocities at which you hit the keys/ pads. From -100.0% to 100.0% (default value, at zero (mid course)), adjust the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). For more details see 19.1.5, Pitch Range.</td>
</tr>
</tbody>
</table>

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 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, 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 zero (mid course), the drum is played as full velocity, no matter how hard you hit the keys; from that mid position, by turning the knob to the right you increase the positive velocity response and make the drum sharper. From that mid position, by turning the knob to the left you decrease the positive velocity response and make the drum smoother.

Focus
Adjusts the sharpness of each clap, measured as a percentage. At 0.0 % the sound is very smooth; at 100.0 % the claps are very sharp and staccato.

As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

For this engine the Advanced page does not contain any parameters.

---

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>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 sharper. From that mid position, by 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.</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCALE Section</td>
<td>Velocity</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

For this engine the Advanced page does not contain any parameters.

---

Using the Drumsynths

---

The Snares
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 "Using the Drumsynths" for more information.

### Main Page

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN Section</strong></td>
<td></td>
</tr>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Snare plug-in. For more information on the available engines, please refer to section 9.3, The Snares.</td>
</tr>
<tr>
<td>Tune</td>
<td>Adjusts the pitch of the drum played by the middle C. Available values range from 61.00 (NOTE C#3) to 85.00 (NOTE C#5). The default value is 73.00 (NOTE C#4).</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound’s tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td>Skin Tune</td>
<td>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%).</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 75.0%).</td>
</tr>
</tbody>
</table>

### Advanced Page

For this engine the Advanced page does not contain any parameters.
The Snares

**SPECTRA Section**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Selects from two different noise types that simulate the wires of the drum. Available modes are A (default) and B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>Provides an independent tuning of the noise. It relates to the tension of the wires on a real snare drum. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the length of the sound of the wires, independently from the main Decay parameter on the Main page. Available values range from 0.0% to 100.0% (default: 40.0%).</td>
</tr>
<tr>
<td>Amount</td>
<td>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%).</td>
</tr>
</tbody>
</table>

**SCALE Section**

| Velocity | Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). At the mid position, the drum is played at full velocity, no matter how hard you hit the keys. From that mid position, by turning the knob to the right (or pads), you increase the positive velocity response and make the drum more snappy. From the mid position, turning the knob to the left has the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be. |

**Modulation Page**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value). At the mid position, the drum is played at full velocity, no matter how hard you hit the keys. From that mid position, by turning the knob to the right (or pads), you increase the positive velocity response and make the drum more snappy. From the mid position, turning the knob to the left has the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be.</td>
</tr>
</tbody>
</table>

Like with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.
The Hi-hats

The Hi-hat Drumsynth can generate a variety of hi-hat sounds.

9.4 The Hi-hats
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 the 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.

### 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.

### Table: Main Page

<table>
<thead>
<tr>
<th>Main Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Hi-hat Plug-in. If you change this setting, please refer to 9.4. The Hi-hats.</td>
</tr>
</tbody>
</table>
### Element Description

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>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.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 65.0 %).</td>
</tr>
<tr>
<td>Gate</td>
<td>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.</td>
</tr>
<tr>
<td>Color</td>
<td>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 sound. Colored down, the sound is much more melodic 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.</td>
</tr>
<tr>
<td>Saturate</td>
<td>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 %).</td>
</tr>
<tr>
<td>Noise</td>
<td>Adjusts 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).</td>
</tr>
</tbody>
</table>

---

### Using the Drumsynths

Using the Drumsynths
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.

Using the Drumsynths

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 sound.

### Parameters

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value, 0.0%). 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, turning the knob to the right increases the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys. From the mid position, turning the knob to the left decreases the positive velocity response and make the drum more and more sensitive to the velocities at which you hit the keys. The drum is played at full velocity, no matter how hard you hit the keys. The knob is set to the left (default) when the knob is in the middle position.</td>
</tr>
<tr>
<td>MAIN Section</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Hi-hat Plug-in. If you change this setting, please refer to ↑ 9.4, The Hi-hats.</td>
</tr>
<tr>
<td>Tune</td>
<td>Adjusts the pitch of the cymbal, measured as a percentage. Available values for increased thickness, measured as a percentage. Available values range from 0.0 to 100.0% (default: 19.0%).</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound, measured as a percentage. A short decay produces a closed hat, a long decay gives an open hat. Available values range from 0.0 to 100.0% (default: 65.0%).</td>
</tr>
<tr>
<td>Gate</td>
<td>Parameter, limited to the range of the parameter; released, although the sound continues. When enabled, the decay of the cymbal is choked by the end of the note. When disabled (default), the cymbal stays on for one-shot.</td>
</tr>
<tr>
<td>Saturate</td>
<td>Adjusts the amount of analog-style saturation applied to the sound, measured as a percentage. Available values range from 0.0 to 100.0% (default: 19.0%).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TONE Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Adjusts the center frequency of the filter applied to the sound, measured in Hz. Available values range from 932.3 Hz to 16.7 kHz (default: 7.4 kHz). The default position gives a standard metallic sound. Colored down, the sound is much more melodic and in the midrange. Colored up, the sound is much more tuned to drums. Available values range from 932.3 Hz to 16.7 kHz (default: 7.4 kHz).</td>
</tr>
<tr>
<td>Gate</td>
<td>Parameter (see above).</td>
</tr>
<tr>
<td>Saturate</td>
<td>Parameter (see above).</td>
</tr>
</tbody>
</table>

**Tuning, and MIDI Notes:**
- 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: 7.4 %) for more details, see ↑ 9.2.5, Pitch Range.
- Decibel: Adjusts the volume of the plugin, measured as a percentage. Available values range from 0.0 to 100.0% (default: 0.0 %).

**Setting:** Please refer to ↑ 9.4. The Hi-hats.
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.

### Advanced Page

For this engine the Advanced page does not contain any parameters.

### Scale Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default value: 0.0%)</td>
</tr>
</tbody>
</table>

### Modulation Page

- **Dissonance**: Affects the randomization of the oscillator, measured as a different set of random pitches and harmonics.
- **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.

### 9.4.3 Hi-hat – Memory

The resulting drum sound will be:

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 responses and make the drum faster, while the inverse effect: the harder you hit the keys, the softer the pads. From the mid position, turning the knob to the left subtracts more and more sensitivity to the velocities at which you hit the keys, which you increase the positive velocity responses and make the drum slower. The mid position is the default (full velocity), no matter how hard you hit the keys (or pads).

As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN Section</td>
<td>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.</td>
</tr>
</tbody>
</table>

**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 frequency curve of the sound, 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.

**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.

**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 when an enable MIDI note is received. Although the sound duration will still depend on the Decay parameter, the sound is cut off before the decay is finished. 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 when a MIDI note is received.

**Source**
- Selects the sampled timbre to be used as source. Six modes are available (see above): A (default), B, C, D, E, and F — each corresponding to a different cymbal.

**TONE Section**
- 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 darker sound. Low settings are preferable. Available values range from 0.0 to 100.0% (default: 50.0%).

**Color**
- A different color.

**Color**
- A different color.

**Source**
- Selects the sampled timbre to be used as source. Six modes are available (see above): A (default), B, C, D, E, and F — each corresponding to a different 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 when a MIDI note is received. Although the sound duration will still depend on the Decay parameter, the sound is cut off before the decay is finished. 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 when an enable MIDI note is received.

**Source**
- Selects the sampled timbre to be used as source. Six modes are available (see above): A (default), B, C, D, E, and F — each corresponding to a different 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 when a MIDI note is received. Although the sound duration will still depend on the Decay parameter, the sound is cut off before the decay is finished. 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 when a MIDI note is received.

**Source**
- Selects the sampled timbre to be used as source. Six modes are available (see above): A (default), B, C, D, E, and F — each corresponding to a different 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 when a MIDI note is received. Although the sound duration will still depend on the Decay parameter, the sound is cut off before the decay is finished. 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 when a MIDI note is received.
### 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. By automating the Rattle parameter, you can create great sounding hi-hat figures. The Metallic parameter, and special electronic characteristics provided by the Metallic-to-electronic converter, adds unique electronic features such as striking and distortion, allowing you to create a wide range of hi-hat sounds.

#### 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 sound more and more sensitive to the velocities at which you hit the keys. 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.

#### Advanced Page

The Advanced page does not contain any parameters.

#### Modulation Page

As with all other engines and Drumsynths, the Modulation page contains one parameter: **Velocity**.
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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Section</strong></td>
<td></td>
</tr>
<tr>
<td>Engine</td>
<td>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.</td>
</tr>
<tr>
<td>Tune</td>
<td>Sets the engine used in the Hybrid plug-in. For more information on the available engines, please refer to section 9.4, The Hi-hats.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TONE Section</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Adjusts the cutoff frequency of several low-pass filters in order to achieve the desired timbre. Available values range from 0.0 to 100.0% (default: 71.5%).</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 65.0%).</td>
</tr>
<tr>
<td>Tune</td>
<td>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%).</td>
</tr>
<tr>
<td>Metallic</td>
<td>Adjusts an enharmonic metallic character, measured as a percentage. Available values range from 0.0 to 100.0% (default: 0.0%).</td>
</tr>
<tr>
<td>Strike</td>
<td>Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 80.0%).</td>
</tr>
<tr>
<td>Character</td>
<td>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%).</td>
</tr>
<tr>
<td>Color</td>
<td>Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 0.0%).</td>
</tr>
<tr>
<td>Metallic</td>
<td>Adjusts an enharmonic metallic character, measured as a percentage. Available values range from 0.0 to 100.0% (default: 0.0%).</td>
</tr>
<tr>
<td>Strike</td>
<td>Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 0.0%).</td>
</tr>
<tr>
<td>Character</td>
<td>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%).</td>
</tr>
</tbody>
</table>
### Advanced Page

#### 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%).

#### 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. From the mid position, turning the knob to the right increases the positive velocity response and makes the drum more sensitive to the velocity at which you hit the keys. From the mid position, turning the knob to the left decreases the positive velocity response and makes the drum less sensitive.

### 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 **Group**! Indeed, by loading two Hi-hat Plug-ins into a **Group**, you can recreate mutually exclusive Hi-hat sounds that cancel each other out when triggered.

#### Modulation Page
- **Velocity**: Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default: 50.0%).
- **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%).

Using the Drumsynths
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 drums hi-hat sounds, and thereby help you to give your hi-hats a “human” feel. Furthermore, since this method makes use of a single sound you can quickly control over the duration of your various hi-hat sounds, and thereby help you to give your hi-hats a “human” feel.

The Tom Drumsynth can generate a variety of tom sounds.

Using the Drumsynths
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.

The Tom provides following engines:

- Tronic (default): 19.5.1, Tom – Tronic.
- Fractal: 19.5.2, Tom – Fractal.
- Floor: 19.5.3, Tom – Floor.

Each engine has a different character and set of parameters, as detailed in the following section.
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.

<table>
<thead>
<tr>
<th>Main Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>Selects the engine used in the Tom Plug-in. If you change this setting, please refer to ↑ 9.5, The Toms.</td>
</tr>
<tr>
<td>Tune</td>
<td>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.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
</tbody>
</table>

For more information on engines, see ↑ 9.1.1, Engines: Many Different Drums per Drumsynth.

See ↑ 13.4, The Plug-in Strip for more information on this.
### 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.

#### HARMONICS Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interval</td>
<td>Adjusts the interval between the two oscillators, measured in semitones and cents. Available values range from 0.00 to 13.50 semitones and cents. (default: 6.50)</td>
</tr>
<tr>
<td>FM Freq</td>
<td>Adjusts the frequency of the FM oscillator, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>FM Decay</td>
<td>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 sound, long decays can be used to embellish the tone or timbre of the tom, especially when applied subtly (see FM Amount below).</td>
</tr>
<tr>
<td>FM Amount</td>
<td>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. At higher values, the pitch bends downwards. At lower values, the pitch bends upwards. At zero the sound stays at its original pitch during its entire decaying phase.</td>
</tr>
</tbody>
</table>

---

### The Toms
Using the Drumsynths...
As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

<table>
<thead>
<tr>
<th>SCALE Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>Adjusts the Velocity response of the drum. Available values range from 100.0% (default value) at zero (mid course), from 100.0% to 110.0% (defaul value) at the velocity parameter.</td>
</tr>
</tbody>
</table>

**Element**

**Tom**

The FRACTAL tom is a modern electronic tom with a broad sonic range from pure and analog-sounding through organic and percussive 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 produces a simple melodic-style bleepy sound. The addition of the feedback oscillator bank facilitates a much wider range of sounds.

**Tom – Fractal**

The Fractal tom is a modern electronic tom with a broad sonic range from pure and analog-sounding through organic and percussive 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 produces a simple melodic-style bleepy sound. The addition of the feedback oscillator bank facilitates a much wider range of sounds.
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 19.1.3, 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 decay 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%.

The Toms
Using the Drumsynths
### Advanced Page

The **Advanced page** contains parameters controlling the individual oscillators.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Harmonics Section</strong></td>
<td>Selects from two key tracking modes: <strong>Harmonic</strong> (default) and <strong>Dissonant</strong>.</td>
</tr>
</tbody>
</table>

#### Harmonics Section

- **KTr. Mode** *(Key Tracking Mode)*
  - **Harmonic** (default) and **Dissonant**.
  - In **Harmonic** mode all oscillators track the **Tune** parameter of your keyboard/pads 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 drum stay in tune with itself and your keyboard even. Therefore, the drum produces dissonant, detuned harmonics when the **Tune** parameter is adjusted.

- **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 only). The default value is 5.0 %.

#### Using the DrumSynths

- **Glide**
  - Adjusts a simple filter which affects the brightness of the sound. The default value is 5.0 %.
  - The **Glide** parameter is set higher than zero. The pitch glides smoothly to the new tuning when the drum is played across the keyboard. Available values range from 0.0 % to 100.0 % (default: 50.0 %).
  - The **Glide** parameter is set higher than zero. The pitch glides smoothly to the new tuning when the drum is played across the keyboard. Available values range from 0.0 % (no glide) to 350.0 ms (slowest glide). The default value is 5.5 ms.

- **Color**
  - Available values range from 0.0 % to 100.0 % (default: 50.0 %).
### Transpose

Adjusts the pitch transposition of the feedback oscillator bank only, measured in semitones and cents. 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. Amplitude modulation tends to add breath, bright overtones. 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).

### Freq B

Adjusts the pitch of oscillator B 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 %).

### 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 breath, 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.
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN Section</td>
<td><strong>Engine</strong> Selects the engine used in the Tom Plug-in. If you change this setting, please refer to 9.5, The Toms.</td>
</tr>
<tr>
<td></td>
<td><strong>Tune</strong> 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, Tune, and MIDI Notes.</td>
</tr>
<tr>
<td></td>
<td><strong>Velocity</strong> Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0%. (default value: -100.0%) From the mid position, the harder you hit the key, the softer the resulting drum sound will be.</td>
</tr>
</tbody>
</table>

The Floor Tom is an acoustic tom that provides the emulation of a complete set of toms. Though it is more suitable for floor and low toms, it is also capable of producing interesting mid and high toms. The Tom – Floor parameters listed 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.

### 9.5.3 Tom – Floor

- **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.

### Using the Drumsynths

- **Velocity** Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0%. (default value: -100.0%) From the mid position, the harder you hit the key, the softer the resulting drum sound will be.
As with all other engines and Drumsynths, the **Modulation** page contains one parameter: **Velocity**.

## Modulation Page

For this engine the **Advanced** page does not contain any parameters.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
<tr>
<td>Tension</td>
<td>Adjusts the tension of the drum skin, measured as a percentage. Available values range from 0.0 to 100.0 % (default).</td>
</tr>
<tr>
<td>Impact</td>
<td>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 %.</td>
</tr>
<tr>
<td>Flex</td>
<td>Adjusts the elasticity of the skin, measured as a percentage. Available values range from 0.0 % to 100.0 % (default: 30.0 %).</td>
</tr>
</tbody>
</table>
| 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 %.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>Adapts the amount of damping applied to the air, measured as a percentage. Available values range from 0.0 to 100.0 % (default: 50.0 %).</td>
</tr>
</tbody>
</table>

## Advanced Page

For this engine the **Advanced** page does not contain any parameters.

This page contains one parameter: **Velocity**.

## Using the Drumsynths

**The Toms**
### SCALE Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default: 50.0%). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys/pads. From the mid position, by turning the knob to the right you increase the positive velocity response and make the drum more sensitive to the velocities at which you hit the keys. From the mid position, by turning the knob to the left you decrease the positive velocity response and make the drum more sensitive to the velocities at which 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 sensitive to the velocities at which you hit the keys/pads. From the mid position, by turning the knob to the left you decrease the positive velocity response and make the drum more sensitive to the velocities at which you hit the keys (or pads). At zero (mid course), the drum is played at full velocity, no matter how hard you hit the keys/pads. 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/pads. From -100.0% to 100.0% (default: 50.0%).</td>
</tr>
</tbody>
</table>

### MAIN Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>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.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
</tbody>
</table>

### 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 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.

### Using the Drumsynths
The Percussion Drumsynth can generate a variety of percussion sounds.

6.6 The Percussions

### Velocity

Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default: 0.0%).

#### Scale Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default: 0.0%).</td>
</tr>
</tbody>
</table>

### 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%).

### Tension

Adjusts the tension of the drum skin, measured as a percentage. Available values range from 0.0% to 100.0% (default: 80.0%).

#### Modulation Page

Like with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

For this engine, the Advanced page does not contain any parameters.

#### Advanced Page

Using the Drumsynths
The Percussion provides following engines:

Each engine has a different character and set of parameters, as detailed in the following section. As in every Drumsynth, the engine can be selected via the Engine selector on the Main page.

The Percussion panel in the Plug-in Strip.
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, with an emphasis on meditative, complex, and twisted sounds. The Fractal percussion mode is based on the feedback oscillator bank from the Fractal tom.

For more information on engines, see 9.1.1, Engines: Many Different Drums per Drumsynth. For general information on the Percussions, see 9.1, Drumsynths – General Handling.

### Beamed Drum Pattern

**Drumsynths**

- Shaker: 9.6.3, Percussion – Shaker
- Kettle: 9.6.2, Percussion – Kettle
- Fractal (default): 9.6.1, Percussion – Fractal
The Advanced page contains parameters controlling the individual oscillators.

### Decay

Adjusts the duration of the sound’s tail, measured as a percentage. Available values range from 0.0 % (minimum) to 100.0 % (maximum). The default value is 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. Glide 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 %.
### HARMONICS Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KTr. Mode</td>
<td>Selects from two key tracking modes: Harmonic (default) and Dissonant.</td>
</tr>
</tbody>
</table>

#### Harmonic Mode
- **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%).

#### Dissonant Mode
- **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: 18.6%).
- **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: 18.6%).
- **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: 18.6%).

#### Using the Drumsynths

in Dissonant mode, the oscillators track the Tune parameter, which is adjusted on the pads.

In Harmonic mode, all oscillators track the Tune parameter (on the Main page, see below) and your keyboard (see below).

When FM and AM are set to zero, the oscillators in Dissonant mode track the Tune parameter, which is adjusted on the pads.

In Harmonic mode, the oscillators track the Tune parameter (on the Main page, see below) and your keyboard (see below).
As with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

### 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 key on your Maschine. From the mid position, turning the knob to the right increases the velocity sensitivity, making the drum sound more and more sensitive to the velocities at which you hit the keys. On the other side, the harder you hit the pads, the lower the velocity response, and vice versa. The drum is played at full velocity, no matter how hard you hit the pads (or pads). From the mid position, turning the knob to the right increases the velocity sensitivity, making the drum sound more and more sensitive to the velocities at which you hit the keys.

### Main Section

**Engine**

Selects the engine used in the Percussion Plug-in. If you change this setting, please refer to 9.6.3, The Percussions.

### Percussion – Kettle

The Kettle percussion is an acoustic timpani emulation that provides an orchestral and rich sound.

#### 9.6.2 Using the Drumsynths

The Percussions

Using the Drumsynths
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% (default: 50.0%) to 100.0%.

Puff
Adjusts the amount of feedback noise applied to the drum, measured as a percentage. Available values range from 0.0% (default: 25.0%) to 100.0%.

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%.

As with all other engines and Drum synths, the Modulation page contains one parameter: Velocity.

For this engine the Advanced page does not contain any parameters.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tune</td>
<td>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.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts the duration of the sound's tail, measured as a percentage. Available values range from 0.0% (default: 50.0%) to 100.0%.</td>
</tr>
<tr>
<td>Puff</td>
<td>Adjusts the amount of feedback noise applied to the drum, measured as a percentage. Available values range from 0.0% (default: 25.0%) to 100.0%.</td>
</tr>
<tr>
<td>Damp</td>
<td>Adjusts the damping amount, measured as a percentage. Available values range from 0.0% (default) to 100.0%.</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts the amount of attack. Available values range from 0.0% (soft attack) to 100.0% (maximum attack). The default value is 60.0%.</td>
</tr>
</tbody>
</table>
### 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/pads. From that mid position, turning the knob to the right increases the positive velocity response and makes the drum more sensitive to the velocities at which you hit the keys/pads. From the mid position, turning the knob to the left has the inverse effect: the harder you hit the key/pad, the softer the resulting drum sound will be.

### 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 shaker. 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.

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The Percussions

The Shaker is a versatile electronic shaker/maraca engine.

Using the Synths...
### Filter

Adjusts the bandwidth of the filter applied to the noise source, measured as a percentage. Higher settings result in a more narrow 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. 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.

### 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 and release stages for a static, machine-like sound.

### 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

Adjusts the duration of the envelope's hold stage, measured as a percentage. Available values range from 0.0 % (default) to 100.0 %.

### The Percussions

**Using the Drumsynths**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter</td>
<td>Adjusts the bandwidth of the filter applied to the noise source. Available values range from 0.0 to 100.0 (% default: 70.0 %). Higher settings result in a more narrow filter, measured as a percentage.</td>
</tr>
<tr>
<td>Grain</td>
<td>Adjusts the timbre of the noise source, measured as a percentage. 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.</td>
</tr>
<tr>
<td>Mode</td>
<td>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 and release stages for a static, machine-like sound.</td>
</tr>
</tbody>
</table>

**ENVELOPE Section**

The Percussions

**MASCHINE STUDIO - Manual - 456**
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accent</td>
<td>Controls the amount of emphasis on certain notes within the shaker pattern, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%).</td>
</tr>
<tr>
<td>Fill</td>
<td>The Fill parameter on the Advanced page (see below). By default, the shaker plays a pattern according to the Rate parameter on the Advanced page. Use this to insert improvised fills into your shaker parts to add variety. 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 simulate a shaker that is being shaken hard.</td>
</tr>
<tr>
<td>Release</td>
<td>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%).</td>
</tr>
</tbody>
</table>

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.

Using the Drumsynths

The Percussions

MASCHINE STUDIO - Manual - 457
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. That is, it is always in time regardless of when a note is pressed.

The Rate parameter is set to a typical note division of 4 or 8 (or 3 or 6 if the Rate parameter is set to a triplet note). 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). Where the pattern will appear to repeat every 4 "shakes" (the note division of which can be set with the Rate parameter above), Length is set as a 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 division is set by default, Length is set to 4, so the pattern will appear to repeat every 4 "shakes.

In both cases, the tempo of the pattern remains correct for the on every note on, without quantizing to the nearest beat.

In Retrig mode, the shaker pattern (including accents) is retriggered that is, it is always in time regardless of when a note is pressed.

In Lock mode, the shaker pattern is synced to the song position.

Adjust the Timing Offset of the Shaker Pattern. Fine adjustment will shift the pattern slightly, by less than one note division. Coarse adjustment will shift the pattern significantly.

Sets the note division of the shaker pattern. For example, 1/16 and so on. (default value: will result in a shaker pattern that plays 16th notes.)

Adjust 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 division is set by default, Length is set to 4, so the pattern will appear to repeat every 4 "shakes.

Adjust the timing offset of the shaker pattern. Fine adjustment will shift the pattern slightly, by less than one note division. Coarse adjustment will shift the pattern significantly.

Sync Parameters

Lock

Retrig

The Percussions

MASCHINE STUDIO - Manual - 458
### 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 a quite 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. It can sound very strange and lopsided on its own, with the Swing parameter set to zero. However, used sparingly in conjunction with Swing and Position, the Twist parameter can add a flowing, natural groove to the shaker pattern.

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.

<table>
<thead>
<tr>
<th>Element Description</th>
<th>Velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusts the velocity response of the drum. Available values range from 0.0% to 100.0% (default value).</td>
<td></td>
</tr>
</tbody>
</table>
Each engine has a different character and set of parameters, as detailed in the following sections.

As in every DrumSynth, the engine can be selected via the Engine selector on the Main page.

The Crash engine selected on the Cymbal panel in the Plug-in Strip.
The Cymbal provides following engines:

- **Crash** (default):
  - 9.7.1, Cymbal – Crash.

- **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

More information on engines, see 9.1.1, Engines: Many Different Drums per Drumsynth.

#### Crash – 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 var.

### Parameters Overview

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAIN Section</td>
<td>Engine</td>
</tr>
<tr>
<td></td>
<td>Tune</td>
</tr>
<tr>
<td></td>
<td>Decay</td>
</tr>
<tr>
<td></td>
<td>Impact</td>
</tr>
</tbody>
</table>

**Using the Drumsynths**

- **Crash** (default): 9.7.1, Cymbal – Crash.

The Cymbal provides following engines:
Like with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

For this engine the Advanced page does not contain any parameters.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>Adjusts the more complexity to the sound, measured as a percentage.</td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>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%).</td>
<td></td>
</tr>
<tr>
<td>Tone</td>
<td>Adjusts the balance of the spectral content, measured as a percentage.</td>
<td></td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Cymbals

Using the Drumsynths
### SCALE Section

Adjusts the duration of the sound's tail, measured as a percentage.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decay</td>
<td></td>
</tr>
</tbody>
</table>

100.0%: The default value is 30.0.

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 0.00.

### 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%).

### Velocity

Adjusts the velocity response of the drum. Available values range from -100.0% to 100.0% (default: 0.0%).

The Cymbals are hit, louder the result is.

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 Cymbals

Using the Drumsynths

Like with all other engines and Drumsynths, the Modulation page contains one parameter: Velocity.

### Modulation Page

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tail</td>
<td>Adjusts the length of the sound tail through an envelope. Values range from 0.0 to 100.0% (default: 100.0%).</td>
</tr>
<tr>
<td>Character</td>
<td>Adjusts a wider range of timbres between more noisy to more metallic ones, measured as a percentage. Available values range from 0.0 to 100.0% (default: 20.0%).</td>
</tr>
</tbody>
</table>

### HYBRID Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bell</td>
<td>Adjusts the high-frequency on a narrow band, measured as a percentage (default: 0.0%).</td>
</tr>
<tr>
<td>Edge</td>
<td>Adjusts the point where the cymbal is hit, measured as a percentage (default: 50.0%).</td>
</tr>
</tbody>
</table>

### STRIKE Section

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>Adjusts the perceived stereo image, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%).</td>
</tr>
<tr>
<td>Impact</td>
<td>Adjusts the amount of click or initial attack, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%).</td>
</tr>
<tr>
<td>Width</td>
<td>Adjusts the perceived stereo image, measured as a percentage. Available values range from 0.0 to 100.0% (default: 70.0%).</td>
</tr>
</tbody>
</table>

**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. Available values range from 0.0 to 100.0% (default: 70.0%).

**Bell**

Adjusts the high-frequency on a narrow band, measured as a percentage (default: 0.0%).

**Edge**

Adjusts the point where the cymbal is hit, measured as a percentage (default: 50.0%).

**Character**

Adjusts a wider range of timbres between more noisy to more metallic ones, measured as a percentage. Available values range from 0.0 to 100.0% (default: 20.0%).
The Cymbals

**Velocity**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity</td>
<td>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 a fixed velocity. As you turn the knob to the right (or pads), the drum is played at full velocity. As you turn the knob to the left, the harder you hit the key/pad, the softer the resulting drum sound will be. From the mid position, turning the knob to the right increases the positive velocity response and makes the drum more sensitive to the velocity at which you hit the keys/pads. From the mid position, turning the knob to the left decreases the velocity response and makes the drum less sensitive to the velocity at which you hit the keys/pads.</td>
</tr>
</tbody>
</table>
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 directly from your hardware controller. Create rich bass tones and program acid lines with ease.

Bass Synth key features:

- One Oscillator (monophonic)
- Seamlessly morph between sine to saw to square wave – and all spots in between
- Octave switch
- Glide Time
- Filter, Mod envelope, Decay, Drive (bi-polar saturation/distortion), and Glide Time

Bass Synth is in 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 directly from your hardware controller. Create rich bass tones and program acid lines with ease.

In this chapter you will find:

- See section 11.5, Recording and Editing Modulation for more information on modulation.

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.

In this chapter you will find:


For more information on automation, 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.

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. Bass Synth presets can be loaded from the Browser by selecting: SOUNDS, MASCHINE, BASS SYNTH.

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. The parameters are grouped into two Parameter pages:

- General
- Advanced

Using the Bass Synth

Bass Synth is a MASCHINE Plug-in and, as such, supports all usual Plug-in actions and procedures: load, remove, replace, insert, move, copy/paste Bass Synth parameters, and load/save presets. Please refer to section 7.1, Plug-in Overview, where these are described in detail.

Managing the Bass Synth

To know how to load, remove, replace, insert, move, copy/paste a Bass Synth, and load/save presets, please refer to section 7.1, Plug-in Overview.
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 (**Decay**), the **Drive** amount and the **Glide Time**.

The Advanced page provides access to the Glide **on/off** parameter. The **On/Off** switch controls the Glide on/off parameter, and the **Drive** amount and the **Glide Time**.

The Main page groups the most important parameters. Here you can adjust the shape of the oscillator waveform, the filter cutoff, and the resonance.
### Bass Synth Parameters

Available from the both Control area of the Arrange view and in the Plug-in Strip of the Mix view, the parameters are as follows:

#### Main Page

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OSC Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Shape</strong></td>
<td>Adjusts the waveform shape continuously from sine to square. To adjust the waveform shape, turn the <strong>Shape</strong> knob by clicking and dragging upwards or downwards.</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Transposes the base key of the Bass Synth (range: -3 - 3). To transpose the base key, turn the <strong>Octave</strong> knob by clicking and dragging upwards or downwards.</td>
</tr>
<tr>
<td><strong>Cutoff</strong></td>
<td>Adjusts the frequency of the low-pass filter (range: 14.6 Hz - 23.7 kHz). To adjust the cutoff frequency, turn the <strong>Cutoff</strong> knob by clicking and dragging upwards or downwards.</td>
</tr>
<tr>
<td><strong>Resonance</strong></td>
<td>Resonance, when the <strong>Resonance</strong> knob by clicking and dragging upwards or downwards. The amount of boost around the cutoff frequency (range: 0% - 120%). Resonance can start to self-oscillate when increasing the amount over 100.0%. To adjust the amount of boost around the cutoff frequency.</td>
</tr>
<tr>
<td><strong>Envelope Section</strong></td>
<td>Using the Bass Synth</td>
</tr>
<tr>
<td>Element</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Mod. Amt.</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Decay</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Drive</strong></td>
<td>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. To adjust the amount of drive, turn the Drive knob by clicking and dragging upwards or downwards.</td>
</tr>
<tr>
<td><strong>Glide Time</strong></td>
<td>Adjusts the time it takes to glide from the current pitch to the next pitch (range: 10 ms – 1000 ms). To adjust the amount of glide time, turn the Glide Time knob by clicking and dragging upwards.</td>
</tr>
</tbody>
</table>

For this module, the Advanced page contains just one parameter.

**Advanced Page**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Glide</strong></td>
<td>Globally enables the Glide parameter. Once set to on, the note will continuously play in a monophonic manner.</td>
</tr>
</tbody>
</table>
Working with Patterns

11.1 Pattern Basics

A Pattern contains the events (also called “notes”) that make up a groove or a musical phrase.

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The Pattern Editor is the all-in-one Pattern editing tool of the MASCHINE software. This overview of the Pattern Editor introduces you to its main parts and control elements.

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. Sound 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).
Pattern Basics

Working with Patterns

Pattern View button: Click this button to switch between the Sound List and the Pad view.

The Pad view is an alternative 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. The pad view is an alternative representation of your pads, allowing you to focus on the pads of your controller.

Pattern length: The length of the Pattern in the Pattern Timeline can be adjusted by dragging the white Pattern Length marker horizontally. This can also be done via the Pattern Length controls (see section 11.1.6, Adjusting the Arrange Grid and the Pattern Length).

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.

Pattern Manager button: Opens/closes the Pattern Manager. The Pattern Manager offers you access to various Pattern management commands for your Patterns, including selecting which Pattern you want to edit in the Pattern Editor and the current Scene of the Arranger. When you select the Pattern you want to edit, the Pattern Manager's Pattern Editor and Arrange Grid display the selected Pattern's contents. You can then use the Pattern Editor to make changes to the Pattern, and use the Arrange Grid to move the playhead to any position in the Pattern. The Pattern Manager also provides an overview of the Pattern's contents, allowing you to see its structure and contents at a glance.

Pattern Editor: The Pattern Editor is the main window for editing Patterns. It displays the contents of the selected Pattern, allowing you to make changes to the Pattern. The Pattern Editor is divided into several sections, each containing a different type of information about the Pattern. The Pattern Editor also provides access to various management commands for your Patterns, allowing you to perform tasks such as duplicating, deleting, or renaming Patterns.

Pattern Editor is divided into several sections, each containing a different type of information about the Pattern. The Pattern Editor also provides access to various management commands for your Patterns, allowing you to perform tasks such as duplicating, deleting, or renaming Patterns.

Pattern 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.

Pattern 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.

Pattern timeline: The timeline at the top of the Event area 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). You can also adjust the length of the Pattern by dragging the white Pattern Length marker horizontally (see section 11.1.6, Adjusting the Arrange Grid and the Pattern Length).

Pattern Length: The timeline at the top of the Event area displays musical time units (see section 11.1.4). 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.

Event area: Displays the content of the selected Pattern. Here you can see your recorded events as rectangular blocks. In Group view, these represent the Sounds of your Group. In Keyboard view, 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 using various Edit modes (see section 13), or delete them using a set of using various Edit modes. 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 (see section 14).

Step Grid: The Step Grid displays the regular grid of musical time units, allowing you to make precise edits to your Patterns. You can make all your edits snap to the desired Step Grid via the Step Grid settings (see section 14).

Pattern Management commands: The Pattern Manager offers access to various management commands for your Patterns, including selecting which Pattern you want to edit in the Pattern Editor and the current Scene of the Arranger. You can also use the Pattern Manager to access the Pattern Editor, which allows you to make changes to the Pattern, and to move the playhead to any position in the Pattern.
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.

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 ↑11.2, Navigating the Event Area for more information.

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.

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.

Control Lane button: Click the Control Lane button to show/hide the Control Lane (11).
The Event Edit mode lets you edit the selected events:

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.

Working with Patterns.

Pattern Arrange Mode

The Pattern Arrange mode is a powerful tool that allows you to visually control the content of your Patterns while providing important Pattern management features.

1. Press ARRANGE to enter Arrange mode. You can also press ENTER under the jog wheel.

2. Press Button 2 (PATTERN) to enter Pattern Arrange mode. Button 2 lights up and the PATTERN label underneath is highlighted to indicate that the controller is in Pattern Arrange mode.

To enter Pattern Arrange mode on your controller:

Notes.

- The Event Edit mode lets you edit the selected events: 11.4.4, Editing Selected Events.

Pattern Basics
The Pattern Arrange mode in the controller displays: Keyboard view (top) and Group view (bottom).

In Pattern Arrange mode, the displays of your controller show the following:

- The left display provides an overview of the whole pattern.
- The display follows the Group or Keyboard view of the Pattern Editor in the software.
- The velocity of each event/note is indicated by its transparency. Selected events/notes are highlighted. You can also select individual events using the Page buttons (left of the displays).
- The overview includes a timeline. A white vertical line indicates the current playback position. In addition, a frame shows you which part of your arrangement is currently shown in the right display (see below).
- The right display is currently shown in the right display (see below).
- In addition, a frame shows you which part of your arrangement is currently shown in the right display.

See section 11.1.5, Group View and Keyboard View for more information.
Above the arrangement overview, you see the name of the Project, the focused Group or the focused Sound (depending on which of the MASTER, GROUP or SOUND tab is selected in the software’s Control area) along with the current tempo and playback position.

The right display provides a detailed view of a portion of a Pattern:

- The name of the selected Pattern is indicated at the top of the display.
- The velocity of each event/note is indicated by its transparency. If visible, selected events/notes are highlighted.
- With the pads in Pad Mode, the display shows events for all Sounds in the Group. The 16 Sound slots of the Group are represented in the leftmost column by their index numbers. The focused Sound is highlighted.
- With the pads in Keyboard mode, the display shows notes on two octaves for the focused Sound. On the left a piano roll indicates the pitch of the various events. On the piano roll, each C is indicated by its octave number and the middle C (C3) in the MASCHINE convention is colored. Additionally the pitch of any played notes is highlighted. Turn Knob 7 to scroll on the pitch axis (vertical axis) from events at the lowest pitch until events at the highest pitch. If all events are within two octaves, they all appear in the display.
- Horizontally, the displayed time interval is variable: Turn Knob 5 and 6 to zoom and horizontally scroll in the right display to your liking, respectively.
- As in the left display, you can see a timeline at the top and a vertical playhead indicator (8) across the entire display. You can scroll horizontally in the right display to your liking, respectively.
- In Pattern Arrange mode the pads behave as in Control mode. In particular, this allows you to record Patterns while seeing them developing in the displays. See section 11.2, Recording Patterns in Real Time for more information on this.

Finally, the Pattern Arrange mode provides useful commands for the selected Pattern:

- Press Button 3 (DOUBLE) to double the Pattern (see section 11.4.9, Doubling a Pattern).
- Turn Knob 4 (LENGTH) to adjust the Pattern Length (see section 11.1.6, Adjusting the Arrange Grid and the Pattern Length).

In Pattern Arrange mode the pads behave as in Control mode. In particular, this allows you to record patterns while seeing them developing in the displays. See section 11.2, Recording Patterns in Real Time for more information on this.

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Press Button 4 (DUPLICATE) to duplicate the Pattern (see section 11.7.8, Duplicating, Copying, and Pasting Patterns).

Press Button 5 (EVENTS) to access Event Edit mode, which allows you to precisely adjust the selected events (see section 11.4.4, Editing Selected Events/Notes).

The Event area in the Pattern Editor can be scrolled and zoomed in or out to fit your current needs.

### 11.1.2 Navigating the Event Area

- Double-click a pattern (538)
- Duplicating, Copying, and Pasting Patterns (568)
- Adjusting the Arrangement Grid and the Pattern Length (486)
- Following the Play/Stop Position in the Pattern (480)
- Group View and Keyboard View (483)
- Adjusting the Step Grid and the Nudge Grid (489)
- Editing Selected Events/Notes (522)
- Selecting Events/Notes (515)
- Recording Patterns with the Step Sequencer (502)
- Recording and Editing Modulation (543)
- Recording Patterns in Real Time (494)
- Managing Patterns (554)

See also:

- Doubling a Pattern (538)
- Duplicating, Copying, and Pasting Patterns (568)
- Adjusting the Arrangement Grid and the Pattern Length (486)
- Following the Playback Position in the Pattern (480)
- Group View and Keyboard View (483)
- Adjusting the Step Grid and the Nudge Grid (489)
- Editing Selected Events/Notes (522)
- Selecting Events/Notes (515)
- Recording Patterns with the Step Sequencer (502)
- Recording and Editing Modulation (543)
- Recording Patterns in Real Time (494)
- Managing Patterns (554)

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 or out horizontally in the Event area and the Control Lane on the time axis.

### Pattern Basics

#### Working with Patterns

- The selected events (see section 11.4.4, Editing Selected Events/Notes).
Navigating the Pattern Editor Vertically (Sounds or Pitches)

The zooming scroll bar at the bottom of the Pattern Editor. It allows you to scroll to hidden Sound slots in case all of them don't fit in the Pattern when the Pattern Editor is in Group view. A classic scroll bar is available right 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. 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.

- **Click the left handle** (2) of the scroll bar, hold the mouse button, and drag your mouse horizontally to zoom in or out of the Event area while keeping the right border of the display at a fixed position in the Pattern.

- **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.

When the Pattern Editor is in Group view, a classic scroll bar is available right of the Pattern Editor. 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.
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.

Navigating the Event Area from the Controller

You can also control the position and zoom factor in the Event area from your controller:
1. Press and hold NAVIGATE to enter Navigate mode.
2. Press Button 2 IDEAS to enter Ideas view (if necessary).
3. Turn Knob 5 (Pattern Zoom) to zoom in or out of the Edit area.
4. Turn Knob 6 (Pattern Scroll) to scroll through the Edit area.

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 in the MASCHINE Header. To follow the playhead position during playback, click the Follow button in the MASCHINE Header.

Activate the Follow button to follow the playhead.

To follow the playhead position during playback, click the Follow button in the MASCHINE Header.

Following the Playback Position in the Pattern

1. Press and hold NAVIGATE to enter Navigate mode.
2. Press Button 2 IDEAS to enter Ideas view (if necessary).
3. Turn Knob 5 (Pattern Zoom) to zoom in or out of the Edit area.
4. Turn Knob 6 (Pattern Scroll) to scroll through the Edit area.

For more information on the Group and Keyboard view, see section 11.1.5, Group View and Keyboard View.
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).

To follow the playback position in the Event area:

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.

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 Arrange mode (for SECTION, SCENE and PATTERN pages), Events mode, Step mode, and Note Repeat mode. 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.

Working with Patterns

Pattern Basics

Working with Patterns
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 in the Pattern.

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.

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.
This is called the **Group View**.

The Pattern Editor allows you to edit the events for all 16 Sound slots of the selected Group.

### 11.1.5 Group View and Keyboard View

#### iTip

When in the Group View, you can jump outside the current Pattern. For more details, please see section ↑ 11.1.5, Adjusting the Arrange Grid and the Pattern Length.

### Working with Patterns

**Pattern Basics**

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Click the Group View button (showing a little keyboard) 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 each row of the Event area represents a different Sound slot.

Alternatively, you can switch the Pattern Editor to Keyboard view:

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Pattern Basics
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. 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 view of the pads on your controller: Switching between Group and Keyboard mode in the software will also automatically switch between Group 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.

Working with Patterns

Pattern Basics
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.

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.

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.

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).

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).

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).

On your controller:

See 6.1.1, The Pad View in the Software for more details on the various pad modes available.

Pattern Basics

Working with Patterns
Quick (default): With this setting, the available lengths will be 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. However, lengths other than those defined above may not be used.

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]).

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 and enter a new value with your computer keyboard, and press [Enter] to confirm.

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 on the Event area and will be included back into the Pattern next time you extend it.

Pattern Basics

Working with Patterns

Timeline

To adjust the Pattern Length, drag the end marker of the Pattern (white arrow) in the timeline.

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 and enter a new value with your computer keyboard, and press [Enter] to confirm.

► To adjust the Pattern Length, drag the end marker of the Pattern (white arrow) in the timeline.

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.

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. However, lengths other than those defined above may not be used.
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 Pattern Length and Arrange Grid on the Controller

On your controller, the length of the selected Pattern, along with the Arrange Grid resolution used to modify this length, can be adjusted using various methods: via the Pattern mode, the Pattern Arrange mode, the Grid mode or the Record Prepare mode. Choose the method that best fits your current workflow.

Method 1: Using the Pattern mode

1. Press and hold PATTERN to enter Pattern mode. You can also press Button 1 to pin Pattern mode so that it stays on.
2. Turn Knob 4 (LENGTH) to adjust the Pattern Length according to the current resolution of the Pattern Grid.

Method 2: Using the Pattern Arrange mode

1. Press ARRANGE then Button 2 (PATTERN) to enter Pattern Arrange mode.
2. Turn Knob 4 (LENGTH) to adjust the Pattern Length according to the current resolution of the Pattern Grid.

Adjusting the Grid

In Grid mode, you can adjust the various grids used in MASCHINE, including the Arrange Grid and Pattern Grids.

Method 1: Using the Pattern mode

1. Press and hold GRID to enter Grid mode. You can also press Button 1 to pin Grid mode so that it stays on.
2. Press ARRANGE then Button 3 (ARRANGE) to access the Arrange Grid settings.

Method 2: Using the Pattern Arrange mode

1. In Pattern mode you can adjust the Pattern Length of the current Pattern:
2. Press PATTERN to enter Pattern mode. You can also press Button 1 to pin Pattern mode so that it stays on.
3. Select a resolution by pressing the corresponding pad. Alternatively you can press Button 5, 6 or 8 to successively select each of the resolutions in the corresponding column.

The selected value is highlighted on the right display and the corresponding pad turns fully lit.

To disable the Arrange Grid, simply select the OFF value in the top right corner:

To disable the Pattern Grid, hold GRID, press Button 3 (ARRANGE), then press pad 16 (OFF).

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 (pad 16) (OFF).

The grid can also affect the step sequencer. 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.

