

© MASCHINE

REFERENCE MANUAL



The information in this document is subject to change without notice and does not represent a commitment on the part of Native Instruments GmbH. The software described by this document is subject to a License Agreement and may not be copied to other media. No part of this publication may be copied, reproduced or otherwise transmitted or recorded, for any purpose, without prior written permission by Native Instruments GmbH, hereinafter referred to as Native Instruments. All product and company names are [™] or [®] trademarks of their respective owners.

Written by Benjamin Weiss; edited by Jens Hoffmann, Joshua Fielstra

Manual version: 1.0 (02/2009)

Software version: 1.0.2

Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.

Germany

NATIVE INSTRUMENTS GmbH

Schlesische Str. 28

D-10997 Berlin

Germany

info@native-instruments.de

www.native-instruments.de

USA

NATIVE INSTRUMENTS North America, Inc.

5631 Hollywood Boulevard

Los Angeles, CA 90028

USA

sales@native-instruments.com

www.native-instruments.com



© Native Instruments GmbH, 2009. All rights reserved.

1 Introduction

1.1 Welcome to MASCHINE!

Thank you for buying MASCHINE!

MASCHINE is a groove production studio that implements the familiar working style of classical groove boxes along with the advantages of a computer based system. MASCHINE is ideal for making music live, as well as in the studio. It's the hands-on aspect of a dedicated instrument, the MASCHINE 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 Controller to do it makes it easy and fun. You can tap in freely with the Pads or use Note Repeat to jam along. Alternatively, build your beats using the Step Sequencer just as in classic drum machines.

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

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

However, MASCHINE is a lot more than an ordinary groove box or sampler: it comes with an inspiring 5 Gigabyte library containing over 250 kits and 14,000 samples, and a sophisticated, yet easy to use tag-based Browser to give you instant access to the sounds you are looking for.

What's more, MASCHINE give you lots of options for manipulating your sounds via internal effects and other sound-shaping possibilities. You can also control external MIDI hardware and 3rd party software with the MASCHINE Controller, while customizing the functions of the Pads, Knobs and Buttons according to your needs utilizing the included Controller Editor Application. This applies for the plug-in as well as the standalone version.

We hope you enjoy this fantastic gear as much as we do. Now let's get going!


– The MASCHINE team at Native Instruments


1.2 About this Manual

This section introduces you to the symbols and text formatting used throughout this manual.

Marginal Notes

The manual uses marginal notes to point out special facts and to warn of potential dangers. The icons included in the marginal notes let you see what kind of information is provided:

 The exclamation mark stands for additional instructions and hints. Read carefully whenever you see this symbol.

 The light bulb icon introduces useful extra information. This information may often help you to solve a task more efficiently, but does not necessarily apply to the setup or operating system you are using.

Special Formatting

This manual contains some elements that appear in a different font type. These distinctive formats have been applied in order to let you recognize certain elements in the text at a glance:

Hardware and **Software**: Most of MASCHINE's functions are accessible via both, the MASCHINE Controller and the MASCHINE software interface. In case there is no separate chapter, instructions for MASCHINE Controller operation will be labeled with an orange heading.

Menu Item: Items from MASCHINE's menus are printed in *italics*.

GUI ELEMENT: Elements from MASCHINE's graphical user interface (GUI) are printed in SMALL CAPS. Consequently you will notice that this formatting has been applied to all names of knobs, buttons and other elements that let you interact with the MASCHINE software, but not to the names that relate to the MASCHINE Controller's Knobs, Pads, etc.

1.3 Other Documentation

This is MASCHINE's Reference Manual covering all the features and aspects of the MASCHINE Hardware and the MASCHINE Software in detail. If you would like to quickly get going without getting too deep into the specifics, we recommend you read the printed Getting Started Manual included in the box, which will give you a fast overview of MASCHINE's main features and functions.

This MASCHINE Reference Manual is available via the Native Instruments Service Center application. Alternatively, you can download the Reference Manual from the Update Manager on the Native Instruments Website:

www.native-instruments.com

You can use the MASCHINE Controller for controlling other MIDI-enabled 3rd party software or external MIDI hardware. For further information on these functions, please refer to the Controller Editor Manual, located in the Documentation folder inside the Controller Editor installation folder.