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.

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.

This extra method is very useful if you are about to start a new recording. Indeed, the Record Prepare mode is accessed by pressing the unlit REC button and holding it. The Step Grid resolution corresponds to the step size, which directly affects the precision of all Pattern editing actions, including 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.

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.

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.

Adjusting 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.

Enabling or Disabling the Step Grid

The grid is enabled.

Adjusting the Step Grid resolution can be adjusted via the Step Size menu, showing a value next to the Step Grid button (showing a little grid icon). 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.

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.
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 can be nudged in the Pattern: the Nudge Grid.

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.
- Events will shift them at the maximum resolution of the sequencer.
- 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.
- You can also set the Nudge Grid resolution to a full step, the Nudge Grid will mirror the Step Grid.
- 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
- 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.

1. Hold GRID to enter Grid mode.

Adjusting the Step Grid and the Nudge Grid from your controller:

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2. Press Button 4 (STEP) to access the Step and Nudge Grid settings.

- The right display will show you which pad represents a resolution.
- The left display is for Step Grid (see above).
- The new Nudge Grid resolution is directly in use — provided that the Step Grid is enabled (see above).

3. Turn Knob 4 (NUDGE) to select the desired Nudge Grid resolution.
2. Press Button 4 (STEP) to access the Step and Nudge Grid settings.
1. Hold GRID to enter Grid mode.

   - To change the Nudge Grid resolution:
   - Select a step size by pressing the corresponding pad. Alternatively you can repeatedly press Button 5–8 to successively select each of the resolutions in the corresponding column.

   - The selected value is highlighted on the right display and the corresponding pad turns fully lit. To disable the Step Grid, hold GRID, press Button 4 (STEP), then press pad 16 (OFF).

   - The new Nudge Grid resolution is directly in use — provided that the Step Grid is enabled (see above).

Adjusting the Nudge Grid

1. Hold GRID to enter Grid mode.
2. Press Button 4 (STEP) to access the Step and Nudge Grid settings.
3. Turn Knob 4 (NUDGE) to select the desired Nudge Grid resolution.

   - The selected value is highlighted on the right display and the corresponding pad turns fully lit.

   - Press Button 5–8 to successively select each of the resolutions in the corresponding column.

Working with Patterns

Pattern Basics

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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.
- 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 enable and customize the metronome: 11.2.5, Quantizing while Recording. Remember, you can set your own tempo in Preferences >> Hardware >> Pads. See 15.6.2, Preferences – Plug-ins Page for more information.
- The Record Prepare mode is called overdub recording. Alternatively you can use replace recording. Both are described in section 11.2.1, Recording Your Patterns Live.

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/moves, no matter if the Pattern already contains events.

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.

When you play an event on the pads, the pads are quantized automatically according to what you set in Preferences >> Hardware >> Pads >> Quantize. You can also start the recording with a count-in: 11.2.4, Recording with Count-in.

11.2.2 The Record Prepare Mode

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.
1. Press **PLAY** to start the sequencer. The **PLAY** button lights up.

2. Press **ERASE** + **REC** to begin recording in Replace mode. The **PLAY** button lights up.

3. 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. When recording in Replace mode the events of the selected Sound(s) are replaced by what you play.

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 sequencer keeps playing until you press **PLAY** again. When you hold the pad, existing events will be deleted as the playhead reaches them. 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.

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.

3. Press **ERASE** + **REC** to begin recording in Replace mode. The **PLAY** button lights 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.
When you are done, press \texttt{REC} again to stop recording the pads. The \texttt{ERASE} and \texttt{REC} buttons turn off. The sequencer keeps playing until you press \texttt{PLAY} again.

In order to prevent you from erasing events accidentally, Replace mode is automatically disengaged (\texttt{ERASE} turns off) and the recording continues in Overdub mode:

\begin{itemize}
  \item When the playback loops (whether at the end of the loop Range or at the end of your Project).
  \item When you stop the sequencer (by pressing the lit \texttt{PLAY} button).
  \item When you jump to another location in the Project (see section \texttt{\uparrow} 11.4.5, Jumping to Another Playback Position in the Pattern).
  \item When you switch your controller to another mode (by pressing, e.g., \texttt{SCENE}, \texttt{PATTERN}, etc.).
\end{itemize}

You can also manually disengage Replace mode and switch to Overdub mode:

\begin{itemize}
  \item While recording in Replace mode, press the lit \texttt{ERASE} button to disengage Replace mode.
\end{itemize}

\begin{enumerate}
  \item Where are the Events Recorded?
\end{enumerate}

When you start recording the pads, the events are recorded as follows:

\begin{itemize}
  \item 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 auto-repeat range of the Pattern.
  \item 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 Scene.
\end{itemize}

\section*{Recording Patterns in Real Time}

\section*{Working with Patterns}
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.

The Record Prepare Mode

The Record Prepare mode is very useful when you are about to record Patterns in Real Time. 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.

This is done by pressing the REC button when it is disabled:

1. With REC disabled, press and hold REC to enter Record Prepare mode.
2. While holding REC, turn Knob 4 (LENGTH) to directly select from the four length presets available: 2, 4, 8, or 16 bars.
3. Release REC.

Working with Patterns

Recording Patterns in Real Time
The Record mode is engaged (REC is lit) and the Pattern has the length you defined.
Press PLAY to start the sequencer (if it's not done already) and play the pads to start recording! See section 11.2, Recording Patterns in Real Time for more information on recording Patterns.

In Record Prepare mode, you can also enable or disable the metronome via Button 2. See section 11.2.3, Using the Metronome for more information on the metronome.

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

You can also enter Record Prepare mode while starting a recording in Replace mode (see section 11.2.1, Recording Your Patterns Live): Simply press ERASE + REC and hold REC until your controller switch to Record Prepare mode. This is also true when using the Count-in (see section 11.2.4, Recording with Count-in).

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

- 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.
- The metronome can be heard only when the sequencer is playing.
- You can enable or disable the metronome via Button 2.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences – Default Page.
- You can adjust the metronome's volume in the Preferences – General Page.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences – Default Page.

To customize the metronome:

- You can adjust the metronome's volume and time signature in the Preferences – General page.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences – Default page.

The metronome will help you to keep time when recording in real time.

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.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.

With Count-in:

- You can also enter Record Prepare mode while starting a recording in Replace mode (see 11.2.4, Recording with Count-in).
- You can also enable or disable the metronome via Button 2.

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.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.

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- You can adjust the metronome's volume and time signature in the Preferences’ General page.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.

With Count-in:

- You can also enter Record Prepare mode while starting a recording in Replace mode (see 11.2.4, Recording with Count-in).
- You can also enable or disable the metronome via Button 2.

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.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.

The metronome will help you to keep time when recording in real time.

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.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.

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

You can enable or disable the metronome via Button 2.

You can select custom sounds for the metronome's downbeats and upbeats in the Preferences – Default Page.

You can adjust the metronome's volume in the Preferences – General Page.

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.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.

The metronome will help you to keep time when recording in real time.

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.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.

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

You can enable or disable the metronome via Button 2.

You can select custom sounds for the metronome's downbeats and upbeats in the Preferences – Default Page.

You can adjust the metronome's volume in the Preferences – General Page.

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.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.

The metronome will help you to keep time when recording in real time.

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.
- You can select custom sounds for the metronome's downbeats and upbeats in the Preferences’ Default page.
The time signature of the metronome can be set to differ from the time signature of your Project. This can be useful to record unusual rhythms in a Pattern. Reminder: the time signature of your Project is defined in the MASCHINE Header (MASCHINE in stand-alone mode) or by your host application (MASCHINE running as a plug-in).

On the controller:

► Press METRO in the TRANSPORT section 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:

1. Press SHIFT + GRID to show the recording settings.
2. Turn knob 1 (Metronome LEVEL) to adjust the metronome volume.
3. Turn knob 2 (Metronome TIME) to select a time signature.

While adjusting the metronome settings you can enable/disable the metronome via Button 2 (METRO). This is strictly equivalent to pressing METRO 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:

<table>
<thead>
<tr>
<th>Count-in</th>
<th>Start the metronome before the sequencer and recording begins.</th>
</tr>
</thead>
</table>

Press METRO in the TRANSPORT section to activate or deactivate the metronome.

On the controller:

- Press METRO (MASCHINE running as a plug-in).
- Project is defined in the MASCHINE Header (MASCHINE in stand-alone mode) or by your host application.
- This can be useful to start recording unusual rhythms in a Pattern. Remember: the time signature of your Project can be set to differ from the time signature of your Project.
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 \[\text{11.2.1, Recording Your Patterns Live}\]). The metronome turns off if it was off before the Count-in, otherwise it stays on.

You hear the metronome alone during the count-in phase (1, 2 or 4 bars).

The playhead jumps to the beginning of the Loop Range.

You can also use the Count-in to start a recording in Replace mode.

\[\text{11.2.3, Using the Metronome}\] for more information.

You can adjust the metronome's volume, time signature, and downbeat/upbeat sounds. See section \[\text{11.2.1, Recording Your Patterns Live}\].

Working with Patterns

Recording Patterns in Real Time
Adjusting the Count-in Duration

You can choose how long the metronome should be heard before the recording actually starts. This is called Input Quantization.

11.2.5 Quantizing while Recording

1. Turn knob 4 (LENGTH) to select a duration for the Count-in.

2. Press SHIFT + GRID to show the record settings.

On your controller:

► Press SHIFT + REC to start the Count-in and record in Overdub mode.

► 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 record settings.

2. Turn Knob 4 (LENGTH) to select a duration for the Count-in.

You can choose how long the metronome should be heard before the recording actually starts.

Quantizing while Recording

You can choose to have notes automatically quantized as you record. This is called Input Quantization.

Working with Patterns
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. Turn Knob 5 (`QUANTIZE MODE`) 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.

### 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.

1. Press `STEP MODE` in the PERFORMANCE section (in the middle left part of your controller) to switch your controller to Step mode.

2. Turn Knob 5 (`QUANTIZE MODE`) to enable (`ON`) or disable (`OFF`) Input Quantization.
On the MASCHINE STUDIO controller, Step mode is a submode of Event Edit mode available on the PATTERN page of Arrange mode (see section 11.4.4, Editing Selected Events/Notes for more information on the Event Edit mode). Hence, it is very similar to the Event Edit mode.

The main difference with the Event Edit mode is that in Step mode each pad represents one step of a 16-step sequence. The size of the steps depends on the current Step Grid settings. Lit pads indicate events on the corresponding steps.

The displays of your controller show the following:

- The left display shows events for the focused Sound across the pitch scale.
- The right display shows events for the focused Sound in one row at the top along with their velocities underneath.

If your pads are in Keyboard mode, both displays show notes for the focused Sound across the pitch scale. Depending on the pitches of the existing notes, turn Knob 7 to scroll pitch across.

If your pads are in Pad Mode:

- If your pads are in Pad Mode:
  - The left display shows events for all Sounds in the Group.
  - The right display shows events for the focused Sound in one row at the top along with their velocities underneath.

For more information on the Step Grid, see section 11.1.7, Adjusting the Step Grid and the Nudge.

For more information on the Event Edit mode, please refer to the Event Edit section of the MASCHINE documentation.
Recording a Sequence

1. Set the focus on the Sound you want to record by holding SELECT and pressing the pad of the desired Sound (see section 13.3.6, Focusing on a Group or a Sound). You can also hold SHIFT and use Button 7 (UP) and Button 8 (DOWN) to select the previous or next Sound in the Group.

2. Set the focus on the Sound you want to record by holding SELECT and pressing the pad.

3. Press an unlit pad to create an event on that step. The pad lights up to indicate that there is an event on that step. The new event is one step long. The next time the playback position reaches that step, the new event will be played.

4. Press a lit pad to remove that step. The pad turns off and the event on that step is deleted.

5. When you are done with the sequence of that Sound, repeat the previous steps to create sequences for all desired Sounds.

This way it's easy to quickly put some drums together.

Working with Patterns

Recording Patterns with the Step Sequencer
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 understand 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 (Right Display)

The right display of your controller provides more information on the sequence:

- In Step mode events are created with following settings:

![Diagram of a 4/4 line in Step mode]
Individual events/notes are represented by rectangular blocks. These always mirror the steps currently represented by your pads. In both Group and Keyboard mode, velocities are indicated by the event transparency: the more transparent the event, the softer the velocity (in Pad Mode velocities are additionally indicated under each event in the display).

The playback position in the Pattern is indicated by a playhead travelling from left to right. Turn Knob 6 to manually switch to the previous/next 16 steps both on your pads and on the right display.

To switch the right display, you can manually switch to the previous/next steps:

- Press Button 3 (FOLLOW) to enable/disable the Follow function.

When you press a particular pad to record some modulation for this step, the Follow function is temporarily disabled — it is automatically re-enabled when you release the pad. See below for more information on recording modulation in Step mode.

Otherwise you can manually switch to the previous/next steps:

- Turn Knob 6 to manually switch to the previous/next 16 steps both on your pads and on the right display.

Unlike in Event Edit mode, Knob 5 does not adjust the zoom factor here: Indeed, since the display always represents 16 steps of the Pattern, the zoom factor is directly defined by the Step Grid resolution.
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 Button 8 (FIXED VEL) to enable/disable the Fixed Velocity option.

If Fixed Velocity is enabled, all events you create will have the velocity set by turning Knob 4 (FIX VEL).

If Fixed Velocity is disabled, all events you create will have the velocity of the pad(s) you hit when creating the event.

The Fixed Velocity option only affects your next hits on the pads: It does not modify the velocity of existing events. To adjust the velocity of existing events, use the various methods described in section 11.3.2, Editing Events in Step Mode.

11.3.2 Editing Events in Step Mode

In Step mode you can quickly adjust the parameters of events on particular steps.

1. Press and hold for a second the pad(s) of the step(s) you want to edit. If you want to edit the last created step, you can skip this step: the last created event is automatically selected. You can also press the Page buttons left of the displays to quickly select any step.

2. Use Knobs 1-4 as described in the table below to edit the position, length, pitch, and velocity of the selected events:

<table>
<thead>
<tr>
<th>Knob</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Length</td>
</tr>
<tr>
<td>2</td>
<td>Pitch</td>
</tr>
<tr>
<td>3</td>
<td>Velocity (Fixed Velocity option enabled)</td>
</tr>
<tr>
<td>4</td>
<td>Velocity (Fixed Velocity option disabled)</td>
</tr>
</tbody>
</table>

In Step mode, you can quickly adjust the parameters of events on particular steps.
Editing Tool

**Knob 1 (POSITION)**

Nudges selected events, i.e. shifts selected events on the timeline according to the Nudge Grid (the events' offsets relative to the Nudge Grid are preserved). Hold **SHIFT** while you turn the knob to temporarily override the Nudge Grid quantization and adjust the positions in extremely small increments. See section ↑ 11.1.7, Adjusting the Step Grid and the Nudge Grid for more information on the Nudge Grid.

If one event only is selected, its position is shown under **POSITION**. If several events are selected, the field shows (MULTI).

**Knob 2 (PITCH)**

Transposes the selected events by semitones.

When only one event is selected, its pitch is shown under **PITCH**. If several events are selected, the field shows (MULTI).

**Knob 3 (VELOCITY)**

Adjusts the velocity of the selected events. If the events have different velocities, the velocity differences are retained as long as the limits (0 and 127) are not reached. When only one event is selected, its velocity is shown under **VELOCITY**. If the events have different velocities, the velocities of the selected events are shown under **VELOCITY**.

When only one event is selected, its velocity is shown under **VELOCITY**. If several events are selected, the field shows (MULTI).

**Knob 4 (LENGTH)**

Moves the end of the selected events according to the Step Grid (the offsets of each events’ end relative to the Step Grid are preserved). Hold **SHIFT** while you turn the knob to temporarily override the Step Grid quantization and adjust the lengths in extremely small increments. If the events have different lengths, the length differences are retained as long as no event becomes shorter than one step.

When only one event is selected, its length is shown under **LENGTH**. If several events are selected, the field shows (MULTI).

Quick Edit Shortcuts for the Selected Steps

You can also quickly adjust the velocity, pitch, and position of any events via the Quick Edit shortcuts:

- **Knob 1 (POSITION)**
- **Knob 2 (PITCH)**
- **Knob 3 (VELOCITY)**
- **Knob 4 (LENGTH)**

These parameters are the same as in Event Edit mode. See section ↑ 11.4.4, Editing Selected Events/Notes for more information.

Working with Patterns

Recording Patterns with the Step Sequencer
Use the jogwheel and the FUNCTION buttons underneath for the Quick Edit shortcuts.

1. Press and hold the pad(s) of the step(s) you want to edit.
2. To adjust the events' velocity, press the FUNCTION buttons until the VOLUME indicator lights up under the jog wheel, and turn the jog wheel. The adjusted value appears on the left display.
3. To adjust the events' pitch, press the FUNCTION buttons until the TUNE indicator lights up under the jog wheel, and turn the jog wheel. The adjusted value appears on the left display.
4. To finely adjust the events' position, press the FUNCTION buttons until the SWING indicator lights up under the jog wheel, and turn the jog wheel. The adjusted value appears on the left display.
5. When you are done, release the pad(s).

The event position will be adjusted independently of the current Step Grid: it is designed as a fine adjustment within the current step.

Working with Patterns
Alternatively you can use the controls in the EDIT section of your controller to edit the selected events — 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.

Recording Modulation in Step Mode

You can also record modulation in Step mode. This is helpful when you want to set a modulation value that is set for a step is valid for this step only. If you want it to affect several steps or the entire Pattern, you can hold all the corresponding pads while setting the modulation value.

1. Press and hold the pad(s) representing the step(s) you want to modulate (you may need to use Knob 6 to navigate beforehand to the desired part of the Pattern).

2. While holding the pads(s), turn any of the knobs 1–8 under the displays to edit the modulation value. The displays will switch to a mode similar to Control mode displaying parameter values.

3. The modulation values are recorded for this step. Only parameters that can be modulated will appear at the bottom of the displays.

For all details on modulation please refer to section 11.5, Recording and Editing Modulation.

You can also record modulation in Step mode. This is helpful when you want to set value changes at a specific time in a Pattern.

Working with Patterns
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.

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.

- **Select mode**: Provides exhaustive set of actions for creating, selecting, editing, and deleting events/notes.
- **Pencil mode**: Provides quick actions for creating, resizing and deleting events/notes.

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.

Events vs. Notes

The terms "event" and "note" are used interchangeably in the MASCHINE context. Keep in mind that both words have the same meaning in the MASCHINE context.

In the software, you can choose between Select mode and Pencil mode. Each of them provide different mouse actions.

Many creation and editing commands on events/notes are available directly via mouse actions.
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.

<table>
<thead>
<tr>
<th>Action</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double-click in Event area's background</td>
<td>Creates a note. (see 11.4.2, Creating Notes)</td>
</tr>
<tr>
<td>Drag in Event area's background</td>
<td>Multiple selection (selection frame).</td>
</tr>
<tr>
<td>Right-click (macOS: [Ctrl]-click) and select</td>
<td>Delete selected notes. (see 11.4.5, Deleting Notes)</td>
</tr>
<tr>
<td>Right-click (macOS: [Ctrl]-click) and select</td>
<td>Delete selected notes. (see 11.4.5, Deleting Events/Notes)</td>
</tr>
<tr>
<td>[Shift] + click unselected note</td>
<td>Add note to current selection.</td>
</tr>
<tr>
<td>[Shift] + click selected note</td>
<td>Remove note from selection.</td>
</tr>
<tr>
<td>Click in Event area's background</td>
<td>Deselect all notes.</td>
</tr>
<tr>
<td>Shift + click selected note</td>
<td>Remove note from selection.</td>
</tr>
</tbody>
</table>

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).
The other way round:

Set notes wherever you move the cursor. Notes are created for the selected Sound.

Click in the background of the Event area and drag the mouse with the button pressed to

When Pencil mode is enabled, you can use the mouse draw events or notes:

Mouse in Pencil Mode

By default, all selected notes.

* When editing, mouse actions can be performed on any of the selected notes — they will apply to all selected notes.

Mouse Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drag note vertically</td>
<td>Generic view: Transposes selected notes. Group view: Moves selected notes to another Sound of the Group.</td>
</tr>
<tr>
<td>Drag left/right note border</td>
<td>(macOS: [cmd] + drag left/right border) [ctrl] + drag left/right note border</td>
</tr>
<tr>
<td>Drag horizontally the notes (overrides the Step Grid quantization) )</td>
<td>Freely moves the start/end of selected notes</td>
</tr>
<tr>
<td>Drag horizontally the notes according to the Step Grid.</td>
<td>Freely moves selected notes in time (overrides the Step Grid quantization). When you drag the Step Grid, the copies are moved in time. (macOS: [cmd] + drag note) [ctrl] + drag note horizontally</td>
</tr>
<tr>
<td>Drag note horizontally</td>
<td>(for details)</td>
</tr>
</tbody>
</table>
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).

- **Mouse in Select Mode**
  - To create a new event in Select mode, double-click at the desired location.

- **Mouse in Pencil Mode**
  - To create a new event in Pencil mode, simply click at the desired location.

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.

For more information on the Pattern Length and the Pattern Grid, see section 11.1.6, Adjusting the Arrange Grid and the Pattern Length.

Editing Events/Notes

The Arrange Grid and the Pattern Length:

If you create an event beyond the end of the Pattern, the Pattern is automatically extended to the next Pattern Grid division after the new event so that the Pattern includes a series of events.

Creating Events beyond the Pattern’s End

Each event is created at the beginning of the step in which your mouse cursor is located.

Each event is created at the desired location in the back-end of the Pattern.

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.

Creating Events/Notes

The mouse cursor. Only Notes for the selected Sound are erased.
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.

Selecting Events

<table>
<thead>
<tr>
<th>Function</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select mode indicated by the unhighlighted Pencil icon.</td>
<td>Select mode indicated by the unhighlighted Pencil icon.</td>
</tr>
<tr>
<td>Deselect all events</td>
<td>Click in Event area’s background</td>
</tr>
<tr>
<td></td>
<td>Drag in Event area’s background</td>
</tr>
<tr>
<td></td>
<td>Multiple selection (selection frame)</td>
</tr>
<tr>
<td></td>
<td>Remove event from selection</td>
</tr>
<tr>
<td></td>
<td>Add event to current selection</td>
</tr>
<tr>
<td></td>
<td>Select event</td>
</tr>
<tr>
<td></td>
<td>Select unselected event</td>
</tr>
<tr>
<td></td>
<td>[Shift] + click unselected event</td>
</tr>
<tr>
<td></td>
<td>[Shift] + click selected event</td>
</tr>
<tr>
<td></td>
<td>[Shift] + click unselected event</td>
</tr>
<tr>
<td></td>
<td>Click unselected event</td>
</tr>
<tr>
<td></td>
<td>Drag in Event area’s background</td>
</tr>
</tbody>
</table>

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.

Editing Events

11.3.3 Recording Patterns with the Step Sequencer.
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 quickly select particular events from the current Pattern and in the following paragraphs.

1. **Hold EVENTS to enter Event Select mode — or press EVENTS + Button 1 to pin the Event Select mode.**
   - The EVENTS button lights up. You can now quickly switch between the two modes by pressing Button 2 (SELECT).
   - Press Button 2 (SELECT) to enter Event Select mode.

2. **In Pad Mode (the default mode of the pads), each pad represents a specific Sound of the focused Group.**
   - The pads, Buttons 5–8, Knobs 1–4, and the Page buttons (left of the displays): The EVENT Select mode complements Event Edit mode. You can quickly switch between the two modes.
   - Depending on the current pad mode (Pad Mode or Keyboard mode, see ↓6.1.1, The Pad View), these tools will select events differently, as described in the following paragraphs.

**Event Select Mode: Selecting Events (Pads in Pad Mode)**

In Pad Mode (the default mode of the pads) each pad represents a specific Sound of the focused Group. The pads, Buttons 5–8, Knobs 1–4, and the Page buttons (left of the displays): In Pad Mode (the default mode of the pads) each pad represents a specific Sound of the focused Group.
You have following selection tools at your disposal:

- Turn Knob 5 and 6 to zoom in/out and scroll on the time axis (horizontal axis), respectively.
- You can adjust the right display as follows:
  - The right display shows a detailed view of a portion of your Pattern with events and their velocities for the focused Sound.
  - The left display shows an overview of the events in your Pattern for all Sounds in the Group.
  - Selecting events on the controller with the pads in Pad mode.
### Selection Tool

<table>
<thead>
<tr>
<th>Description</th>
<th>Page Buttons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pads</strong></td>
<td></td>
</tr>
<tr>
<td>Unlit pads indicate Sounds for which the Pattern has no events. Nothing happens when you press them.</td>
<td></td>
</tr>
<tr>
<td>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 corresponding Sound is selected and its name is indicated under the EVENTS label in the top left corner of the left display. The name of the selected Sound is also highlighted in the top row of the selected line of the Pattern.</td>
<td></td>
</tr>
<tr>
<td>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 dimmed).</td>
<td></td>
</tr>
<tr>
<td><strong>Button 2 (SELECT)</strong></td>
<td></td>
</tr>
<tr>
<td>Switch between Event Select mode and Event Edit mode.</td>
<td></td>
</tr>
<tr>
<td><strong>Button 4 (GRID)</strong></td>
<td></td>
</tr>
<tr>
<td>Selects/deselects the Step Grid. When the GRID is selected, events can be nudged or resized relative to the value of the Step Grid. Press GRID to access the Step Grid.</td>
<td></td>
</tr>
<tr>
<td><strong>Button 5/6 (ALL/NONE)</strong></td>
<td></td>
</tr>
<tr>
<td>Selects/deselects all events for all Sounds, i.e. all events in the Pattern.</td>
<td></td>
</tr>
<tr>
<td><strong>Button 7/8 (UP/DOWN)</strong></td>
<td></td>
</tr>
<tr>
<td>Switch the focus to the previous/next Sound in order to add or remove some of its events from the selection (using Knob 1, 2, and 4, and PAGE buttons, see below). The name of the selected Sound is indicated under the EVENTS label in the top left corner of the left display.</td>
<td></td>
</tr>
<tr>
<td><strong>Page buttons</strong></td>
<td></td>
</tr>
<tr>
<td>Drop the current selection and select the previous/next individual event for the focused Sound.</td>
<td></td>
</tr>
</tbody>
</table>
Selection Tool

Knob 1/2 (START/END)
Define the start and end points in the timeline for the selected event of the focused Sound. All events within this time interval are included into the selection.

Knob 4 (EVENT)
Selects individual events for the focused Sound using their index number (their “order of appearance” in the Pattern) of the focused Sound.

By combining these tools you can precisely define the selection of events you want to edit:

<table>
<thead>
<tr>
<th>Event Select Mode: Selecting Notes (Pads in Keyboard mode)</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ The left display shows an overview of the events in your Pattern for all pitches of the focused Sound.</td>
</tr>
<tr>
<td>▪ The right display shows a detailed view of a portion of your Pattern containing events on two octaves.</td>
</tr>
</tbody>
</table>

When your pads are in keyboard mode the Event Select mode looks as follows:

In keyboard mode each pad represents a specific pitch of the focused Sound.

1. Turn Knob 5 and 6 to zoom in and scroll on the timeline (horizontal axis), respectively.

You can adjust the right display as follows:

- The right display shows a detailed view of a portion of your Pattern containing events on two octaves.
- The left display shows an overview of the events in your Pattern for all pitches of the focused Sound.

Working with Patterns
Working with Patterns

You have following selection tools at your disposal:

Play and Knob 7 is inactive.

Events at the highest pitch. If all events are within two octaves, they all appear in the display.

1. Turn Knob 7 to scroll on the pitch axis (vertical axis) from events at the lowest pitch until events at the highest pitch. If all events are within two octaves, they all appear in the display and Knob 7 is inactive.

2. Button 2 (SELECT) Switch between Event Select mode and Event Edit mode.

3. Button 4 (GRID) Selects/deselects the Step Grid. When the GRID is selected, events can be nudged or resized relative to the value of the Step Grid. Press GRID to access the Step Grid.

4. Button 5/6 (ALL/NONE) Selects/deselects all notes for all pitches of the current Sound — in short all events of that Sound.

5. Button 7/8 (UP/DOWN) Switch the focus to the previous/next Sound in order to add or remove all events of that Sound. The name of the selected Sound is indicated under the EVENTS label in the top left corner of the left display.

6. Knob 1/2 (START/END) Define the selection’s start and end points in the timeline for the focused Sound: All notes within this time interval and within the pitch interval defined by LOW and HIGH (see below) are included into the selection.

7. Selection/Tool

   - Fully lit pads: Pads indicate pitches at which all notes are selected. Press any additional lit pad to add its notes to the selection.
   - Partially lit pad: Pads indicate pitches at which all notes are selected but one or more additional dimmed pad(s) add its notes to the selection. You can press any dimmed pad to add all notes at that pitch to the selection. The only dimmed pad(s) at a pitch can be selected.
   - Dimmed pads: Pads indicate pitches at which some notes can be selected. Press happens when you press them.
   - Unlit pads: Pads indicate pitches at which the Pattern has no notes. Nothing happens when you press them.

You have following selection tools at your disposal:

8. Selection Tools

   - Play and Knob 7 is inactive.

   - Events at the highest pitch. If all events are within two octaves, they all appear in the display.
Selection Tool

**Knob 3/4 (LOW/HIGH)**

Define the selection’s lowest and highest pitch for the focused Sound. All notes within this pitch interval and within the time interval defined by `START` and `END` (see above) are included into the selection.

Page buttons

Drop the current selection and select the previous/next individual event for the focused Sound.

By combining these tools you can precisely define the selection of notes you want to edit.

<table>
<thead>
<tr>
<th><strong>Event</strong></th>
<th><strong>Page buttons</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>For the focused Sound</td>
<td>Drop the current selection and select the previous/individual event</td>
</tr>
<tr>
<td>By <code>START</code> and <code>END</code> (see above) are included into the selection.</td>
<td>By combining these tools you can precisely define the selection of notes you want to edit.</td>
</tr>
<tr>
<td>All notes within this pitch interval and within the time interval defined by <code>START</code> and <code>END</code></td>
<td>Define the selection’s lowest and highest pitch for the focused Sound.</td>
</tr>
<tr>
<td>Knob 3/4 (LOW/HIGH)</td>
<td>Select the focused Sound</td>
</tr>
</tbody>
</table>

Working with Patterns

- In **keyboard mode**, each pad represents a specific pitch of the focused Sound:
  - Remove all its events from the selection (the pad turns dim). When you press them, nothing happens.
  - Fully lit pads indicate Sounds for which all events are selected: Press any lit pad to correspondingly Sound.
  - 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 all events. Press a dimmed pad additionally switches the focus to the corresponding Sound.
  - Unlit pads indicate Sounds for which the Pattern has no events.

- In **Pad Mode**, 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 all events and 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).

You can select notes and events using the pads. Depending on the current pad mode (Pad 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:
  - Dims the pads when pressing `SHIFT + pad 5 (QUANTIZE)` and you’re done!
  - You hit without triggering the rest of the kit: Press `SHIFT + SELECT` + the pads of the desired sound or pads of the desired Sound. For example, in Pad Mode this can be very useful to quickly quantize a few drum instruments in your kit. 
  - Using your controller you can select particular events from the selected Pattern. This will allow you to edit them without affecting the other events.

selecting Events/Notes on the controller
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).

Choose one of the following actions to edit the selected notes:

- **Select mode** indicated by the unhighlighted Pencil icon.
- **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).

**Quantizing rules**:
- When you drag horizontally, the notes are moved in time according to the Step Grid (see quantizing rules below).
- When you drag vertically, the notes are moved in pitch (see quantizing rules below).

**Editing Events**

Once you have selected particular events, you can edit them in various ways.

- **Select mode** indicated by the unhighlighted Pencil icon.
- **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).

**Quantizing rules**:
- When you drag horizontally, the notes are moved in time according to the Step Grid (see quantizing rules below).
- When you drag vertically, the notes are moved in pitch (see quantizing rules below).

**Editing Events**

- **Select mode** indicated by the unhighlighted Pencil icon:
- **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).
Action | Function
--- | ---
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).

**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 resize a note by dragging its start/end border, the new start/end border will snap to the Step Grid, unless you drag the note near a grid line — in that case it will snap to the 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.

To override the quantization and freely adjust the note position or size, hold [Ctrl] ([cmd] on macOS) while dragging!

### Working with Patterns

#### Editing Events

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Right-click (macOS: [cmd]-click) deletes selected notes.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Double-click note</strong> deletes selected notes.</td>
<td></td>
</tr>
<tr>
<td><strong>Group view:</strong> Moves selected notes to another Sound of the Group.</td>
<td><strong>Drags note vertically (macOS: [cmd] + drag left/right border)</strong></td>
</tr>
<tr>
<td><strong>Keyboard view:</strong> Transposes selected notes.</td>
<td><strong>Step Grid quantization:</strong> Thready resizing the notes.</td>
</tr>
<tr>
<td></td>
<td><strong>Freely moves the start/end of selected notes according to the Step Grid (macOS: [cmd] + drag left/right border)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Drags left/right note border</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Moves the start/end of selected notes according to the Step Grid</strong></td>
</tr>
</tbody>
</table>
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.
▪ Whereas dragging is based on the Step Grid, nudged notes reaching the end of the Pattern are automatically set to the beginning of the Pattern.

In the software the Nudge command is not available with your mouse but via a keyboard short-cut:

Press [Alt] + the left/right cursor key on your computer keyboard to nudge the selected notes to nudges (see quantization rule above).

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 nudged by the selected note's offset with the Step Grid.

In the hardware section below for more information on the Nudge command.

Editing Selected Events/Notes on the Controller

Your controller provides various features in order to edit the events you have selected.
The Event Edit mode provides you with a few essential editing functions. These functions will be applied to the current selection of events.

1. Press **ARRANGE** to enter Arrange mode. **ARRANGE** lights up.

2. Press Button 2 (**PATTERN**) to enter Pattern Arrange mode. **Button 2** lights up and **PATTERN** is highlighted in the left display.

3. Press Button 5 (**EVENTS**) to enter Event Edit mode. **Button 5** lights up and **EVENTS** is highlighted in the right display.

If your pads are in **Pad Mode** the Event Edit mode looks as follows:

- The left display shows an overview of the events in your Pattern for all Sounds in the Group.
- The right display shows a detailed view of a portion of your Pattern with events and their velocities for the focused Sound.

If your pads are in **Keyboard mode** the Event Edit mode looks as follows:

The Event Edit mode on the controller with pads in Pad Mode.

The Event Edit mode on the controller with pads in Keyboard mode.

### Editing Events and Notes via the Event Edit Mode

- **QUANTIZE**
- **CLEAN ALL**
- **GRID**
- **SELECT**
- **EVENTS**

**Editing Events**

**Working with Patterns**
The Event Edit mode on the controller with pads in Keyboard mode.

- The left display shows an overview of the events in your Pattern for all pitches of the focused Sound.
- The right display shows a detailed view of a portion of your Pattern containing events on two octaves.

You can adjust the right display as follows:

1. Turn Knob 5 and 6 to zoom in/out and scroll on the time axis (horizontal axis), respectively.
2. If your pads are in Keyboard mode, turn Knob 7 to scroll on the pitch axis (vertical axis) from events at the lowest pitch until events at the highest pitch.

You can adjust the left display as follows:

- Turn Knob 1-4 to switch to the previous or next Sound in the Group, respectively.
- Press and hold SHIFT and use Knob 5 and 6 to zoom in/out and scroll the display.

The Event Edit mode is well suited for use with the Event Select mode! For example, while in Event Edit mode, you can quickly hold EVENTS in the TRANSPORT section of your controller to momentarily switch to Event Select mode for example, while in Event Select mode, you have just selected.

The Event Edit mode additionally provides a few selection shortcuts inspired from Event Select mode: Hold SHIFT and use Button 5 and 6 to select/deselect all events displayed, and Button 7 to switch back to Edit mode.

Under the left display Knob 1-4 provide following editing functions:

- Working with Patterns
- Editing Events
- Event Edit mode on the controller with pads in Keyboard mode
### Editing Tools

<table>
<thead>
<tr>
<th>Knob 1</th>
<th>Knob 2</th>
<th>Knob 3</th>
<th>Knob 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POSITION</strong></td>
<td><strong>PITCH</strong></td>
<td><strong>VELOCITY</strong></td>
<td><strong>LENGTH</strong></td>
</tr>
</tbody>
</table>

#### Knob 1 (POSITION)
Nudges selected events, i.e. shifts selected events on the timeline according to the Nudge Grid (the events' offsets relative to the Nudge Grid are preserved). Hold `SHIFT` while you turn the knob to temporarily override the Nudge Grid quantization and adjust the positions in extremely small increments. See section ↑ 11.1.7, Adjusting the Step Grid and the Nudge Grid for more information.  If one event only is selected, its position is shown under POSITION. If several events are selected, the field shows (MULTI) instead.

#### Knob 2 (PITCH)
Transposes the selected events in semitones. See also the alternate method described below.
If one event only is selected, its pitch is shown under PITCH. If several events are selected, the field shows (MULTI).

#### Knob 3 (VELOCITY)
Adjusts the velocity of the selected events. If the events have different velocities, the velocities differences are retained as long as the limits (0 and 127) are not reached. If one event only is selected, its velocity is shown under VELOCITY. If several events are selected, the velocities differences are retained. The velocities of the selected events are adjusted by semitones. See also the alternate method described below.
If one event only is selected, its velocity is shown under VELOCITY. If several events are selected, the field shows (MULTI).

#### Knob 4 (LENGTH)
Moves the end of the selected events according to the Step Grid (the offsets of each event's end relative to the Step Grid are preserved). Hold `SHIFT` while you turn the knob to temporarily override the Step Grid quantization and adjust the lengths in extremely small increments. If one event only is selected, its length is shown under LENGTH. If several events are selected, the field shows (MULTI).

You can also use these editing functions to quickly create variations of your Patterns during a live performance!
The following paragraphs will show you alternate editing functions. These functions also work outside Select mode.

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. See section 11.1.7, Adjusting the Step Grid and the Nudge Grid for more details.

Hold NUDGE (above the jog wheel) and turn the jog wheel to nudge the selected events to the left or to the right. If nothing is selected, all event/notes in the Pattern will be affected.

Press and turn the jog wheel (or hold SHIFT while you turn it) to adjust the value in finer increments.

Transpose Events and Notes

You can transpose selected events by semitones or octaves to match their pitch to your taste.

1. To transpose the selected events in semitones hold NOTE (above the jog wheel) and turn the jog wheel.

2. To transpose the selected events in octaves hold NOTE (above the jog wheel) and turn the jog wheel.

You can transpose selected events by semitones or octaves to match their pitch to your taste.

Working with Patterns
Press \text{SHIFT} + pad 7 (NUDGE \text{<}) to nudge the selected events to the left, or \text{SHIFT} + pad 8 (NUDGE \text{>}) to nudge the selected events to the right. If nothing is selected, all event/note is 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 taste.

- To transpose the selected events down in semitones press \text{SHIFT} + pad 13 (SEMITONE -);
- To transpose the selected events up press \text{SHIFT} + pad 14 (SEMITONE +).
- To transpose the selected events down in octaves press \text{SHIFT} + pad 15 (OCTAVE -);
- To transpose the selected events up press \text{SHIFT} + pad 16 (OCTAVE +).

If some events are selected, you can also press [Del] or [Backspace] on your computer keyboard to delete all events in the selected events.

Mouse in Select Mode

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).

- To delete events in a Pattern, double-click them, alternatively, right-click (macOS: [Ctrl]-click) and select \text{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 \text{↑} 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 several events.
- To delete an event, simply click it. Click and hold an event and move the cursor to quickly delete several events.

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).

- 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 \text{↑} 11.4.3, Selecting Events/Notes to know how to select events.

- To delete an event, simply click it. Click and hold an event and move the cursor to delete several events.
- To delete an event, simply click it. Click and hold an event and move the cursor to delete several events.
Deleting Events on the Controller

Your controller provides you with several tools to delete events from the current Pattern.

Deleting Events/Notes

Quick Deleting Events or Notes

The quickest and easiest way to delete events is the following:

► Press **EVENTS** + **ERASE** + the desired pad to delete from the Pattern all events for that Sound (if pads are in Pad Mode) or all notes at that pitch for the focused Sound (if pads are in Keyboard mode).

For more information on Pad modes, please refer to section ↑ 6.1. The Pad View in the Software.

While holding **EVENTS** + **ERASE** you can press several pads to delete their events.

In other terms you don’t need to press any until pad, since there are no events to delete there.

• If your pads are in Keyboard mode, the lit pads show you the pitches (of the focused Sound) for which the Pattern contains events.
• If your pads are in Pad Mode, the lit pads show you the Sounds for which the Pattern contains events.

As soon as you hold **EVENTS** + **ERASE**, some pads light up to indicate where there is some event to delete.

If you accidentally deleted events, press **UNDO** (in the **EDIT** section) to undo it!

Deleting the Selected Events

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 **CLEAR** (in the **EDIT** section) to erase the selected events. If nothing is selected, all events/notes in the Pattern will be affected.

While holding **EVENTS** + **ERASE** you can press several pads to delete their events.

• If your pads are in Keyboard mode, the lit pads show you the pitches (of the focused Sound) for which the Pattern contains events.
• If your pads are in Pad Mode, the lit pads show you the Sounds for which the Pattern contains events.

For more information on Pad modes, please refer to section ↑ 6.1. The Pad View in the Software.

The quickest and easiest way to delete events is the following:

Quick Deleting Events/Notes

Your controller provides you with several tools to delete events from the current Pattern.

Deleting Events/Notes on the Controller

Working with Patterns
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.

You can use this to selectively erase notes at a particular place in the Pattern.

Deleting Events for the Entire Group at Playback Position

Using your controller you can erase events for all Sounds in the Group at the playback position.

Deleting Events 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.

Please note the following:

- If multiple Sounds are selected, all of them will be affected. See section 15.1.3, 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.

You can use this to selectively erase notes at a particular place in the Pattern.
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 of the focused Sound are 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 switched to Keyboard view before pasting the events, only the copied events from the Sound previously focused will be affected: in Keyboard view these are all events of the focused Sound, so the events of the other Sounds in the Group (see section ↑ 11.1.5, Group View and Keyboard View) will not be affected.

Pasting Rules

- **If** focused will be pasted in the new focused Sound.
- **Switch to Keyboard view before pasting the events**, only the copied events from the Sound previously focused will be affected. In Keyboard view these are all events of the focused Sound, so the events of the other Sounds in the Group (see section ↑ 11.1.5, Group View and Keyboard View) will not be affected.

→ The events will be pasted according to the rules described hereinafter. If no event is selected, all displayed events of the focused Sound are affected:
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, and in Keyboard view the events copied at the same time and position relative to each other 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 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 haven’t changed the Sound focus without changing the playback position, events are pasted one step after the original events.
- If you haven’t changed the Sound focus or the playhead position, events are pasted one step after the original events.
- If you have changed the Sound focus without changing the playback position, events are pasted at the same timings as the original 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), events are pasted at the closest step near the mouse cursor on the time axis.
- Depending on the context menu command, the Pattern is extended to the last pasted event.
- 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 have changed the Sound focus without changing the playback position, events are pasted at the same timings as the original events.
    - If you have changed both the Sound focus and the playhead position, events are pasted at the closest step near the mouse cursor on the time axis.
  - 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 in Keyboard view the events copied at the same time and position relative to each other are pasted at the pitch of the row in which the mouse cursor is located.

Editing Events

Working with Patterns
In Group view the events copied from the topmost Sound in the Sound List are pasted onto the focused Sound, and all copied events retain their position relative to each other, both on the time axis and on the vertical axis (Sound List in Group view, pitches in Keyboard view).

Cut, Copy, and Paste Events/Notes on the Controller

To copy and paste selected events from your controller, use the buttons of the EDIT section above the jog wheel:

1. To copy the selected events, press COPY.
2. If you want to cut the selected events before pasting them, CLEAR to delete the original events.
3. To paste them, press PASTE.

The events will be pasted according to the same rules as when using the keyboard shortcuts (see above). If no event is selected, all displayed events will be affected.

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.

Working with Patterns
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 Sections 11.1.7, Adjusting the Step Grid and the Nudge Grid above for more information. Quantization is the process of moving events to the closest steps. You can quantize your notes.

There are two strengths of quantization:

• **Full quantization**: Moves each event directly onto the closest step of the current Step Grid.

• **Half quantization (50%)**: Moves each event half way toward the closest step of the current Step Grid.

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. This allows a tighter rhythm while retaining a human feel.

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.

Quantizing Events/Notes

Working with Patterns
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

Using Quantization while Recording

Adjusting the Step Grid and the Step Grid

For more information on the Step Grid and the Step Grid, see section 11.1.7. Adjusting the Step Grid and the Step Grid.

You can also choose to have notes automatically quantized as you record them on the pads. To do so, no quantization will be applied. See section 11.1.7. Adjusting the Step Grid and the Step Grid.

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.
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 QUANTIZE (in the EDIT section of your controller).

3. To apply only a bit of quantization to keep the groove you created by playing your notes live, press SHIFT + QUANTIZE.

Choosing an Input Quantization Mode

In the second half of the steps are quantized to the next step.

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.

Input Quantization While Playing

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 applying while recording: When recording, all events are quantized to the closest step — possibly ahead of the event. When playing, events are quantized in the first half of the steps ahead of the event. When recording, all events are quantized to the closest step — possibly ahead of the event. When playing, events are quantized in the first half of the steps ahead of the event. When recording, all events are quantized to the closest step — possibly ahead of the event. When playing, events are quantized in the first half of the steps ahead of the event. When recording, all events are quantized to the closest step — possibly ahead of the event. When playing, events are quantized in the first half of the steps ahead of the event.
Click the **Quantize** menu and select the desired Input Quantization mode from the three modes available (see their description above).

Your controller 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.

**Variation**: To enter Pattern mode:

1. Hold **PATTERN** to enter Pattern mode.
2. Select the desired Pattern by pressing its pad.
3. Press Button 3 (DOUBLE). The Pattern is doubled.

Keep in mind that doubling a Pattern twice results in a Pattern that is four times as long.

### 11.4.9 Doubling a Pattern

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 Button 3 (DOUBLE). The Pattern is doubled.

### 11.4.10 Adding Variation to Patterns

Variation 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.

Your controller provides a useful shortcut to double the length and content of the current Pattern.

For Patterns:

1. Hold **PATTERN** to enter Pattern mode.
2. Select the desired Pattern by pressing its pad.
3. Press Button 3 (DOUBLE). The Pattern is doubled.

The following modes are available (see their description above):

• **Humanize**: This mode adds natural rhythmic fluctuations to programmed sequences.

• **Variation**: Two modes:
  - **Humanize**: This mode adds natural rhythmic fluctuations to programmed sequences.
  - **Variation**: Two modes:

On your controller, the Input Quantization can be configured via the Recording Settings:

Click the **Quantize** menu and select the desired Input Quantization mode from the three modes available (see their description above).
Random: This mode provides randomly generated versions of your beats and melodies based on the values of the parameters of this mode.

When adding Variation to your Patterns, please be aware Random mode conforms to the selected Scale.

### Variation Controls

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apply</strong></td>
<td>Applies the current settings to the selected Sound.</td>
</tr>
<tr>
<td><strong>Random</strong></td>
<td>This mode creates randomly generated versions of your beats and melodies.</td>
</tr>
<tr>
<td><strong>Humanize</strong></td>
<td>This mode provides natural rhythmic fluctuations to your programed sequences.</td>
</tr>
</tbody>
</table>

To access Variation mode:

1. Select the Group (A–H) containing the Sound to which you want to apply the Variation.
3. Press SHIFT + PATTERN to access the Variation controls.
4. Press button 1 to pin the Variation page.

When adding Variation to your Patterns, please be aware Random mode conforms to the selected Scale.
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apply</strong></td>
<td>Applies the current settings to the selected Sound.</td>
</tr>
<tr>
<td><strong>Element</strong></td>
<td>Description</td>
</tr>
<tr>
<td><strong>TIME SHIFT</strong></td>
<td>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.</td>
</tr>
<tr>
<td>Step</td>
<td>Press Step to change in finer increments of 1%. Step can be changed from +/- 0.50% in 5% increments. Press SHIFT to change in finer increments of 1%.</td>
</tr>
<tr>
<td><strong>SPEED</strong></td>
<td>Applies the current settings to the selected Sound.</td>
</tr>
<tr>
<td>Velocity Hi</td>
<td>Adjust notes with a velocity no higher than the set value.</td>
</tr>
<tr>
<td>Velocity Lo</td>
<td>Adjust notes with a velocity no lower than the set value.</td>
</tr>
<tr>
<td><strong>VELOCITY RANGE</strong></td>
<td>Adjust notes with a velocity no lower than the set value.</td>
</tr>
<tr>
<td>Velocity Hi</td>
<td>Adjust notes with a velocity no higher than the set value.</td>
</tr>
<tr>
<td><strong>Apply</strong></td>
<td>Applies the current settings to the selected Sound.</td>
</tr>
</tbody>
</table>
Random Mode Parameters

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROBABILITY</strong></td>
<td>Set the probability of how often a note is created.</td>
</tr>
<tr>
<td>(Keyboard mode)</td>
<td>Probability can be changed from 10% to 100% in 1% increments.</td>
</tr>
<tr>
<td></td>
<td>At 100% a note will be created at every step of pattern.</td>
</tr>
<tr>
<td></td>
<td>At 50% a note may or may not be created at each step.</td>
</tr>
<tr>
<td></td>
<td>Set the probability of how often a note is created.</td>
</tr>
<tr>
<td></td>
<td>Press SHIFT to change in finer increments of 1%.</td>
</tr>
<tr>
<td><strong>NOTE RANGE</strong></td>
<td>Set the amount of notes that are available to make up a chord per step.</td>
</tr>
<tr>
<td>(Keyboard mode)</td>
<td>Note Count</td>
</tr>
<tr>
<td></td>
<td>Note Hi</td>
</tr>
<tr>
<td></td>
<td>Note Lo</td>
</tr>
<tr>
<td></td>
<td>Velocity Hi</td>
</tr>
<tr>
<td></td>
<td>Velocity Lo</td>
</tr>
<tr>
<td><strong>VELOCITY RANGE</strong></td>
<td>Create notes with a velocity no higher than the set value.</td>
</tr>
<tr>
<td></td>
<td>Create notes with a velocity no lower than the set value.</td>
</tr>
<tr>
<td><strong>CHORDS</strong></td>
<td>Note Count</td>
</tr>
<tr>
<td></td>
<td>(Keyboard mode)</td>
</tr>
<tr>
<td></td>
<td>Note Hi</td>
</tr>
<tr>
<td></td>
<td>Note Lo</td>
</tr>
<tr>
<td></td>
<td>Velocity Hi</td>
</tr>
<tr>
<td></td>
<td>Velocity Lo</td>
</tr>
<tr>
<td><strong>NOTE LENGTH</strong></td>
<td>Steps</td>
</tr>
<tr>
<td></td>
<td>Set the length of a note in steps.</td>
</tr>
<tr>
<td></td>
<td>The value range is from 1 to 6.</td>
</tr>
<tr>
<td><strong>TIME SHIFT</strong></td>
<td>In finer increments.</td>
</tr>
<tr>
<td></td>
<td>The value range is from 1 to 6 steps per note. Press SHIFT to change.</td>
</tr>
</tbody>
</table>

Working with Patterns
### Time Shift

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.

---

### Distributions

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Time shift can be changed from +/- 0.5% in 5% increments. Press SHIFT to change in finer increments of 1%.</td>
</tr>
<tr>
<td>Fixed</td>
<td>The note count is fixed. The value set in the Note Count section of the CHORDS section will take precedent here.</td>
</tr>
<tr>
<td>Equal</td>
<td>Notes will have the same length across the Pattern.</td>
</tr>
<tr>
<td>Gauss</td>
<td>Notes are more likely to be distributed to the middle and lower part of the Pattern in accordance with the Step Grid.</td>
</tr>
<tr>
<td>½ Gauss</td>
<td>Notes are more likely to be distributed to the middle and lower section of the NOTE RANGE.</td>
</tr>
</tbody>
</table>

### Notes (Keyboard mode)

- **Equal**: Notes will be evenly distributed across the Pattern in accordance with the Step Grid.
- **Gauss**: Notes are more 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 and lower part of the Pattern are more likely to be shorter.

### Note Count

- **Fixed**: The note count is fixed. The value set in the Note Count section of the CHORDS section will take precedent here.
- **Equal**: The note count is fixed. The value set in the Note Count section will be evenly distributed across the Pattern.
- **Gauss**: The note count is likely to be distributed across the NOTE RANGE.
- **½ Gauss**: The note count is likely to be distributed across the middle and lower section of the NOTE RANGE.
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 (continuous parameters only)**: 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:

<table>
<thead>
<tr>
<th>Nature of the change</th>
<th>Modulation</th>
<th>Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary (continuous parameters only)</td>
<td>At all levels (Sound, Group, MIDI sequencer or an external controller, e.g., an external MIDI device)</td>
<td>At all levels (Sound, Group, and Master)</td>
</tr>
<tr>
<td>Relative (continuous parameters only)</td>
<td>For continuous parameters (those parameters are controlled by a rotary knob in the software)</td>
<td>For continuous parameters (those parameters are controlled by a rotary knob in the software)</td>
</tr>
<tr>
<td>Permanent</td>
<td>At the Sound and Group level only (see below)</td>
<td>At all levels (Sound, Group, and Master)</td>
</tr>
<tr>
<td>Temporary (until the end of the Clip)</td>
<td>Temporary (until the end of the Clip)</td>
<td>Permanent</td>
</tr>
<tr>
<td>Recorded via Auto-write</td>
<td>Recorded via Auto-write</td>
<td>Recorded via Auto-write</td>
</tr>
<tr>
<td>Internal (e.g., changes recorded via Auto-write…)</td>
<td>External (e.g., knobs, buttons, faders, etc.)</td>
<td>External (e.g., knobs, buttons, faders, etc.)</td>
</tr>
</tbody>
</table>

This section describes how to use modulation in MASCHINE — for more information on using auto-playback, please refer to section 12.2.3, Controlling Parameters via MIDI and Host Automation.

### 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:

<table>
<thead>
<tr>
<th>Source of control</th>
<th>Modulation</th>
<th>Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal (e.g., changes recorded via Auto-write…)</td>
<td>For continuous parameters (those parameters are controlled by a rotary knob in the software)</td>
<td>For continuous parameters (those parameters are controlled by a rotary knob in the software)</td>
</tr>
<tr>
<td>External (e.g., knobs, buttons, faders, etc.)</td>
<td>External (e.g., knobs, buttons, faders, etc.)</td>
<td>External (e.g., knobs, buttons, faders, etc.)</td>
</tr>
</tbody>
</table>

### Recording and Editing Modulation

This section describes how to use modulation in MASCHINE — for more information on using auto-playback, please refer to section 12.2.3, Controlling Parameters via MIDI and Host Automation.

#### Working with Patterns

1) **Recording Modulation**

2) **Editing Modulation**
Almost all parameters meeting these requirements can be modulated, the only exceptions being:

\[
\begin{align*}
\text{Plugin's parameters are modulatable.} & \\
\text{Plugin's parameters are not modulatable — but the same Plug-in loaded at the Group or Sound level will have its} & \\
P\text{parameters be modulatable.} & \\
\text{Parameters at the Master level cannot be modulated.} & \\
\text{Parameters controlled by selectors (e.g., for selecting an operating mode or a filter type) cannot be} & \\
\text{controlled by a Knob or a Button in the software.} & \\
\text{Parameters must be at the Group or Sound level} & \\
\text{to meet all requirements.} & \\
\text{All the modulatable parameters are found in Plug-ins or Channel properties (e.g., you cannot} & \\
\text{modulate the Pattern Length or the Step Grid resolution).} & \\
\text{This means that all modulatable parameters are found in a Parameter page of the Control area (when the software is} & \\
in Arrange View). & \\
\text{When Parameters Are Modulatable?} & \\
\end{align*}
\]

\[
\begin{align*}
\text{Examples of parameters that automatically move across frequencys:} & \\
\text{Working with Patterns} & \\
\end{align*}
\]
As soon as you create modulation for a parameter, the following happens:

Your movement are recorded into the Pattern and will be recalled as the playback is looped.

To record modulation for a knob in real time, click its outer ring and then drag it up and down during playback.

Drag the outer ring of the knobs to record modulation.

### 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. 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.

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:

Your movement are recorded into the Pattern and will be recalled as the playback is looped.

To record modulation for a knob in real time, click its outer ring and then drag it up and down during playback.

Drag the outer ring of the knobs to record modulation.

### 11.5.3 Creating Custom Sets of Parameters with the Macro Controls

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 11.2.3, Controlling Parameters via MIDI.

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 11.2.3, Controlling Parameters via MIDI.

### Working with Patterns

- **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.

- **Control Page:**
  - Sound’s and Group’s Output properties: the Cue button in the Audio page.

- **Controls:**
  - Percussion (Drumsynth): in Fractal mode, the Tune Hold button in the Main page.
  - Saturation: in Tube mode, the Bass Overload button (MAIN section) and Bypass button.
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

To remove the entire modulation for a knob, simply right-click (on macOS: [Ctrl]+click) on any modulation value (usually indicated by a colored or little segment). Note that removing one modulation track will not automatically remove other modulation tracks for the same parameter. You have to do this manually.

To modulate a parameter with the controller:

1. First make sure the song is playing (PLAY must be lit) and your controller is in Control mode (CHANNEL or PLUG-IN must be lit, if it's not please press either of them).
2. Navigate to the parameter you want to modulate. To do this, put the focus on the desired Group or Sound (see 3.3.6, Focusing on a Group or a Sound), navigate to the desired Plug-in or set of Channel properties, and finally to the Parameter page containing that parameter.
3. Hold AUTO to enter Auto-write mode.
4. While holding AUTO, turn the desired Knob 1–8 under the displays to adjust the deviation to the actual value as you see it.

At the bottom of the displays, non-modulatable parameters disappear. Among the remaining parameters (all modulatable), the value of each continuous parameter is replaced by a percentage. At the bottom of the displays, you have just entered the Auto-write mode. To do this, put the focus on the desired parameter area (see 13.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area). Record Prepare Mode

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 remove the entire modulation for a knob, simply right-click (on macOS: [Ctrl]+click) on any modulation value (usually indicated by a colored or little segment).
Your modulation gets recorded now. Each Knob movement is stored in your Pattern as a modulation event. It will be automatically played with your Pattern upon its next cycle.

If you want to discard the modulation you recorded and try again:

1. Hold ERASE and turn the Knob you used to record modulation to delete all modulation events for this parameter.
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. 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.

You can also delete all modulation events for all parameters of the focused Sound or Group:

- Press SHIFT + CLEAR (CLR AUTO) to delete all modulation events for all parameters of the channel.
- Hold ERASE and again turn the Knob you used to record modulation to delete all modulation events for this parameter.
- If you want to discard the modulation you recorded and try again:
  - Your modulation gets erased now. Each Knob movement is stored in your Pattern as a modulation event. It will be automatically played with your Pattern upon its next cycle.

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 below).

⇒

Each modulation track contains a variable number of modulation points, each of them:

- The left part shows the Modulator List (see below). Click any entry to display the modulation track for that parameter on the right.
- The right part shows the modulation track for the particular parameter selected in the Modulator List. Scroll bar appears on the right to navigate the list.

The Modulator List contains following elements:

- The first entry shows the modulation track for the Decay parameter (see below).
- The list is too small to display all entries at once, a vertical scroll bar appears on the right, click the "+" symbol at the end of the list to add a new modulation track for another parameter.
- Click any entry to display the modulation track for that parameter.

Focused Sound or Group. Click any entry to display the modulation track for that parameter.

Modulation List showing all parameters currently modulated in the focused Sound or Group.
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 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.

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.

The range of the vertical value scale left of the modulation track depends on the selected parameter. This scale allows you to see at any time the real values that will be set by the modulation points in the track.
**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 create modulation points, double-click in the Control Lane — other points on this step will be replaced.

(2) Paint mode

Click and drag to set modulation points wherever you move the mouse. You can also create a new modulation track from scratch in the Control Lane. 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.

(3) Erase mode

Click and drag to delete modulation points wherever you move the mouse.

At the end of the Modulator List (in the left part of the Control Lane) you can use the „+“ symbol to add a new modulation track.

At the end of the Control Lane, there is a new modulation track is automatically created and contains your recorded movements in form of modulation points.

**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. At the end of the Modulator List (in the left part of the Control Lane) you can use the „+“ symbol to add a new modulation track.

**WORK WITH PATTERNS**

**Recording and Editing Modulation**

**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).

(2) Paint mode

Click and drag to set modulation points wherever you move the mouse.

(3) Erase mode

Click and drag to delete modulation points wherever you move the mouse.

At the end of the Modulator List (in the left part of the Control Lane) you can use the „+“ symbol to add a new modulation track.

At the end of the Control Lane, there is a new modulation track is automatically created and contains your recorded movements in form of modulation points.
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 added to all Patterns of the Group and you can now add and edit modulation points for the selected parameter in place of the Modulator X label.

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.

### 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:

- Working with Patterns
- Creating MIDI Tracks from Scratch in MASCHINE

#### 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.

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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.
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 and MIDI tracks will be included in the exported MIDI file. See section 11.8.2, Exporting MIDI for more information.

You cannot create MIDI tracks for Groups nor for the Master.

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 for more information.

Creating and editing MIDI tracks is done 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 of MIDI controls on the list with the "Not assigned".

5. Right-click (CTRL-click on macOS) this "Not assigned" entry and select the desired MIDI control from the context menu.

6. Add and modify events in the new MIDI track via the same editing tools as for modulation tracks (see 11.5.3, Creating and Editing Modulation in the Control Lane).

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 list 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.

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.

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. The selected bank is surrounded by a white border (the first bank in the picture above). The colored cells indicate Pattern slots containing a Pattern, while the others indicate empty slots. 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.

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.

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 Button 1 at the same time).

Your controller switches to Pattern mode. This is indicated by the lit PATTERN button.

Pressing Pattern 1 at the same time.

To close the Pattern Manager, click anywhere outside it.

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.

The Pattern mode is where you select and manage your Patterns.

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 Button 1 at the same time).

Your controller switches to Pattern mode. This is indicated by the lit PATTERN button.

Pressing Pattern 1 at the same time.

To close the Pattern Manager, click anywhere outside it.
On the right display, you will see all available Pattern slots in the selected Pattern bank represented as a square of 4x4 cells:

- The highlighted cell indicates the selected Pattern slot.
- Cells showing a name represent Pattern slots containing a Pattern.
- Empty cells represent empty Pattern slots.

This grid of cells corresponds to the pads on your controller:

- Fully lit pads indicate the selected Pattern slot.
- Dim lit pads indicate the selected Pattern slot.
- Unlit pads represent empty Pattern slots.

In the topmost row of the Pattern Editor, you can see on the left the name of the Pattern bank:

### 11.7.2 Selecting Patterns and Pattern Banks

1. Open the Pattern Manager (see 11.7.1, The Pattern Manager and Pattern Mode).

Selecting a Pattern:

The selected Pattern is named Basics.
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.

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 Patterns and Pattern Banks on the Controller

To select a Pattern located in another Pattern bank than the one selected, you first need to select that other Pattern bank:

- Press PATTERN + Button 7 or 8 to select the previous or next Pattern bank.

If the last Pattern bank is selected and not empty, pressing Button 8 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 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 from your controller and in the software.

When a Pattern is selected:

Song View for more on this).

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).

This Pattern is displayed in the software’s Pattern Editor. You can then modify it from both from your controller and in the software.

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.

To select a Pattern located in another Pattern bank, you first need to select another Pattern

Managing Patterns

Working with Patterns
11.7.3 Creating Patterns

First of all, you don’t need to explicitly create a new empty Pattern there:

- 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 a 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.

First of all, you don’t need to explicitly create a new empty Pattern before filling it with events:

3. Click any empty Pattern slot in the list on the left or click any dark cell in the selected pad grid to create the Pattern.

The selected Pattern bank is surrounded by a white border, and the left part of the Pattern bank where you want to create a Pattern.

2. If it is not already selected, click the desired pad grid on the right to select the Pattern bank. The selected Pattern bank is surrounded by a white border, and the left part of the Pattern bank where you want to create a Pattern.

1. Open the Pattern Manager (see 11.7.1, The Pattern Manager and Pattern Mode).

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.
3. Click any empty Pattern slot in the list on the left or click any dark cell in the selected pad grid to create the Pattern.

The selected Pattern bank is surrounded by a white border, and the left part of the Pattern bank where you want to create a Pattern.
A new empty Pattern is created in the selected Pattern slot. All following Patterns are shifted to the next slot.

1. A new empty Pattern is inserted right after the selected Pattern. All following Patterns are shifted to the next slot.

3. Press the pad corresponding to the Pattern after which you want to insert a new Pattern.
2. Press Button 7 and 8 to select the desired Pattern bank.
1. Press and hold PATTERN to enter Pattern mode.

A new empty Pattern is inserted right after a particular Pattern:

You can also insert a new Pattern right after a particular Pattern:

1. Press and hold PATTERN to enter Pattern mode.

A new empty Pattern is inserted right after the selected Pattern.

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 unit.

View for more on this.

Creating a New Pattern on Your Controller

1. Press and hold PATTERN to enter Pattern mode.

A new empty Pattern is inserted right after the selected Pattern.

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).

Creating aNew Pattern after the Current Pattern on Your Controller

You can also insert a new Pattern right after a particular Pattern:

1. Press and hold PATTERN to enter Pattern mode.

A new empty Pattern is inserted right after the selected Pattern. All following Patterns are shifted to the next slot.

A new empty Pattern is created in the selected Pattern slot. All following Patterns are shifted to the next slot.

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.

Working with Patterns
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 the Controller

To delete a Pattern on your controller:

1. Press and hold PATTERN to enter Pattern mode.

Working with Patterns

Managing Patterns
2. Press Button 7 and 8 to select the desired Pattern bank.

3. Press the pad corresponding to the Pattern you want to delete.

4. Press Button 6 (DELETE).

→ The Pattern is deleted.

Alternate Method

1. Press and hold PATTERN to enter Pattern mode.

2. Press Button 7 and 8 to select the desired Pattern bank.

3. Press the pad corresponding to the Pattern you want to delete.

→ The Pattern is deleted.

Alternate Method

1. Press and hold PATTERN to enter Pattern mode.

2. Press Button 6 (DELETE).

→ The Pattern is deleted.

Creating a Pattern bank

You can create and delete Pattern banks in order to organize your Patterns to your liking.

11.7.5 Creating and Deleting Pattern banks

If a Pattern referenced in the Arranger is deleted, then it is also removed from the arrangement.

Creating a Pattern Bank

If the last Pattern bank contains at least one Pattern (even empty), you can create an addition-

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If the last Pattern bank contains at least one Pattern (even empty), you can create an addition-
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.

3. Click the little cross to delete that Pattern bank.

A little cross appears at the top right of the pad grid. Clicking the cross deletes the Pattern bank. The Pattern bank is deleted including all its Patterns, if any. The following banks are shifted up to fill the gap.

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.
3. Click the little cross to delete that Pattern bank.

Working with Patterns

Managing Patterns

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If the Patterns of the deleted Pattern bank were referenced by Clips in the Arranger, these Clips will be removed as well!

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 your 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.

   The selected Pattern bank is surrounded by a white border and its Patterns appear in the list on the left.

   If necessary, select the Pattern bank containing the desired Pattern by clicking its pad grid on the right.

   To rename any Pattern even if it is not selected:

   Rename Patterns in the Pattern Manager:

   \[\text{will mirror the new Pattern name.}\]

   \[\text{The Pattern is renamed in the Arranger, all Clips referencing this Pattern in the Arranger will mirror the new Pattern name.}\]

   If necessary, select the Pattern bank containing the desired Pattern by clicking its pad grid on the right.

   To rename the selected Pattern in the Pattern Editor:

   Rename Patterns in the Pattern Editor:

   You can replace the Patterns’ default names with custom names of your own. This can be done:

   Information
You can also rename a Pattern in the Arranger via any Clip referencing this Pattern:

### Renaming Patterns in the Arranger

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 to bring up a context menu:

4. Type a name and press [Enter] on your computer keyboard to confirm (or press [Esc] to cancel your change).

The Pattern name gets highlighted and editable.

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 plugin window to confirm the name you have entered.

→ The Pattern is renamed. In the Arranger, all Clips referencing this Pattern will mirror the new Pattern name.

You can also rename a Pattern in the Arranger via any Clip referencing this Pattern:

3. On the right of the Pattern slot, click the little pen icon:

Working with Patterns

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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 a function of the host software. In this case, click anywhere else in the MASCHINE plug-in window to confirm the name you have entered.

3. If necessary, select the Pattern bank containing the desired Pattern by clicking its pad or pad grid.

   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 or pad grid.

   The selected Pattern bank is surrounded by a white border and its Patterns appear in the list on the left.

   2. If necessary, select the Pattern containing the desired Pattern by clicking its pad or pad grid.

   The selected Pattern bank is surrounded by a white border and its Patterns appear in the list on the left.

   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 or pad grid.

   The selected Pattern bank is surrounded by a white border and its Patterns appear in the list on the left.

   2. If necessary, select the Pattern containing the desired Pattern by clicking its pad or pad grid.

   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.

4. 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.

By default, Patterns inherit the color of their Group. Pattern will also mirror the selected color. The Pattern slot takes the new color you select. In the Arranger, all Clips referencing this default color by selecting Default at the bottom of the Color Palette.

Select the desired color in the Palette. You can also choose to set the Pattern back to its default color.

MASCHINE provides different ways of copying/pasting Patterns.

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2. If necessary, select the Pattern bank containing the desired Pattern by clicking its pad 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:

"Duplicate" 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).

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**Working with Patterns**

**Managing Patterns**

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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.

While the duplicating method described above is the quickest one, you can also copy a Pattern by holding the Pattern button of your controller:

1. Press and hold the Pattern button to enter Pattern mode (you can pin it by pressing Button 1).

2. Press and hold DUPLICATE (you can also pin it by pressing Button 1).

3. The selected (or created) Pattern appears in the Pattern Editor. Open the Pattern Manager, select (or create) an empty Pattern, and close the Pattern Manager again.

4. Select the Group in which you want to paste the Pattern’s content.

5. Right-click (on macOS: [Ctrl]+click) the Event area’s background and choose Paste from the slot’s context menu.
The Pattern is copied to the target pad. The target pad starts flashing and you can further copy/paste it to other slots!

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.

▪ If necessary, select the target bank containing the desired Pattern by clicking its pad grid. If you need to select the target Pattern slot in another bank, switch to that bank first using Buttons 7 and 8 before you select the target Pattern slot.

▪ Last but not least, this command is also available outside the Pattern mode: Simply press 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). 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 and hold DUPLICATE + PATTERN (instead of DUPLICATE alone in Pattern mode) before you select the target Pattern slot. Simply press DUPLICATE + PATTERN (instead of DUPLICATE alone in Pattern mode) before you select the target Pattern slot.

You can select the target slot in another Pattern bank after you have selected the source Pattern slot already containing a Pattern. It will be replaced by the copied Pattern.

You can paste the copy into the target slot of your choice — empty or not. If the target slot is already occupied, the copied Pattern is appended to the existing one.

This procedure has following benefits:

▪ The Pattern is copied to the target pad. The target pad starts flashing and you can further copy/paste it to other slots!

Working with Patterns

Managing Patterns
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

Pattern Length can be adjusted in fine increments to create irregular pattern lengths by tempo.

1. Press \texttt{GRID} and then Button 4 to access \texttt{STEP}.

2. Use Buttons 5 to 8 or press the relevant pad to select the required Step Grid size.

3. Press \texttt{PATTERN} to access the pattern page, and pin it if required by pressing Button 1.

4. Press \texttt{GRID} and then Button 4 to access \texttt{STEP}.

5. Press \texttt{GRID} and then Button 4 to access \texttt{STEP}.

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!
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.

The audio exported will be 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).

- 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] - [BPM].wav

The audio will be exported as a WAV audio file and according to the current settings of the Export Audio panel. This 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.

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 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 12.3.1, 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.

If you drop the audio file onto a Group, it will be loaded into the first empty Sound slot of this Group.
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

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.
3. In the top right corner of the Pattern Editor, click and hold the MIDI Dragger 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).
2. If you want to export MIDI from the entire Group, switch the Pattern Editor to Group view.
3. If you want to export MIDI from the focused Sound only, switch the Pattern Editor to Keyboard view.
4. Select the Pattern you want to export MIDI from (see section 11.7.2, Selecting Patterns).
5. You can render the selected Pattern to a MIDI file by simply dragging it onto the target location.
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.

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 any notes in a Group Pattern are exported as empty MIDI tracks across all exported Patterns. Also, if you export a Pattern and then re-import it into the same folder, all notes in the original Pattern will be reassigned to the new Pattern, which may create inconsistent note assignments. This way, if you are exporting multiple Patterns and some Sounds in the Group only contain notes in some of these Patterns, you will get a consistent assignment of notes to MIDI Sounds which do not contain any notes in a Group Pattern are exported as empty MIDI tracks.

Sounds which do not contain any notes in a Group Pattern are exported as empty MIDI tracks across all exported Patterns. Also, if you export a Pattern and then re-import it into the same folder, all notes in the original Pattern will be reassigned to the new Pattern, which may create inconsistent note assignments. This way, if you are exporting multiple Patterns and some Sounds in the Group only contain notes in some of these Patterns, you will get a consistent assignment of notes to MIDI Sounds which do not contain any notes in a Group Pattern are exported as empty MIDI tracks.
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 (notes, modulation tracks, and MIDI) will replace that data. As always, this can be undone both in the software or from your controller (see section 13.3.3, Undo/Redo).

You can import multiple MIDI files at once. The following paragraphs describe each of those situations.

Importing MIDI Files 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 Groups' context menu or via drag-and-drop.

Method 1: via the Groups' context menu
1. In the Group List (left of the Arranger), click the Group in which you want to import the MIDI file.
2. Select the Pattern in which you want to import the MIDI file.

Method 2: via drag-and-drop
Beat for an entire drum kit. You can do this via the Groups' context menu or via drag-and-drop.

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 Groups' context menu or via drag-and-drop.

Importing MIDI Files to Patterns

You can import MIDI files (extension ".mid") to Patterns. This allows you to use in MASCHINE.
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 list (left of the Arranger), click the Group in which you want to import the MIDI file.

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 under-

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.

You can alternatively right-click ([Ctrl]-click on macOS) the Group name in the header list (left of the Arranger), click the Group in which you want to import the MIDI file.

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 im-

port rules described below.

→
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 into the Group.

MASCHINE 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.

- If the MIDI file contains data on multiple MIDI channels: MIDI notes will be imported to the separate Patterns in the Group.

- The imported MIDI data will replace any existing data (notes, MIDI tracks, and modulation tracks) in the selected Pattern.

- The root note parameter in the MIDI page of the Group’s Input properties defines the lowest note in the Group, which is tied to Sound slot 1.

Example: If the root note is set to C1 (which corresponds to MIDI note number 36 in the MASCHINE convention), all notes with MIDI note number 36 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.

The MIDI note data will be allocated to the various Sounds in your Group according to the lowest note in the Group, which is tied to Sound slot 1.

If the root note parameter in the MIDI page of the Group’s Input properties is set to C1 (which corresponds to MIDI note number 36 in the MASCHINE convention), all notes with MIDI note number 36 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.

- The Imported MIDI file will replace any existing data (notes, MIDI tracks, and modulation tracks) in the selected Pattern.

- The root note parameter in the MIDI page of the Group’s Input properties defines the lowest note in the Group, which is tied to Sound slot 1.

Example: If the root note is set to C1 (which corresponds to MIDI note number 36 in the MASCHINE convention), all notes with MIDI note number 36 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.

Example: if the MIDI file contains data on channels 2, 3, and 5, and the MIDI input is channel 1, the MIDI file will be imported to Sound slot 1 with the lowest number, and so on. For all other channels of the MIDI file (i.e., channels that don't correspond to any MIDI input channel of a Sound in your Group), the data from the individual channels will be imported to individual Sounds.

Method 1: via the Sounds context menu

1. In the Group List (left of the Arrange), click the Group containing the Sound for which you want to import the MIDI file.
2. Select the Pattern in which you want to import the MIDI file.

Method 2: via the FILES pane of the Browser

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 Sounds context menu, via drag-and-drop, or via the FILES pane of the Browser.

Example: if the MIDI file contains data on channels 2, 3, and 5, and the MIDI input 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.
3. Right-click ([Ctrl]-click on macOS) the desired Sound in the Sound List and select Import MIDI…

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.

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. In the Import MIDI dialog that opens, navigate to the desired MIDI file on your computer and select Import MIDI… from the context menu.
4. Drag the MIDI file onto the desired Sound in the Sound List (left of the Pattern Editor).

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.

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).

   • 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.

   • The MIDI file will be imported to the selected Pattern for that Sound according to the import rules described below.

   • For keyboard view, you can also drag the MIDI file directly onto the Event area to import it into the focused Sound.

   • The MIDI file will be imported to the selected Pattern for that Sound according to the import rules described below.

Importing/Exporting Audio and MIDI to/from Patterns

Working with Patterns
4. Open the FILES pane of the Browser and navigate to the desired MIDI file (see section ↑ Importing/Exporting Audio and MIDI to/from Patterns).

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) 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.
- Any channel information in the selected Pattern will be respected as follows:
  - The imported MIDI data will replace any existing data (notes, MIDI tracks, and modulation) for that Sound, for the other Sounds the Pattern content won’t be affected.

---

### 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 a Group at once!

---

**To import multiple MIDI files to a Group:**

1. Open the FILES pane of the Browser and navigate to the desired MIDI file.
2. Open the FILES pane of the Browser and navigate to the desired MIDI file (see section ↑ Importing/Exporting Audio and MIDI to/from Patterns).
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 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 Group in the Group List.
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.

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!
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:

- **Audio Routing in MASCHINE**
- **Using MIDI Control and Host Automation**
- **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. Please refer to section 3.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area for a detailed description.

The Channel Properties

- **Parameters with the Macro Controls**
- **Creating Custom Sets of Parameters**
- **Using MIDI Control and Host Automation**
- **Audio Routing in MASCHINE**

This chapter describes a few important topics and features of MASCHINE’s routing and assignment system.
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 its parent 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**

To make it short, by default the various channels of MASCHINE are structured in a simple, hierarchical way, as shown in the diagram above. To customize this configuration to fit your specific needs, you can use the audio settings available in the Input and Output properties at the Sound, Group, and Master level. This allows you to 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**
When it comes to adjusting audio and MIDI routings, the Mix view can sometimes be the most efficient way to do it: 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 14, Controlling Your Mix. When it comes to adjusting audio and MIDI routings, the Mix view can sometimes be the most efficient way to do it: 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 14, Controlling Your Mix.

12.1.1 Sending External Audio to Sounds

Each Sound can use one external stereo input. The same external signal can be fed into any number of Sounds.

Each Sound can use one external stereo input. The same external signal can be fed into any number of Sounds.

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Each Sound can use one external stereo input. The same external signal can be fed into any number of Sounds.
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. This Audio page of the Input properties is available for Sounds only.

Please refer to section 3.3.8, 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)
- **Ext. 1 – 4**
- 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.

**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.

As any Parameter page of any Channel properties or Plug-in, this page is also available on your controller.

Further, you will find a step-by-step use case in 14.2, **Applying Effects to External Audio**.

Your host documentation will guide you on how to route signals to the external audio inputs of your MASCHINE instance.

For example, please refer to your host documentation to know how to route signals to the external audio inputs of your MASCHINE instance.

MASCHINE is listening as a plug-in; the external stereo inputs **Ext. 1 – 4** are available in the Source section of the MAIN page of the Plug-ins panel.

If you route external audio inputs, your mix will be rendered in your host.

This allows you to send stereo signals to your external audio interface.

By adjusting the gain of the incoming signal, you can control the level of the incoming audio.

**Source**

Selects an external audio input to be routed to the Sound. Available entries are:

- **None**
- **Ext. 1 – 4**
- Any additional output(s) of multiple-output Plug-ins loaded in other Sounds of the same Group.

**Controls**

- **Gain**
- **Source**
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.

4. If the Mixer currently displays the Group channels, double-click the header of the desired Group, currently displays the Sound channels, single-click the header of the desired Group.

The Mixer displays the channel strips of all Sounds in the selected Group.
5. At the top of the channel strip of the Sound you want to configure, click the first field under the Sound name and select the desired external input in the menu. This is equivalent to setting the **Source** parameter described above.

6. Turn the little knob on its left to adjust the input gain. This is equivalent to setting the **Gain** parameter described above.
Configuring the Main Output of Sounds and Groups

By default, the outputs of all Sounds in a Group are sent to the 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 or in a later stage. The output routing configuration is done on the Audio page of the Output properties for Sounds and Groups.

Audio Routing, Remote Control, and Macro Controls

Audio Routing in MASCHINE
Please refer to section 3.3.8, 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.

<table>
<thead>
<tr>
<th>Controls</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Section</td>
<td>Level</td>
</tr>
<tr>
<td>Cue</td>
<td>Adjusts the overall volume level of the channel.</td>
</tr>
<tr>
<td>Dest.</td>
<td>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 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, and the 16 external stereo outputs Ext. 1–16. For Groups, available options are None (no output), Master (default), Group (parent Group, default setting), any other Group or any other Sound (parent Group, default setting).</td>
</tr>
<tr>
<td>Cue</td>
<td>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). 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).</td>
</tr>
<tr>
<td>Ext. 1–16</td>
<td>The available bussing points are labeled as described below.</td>
</tr>
<tr>
<td>Level</td>
<td>The available bussing points are labeled as described below.</td>
</tr>
<tr>
<td>Cue</td>
<td>Selects where you want to send the main audio output of your channel.</td>
</tr>
</tbody>
</table>

Audio Routing, Remote Control, and Macro Controls

Audio Routing in MASCHINE
### Controls

**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 display are labeled as follows:

- **For Sounds:** [Group name] [Sound name]-[input number] (e.g., Drums: Kick-1).
- **For Groups:** [Group name] [input number] (e.g., Drums: 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 Groups

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.

---

If MASCHINE is running as a plug-in in the external stereo outputs Ext. 1–16 available in the Dest. selector, sounds or groups from MASCHINE will be mapped 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 more information, see section 6.3.1, Mute and Solo.

---

<table>
<thead>
<tr>
<th>Controls</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Mute (Sounds) only</td>
<td>Defines the pan position of the channel in the stereo field.</td>
</tr>
</tbody>
</table>
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.

You can also easily configure the outputs of your Sounds and Groups in MASCHINE's Mix View:

1. Click the Mix View button on the left of the Arranger to switch from Arrange View to Mix View.

Configuring the Main Outputs of Sounds and Groups in Mix View:

For each Sound slot, there are two knobs that allow you to quickly adjust the channel level and panoramic position.
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 of its parent Group or double-click it if the Mixer currently displays the Group channel strips).

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.

Audio Routing, Remote Control, and Macro Controls
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.

---

**Audio Routing, Remote Control, and Macro Controls**

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Please refer to section 3.3.8, 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.

### AUX 1 / AUX 2 Section

**Description**

- **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.

### Controls

![Image of Aux 1 and Aux 2 Section](image)

![Image of Aux 1 and Aux 2 Section in the software](software_image)
### Controls

<table>
<thead>
<tr>
<th>Description</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusts the level of the signal sent to the Aux 1 or Aux 2 output.</td>
<td>Level</td>
</tr>
</tbody>
</table>
| 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** section on the Audio page are applied first. The level of the signal sent to the Aux 1 or Aux 2 output affects the signals sent to the external stereo outputs. | Order  
Level  
Description |

---

### Setting Up the Auxiliary Outputs of Sounds and Groups in Mix View

1. Click the Mix View button on the left of the Arranger to switch from Arranger View to Mix View.

2. 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.

---

**Setting Up the Auxiliary Outputs of Sounds and Groups in Mix View**

If **MASCHINE** is running as a plug-in, the external stereo outputs Ext. 1–16 are available in the **Dest.** selectors of the **AUX 1** and **AUX 2** section. You can send auxiliary outputs of individual Sounds or Groups from **MASCHINE** to their own mixer channels.

- **MASCHINE** Audio Routing, Remote Control, and Macro Controls
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 Group channel strips). 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.

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 \textit{Level} parameter described above.

7. Set the pre/post state of the auxiliary output by clicking the \textit{Post} (or \textit{Pre}) label right under the menu. This is equivalent to setting the \textit{Order} parameter described above.

Besides, all channels currently routed to the Cue bus for pre-listening are mixed together and sent to the Cue output.

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 \textit{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 3.3.8, 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

<table>
<thead>
<tr>
<th>Description</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Audio Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td>Selects where you want to send the master output of your MASCHINE Project. Available options are the 16 external stereo outputs Ext. 1–16.</td>
</tr>
<tr>
<td><strong>Level</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Pan</strong></td>
<td>Defines the panoramic position of the master output in the stereo field.</td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td>Selects where you want to send the master output of your MASCHINE Project. Available options are the 16 external stereo outputs.</td>
</tr>
</tbody>
</table>
### Controls

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUE Section</td>
<td>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(s) currently sent to the Cue bus. To send a channel to the Cue bus, enable the Cue output (in the Audio page of its Output properties) and click the ON button for this additional Cue output field. You can also easily control the Cue and the main stereo outputs from a controller of your choice.</td>
</tr>
<tr>
<td>Level</td>
<td>Adjusts the level of the Cue output.</td>
</tr>
<tr>
<td>Pan</td>
<td>Defines the panoramic position of the Cue output in the stereo field.</td>
</tr>
</tbody>
</table>

#### Configuring the Master and Cue Outputs in Mix View

1. Click the Mix View button on the left of the Arranger to switch from Arranger view to Mix view.
2. Open the extended view of the Mixer by clicking the down-pointing arrow on the left of the Mix View.

To display the Master and Cue channel strip of the Cue output:

- 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.
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.

   - To adjust the level and panoramic position of the main output, use the channel’s fader.
   - This is equivalent to setting the Level or Pan parameters in the MAIN section, respectively.

Audio Routing, Remote Control, and Macro Controls

Audio Routing in MASCHINE

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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.

2. Click the headphone icon in the strip’s header to show the controls for the Cue channel.

In this Master/Cue channel strip, do the following to configure the output of the Cue channel:

This is equivalent to setting the Output parameter in the MAIN section (see above).

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 \textit{Level} or \textit{Pan} parameters in the \textbf{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 \textit{Output} parameter in the \textbf{MAIN} section (see above).
You can also easily send stereo or mono external audio to Sounds in MASCHINE’s Mixer.

### 12.1.5.1 Configuring External Inputs for Sounds in Mix View

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.

You can also easily send stereo or mono external audio to Sounds in MASCHINE’s Mixer.

Audio routing in MASCHINE

Audio routing settings: Remote control and Macro controls
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.

Audio Routing, Remote Control, and Macro Controls

Audio Routing in MASCHINE

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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 STUDIO

All input channels, including individual mono L and R channels can be found at the bottom of the input selection drop-down menus. Pressing the IN button on MASCHINE STUDIO will toggle through Stereo, Left, and Right inputs, and metering of mono inputs is shown as dual.

To configure an external input for a Sound:

1. Select the Group and Sound for external sound source input.
2. Press CHANNEL.
3. Press Button 5 repeatedly to select INPUT.
4. Press Button 3 SOUND.
5. Turn Knob 1 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.
Some MIDI features of MASCHINE:

- **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 section 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 Presets 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 environment, you can also trigger your Scenes using MIDI notes or MIDI Program Change messages. This allows you to record your performance on the pads as a MIDI pattern in your host application. This is described in section 16.5, Triggering Sections or Scenes via MIDI.

Additional MIDI features:

- **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.

- **Switching Sounds via MIDI notes:** By default, incoming MIDI notes will trigger the focused Sound.

- **When MASCHINE is running as a plug-in in a host, you can also trigger your Scenes using MIDI notes.** Please refer to section 16.5, Triggering Sections or Scenes via MIDI.

Using MIDI control and Host Automation

Audio Routing, Remote Control, and Macro Controls
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 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 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 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, while the Group will react to all incoming notes on channel 2.
- **The Way the Presets via MIDI Program Change for Native Instruments and External Plug-ins Work**: When selecting MIDI Program Change for Native Instruments and External Plug-ins, the preset selection via MIDI Program Change also affects other MASCHINE features:
  - The preset selection via MIDI Program Change also affects other MASCHINE features:
  - The preset selection via MIDI Program Change also affects other MASCHINE features:
  - The preset selection via MIDI Program Change also affects other MASCHINE features:

Audio Routing, Remote Control, and Macro Controls
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.

Please refer to section 3.3.8, 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:

- Audio Routing
- Remote Control
- Macro Controls
- Using MIDI Control and Host Automation
- Audio Routing, Remote Control, and Macro Controls
**MIDI ROUTING Section**

<table>
<thead>
<tr>
<th>Controls</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MIDI ROUTING</strong> Section</td>
<td>This option allows you to configure the MIDI note input.</td>
</tr>
<tr>
<td><strong>Key Mode</strong></td>
<td>Enables the MIDI note input for the selected Group (disabled by default). Please refer to your host documentation to find out how to enable the MIDI note input for the selected Group (disabled by default).</td>
</tr>
</tbody>
</table>

**Manual:** This option allows you to configure the MIDI note input. Additionally, KOMPLETE KONTROL S-series keyboards have a dedicated **KEY MODE** button to quickly activate the Drumkit option. By selecting **Drumkit**, you also affect how MIDI is exported from MASCHINE to another host sequencer when using the MIDI destroyer.