1.4 Before you start – Important notes

This chapter contains important security and maintenance advice, as well as general information regarding the MASCHINE Controller hardware. Please read the following sections carefully.

1.4.1 Name Plate Location

The nameplate is located on the bottom of the MASCHINE Controller. It lists the product model name and other technical information.

1.4.2 Serial numbers

MASCHINE comes with two serial numbers. The MASCHINE Controller serial number can be found on bottom of the product. The serial number for the included version of the MASCHINE Software is located on the cover of the installation CD.

1.4.3 Using the unit safely

Before using this unit, it is important that you thoroughly read the instructions below. This will provide you with the information needed for setting up and using your MASCHINE Controller.

Warning

Do not open the MASCHINE Controller or attempt to disassemble or modify any internal parts! The MASCHINE Controller does not contain any user-serviceable parts. If it appears to be malfunctioning, discontinue use immediately and have it inspected by qualified service personnel.

Caution

It is important you read the following instructions to make sure the MASCHINE Controller or any device connected will not be damaged during usage or maintenance:

- ▶ Do not expose the unit to rain, use it near water or in damp or wet conditions.
- ▶ Make sure no objects or liquids of any kind penetrate the unit.
- ▶ Never use or store the unit in areas subject to extreme temperatures (e.g., direct exposure to sunlight in an enclosed vehicle and/or near heat-generating equipment), or high levels of vibration.
- ▶ Do not place the MASCHINE Controller in an unstable position where the unit could accidentally fall.
- ▶ Turn off the power for all components before connecting the device to any other electronic components.

- ▶ Set all volume levels to their minimum before switching any connected component on/off. Gradually raise the volume controls while playing the instruments to set the desired listening level.
- ▶ Remove all connected cables before moving the MASCHINE Controller.
- ▶ Do not use force on buttons, knobs, switches and connectors, if any parts should appear to be malfunctioning. Discontinue use immediately and have it inspected by qualified service personnel.
- ▶ When cleaning the MASCHINE Controller, use a soft, dry cloth. Never use paint thinners, solvents, cleaning fluids, or chemical-infused wiping cloths.

1.4.4 Disposal Notice

Should this product become damaged beyond repair, or if you wish to dispose of it, please observe the regulations of your area and country that relate to the disposal of electronic products.

1.4.5 Specifications subject to change

The information contained in this manual is believed to be correct at the time of printing or digital release. However, Native Instruments reserves the right to make changes to the specifications at any time without notice or obligation to update existing units.

1.4.6 Copyright

© Native Instruments GmbH 2009.

This publication may not be reproduced in whole or in part, summarized, transmitted, transcribed, stored in a retrieval system, or translated into any language, in any form or by any means without prior written permission of Native Instruments GmbH.

1.4.7 Disclaimer

Native Instruments GmbH cannot be held responsible for damage or lost/destroyed data caused by improper use or modification of the MASCHINE Controller.

1.5 Installing MASCHINE

This chapter will guide you through the MASCHINE installation procedure step by step. The installation includes all components of MASCHINE: the MASCHINE application, the sound library and the Controller Editor application.

1.5.1 System Requirements

- ▶ Windows® XP (SP2, 32-bit)/Vista (SP1, 32-bit, 64-bit), Pentium® or Athlon XP 2 GHz, 2 GB RAM
- ▶ Mac OS® X 10.4, Intel® Core™ Duo 2 GHz, 2 GB RAM
- ▶ USB 2.0 Port, DVD drive, 5 GB free disk space for full installation

1.5.2 Installing MASCHINE on Windows XP and Windows Vista

1. Place the Windows-specific installation DVD in your computer's DVD-ROM drive.
2. Use Windows Explorer to browse the content of the DVD-ROM.
3. Double-click the installer file named *MASCHINE Setup.exe*.
4. Click NEXT.
5. To continue, you need to first accept the license agreement. After you have read the license agreement, check the corresponding checkbox and click NEXT.
6. To perform a complete installation, leave the *Complete* option checked and click NEXT. To deselect components or to install the MASCHINE application and sound library to an alternative location, select *Custom*. Then click NEXT. In the next dialog, choose the destination folders for the installation. To use the default path, just click NEXT. If you wish to select a custom path for a MASCHINE component, click CHANGE..., browse to the folder where you want to install the application or sound library. Then click NEXT.
7. The Setup Program will lead you through the installation procedure. Follow the on-screen instructions.
8. After the installation has been performed successfully, click FINISH.