**Off:** Select this option to disable the MIDI note input for the selected Group.

**Key Mode (Pad Mode):**

<table>
<thead>
<tr>
<th>MIDI ROUTING Section</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry</td>
<td>Key Mode</td>
</tr>
<tr>
<td>Drumkit</td>
<td>Key Mode</td>
</tr>
<tr>
<td>Off</td>
<td>Key Mode</td>
</tr>
<tr>
<td>None</td>
<td>Key Mode</td>
</tr>
</tbody>
</table>

**Reset:**

Please refer to your host documentation to find out how to reset your MIDI settings to your MASCHINE plug-in.

Using MIDI Control and Host Automation

Audio Routing, Remote Control, and Macro Controls

**Manual:** This option allows you to configure the MIDI note input. Additionally, KOMPLETE KONTROL S-series keyboards have a dedicated **KEY MODE** button to quickly activate the Drumkit option. By selecting **Drumkit**, you also affect how MIDI is exported from MASCHINE to another host sequencer when using the MIDI destroyer.

**Off:** Select this option to disable the MIDI note input for the selected Group.

**Key Mode (Pad Mode):**

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<tr>
<th>MIDI ROUTING Section</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Entry</td>
<td>Key Mode</td>
</tr>
<tr>
<td>Drumkit</td>
<td>Key Mode</td>
</tr>
<tr>
<td>Off</td>
<td>Key Mode</td>
</tr>
<tr>
<td>None</td>
<td>Key Mode</td>
</tr>
</tbody>
</table>

**Reset:**

Please refer to your host documentation to find out how to reset your MIDI settings to your MASCHINE plug-in.
<table>
<thead>
<tr>
<th>Controls</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source</strong></td>
<td>(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.</td>
</tr>
<tr>
<td><strong>Channel</strong></td>
<td>(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. If you select a single MIDI channel, the Sound or Group will receive MIDI notes from that channel only. 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.</td>
</tr>
<tr>
<td><strong>Start Note</strong></td>
<td>(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. 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.</td>
</tr>
<tr>
<td><strong>Thru</strong></td>
<td>(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 with MASCHINE as the sound source, and then play them back from there, using your host sequencer and then play them from MASCHINE into your host sequencer, and then play them with MASCHINE as the sound source. Switch this parameter off to stop incoming events from being routed to the outputs.</td>
</tr>
</tbody>
</table>

Using MIDI Control and Host Automation

Audio Routing, Remote Control, and Macro Controls
Some of these parameters also affect MIDI file import: The Channel parameter of a Sound will be used when importing a single-channel MIDI file to its Group, while the Root Note parameter will be used when importing a multi-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 Mix View:

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.

Audio Routing, Remote Control, and Macro Controls
5. Click the little field on its left to select a MIDI channel.

This is equivalent to the Channel parameter described above.

Sending MIDI Scene Change Messages

Send back to MASCHINE for playback and trigger Scenes in the recorded order.

MIDI data is sent out to all connected MIDI output devices.

Audio Routing, Remote Control, and Macro Controls
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 \(\uparrow\) 6.5.7, 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 host automation tracks in your host.

In addition, when MASCHINE is running as a plug-in, you can assign these parameters to automation IDs in order to control automation tracks in your host.

In MASCHINE, automation means the control of MASCHINE parameters from an external source, configuring MIDI and host automation is possible in the software only.

### Automation vs. Modulation

- **Permanent**: The new parameter value is defined regardless of its current value.
- **Absolute**: The new parameter value is defined regardless of its current value, even when the playback is looped or restarted.

**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).
- Absolute: The new parameter value is defined regardless of its current value.

### Automation vs. Modulation

Although both deal with automatic change of parameters, automation and modulation have to be distinguished. The following table summarizes the main differences:

<table>
<thead>
<tr>
<th>Automation</th>
<th>Modulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent</td>
<td>Permanent</td>
</tr>
<tr>
<td>Absolute</td>
<td>Absolute</td>
</tr>
</tbody>
</table>

### Audio Routing, Remote Control, and Macro Controls

Audio routing, remote control, and macro controls can be configured via MIDI and host automation.
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.

### Using the Automation Pane in the Assignment Area

MIDI and host control can be configured in 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.

   ![Assignment area](image)

Using MIDI Control and Host Automation

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<table>
<thead>
<tr>
<th>Source of control</th>
<th>Duration of the change</th>
<th>Target parameters</th>
<th>Nature of the change</th>
<th>(Continuous parameters only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modulation</td>
<td>Permanent</td>
<td>All target levels (Sound, Group)</td>
<td>Relative (defines a deviation)</td>
<td>Relax (relaxes to the non-modulated value)</td>
</tr>
<tr>
<td>Modulation</td>
<td>Temporary (until the end of the clip)</td>
<td>All target levels (Sound, Group)</td>
<td>Absolute (defines a new value regardless of the non-modulated value)</td>
<td>Force (sets the value to the recorded automation)</td>
</tr>
<tr>
<td>Modulation</td>
<td>Temporary (until the end of the clip)</td>
<td>All target levels (Sound, Group)</td>
<td>Absolute (defines a new value regardless of the non-modulated value)</td>
<td>Force (sets the value to the recorded automation)</td>
</tr>
<tr>
<td>MIDI</td>
<td>Temporary (until the end of the clip)</td>
<td>All target levels (Sound, Group)</td>
<td>Absolute (defines a new value regardless of the non-modulated value)</td>
<td>Force (sets the value to the recorded automation)</td>
</tr>
</tbody>
</table>

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. This is useful for controlling parameters like volume, gain, and pitch.

To change the modulation source, target parameters, and automation type, use the Automation pane in the Assignment area.
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. You are now ready to configure MIDI and host automation for the parameters in the current Parameter page.

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 no assignment yet, the Assignment field reads Learn (MIDI tab) or Enable (Host tab). If no assignment yet, the Assignment field reads Learn (MIDI tab) or Enable (Host tab). If no assignment yet, the Assignment field reads Learn (MIDI tab) or Enable (Host tab). If no assignment yet, the Assignment field reads Learn (MIDI tab) or Enable (Host tab). If no assignment yet, the Assignment field reads Learn (MIDI tab) or Enable (Host tab). If no assignment yet, the Assignment field reads Learn (MIDI tab) or Enable (Host tab). If no assignment yet, the Assignment field reads Learn (MIDI tab) or Enable (Host tab). If no assignment yet, the Assignment field reads Learn (MIDI tab) or Enable (Host tab). 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Almost all parameters meeting this requirement are automatable, the only exceptions being:

- Audio Routing, Remote Control, and Macro Controls

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.

The following paragraphs describe in more detail how to assign MIDI controls and host auto-

...
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.

Assigning Host Automation IDs to Parameters with the Macro Controls

section 12.3, Creating Custom Sets of Parameters with the Macro Controls.

Also note that your Macro Controls will be automatable if, and only if, the parameters they are

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Assigning Host Automation IDs to Parameters with the Macro Controls

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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 assigned 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**.

Audio Routing, Remote Control, and Macro Controls

Using MIDI Control and Host Automation

Audio Routing, Remote Control, and Macro Controls
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.

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 Preferences panel — for more details please refer to section 3.6.3, Preferences – MIDI Page. If MASCHINE is running as plug-in in a host application, the MIDI configuration is done in the host.

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.

If you want to simply remove a MIDI assignment without recording a new one, do the following:

If you want to simply remove a MIDI assignment without recording a new one, do the following:

If you want to simply remove a MIDI assignment without recording a new one, do the following:

You cannot assign the same MIDI control to more than one parameter in MASCHINE; if a MIDI control is already reassigned to a parameter, when you assign it to another parameter its first assignment is automatically deleted.

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 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.

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You cannot assign the same MIDI control to more than one parameter in MASCHINE; if a MIDI control is already reassigned to a parameter, when you assign it to another parameter its first assignment is automatically deleted.
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.

If you have a Native Instruments or third-party VST/AU plug-in loaded in a Sound, you can re-enable via MIDI Program Change messages.

Of course, this procedure also works for Native Instruments and External Plug-ins loaded in MASCHINE.

Using MIDI Control and Host Automation

Audio Routing, Remote Control, and Macro Controls
Your Sounds can output MIDI notes and automation data to the outside world, allowing you to control any MIDI-capable application and external MIDI gear from MASCHINE's sequence. Your Sounds can output MIDI notes and automation data to the outside world, allowing you to control any MIDI-capable application and external MIDI gear from MASCHINE's sequence.

Using MIDI Control and Host Automation
Audio Routing, Remote Control, and Macro Controls

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Please refer to section 3.3.8, 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.

<table>
<thead>
<tr>
<th>Control Description</th>
<th>MIDI Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selects the MIDI port on which the Sound will send MIDI data.</td>
<td>Dest.</td>
</tr>
</tbody>
</table>

*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 instruments, etc.*

If MASCHINE is running in stand-alone mode (see 3.6.3, Preferences – MIDI Page), output ports on your MIDI interface (see 1.3.6.3, Preferences – Audio Routing, Remote Control, and Macro Controls) can be used to enable the desired MIDI Plug-in that can receive MIDI (multitimbral Plug-in). Check the plug-in’s settings to enable the desired MIDI port. If the same Sound contains a Group containing a multiport MIDI Plug-in, as well as any Sound or Group containing a multiport MIDI Plug-in, all enabled entries are available entries for the destination MIDI Plug-in.

*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.*

*Please refer to section 1.3.8, Navigating Channel Properties, Plug-ins, and Parameter Pages in the Control Area to know how to access the MIDI page of the Output properties for a Sound on the controller.*
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

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.

Using MIDI Control and Host Automation

Audio Routing, Remote Control, and Macro Controls
4. If the Mixer currently displays the group channels, in the top row of the Mixer double-click the header of the desired group. Currently displays the Sound channels, single-click the header of the desired 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.

Audio Routing, Remote Control, and Macro Controls
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 a selection of parameters coming from different sources available in every channel (sounds, groups, and master), MIDI CC, and host automation IDs. You can choose a set of parameters from various sources and assign them to MIDI controls or host automation IDs for playing live or plotting the scene without having to switch screens. This is very useful for playing live since you can choose a set of parameters from various sources and assign them to MIDI controls or host automation IDs for playing live or plotting the scene without having to switch screens.

Macro Controls are available in the Macro properties.

The Macro properties (here for a Sound) in the software.
The Macro properties (even of a different channel) are not available as targets for any of the Mac-}

Please refer to section 3.3.8, 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.

Creating Custom Sets of Parameters with the Macro Controls

Audio Routing, Remote Control, and Macro Controls

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.

To know which parameters you can assign to a Macro Control, consider this single rule:

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. In other words:

12.3.1 Macro Control Overview

For Sounds: You can assign the Macro Controls of a Sound to any parameters in its properties or Plug-ins of that Sound.

- For Sounds: You can assign the Macro Controls of a Sound to any parameters in its properties or Plug-ins of that Sound.
- For Groups: You can assign the Macro Controls of a Group to any parameters in its properties or Plug-ins of that Group.
- For the Master: You can assign the Macro Controls of the Master 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.

Audio Routing, Remote Control, and Macro Controls

Creating Custom Sets of Parameters with the Macro Controls

Audio Routing, Remote Control, and Macro Controls
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, 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).

Macro Control Shortcut on the Controller

On your controller, a dedicated button allows you to quickly access your Macro Controls at any time:

1. Press MACRO in the PERFORMANCE section to directly switch to the Macro Controls of the focused channel (Sound, Group or Master).

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 and select which Macro level you want to assign it to.

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.

Assigning Macro Controls from Parameters

Assigning the Macro Controls is only possible using the software.

Creating Custom Sets of Parameters with the Macro Controls

Audio Routing, Remote Control, and Macro Controls

12.3.2 Assigning Macro Controls Using the Software
2. 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**, or
- **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) as described above.

3. 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 parameter pages to VST/AU plug-ins in MASCHINE (see section 7.3.3, Setting Up Your Own Parameter Pages).

Opening the Pages Pane in the Assignment Area

1. 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 above.
   2. Click the down-pointing arrow in the bottom left corner of the Control area to reveal the Assignment area underneath.

Assigning Macro Controls Using the Pages Pane

- **The selected Macro is removed.**

   4. To remove a Macro, right-click the parameter again and select **Remove Macro**.

   - **This option is available when you have assigned a Macro to a knob or parameter.**
3. Click the Pages tab in the left part of the Assignment area:

→ The Pages tab lights up and the Pages pane appears in the Assignment area. You are now ready to assign Macro Controls to parameters.

When the Pages pane of the Assignment area is open, you also notice a few changes in the Control area above.

Creating Custom Sets of Parameters with the Macro Controls

Audio Routing, Remote Control, and Macro Controls
The Target selector (see picture above) allows you to choose from all available parameters for each Macro Control.

Selecting a Parameter in the Target Selector

The Target selector displays and selects the target parameter of the selected Macro Control in- and edit its assignment in the Target selector below (4).

(7) Target selector: Displays and selects the target parameter of the selected Macro Control in-.

(6) Focus frame: Indicates the Macro Control being assigned. Click any Macro Control to display responding parameters.

(5) Parameter label fields: Double-click these fields to enter custom labels for your parameters.

(4) Reset button: Click Reset to remove the Macro Control assignment for the selected knob.

Audio Routing, Remote Control, and Macro Controls

Creating Custom Sets of Parameters with the Macro Controls

Selecting a Parameter in the Target Selector

The Target selector allows you to quickly select the desired parameter.

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.

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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.
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 (Assigning the properties of the current channel), Groups (Assigning the properties of the current Project).
   - The menu is organized into subcategories: Settings (Assigning the properties of the current channel), Groups (Assigning the properties of the current Project).

   ![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.](image)

   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.

2. Upon your selection in the previous menu, 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.

   - Items on the left of the selected item (i.e., at a higher level) stay untouched, while items on the right of the selected item (i.e., at a lower level) stay untouched, while items on the left of the selected item (i.e., at a higher level) stay untouched, while items on the right of the selected item (i.e., at a lower level) stay untouched.

   - Upon the selection of a parameter, the Macro Control is assigned to this parameter.

   - To modify a particular item in the selection shown by the Target selector, click it and set-
   - To modify a particular item in the selection shown by the Target selector, click it and set-

   - Items on the left of the selected item (i.e., at a lower level) are reset.

   - Items on the left of the selected item (i.e., at a lower level) are reset.

   - Items on the left of the selected item (i.e., at a lower level) stay untouched, while items on the left of the selected item (i.e., at a lower level) stay untouched, while items on the left of the selected item (i.e., at a lower level) stay untouched, while items on the left of the selected item (i.e., at a lower level) stay untouched, while items on the left of the selected item (i.e., at a lower level) stay untouched.
When the Assignment area is opened and the Pages tab is selected, right-click on a Page or Macro slot to access the context menu.

**Context Menu - Assignment Area Pages**

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>Description</th>
<th>Keyboard Shortcuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboard Shortcuts</td>
<td>Paste a cut or copied Macro to a new position.</td>
<td>Ctrl + V / Cmd + V</td>
</tr>
<tr>
<td></td>
<td>Copy the Macro.</td>
<td>Ctrl + C / Cmd + C</td>
</tr>
<tr>
<td></td>
<td>Paste the Macro.</td>
<td>Ctrl + V / Cmd + V</td>
</tr>
<tr>
<td></td>
<td>Cut the Macro to paste it in another position.</td>
<td>Ctrl + X / Cmd + X</td>
</tr>
<tr>
<td></td>
<td>Reset the Macro.</td>
<td>Ctrl + R / Cmd + R</td>
</tr>
<tr>
<td></td>
<td>Rename the Macro.</td>
<td>Ctrl + R / Cmd + R</td>
</tr>
</tbody>
</table>

Audio Routing, Remote Control, and Macro Controls

Creating Custom Sets of Parameters with the Macro Controls
The context menu contains the following items:

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear All</td>
<td>Deletes all of the Pages and clears all the assignments.</td>
</tr>
<tr>
<td>Delete</td>
<td>Deletes current Page with all assignments.</td>
</tr>
</tbody>
</table>

Keyboard Shortcuts:

---

Creating Custom Sets of Parameters with the Macro Controls

Audio Routing, Remote Control, and Macro Controls
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 default view of the MASCHINE software is the Arrange view, which contains the Arrange view and Mix.

13.1.1 Switching between Arrange View and Mix View

It is important to note that the Mix view does not provide any additional settings that are not available in the Arrange view. In other words, every action done in Mix view can also be done in the Arrange view.

13.1 Mix View Basics

This section describes the basic operation of the Mix view.

Mix View vs. Arrange Views

In the rest of the chapter, for each procedure in Mix view we will quickly mention the equivalent procedure in Arrange view.

13.1.2 Switching between Arrange View and Mix View

You can switch the MASCHINE software at any time between the Arrange views (Ideas view and Song view) and Mix view.

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.

Mix View vs. Arrange Views

It is important to note that the Mix view does not provide any additional settings that are not available in the Arrange view. In other words, every action done in Mix view can also be done in the Arrange view.

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.
The Mix View button.

Click the Mix View button at the top left of the Arranger to switch between the Arrange view, the Control area, and the Mix view.

Press `SHIFT` + `NAVIGATE` to switch between the Arrange view and the Mix view in the MASCHINE software.

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:

13.1.2 Mix View Elements

Controlling Your Mix

Mix View Basics
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 directly adjust the parameters of each focused channel (Sound, Group, or Master), re-assign the parameters of each channel to different Mixers, or 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). See section 13.4, *The Plug-in Strip* for a detailed description.
The Mixer

Sitting in the top part of the Mix view, the Mixer is ideal to quickly see and adjust the level and routing settings of different channels in one go.

Controlling Your Mix

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:

Routing settings of different channels in one go.

Sitting in the top part of the Mix view, the Mixer is ideal to quickly see and adjust the level and
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 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.

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.

### 13.2.2 Adjusting the Mixer Layout

- Whether the mixer is minimized or not and which sections are enabled for display;
- Whether the Mixer is selected for displaying Groups vs. Displaying Sounds.
- Which of the Sound or Group level is selected for displaying:

![Mixer Displaying the Group Level](image)
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: 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.

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.

Controlling Your Mix
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!

The Mixer has a dedicated button to show and hide the channel details in the Mixer:

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

Minimizing/maximizing the Mixer:

When the Mixer is minimized, the channel strips are shrunked to their headers:

Maximizing/minimizing the Mixer:

When the Mixer is maximized, the channel strips are restored to their entire channel details.

Controlling Your Mix
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:

- **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.

13.2.3 Selecting Channel Strips

Since the Mix view is just another way of displaying and accessing MASCHINE channels, selecting them works similarly as in the Arrange view:

- To set the focus to a particular channel (Sound or Group), click the header of that channel in the Mixer.
- Setting the focus to a particular channel strip in the Mixer will automatically set the focus to the corresponding channel in the Arrange view, and inversely.

### Adjusting Settings in the Channel Strips

For a detailed description of the settings available in the channel strips, see section 13.2.5, Adjusting Settings in the Channel Strips below.

For a detailed description of the settings available in the channel strips, see section 13.2.5, Adjusting Settings in the Channel Strips below.

### The Mixer

Controlling Your Mix

Showing/Hiding Particular Sections of the Strips

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. To show/hide the input and output settings (both MIDI and audio) in the channel strips, click the IO button. To show/hide the Plug-in Lists in the channel strips, click the Plug-in icon. To show/hide the auxiliary output settings in the channel strips, click the AUX button.

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.

13.2.3 Selecting Channel Strips

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- Setting the focus to a particular channel strip in the Mixer will automatically set the focus to the corresponding channel in the Arrange view, and inversely.

### Adjusting Settings in the Channel Strips

For a detailed description of the settings available in the channel strips, see section 13.2.5, Adjusting Settings in the Channel Strips below.
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). The channel's context menu automatically sets the focus on that channel.

Opening the context menu of a channel automatically sets the focus on that channel.

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:

The Mixer automatically sets the focus on the channel.

Controlling Your Mix

• 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 13.4, The Plug-in Strip).
### The Mixer

**The channel's context menu provides the exact same entries as in Arrange view.**

### Following management commands are available in the Mixer:

<table>
<thead>
<tr>
<th>Management Command</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renaming Sound Slots and Groups</td>
<td>Double-click the channel name in the header, type the desired name, press Enter, or Esc to cancel. You can also open the channel's context menu on your controller, press Enter to confirm name on your controller keyboard, and press Esc to cancel.</td>
</tr>
<tr>
<td>Renaming Sound Slots and Groups</td>
<td>Rename menu and select Rename.</td>
</tr>
<tr>
<td>Renaming Groups</td>
<td>Rename menu and select Rename.</td>
</tr>
<tr>
<td>Creating Groups</td>
<td>See section 5.3.8. Creating Groups.</td>
</tr>
<tr>
<td>Deleting Groups</td>
<td>Open the Group's context menu and select Delete.</td>
</tr>
<tr>
<td>Deleting Sound Slots</td>
<td>See section 5.2.8, Deleting Sound Slots.</td>
</tr>
<tr>
<td>Saving channels</td>
<td>Open the channel's context menu and select Save As...</td>
</tr>
<tr>
<td>Saving channels</td>
<td>Open the channel's context menu and select Save As...</td>
</tr>
<tr>
<td>Changing the channel's color</td>
<td>See section 5.2.4, Changing the Sound's Color and 5.3.4, Changing the Group's Color.</td>
</tr>
<tr>
<td>Changing the channel's color</td>
<td>Open the channel's context menu and select Color.</td>
</tr>
<tr>
<td>Copying and Pasting Sounds and Groups</td>
<td>See section 5.2.6, Copying and Pasting Sounds and 5.3.6, Copying and Pasting Groups.</td>
</tr>
<tr>
<td>Copying and Pasting Sounds and Groups</td>
<td>Open the channel's context menu and select Copy or Paste.</td>
</tr>
<tr>
<td>Resetting Sound channels</td>
<td>Open the Sound channel's context menu and select Reset.</td>
</tr>
</tbody>
</table>

You cannot move Sounds and Groups via drag and drop in the Mixer. This is only possible in Arrange view.
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 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).

Tip: Use the Parent Channel Strip at the Far Right

In both display modes of the Mixer, the rightmost channel strip 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 the Master of this 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 quickly check how your change affects the overall Group level — and you can quickly adjust this Group level if needed.

For example, if a kick drum is too loud in a drum kit, while decreasing its level you can check the level of the parent Group without having to switch the Mixer display to the Group level.

Adjusting Settings in the Channel Strips

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: Adjusting Settings on the Fly

The Mixer includes a more intuitive and visual way to access the list of available parameters at the end of this section.
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.

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:

   - **Controlling Your Mix**: The Mixer

   - **MASCHINE STUDIO - Manual - 653**
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 Channel command in the channel's context menu (see section 13.4, Managing Your Channels in the Mixer).

Other management commands: Right-click ([Ctrl]-click on macOS) the header background entry in the channel's context menu. You can also use the Rename Channel command in the channel's context menu (see section 13.3, Selecting Channel Strips).

Switch the Mixer display between Sounds and Groups (see section 13.2.1, Displaying Sounds).

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.

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.

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 menu, it automatically scrolls to show the interface of that Plug-in.

▪ 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.
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.

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. 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 ↑13.2.6, Using the Cue Bus for more information).

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).

Aux routing settings: Allows you to adjust the routing for both auxiliary outputs on your Mixer. Following actions are available:

▪ Click the little headphones button to send the channel to / remove it from the Cue bus. If the AUX button is enabled on the left of the Mixer, this setting is visible. 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 Pre or Post label.
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 from the pop-up menu. These controls are equivalent to the Dest. and Channel selectors in the MIDI page of the Sound’s Output properties (see 14.3.5, 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 you use the channel fader to adjust the level of a channel, 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.

The Cue bus is also used for following features:

- The Cue bus allows you to route any channel 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 (Sound or Group) on a separate output while leaving the main MASCHINE output untouched.

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Available Settings in the Master and Cue Channel Strips

- There is no Plug-in List (4) in the Cue channel strip.
- 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.
- The Mute button in the Fader section (5) is not available.

The Master and 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):

Available Settings in the Master and Cue Channel Strips

- The Cue bus allows you to route any channel 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 (Sound or Group) on a separate output while leaving the main MASCHINE output untouched.

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Available Settings in the Master and Cue Channel Strips

- The Cue bus allows you to route any channel 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 (Sound or Group) on a separate output while leaving the main MASCHINE output untouched.
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 mute and solo states 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.

The Master/Cue strip appears and is put under focus. If the Mixer was showing Sound channels, it switches to the Group level. The Master/Cue strip appears and is put under focus.

---

In the Mixer view, the equivalent of the headphones button is the Cue switch found on the Audio page of the Sounds and Group's Output properties (see section 12.1.2, Configuring the Main Output).
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.

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 from the Plug-in menu to add a Plug-in to the chain. If the Plug-in selected is already in the chain, it replaces the previous Plug-in.
- 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 Plug-ins.

A Plug-in Chain with the Compressor selected and the EQ bypassed.
In the Plugin-in Strip, the Plugin-in panels vary with the type of Plugin-in (Internal, Native Instruments, or External).

Click the little square on the left of a Plugin-in name to bypass this Plugin-in slot (bypassed slots are grayed out). Click the little square again to unmute the Plugin-in slot and insert the Plugin-in back into the processing chain. See section 7.1.5, Bypassing Plugin-in Slots for more information.

Right-click (macOS: [Ctrl]-click) a Plugin-in name and use the Open…, Save As…, and Save As Default… (Native Instruments and External Plugins only) commands to manage your Plugin-in presets. See section 7.1.9, Saving and Recalling Plugin-in Presets and 7.3.4, Using VST/AU Plugin-in Presets for more information.

You cannot move Plugin-ins within the Plugin-in chain. To do this, use for example the Plugin-in List in the channels of the Mixer above (see the Plugin-in List description in section 13.2.5, Adjusting Settings in the Channel Strips).

The Plugin-in Strip of a channel, with a distinct interface for each Plugin-in.
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 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, click the name of the desired Plug-in in the Plug-in Strip to display its panel:

Note: For all types of Plug-ins, the panel shows a Plug-in Header at the top:

13.4.1, The Plug-in Header.

If the MASCHINE window is not wide enough for all Plug-in panels to be displayed at once, an horizontal scrollbar appears at the bottom of the Plug-in Strip to display the hidden part.

Click a Plug-in in the Plug-in Chain to display its panel in the Plug-in Strip below.

Controlling Your Mix
For all types of Plug-ins (Internal, Native Instruments, and External), the Plug-in panel displays a Plug-in Header at the top:

Use the vertical scroll bar to display the rest of the Plug-in.

13.4.1 The Plug-in Header

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 horizontal scroll bar to display the other Plug-in panels.
The Plug-in Header at the top of the Plug-in panel.

The Plug-in Header can contain the 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.

Controlling Your Mix

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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. As with all other Plug-ins, the panels for Drumsynths and Internal Effects show the Plug-in Header at the top, which contains the name of the current preset and the Quick Browse icon. 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 and Chapter 15, Effect Reference.

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.

13.4.3 Panel for the Sampler

For the Sampler, the Plug-in Strip provides a custom panel containing judicious mix of plug-in parameters available in the Zone page of the Sample Editor.

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.

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 13.4.2, The Plug-in Header above for more details.

For the Sampler, the Plug-in Strip provides a custom panel containing a judicious mix of plug-in parameters available in the Zone page of the Sample Editor.
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 details, see section 17.7, Sampling and Sample Mapping.

3. VOICE & ENGINE section: Allows you to adjust the Polyphony, Glide, and Mode parameter and Pitch/Envelope 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 page in the Control area, and the Reverse button from the Pitch/Envelope page in the Control area.

4. Controlling Your Mix.
### 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.

### SATURATION, LO FI, and FILTER sections
Allow 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.

### 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.

### 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**

Sample mapping is found in the Zone page of the Sample Editor. For more details, see section ↑ 17, Sampling and Sample Mapping.

- **Play**: Allows you to adjust the parameters from the PITCH page in the Control area.
- **Envelope**: Allows you to adjust the Type parameter and the envelope parameters from the Pitch/Envelope page in the Control area.
- **Filter**: Allows you to adjust the parameters from the FX/Filter page in the Control area.
- **Tune**: Allows you to adjust the Tune parameter from the Pitch/Envelope page in the Control area.
- **Envelope**: Allows you to adjust the Type parameter and the envelope parameters from the Pitch/Envelope page in the Control area.
- **AMP ENVOLPE**: Allows you to adjust the Type parameter and the envelope parameters from the Pitch/Envelope page in the Control area.

---

**The Plug-in Strip**

Controlling Your Mix
The Sampler in the Plug-in Strip.

Pane selector: Click MAIN or ZONE to show the corresponding pane in the Plug-in.

Sample Map: Allows you to adjust the key and velocity ranges of your Zones. This is the same as the Zone page of the Sample Editor. For more details, see section 17.2. Mapping and Sample.

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.

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 17.4, Custom Panels for Native Instruments Plug-ins.

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 is available for every Native Instruments Plug-in.

For example:

For more details, see section 17.2. Mapping and Sample.

The zone page of the Sample Editor. For more details, see section 17.5.6, Adjusting the Zone.

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.

For example:

The zone page of the Sample Editor. For more details, see section 17.5.6, Adjusting the Zone.

Click MAIN or ZONE to show the corresponding pane in the Plug-in.
Controlling Your Mix

SYNTH 5’s Default view shows the main elements of the Perform window of AB-

SYNTH 5's Default view shows the main elements of the Perform window of AB Synth 5.
MASSIVE's Default view shows specific parts of the Synth view (the eight Macro Controls at the top and the Modulation pages underneath):
VIEW: Default View button (a little "+" symbol) allowing to switch between Default and Additional view. 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. For Native Instruments Plug-ins providing an Additional view, the Header also contains an Additional View button.

Controlling Your Mix

• GUITAR RIG's Default View shows a mini Rack with a reduced version of the Global Header at the top.
The Plug-in shows up in its own 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.

You can also undock any Native Instruments Plug-in panel and open it in a separate floating window.

13.4.5 Undocking a Plug-in Panel (Native Instruments and External Plug-ins Only)

You can undock the panel of a Native Instruments plug-in and open it in its own floating window by clicking the little diagonal arrow in the Plug-in Header.
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, Master).

When you open a Native Instruments Plug-in, its own floating window, following things also:

- In the Plug-in Strip the Plug-in panel is replaced with a thin vertical Plug-in placeholder.

- In the Plug-in Strip (see below), clicking only the little diagonal arrow — this allows you to dock the Plug-in back into the Strip.

Controlling Your Mix

Plug-in Strip

When undocking a Native Instruments Plug-in:

- 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.

- 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.

- 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.

Controlling Your Mix

Plug-in Strip

When undocking a Native Instruments Plug-in, their panel in the Plug-in Strip is replaced by a thin Plug-in placeholder (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.

Controlling Your Mix from the Controller

13.5 Controlling Your Mix from the Controller

The Mix mode on your controller and the Mix view in the software are independent from each other: Switching views in the software does not switch the mode on your controller, and inversely — for example, you can use your controller in Mix mode while displaying the Arrangement view in the software.

Press MIX to enter or leave Mix mode on your controller.

When Mix mode is active, the MIX button is lit.

The Mix view in the software shows the full interface of the original Native Instruments products.

Controlling Your Mix
In Mix mode the displays show channel strips for your Sounds and Groups:

13.5.1 Navigating Your Channels in Mix Mode

Like the Mixer in the software, the Mix mode lets you choose to display Sounds or Groups at the Sound level (i.e. all Sound slots of the Group currently loaded in the software) or at the Group level (i.e. all your Groups of the Sound level (i.e. all Sound slots of the Group currently loaded in the software) or at the Group level (i.e. all your Groups).

Alternatively, you can focus Groups and Sounds by pressing the Group buttons and the pads as follows:

To set the focus on a channel (Sound or Group):

1. Press the Button 1–8 above the desired strip in the displays.
2. The focused channel is highlighted.

Alternatively you can focus Groups and Sounds by pressing the Group buttons and the pads as follows:

To set the focus on a channel (Sound or Group):

1. Use the Page buttons at the left of the displays to show the next/previous eight channels (i.e. if you are viewing Sound channels 1–8, press the Page buttons to show Sound channels 9–16).
The focus is strictly equivalent in Mix mode and in Control mode: The Sound or Group focused in Mix mode will also be focused in Control mode, and inversely.

Mix Mode – Displaying the Sound Level

To display the Sound channels of the focused Group, press **ENTER** under the jog wheel or press the jog wheel itself.

Mix Mode – Displaying the Group Level

To display Group channels, press **BACK** under the jog wheel or press the jog wheel itself.

Controlling Your Mix from the Controller

Controlling Your Mix
The Mix mode displaying Sound channels of the focused Group.

The channel strips on the displays represent the Sound slots of the focused Group. At the top of the displays you see two rows:

- The first row contains the headers of your Groups. The header of the focused Group is highlighted.
- The second row contains the headers of the Sound slots in the focused Group. The header of the focused Sound slot is highlighted.

When the Mix mode shows Sound channels, the level indicators in the Master section of your controller display by default the channel of their parent Group (GRP button lit) and you can directly adjust its level via the knob underneath.

If you want to adjust the level and panoramic position of Sounds, switch to the Sound view by pressing ENTER under the jog wheel or by pressing the jog wheel itself. The Mix mode shows you to quickly adjust the level and panoramic position of each of your Sound slots.

If you select another Group (by pressing its Group button), the displays directly switch to the Sound slots of the newly focused Group.

### 13.5.2 Adjusting the Level and Pan in Mix Mode

1. If you want to adjust the level and panoramic position of Sounds, switch to the Sound view by pressing ENTER under the jog wheel or by pressing the jog wheel itself.
2. If you want to adjust the level and panoramic position of Sounds, switch to the Sound view by pressing ENTER under the jog wheel or by pressing the jog wheel itself.
   - The second row contains the headers of the Sound slots in the focused Group. The header of the focused Sound slot is highlighted.
   - The first row contains the headers of your Groups. The header of the focused Group is highlighted.

The channel strips on the displays represent the Sound slots of the focused Group. At the top of the displays you see two rows:

The Mix mode displays Sound channels of the focused Group.
3. Use the Page buttons to show the desired channels on the displays. You can also use the Group buttons and pads of your controller to directly switch to the desired channel.

4. Press the FUNCTION buttons under the jog wheel to select either the level or the panoramic position parameter. At the bottom of the displays, the selected parameter appears under each channel strip.

5. Turn the desired Knob(s) 1–8 to adjust the displayed parameter in the corresponding channel(s). You can also use the jog wheel to adjust that parameter for the focused channel.

As usual you can hold SHIFT while turning Knobs 1–8 (or press the jog wheel while turning it) to make finer adjustments.

In each channel strip the peak value is indicated above the level meter. This peak value is reset each time you start the playback via PLAY or RESTART on your controller, or when you click the corresponding peak value in the software’s Mixer (see section 13.2.5, Adjusting Settings in the Channel Strips).

See also 2 Adjusting Settings in the Channel Strips [➙ 652]

13.3 Mute and Solo in Mix Mode

### Mute and Solo in Mix Mode

When your controller is in Mix mode, pressing MUTE or SOLO doesn’t switch the displays to the usual Mute or Solo mode: In addition to the usual procedure to mute or solo Groups and Sounds, you can mute or solo your channels directly in Mix mode. To do this:

1. To mute a channel in Mix mode, press MUTE + the Button 1–8 above the desired channel.

2. To solo a channel in Mix mode, press SOLO + the Button 1–8 above the desired channel.

The strips of muted channels are grayed out in the displays.
13.5.4 Plug-in Icons in Mix Mode

In Mix mode each channel indicates the presence of Plug-ins by displaying small icons arranged vertically on the right of the level meter. A Sound channel with an Instrument Plug-in and three Effect Plug-ins.

On the displays you can see up to seven Plug-in icons in each channel. Any additional Plug-in won’t be shown.

In the Plug-in List of the Arrange view, Instrument and Effect Plug-ins are represented by different icons (these icons are similar to those in the Plug-in List of the Arrange view).

Controlling Your Mix from the Controller

Controlling Your Mix

13.5.4 Plug-in Icons in Mix Mode
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-ins slot, you can load an internal or external instrument.

14 Applying Effects to a Sound, a Group or the Master

14.1.1 Adding an Effect

In Arrange view, then we will show the equivalent procedure in Mix view.

Let's add an Effect Plug-in somewhere in the Project. We first describe the detailed procedure.

The procedures for applying an effect at the Sound, Group or Master level are very similar.

14.1 Applying Effects to a Sound, a Group or the Master

Setting up advanced effect routings.

Indeed, the intuitive routing facilities of the Mixer make it particularly well suited for quickly setting up advanced effect routings. Therefore, from time to time we will use the Mix view instead of the default Arrange view. Furthermore, we illustrate them here with various effect-oriented examples. Furthermore, we illustrate them here with various effect-oriented examples.

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.

In Arrange view, you plug an effect to the first Plug-in slot of a Sound. This Sound will act as a bussing point for the plug-ins of external Plug-ins. This allows the Sound to generate its own audio. If instead you plug an instrument or external Plug-in (Sampler, DrumRack, etc.) to the first Plug-in slot of a Sound, you will find this Sound in the various Dest. selectors in the Output properties of other Sounds and Groups.

In Mix view, the first Plug-in slot is often hosting an Instrument Plug-in (Sampler, DrumRack, etc.). When 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.

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.
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 (to process the audio of the whole Group), click the 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.
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:

   The Plug-in List opens and shows a list of all available Effect Plug-ins.

2. Click the “+” icon under the last Plug-in in the list (or at the top if the list is empty).

   In the Plug-in List each Plug-in has its own slot:

   The Plug-in menu opens and shows a list of all available Effect Plug-ins.

   The icon lights up. The Plug-in List appears nearby, showing a stack of all Plug-ins already loaded in the selected channel:

   At the far left of the Control area, click the little Plug-in icon to display the Plug-in List of the channel.
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).

All available Instrument Plug-ins are shown in thePlug-in menu.

### Using Effects

#### Applying Effects to a Sound, a Group or the Master

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</tr>
<tr>
<td>Chorus</td>
<td>Chorus effect settings</td>
</tr>
<tr>
<td>Reverb</td>
<td>Reverb effect settings</td>
</tr>
<tr>
<td>Delay</td>
<td>Delay effect settings</td>
</tr>
<tr>
<td>Distortion</td>
<td>Distortion effect settings</td>
</tr>
</tbody>
</table>

---

**MASCHINE STUDIO - Manual - 682**
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 Plug-in preset — see section 4.3, Using Native Inst.
.
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.

You can also load effects in Mix view. The procedure is quite similar to the one described above for the Arrange view.

Applying Effects to a Sound, a Group or the Master

Notes and Hints on Loading Effects in the Software
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 List in each channel strip is active on the left of the Mixer. If not, click it to display the Plug-in List.

2. To set the focus to a Group channel:

   If necessary click Master in the channel header to switch from the Cue channel to the Master channel.

   Then, put the focus on the channel (Master, Group or Sound) in which you want to load the effect.

Using Effects

Applying Effects to a Sound, a Group or the Master

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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 the Sound in the row below.

Finally, load the effect in the focused channel strip:

1. 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 effect. You only have to make that channel visible in the Mixer; you can change its focus to the Mixer. 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.

2. 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 the channel. In the Plug-in List of the focused channel, click the little "+" to append the effect to the list.

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 PLUG-IN button to enter Control mode and display the Plug-in slots.

Applying Effects to a Sound, a Group or the Master

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 this Sound in the row below.

...
2. If you want to apply the effect to the Master (to process the audio of the whole Project), press Button 1 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 Button 2 to select the GROUP tab and press the Group button A–H corresponding to the desired Group. If the desired Group is in another bank, before you select the Group you first need to press SHIFT + the corresponding Group button A–H to select the Group bank.

4. If you want to apply the effect to a Sound, press Button 3 to select the SOUND tab, select the Group containing that Sound (see previous step), and press SELECT + the pad of the Sound.

5. Press Button 5/6 to navigate to the Plug-in slot where you want to load the effect (the name of the Plug-in currently loaded in the selected slot appears between the left and right arrows under Button 5 and 6 as well as on the left display). If you want to add the effect in addition to the existing Plug-ins, press button 5 repeatedly to select EMPTY.

6. Press SHIFT + BROWSE to open the Plug-in Browser and browse the available Effect Plug-ins.

7. On the left display, turn Knob 1 to select the TYPE from Internal, Native Instruments or External. The right display shows the list of available Internal, Native Instruments or External Plug-ins, respectively.

8. If you have selected any other Plug-in in slot 1, turn Knob 2 to set the SUBTYPE field is not available — only Effect.

8. If you have selected the first Plug-in in slot 1 of a Sound, turn Knob 2 to set the SUBTYPE field.

Press Button 1 to select the MASTER tab.

Using Effects

Applying Effects to a Sound, a Group or the Master

Applying Effects to a Sound, a Group or the Master

Applying Effects to a Sound, a Group or the Master

Applying Effects to a Sound, a Group or the Master

Applying Effects to a Sound, a Group or the Master

Applying Effects to a Sound, a Group or the Master

Applying Effects to a Sound, a Group or the Master

Applying Effects to a Sound, a Group or the Master
9. Turn the jog wheel or Knob 5 to browse the available Plug-ins.

10. When you have found the Plug-in you want to use, press the jog wheel or Button 8 (LOAD) to load it. You can also use Buttons 5 and 6 to step through the list and load each effect directly.

11. Leave the Plug-in Browser and switch back to Control mode by pressing PLUG-IN (or by pressing SHIFT + BROWSE again). The effect is loaded in the selected Plug-in slot and is automatically displayed on your controller. Now you can edit the effect parameters using knobs 1–8 and the Page buttons on your controller (or using the effect settings in the Browser). If you have selected a Plug-in slot already containing a Plug-in, this Plug-in will be re-used.

Notes and Hints on Loading Effects from Your Controller

▪ 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 Presets.

▪ For additional, specific information on VST/AU plug-ins, see 7.3, Using Native Instruments.

▪ For all details on the parameters for each MASCHINE effect, please refer to chapter 15, Effect Reference.

Instead of loading the effect into the selected Plug-in slot (possibly replacing the Plug-in currently loaded), you can also insert the effect directly after the selected slot (a new Plug-in will be automatically inserted). After you have selected the desired Plug-in slot in Control mode, press SHIFT + Button 4 (INSERT) and choose an effect preset in the Browser.

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 14.2, Searching and Loading Files from the Library for more information.

Instead of loading the effect into the selected Plug-in slot (possibly replacing the Plug-in currently loaded), you can also insert a Plug-in Preset after the selected Plug-in. If you have selected a Plug-in slot already containing a Plug-in, this Plug-in will be re-used.

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.

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.

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 Presets.

For all details on the parameters for each MASCHINE effect, please refer to chapter 15, Effect Reference.
### 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.

<table>
<thead>
<tr>
<th>Action</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Insert an effect after an existing Plug-in preset</strong></td>
<td>Drag and drop the desired effect between two existing Plug-in slots.</td>
</tr>
<tr>
<td><strong>Replace an effect</strong></td>
<td>Open the Plug-in menu, and select another effect from the menu.</td>
</tr>
<tr>
<td><strong>Remove an effect</strong></td>
<td>Open the Plug-in menu, and select None from the menu.</td>
</tr>
<tr>
<td><strong>Move an effect within the Plug-in List</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Move an effect to another channel (Sound, Group, or Master)</strong></td>
<td>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 and select Paste.</td>
</tr>
<tr>
<td><strong>Duplicate an effect</strong></td>
<td>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 and select Paste.</td>
</tr>
</tbody>
</table>

### Using Effects

**Applying Effects to a Sound, a Group, or the Master**

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.
**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:

<table>
<thead>
<tr>
<th>Action</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open/close the effect window</td>
<td>Native Instruments and External Effects</td>
</tr>
<tr>
<td></td>
<td>Open the Plug-in menu, and select <code>Save as Default...</code> at the bottom of the menu. (in 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.) (in Mix view: Click the little square (in Mix view) at the left of the effect name in the Plug-in List. 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.)</td>
</tr>
<tr>
<td>Save the current settings as default preset for this effect</td>
<td>Other Effect Operations on the Controller</td>
</tr>
<tr>
<td>Recall an effect preset</td>
<td>Use the Browser (see chapter 14, Browser) or open the Plug-in menu and select <code>Open...</code> at the bottom of the menu.</td>
</tr>
<tr>
<td>Sets preset as active</td>
<td>Open the Plug-in menu, and select <code>Save As...</code> at the bottom of the menu.</td>
</tr>
<tr>
<td>Begin to de-activate the effect</td>
<td>Bypass an effect</td>
</tr>
<tr>
<td>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 the little square (in Mix view) at the left of the effect name in the Plug-in List. Click the little square (in Mix view) at the left of the effect name in the Plug-in List.</td>
<td></td>
</tr>
</tbody>
</table>

For detailed information on these topics, please refer to 7.1, `Plug-in Overview`. For more detailed information on the specific operations available for Native Instruments and External Effects, see 7.3, `Using Native Instruments and External Plug-ins`.

For more details on the specific operations available for Native Instruments and External Effects, see 7.3, `Using Native Instruments and External Plug-ins`.