Make sure your MASCHINE Controller is not connected during installation procedure.



If you want to run the MASCHINE Controller on a USB-hub instead, make sure the hub has its own power supply - the MASCHINE Controller will not work on a passive (bus-powered) USB hub.



Deselecting the Service Center application is not possible since it is required for activating the MASCHINE software.

9. Now to install the MASCHINE Controller hardware driver, you need to connect the MASCHINE Controller to your computer. On Windows Vista, the driver setup will finish automatically. On Windows XP, a driver installation dialog will come up, asking how you would like to proceed .
10. Select *No, not this time* and click NEXT.
11. On the following screen select *Install software automatically* and click NEXT.
12. Now the MASCHINE Controller hardware driver installation will finish. Subsequently go through the same procedure in order to install the MASCHINE Controller USB driver.

1.5.3 Installing the MASCHINE Software on Mac OS X

1. Place the installation DVD-ROM in your computer's DVD-ROM drive. Its icon will appear in the Mac OS X Finder.
2. Connect the MASCHINE Controller using the USB cable.
3. Double-click the MASCHINE DVD icon to display the content of the DVD.
4. Double-click the installer file named *MASCHINE*.
5. Click CONTINUE to proceed.
6. To continue, you need to first accept the license agreement. After you have read the license agreement, press CONTINUE and click AGREE.
7. Select the hard disk onto which you would like to install MASCHINE. Please note that you can only install MASCHINE onto hard disks which contain a Mac OS X version matching the system requirements. Hard disks with no sufficient Mac OS X version will be flagged with a red Stop sign and you will not be able to select them for the Installation Destination dialog. From Mac OS X 10.5 on, this screen will be skipped automatically.
8. Click CONTINUE.
9. Select the elements you want to install (we recommend installing all elements, however if you know that you don't need a certain element like a plug-in format, uncheck the checkbox next to it).



In case of a warning message concerning the “Windows Logo test” click CONTINUE to proceed.



If you want to connect the MASCHINE Controller to a USB-hub instead, make sure the hub has its own power supply - the MASCHINE Controller will not work on a passive (bus-powered) USB hub.



Deselecting the Service Center application is not possible since it is required for activating the MASCHINE software.

If you want to install the MASCHINE Library contents to a custom location, e.g. to an external hard disk, click the folder icon in the *Location* column to open a dialog in which you can specify a destination for the installation.

10. Click **INSTALL** to continue. The Setup Program will lead you through the installation procedure. Follow the onscreen instructions.
11. To finish the MASCHINE Controller hardware driver installation you need to restart your computer now.

1.5.4 Activating MASCHINE

When you start the MASCHINE software for the first time, you will be asked to activate MASCHINE using the Service Center. Please refer to the Service Center Quick Start Guide included in delivery for all information on that matter.

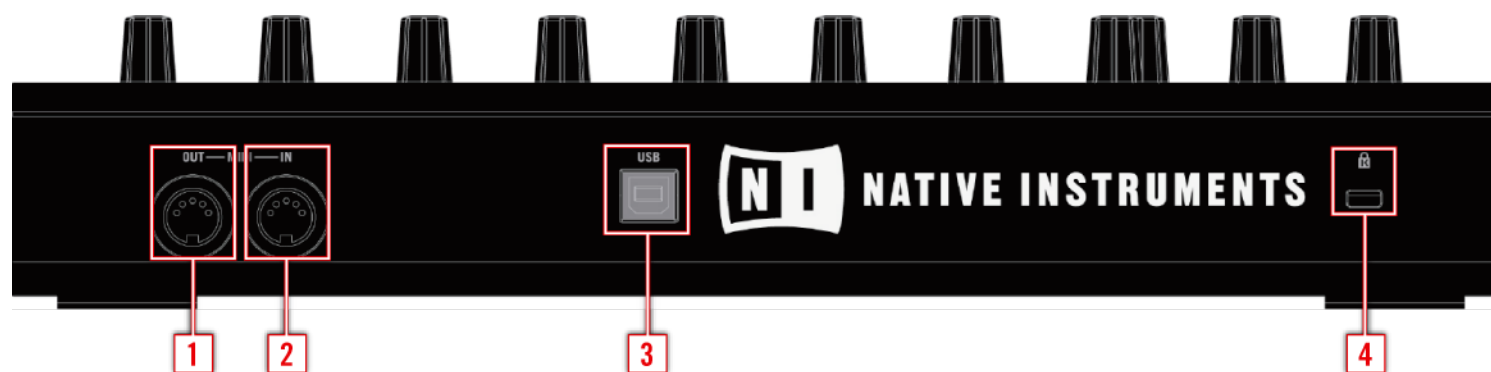
The full Service Center documentation is located here:

- ▶ Windows: \Program Files\Native Instruments\Service Center\Documentation
- ▶ Mac OS X: /Applications/Service Center/Documentation

1.5.5 Connecting the MASCHINE Controller

Plug the USB cable (included in the Package) into the USB port on the back of the MASCHINE Controller, and connect the cable's other end to one of the USB-ports of your computer.

If you have any MIDI equipment such as synthesizers, keyboards, drum machines or samplers, you may connect them to MASCHINE's MIDI In and MIDI Out ports.



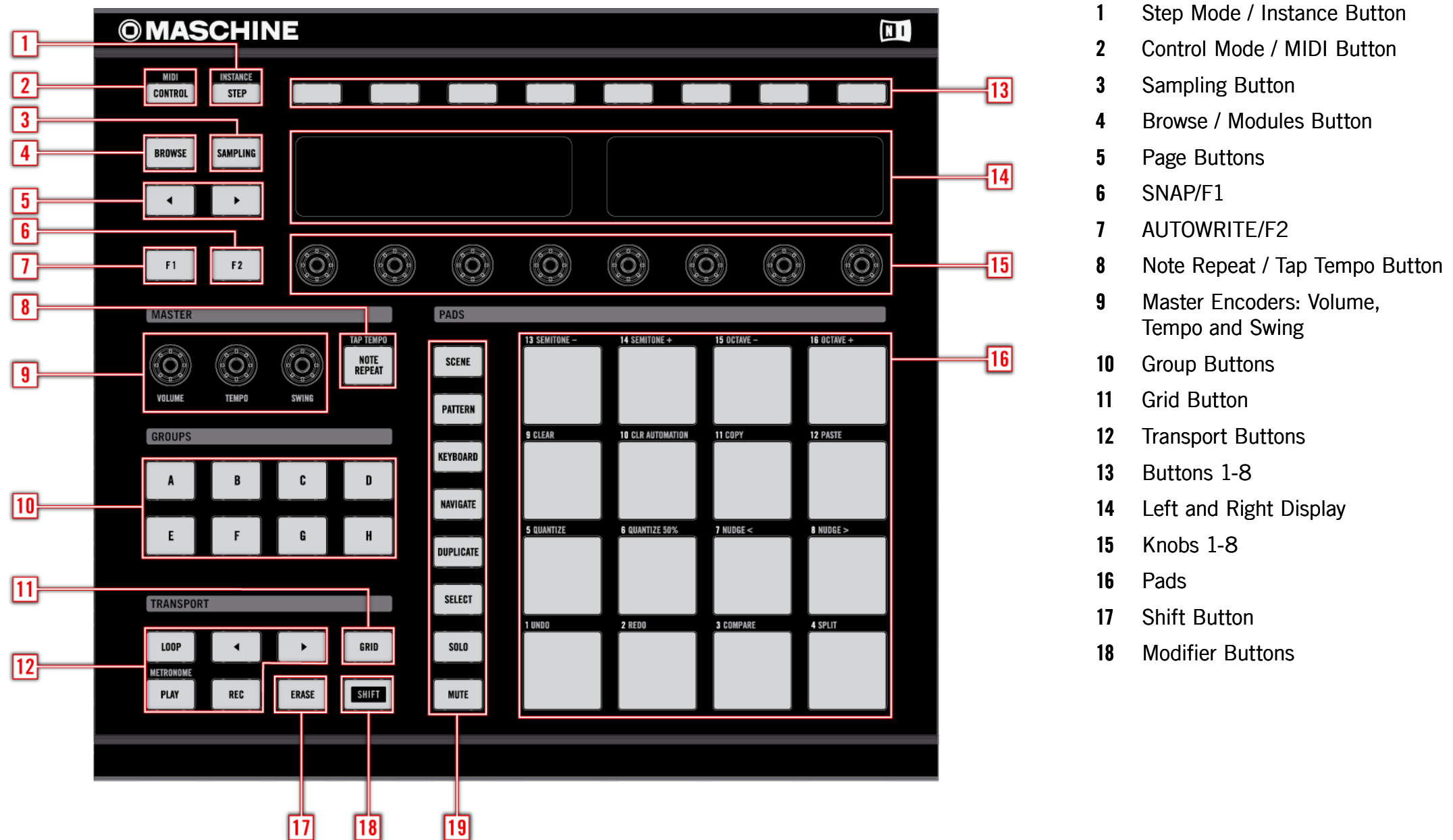
- 1 1xMIDI Out
- 2 1xMIDI In
- 3 1xUSB socket to connect to your computer.
- 4 Kensington Lock slot to lock your MASCHINE Controller to something immobile.