**Using Effects**

Applying Effects to a Sound, a Group or the Master

**Actions**

**Procedures**
### 14.1.3 Using the Side-Chain Input

#### Using Native Instruments and External Plug-ins

For certain Plug-ins, MASCHINE allows you to use a side-chain input to control how the effects process the audio.

#### Apply Effects to a Sound, a Group or the Master

<table>
<thead>
<tr>
<th>Action</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert another effect after the selected effect</td>
<td>Press <code>SHIFT + Button 3</code></td>
</tr>
<tr>
<td>Remove the effect</td>
<td>Press <code>SHIFT + Button 8</code></td>
</tr>
<tr>
<td>Move the effect</td>
<td>Press <code>SHIFT + Button 5/6</code> to move the effect to the previous/next slot, respectively.</td>
</tr>
<tr>
<td>Bypass the effect</td>
<td>Press <code>SHIFT + Button 7</code></td>
</tr>
<tr>
<td>Recall an effect preset</td>
<td>Use the Browser (press <code>BROWSE</code>) to access and load any effect preset.</td>
</tr>
<tr>
<td>Replace the effect</td>
<td>Use the Browser (press <code>BROWSE</code>) as described in section 14.1.1, Adding.</td>
</tr>
</tbody>
</table>

You will find more details on Plug-in operation in section 17.1, Plug-in Overview. For more details on the specific operations available for Native Instruments and External Effects, see 17.3.

#### Native Instruments and External Effects

- **Open/close the effect window**: Press `SHIFT + Button 2 (EDIT)`. 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.
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.
- Internal Plug-ins: Compressor, Maximizer, Limiter, Gate, Filter.

The Side-Chain Input parameter page appears at the end of the plug-in parameter page when you load any of these Plug-ins in a Sound or a Group.

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 on the controller.

Please refer to section 3.3.8, 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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 Sounds: [sound name]: [sound number] (e.g., Drums: Kick) For Groups: [group name] (e.g., Drums) 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**
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.

<table>
<thead>
<tr>
<th>Filter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Freq</td>
<td>Adjusts the center frequency of the filter.</td>
</tr>
<tr>
<td>Width</td>
<td>Adjusts the bandwidth of the filter.</td>
</tr>
</tbody>
</table>

**Note:**
- On your controller, the outputs available in the Source selector are labeled as in the display of the Source selector described above.
- If you switch to another Plug-in, the settings of the Side-Chain Input page stay in place when you switch to another Plug-in.

---

## 14.2 Applying Effects to External Audio

MASCHINE's flexible routing facilities allow you to apply effects to external audio as well.

### 14.2.1 Step 1: Configure MASCHINE Audio Inputs

To do this, we will choose a Sound and make use of the Audio page in its Input properties.

- Stand-alone mode: External audio can come from the inputs of your audio interface if MASCHINE is used as a plug-in.
- Host mode: External audio can come from the inputs of your audio interface if MASCHINE is used in a host.

### Appending Effects to External Audio

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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.

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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.

See 3.6.2, Preferences – Audio Page for more information on the Audio page of the Preferences panel.
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 ↑.

1. Press the **CHANNEL** button to enter Control mode and display the Channel properties.
2. Press the **GROUP** button A–H of 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 **SHIFT** + the corresponding Group button A–H to select its Group bank.
3. 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).
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).

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 ↑.

### Method 1: Using the Master Section

You can then select the desired input. You can do this via two methods: using the Master section or using the Input properties on the displays.

1. Press the **CHANNEL** button to enter Control mode and display the Channel properties.
2. Press **GROUP** button A–H of 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 **SHIFT** + the corresponding Group button A–H to select its Group bank.
3. 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).

Now the external audio is routed to your Sound! You can adjust the level of the incoming signal via the **Gain** knob.

We describe here the procedure in Arrange view. You can also do this in Mix view — see section ↑.

In this example, we will assume that you routed some audio channels of your host to the first virtual input pair of MASCHINE.

### Applying Effects to External Audio

Using Effects
Press either of the IN1–IN4 buttons to select an external input to be routed to the selected Sound. Here the first stereo pair is selected.

The Master section additionally provides you with very useful features:

- Upon your selection the level meter lights up blue and indicates the level of the selected input pair — and will indicate it until you press another input/output button in the Master section.
- The Master encoder allows you to quickly adjust the input gain of the selected input.
- If you press another input button at the left of the level meter, you select another external input for the selected Sound.
- If you press an output button at the right of the level meter, your input selection stays active — this is indicated by the dim lit input button. However, the level meter and Master encoder will not be focused on the input but instead on the selected output. You must select your input again to control the input level and view it in the level meter.
- Should the level meter above the red clipping LEDs, simply turn the Master encoder clockwise to attenuate the level of the incoming signal.
- If you press another input button at the left of the level meter, you select another external input for the selected Sound.

Method 2: Using the Input Properties

1. Press Button 5 repeatedly until the Input properties are selected (you should see Input at the top left of the right display, under Button 5/6).

Using Effects

Applying Effects to External Audio
2. Press NAVIGATE + pad 1 to select the Audio Parameter page. You can also do this in Mix view — see section ↑ 14.1.1.

14.2.3 Step 3: Load an Effect to Process an Input

You can now insert an Effect Plug-in into this Sound so that it processes the incoming audio.

3. Turn Knob 1 to set the SOURCE to Ext. 1. Now the external audio is routed to your Sound! You can adjust the level of the incoming signal by turning Knob 2 (GAIN).

Now you will now see two parameters at the bottom of the left display: SOURCE (which selects the source) and GAIN (which adjusts the level of the input). Applying Effects to External Audio

Using Effects

Step 2: Navigate Audio Parameters

Step 3: Load an Effect to Process an Input

Applying Effects to External 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 14.2.1. 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:

→ Using Effects

Applying Effects to External Audio

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1. Press the PLUG-IN button to show the Plug-in slots of the selected Sound.

Since we have selected an empty Sound, you see EMPTY on the left of the left display as well as under Button 5/6 on the right 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. On the left display, turn Knob 1 to select the TYPE Effect.

4. If you have selected the first Plug-in slot of a Sound, turn Knob 2 to select the VENDOR from INTERNAL, or the name of a vendor, e.g. Native Instruments.

5. Turn the jog wheel or Knob 5 to browse the available Plug-ins.

6. When you have found the effect you want to use, press the jog wheel or Button 8 (LOAD) to load it. You can also use Button 5/6 to step through the list and load each effect directly.

→ The selected effect is loaded in a new Plug-in slot and directly starts to process your external audio! By pressing PLUG-IN 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.

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.

▪ Step 1: Set up a Sound or Group as Send Effect.

14.3.2 Step 2: Route Audio to the Send Effect

To route audio, you need to:

1. Press the PLUG-IN button to show the Plug-in slots of the selected Sound.

2. Press SHIFT + BROWSE to open the Plug-in Browser and browse the available Instrument and Effect Plug-ins.

3. On the left display, turn Knob 1 to select the TYPE Effect.

4. If you have selected the first Plug-in slot of a Sound, turn Knob 2 to select the VENDOR.

5. Turn the jog wheel or Knob 5 to browse the available Plug-ins.

6. When you have found the effect you want to use, press the jog wheel or Button 8 (LOAD) to load it. You can also use Button 5/6 to step through the list and load each effect directly.

→ The selected effect is loaded in a new Plug-in slot and directly starts to process your external audio! By pressing PLUG-IN or SHIFT + BROWSE again you can switch back to Control mode and adjust the effect.

Using Effects

Creating a Send Effect

14.3 Creating a Send Effect

Control mode and adjust the effect.
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:

   ![Plug-in List](image)

   The icon lights up. The Plug-in List appears. Since we have chosen an empty Sound, the Plug-in List should be empty.

   ![Plug-in List Empty](image)

   In this example we will use an empty Sound.
3. Click the "+" icon at the top of the Plug-in List.

2. Type the name of the Plug-in, and press [Enter] on your computer keyboard to confirm.

The name becomes highlighted, ready to be edited.

1. Double-click the name of the Sound slot in the Sound List.

The Plug-in menu opens and shows a list of all available Instrument and Effect Plug-ins. This will be of great help when routing other signals to that send effect (see section 14.3.2).

Now that the effect is loaded, we suggest that you rename the Sound slot to the Plug-in name:

Upon selection of the effect in the list, a send effect is loaded into the first Plug-in slot of a Sound, and the parameters are displayed in the Parameter area. When you load an effect into the first Plug-in slot of a Sound, AUTOMA
cally configures the Sound’s input to receive any signals coming from other Sounds and Groups in your Project and sends them through its own Plug-in(s) — in other words, creating a Send Effect.

Using Effects
Creating 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).

The Plug-in menu opens and shows a list of all available Instrument and Effect Plug-ins.

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).

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.
Creating a Send Effect on the Controller

1. Press the PLUG-IN button to enter Control mode and show the Plug-in slots.

2. Press Button 3 to select the SOUND tab.

3. Press the Group button A–H of the Group containing the empty Sound you want to use. If the Group you need to use is in another bank, press SHIFT + the corresponding Group button A–H to select the Group in that bank.

4. Press SELECT + the unlit pad of the empty Sound you want to use. Since we have selected an empty Sound, you see (NONE) under Button 7/8 and these pad LEDs are in Pad Mode.

5. Press SHIFT + BROWSE to open the Plug-in Browser and browse the available Instrument and Effect Plug-ins.

6. If you have selected the first Plug-in slot of a Sound, turn Knob 2 to select the VENDOR from INTERNAL, or the name of a vendor, e.g. Native Instruments.

7. On the left display, turn Knob 1 to select the TYPE to Effect.

8. The right display shows the list of available instruments or effect Plug-ins.

For more information on renaming Sound slots, see section 5.2.3, Renaming Sound Slots.

The Sound slot now mirrors the Plug-in name.
8. The right display shows only Effect Plug-ins of the type you have selected.

9. Turn Knob 8 to browse the available Plug-ins.

10. When you have found the effect you want to use (e.g., the MASCHINE Compressor), press the jog wheel or Button 8 to load it. You can also use Button 5/6 to step through the list.

11. Switch back to Control mode by pressing PLUG-IN + BROWSE (or by pressing SHIFT + BROWSE) and load each effect directly.

Now that the effect is loaded, we suggest that you rename the Sound slot to the Plug-in name:

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:

You can edit the effect parameters using Knobs 1–8 and the Page buttons as usual.

12. Double-click the name of the Sound slot in the Sound List to edit its name.
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 the Send Effect), you can route the output of any other Sounds and 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 CHANNEL button to enter Control mode and display the Channel properties.
2. If you want to route a Group's output to the send effect, press Button 2 to select the GROUP tab, if necessary press SHIFT + the Group button A–H corresponding to the bank containing the group, and press the Group button A–H corresponding to the desired Group.
3. If you want to route a Sound's output to the send effect, press Button 3 to select the SOUND tab, select the Group containing that Sound 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).

For more information on configuring the main output ofSounds and Groups, see section 15.2.2, Controlling the Main Output of Sounds and Groups.

Once you have configured a Sound or Group as send effect (see 14.3.1, Step 1: Set Up a Send Effect), you can send the output of any other Sounds and Groups to the same send effect (see 14.3.2, Step 2: Route Audio to the Send Effect). You can repeat the process to route more Sounds and Groups to the same send effect, or route the audio for a Sound or Group to an additional send effect send using AUX 2.
4. Press Button 5/6 to select OUTPUT. The Output properties are shown in the displays of your controller (in the example underneath we show the Output properties of a Sound).

5. Press the right Page button to select the Aux page of parameters. In addition to the usual entries available in both fields, 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 (aux I DEST) to assign the first auxiliary output to the desired send effect.

6. Turn Knob 1 (Aux 1 DEST) to assign the first auxiliary output to the desired send effect.
Using Effects

Creating a Send Effect

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 Aux 2.
- Use the Effect Plug-ins loaded in a Group to simultaneously process its own Sounds and Sounds sent to that Group.

This opens up virtually endless routing possibilities!

7. Use Knob 2 (Aux 1 LEVEL) to adjust the level of the signal sent to the Auxilliary output.

When routing Sounds to Auxilliary Outputs you can:

- Repeat the process to route more Sounds to the same Send Effect.
- Route the same Sound/Group to another Send Effect using Aux 2.

7. Use Knob 2 (Aux 1 LEVEL) to adjust the level of the signal sent to the Auxilliary output.

Entire Aux 1:S1-1 for the Aux 1 output:
and number followed by the Sound number (in the example undemash we selected the
Creating Multi-Effects

Organizing Your Effects into Several Sounds

Keep your separate effects to be used in parallel, build your combination of both, etc.

You can route Sounds within the Group to your liking: You can chain them all, use send effect controlling any number of effects, or set up a send effect for each Sound. If you set the previous section 14.3, Creating a Send Effect, in every Sound of the Group, you can control the sends of the Sounds within a Group and arrange them as you see fit. Following the procedure described in Organizing Your Effects into Several Sounds, you can route Sounds to your liking, too. You can chain them all, use send effect controlling any number of effects, or set up a send effect for each Sound.

Creating a Multi-Effect Unit

You can create a multi-effect unit by essentially the same thing as creating a series of Sounds as send effects. You can create these using send effects from the Group’s controls menu. You can create these using send effects from the Group’s controls menu.

Using Patterns

You can use patterns for your send effects. This allows you to control parameters — or record some automation in Control or Step mode for the desired effect parameters — or both. You can control parameters for your send effects to make them more lively. Sim- use patterns: You can create patterns for your send effects for more information.

Use MIDI: This is not only true for all effect parameters. MIDI Control can be used as send effects can be controlled via MIDI and Host Automation (see 12.3.3, Controlling Parameters via MIDI).

Send effects can be chained to save CPU load. Using one send effect for many Sounds and Groups instead of assigning another send in each Sound saves you a lot of send effects and Groups.

In addition, the following points are worth noting:

- CPU load: Send effects can be chained to save CPU load.
- MIDI Control: Send effects can be controlled via MIDI and Host Automation.
- Use Patterns: You can create patterns for your send effects.
- Use Effects: You can use patterns for your send effects.
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 Group for later use.
- You can then see the whole multi-effect Group 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.

Which of the Main, Aux 1, and Aux 2 Outputs To Use?

- Control of your Sounds’ Main output
- Send them to the Cue bus!
- Cue switch: You can send the Main output of any Sound to the Cue bus and pre-listen the channel on a distinct mixer output (particularly your headphones). Note that enabling the Cue switch automatically mutes both Aux 1 and Aux 2 outputs as well.

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 these effects to the input of the next Sound. For each Sound in the series you have to send one of these effects split across several Sounds. For each Sound in the series you have to send one of these effects split across several Sounds.

Use several Sounds plugged in series, use the procedure described in the previous section 14.3, Creating a Send Effect. You can easily re-arrange your effect sequence by changing the routing between your Sounds. You can rename and colorize each Sound individually according to the effect(s) it contains.

The Sound List lets you keep a better overview of your effect sequence than the Plug-in List in a single Sound.
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 MASCINE Library there are already a number of multi-effect Groups tagged Multi FX:

There are already a number of multi-effect Groups tagged Multi FX:
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 apply send effects, build complex effect chains or apply an effect to an external source that is connected to your audio interface, such as an instrument, vocals or a turntable. We recommend you load a Project from the factory library to get to know how effects can be used.

This chapter will describe the effects and their parameters. For more information on how to use effects within your Project, please read chapter 14, Using Effects.

Available Effects

Many types of effects are available and nearly all applications are represented. You will find traditional effects such as reverb, delay, and distortion. But we have also provided you with a series of unique tools such as EQs, dynamics, and filters. But we have also provided you with a series of unique tools such as EQs, dynamics, and filters. But we have also provided you with a series of unique tools such as EQs, dynamics, and filters. But we have also provided you with a series of unique tools such as EQs, dynamics, and filters.

Effects are organized into following categories:

- Performance FX
  - Distortion FX: Distortion, Lo-fi and Saturation. See section 15.6, Distortion Effects.
  - Delay FX: Beat Delay, Grain Delay, Grain Stretch, and Resochord. See section 15.5, Delays.
  - Special and Reverb Effects: Ice, Metaverb, Reflex, Reverber, and Plate Reverb. See section 15.4. Special and Reverb Effects.


- Dynamics: Dynamics: Compressor, Gate, Transient Master, Limiter, and Maximizer. See section 15.1, Dynamics.

- 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.

- Special Effects: Designed to provide a unique flavor, these effects are perfect for adding color to your tracks.

- Delay Effects: Beat Delay, Grain Delay, Grain Stretch, and Resochord. See section 15.5, Delays.

- Special and Reverb Effects: Ice, Metaverb, Reflex, Reverber, and Plate Reverb. See section 15.4. Special and Reverb Effects.


- Dynamics: Dynamics: Compressor, Gate, Transient Master, Limiter, and Maximizer. See section 15.1, Dynamics.

- 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.
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 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).
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>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.</td>
</tr>
<tr>
<td>DEPTH</td>
<td>This section controls the amount of compression effect, often called ratio in typical applications. The threshold is reached when a high setting is used, whereas a low setting allows for compression to work. The knee parameter defines how the compressor starts to work with the threshold. This value determines the threshold at which the compressor starts to work. The amount is adjusted and gain is used to achieve the desired ratio and stereo image.</td>
</tr>
<tr>
<td>TIME</td>
<td>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. The time the compressor will take to stop compressing after the input signal falls below the threshold. With longer release times, it will take more time to get back to normal.</td>
</tr>
<tr>
<td>OUTPUT</td>
<td>Use Gain to adjust the volume of the resulting signal. Gain adjusts the output level.</td>
</tr>
<tr>
<td>Effect Reference</td>
<td>Dynamics</td>
</tr>
</tbody>
</table>
The Compressor in the Main Page.

Side-Chain Input Page

The Compressor in the control area: Side-Chain Input Page.

Effect Reference

Dynamics
### INPUT Section

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)
- Outputs of all (other) Sounds
- 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)

---

### FILTER Section

Activates a filter on the side-chain input. This filter can be used to select only a specific frequency range of the side-chain signal.

- **Filter**
- **Center Freq**
- **Width**

Adjusts the bandwidth of the filter.

---

**Effect Reference**

Dynamics

MASCHINE STUDIO - Manual - 715
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.

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 accordingly. An additional GR level meter indicates the gain reduction currently applied by the Compressor.

▪ The Compressor panel offers a few extra features not available in the Control area:

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.

In the Plug-in Strip, the Compressor panel offers a few extra features not available in the Control area:
### The Gate in the Control area: Main page.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEPTH Section</strong></td>
<td></td>
</tr>
<tr>
<td>Threshold</td>
<td>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.</td>
</tr>
<tr>
<td><strong>TIME Section</strong></td>
<td></td>
</tr>
<tr>
<td>Attack</td>
<td>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.</td>
</tr>
<tr>
<td>Hold</td>
<td>The Hold parameter is used to determine how long the gated signal is held; lower values will result in a more “choppy” effect.</td>
</tr>
<tr>
<td><strong>Threshold</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

### Effect Reference

**Dynamics**

MASCHINE STUDIO - Manual - 717
**Parameter**

**Release**
The time the Gate will take to release the input signal after it rises above the threshold.

---

**OUTPUT Section**

Mix
Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

---

Side-Chain Input Page
The Gate in the Control area: Side-Chain Input page.

**Dynamics**

MASCHINE STUDIO - Manual - 718
### 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 Sounds:** Group name [Sound number] (e.g., Drums: Kick)
- **For Groups:** Group name (e.g., Drums)

In the selector display these outputs are labeled as follows:

- **For Sounds:** Group letter+number:S[Sound number] (e.g., A1:S4 for the Sound 4 of Group A1)
- **For Groups:** Group name (e.g., Drums)

### Gain

Adjusts the input level of the side-chain signal fed into the Plug-in.

### Filter Section

**Center Freq**

Adjusts the center frequency of the filter.

**Width**

Adjusts the bandwidth of the filter.

**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.

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.
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 which parts of the signal will pass through the Gate. Unlike other dynamic effects (compressors, limiters, etc.), the Transient Master does not use the input signal level to decide when to come into effect, but rather affects all parts of the signal without monitoring the attack or release phases of the signal. This allows you to emphasize or attenuate the transients of your audio material.

### 15.1.3 Transient Master

The Transient Master allows you to emphasize or attenuate the transients of your audio material. For example, by increasing the attacks of a snare or a kick, you can build powerful percussive sounds without losing the musical character of your sound. Unlike other dynamic effects, the Transient Master does not use the input signal level to decide when to come into effect, 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**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input Gain</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Attack</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

---

Effect Reference

Dynamics
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustain</td>
<td>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.</td>
</tr>
<tr>
<td>Limit</td>
<td>Activates a hard limiter at the output, preventing the output signal from clipping. 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 on your controller.) 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.</td>
</tr>
</tbody>
</table>

**Dynamics**

**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 so that the output signal can still produce amplified attack phases which would otherwise clip. This can be useful when the attack is long and the output signal becomes too loud. A hard limiter ensures that the output signal remains below the clipping threshold. If the effect is used in a Sound or a Group, it also provides a Side-chain Input page. (in the Control area on your controller.)
The Limiter panel in the Control area: Main page.

Effect Reference

Dynamics
The Limiter on the controller: MAIN page.

**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 want to prevent your signal from clipping, leave it at 0 dB. If you use it to prevent your signal from clipping, leave it at 0 dB. It’s always a good idea to set the threshold to a value above this. 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).

**Element Description**

Effect Reference

Dynamics

MASCHINE STUDIO - Manual - 724
The Limiter in the Control area: Side-Chain Input page.

The Modulation page contains one parameter: Velocity.

Side-Chain Input Page
**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)
- Outputs of all (other) Groups
- Outputs of all (other) Sounds (side-chain disabled, default setting)

In the menu these outputs are labeled as follows:
- For Sounds: [group name] [sound name] (e.g., Drums: Kick)
- For Groups: [group name] (e.g., Drums)
- Other (Groups)

In the selector display these outputs are labeled as follows:
- For Sounds: [group name] [sound name] (e.g., Drums: Kick)
- For Groups: [group name] (e.g., Drums)

**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 control the Plug-in.

**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).

---

**Effect Reference**

<table>
<thead>
<tr>
<th>Effect Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamics</td>
<td></td>
</tr>
</tbody>
</table>

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 Limiter Panel (Plug-in Strip)

The Limiter 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.

The Maximizer reduces the dynamics within the sound, making the overall sound louder. It is similar to the Maximizer, and adjust the Threshold fader accordingly.

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.

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 in the Control area: Side-Chain Input page.
### Source Section

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 Sounds:** `group [name] [sound number]` (e.g., `Drums: Kick`)
- **For Groups:** `group [name]` (e.g., `Drums`)

In the selector display these outputs are labeled as follows:

- **For Groups:** `group [name]` (e.g., `Drums`)
- **For Sounds:** `group [name] [sound number]` (e.g., `Drums: Kick`)

### Gain

Adjusts the input level of the side-chain signal fed into the Plug-in.

### Filter Section

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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Freq</td>
<td>Adjusts the center frequency of the filter.</td>
</tr>
<tr>
<td>Width</td>
<td>Adjusts the bandwidth of the filter.</td>
</tr>
</tbody>
</table>

For more information on how to use the side-chain input, please refer to section 14.1.3, Using the Side-Chain Input.
15.2 Filtering Effects

Use the EQ to boost or cut selected 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.
### Freq / Gain Page

The EQ in the Control area: **Freq / Gain** page.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOW Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Freq</strong></td>
<td>Frequency selector for the low frequency band. Ranges from 20 Hz to 8 kHz.</td>
</tr>
<tr>
<td><strong>Gain</strong></td>
<td>This determines how much the selected frequency is increased/attenuated.</td>
</tr>
<tr>
<td><strong>LOW-MID Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Freq</strong></td>
<td>Frequency selector for the second mid-frequency band. Ranges from 40 Hz to 16 kHz.</td>
</tr>
<tr>
<td><strong>Gain</strong></td>
<td>This determines how much the selected frequency is increased/attenuated.</td>
</tr>
<tr>
<td><strong>HIGH-MID Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Freq</strong></td>
<td>Frequency selector for the first mid-frequency band. Ranges from 40 Hz to 16 kHz.</td>
</tr>
<tr>
<td><strong>Gain</strong></td>
<td>This determines how much the selected frequency is increased/attenuated.</td>
</tr>
<tr>
<td><strong>HIGH Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Freq</strong></td>
<td>Frequency selector for the second mid-frequency band. Ranges from 40 Hz to 16 kHz.</td>
</tr>
<tr>
<td><strong>Gain</strong></td>
<td>This determines how much the selected frequency is increased/attenuated.</td>
</tr>
<tr>
<td><strong>LOW Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Freq</strong></td>
<td>Frequency selector for the low frequency band. Ranges from 20 Hz to 8 kHz.</td>
</tr>
<tr>
<td><strong>Gain</strong></td>
<td>This determines how much the selected frequency is increased/attenuated.</td>
</tr>
</tbody>
</table>

![Freq / Gain Page](image)
The EQ on the controller: Width / Gain page.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW-MID Section</td>
<td>Width control for the first mid-frequency band.</td>
</tr>
<tr>
<td>HIGH-MID Section</td>
<td>Width control for the second mid-frequency band.</td>
</tr>
</tbody>
</table>

**Parameter Description**

- **Gain**: Attenuated by, this determines how much the selected frequency is increased.
- **Freq**: Frequency selector for the high frequency band. Ranges from 20 Hz to 20 KHz.
**OUTPUT Section**

- **Gain**: Gain control for the EQ altogether.

**Filter**

Filter with selectable characteristics that can be modulated via LFO or envelope. There are many applications for a filter: it can be used to emulate a synthesizer more realistically or to filter out selected frequencies and create filter-sweeps.

*If this effect is used in a Sound or a Group, it provides a Side-Chain Input page (in the Control area and on your controller).*

Filter panel in the Plug-in Strip.
## Filtering Effects

### Main Page

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TYPE Section</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>FREQ Section</strong></td>
<td>Controls the cutoff frequency of the filter. 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.</td>
</tr>
<tr>
<td><strong>MOD Section</strong></td>
<td>Defines how much the Filter gets modulated by the modulation 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 Select between three different modulation sources: LFO, LFO Sync, and Envelope. 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 the speed of the modulation in hertz ranging from 0.03 Hz up to 16 Hz.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Speed</td>
<td>Defines the speed of the modulation in note values from 16/1 (one cycle every 16 bars) up to 1/32 note.</td>
</tr>
<tr>
<td>LFO Shape</td>
<td>Defines how the LFO evolves over time.</td>
</tr>
<tr>
<td>Source: LFO Sync</td>
<td>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 LFO Shape, and Phase.</td>
</tr>
<tr>
<td>Phase</td>
<td>Adjusts the start phase of the LFO.</td>
</tr>
<tr>
<td>Source: Envelope</td>
<td>Articulates the opening and closing of the filter using an envelope.</td>
</tr>
<tr>
<td>Smooth</td>
<td>Smooths the shape of the envelope.</td>
</tr>
<tr>
<td>Decay</td>
<td>Adjusts how fast the envelope fades out.</td>
</tr>
<tr>
<td>Source: Envelope</td>
<td>Articulates the opening and closing of the filter using an envelope.</td>
</tr>
<tr>
<td>Shape</td>
<td>Changes the shape of the envelope.</td>
</tr>
<tr>
<td>Source: Envelope</td>
<td>Articulates the opening and closing of the filter using an envelope.</td>
</tr>
</tbody>
</table>
### Side-Chain Input Page

The Filter in the Control area: Side-Chain Input page.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INPUT Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Source</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Gain</strong></td>
<td>Adjusts the input level of the side-chain signal fed into the Plug-in.</td>
</tr>
<tr>
<td><strong>FILTER Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Filter</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Center Freq</strong></td>
<td>Adjusts the center frequency of the filter.</td>
</tr>
<tr>
<td><strong>Width</strong></td>
<td>Adjusts the bandwidth of the filter.</td>
</tr>
</tbody>
</table>

#### Source

For Sounds: [group name]:[sound name] (e.g., Drums: Kick)

For Groups: [group name]:[sound name] (e.g., Drums: Kick)

In the menu these outputs are labeled as follows:

- For Sounds: [group name]:[sound name] (e.g., Drums: Kick)
- For Groups: [group name]:[sound name] (e.g., Drums: Kick)

In the selector display these outputs are labeled as follows:

- For Sounds: [group name]:[sound number] (e.g., A1:S4 for the Sound 4 of Group A1)
- For Groups: [group name] (e.g., Drums)

In the menu these outputs are labeled as follows:

- For Sounds: [group name]:[sound number] (e.g., A1:S4)
- For Groups: [group name] (e.g., Drums)

The outputs of all (other) Groups, and the outputs of all (other) Sounds, and disabled. Default setting: the outputs of all (other) Sounds, and disabled. Filter is active if only one Output is selected. Side-chain signal is used to control the Plug-in.
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 cabinet emulation is a cabinet and microphone component that proves full control over all types and the variable positioning of six different microphones. The cabinet emulation includes the four cabinet types and the variable positioning of six different microphones.

15.2.3 Cabinet

![Cabinet Emulation Example](image)

Filtering Effects

For more information on how to use the side-chain input, please refer to section 14.1.3, Using the Side-Chain Input.

On your controller, the outputs available in the `SOURCE` parameter are labeled as in the display of the Source selector described above.
The Cabinet Emulation effect in the Plug-in Strip.

The Cabinet Emulation in the Control area (Main page depicted).

<table>
<thead>
<tr>
<th>CABINET Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CabINET Selection</td>
<td></td>
</tr>
<tr>
<td>• Modern Cabinet</td>
<td></td>
</tr>
<tr>
<td>• Vintage Cabinet</td>
<td></td>
</tr>
<tr>
<td>• British Cabinet</td>
<td></td>
</tr>
<tr>
<td>• American Cabinet</td>
<td></td>
</tr>
</tbody>
</table>

Selects from four different cabinet types, which includes:

- American Cabinet
- British Cabinet
- Modern Cabinet
- Vintage Cabinet

Main Page

The Cabinet Emulation control in the Control area (Main page depicted).

The Cabinet Emulation effect in the Plug-in Strip.
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 to give it more depth.

Modulation Effects

### 15.3 Modulation Effects

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microphone</td>
<td>Selects from six different microphone types, which includes:</td>
</tr>
<tr>
<td></td>
<td>- Dynamic 57</td>
</tr>
<tr>
<td></td>
<td>- Condenser 47</td>
</tr>
<tr>
<td></td>
<td>- Condenser 47</td>
</tr>
<tr>
<td></td>
<td>- Condenser 47</td>
</tr>
<tr>
<td></td>
<td>- Dynamic 441</td>
</tr>
<tr>
<td></td>
<td>- Dynamic 441</td>
</tr>
<tr>
<td></td>
<td>- Dynamic 57</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output Section</th>
<th>Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix</td>
<td>Mix</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output Section</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>Distance</td>
</tr>
</tbody>
</table>

Adjusts the ratio between the effect (wet) signal and original (dry) signals.

Adjusts the distance of the microphone from the cabinet. Available values range from 0.0 to 100.0% (default: 0.0%).
### Chorus Panel

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MOD Section</strong></td>
<td></td>
</tr>
<tr>
<td>Rate</td>
<td>The Rate knob defines how fast the phase (and thus the perceived pitch) of the detuned signal is being modulated.</td>
</tr>
<tr>
<td>Amount</td>
<td>The Amount of the Chorus effect.</td>
</tr>
<tr>
<td><strong>OUTPUT Section</strong></td>
<td></td>
</tr>
<tr>
<td>Mix</td>
<td>Mix lets you adjust the amount of the effect in relation to the dry original audio signal.</td>
</tr>
</tbody>
</table>

The Chorus panel in the Control area.

The Chorus panel in the Plug-in Strip.

Modulation Effects

Effect Reference
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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>This defines the center frequency of the Flanger.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Adjusts the amount of output signal fed back into the input.</td>
</tr>
<tr>
<td>Invert</td>
<td>Inverts the Flanger.</td>
</tr>
<tr>
<td>Mix</td>
<td>Mix lets you adjust the amount of the effect in relation to the dry signal.</td>
</tr>
</tbody>
</table>

**Output Section**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stereo</td>
<td>This parameter widens the stereo field of the effect.</td>
</tr>
<tr>
<td>Shape</td>
<td>Change the shape of the envelope here.</td>
</tr>
<tr>
<td>Speed (LFO)</td>
<td>Defines the speed of the LFO in a range from 0.03 Hz up to 8 Hz.</td>
</tr>
<tr>
<td>Source</td>
<td>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.</td>
</tr>
<tr>
<td>Amount</td>
<td>This defines how much the Flanger gets modulated by the source.</td>
</tr>
</tbody>
</table>

**Modulation Effects**

- LFO
- LFO Sync
- Envelope

**Mix Section**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invert</td>
<td>Inverts the Flanger.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Adjusts the amount of output signal fed back into the input.</td>
</tr>
<tr>
<td>Frequency</td>
<td>This defines the center frequency of the Flanger.</td>
</tr>
<tr>
<td>Shape</td>
<td>Change the shape of the envelope here.</td>
</tr>
<tr>
<td>Stereo</td>
<td>This parameter widens the stereo field of the effect.</td>
</tr>
<tr>
<td>Speed (LFO)</td>
<td>Defines the speed of the LFO in a range from 0.03 Hz up to 8 Hz.</td>
</tr>
</tbody>
</table>

**Parameter Description**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>This defines the center frequency of the Flanger.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Adjusts the amount of output signal fed back into the input.</td>
</tr>
<tr>
<td>Invert</td>
<td>Inverts the Flanger.</td>
</tr>
<tr>
<td>Mix</td>
<td>Mix lets you adjust the amount of the effect in relation to the dry signal.</td>
</tr>
</tbody>
</table>
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.

**15.3.3 FM**

The FM panel in the Plug-in Strip.
### 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. It can be useful to eliminate noise. It can be useful to eliminate noise.
  - With high Split settings, the effect becomes more "gritty" and artifacts caused by FM of very high signals. It can be useful to eliminate noise.
  - 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.
  - This is for adjusting the speed of the FM modulation.

**DEPTH Section**

- **Contour**
  - Determines the extent to which the input volume affects the intensity of the effect.

- **Amount**
  - Determines the amount of the FM effect.

### Modulation Effects

**Freq Shifter**

- This is for adjusting the speed of the FM modulation.
### Parameter Description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FREQ Section</strong></td>
<td></td>
</tr>
<tr>
<td>Coarse</td>
<td>This is used to define the basic frequency of the Freq Shifter.</td>
</tr>
<tr>
<td>Fine</td>
<td>Fine-tune the frequency here.</td>
</tr>
<tr>
<td><strong>OUTPUT Section</strong></td>
<td></td>
</tr>
<tr>
<td>Feedback</td>
<td>Adjusts the amount of output signal from the input. Increasing this parameter will increase the intensity of the effect.</td>
</tr>
<tr>
<td>Stereo</td>
<td>This parameter widens the stereo field of the effect.</td>
</tr>
<tr>
<td>Invert</td>
<td>Inverts the settings of the Freq Shifter.</td>
</tr>
<tr>
<td>Mix</td>
<td>Mix lets you adjust the amount of the effect in relation to the dry original audio signal.</td>
</tr>
<tr>
<td><strong>FREQ Section</strong></td>
<td></td>
</tr>
<tr>
<td>Coarse</td>
<td>This is used to define the basic frequency of the Freq Shifter.</td>
</tr>
</tbody>
</table>
The Freq Shifter on the controller.

The Phaser panel in the Plug-in Strip.

Classic phaser with LFO and envelope modulation.

The Phaser in the Control area.

Effect Reference

Modulation Effects
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN Section</strong></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>This defines the center frequency of the Phaser.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Adjusts the amount of output signal fed back into the input.</td>
</tr>
<tr>
<td>8Pole</td>
<td>Activating this causes the Phaser to use the 8Pole mode, resulting in a more intense phasing effect.</td>
</tr>
<tr>
<td><strong>MOD Section</strong></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>This defines how much the Phaser gets modulated by the modulation source.</td>
</tr>
<tr>
<td>Source</td>
<td>Here you can select the modulation source of the Phaser.</td>
</tr>
<tr>
<td>Speed (LFO)</td>
<td>Defines the speed of the LFO in a range from 0.03 Hz up to 8 Hz.</td>
</tr>
<tr>
<td>Speed (LFO Sync)</td>
<td>Defines the speed of the LFO in note values from 1/16 up to 16/1 (one cycle every 16 bars).</td>
</tr>
<tr>
<td>Shape (Envelope)</td>
<td>Change the shape of the envelope here.</td>
</tr>
<tr>
<td>Stereo</td>
<td>This parameter widens the stereo field of the effect.</td>
</tr>
<tr>
<td>Mix</td>
<td>Mix lets you adjust the amount of the effect in relation to the dry original audio signal.</td>
</tr>
</tbody>
</table>

**Effect Reference**

**Modulation Effects**
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.
### Effect Reference: Spatial and Reverb Effects

#### MASCHINE STUDIO - Manual - 750

**Parameter Description**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ice</strong></td>
<td>The &quot;ICE&quot; factor: higher values sound more metallic. The higher the <strong>Color</strong> value, the brighter it sounds. With lower settings, the general sound is a bit more muted.</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>With lower settings, the general sound is a bit more muted.</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>Adjust the size of the virtual room here. The &quot;ICE&quot; factor: higher values sound more metallic.</td>
</tr>
<tr>
<td><strong>Mix</strong></td>
<td>Mix lets you adjust the amount of the effect in relation to the dry original audio signal.</td>
</tr>
</tbody>
</table>

---

**Image of the Control Area:**

The Ice in the control area.
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.](Image)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROOM Section</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>Adjust the size of the virtual room here.</td>
</tr>
<tr>
<td>EQ Section</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Low band EQ to cut or boost bass frequencies.</td>
</tr>
<tr>
<td>High</td>
<td>High band EQ to cut or boost high frequencies.</td>
</tr>
<tr>
<td>POSITION Section</td>
<td></td>
</tr>
</tbody>
</table>
Parameter Description

**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.

---

**Reflex**
This is a special reverb. At moderate settings, the Reflex can be used 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.

---

**Spatial and Reverb Effects**

**MASCHINE STUDIO - Manual - 752**
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROOM Section</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>At lower settings, the general sound is a bit more muffled; the higher the settings, the brighter it sounds.</td>
</tr>
<tr>
<td>Smooth</td>
<td>With this parameter, you can soften the metallic character of the Reflex.</td>
</tr>
<tr>
<td>Size</td>
<td>Adjust the size of the virtual room here.</td>
</tr>
<tr>
<td>Mix</td>
<td>Mix lets you adjust the amount of the effect in relation to the dry original audio signal.</td>
</tr>
<tr>
<td>OUTPUT Section</td>
<td></td>
</tr>
<tr>
<td>Mix</td>
<td>Mix lets you adjust the amount of the effect in relation to the dry original audio signal.</td>
</tr>
</tbody>
</table>
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.

The Reverb is used to add a more “natural” sound to all sorts of other signals, but also useful to add a more “natural” sound to all sorts of other signals.

The Reverb panel in the Plug-in Strip.
### Parameter Description

#### ROOM Section
- **Room**
  - This allows you to choose one of four basic characteristics of the Reverb: **General**, **Bright**, **Guitar**, and **Shatter**.

#### Size
- Adjusts 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, which is unnatural.
- **Stereo**
  - This parameter widens the stereo field of the effect.

#### OUTPUT Section
- **Freeze**
  - Enabling Freeze both mutes the dry signal and taps 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.

---

**Diagram:**

[Image of the Reverb in the Control area with knobs and parameters labeled.]
The Reverb effect provides three different modes which are described in this section.

### 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.
## Main Page

The Reverb in the Control area (Main page depicted).

## ROOM Section

**Element** | **Description**
--- | ---
**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 from 0.0 to 20.2 seconds (default: 1.0 s).
**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

**Effect Reference**

**Spatial and Reverb Effects**

MASCHINE STUDIO - Manual - 757
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Damping</strong></td>
<td>Adjusts the ratio between the effect (wet) signal and the original (dry) signal. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td><strong>Modulation</strong></td>
<td>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%).</td>
</tr>
<tr>
<td><strong>Diffusion</strong></td>
<td>Controls the density of the reflections in the virtual room. A low diffusion setting makes the reflections sound more distant, like closely spaced echoes. A high diffusion setting creates reflections so close they sound more like noise. Available values range from 0.0 to 100.0% (default: 80.0%).</td>
</tr>
<tr>
<td><strong>Pre Delays</strong></td>
<td>Adjusts the initial delay between the original signal and the first reverberant sound. Available values can be adjusted in milliseconds from 0.0 ms to 250.0 ms (default: 0.0 ms).</td>
</tr>
<tr>
<td><strong>Mix</strong></td>
<td>Adjusts the ratio between the effect (wet) signal and the original (dry) signals. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
</tbody>
</table>
The Reverb Room on the controller.

**EQ page**

The EQ page contains parameters to adjust the EQ of the reverb.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Cut</td>
<td>Adjusts the high frequencies in the reverbated signal. Available values range in kilohertz from 20.0 kHz to 2.0 kHz (default: 20.0 kHz).</td>
</tr>
<tr>
<td>Low Shelf</td>
<td>Adjusts the low-frequency content in the reverbated signal. Available values range in decibels from -0.0 dB to -12.0 dB (default: 0.0 dB).</td>
</tr>
</tbody>
</table>

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, Pre Delay parameters to create special effects.

The Reverb Room on the controller.
The Reverb effect in the Plug-in Strip.

The Reverb in the Control area (Main page depicted).

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROOM Section</td>
<td></td>
</tr>
</tbody>
</table>
| Mode | Allows you to choose one of the 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 from 0.25s 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

Spatial and Reverb Effects

MASCHINE STUDIO - Manual - 760
## Spatial and Reverb Effects Reference

### Spatial and Reverb Effects

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Damping</strong></td>
<td>Adjusts the ratio between the effect (wet) signal and original (dry) signal. Available values range from 0.0 to 100.0% (default: 50.0%). Damping refers to the rate at which the high frequencies decay. This effect causes the sound to become gradually muffled and warmer.</td>
</tr>
<tr>
<td><strong>Modulation</strong></td>
<td>Sets the modulation amount. A value of 0 turns the delay modulation off. Available values range from 0.0 to 100.0% (default: 45.0%). Modulation can be used in many creative ways. Modulation effects can be adjusted in milliseconds.</td>
</tr>
<tr>
<td><strong>Softness</strong></td>
<td>Adjusts the initial delay between the original signal and the first reverberant sound. Softness also changes the amount of diffusion present. It allows you to alter the balance between early reflections and the late reverb tail. Available values range from 0.0 to 100.0% (default: 90.0%).</td>
</tr>
<tr>
<td><strong>Pre Delay</strong></td>
<td>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).</td>
</tr>
<tr>
<td><strong>Mix</strong></td>
<td>Adjusts the ratio between the effect (wet) signal and original (dry) signal. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
</tbody>
</table>
The Reverb Hall on the controller.

The EQ page contains parameters to adjust the EQ of the reverb.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EQ Section</strong></td>
<td>Adjust the low-frequency content in the reverberated signal. Available values range in decibels from -0.0 dB to -12.0 dB.</td>
</tr>
<tr>
<td><strong>High Cut</strong></td>
<td>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).</td>
</tr>
<tr>
<td><strong>Low Shelf</strong></td>
<td>Adjusts the low-frequency content in the reverberated signal. Available values range in decibels from -0.0 dB to 0.0 dB (default: 0.0 dB).</td>
</tr>
</tbody>
</table>

**Plate Reverb**

This effect emulates a plate reverberator. Partly inspired by a legendary plate reverb system, this efficient reverberation 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.

### Element Description

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Cut</strong></td>
<td>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).</td>
</tr>
<tr>
<td><strong>Low Shelf</strong></td>
<td>Adjusts the low-frequency content in the reverberated signal. Available values range in decibels from -0.0 dB to 0.0 dB (default: 0.0 dB).</td>
</tr>
</tbody>
</table>
### The Plate Reverb effect in the Plug-in Strip.

### The Plate Reverb in the Control area.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>Allows you to choose one of three basic modes of Reverb: Room, Hall, and Plate (default: Room).</td>
</tr>
<tr>
<td><strong>Decay</strong></td>
<td>Adjusts the decay time of the reverb.</td>
</tr>
<tr>
<td><strong>EQ Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Low Shelf</strong></td>
<td>Controls the low-frequency content in the reverberated signal.</td>
</tr>
<tr>
<td><strong>High Damp</strong></td>
<td>Adjusts the damping of the high frequencies in the reverberated signal.</td>
</tr>
</tbody>
</table>
Effect Reference

Delays

15.5.1 Beat Delay

The Beat Delay is specialized for creating delays that are synced to the tempo. If you want to 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. How this sounds, please note that in the Control area and on your controller, the Beat Delay parameters are spread over two pages.

The Beat Delay is used in various Groups here and offers a lot of rhythmic sonic possibilities. If you want to 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. How this sounds, please note that in the Control area and on your controller, the Beat Delay parameters are spread over two pages.

Beat Delay

Mix

Let’s you adjust the amount of the delay in relation to the original audio signal.