MASCHINE Controller, rear panel.

1.6 Overview

This chapter will introduce you to the MASCHINE Controller's hardware elements and the MASCHINE software's user interface. Virtually all functions are available on both interfaces, and you can access them via software and hardware alike. If you need to look up a certain user interface element's name, you can return to this chapter at any time for a refresher!

1.6.1 Hardware



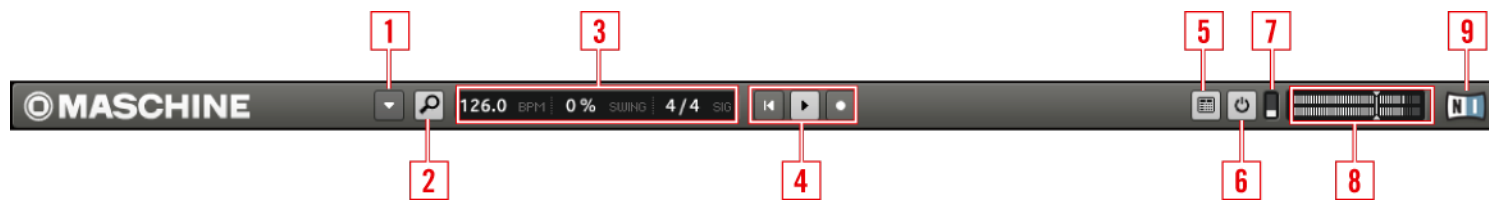
The MASCHINE Hardware Controller

1.6.2 Software



The MASCHINE Software

The Header



- 1 Menu Button
- 2 Browser Button
- 3 Display Area
- 4 Transport Controls
- 5 Connect Button
- 6 Audio Engine Button
- 7 CPU Meter
- 8 Volume Control
- 9 NI Logo