Output Section

Pre Delay

Adjusts the time between the original signal and the early reflections.

Reflections

Adjusts the amount of the effect in relation to the original audio signal.

Mix

Adjusts the amount of the effect in relation to the original audio signal.
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.

Effect Reference

Delay

MASCHINE STUDIO - Manual - 765
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 channels. 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. Values go to 100.0 %.

Mix
Adjusts the amount of the effect in relation to the dry original audio signal.

Split
Controls the difference in frequency between left and right channels.

Color
Determines the basic frequency of the feedback circuit: lower values result in a deeper sound, whereas higher values brighten the sound.

Crossover
Allows for panning the feedback signal rhythmically in the stereo field.
15.5.2 Grain Delay

By chopping the input into small "grains" and reordering them as a cloud, the Grain Delay is useful for creating ambient textures. Increase Size, Space and Density to quickly transform any sound into evolving ambient texture. This unique, experimental effect is best experienced firsthand. Please note that in the Control area and on your controller the Grain Delay parameters are spread over two pages.

### UNIT Page

**Parameter**
- **Unit**: Defines the unit used by the Time and Offset parameters on the Main page.
- **Unit Section**: The beat delay in the Control area: Unit page.
- **Parameter Description**: The beat delay in the Control area: Unit page.
### Parameter Description

<table>
<thead>
<tr>
<th>GRAIN Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch</td>
<td>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.</td>
</tr>
<tr>
<td>Size</td>
<td>Defines the length of the grains.</td>
</tr>
<tr>
<td>Jitter</td>
<td>Introduces artifacts into the grains.</td>
</tr>
<tr>
<td>Reverse</td>
<td>Produces a reverse playback of the grain.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CLOUD Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space</td>
<td>Determines the spacing between the grain clouds: the higher the value, the bigger the space between the clouds.</td>
</tr>
</tbody>
</table>

### Effect Reference

Delays
### Parameter Description

**Density**
- Creates a more "dense" cloud: higher values create feedback-like effects.

**Mod**
- The amount of modulation introduced to the grain cloud.

**Mix**
- Lets you adjust the amount of the effect in relation to the dry original audio signal.

### Output Section

**Stereo**
- This parameter widens the stereo field of the effect. Values go from 0% (no stereo) to 100% (full stereo).

### Stereo Output Section

**GRAIN DELAY**

**Mix**
- The amount of modulation introduced to the grain cloud.

**Mod**
- Creates a more "dense" cloud: higher values create feedback-like effects.

**Density**
- Lets you adjust the amount of the effect in relation to the dry original audio signal.
The Grain Stretch effect uses granular synthesis to manipulate the speed and pitch of the incoming signal.

### 15.5.3 Grain Stretch

The Grain Stretch on the control area: **OUTPUT page.**

The Grain Stretch panel in the Plug-in Strip:
**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 steps.

**TIME Section**

- **Stretch**: Sets a loop length, in 1/16th steps.
- **Loop**: Defines the time-stretch amount. Set to 50.0% for half speed.

**PITCH Section**

- **Pitch**: Adjusts the pitch of the grains.
- **Link**: When on, grain size is corrected by the pitch.

**OUTPUT Section**

- **Mix**: Lets you adjust the amount of the effect in relation to the dry original audio signal.

---

**Effect Reference**

**Delays**

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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.

### PITCH Section

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>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.</td>
</tr>
</tbody>
</table>

The Resochord panel in the Control area.

The Resochord panel in the Plug-in Strip.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spread</td>
<td>(String mode) Allows you to define how big the difference in tuning is between combs.</td>
</tr>
<tr>
<td>Style</td>
<td>(Chord mode) You can select between different chord-styles such as minor or major.</td>
</tr>
<tr>
<td>Chord</td>
<td>(Chord mode) Allows you to define how big the difference in tuning is between chords.</td>
</tr>
<tr>
<td>Tune</td>
<td>(Chord mode) Here you can choose from different chords to be applied to your audio signal.</td>
</tr>
<tr>
<td>Mix</td>
<td>Mix lets you adjust the amount of the effect in relation to the dry original audio signal.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Adjusts the amount of output signal fed back into the input.</td>
</tr>
<tr>
<td>Decay</td>
<td>With Decay you adjust how fast the Resochord fades out.</td>
</tr>
<tr>
<td>Brightness</td>
<td>This is to determine the basic sound characteristic of the Resochord: higher values will brighten the sound by adding high frequencies.</td>
</tr>
<tr>
<td>Output Section</td>
<td></td>
</tr>
<tr>
<td>Mix</td>
<td>Mix</td>
</tr>
<tr>
<td>Feedback</td>
<td>Adjusts the amount of output signal fed back into the input.</td>
</tr>
<tr>
<td>Decay</td>
<td>With Decay you adjust how fast the Resochord fades out.</td>
</tr>
<tr>
<td>Brightness</td>
<td>This is to determine the basic sound characteristic of the Resochord: higher values will brighten the sound by adding high frequencies.</td>
</tr>
<tr>
<td>Color Section</td>
<td></td>
</tr>
<tr>
<td>Tune</td>
<td>Allows you to transpose the Resochord in semitones.</td>
</tr>
<tr>
<td>Chord</td>
<td>(Chord mode) Allows you to define how big the difference in tuning is between chords.</td>
</tr>
<tr>
<td>Style</td>
<td>(Chord mode) You can select between different chord-styles such as minor or major.</td>
</tr>
<tr>
<td>Spread</td>
<td>(String mode) Allows you to define how big the difference in tuning is between combs.</td>
</tr>
</tbody>
</table>

The Resochord on the controller.
15.6 Distortion Effects

15.6.1 Distortion
The Distortion effect contains two modes of distortion: Mullholland and Analog.

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.

The Distortion in the Control area.

The Distortion panel in the Plug-in Strip.
### Mode Section
Select a distortion type: Mullholland or Analog.

### Drive
Determines the basic amount of distortion.

### Color
At lower settings, the general sound is a bit more muffled; the higher the settings, the brighter it sounds.

### Feedback
Adjust the amount of output signal fed back into the input.

### Tone
General tonal characteristic of the feedback signal.

### Tone Mod
Modulation introduced in the feedback signal.

### Mix
Adjust the amount of output signal fed back into the input.

### Gate Section
The Gate button is used to cancel out feedback loops introduced by high Feedback settings.

The Gate button is used to cancel out feedback loops.

### Release
This parameter determines how fast the distorted sound dies down when the Gate is enabled.

### Output Section
Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

### Analog Distortion
Analog mode adds grit to Drums and Percussion, Lead Synths and Guitars.
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.

### Distortion

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bass</td>
<td>Attenuates the low frequencies of the distortion effect. Available values range from 0.0 to 100.0% (default: 100.0%).</td>
</tr>
<tr>
<td>Tone</td>
<td>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%).</td>
</tr>
<tr>
<td>Focus</td>
<td>Switches the frequency range of the processed signal, pulling it slightly further forwards in the mix when set to lower values.</td>
</tr>
<tr>
<td>Definition</td>
<td>Determines how pronounced the distortion effect is. Available values range from 0.0 to 100.0% (default: 50.0%).</td>
</tr>
<tr>
<td>Mix</td>
<td>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%).</td>
</tr>
</tbody>
</table>

### Effect Reference

**Distortion Effects**

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<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RESAMPLE Section</strong></td>
<td>Mix lets you adjust the amount of the effect in relation to the dry original audio signal.</td>
</tr>
<tr>
<td><strong>SR</strong></td>
<td>SR stands for Sample Rate and ranges from CD-quality (44.1 kHz) to 99.5 Hz which results in a hissy crackle.</td>
</tr>
</tbody>
</table>

**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** lets you adjust the amount of the effect in relation to the dry original audio signal.
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), Tube, and Tape. 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.

**Classic Mode**

The Classic mode is the legacy mode. It combines compression and saturation to increase the overall loudness and add additional harmonics.

**Tube Mode**

The Saturator panel (here in Tube mode) in the Plug-in Strip.

**Tape Mode**

The Saturator panel (here in Tape mode) in the Plug-in Strip.
### Classic Mode – Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode</strong></td>
<td>Selects between Classic, Tape, and Tube saturation modes. All other parameters vary according to the mode selected here.</td>
</tr>
<tr>
<td><strong>Input</strong></td>
<td>Controls the input gain of the effect. Increasing Input will also increase the amount of compression performed on the audio signal.</td>
</tr>
<tr>
<td><strong>Contour</strong></td>
<td>Determines how closely the Saturator responds to the input volume. Higher values create a more distorted sound.</td>
</tr>
<tr>
<td><strong>Drive</strong></td>
<td>Adjusts the amount of distortion introduced by the Saturator.</td>
</tr>
</tbody>
</table>

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.

#### Parameter Descriptions

<table>
<thead>
<tr>
<th>MAIN Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>Selects between Classic, Tape, and Tube saturation modes. All other parameters vary according to the mode selected here.</td>
</tr>
<tr>
<td>Input</td>
<td>Controls the input gain of the effect. This affects the amount of tape distortion and compression.</td>
</tr>
<tr>
<td>Drive</td>
<td>Controls the low frequency boost/cut of the effect.</td>
</tr>
<tr>
<td>Contour</td>
<td>Controls the high frequency roll-off starting frequency. Frequencies above this point will be attenuated.</td>
</tr>
</tbody>
</table>

#### 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-tune the frequency content to be processed.

<table>
<thead>
<tr>
<th>MAIN Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>Selects between Classic, Tape, and Tube saturation modes. All other parameters vary according to the mode selected here.</td>
</tr>
</tbody>
</table>

The Saturation In Tape mode in the Control area.
### Tube Mode – Parameter

<table>
<thead>
<tr>
<th>Description</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN Section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td></td>
</tr>
<tr>
<td>Selects between Classic, Tape, and Tube saturation modes. All other parameters vary according to the mode selected here.</td>
<td></td>
</tr>
<tr>
<td><strong>Charge</strong></td>
<td></td>
</tr>
<tr>
<td>Tube mode provides a negative feedback loop that attenuates the level at the Saturator's input according to the amount of low frequencies at its output.</td>
<td></td>
</tr>
<tr>
<td><strong>Overload</strong></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>Drive</strong></td>
<td></td>
</tr>
<tr>
<td>Adjusts the level of the input signal. This directly affects the amount of tube distortion.</td>
<td></td>
</tr>
<tr>
<td><strong>Bass</strong></td>
<td></td>
</tr>
<tr>
<td>Adjusts the level of the low frequency band.</td>
<td></td>
</tr>
<tr>
<td><strong>Treble</strong></td>
<td></td>
</tr>
<tr>
<td>Adjusts the level of the high frequency band.</td>
<td></td>
</tr>
</tbody>
</table>

### Tube Mode in Tube mode in the Control area.
**Gain**

Adjusts the output level of the effect. Use this to compensate for changes in volume caused by input gain and signal compression.

**Tube Mode**

Tube mode allows for more expressive, analog-style saturation. For more information see section [15.7.2. Tube Mode].

**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, 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].

- **Burst Echo**
  - The Burst Echo is a warm, versatile echo with plenty of character. It’s great as a dub echo but can also be used for quite extreme sound design. For more information see section [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 sounds. For more information see section [15.7.5, Ring].

- **Stutter**
  - Stutter is a beat-mangling effect, great for adding glitches and hits to drum parts. 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].

- **Filter**
  - Stutter is a beat-mangling effect, great for adding glitches and hits to drum parts. For more information see section [15.7.3, Stutter].
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, adds a wealth of sonic possibilities, from simple thickening to alien-sounding sweeps. For more information see section 15.7.8, Scratcher.

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 fold into self-oscillation infinity.

Filter Perform FX in the Plug-in Strip.
## Filter Perform FX in the Control area.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE Section</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>Select an effect.</td>
</tr>
<tr>
<td>TOUCHSTRIP Section</td>
<td></td>
</tr>
<tr>
<td>Engage</td>
<td>Activates the filter.</td>
</tr>
<tr>
<td>Frequency</td>
<td>Sets the cutoff frequency according to the min/max range (and turn up the saturation to compensate) in order to avoid self-oscillation—be careful! Turn down the output gain to self-oscillation—be careful! Turn down the output gain</td>
</tr>
<tr>
<td>FILTER Type</td>
<td>Selects from Low Pass, Band Pass and High Pass modes.</td>
</tr>
<tr>
<td>Resonance</td>
<td>Sets the resonance of the filter. Values over 100% will lead to extremely loud ringing. Note that the resonance will sound more pronounced at lower saturation settings and vice versa.</td>
</tr>
</tbody>
</table>

### Setup Page

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGE Section</td>
<td></td>
</tr>
<tr>
<td>Min. Freq</td>
<td>Sets the lower limit for cutoff frequency.</td>
</tr>
<tr>
<td>FILTER Parameters</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Sets the cutoff frequency according to the min/max range</td>
</tr>
<tr>
<td>Engage</td>
<td>Activates the filter.</td>
</tr>
<tr>
<td>Mode</td>
<td>Select an effect.</td>
</tr>
</tbody>
</table>

### Main Page

Filter Perform FX in the Control area.
Flanger Perform FX in the Plug-in Strip.

### 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Freq</td>
<td>Sets the upper limit for cutoff frequency.</td>
</tr>
<tr>
<td>Out Level</td>
<td>Sets the output gain of the filter.</td>
</tr>
<tr>
<td>Saturation</td>
<td>Sets the input gain of the filter.</td>
</tr>
<tr>
<td>Max. RegExp</td>
<td>Sets the upper limit for cutoff frequency.</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
</tbody>
</table>
### Flanger Perform FX

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MODE</strong></td>
<td>Select an effect.</td>
</tr>
<tr>
<td><strong>TOUCHSTRIP</strong></td>
<td>Activates the effect.</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Controls the volume of the comb filter.</td>
</tr>
<tr>
<td><strong>Engage</strong></td>
<td>Activates the effect.</td>
</tr>
<tr>
<td><strong>FLANGER</strong></td>
<td>Controls the volume of the comb filter.</td>
</tr>
<tr>
<td><strong>SATURATION</strong></td>
<td>Controls the saturation in the feedback path, producing a dirtier, compressed sound.</td>
</tr>
<tr>
<td><strong>STEREO</strong></td>
<td>Controls the stereo spread of the effect.</td>
</tr>
</tbody>
</table>

**Diagram:**

![Flanger Perform FX in the Control area.](image-url)
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COLOR</strong></td>
<td>\begin{itemize} \item Polarity: \begin{itemize} \item Flips the phase of the signal in the feedback loop. \item Negative Polarity lowers the pitch by an octave and produces a slightly hollow tone. \end{itemize} \end{itemize}</td>
</tr>
<tr>
<td><strong>Tone</strong></td>
<td>Offers the choice between Flanger mode, essentially a straight-flattened comb filter or Short Delay, and Phaser mode.</td>
</tr>
<tr>
<td><strong>Polarity</strong></td>
<td>Flips the phase of the signal in the feedback loop. Negative Polarity lowers the pitch by an octave and produces a slightly hollow tone.</td>
</tr>
</tbody>
</table>

**Setup Page**

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 Control area.

Burst Echo Perform FX in the Plug-in Strip.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MODE</strong></td>
<td>Select an effect.</td>
</tr>
<tr>
<td><strong>TOUCHSTRIP</strong></td>
<td>Engage. Activates the effect. Feeds a burst of signal into the effect.</td>
</tr>
<tr>
<td><strong>EF</strong></td>
<td>Feedback. Sets the delay feedback when the effect is engaged.</td>
</tr>
<tr>
<td><strong>TS Assign</strong></td>
<td>Assigns the control to Feedback or Time.</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>Sets the rhythm mode of the delay, either in quantized or continuous mode.</td>
</tr>
<tr>
<td><strong>Filter</strong></td>
<td>Adjusts the LP and HP filter in the feedback loop. At 0%, the HP filter is fully open. At higher values, the HP filter frequency increases and the LP filter frequency decreases. For more aggressive effects, engage the Filter.</td>
</tr>
<tr>
<td><strong>Wet Level</strong></td>
<td>Adjusts the volume of the delayed signal.</td>
</tr>
<tr>
<td><strong>Time Mode</strong></td>
<td>Controls the delay time, either continuously or in quantized divisions.</td>
</tr>
<tr>
<td><strong>ECHO</strong></td>
<td>Echo mode. The feed back is reduced when the effect is disabled. Feedback: Sets the delay feedback when the effect is engaged. TS Assign: Assigns the control to Feedback or Time.</td>
</tr>
<tr>
<td><strong>Engrave</strong></td>
<td>Enables the effect. When activated, feeds a burst of signal into the effect according to the length set by the Feedback parameter.</td>
</tr>
<tr>
<td><strong>Touchstrip</strong></td>
<td>Activates the effect when activated, feeds a burst of signal into the effect according to the length set by the Feedback parameter. Select an effect.</td>
</tr>
</tbody>
</table>

**Main Page**

---

**Effect Reference**

Perform FX

MASCHINE STUDIO - Manual - 789
## 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.

### Setup Page

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
</table>
| **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 (e.g. 1.5-2.0 seconds) and are useful for placing full notes or chords in the delay. |

**Effect Reference**

MASCHINE STUDIO - Manual - 790
Reso Echo Perform FX in the Control area.

Reso Echo Perform FX in the Plug-in Strip.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MODE</strong></td>
<td>Select an effect.</td>
</tr>
<tr>
<td><strong>TOUCHSTRIP</strong></td>
<td>Activates the effect.</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Controls the frequency of the filters in the filter bank, altering the tonality of the signal.</td>
</tr>
<tr>
<td><strong>ENGAGE</strong></td>
<td>Activates the effect.</td>
</tr>
<tr>
<td><strong>WET LEVEL</strong></td>
<td>Controls the volume of the delayed signal.</td>
</tr>
<tr>
<td><strong>MIX MODE</strong></td>
<td>Mix Mode</td>
</tr>
<tr>
<td><strong>ECHO</strong></td>
<td>Time</td>
</tr>
<tr>
<td><strong>PUMP</strong></td>
<td>Controls the amount of compression applied to the feedback.</td>
</tr>
<tr>
<td><strong>FEEDBACK</strong></td>
<td>Sets the delay feedback.</td>
</tr>
<tr>
<td><strong>TIME</strong></td>
<td>Sets the delay time.</td>
</tr>
</tbody>
</table>
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.

- **COLOUR**
  - Saturation
    - Controls the amount of saturation applied to the feedback path.
  - Resonance
    - Resonance emphasizes the "singing" effect.

Ring Perform FX in the Plug-in Strip.
## Ring Perform FX

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MODE</strong></td>
<td>Mode</td>
</tr>
<tr>
<td><strong>TOUCHSTRIP</strong></td>
<td>Engage</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Controls the frequency of the ring modulators.</td>
</tr>
<tr>
<td><strong>Glide</strong></td>
<td>Sets the smoothing rate of the control position, allowing for pitch slides as you activate different values.</td>
</tr>
<tr>
<td><strong>Spread</strong></td>
<td>Controls the frequency spread of the ring modulators. At low Spread values, the ring modulations converge to a single modulation frequency. At higher Spread values, the oscillator frequencies become further apart.</td>
</tr>
<tr>
<td><strong>REV TIME</strong></td>
<td>Controls the decay time of the plate reverb.</td>
</tr>
<tr>
<td><strong>REVERB</strong></td>
<td>Mix</td>
</tr>
<tr>
<td><strong>REVERB</strong></td>
<td>Rev Mix</td>
</tr>
<tr>
<td><strong>OSC</strong></td>
<td>Frequency</td>
</tr>
<tr>
<td><strong>Dry/Wet</strong></td>
<td>Mix</td>
</tr>
<tr>
<td><strong>Touchstrip</strong></td>
<td>Mode</td>
</tr>
<tr>
<td><strong>Touchstrip</strong></td>
<td>Engage</td>
</tr>
</tbody>
</table>
### 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. This is useful for using Ring as an instrument with a sustained sound (e.g. a pad) as source material.
- **In Mix mode**, the dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level.

<table>
<thead>
<tr>
<th>Mix Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In Mix</strong></td>
<td>The dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level.</td>
</tr>
<tr>
<td><strong>In Wet Only</strong></td>
<td>The dry signal is muted entirely. This is useful for using Ring as an instrument with a sustained sound (e.g. a pad) as source material.</td>
</tr>
<tr>
<td><strong>In Mix</strong></td>
<td>The dry signal is passed unprocessed and the wet signal is added on top according to the Wet Level.</td>
</tr>
</tbody>
</table>

---

Turn the intensity up, and down again with Stutter. This beat-mangling effect adds creative dy-

**Setup Page**

**Effect Reference**

**Perform FX**
Stutter Perform FX in the Control area.

Stutter Perform FX in the Plug-in Strip.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>Select an effect.</td>
</tr>
<tr>
<td>TOUCHSTRIP</td>
<td>Engage controls a hard bypass. Activating the control commences looping, releasing the control bypasses the effect.</td>
</tr>
<tr>
<td>Length</td>
<td>Parameter is available only when the TS Assign is set to Length. Recent control movement was downwards. The direction control movement was downwards. Engage effect on release. Reverse whenever the most recent control movement was upwards. Engage whenever the most recent control movement was upwards.</td>
</tr>
<tr>
<td>STUTTER</td>
<td>Applies a volume envelope to the loop, exaggerating the “stutter” effect, especially at short loop lengths. Setting the Stutter effect to 100% effectively disables the envelope whereas setting the Stutter effect to 0% effectively disables the envelope.</td>
</tr>
<tr>
<td>Loop</td>
<td>Controls the looping direction—Forward (always forward), Reverse (always reverse) or Both (always forward). 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. Direction parameter is available only when the TS Assign is set to Length.</td>
</tr>
<tr>
<td>TS Assign</td>
<td>Assigns the control to Length or Pitch.</td>
</tr>
<tr>
<td>Length</td>
<td>Parameter controls length when the control is assigned to Length, and the Length parameter controls loop length when the effect is engaged. When the control is assigned to Length, the control is assigned to Pitch otherwise. Length parameter can be assigned to Length (loop length, by default) or Pitch (relative pitch) using TS Assign.</td>
</tr>
<tr>
<td>Energy</td>
<td>Looping, reversing the control bypasses the effect. Controls a hard bypass. Activating the control commences looping, releasing the control bypasses the effect.</td>
</tr>
<tr>
<td>Mode</td>
<td>Select an effect.</td>
</tr>
</tbody>
</table>
**Parameter**

**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. When Quantize is on, the loop length is quantized to the song position and tempo. When Quantize is off, the loop length and start point to the song position.

**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.

**Perform FX in the Plug-in Strip:**

15.7.7 Tremolo

**Table:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantize</td>
<td>Quantizes the loop length and start point to the song position.</td>
</tr>
<tr>
<td>FrameRate</td>
<td></td>
</tr>
</tbody>
</table>
Tremolo Perform FX in the Control area.

Effect Reference

MASCHINE STUDIO - Manual - 799
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>Mode: Select an effect.</td>
</tr>
<tr>
<td>TOUCHSTRIP</td>
<td>Engage: Enables and disables the effect.</td>
</tr>
<tr>
<td>Position</td>
<td>Engage: Enables and disables the effect.</td>
</tr>
<tr>
<td>Tremolo</td>
<td>Position: Range defined by the Min and Max parameters on the second page.</td>
</tr>
<tr>
<td>358x653</td>
<td>358x653</td>
</tr>
</tbody>
</table>

**Main Page**

**Perform FX**

**Effect Reference**
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEPTH RANGE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Depth Min</strong></td>
<td>Controls the amplitude of the modulation when the parameter position is set to 0%.</td>
</tr>
<tr>
<td><strong>Depth Max</strong></td>
<td>Controls the amplitude of the modulation when the parameter position is set to 100%.</td>
</tr>
<tr>
<td><strong>Rate Min</strong></td>
<td>Controls the rate of the modulation when the parameter position is set to 0%.</td>
</tr>
<tr>
<td><strong>Rate Max</strong></td>
<td>Controls the rate of the modulation when the parameter position is set to 100%.</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>Select an effect.</td>
</tr>
<tr>
<td>TOUCHSTRIP</td>
<td>Engages the turntable brake, enabling scratch control. When released, the effect is bypassed entirely. Enabling scratch control.</td>
</tr>
<tr>
<td>SWIRL</td>
<td>Longer delay time. Controls the brake speed (higher = slower brake), the scratch position (higher = forward), and the delay time (higher = longer delay time). In the off position, the effect is bypassed entirely.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Controls the delay feedback.</td>
</tr>
<tr>
<td>Delay Time</td>
<td>Controls the delay time range. Longer values produce a delay effect.</td>
</tr>
<tr>
<td>Wet Level</td>
<td>Controls the level of the delay effect.</td>
</tr>
<tr>
<td>Freq Shift</td>
<td>Controls the delay feedback.</td>
</tr>
<tr>
<td>Position</td>
<td>Controls the delay feedback.</td>
</tr>
</tbody>
</table>

**Touchstrip**

- **Mode**
  - Select an effect: MODE

---

**Parameter Reference**

**Perform FX**

**Maschine Studio - Manual - 803**
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.

### Arranger Basics

#### Switching between Ideas View and Song View

- **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.
- **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.

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

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

The button is unlit. When Ideas View is active, the button is unlit. 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 time-line or any kind of arrangement. Here you can create Patterns for each Group and combine them into a Scene.

1. Scenes: This area displays all the current Scenes in your Project. After creating a Scene by clicking a blank slot to create and new Pattern or click an existing Pattern to assign it to the selected Scene, you can double-click a blank slot to create a new Scene slot.

2. Pattern area: All Patterns in your Song are represented here. You can double-click a blank slot to create a new Pattern or click an existing Pattern to assign it to the selected Scene.

3. Groups: The Group slots can hold one Group each. Select the desired slot to load a Group. The Group’s Channel properties and Plug-in parameters will display in the Control area.

Pattern Editor (and the Group’s Channel properties and Plug-in parameters in the 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 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 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 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) the name of the Section and choose any option in the menu that appears.

4. **Scene view**: The Scene view allows you to structure your song by allowing you to assign the Scenes you created to Sections, and move them around to quickly create a larger musical structure.
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 horizontally in the Event area and the Control Lane on the time axis.

Song View can be scrolled and zoomed in or out to fit your current needs.

Navigating Song View Horizontally

The zooming scroll bar at the bottom of Song view in the Arranger.

Use the horizontal zooming scroll bar as follows:

1. 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.

2. Click the left handle (2) of the scroll bar, hold the mouse button, and drag your mouse horizontally to zoom vertically to zoom in or out of Song view on the time axis.

3. Similarly, click the right handle (3) of the scroll bar, hold the mouse button, and drag your mouse horizontally to zoom vertically to zoom in or out of Song view on the time axis.

The zooming scroll bar at the bottom of Song view in the Arranger.

A zooming scroll bar is available at the bottom of the Arranger in Song view. This tool allows you to scroll and zoom horizontally in the Event area and the Control Lane on the time axis.

To navigate Song View Horizontally:

1. 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.

2. 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.

3. 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 Arranger.

### Navigating the Arranger Vertically

A classic scroll bar is available right of the Arranger. It allows you to scroll to view hidden Groups if they do not fit in the Arranger.

Drag the handle to adjust the Arranger's height.
Navigating Song View from the Controller

You can also control the position and zoom factor in the Song view from your controller:

1. Press and hold NAVIGATE to enter Navigate mode.
2. Select Button 3 (SONG).
3. Turn Knob 1 (Arranger Zoom) to zoom in or out of the Arranger.
4. Turn Knob 2 (Arranger Scroll) to scroll through the Arranger.

16.1.2 Following the Playback Position in Your Project

If the Arranger doesn't display the portion of your Project currently selected, at some point the playhead will go beyond the portion of your Project currently displayed in the Arranger and you might lose 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.
- 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 currently selected.

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).

Working with the Arranger

Arranger Basics
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).

Following the Playback Position on Your Controller

To follow the playhead position during playback:

1. Press NAVIGATE to enter Navigate mode.
2. Press Button 8 (FOLLOW).

→ Both Button 8 and the FOLLOW label underneath light up. In the software the Arranger will switch to the next portion of your Project (with the same zoom factor) as soon as the playhead reaches the end of the portion displayed.

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 Arrange mode (for both SECTION and PATTERN pages), Events mode, Step mode, and Note Repeat mode. 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 automatically switch to the next 16 steps. See section 11.4.2, Creating Events/Notes for more information on Step mode.

The Follow function will be automatically disabled as soon as you manually scroll to another position of the Arranger or of the Pattern Editor. The Follow function will stay active if you leave Navigate mode: The Follow function will stay active if you press NAVIGATE again to leave Navigate mode. The Follow function will now switch to the next position of your Project (with the same zoom factor) as soon as the playhead reaches the end of the portion displayed.

The Follow function affects both the Pattern Editor and the Arranger simultaneously (see section 11.1.3, Following the Playback Position in the Pattern).
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 disabled (default setting), the next Scene or Section that is selected will 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.
- If Retrigger is enabled, the next Section (Ideas view) or Section (Song view) that is selected will play from the beginning, regardless of where the previous Section ended.

In the software, the Perform Grid and the Retrigger setting can be adjusted in the Perform settings of the Arranger Header.

16.1.3.1 Jumping between Scene or Sections in the Software

In the software, the Perform Grid and the Retrigger settings 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. Click the Arranger View button to access Ideas view for Scenes or Song view for Sections.

To set the Perform Grid and the Retrigger settings:

- If Retrigger is enabled, the next Section (Ideas view) or Section (Song view) that is selected will play from the start.
- If Retrigger is disabled (default setting), the next Scene or Section that is selected will play from the beginning.

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. Click the Arranger View button to access Ideas view for Scenes or Song view for Sections.

To set the Perform Grid and the Retrigger settings:

- If Retrigger is enabled, the next Section (Ideas view) or Section (Song view) that is selected will play from the start.
- If Retrigger is disabled (default setting), the next Scene or Section that is selected will play from the beginning.

In the software, the Perform Grid and the Retrigger setting can be adjusted in the MASCHINE Header.
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 adjust the Scene Retrigger setting:

1. Press and hold SHIFT + SCENE to enter Section mode (or pin it by pressing SCENE + Button 1).
2. At the bottom left corner of the left display you see the current RETRIGGER value (Off by default).
3. Turn Knob 1 to select On.

→ The next time you select a new Scene or loop range, it will start from the beginning.

Adjusting the Section Retrigger Setting

To adjust the Section Retrigger setting:

1. Press and hold SHIFT + SCENE to enter Section mode (or pin it by pressing SCENE + Button 1).
2. Press the Right Page button to access page 2.
3. Press Button 1 to select Perform.
4. Press Button 2 to select Perform.
5. Press a pad to select the desired value, for example pad 9 (for 1/4, a quarter note).

→ The next quarter note.

The next time you select a new Scene/Section or loop range, the switch will happen on the next quarter note.

Working with the Arranger
4. Turn Knob 1 to select On.

The next time you select a new Section or loop range, it will start from the beginning.
The Ideas view.

At the top you can see Scene slots.

The selected Scene slot is highlighted.

Cells showing a name represent Scene slots containing a Scene.

Empty cells represent empty Scene slots.

This grid of cells shown in the right display corresponds to the pads of your controller, which in Scene Mode on the Controller

To enter Scene mode on your controller:

1. Press SCENE to enter Scene mode (you can pin it by pressing Button 1 at the same time).

The software switches to Scene mode. This is indicated by the illuminated SCENE button.

Your controller switches to Scene mode. This is indicated by the illuminated SCENE button.

In Scene mode you see all Scene slots of the selected Scene bank represented as a square of 4x4 cells.

The Scene mode focuses on Scene selection and manipulation.

The selected Scene displays the selected Patterns for the current Scene.

At the top you can see Scene slots. The selected Scene is highlighted.

The Ideas view.

Working with the Arranger
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.

Creating a New Scene on the Controller

1. Press NAVIGATE + Button 2 (IDEAS) 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 after all existing Scenes.

A new empty Scene is created after all existing Scenes.

Using the controller, you can create a new Scene in Ideas view.

Creating a Scene in Ideas View

You can create a new Scene directly in the Ideas view.

Creating Scenes

The Scene Arrange mode. These are described in the following sections.

In addition, the Scene mode provides useful Scene management commands similar to those of the Scene Arrange mode. These are described in the following sections.

- Unit pads represent empty Scene slots.
- Dim lit pads indicate Scene slots containing a Scene.
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.

Assigning and Removing Patterns 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.

Any changes made in Ideas view or Song view are one and the same.
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.

Assigning a Pattern to a Scene on the Controller

1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press and hold SCENE to enter Scene mode.
3. Press Button 7 to select the desired Scene bank.
4. Press the pad corresponding to the Scene in which you want to assign a Pattern.

Removing a Pattern in Ideas View

Click the highlighted Pattern for any Group to remove it from the Scene.

You can also remove a Pattern from a Scene in Ideas view:

Creating 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.

You can also create a new empty Pattern in Ideas view:

Using Ideas View

Patterns and the Pattern Editor are described in chapter 11, Working with Patterns.
Then create the Pattern for the desired Group:

1. Press the desired Group button A–H to select the Group from which you want to select a Pattern.
2. Press and hold PATTERN. Both your pads and the right display give you an overview of the available Patterns. Dim lit pads indicate the available Patterns. If a Pattern already exists in the selected Scene for that Group, the referenced Pattern is highlighted and its pad is fully lit.

► While you are holding PATTERN, press Button 7 or 8 to select the desired Pattern bank, then press the desired pad (or press the Page buttons to select the desired Pattern bank).

→ 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. If you have pressed an already existing Pattern, the referenced Pattern is highlighted and its pad is fully lit.

Additionally, this Pattern is loaded into the Pattern Editor, ready for you to modify.

► The corresponding Pattern will now be played by that Scene.

Furthermore, the following happens:

- The corresponding Pattern will display the name and color of the Pattern in the Arranger (Ideas view and Song view).
- The corresponding Pattern will now be played by that Scene.
- Additionally, this Pattern is loaded into the Pattern Editor, ready for you to modify.

For further information regarding the Pattern mode, please refer to section 11.7, Managing Patterns.

Removing a Pattern from a Scene on the Controller

Removing a Pattern is also done in Pattern mode:

1. To remove the Pattern for the selected Group from the selected Scene, press PATTERN + Button 2 (REMOVE).

► The Pattern is removed from the Scene:

- The corresponding Pattern will not be played by that Scene anymore.
- The Pattern is removed from the Scene.

Working with the Arranger

Using Ideas View

Working with the Arranger
16.2.4 Selecting Scenes

You can select the desired Scene by clicking its name at the top of the Ideas View:

To select a Scene in the Ideas View, do the following:

Select a Scene in the Ideas View.

You can select the desired Scene in the Ideas View.

Once a Scene Has Been Selected...

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 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.

Once you have selected a Scene, the following happens:

The Pattern Editor is empty.

If playback is on the playhead jumps according to the Perform Grid settings.

The Pattern Editor is empty.
Selecting Scenes and Scene Banks on the Controller

Selecting a Scene Bank
To select a Scene located in another Scene bank:
1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press SCENE + Button 7 or 8 to select the previous or next Scene bank.
   If the last Scene bank is selected and not empty, pressing Button 8 will create a new, empty Pattern bank, see section 16.2.6, Creating and Deleting Scene Banks for more information.
   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.

Selecting a Scene
To select a Scene in the current Scene bank:
1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press SCENE + the dim lit pad corresponding to the cell of the desired Scene on the right display or press SCENE + Page buttons to select the previous/next Scene.
   You can also select Scenes in Scene Arrange mode: press ARRANGE then Button 1 (SCENE), then use the pads or the Page buttons as described above.

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 on the playhead immediately jumps to the beginning of the selected Scene.
- If playback is off the playhead jumps according to the Perform Grid settings, see section 16.2.5, Creating and Deleting Scene Banks for more information.

**Working with the Arranger**

Using Ideas View
To select a Scene located in another Scene bank:
1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press SCENE + Button 7 or 8 to select the previous or next Scene bank.

Selecting a Scene
To select a Scene in the current Scene bank:
1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press SCENE + the dim lit pad corresponding to the cell of the desired Scene on the right display or press SCENE + Page buttons to select the previous/next Scene.
   You can also select Scenes in Scene Arrange mode: press ARRANGE then Button 1 (SCENE), then use the pads or the Page buttons as described above.

You can also select Scene banks in Scene Arrange mode: press ARRANGE then Button 1 (SCENE), then use Button 7 and 8 as described above.

If the last Scene bank is selected and not empty, pressing Button 8 will create a new, empty Pattern bank, see section 16.2.6, Creating and Deleting Scene Banks for more information.
16.2.5 Deleting Scenes

To delete a Scene in the Ideas view:

1. 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.

5. Press Button 6 (DELETE).

   → The Scene is deleted with all its Patterns. Scenes to the right shift to fill the gap.

4. Press the red corresponding to the Scene you want to delete. Alternatively you can select the Scene by pressing the Page buttons.

3. Press Button 7 and 8 to select the desired Scene bank.

2. Press and hold **SCENE** to enter Scene mode.

1. Press **NAVIGATE** + Button 2 (IDEAS) to enter Ideas view.

To delete a Scene on your controller:

**Deleting Scenes on the Controller**

1. Press **NAVIGATE** + Button 2 (IDEAS) to enter Ideas view.

2. Press and hold **SCENE** to enter Scene mode.

3. Press Button 7 and 8 to select the desired Scene bank.

4. Press the pad corresponding to the Scene you want to delete. Alternatively you can select the Scene by pressing the Page buttons.

5. Press Button 6 (DELETE).

   → The Scene is deleted with all its Patterns. Scenes to the right shift to fill the gap.

### Using Ideas View

**Working with the Arranger**

(MASCHINE STUDIO - Manual - 822)
Alternate Method

1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press and hold SCENE to enter Scene mode.
3. Press Button 7 and 8 to select the desired Scene bank.
4. Press ERASE + the pad corresponding to the Scene you want to delete.

→ The Scene bank is deleted including all its Scenes, if any. The following banks are shifted up 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.

You can also delete Scenes in Scene Arrange mode: press ARRANGE then Button 1 (SCENE) to enter Arrange mode; then press ARRANGE + Button 1 (SCENE) to enter Scene Arrange mode, then follow either of the procedures described above.

Deleting Scene Banks using the Controller

A new Scene bank is automatically created once you fill an entire bank with Scenes.

1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press and hold SCENE to enter Scene mode.
3. Press Button 7 and 8 to select the desired Scene bank.
4. Press SHIFT + Button 6 (DELETE) to delete the selected Scene bank.

→ The Scene bank is deleted including all its Scenes, if any. The following banks are shifted up to fill the gap.

To delete a Scene bank in Scene Arrange mode:

You can also delete Scenes in Scene Arrange mode: press ARRANGE then Button 1 (SCENE) to enter Arrange mode, then press ARRANGE + Button 1 (SCENE) to enter Scene Arrange mode, then follow either of the procedures described above.

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.

The Scene is deleted with all its Patterns, Scenes to the right shift to fill the gap.
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:

1. 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.

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 and Patterns
- link when duplicating Sections

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 duplicate a Scene in the software:

1. Right-click ([Ctrl]-click on macOS), and select Duplicate from the context menu.

The selected Scene is duplicated in accordance with the settings in the Default page of the Preferences.

To duplicate a Scene on your controller:

1. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.
2. Press SCENE then the pad corresponding to the Scene you want to duplicate.
3. Press any unlit pad to duplicate the Scene.

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.

For more information on the Default page of the Preferences, read: 3.6.4, Preferences – Default Page.
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.

3. When the insertion line appears at the desired location, release the mouse button.

As the mouse cursor moves, an insertion line appears at the potential places where you can drop the Scene.

Working with the Arranger

Using Ideas View

Reading Scenes

16.2.9
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 Patterns. 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 Patterns.

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.

This option is only available if the selected Scene is referencing the same Patterns as another Scene.

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 Button 7 and 8 to select the desired Scene bank.
4. Press the pad corresponding to the Scene you want to make unique.
5. Press Button 2 (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 Scenes to 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 NAVIGATE + Button 2 (IDEAS) to enter Ideas view.

2. Press NAVIGATE + Button 2 (IDEAS) to enter Ideas view.

3. Press Button 7 and 8 to select the desired Scene bank.

4. Press Button 3 (APPEND).

5. Press the pad corresponding to the Scene you want to append. You can do this more than once. Expanding a series of pads will add all those Scenes into Sections at the end of the Arranger in one quick step.

6. Press the pad corresponding to the Scene you want to append. You can do this more than once. Expanding a series of pads will add all those Scenes into Sections at the end of the Arranger in one quick step.

7. Double-click the Scene name at the top of the Arranger to rename a Scene in the Arranger.

Renaming Scenes in the Arranger

Renaming Scenes in the Arranger

By default, Scenes are named Scene 1, Scene 2, Scene 3, etc. You can rename Scenes and use custom names of your own. Renaming is only available from within the software, but any changes will show up on your controller.

1. Double-click the Scene name at the top of the Arranger to rename a Scene in the Arranger.

Renaming Scenes

16.2.12 Naming Scenes

Naming Scenes

You can also right-click ([Ctrl]-click on macOS) the Scene slot or the corresponding cell in the Arranger.

Using Ideas View

Working with the Arranger
You can change the color of each Scene in the software. To do this:

1. **Changing the Color of a Scene**

   - Using Ideas View

   ![Diagram showing the pad grid and Scene color selection]

   1. Choose the Scene you want to change.
   2. Click on the Scene to select it.
   3. Use the arrow keys to select the desired color.
   4. Press [Enter] to confirm the color change.

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 Scene Name

1. Open the pad grid and select Rename from the context menu.
2. Type a new name and press [Enter] to confirm (or press [Esc] to cancel).
3. The Scene name gets highlighted and editable.
4. Once you have entered the new name, press [Enter] again to confirm the change.

→ The Scene is renamed.

← The Scene is renamed.

cancel your change.
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 in Preferences > Colors. 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 even 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.

Working with the Arranger

Using Ideas 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 on the Timeline in the Song view, you can start to organize your track.

Changes can be made in either Ideas or Song view. These changes can be made and immediately hear the results in the context of the arrangement, and those that were made in Ideas, can be heard in the context of the Song view as well. You can also assign multiple Sections to a Scene, which allows for different sections of the song to be played back to back, creating a seamless transition. This is particularly useful for creating loopable sections of your song.

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 are highlighted in yellow. A white border surrounds the selected Section bank.
- 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, 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. 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 top row and in the Section Manager are strictly equivalent.

The Section Arrange Mode
On your controller you have two modes at your disposal to control your Sections: the Section Arrange Mode and the Section mode.

The Section Arrange Mode
The Section Arrange mode allows you to visually control the Sections of your Project while providing important Section management features. This mode allows you to easily build and modify your arrangement.

To enter Section Arrange mode on your controller:
1. Press ARRANGE to enter Arrange mode. The ARRANGE lights up to indicate that Arrange mode is enabled.
2. Press SECTION to enter Section Arrange mode. You can also press BACK under the jog wheel.

The Section mode and Section Arrange mode on the controller.

Working with the Arranger
Using Song View
Working with the Arranger

Section Manager vs. Arranger’s Top Row
To close the Section Manager, click anywhere outside it.

Closing the Section Manager
In Section Arrange mode, the displays of your controller show the following:

- The right display provides a detailed view of your Patterns for a portion of your arrangement:

  - Similarly to the left display and the Arranger in the software, you will find Sections organized in columns and Groups organized in rows.
  - Vertically, only one Group bank is shown. At any time you will see the Group bank containing the focused Group. The eight Groups are represented in the leftmost column by their bank letter and index number (5). The focused Group is highlighted.
  - Vertically, the current Loop Range (4) is shown. A white vertical line indicates the current playback position (2). In addition, a frame (3) shows which part of your arrangement is currently shown in the right display (see below).
  - The overview includes a timeline (1) and shows the current Loop Range (4). A white vertical line indicates the current playback position (2). In addition, a frame (3) shows which part of your arrangement is currently shown in the right display (see below).
  - Above the arrangement overview, you see the name of the Project, the focused Group or Sound (depending on which of the MASTER, GROUP or SOUND tab is selected in the software's Control area) along with the current tempo and playback position.

- The left display provides an overview of the arrangement for your entire Project:

  - In Section Arrange mode, the displays of your controller show the following:

    ```
    ▪ The left display provides an overview of your entire Project:
    - Vertically, only one Group bank is shown. At any time you will see the Group bank containing the focused Group. The eight Groups are represented in the leftmost column by their bank letter and index number (5). The focused Group is highlighted.
    - Vertically, the current Loop Range (4) is shown. A white vertical line indicates the current playback position (2). In addition, a frame (3) shows which part of your arrangement is currently shown in the right display (see below).
    ```
Horizontally, the displayed time interval is variable: Turn Knob 5 and 6 to zoom and scroll in the right display to your liking, respectively. You can also enable Button 3 (FOLLOW) and let the right display follow the playhead as it travels through your arrangement, see section ↑16.1.2, Following the Playback Position in Your Project for more information.

At the top of the right display you see the Section names (7) with the timeline (8) underneath. The name of the selected Section is underlined. As in the left display, you can see the vertical playhead indicator (6) and the Loop Range (10) across the entire display. Furthermore, the pads on your controller represent the Sections of the current Section bank:

- The fully lit pad indicates the selected Section slot.
- Dim lit pads indicate Section slots containing a referenced Scene.
- Unlit pads represent empty Section slots.

To enter Section mode on your controller, press and hold SCENE (you can pin it by pressing Button 1 at the same time).

Although sharing many features with the Section Arrange mode described above, the Section mode focuses on Section selection and manipulation rather than on their arrangement. These features are described in the following sections.

Section Mode

To know how to modify the name and color of your Patterns, please refer to section ↑11.7.6, Naming Patterns and ↑11.7.7, Changing the Pattern’s Color, respectively.

Furthermore, the pads on your controller represent the Sections of the current Section bank:

- The fully lit pad indicates the selected Section slot.
- Dim lit pads indicate Section slots containing a referenced Scene.
- Unlit pads represent empty Section slots.

In addition, the Section Arrange mode provides useful Section management commands. These are described in the following sections.

Section Mode
Your controller switches to Section mode. This is indicated by the highlighted SECTION in the upper-left corner of the left display.

Apart from a few commands, the main difference between the Section mode and the Section Arrange mode is found in the right display of the controller: In Section mode you see all Section slots of the selected Section bank represented as a square of 4x4 cells:

- The highlighted cell indicates the selected Section slot.
- Cells showing a name represent Section slots referencing a Scene.
- Empty cells represent empty Section slots.
- Dim lit pads indicate Section slots referencing a Scene.
- The fully lit pad indicates the selected Section slot.

In addition, the Section mode provides useful Section management commands similar to those of the Section Arrange mode. 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.

Using Song View

Working with the Arranger
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 ARRANGE + Button 3 to access the Song view.
2. Press NAVIGATE + Button 3 to access the Song view.
3. Press SCENE + any unlit pad to create a new empty Section in the current Section bank. 

→ A new empty Section is created. You can then assign a Scene using your controller and software, see 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.
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 Arranger.

By repeating this for each new Section, you can quickly add Scenes to the Arranger.

The selected Scene is added to the Section.
2. If it is not already selected, select the Section bank containing the desired Section by clicking its pad grid on the right.

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.

Once you have selected a Section using either of the methods described above, the following happens:

The Section slot and the corresponding cell on the right are now highlighted to indicate that this Section is selected.

The selected Section bank is surrounded by a white border, and the left part of the Section Manager displays the Section slots in the bank.
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 the Loop Range is set to the selected Section, if playback is on the Loop Range jumps according to the Perform Grid settings.
- If playback is off the playhead immediately jumps to the beginning of the selected Section.
- The Loop Range is set to the selected Section.

For more info on the Loop Range see Section 16.3.1, Section Management Overview.

To select a Section located in another Section bank:

1. Press ARRANGE, then use Button 7 and 8.
2. Press ARRANGE, the press SCENE to access SECTION mode.

You can also select Section banks in Section Arrange mode: press ARRANGE then Button 7 (SEC-)

The desired bank is selected.

If the last Section bank is selected and not empty, pressing Button 8 will create a new, empty Section bank.

You can also select Section banks in Section Arrange mode: press ARRANGE then Button 1 (SEC-), then use Button 7 and 8.

To select a Section located in another Section bank:
Selecting Sections and Section Banks on the Controller

To select a Section in the current Section bank, press SCENE + the dim lit pad corre-

Upon your selection, the following happens:

To select a Section in the current Section bank, press SCENE + the dim lit pad corre-

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 SHIFT + CONTROL).
3. Press SHIFT + Left/Right Arrow button to select the previous/next Section bank, respec-

Selecting a Section

To select a Section in the current Section bank, press SCENE + the dim lit pad corre-

Working with the Arranger

Using Song View
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.

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.
3. When the insertion line appears at the desired location, release the mouse button.

In the software you can reorganize sections both in the Arranger and in the Section Manager.

Working with the Arranger
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

1. Press NAVIGATE + Button 3 SONG to access Song view (if you are not already in the Song view).
2. Press NAVIGATE + Button 3 SONG to access Song view (if you are not already in the Arranger).
3. Press and hold SCENE to enter Section mode (you can quit it by pressing Button 1).
4. Press the pad of the Section you want to move.
5. Turn Knob 1 (POSITION) to move the selected Section to another position in your arrangement.

To move a Section using your controller:

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), the length of a Section is automatically set to the longest Pattern used within the Scene.

Using Song View

Working with the Arranger
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 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. Extending or truncating the Reference Scene, or the Pattern used within the referenced Scene, automatically extends or shrinks the Section accordingly.

If a Pattern is shorter than the Section it is placed in, it is automatically repeated until the end of the Section. These repetitions are automatically generated and cannot be edited. They reference the same Pattern placed at the beginning of the Section. Repetitions 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.

Working with the Arranger

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 within an arrangement 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 within an arrangement.
When adjusting the size of a Section the following rules apply:

**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:

1. **When the right end marker of a Section is extended beyond the length of a Scene, the referenced Patterns are repeated.**
2. When the right end marker of a Section is shortened so it is shorter than the referenced Scene, only the part visible part of the Patterns are audible. When the right end marker of a Section is dragged so it is shorter than the referenced Scene, the referenced Patterns are repeated. When the right end marker of a Section is dragged so it is longer than the referenced Scene, the referenced Patterns are repeated.
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 NAVIGATE + Button 3 SONG to access the Song view.
2. Press SCENE to enter Section mode.
3. Select the pad relating to the Scene you want to adjust.
4. Turn Knob 4 to adjust the length of the Section as required. Turning the knob left will shorten the Section, turning it right will lengthen the Section.
5. Press [Shift] and turn Knob 4 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.
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 13.6.4, Preferences – Default.

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 NAVIGATE + Button 3 (SONG) to enter Song view.

The Song view allows you to duplicate a Section. This feature works in connection with settings made in the Default page of the Preferences.
2. Press SCENE + DUPLICATE.

3. Press the pad to select the Section you want to duplicate.

4. Press the pad where you want to copy 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 same location, and can also create new Patterns. This will create a new Section in the same location.

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 **SHIFT** + **SCENE**.
2. Select the Section you want to make unique by pressing the pad.
3. Press Button 2 **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 **NAVIGATE** + Button 3 **SONG** to enter Song view.
2. Press and hold **SCENE** to enter Section mode.
3. Press Button 7 and 8 to select the desired Section bank.
4. Press the pad corresponding to the Section you want to remove. Alternatively you can select the Section by pressing the Page buttons.
5. Press **REMOVE** + Button 6 **(REMOVE)**.

The Section is removed from the arrangement. The next Sections shift ahead to fill the gap.

Alternate Method:

1. Press **NAVIGATE** + Button 3 **SONG** to enter Song view.
2. Press and hold **SCENE** to enter Section mode.
3. Press Button 7 and 8 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.

You can also remove Sections in Section Arrange mode: press **ARRANGE** then Button 1 **SCENE** to enter Section Arrange mode, then follow either of the procedures described above.

Working with the Arranger

Using Song View
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 referred to 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

1. Double-click the Scene name at the top of the Song view.

2. Type a name and press Enter on your computer keyboard to confirm (or press Esc to cancel your change).

The Scene name is highlighted and editable.

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.

Working with the Arranger

16.3.10 Renaming Scenes
A new Section bank is automatically created once you fill an entire bank with Sections.

16.3.11 Clearing Sections

Clearing a Section allows you to remove the referenced Scene, leaving the Section empty.

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.

Working with the Arranger

Using Song View

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

The Scene is renamed.
Deleting Section Banks using the Controller

1. Press NAVIGATE + Button 3 (SONG) to enter Song view.
2. Press and hold SCENE to enter SECTION mode.
3. Press Button 7 and 8 to select the desired Section bank.
4. Press SHIFT + Button 6 (DELETE) to delete the selected Section bank.

→ The Section bank is deleted including all its Sections, if any. The following banks are shifted up to fill the gap.

→ A new pattern is selected for this Scene and will appear in each Section where the Scene is used.

→ 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.

Creating a Pattern in Song View

1. 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.

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.

16.3.13.2 Selecting a Pattern 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.
16.3.13.3 Clearing a Pattern in Song View

In Song view use the right-click context menu to clear the contents of a 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:
Working with the Arranger
To enable Auto Length for a Section in the software:

1. Right-click (CTRL-click on macOS) on the Section.

To enable Auto Length for a Section in the software:

1. Right-click (CTRL-click on macOS) on the Section.

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.

Right-click (CTRL-click on macOS) on the Pattern you want to duplicate, and click Duplicate in the menu.

For more information on Duplicate a Pattern in Song View see 16.3.13.7, Duplicating a Pattern in Song View.

Using the software or controller it is possible to quickly reset a Section to back to Auto Length.

When Auto Length is enabled, the Manual Length settings are discarded and any truncated (hidden) content in the Section is removed. To reset a Section to back to Auto Length:

1. Right-click (CTRL-click on macOS) on the Section.

Moving a Pattern in the Scene and appear in each Section where the Scene is used in the arrangement.

The selected Pattern is duplicated. The duplicate Pattern will take the place of the existing Pattern within the Section. If the length of a Pattern is manually adjusted by functions of removing or trimming the Section, the duplicate Pattern will follow the Manual Length settings and will be truncated accordingly.

In Song View use the right-click context menu to duplicate a Pattern within the selected Scene.

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.
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 Button 3 (AUTO LENGTH) to enable Auto Length.

These steps ensure that the Section automatically adjusts to fit the Patterns within the assigned Scene. The feature is useful when you want the Section to resize according to the content of the Patterns, eliminating the need for manual adjustments.
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.

When the loop is activated The Sections within the Loop range are repeated.

Working with the Arranger
Using Song View
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 the controller:

1. Press and hold `SHIFT + RESTART (LOOP)` to access the Loop screen.
2. Press Button 5 `LOOP` to activate the loop.
3. Turn Knob 3 `START` to set the start point of the loop.
4. Turn Knob 4 `LENGTH` to set the length of the loop.

→ The start and end points of the loop range are set.

► Turn Knob 1 `POSITION` to alter the position of the whole loop.

→ The position of the loop range is adjusted.

► Press Button 4 `ALL` to loop the whole song.

→ The start and end points of the loop range are set to the range of the whole song.

Activating or Deactivating a Loop Using the Controller

Press `SHIFT + RESTART (LOOP)` to activate or deactivate the loop.

When the loop is activated, the scenes within the loop range are repeated.

16.4 Playing with Sections

MASCHINE provides you with various tools to precisely control which Section has to be played.

Studio Track or Live Performance?

If you are composing a studio track that you plan to export as is, you can arrange your Sections.

Playing with Sections

When the loop is activated, the Scenes within the loop range are repeated.

Press `SHIFT + RESTART (LOOP)` to activate or deactivate the loop.

To activate a loop using the controller:

1. Turn Knob 1 `POSITION` to alter the position of the whole loop.
2. Press Button 5 `LOOP` to activate the loop.
3. Press and hold `SHIFT + RESTART (LOOP)` to access the Loop screen.
4. Turn Knob 4 `LENGTH` to set the length of the loop.
3. Turn Knob 3 `START` to set the start point of the loop.
2. Press Button 5 `LOOP` to activate the loop.
1. Press and hold `SHIFT + RESTART (LOOP)` to access the Loop screen.
   Set the start, end and position of the loop using the dedicated Loop page.

16.3.15.2 Setting the Loop Range Using the Controller
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.

Additionally, 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.

Please refer to section 5.4.3, Exporting Audio for information on exporting audio.

Working with the Arranger

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. Click anywhere in the timeline to move the playhead to that position in the Project.

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.

The playhead shows you the current play 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. 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 the Perform Grid is set to On (i.e. enabled), the playhead jumps to the exact position you have clicked.
- If the Perform Grid is set to Off (i.e. disabled), the playhead jumps to the closest Perform Grid division. If the Perform Grid is off, the playhead jumps to the closest Perform Grid division to the position you have clicked.
If playback is off, the playhead jumps to the beginning of the previous/next step.

Depending on the playback state, the following will happen:

- Hold the Jog wheel and turn the Jog wheel to jump to the previous/next step, according to the current Step Grid settings. You can also hold the Jog wheel to jump to the previous/next step, according to the current Step Grid.

Jumps Based on the Arrange Grid

You can also jump by finer increments:

- Hold the Jog wheel and press the FUNCTION buttons below the Jog wheel.

Depending on the playback state, the following will happen:

- If playback is off, the playhead jumps to the beginning of the previous/next Step Grid division.
- If playback is on, the playhead jumps to the same relative position in the previous/next Step Grid division.

If the Arrange Grid is set to Off (i.e. disabled) or Quick, the jumps are based on bars.

If the Arrange Grid is set to On, the playhead jumps to the same relative position in the previous/next Arrange Grid division.

Jumps Based on the Step Grid

From your controller, you can control the playback position in two different resolutions:

- Hold the SHIFT button and turn the Jog wheel to jump to the previous/next step, according to the current Step Grid settings.
- Hold the SHIFT button and press the FUNCTION buttons below the Jog wheel.

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 Grid division.

For more information on the Arrange Grid, see section 11.1.6, Adjusting the Arrange Grid and the Pattern Length.

For more information on the Arrange Grid, see section 11.1.6, Adjusting the Arrange Grid and the Pattern Length.
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.

If the Step Grid is disabled (i.e. set to OFF), the jumps are based on bars.

<table>
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<th>Section/Scene Slot</th>
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<th>Program Change Number</th>
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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.

Program Change numbers: Some host applications send Program Change numbers 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 which convention is used.

16.5 Triggering Sections or Scenes via MIDI

Working with the Arranger
MIDI Change from the menu.

1. In the Scene option, click the Enabled checkbox to enable Scenes in the Ideas view.

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. To disable MIDI Change completely, tick the Enabled checkbox in the MIDI Change dialog.

In the MIDI Change dialog:

- Scene
  - Enabled
  - None

- Section
  - Enabled
  - None

The following options enable one or more of the enable scenes via MIDI. To change scenes, sections, or lock snapshots via MIDI:

- MIDI Change

Click EDIT > MIDI Change from the menu.
The Arrange Grid

The Arrange Grid is used to quantize all modifications related to the timeline. The value set here is used for the following features:

- Loop start / length
- Loop position
- Pattern length
- Scene length
- Song clip start / length
- Fast Cash

The Arrange Grid setting is located in the bottom left corner of the Arranger area and can be activated/deactivated by toggling the Grid symbol. The value set is used to quantize all modifications related to the timeline. The value set at the Grid symbol next to the value enables the Arrange Grid.

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 Button 3 to select ARRANGE.

3. Press the GRID button to access the Grid page.

→ The selected Arrange Grid value is applied.

To Disable the Arrange Grid

► Press Button 8 or pad 16 to select OFF.

→ The Arrange Grid is disabled.

Working with the Arranger
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.

To enable the Quick Grid on your controller:

1. Press GRID to access the Grid page.
2. Press Button 3 to select ARRANGE.
3. Turn Knob 4 to enable the QUICK Grid.

Quick Grid is enabled and globally applied to all Patterns.

When the Quick Grid is set to OFF, the Arrange Grid is used.

- The Quick Grid setting is global and applies to all patterns.
- 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 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 setting allows you to quickly and conveniently set the most common Pattern lengths using your controller.
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 moving their Slices.

Last but not least, you can map your Samples to particular Zones, thereby creating multi-sample Sounds. 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.

Before recording an external source please consult the documentation that came with your audio interface regarding connecting your devices and instruments.

Make sure you check out the tutorial videos regarding sampling on the Native Instruments website (http://www.native-instruments.com).

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.

To open the Sample Editor:

1.7.1 Opening the Sample Editor

In the Sound List left of the Pattern Editor, click the desired Sound to put it under focus.

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.

Opening the Sample Editor

17
2. Click the Sample Editor button on the left of the Pattern Editor to switch to the Sample Editor.

The equivalent to the Sample Editor on your controller is the **Sampling mode**.

**Entering Sampling Mode on the Controller**

**Focusing on a Group or a Sound:**

For more details on how to set the focus to a Sound, please see section 13.3.6.

1. With your controller in Control mode, press the pad of the desired Sound to put it under focus.

2. **Sampling and Sample Mapping**

**Opening the Sample Editor**

[521x656]2. Click the Sample Editor button on the left of the Pattern Editor to switch to the Sample Editor.
Press SAMPLING to enter Sampling mode and access the content of the focused Sound.

2. Press SAMPLING to enter Sampling mode and access the content of the focused Sound.

### 17.2 Recording Audio

MASCHINE provides everything you need to record audio.

**17.2.1 Recording Audio**

MASCHINE provides everything you need to record audio.

**17.2.2 Sampling and Sample Mapping**

- **Sampling and Sample Mapping**
  - **Recording Audio**
  - **17.2.1 Recording Audio**
  - **MASCHINE provides everything you need to record audio.**
  - **17.2.2 Sampling and Sample Mapping**
  - **Sampling and Sample Mapping**
  - **Recording Audio**
  - **17.2.1 Recording Audio**
  - **MASCHINE provides everything you need to record audio.**

**17.2.3 Editing a Sample**

**17.2.4 Slicing a Sample**

**17.2.5 Mapping Samples to Zones**

- **17.2.5 Mapping Samples to Zones**
  - **The Zone page allows you to assign your Samples to particular note and velocity ranges.**
  - **The Slice page allows you to create Slices from your existing Samples.**
  - **The Edit page allows you to apply destructive edits to existing Samples.**
  - **The Record page allows you to record audio.**

**17.5 Mapping Samples to Zones**

- **Mapping Samples to Zones**
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  - **The Record page allows you to record audio.**

**17.2 Recording Audio**

**17.2.1 Recording Audio**

MASCHINE provides everything you need to record audio.

**17.2.2 Sampling and Sample Mapping**

- **Sampling and Sample Mapping**
  - **Recording Audio**
  - **17.2.1 Recording Audio**
  - **MASCHINE provides everything you need to record audio.**
  - **17.2.2 Sampling and Sample Mapping**
  - **Sampling and Sample Mapping**
  - **Recording Audio**
  - **17.2.1 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.

Opening the Record Page on the Controller

► In Sampling mode, press Button 1 to access the Record page.

The Record page looks as follows:
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 In 1–8.

Sampling and Sample Mapping
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. 

**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. You can also adjust the 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. 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. 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.

**Sampling and Sample Mapping**

Recording 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 this Target to record in a similar way to the Sound Target described above, except that each new recording will also be appended to a new Pattern on its own.

- Pattern: Select this Target to record in a similar way to the Sound Target described above, except that each new recording will also be appended to a new Pattern on its own.

- Sampling and Sample Mapping

- Recording Audio

-Sampler and Sample Mapping
First choose which source you want to record using the SOURCE and INPUT parameters.

Select the Source to Record

Just which source should be recorded and how the recording should start and stop.

At the bottom of the left display, the parameters in the RECORDING section allow you to adjust the source of the recording to be played.

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, you can easily visualize when the input signal exceeds the current threshold, visualization of the RECORDING section show you at any time the level of the selected audio source.

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 at 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 left display, the parameters in the RECORDING section allow you to adjust which source should be recorded and how the recording should start and stop.

Selecting the Source to Record

First choose which source you want to record using the SOURCE and INPUT parameters:

Sampling and Sample Mapping
Once you have selected the desired source, choose a recording mode:

**Choosing a Recording Mode**

<table>
<thead>
<tr>
<th>Source Setting (See Above)</th>
<th>Available Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>EXTERNAL</code></td>
<td>MASCHINE's eight external mono inputs: the left (&quot;L&quot;) or right (&quot;R&quot;) channel of each input pair IN 1-4.</td>
</tr>
<tr>
<td><code>STEREO</code></td>
<td>You can select the output of any stereo inputs IN 1-4 available in MASCHINE.</td>
</tr>
<tr>
<td><code>MONO</code></td>
<td>You can select either of the available inputs (see above).</td>
</tr>
<tr>
<td><code>INTERNAL</code></td>
<td>You can select the output of any available Group or the Master.</td>
</tr>
</tbody>
</table>

You can also set `SOURCE` to `INTERNAL`, choose an `INPUT`, 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.
- Record audio signals coming from MASCHINE itself. Select `INTERNAL`, choose an `INPUT`, and:
  - Select `STEREO` (for stereo signals) or `MONO` (for mono signals) to record external audio signals connected to your audio interface.
  - Select the type of source you want to record.
Parameter Description

**MODE** (Knob 3)
Selects from the three available recording modes: Detect, Sync or Loop. For more details on these modes, see ↑ 17.2.2, Selecting the Source and the Recording Mode.

**Monitoring the Input Signal**
The level meters above the RECORDING section show you at any time the level of the selected audio source that is about to be recorded. Clicking the Start and Cancel buttons, the Start and Cancel buttons, allows you to hear on a separate channel (e.g., your headphones) the Cue bus of MASCHINE. Adding the input signal to the Cue bus is possible by setting MONITOR to ON in the MONITOR section of the SOURCE page. In order to do this, please refer to section ↑ 13.2.6, Using the Cue Bus.

---

**17.2.3 Arming, Starting, and Stopping the Recording**

Turn in the RECORDING section in order to arm the recording.

- **When recording in Detect mode:**
  - **Start**
  - **Cancel**

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.

Click **Start** to arm the recording.

For more information on how to use the Cue bus, please refer to section ↑ 13.2.6, Using the Cue Bus.
When the recording is done, the following things happen:

**When Recording is Complete**

In any case the recorded audio will be stored in the sound that was under focus as you started:

- **Cancel** to cancel the recording (in that case the recorded audio will not be saved).
- **LENGTH** control (see section 17.2.2, Selecting the Source and the Recording Mode) controls the duration set by the recording. The audio is recorded for the duration set by the **LENGTH** control after the recording has started. The audio is recorded for the duration set by the **LENGTH** control after the recording has started.
- Once the recording has started, the audio is recorded for the duration set by the **LENGTH** control.
- The recording will start at the beginning of the pattern. Until then, the start button reads "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.
- The recording will start at the beginning of the pattern. Until then, the start button reads "Waiting" label and the "Waiting for end of Pattern..." message appears in the information bar above the waveform display.

If you want to start and stop the recording manually, you can set the **MODE** to **Detect**, *click* the **Start** button to start the recording (it stops immediately) or stop the recording by clicking **Stop**.

When Recording is in Loop mode:

- **Cancel** to cancel the recording (in that case the recorded audio will not be saved).
- Once the recording has started, the audio is recorded for the duration set by the **LENGTH** control.
- The recording will start at the beginning of the pattern. Until then, the start button reads "Waiting" label and the "Waiting for end of Pattern..." message appears in the information bar above the waveform display.

When Recording is in Sync mode:

- **Cancel** to cancel the recording (the recorded audio will not be saved).
- Once the recording has started, the recording stops immediately when you want to start the recording manually by clicking the **Start** button. During this waiting phase you can also click the **Record** button. When the button lights up, the recording will start. When the recording stops, the **Stop** button flashes. When the recording is done, the following things happen:

When Recording is Complete:

- **Cancel** to cancel the recording (in that case the recorded audio will not be saved).
- Once the recording has started, the audio is recorded for the duration set by the **LENGTH** control.
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If you want to start and stop the recording manually, you can set the **MODE** to **Detect**, *click* the **Start** button to start the recording (it stops immediately) or stop the recording by clicking **Stop**.

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If you want to start and stop the recording manually, you can set the **MODE** to **Detect**, *click* the **Start** button to start the recording (it stops immediately) or stop the recording by clicking **Stop**.

When Recording is in Loop mode:

- **Cancel** to cancel the recording (in that case the recorded audio will not be saved).
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- **Cancel** to cancel the recording (the recorded audio will not be saved).
- Once the recording has started, the recording stops immediately when you want to start the recording manually by clicking the **Start** button. During this waiting phase you can also click the **Record** button. When the button lights up, the recording will start. When the recording stops, the **Stop** button flashes. When the recording is done, the following things happen:

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If you want to start and stop the recording manually, you can set the **MODE** to **Detect**, *click* the **Start** button to start the recording (it stops immediately) or stop the recording by clicking **Stop**.

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- Once the recording has started, the recording stops immediately when you want to start the recording manually by clicking the **Start** button. During this waiting phase you can also click the **Record** button. When the button lights up, the recording will start. When the recording stops, the **Stop** button flashes. When the recording is done, the following things happen:

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- **Cancel** to cancel the recording (in that case the recorded audio will not be saved).
- Once the recording has started, the audio is recorded for the duration set by the **LENGTH** control.
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- Once the recording has started, the audio is recorded for the duration set by the **LENGTH** control.
- The recording will start at the beginning of the pattern. Until then, the start button reads "Waiting" label and the "Waiting for end of Pattern..." message appears in the information bar above the waveform display.

If you want to start and stop the recording manually, you can set the **MODE** to **Detect**, *click* the **Start** button to start the recording (it stops immediately) or stop the recording by clicking **Stop**.
Each Take is named and stored as a file on your hard disk (see section 17.2.7, 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 17.2.6, Checking Your Recordings below).

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 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, the Sound slot takes the name of your recording.

If the Audio 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.

Press Button 5 (START) to arm the recording.

Arming, Starting, and Stopping the Recording on Your Controller

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, the Sound slot takes the name of your recording.

If the Audio 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.

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If the Audio Plug-in was used in Loop mode, the last recorded Take will automatically play back with the Pattern.
17.2.5 Using the Footswitch for Recording Audio

Your controller has an input for a footswitch that you can use to control the capturing of audio.

### Footswitch to trigger loop
- **Undo**: If a recording finished before you could cancel it, then simply press and hold the footswitch once again to cancel the recording. The footswitch can help in these cases.
- **Cancel**: If a recording is standing by to start (meaning the sync point), you can simply press the footswitch to cancel the recording.
- **Abort**: If a recording has started, double-click the footswitch to abort the current recording.
- **Free**: If a recording is standing by to start (meaning the sync point), you can simply press the footswitch to cancel the recording.

### Other functions
- **Stop recording**: When the recording is done, the recording will be loaded as described in the section 17.2.2. Selecting the Source and the Recording Mode. If you set the recording parameters before you start the recording, you can then set the recording to a specific location on your controller to play the recording mode. When all the recording parameters are set, simply depress the footswitch once the sync point is reached.

When the footswitch is pressed, the footswitch will start. It will then stop after the pre-determined length of the recording. When the recording is finished, the footswitch will start.

In order to use the footswitch for audio loop recording, you must first go to the SAMPLING page of your controller. Then, you can use this to control the capturing of loops while keeping your hands free to play your instruments.

### See Also
- Mapping Samples to Zones (§22)
- Checking Your Recordings (§80)
- Loop Location and Name of Your Recorded Samples (§84)
- Selecting the Source and the Recording Mode (§71)

In any case, the recorded audio will be stored in the Sound that was under focus when you started the recording.
17.2.6 Checking Your Recordings

You can visualize the last recordings you have made in the current Sound:

- Use the scroll wheel of your mouse to zoom in/out. You can also use the zooming scroll bar (2).
- Right-click (macOS: [Ctrl]-click) anywhere in the waveform to open a context menu with the following commands:
  - Right-click (macOS: [Ctrl]-click) anywhere in the waveform to open a context menu to repeat, cut, copy, and paste the selected section.
  - When the Sample is played back (e.g., by pressing the pad or by clicking the little play icon (4)), a playhead indicator (white vertical line) shows you the current play position within the waveform.
  - By pressing the pad or by clicking the little play icon (4), the Sample is played back.

The waveform display and the information bar display a recording:

(1) Waveform display
(2) Zooming scroll bar (scroll wheel)
(3) Time display
(4) Play icon
(5) Audio pool

You can visualize the last recordings you have made in the current Sound.
## Sampling and Sample Mapping

### Recording Audio

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save Sample As...</td>
<td>Opens a Save Sample As dialog allowing to save the recorded Sample under another name and/or to another location on the computer. Any existing file with the same name will be replaced.</td>
</tr>
<tr>
<td>Open containing folder</td>
<td>Opens the folder on your hard disk containing the Sample, providing quick access to the original file.</td>
</tr>
<tr>
<td>Zooming scroll bar</td>
<td>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.</td>
</tr>
<tr>
<td>Timeline</td>
<td>Shows the time scale in bars (Sync mode) or seconds (Detect mode).</td>
</tr>
<tr>
<td>Information bar</td>
<td>Displays the 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 between single-channel and two-channel display.</td>
</tr>
<tr>
<td>Audio Pool</td>
<td>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:</td>
</tr>
<tr>
<td>▪ 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 Zone covering the entire key and velocity ranges in the Zone page. Any existing Zone will be replaced.</td>
<td></td>
</tr>
<tr>
<td>▪ 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.</td>
<td></td>
</tr>
</tbody>
</table>

### Sampling (1)

Choose single-channel and two-channel display. After clicking the main part of the bar to reset the zoom and displaying the entire waveform, Alt-era-b-key-hold a key to zoom in/out. While holding the opposite border of the display, click to display aZone in/out. You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out. 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 choose single-channel or two-channel display. Click and hold the little play icon on your hard disk containing the Sample, providing quick access to the original file. | Opens a Save Sample As dialog allowing to save the recorded Sample under another name and/or to another location on the computer. Any existing file with the same name will be replaced. |

### Table

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save Sample As...</td>
<td>Opens a Save Sample As dialog allowing to save the recorded Sample under another name and/or to another location on the computer. Any existing file with the same name will be replaced.</td>
</tr>
<tr>
<td>Open containing folder</td>
<td>Opens the folder on your hard disk containing the Sample, providing quick access to the original file.</td>
</tr>
</tbody>
</table>
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:

- Drag any mini waveform to another Sound slot to load it in that Sound.
- Click the little cross at the top right corner of a mini waveform to delete this particular recording.

### Checking Your Takes on the Controller

You can visualize the last recordings you have made in the current Sound on the right display of your controller:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delete</td>
<td>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.</td>
</tr>
<tr>
<td>Remove unused recordings</td>
<td>Deletes from the Audio Pool all takes that are not currently mapped to Zones in the Zone page.</td>
</tr>
<tr>
<td>Map recordings to zones</td>
<td>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.</td>
</tr>
<tr>
<td>Delete unused recordings</td>
<td>Deletes all recordings that are not currently mapped to Zones in the Zone page.</td>
</tr>
</tbody>
</table>

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).
The recorded Sample is shown on the right display.

Turn Knob 5 to zoom in on the waveform of the Sample and Knob 6 to scroll through it.

To navigate your various recordings, press Button 7 (PREV) and Button 8 (NEXT).

The name and length of the displayed Sample are indicated above the waveform. When the Sample is played back, a playhead indicator (vertical line) shows you the current play position within the waveform.

The last take will automatically play back.

If you are using the Audio plug-in:

You can press the fully lit pad (the focused Sound slot) to listen to the displayed recording.

You can further edit the selected recording via the other pages of the Sampling mode.

When selected, a recording is automatically loaded in the Plug-in and ready to be played.

The selected recording is automatically loaded in the Audio Pool and displayed as mini waveforms on the left display. All the recordings (takes) you have made since you opened the current Project are stored in the Audio Pool and displayed as mini waveforms on the left display. The following actions are available:

- To navigate your various recordings, press Button 7 (PREV) and Button 8 (NEXT).
- If you are using the Sampler plug-in:
  - The selected recording is automatically loaded in the Plug-in and ready to be played.
  - You can further edit the selected recording via the other pages of the Sampling mode.
  - When selected, a recording is automatically loaded in the Plug-in and ready to be played.
- If you are using the Audio plug-in:
  - The last take will automatically play back.

All the recordings (takes) you have made since you opened the current Project are stored in the Audio Pool and displayed as mini waveforms on the left display. The following actions are available:

- To navigate your various recordings, press Button 7 (PREV) and Button 8 (NEXT).
- If you are using the Sampler plug-in:
  - The selected recording is automatically loaded in the Plug-in and ready to be played.
  - You can further edit the selected recording via the other pages of the Sampling mode.
  - When selected, a recording is automatically loaded in the Plug-in and ready to be played.
- If you are using the Audio plug-in:
  - The last take will automatically play back.

The name and length of the displayed Sample are indicated above the waveform. When the Sample is played back, a playhead indicator (vertical line) shows you the current play position within the waveform.

The recorded Sample is shown on the right display.
You can set the Playback mode, the Engine mode and Source Tempo and Length.

Press Button 6 (DELETE) to delete the selected take.

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).

Sample Editing can only be done in the Sampler Plug-in, not using the Audio Plug-in. If you want to delete a sample in the Audio Plug-in, you must first switch it to a Sampler Plug-in, or make the edit first in the Audio Plug-in, not using the Sampler Plug-in.

17.2.7 Location and Name of Your Recorded Samples

By default, 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 Slice or of a Sample or 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 delete a sample in the Audio Plug-in, you must first switch it to a Sampler Plug-in, or make the edit first in the Audio Plug-in, not using the Sampler Plug-in.

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Sample Editing can only be done in the Sampler Plug-in, not using the Audio Plug-in. If you want to delete a sample in the Audio Plug-in, you must first switch it to a Sampler Plug-in, or make the edit first in the Audio Plug-in, not using the Sampler Plug-in.

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).

17.2.7 Location and Name of Your Recorded Samples

By default, recorded Samples (takes) are saved in the Recordings subfolder of your 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 Slice or of a Sample or 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 delete a sample in the Audio Plug-in, you must first switch it to a Sampler Plug-in, or make the edit first in the Audio Plug-in, not using the Sampler Plug-in.
The Edit page looks as follows:

- In the Sample Editor, click the Edit tab at the top to open the Edit page.

17.3.1 | Using the Edit Page

More information on slicing samples:
- 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.
- If you have just recorded a Sample, it will directly appear here. If you have recorded more than one Sample, the Sample selected in the Recording History by default will appear here. See section "17.2.6, Checking Your Recordings" for more information on the Recording History.

For example:
- If you have just recorded a Sample, it will directly appear here. If you have recorded more than one Sample, the Sample selected in the Recording History by default will appear here. See section "17.2.6, Checking Your Recordings" for more information on the Recording History.

Which Sample Is Shown in the Edit Page?
The Edit page in the software.

Waveform display

Shows the waveform of the Sample for the focused Zone. The waveform display provides the following tools:

- **Drag any Sample onto the waveform** to replace the current Sample for the focused Zone.
- **Use the scroll wheel of your mouse to zoom in/out**. You can also use the zooming scroll bar.
- **Play range**: The S and E markers indicate the start and end points of the play range. To modify the portion of the Sample that will be played back, drag them with the mouse. 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.

Sampling and Sample Mapping

Editing a Sample

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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, the loop, if defined, will shrink accordingly.

When the Sample is played back (e.g., by pressing a pad or by clicking the little play icon in the information bar), a playhead indicator (white vertical line) shows you the current play position within the waveform.

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 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.

### Context menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deselect</td>
<td>Cancels the current selection range.</td>
</tr>
<tr>
<td>Select All</td>
<td>Selects the entire Sample.</td>
</tr>
<tr>
<td>Select Play Range</td>
<td>Selects the play range, i.e., the region between the S and E markers. This is equivalent to double-clicking anywhere in the waveform.</td>
</tr>
<tr>
<td>Select Loop</td>
<td>Selects the loop range.</td>
</tr>
<tr>
<td>Open containing folder</td>
<td>Opens the folder on your hard disk containing the Sample, providing quick access to the original file.</td>
</tr>
<tr>
<td>Save Sample As</td>
<td>Opens a Save Sample As dialog allowing to save the Sample under another name and/or to another location on your computer.</td>
</tr>
</tbody>
</table>

### Selection Range

- **Selection Range:** Click and drag your mouse to create a selection range within the waveform.

- **Selection Range:** The little play icon in the information bar is a playhead indicator (white vertical line) showing where the Sample is played back (e.g., by pressing the pad or by clicking).

- **Playhead indicator:** When the Sample is played back, the playhead indicator moves along the waveform.

- **Selection and Editing Zones in the Map View:** In the Map View, loops can be created and adjusted in the Zone page — see section 17.5.4, Selecting and Editing Zones in the Map View. You can also adjust the loop by dragging its borders, and move the entire loop by dragging its title 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.

Timeline (3) Shows the time scale in seconds.

Zooming scroll bar (4) zoom in/out.

1) Audio Toolbar

(7) Audio Toolbar

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 range. The range 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. Alternatively you can use the scroll wheel of your mouse when hovering the waveform on the horizontal axis (time) or drag it vertically to zoom in/out on the same time range.

(6) Selection range section

Adjust the range to which audio processing functions will be applied. You can also select the range by dragging your mouse on the waveform display as described above.

(5) Play range section

Adjust 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) as described above.

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.
In Sampling mode, press Button 2 to access the EDIT page.

The parameters available at the bottom of the left display are spread over two pages:

- Use the Page buttons on the left of the displays to select the desired page.
- Turn Knob 5 to zoom in on the waveform of the Sample and Knob 6 to scroll through it.
- Above the waveform, the information bar indicates the name and length of the Sample:
- The right display shows the waveform of the selected Sample.

The parameters in the PLAY RANGE section allow you to adjust the range that will be played back when you trigger a note:

- Use the Page buttons on the left of the displays to select the desired page.
- The parameters available at the bottom of the left display are spread over two pages.
- Turn Knob 5 to zoom in on the waveform of the Sample and Knob 6 to scroll through it.
- Above the waveform, the information bar indicates the name and length of the Sample:
- The right display shows the waveform of the selected Sample.
The EDIT page on the controller, page 1 of 2: adjusting the play range of the Sample.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>START (Knob 1)</td>
<td>Adjusts the start point of the play range in the Sample.</td>
</tr>
<tr>
<td>END (Knob 2)</td>
<td>Adjusts the end point of the play range in the Sample.</td>
</tr>
</tbody>
</table>

Hold SHIFT when turning the knobs to adjust the parameters in finer increments.

In the waveform on the right display, the regions outside the play range are grayed out.

The parameters in the SELECTION RANGE section allow you to adjust the range to which audio processing functions will be applied.

---

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 play range. Therefore, when moving the Sample start and end positions closer to each other, keep in mind that it might also shrink the loop!

---

Page 2 – SELECTION RANGE Parameters

Sampling and Sample Mapping
### Editing Functions

17.3.2, Audio Editing Functions

The **EDIT** page on the controller, page 2 of 2, provides several audio editing functions to process your Sample. Available via Button 5–8 above the right display, these functions are described in detail in the next section. 

The **EDIT** page provides several audio editing functions to process your Sample. Available via Button 5–8 above the right display, these functions are described in detail in the next section.

#### Table: Editing Functions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>START</strong> (Knob 1)</td>
<td>Adjusts the start point of the selection range in the Sample.</td>
</tr>
<tr>
<td><strong>END</strong> (Knob 2)</td>
<td>Adjusts the end point of the selection range in the Sample.</td>
</tr>
</tbody>
</table>

### Audio Editing

#### Using the Edit Page

On the right display, the selection range is highlighted.

Changing the play range automatically resets the selection range to the new play range.

Hold **SHIFT** when turning the Knobs to adjust the parameters in finer increments.
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 provides following audio processing functions:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRUNCATE</strong></td>
<td>This deletes the part of the Sample that is outside of the selected region.</td>
</tr>
<tr>
<td><strong>FADE IN</strong></td>
<td>This applies a fade in to the selected region of the Sample.</td>
</tr>
<tr>
<td><strong>FADE OUT</strong></td>
<td>This applies a fade out to the selected region of the Sample.</td>
</tr>
<tr>
<td><strong>REVERSE</strong></td>
<td>This reverses the selected region of the Sample.</td>
</tr>
<tr>
<td><strong>NORMALIZE</strong></td>
<td>This adjusts the level of the selected region to the maximum possible value without clipping. This adjusts the level of the selected region to the maximum possible value. 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.</td>
</tr>
<tr>
<td><strong>SILENCE</strong></td>
<td>This silences the selected region of the Sample.</td>
</tr>
<tr>
<td><strong>CUT</strong></td>
<td>This deletes the selected region from the Sample and places it into the clipboard for later use.</td>
</tr>
</tbody>
</table>

The Audio Toolbar provides the following audio processing functions:
### Command Description

**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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUNE</td>
<td>Adjusts the detuning (pitch shifting) to be applied (in semitones and cents). Leave this value to 0.00 to leave the original pitch untouched.</td>
</tr>
<tr>
<td>FORMANT C</td>
<td>Enables/disables 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.</td>
</tr>
</tbody>
</table>

### Sampling and Sample Mapping

**Editing a Sample**

When you select **STRETCH** in the Audio Toolbar, the bottom of the Edit page switches to the

Time Stretching / Pitch Shifting

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRETCH</td>
<td>This allows you to apply time stretching and/or pitch shifting to the selected region of the Sample. See below for a detailed description.</td>
</tr>
<tr>
<td>DUPL.</td>
<td>This duplicates the selected region of the Sample. The copy is placed right after the original region.</td>
</tr>
<tr>
<td>PASTE</td>
<td>This pastes the cut/copied region of the Sample, replacing the region of the Sample currently selected.</td>
</tr>
<tr>
<td>COPY</td>
<td>This copies the selected region of the Sample to the clipboard for later use.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Parameter** | **Description**
--- | ---
**MODE** | Selects between **Beat** and **Free** mode:
- **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 want to time-align a loop with a clearly defined rhythm (e.g., a drum loop).
- **Free** mode: the new tempo is defined independently from the time signature. This is more suitable for non-rhythmic samples.

**NEW BPM** | Defines the target tempo of the time-shifted audio (in BPM). This tempo is defined in different ways according to the **AUTO DETC** value:
- If **AUTO DETC** is enabled, you can set the length (in bars) of the original audio. You can choose between 1, 2, 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 DETC** is disabled, you can directly define the tempo of the original audio (in BPM).

**SRC BPM** | Allows to define the tempo of the original audio (in BPM). This tempo is derived from the number of bars you have set and the computed tempo value. If **AUTO DETC** is enabled, you can set the length (in bars) of the original audio. You can choose between 1, 2, 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.

**AUTO DETC** (Auto) | If **AUTO DETC** is enabled, MASCHINE automatically detects the tempo of the original audio.

**SPEED** (Beat mode only) | If **AUTO DETC** is disabled, you can directly define the tempo of the original audio (in BPM).
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LENGTH</td>
<td>(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, 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.</td>
</tr>
<tr>
<td>SPEED</td>
<td>(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.</td>
</tr>
<tr>
<td>LENGTH</td>
<td>(Stretch mode only) With Auto Detection 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, thereby dividing or multiplying the tempo of the target audio.</td>
</tr>
</tbody>
</table>

Audio Editing Functions on the Controller

Audio Editing Functions on the right display of the controller.

1. Use Button 5 and 6 to select the desired audio function.

2. Use Button 7 to toggle between Beat and Free mode.

3. Use Button 8 to enable or disable Auto Detection.

4. Use Button 9 to adjust the new tempo relative to the original tempo (in percentage).

5. Use Button 10 to stretch the audio to fit the selected region in the Sample, or Cancel to let the stretching and/or time stretching to the selected region in the Sample.

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.
2. Press Button 8 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! For more information, see section 17.5.4, Selecting and Editing Zones in the Map View.

Available functions are:

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUT</td>
<td>This deletes the selected region from the Sample.</td>
</tr>
<tr>
<td>SILENCE</td>
<td>This silences the selected region of the Sample.</td>
</tr>
<tr>
<td>FIX DC</td>
<td>This removes the DC offset. DC offset (&quot;Direct Current offset&quot;) is an undesired 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.</td>
</tr>
<tr>
<td>FADE IN</td>
<td>This applies a fade in to the selected region of the Sample.</td>
</tr>
<tr>
<td>FADE OUT</td>
<td>This applies a fade out to the selected region of the Sample.</td>
</tr>
<tr>
<td>REVERSE</td>
<td>This reverses the selected region of the Sample.</td>
</tr>
<tr>
<td>TRUNCATE</td>
<td>This deletes the part of the Sample that is outside of the selected region.</td>
</tr>
<tr>
<td>NORMALIZE</td>
<td>This adjusts the level of the selected region to the maximum possible value without clipping.</td>
</tr>
</tbody>
</table>

The playback settings of the Sample (e.g., tune, amplitude envelope, etc.) can be adjusted on the ZONE page. 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!
Parameter Description
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 currently selected.
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. Use Knob 1–8 to adjust the parameters. Pitch shifting and time stretching can be applied independently.

Time Stretching / Pitch Shifting

<table>
<thead>
<tr>
<th>Description</th>
<th>Knob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected region of the sample</td>
<td>STRETCH</td>
</tr>
<tr>
<td>Time allows you to apply time stretching and pitch shifting to the selected region of the Sample. The copy is placed right after the original region.</td>
<td>DOPPLICATE</td>
</tr>
<tr>
<td>This duplicates the selected region of the Sample.</td>
<td>PASTE</td>
</tr>
<tr>
<td>This passes the cut/copied region of the Sample, replacing the region currently selected.</td>
<td>COPY</td>
</tr>
<tr>
<td>This copies the selected region of the Sample to the clipboard for later use.</td>
<td>FRAMEWER</td>
</tr>
</tbody>
</table>

Sampling and Sample Mapping
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRETCH</td>
<td>Description</td>
</tr>
<tr>
<td>TUNE</td>
<td>Adjusts the detuning (pitch shifting) to be applied (in semitones and cents). Leave this value to 0.00 to leave the original pitch untouched.</td>
</tr>
<tr>
<td>FORMANT C</td>
<td>Enables/disables the formant correction. Formant correction allows the pitch-shifted audio to retain the timbre (or „color“) of the original audio.</td>
</tr>
<tr>
<td>MODE</td>
<td>Selects from the two available time shifting modes.</td>
</tr>
<tr>
<td></td>
<td><strong>BEAT</strong>: In Beat mode, the new tempo is defined relative to the time signature of the source. In this mode, the new tempo is defined independently from the length of the original audio.</td>
</tr>
<tr>
<td></td>
<td><strong>FREE</strong>: In Free mode, the new tempo is defined independently from the time signature of the source, and can be useful for non-rhythmic samples, e.g., a drum loop.</td>
</tr>
<tr>
<td>SRC BPM</td>
<td>Sources the tempo of the original audio.</td>
</tr>
<tr>
<td>AUTO DTCT</td>
<td>If enabled, MASCINE automatically detects the tempo of the original audio.</td>
</tr>
<tr>
<td></td>
<td>If disabled, you can directly define the tempo of the original audio (in BPM).</td>
</tr>
</tbody>
</table>

**Sampling and Sample Mapping**

**Editing a Sample**

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### 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 selected region in the Sample, or to different Sounds of the same Group.

### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW BPM</td>
<td>Defines the target tempo of the time-shifted audio (in BPM).</td>
</tr>
<tr>
<td>LENGTH</td>
<td>If AUTO DTCT is enabled, defines 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 LENTGH value. Once LENTGH is set, you can define the length of the target audio. (Beat mode only)</td>
</tr>
<tr>
<td>SPEED</td>
<td>Adjusts the new tempo relative to the original tempo (in percentage). The minimum value is 10% (Free mode only).</td>
</tr>
<tr>
<td>BEAT</td>
<td>(Beat mode only) Deletion 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 LENTGH value. Once LENTGH is set, you can define the length of the target audio.</td>
</tr>
</tbody>
</table>

Once you have set the parameters to the desired values, press Button 8 (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 Button 7 (SETTINGS) again to switch back to the audio function selection.
1. Open the Slice page (SLICE page on the controller):
   In the Sample Editor, click the Slice tab at the top to open the Slice page.
   In the software, slicing a Sample is done in the Slice page of the Sample Editor.

17.4.1 Opening the Slice Page

The Slice page looks as follows:
• In the browser or from your operating system, it will then appear on the page and replace any Sample already loaded in that Sound.
• You can also drag a Sample onto the focused Sound slot or directly to the Slice page from the browser or from the Browser or from your operating system.
• 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.

17.4.2 Adjusting the Slicing Settings

Choose a method for slicing along with a few settings depending on the chosen method:
• If you wish, manually adjust the proposed Slices:

17.4.4 Manually Adjusting Your Slices

3. If you wish, manually adjust the proposed Slices:
• Adjusting the Slicing Settings:

17.4.5 Applying the Slicing

4. Apply the slicing to your Sample and export the Slices — whether in place or to another Sound/Group:

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 the particular Sample selected in the Recording History (by default the last recorded Sample). If you have just recorded a Sample, it will directly appear here. If you have recorded more Samples, you can also choose one from the Recording History. The Slice page is always displayed in the Sample Editor (where you can click the Slice tab to open the Slice page).
In Sampling mode, press Button 3 to access the SLICE page.

Opening the SLICE Page on Your Controller

Slicing a Sample

Sampling and Sample Mapping
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 the bottom of the Slice page, you can adjust the settings used to define where the various Slices will be created in the Sample.

Following parameters are available:

### SLICE Section

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>Here you can select either Split, Grid, Detect or Manual:</td>
</tr>
<tr>
<td></td>
<td>Detect mode: The Sample will be sliced according to its transients.</td>
</tr>
<tr>
<td></td>
<td>Split mode: The Sample will be sliced into equally spread Slices.</td>
</tr>
<tr>
<td></td>
<td>Grid mode: The Sample will be sliced according to note values.</td>
</tr>
<tr>
<td></td>
<td>Manual mode: Manually enter slice points using the pads on your controller, or adjust the start and end points of a slice.</td>
</tr>
<tr>
<td>SLICES</td>
<td>When MODE is set to Split (see above), SLICES lets you choose the amount of Slices: 4, 8, 16 or 32.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

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.
## Parameter Description

### 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. Occasionally, some transients may be missed, especially when you trigger them from the pads. It can be turned off so that slice points are placed exactly where you trigger them from the pads.

### SENSITIVITY
*(Detect mode only)*

When **MODE** is set to **Detect**, 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 cause more slices to be detected because fewer transients will be detected. The **SENSITIVITY** parameter affects the sensitivity of the transient detection. Higher values will detect more transients, while lower values will detect fewer.

### 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 audio files triggered simultaneously. When Mono is selected and the slices are applied to a Group, the sampler polyphony is automatically set to 1 so any one sample trigger or retrigger of the same time when you don’t want to have lots of patterns. When Mono is selected and the slices are applied to a Group, the sample polyphony is automatically set to 1 so only one pattern is played at a time. The Choke Group is also automatically set to 1 so all previous one-by-one cancellation is out. This behavior can be found on vintage drum machines (specifically used to create the open/hot transient effect) 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 only specify the tempo of the current pad that is hit. The tempo is then set to the tempo of the hit pad. This parameter is only available when the BPM control is set to **BPM Mode**. The BPM control is also automatically set to 0 so only one voice will play at a time. The Choke Group is also automatically set to 1 so any one pattern is played at a time. The Choke Group is also automatically set to 1 so all previous one-by-one cancellation is out. This behavior can be found on vintage drum machines (specifically used to create the open/hot transient effect) that are only capable of playing one note at a time.
### Adjusting the Slicing Settings on the Controller

At the bottom of the left display, you can adjust the settings used to define where the various Slices will be created in the Sample.

Any change to these settings will directly affect the number and position of the Slice markers shown in the waveform on the displays.

Adjust the slicing settings via Knobs 1–4.

### Selecting and Pre-listening the Slices with the Pads

Any Slice can be selected in the Sample. 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.

Selecting any slice automatically selects the slice on the Cue bus (see section 13.2.6, Using the Cue Bus for more information).

Press any fully lit pad to play back the corresponding Slice on the Cue bus (see section 13.2.6, Using the Cue Bus).

### Sampling and Sample Mapping

#### Slicing a Sample

Press any fully lit pad to play back the corresponding Slice on the Cue bus (see section 13.2.6, Using the Cue Bus).

#### Sampling and Sample Mapping

<table>
<thead>
<tr>
<th>Description</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUST</td>
<td>If BPM is set to Auto, you can choose between the tempo that MASCHINE detects, or half or double of that tempo. If BPM is set to MANUAL, you can adjust the tempo manually.</td>
</tr>
<tr>
<td>ENGINE Section (Detect mode only)</td>
<td>ZERO-X (Crossing, Detect mode)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINE Section (Detect mode only)</td>
<td></td>
</tr>
</tbody>
</table>

#### Adjusting the Slicing Settings on the Controller

<table>
<thead>
<tr>
<th>Description</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUST</td>
<td>If BPM is set to Auto, you can choose between the tempo that MASCHINE detects, or half or double of that tempo. If BPM is set to MANUAL, you can adjust the tempo manually.</td>
</tr>
<tr>
<td>ENGINE Section</td>
<td></td>
</tr>
</tbody>
</table>

#### Selecting and Pre-listening the Slices with the Pads

Any Slice can be selected in the Sample. 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.

Selecting any slice automatically selects the slice on the Cue bus (see section 13.2.6, Using the Cue Bus).
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:

- **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, and edit the start and end points of a slice.

Slicing Parameters

Following parameters are available:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME Section</td>
<td>MODE</td>
</tr>
<tr>
<td>TIME Section</td>
<td>SLICES (Split and Grid mode only)</td>
</tr>
</tbody>
</table>

- **SLICES**
  - When MODE is set to GRID (see above), SLICES lets you choose the amount of Slices: 4, 8, 16, or 32.
  - When MODE is set to SPLIT (see above), SLICES lets you choose the length of the Slices in note values: 4th, 8th, 16th, or 32nd notes.

**Sampling and Sample Mapping**

**Slicing a Sample**

**Sampling and Sample Mapping**
### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parameter</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>AUTO-SNAP</td>
<td>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 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.</td>
</tr>
<tr>
<td>SENSITIVITY</td>
<td>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 detected, lower values will cause fewer Slices to be detected because fewer transients will be detected. This parameter should be adjusted until all the musically significant slices are being detected in the waveform.</td>
</tr>
<tr>
<td>BPM (BPM Mode)</td>
<td>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. If BPM is set to AUTO, you can choose between the tempo that was detected in the waveform or a multiple of that tempo.</td>
</tr>
<tr>
<td>ADJUST</td>
<td>If BPM is set to AUTO, you can adjust the tempo manually. When MODE is set to MANUAL, you can adjust the tempo manually.</td>
</tr>
<tr>
<td>ENGINE</td>
<td>When MODE is set to DETECT, a second section of parameters is available at the bottom of the Engine section.</td>
</tr>
</tbody>
</table>

#### Sampling and Sample Mapping

**Slicing a Sample**

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 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. You may wish to use the engine feature instead of Snap when you trigger exactly where you intend to slice. In order to use Auto-Snap, instead of Snap, you must set the Snap to the moment where you intend to slice. Then, if the engine feature is enabled, it will align Slice points to the nearest transient so you manually trigger Slice points to the nearest transient as you manually trigger the slicing from the pads. If the engine feature is disabled, it will align Slice points to the nearest transient so you manually trigger Slice points manually.
The **ENGINE** section contains a single parameter: **ZERO-X**.

### Parameter Description

<table>
<thead>
<tr>
<th>Engine Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ZERO-X</strong></td>
<td>(Zero Crossing, Detect mode only)</td>
</tr>
</tbody>
</table>

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 the Controller

1. Press the **SAMPLING** button to enter the Sampling page.

---

**Live Slicing is only available from your MASCHINE controller.**

**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 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 the Controller

1. Press the **SAMPLING** button to enter the Sampling page.
2. Press Button 3 to select SLICE to open the SLICE tab.
3. Turn Knob 1 to select Manual mode.
4. Press Button 3 to select SLICE to enter the Slice mode.
5. Press the SAMPLING button to enter the Sampler.

To delete all slices from a sample:

Use the DELETE ALL option to delete all slices at once from a sample.

All slices are deleted from the current sample.

5. Press Button 8 to select DELETE ALL to delete all slices.
4. Press Button 4 to select EDIT.
3. Turn Knob 1 to select Manual mode.
2. Press Button 3 to select SLICE to open the SLICE tab.

When playback of the sample stops you may fine-tune the start and end points of your slices by entering EDIT mode. When playback of the sample stops you may fine-tune the start and end points of your sample.

5. Continue to press subsequent pads as they flash to add more slices.
4. Press Pad 2 to add the second slice point.
3. Turn Knob 1 to select Manual mode.
2. Press Button 3 to select SLICE to open the SLICE tab.

Press SHIFT + MUTE if you want to stop playback of a long sample.

Press SHIFT + Button 7 and 8 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.

To delete all slices:
1. Press the SAMPLING button to enter the Sampler.
2. Press Button 3 to select SLICE to enter the Slice mode.
3. Turn Knob 1 to select Manual mode.
4. Press Button 4 to select EDIT.
5. Press Button 8 to select DELETE 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 button 4 EDIT to return to Edit mode.
3. Press button 8 to select DELETE ALL to delete all Slices.
4. Press button 4 EDIT to exit Edit Mode.
5. Press 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 above. You can also adjust Slices manually using Manual modes that create Slices automatically (see 17.4.2, Adjusting the Slicing Settings above).

Manual

and fine-adjust these Slices manually — in that case the MODE selector automatically switches to Manual. You can directly adjust your Slices manually by selecting Manual in the MODE selector.
Manually adjusting your Slices.

(1) Waveform display

- **Context menu**: Right-click (macOS: [Ctrl]-click) anywhere in a Slice to open a context menu with the following commands:
  - **Go to the Sample**: Click the waveform to select the Sample.
  - **Zoom to the selected Slice**: Click the waveform to zoom in on the selected Slice.

- **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.
  - **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.

- Show 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).
**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 borders' 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.
  - If the end point of the previous Slice and the start point of the next Slice are joined, drag the borders' vertical line to move both the end point of the previous Slice and the start point of the next Slice independently.

---

**Sampling and Sample Mapping**

**Slicing a Sample**

**Sampling and Sample Mapping**

---

**Zooming scroll bar**

- Click the main part of the scroll bar and drag your mouse horizontally to zoom through the waveform on the horizontal axis (time). You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out on this time axis.

---

**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.
Timeline
Shows the time scale in seconds.

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 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 between single-channel and two-channel display.

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 pre- corresponding part of the Sample is grayed out and won’t be exported as Slice.
  - 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.

The three buttons in the edit tools allow you to add or remove Slices.

Sampling and Sample Mapping
Slicing a Sample
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.

1. In SLICE mode:
2. Press the right page button to access Page 2 Edit.
3. Turn Knob 1 to select a slice to edit.
4. Turn Knob 3 to trim the start of the selected slice.
5. Turn Knob 4 to trim the end of the selected slice.
6. Press Button 8 to apply the slice.

After creating slices in Live Slice mode (refer to 17.4.3, Live Slicing) use the following steps to edit them:

Your controller provides a dedicated Slice Edit mode that allows you to select and fine-tune each particular slice.
**Slicer Page**

Select the Slicer edit mode.

**AUTO-SNAP**

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 placed exactly where you trigger them. In order to use Auto-Snap, you must wait for analysis to be performed on the sample. This time-saving feature is useful when you don’t want to have lots of slice points in your sample.

**Edit Page**

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. Hold **SHIFT** to adjust the parameter in finer increments. 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. If the start point of the slice is not located on a transient, press **SHIFT** to adjust the parameter in finer increments. If the slice points overlap, move the slice points simultaneously so that the slices stay joined.

**END**

Adjusts the end point of the selected slice. Hold **SHIFT** to adjust the parameter in finer increments. Note that moving the end point of a slice does not simultaneously move the start point of the slice, so that both slice points stay joined.

**Apply Page**

The Mono option when activated automatically sets the voice and choke group of all sample slices to 1 when slicing to a Group.

**MONO**

The Mono option when activated automatically sets the voice and choke group of all sample slices to 1 when slicing to a Group.

**Sampling and Sample Mapping**

**Slicing a Sample**

When slicing a sample, you slice a drum loop and trigger the individual hits to form a new samples. This can be used for creating loops, but is also useful when you want to have lots of slice points in your sample. When slicing a sample, you must wait for analysis to be performed on the sample, which will take longer for long audio files. The sample slicer manual mode Auto-Snap feature automatically aligns slice points to the nearest transient so that manually triggered slices stay joined.
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.

**Slicing a Sample**

Slicing a Sample

**Sampling and Sample Mapping**

**Parameter**

**Description**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPM</td>
<td>Available when Create or Replace is selected in the Pattern parameter. 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.</td>
</tr>
</tbody>
</table>
Once you are satisfied with the proposed 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:

1. **Apply button**

   You can apply the Slices in various ways.

   - **Apply button**: Click this button and the Slices will be mapped to the individual notes of the 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 the Slices as Samples.

2. **Slice Dragger**

   Drag the Slice Dragger to export the Slices to any other Sound or Group. Some notes can be automatically created for each Slice (see below).

   Depending on the setting of the Pattern Creation selector, some notes can be automatically created for each Slice. The Sample Editor will be replaced by the Pattern Editor in Keyboard view.

3. **Export to Sound**: If you click the Export button while you have selected a 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 the Slices as Samples.
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 (if Slices are exported to a Sound) or one note for each Sound (if Slices are exported to a Group) and when using the Slice Dragger these will be used both when clicking the Apply button (1) and when using the Slice Dragger.

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.
- The Sample Editor will be replaced by the Pattern Editor in Group view.
- 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 (if Slices are exported to a Sound) or one note for each Sound (if Slices are exported to a Group) and when using the Slice Dragger these will be used both when clicking the Apply button (1) and when using the Slice Dragger.

Pattern Creation selector

(3) Pattern Creation selector

calys created for each Slice (see below).
- Depending on the setting of the Pattern Creation selector (3), notes will be automatically created for each Slice (see below).
- The pads of your controller will switch to Group mode so that you can directly play your Slices on the pads.
- The Sample Editor will be replaced by the Pattern Editor in Group view.
- The Sample Editor will be replaced by the Pattern Editor in Keyboard view.
- Depending on the setting of the Pattern Creation selector (3), notes will be automatically created for each Slice (see below).
- The pads of your controller will switch to Group mode so that you can directly play your Slices on the pads.
- The Sample Editor will be replaced by the Pattern Editor in Group view.
- The Sample Editor will be replaced by the Pattern Editor in Keyboard view.
- The Slices will be mapped to individual Sounds, 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.
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 containing a Slice, any existing notes for that Sound will be replaced. Notes for other Sounds in pitch will stay untouched.
- If Slices are exported to a Group containing a Slice, any existing notes for that Group will be replaced. Notes for other Sounds in pitch will stay untouched.
- If Slices are exported to a Group, the sequence of notes will contain one note for each Slice.
- If Slices are exported to a Sound, the sequence of notes will contain one note for each Slice.
- No Pattern: No Pattern is created, and the current Pattern is left untouched.

The loop automatically adjusts to the new tempo. If you change the tempo of your Project, you will hear that the loop reproduces the original, unsliced Sample with correct timing and pitch. Any existing notes for other Sounds in pitch will stay untouched.

You can also export an individual Slice to another Sound by drag-and-drop:

Slicing a Sample

**Exporting Single Slices**

You can also export an individual Slice to another Sound by drag-and-drop:

Slicing a Sample

**Sample and Sample Mapping**
Dragging an individual Slice to another Sound.

Applying a Sliced Sample to a Sound

If you drag a Slice to a Sound in a Group where you have not yet loaded anything, this Slice will be applied to the first Sound slot of that Group. Any Sound loaded in that Sound slot will be replaced.

Dragging an individual Slice to another Sound.

Applying a Sliced Sample to a Sound

When applying a sliced sample to a Sound in a Group, the root note of that Sound will be replaced.

Sampling and Sample Mapping

Slicing a Sample
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 right display:

1. Press Button 8 (APPLY…). The selected Group button starts flashing and the corresponding Group is highlighted on the left display. The pads now represent the Sound slots of that Group.

2. Select the target Sound by pressing its pad. The Group button stops flashing, the selected pad starts flashing to indicate that it is now the target.

Choosing a Destination for the Slices

In this Selection mode, you can choose to export the Slices to any Sound or Group in your Project.

1. Select the Group containing the target Sound by pressing its Group button A–H. If your Project has more than eight Groups, you can use Button 3 and 4 to first select the desired Group bank.

To export the Slices to a Sound:

In this Selection mode, you can choose to export the Slices to a Sound or to a Group.

Selecting a target for the exported Slices.

The displays switch to a Selection mode allowing you to choose a destination for the exported Slices.

Press Button 8 (APPLY…) to export the Slices to any Sound or Group in your Project.
3. Press Button 8 (OK) 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). Any previous content in the Sound will be deleted. 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 below for more information).

To cancel the export at any time you can press Button 7 (CANCEL). To cancel the export and return to the SLICE page, press Button 7 (CANCEL) to cancel the export and return to the Slice page.

Instead of exporting all Slices, you can also export the selected Slice only:

**Exporting a Single Slice**

1. Press Button 7 (APPLY TO).

The controller switches to the Selection mode described above.

2. Press Button 5 (SINGLE) to export the selected Slice only.

3. Choose the target Sound or Group as described above.

The controller switches to the Selection mode described above.

The selected Group button starts flashing and the corresponding Group is highlighted on the left display.

1. Select the desired Group by pressing its Group button A–H. If your Project has more than eight Groups, you can use Button 3 and 4 to first select the desired Group bank.

2. Press Button 8 (OK) 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 above for more information).
4. Press Button 8 (APPLY) to export the selected Slices.

Mapping Slices to Zones

4. Press Button 8 (APPLY) to export the selected Slices.

Mapping is done in the Zone page of the Sample Editor.

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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings for each Sample independently.

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.

Short of the Sound, the Sample of each Zone individually. The set of all Zones define the Sample Map (or “map” for short). The Zones can overlap, allowing you to trigger different Samples at once or trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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 trigger different Samples depending on how hard you hit the pads. You can adjust various playback settings 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.
Opening the ZONE Page on Your Controller

In Sampling mode, press button 4 to access the ZONE page.

Mapping Samples to Zones

Mapping and Sample Mapping
The Zone page: an overview.

1. Zone List button: Shows/hides the Zone List.
2. Sample View button: Switches the Zone page between Map view and Sample view.
3. Information bar: Displays the file name and the length of the Sample in the focused Zone.
4. Zone List: Shows all Zones in a list. The Zone List can be shown/hidden by clicking the Zone List button.
5. Map view / Sample view: The Map view is the default view (pictured above). It shows and lets you edit all Zones contained in your Sound. The Sample view shows the waveform of the Sample for the focused Zone and lets you edit some of its settings. Click the Sample View button to switch from one view to the other.
6. Map view: The default view (pictured above). It shows and lets you edit all Zones contained in your Sound.
You can add a new Zone to the Zone List in two ways:

### Adding a New Zone to the Zone List

1. **Click the Zone List button next to the Slice tab to show/hide the Zone List.**
2. **The Zone List allows you to add, remove, replace, select, and reorder Zones in the list.**

### The Zone List in the Zone Page

The Zone List shows all Zones of the focused Sound.

### Adding a New Zone to the Zone List

You can add a new Zone to the Zone List in two ways:

1. **Sampling and Sample Mapping**
2. **Mapping Samples to Zones**

### Selecting and Managing Zones in the Zone List

You can adjust the width of the Zone List by dragging its right border.

### The Zone List in the Zone Page

The Zone List shows all Zones of the focused Sound.

### Mapping Samples to Zones

### Sample View

Sample view is enabled. The Map and Sample views are explained in detail in the section on 17.5.4, Selecting and Editing Zones in the Sample View. The Map and Sample views are explained in detail in section 17.5.3, Selecting and Managing Zones in the Zone List.
Drag a Sample from the Browser’s LIBRARY or FILES pane or from your operating system onto the empty area in the Zone List.

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.
- Click the “+” at the end of the Zone List.

A new Zone is created at the end of the list containing the dragged or selected Sample.

Replace 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 empty area in the Zone List.
- Click the “+” at the end of the Zone List.

A Load Sample dialog opens up.

Navigate to the desired audio file on your operating system and press [Enter] to confirm.

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.

You can drag and drop several Samples at once: it will create as many new Zones!
1. Right-click ([Ctrl]-click on macOS) the desired entry in the Zone List and select \textit{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 \textbf{[Enter]} to confirm. The dragged or selected Sample replaced the previous Sample in the target Zone.

\textbf{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 set.
- The focused Zone is displayed in the Slice page and its settings appear in the Zone settings as well as on the Edit and Slice pages.
- The focused Zone is displayed in the Sample view and its settings appear in the Zone set.
- The focused Zone gets highlighted in color both in the list and in the Map view (if visible).

\textbf{Selecting a Zone in the List}

- The dragged or selected Sample replaced the previous Sample in the target Zone.

\textbf{Sampling and Sample Mapping}

\textit{Mapping Samples to Zones}
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).

### Deleting Zones from the List

<table>
<thead>
<tr>
<th>Command</th>
<th>Mouse/Keyboard Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press [Ctrl]+[A] ([Cmd]+[A] on macOS) or [Shift]+[A]</td>
<td>Selects/deselects all Zones in the list. When deselected, only the focused Zone remains selected.</td>
</tr>
<tr>
<td>Hold [Shift] and click two entries</td>
<td>Selects all Zones and all Zones in between.</td>
</tr>
<tr>
<td>Hold [Ctrl] ([Cmd] on macOS) and click several entries</td>
<td>Deselects all clicked Zones, click a selected Zone to select/deselect all Zones in the Zone List.</td>
</tr>
<tr>
<td>Hold [Ctrl] ([Cmd] on macOS)</td>
<td>Deselects all Zones in the list.</td>
</tr>
</tbody>
</table>

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.

### Multiple Selection

- Right-click ([Ctrl]-click on macOS) any of the selected Zones.

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.

A menu opens up.
In the menu select Delete to remove the focused Zone only, or Delete Selected to remove all selected Zones.

You can select and remove Zones on your controller.

Selecting Zones on Your Controller

- On the ZONE page of Sampling mode, press Button 7 (PREVIOUS) or 8 (NEXT) to set the focus to the previous or next Zone in the Zone List, respectively.

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.
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

- On the ZONE page of Sampling mode, press Button 7 (PREVIOUS) or 8 (NEXT) to set the focus to the previous or next Zone in the Zone List, respectively.

The waveform of the Sample is the focused Zone appears on the right display, and the Zone settings appear at the bottom of the left display.

The selected Zone(s) to this new place.

3. When the insertion line indicates the desired location, release the mouse button to drop the selected Zones.

Moving Zones in the List

You can move 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.
3. When the insertion line indicates the desired location, release the mouse button to drop the selected Zones.

In that menu selects Delete to remove the focused Zone only, or Delete Selected to remove all selected Zones.
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 Cue channel, please refer to section 13.2.6, Using the Cue Bus.

Removing a Zone

On the ZONE page of Sampling mode, press Button 5 (REMOVE) to remove the focused Zone from the Sound.

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.

Removing a Zone automatically deselects any other Zone, the focused Zone now being the only selected Zone.

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 Map view of the Zone page.

On the available selection and edit commands in the Map:

1. **Sampling and Sample Mapping**
   - The Map view shows all Zones contained in your Sound.

2. **Mapping Samples to Zones**
   - The Sample Map shows all Zones contained in your Sound.
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.

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.

Horizontal zooming scroll bar

Click the main part of the scroll bar and drag your mouse horizontally to zoom in/out while keeping the opposite border of the display at a fix position in the Sample Map.

Vertical zooming scroll bar

Click the main part of the scroll bar and drag your mouse vertically to zoom in/out along the vertical axis (velocity) of the Sample Map.

Available Actions in the Map

You can select and edit Zones with your mouse and your keyboard in the Map. Following actions are available:

<table>
<thead>
<tr>
<th>Mouse/Keyboard Action</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection Commands</td>
<td></td>
</tr>
<tr>
<td>Click a Zone</td>
<td>Puts this Zone under focus. The focused Zone is highlighted. You can edit the focused Zone and its playback settings or process the Sample's audio material on the Edit page. You can also slice the Sample on the Slice page.</td>
</tr>
</tbody>
</table>

(2) Virtual keyboard

The Sample Map is the Sample Map for more information. 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.
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.
Right-click ([`Cmd`]-click on macOS) a Zone | Opens the Sample Map menu (see below).
Double-click a Zone | Removes the selected Zones (see below).
Click inside a Zone and drag | Moves the selected Zone(s) across the Sample Map.
Move the selected Zone(s) according to the Zone's borders.
Move the selected Zone(s) between Zones.
Drag a corner of a Zone | Simultaneously adjusts the lowest/highest note and the lowest/highest velocity for the selected Zones.
Drag the highest/lowest border of a Zone | Adjusts the key range for the selected Zones.
Drag the left/right border of a Zone | Adjusts the velocity range for the selected Zones.
Edit Commands | Zone
---|---
Drag the left/right border of a Zone | Simultaneously adjusts the lowest/highest note and the lowest/highest velocity for the selected Zones.
Drag a corner of a Zone | Adjusts the key range for the selected Zones.
Drag the highest/lowest border of a Zone | Adjusts the velocity range for the selected Zones.
Press `[Ctrl]+[A]` ([`Cmd]+[A] on macOS) | Selects/deselects all Zones. When deselecting, only the focused Zone remains selected.
Right-click ([`Cmd`]-click on macOS) a Zone | Opens the Sample Map menu (see below).
Double-click a Zone | Removes the selected Zones (see below).
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 | Removes the selected Zones (see below).
Click inside a Zone and drag | Moves the selected Zone(s) across the Sample Map.
Move the selected Zone(s) according to the Zone's borders.
Move the selected Zone(s) between Zones.
Drag a corner of a Zone | Simultaneously adjusts the lowest/highest note and the lowest/highest velocity for the selected Zones.
Drag the left/right border of a Zone | Adjusts the key range for the selected Zones.
Drag the highest/lowest border of a Zone | Adjusts the velocity range for the selected Zones.

See 17.5.6, Adjusting the Zone Settings for a detailed description.

You can also adjust the key and velocity ranges in the Zone settings at the bottom of the Zone page.
For more information on the Edit and Slice pages, please refer to section 17.3, Editing a Sample and section 17.4, Slicing a Sample, respectively.

The Sample view contains following elements:

Enable the Sample View button to see the Sample view.

Right-click ([Ctrl]-click on macOS) a Zone to open the Sample Map menu.

The Sample view is visible when the Sample View button (showing a little waveform icon at the right of the Zone tab) is enabled.

#### 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.

The Sample view contains following elements:

- Enable the Sample View button to see the Sample view.
- 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:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map as Drum Kit</td>
<td>Removes the selected Zones(s) from the Sample Map.</td>
</tr>
<tr>
<td>Delete</td>
<td>Removes the selected Zones(s) from the Sample Map.</td>
</tr>
</tbody>
</table>

The Sample Map menu contains additional editing facilities:

- Mapping Samples to Zones
- Mapping and Sample Mapping

Sampling and Sample Mapping
The Sample view of the Zone page.

**Waveform display**
Shows the waveform of the Sample for the focused Zone. The waveform display provides the following tools:

- **Use the scroll wheel of your mouse to zoom in/out.** You can also use the zooming scroll bar.
- **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 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:
  - **Sampling and Sample Mapping**
  - **Mapping Samples to Zones**
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.
Timeline | Shows the time scale in seconds.
Zooming scroll bar | Click the main part of the scroll bar and drag your mouse horizontally to scroll through the waveform. Alternatively you can use the scroll wheel of your mouse when hovering the waveform display (1) to zoom in/out.
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 position 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. You can also click the left or right handle of the scroll bar and drag it vertically to zoom in/out. 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!
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. Adjust the loop can also be done in the LOOP section of the Zone settings, under the waveform display. You can also click the left or right handle of the scroll bar and drag it horizontally to zoom in/out. 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!
Sampling and Sample Mapping | Mapping Samples to Zones

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17.5.6 Adjusting the Zone Settings

At the bottom of the Zone page, the Zone settings allow you to define and adjust a portion that will play back when the Zone is triggered.

### 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>START</td>
<td>Adjusts the playback's start point in the Sample of the focused Zone.</td>
</tr>
<tr>
<td>END</td>
<td>Adjusts the playback's end point in the Sample of the focused Zone.</td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>START</td>
<td>Adjusts the playback's start point in the Sample of the focused Zone.</td>
</tr>
<tr>
<td>END</td>
<td>Adjusts the playback's end point in the Sample of the focused Zone.</td>
</tr>
</tbody>
</table>

The various sections always display the values for the focused Zone.

The Zone settings in the software:

At the bottom of the Zone page, the Zone settings allow you to adjust how each Zone should be played back.

### Sampling and Sample Mapping

Mapping Samples to Zones

Mapping Parameters to Zones
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTIVE</td>
<td>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). Alternatively you can also adjust the loop's start and end points 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. T he loop's start and end points are shown in the Sample view. To move the Sample's playback start and end points closer to each other you can also shrink the loop to very small values.</td>
</tr>
<tr>
<td>START</td>
<td>Adjusts the loop's start point.</td>
</tr>
<tr>
<td>END</td>
<td>Adjusts the loop's end point.</td>
</tr>
<tr>
<td>XFADE</td>
<td>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.</td>
</tr>
<tr>
<td>2: Pitch / Envelope</td>
<td></td>
</tr>
</tbody>
</table>

---

**Sample playback section** contains parameters controlling pitch- and level-related aspects of the Sample playback.

- **Sample playback section** contains parameters controlling pitch- and level-related aspects of the Sample playback.

- **TUNE / MIX section**

  - **Parameter**
    - TUNE
      - Sets the tuning of the focused Zone.
    - GAIN
      - Sets the gain of the focused Zone.
  
  - **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). Alternatively you can also adjust the loop's start and end points 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. T he loop's start and end points are shown in the Sample view. To move the Sample's playback start and end points closer to each other you can also shrink the loop to very small values. |
    - START
      - Adjusts the loop's start point. |
    - END
      - Adjusts the loop's end point. |
    - 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. |
    - 2: Pitch / Envelope
      - Pitch / Envelope |
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.

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.

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) | Sets 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.

Sampling and Sample Mapping

Mapping Samples to Zones

Sampling and Sample Mapping
Editing Your Zones on Your Controller

At the bottom of the left display, the Zone settings allow you to adjust how each Zone should be played back when the Zone is triggered.

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.

Page 1 – PLAY RANGE Parameters

Use the Page buttons on the left of the displays to select the desired page.

The various parameters always display the values for the focused Zone.

At the bottom of the left display, the Zone settings allow you to adjust how each Zone should be played back.
Parameter Description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACTIVE</strong> (Knob 1)**</td>
<td>Enable this to define a loop in the Sample of the focused Zone. **</td>
</tr>
<tr>
<td><strong>START</strong> (Knob 2)**</td>
<td>Adjusts the start point of the loop. **</td>
</tr>
<tr>
<td><strong>END</strong> (Knob 2)**</td>
<td>Adjusts the end point of the loop. **</td>
</tr>
</tbody>
</table>

**Note:** While the note is held, the parameters in the Loop Page allow you to define and adjust a portion that will play in loop.

The parameters in the Loop Page allow you to define and adjust a portion that will play in loop.

**Parameter Description**

- **ACTIVE** (Knob 1): Enable this to define a loop in the Sample of the focused Zone.
- **START** (Knob 2): Adjusts the start point of the loop.
- **END** (Knob 2): Adjusts the end point of the loop.

Note: The Loop parameters require 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).
### Parameter Description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TUNE</strong> (Knob 1)</td>
<td>Adjusts the tuning of the focused Zone.</td>
</tr>
<tr>
<td><strong>GAIN</strong> (Knob 2)</td>
<td>Sets the gain of the focused Zone.</td>
</tr>
<tr>
<td><strong>END</strong> (Knob 3)</td>
<td>Adjusts the end point of the loop.</td>
</tr>
<tr>
<td><strong>XFADE</strong> (Knob 4)</td>
<td>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.</td>
</tr>
<tr>
<td><strong>RELOOP</strong></td>
<td>When turning the knobs to adjust the parameters in finer increments, hold <strong>SHIFT</strong>.</td>
</tr>
</tbody>
</table>

---

**Sample Mapping**

The **TUNE / MIX** page contains parameters controlling pitch- and level-related aspects of the Sample playback.

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.

---

**Mapping Samples to Zones**

Mapping and Sample Mapping
The **ENVELOPE** parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ATTACK</strong></td>
<td>Adjusts how quickly the Sample/Slice reaches full volume after being triggered.</td>
</tr>
<tr>
<td><strong>DECAY</strong></td>
<td>Adjusts how fast the Sample/Slice dies down.</td>
</tr>
</tbody>
</table>

*Hold SHIFT when turning the knobs to adjust the parameters in finer increments.*

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.

Mapping Samples to Zones

**Mapping and Sample Mapping**

---

Parameter | Description
---|---
**ATTACK** (Knob 1) | Adjusts how quickly the Sample/Slice reaches full volume after being triggered.
**DECAY** (Knob 2) | Adjusts how fast the Sample/Slice dies down.
**ROOT KEY** (Knob 4) | Adjusts the *root key* of the focused Zone, that is the key at which the Sample will be played back at its original pitch.
**PAN** (Knob 3) | Sets the panning position of the focused Zone.
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 choose the velocity range of the new Zone.

Drag your mouse horizontally to choose the root key of the new Zone.

Parameter | Description
--- | ---
VEL HI (Highest Velocity, Knob 4) | Defines the highest velocity of the focused Zone.
VEL LO (Lowest Velocity, Knob 3) | Defines the lowest velocity of the focused Zone.
KEY HI (Highest Key, Knob 2) | Sets the highest note (key) of the focused Zone.
KEY LO (Lowest Key, Knob 1) | Sets the lowest note (key) of the focused Zone.

The ZONE page on the controller, page 5 of 5: MAP parameters.
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 key-board.

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 depend on where they are dropped in the Sample Map: the higher you drop them, the wider each Zone will be. Dragging to the top part layers all Zones across the entire key-board.

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 Button 4 (ZONE) to open the ZONE page.
2. Press Button 6 (ADD).

Your controller automatically switches to the Browser with the SAMPLE type preselected.

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 Multiple Samples at Once

You can also drag several Samples to the Sample Map in your operating system:

1. Hold [Cmd] on macOS or [Shift] on your computer keyboard and click the desired Samples in the Browser or in your operating system.
2. You can also drag several Samples to the Sample Map at once.

The key range of several Zones can overlap, as can the velocity range.

You can add other Samples to the Sound via this method.

As you release the mouse button, the Zone is created.

Key: with your mouse at the top of the Sample Map, the Zone will cover the entire key-board. Key range can be one octave above the root key.

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 cover the root key only; dragging your mouse down in the upper half of the Sample Map will cover the entire key range.
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 Button 8 (LOAD) 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 right display, ready to be tweaked.

While in the browser you can press Button 6 (CANCEL) to return to Sampling mode without loading any new Sample.
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 live set. 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 live set.

18.1 Preparations

18.1.1 Focus on the Hardware

We have already mentioned various things you can be embarrassed about. For example, you are on stage and your computer starts to run out of power. This might happen if your computer is not very efficient. This might happen if your computer is not very efficient. If you are using the MASCHINE software, you can check your CPU power before playing live. This will give you an idea of how much power you need for your live set. You can check your CPU power before playing live. This will give you an idea of how much power you need for your live set. You can check your CPU power before playing live. This will give you an idea of how much power you need for your live set.

18.1.2 Customize the Pads of the Hardware

Take your time to set up the pad sensitivity and velocity scaling to your personal taste (see section 3.6.6, Preferences – Plug-ins Page). This will give you an idea of how much power you need for your live set. You can check your CPU power before playing live. This will give you an idea of how much power you need for your live set. You can check your CPU power before playing live. This will give you an idea of how much power you need for your live set.

18.1.3 Check Your CPU Power Before Playing Live

Some things can be embarrassing. For example, you are on stage and your computer starts to run out of power. This might happen if your computer is not very efficient. This might happen if your computer is not very efficient. If you are using the MASCHINE software, you can check your CPU power before playing live. This will give you an idea of how much power you need for your live set. You can check your CPU power before playing live. This will give you an idea of how much power you need for your live set. You can check your CPU power before playing live. This will give you an idea of how much power you need for your live set.
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, you can also let MASCHINE send the MIDI Clock signal by activating Send MIDI Clock from the Preferences menu. However, you can synchronize it with another MIDI Clock signal from the controller’s MIDI IN socket and activate Sync to External MIDI Clock in MASCHINE’s Preferences menu. 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.
18.2.1 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 set down multi-effect Groups and automate them.

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.

18.2.3 Use Note Repeat

Note Repeat is a very useful tool for playing live: use it to add some additional drums, drops in 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 sequence.

18.2.4 Set Up Your Own Multi-effect Groups and Automate Them

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 down multi-effect Groups containing all the effects you want to use in a live set. You can use Note Repeat for more information.

Appendix: Tips for Playing Live

Basic Techniques
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 Using Loops to Cycle Through Samples

You can use loops to cycle through Samples, creating glitches and stuttering breaks or interesting soundscapes. Just enter the ZONE Page in Sampling mode on your controller, switch on the ACTIVE parameter on the Loop Page and play with the parameters for the start and end point of the loop. Use the SHIFT button to change the values in smaller increments. See 7.2.1, Page 1: Voice Settings / Engine for more on this. Note: this technique requires that you choose either AHD or ADSR as the Amplitude Envelope in the Sampler's Parameter Pages (see 17.5.4, Selecting and Editing Zones in the Map View).

18.3.3 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 section 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.
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. You can reach the Knowledge Base via: www.native-instruments.com/knowledge.

19.2 Technical Support

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/supportform.

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

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.
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


If problems occur during the product activation procedure, please contact our Registration Support team: www.native-instruments.com/regsuppfrm.
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: Idea view and Song View.

**Song View**
The Song view allows you to combine Sections (or references to Scenes), and arrange them into a song on the Timeline.

**Autoload**
When Autoload is enabled, any Group, Sound, Pattern, Plug-in (Instrument or effect), or Sample that you select in the Browser is instantly loaded into the selected Group slot, Sound slot, Pattern slot, Plug-in slot (Instrument or effect), or Bussing point.

**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. The Browser is the point in the signal flow that can accept signals coming from various locations.
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). Like the Plug-ins, Channel properties include many different parameters to adjust.

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 (above) and to use macro controls (below). The Control area also shows each Group/Master, in the software, the Channel properties are displayed. Channel properties are sets of parameters available at each Project level (i.e. for each Sound, Group, and for the Master). In MASCHINE, the Control area is located in the middle of the MASCHINE window.

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 effect slot of the Sound, Group, or Master level. MASCHINE’s flexible routing allows you to apply insert effects, send effects, and Multi-Effects. You may also use VST/AU plug-in effects. Effects can be loaded as Plug-ins in any effect slot of the Sound, Group, or Master level. MASCHINE’s flexible routing allows you to apply insert effects, send effects, and Multi-Effects.

Control Lane

Control Lane is located at the bottom of the Pattern Editor in the MASCHINE window. The Control Lane shows the recorded automation for each parameter, and lets you edit the recorded automation in form of automation points. You can add, remove, or manipulate existing automation points as well as add new automation points.

Control Mode

Control mode is the default mode of your controller in Live-time. Control mode allows you to easily adjust any parameter of your Groups and Sounds via the Control section of your controller. In this mode, you will be able to 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. Remember, you can add, remove, or manipulate existing automation points as well as add new automation points. The Control area is located in the middle of the MASCHINE window.
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). Events are visually represented by rectangles in the Step Grid. Depending on the current view, events are usually represented by notes that make up a Pattern in the Pattern Editor.

Insert Effect

These Scenes can then be added to Sections in the Song view to create a larger musical structure. 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 View

Group View is the view of the Pattern Editor in which events for all 16 Sound slots of the selected Sound slot or Group are visible and editable. 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 specific 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. This mode is well suited for melodic instruments, such as synthesizers, and allows you to define a vertical on-screen keyboard that indicates the pitch of each event (one row per semi-tone). This way you can define for each event an exact pitch, and you can switch between the events of the selected Sound by using the fader strip (trigger, lane selector, etc.).

Macro Controls

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 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 available for modulation in your host application. Last but not least, if you use MASCHINE as a plug-in on a host, the Macro Controls can be automatically switched to Keyboard mode, and vice versa.

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 Sounds within them.

Modulation

Modulation allows you to record changes of parameter values so that you don’t need to actuate these parameters individually. Any modulated parameter is displayed both in the Control Lane and in the Control Area (at the bottom of the Pattern Editor), and a movement of the chosen parameter is displayed both in the Control Area and in the Control Lane. Any modulated parameters in real-time. Any modulated parameter can be controlled by an external MIDI Controller or assigned to any parameter from the underlying one. This way you can define, e.g., each Sound a set of eight parameters that are quickly accessible.
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 scenes together.

Pattern Editor

This Pattern Editor allows you to display and edit your Patterns, change the Step and settings and locate in the bottom of the MASCHINE window. The Pattern Editor allows you to select:

- **Pattern**: A Pattern is a sequence that plays Sounds from a Group. Patterns are the building blocks for Scenes.

- **Group or Mix**: The Pattern Editor shows the Patterns of the selected Sound or Group. The Pattern Editor is bound to the selected Sound or Group.

- **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 or Group.

- **Pattern Editor**

- **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 and settings and locate in the bottom of the MASCHINE window. The Pattern Editor allows you to select:

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 Pad Editor on your controller and the Key Editor in the software are bound together: If you enter Keyboard mode on your controller, Keyboard view gets automatically enabled in the software, and inversely.

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.

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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.
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.

Sections are references to 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 changes made to a Scene are replicated in each Section where the Scene is referenced. Scenes are used to combine Patterns in each Group. They can be used to create musical ideas. Scenes are created in the Ideas view and then added to Sections in the Song view to create an arrangement.
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 steps. Step Grid is a set of parallel lines that divide the Pattern into steps. By changing the Resolution of the Step Grid, 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.

In Step mode, your controller can be used as a traditional step sequencer. Just as on classical drum machines, a light representing the sequence runs from pad 1 up to pad 16. Highlighting each step during playback, the pads represent a step in the Step Grid. Select a sound and put events at chosen steps in the sequence by pressing the corresponding pad. The Swing parameter allows you to shift some of the events in your Pattern to create a shuffle effect.

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