The Arranger

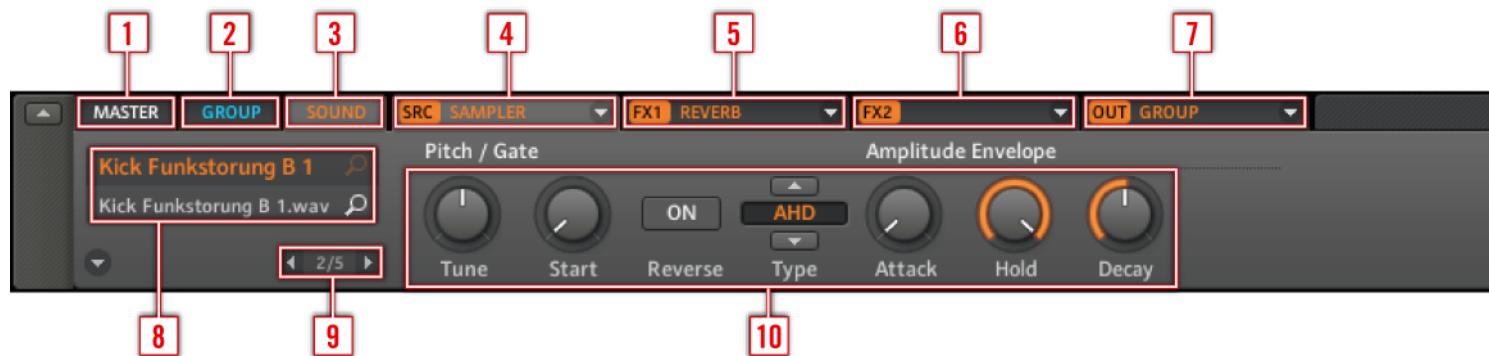


- 1 Play Mode Controls
- 2 Group Slots
- 3 Arranger Timeline
- 4 Clip Area

The Browser

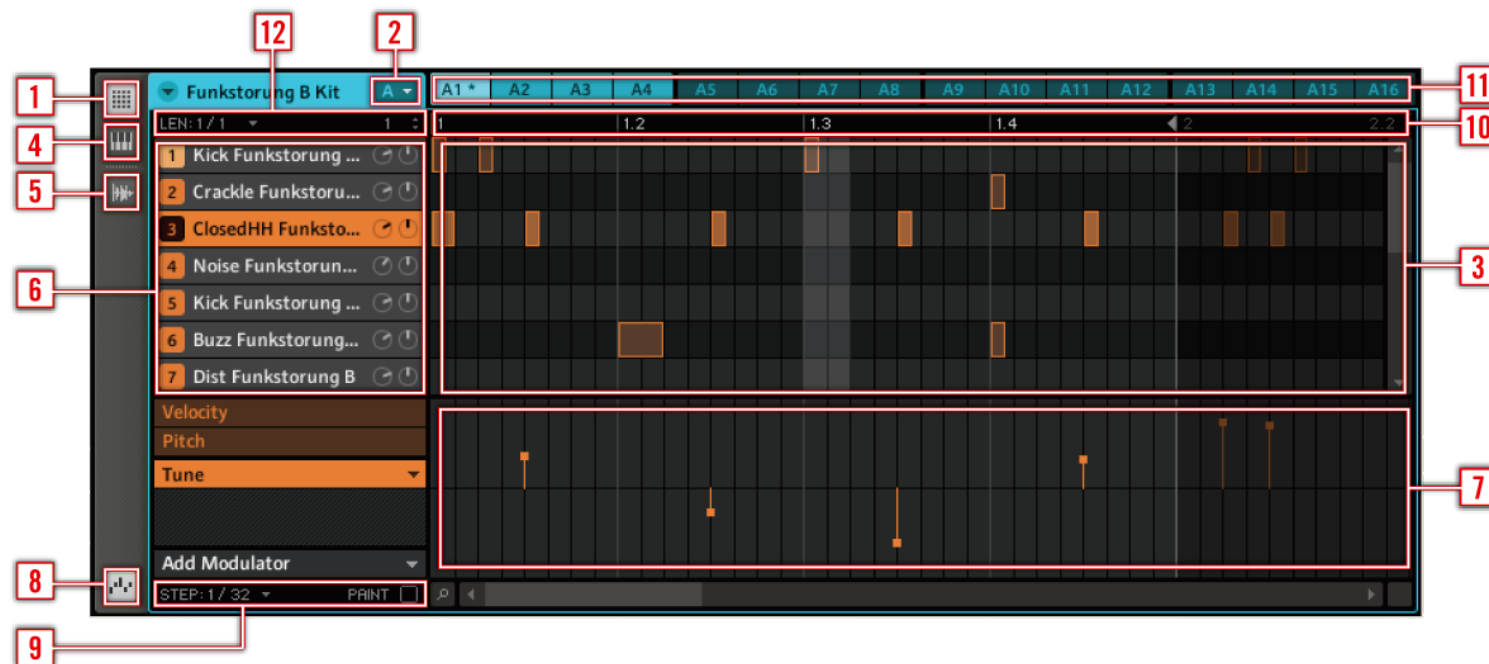


The Control Area



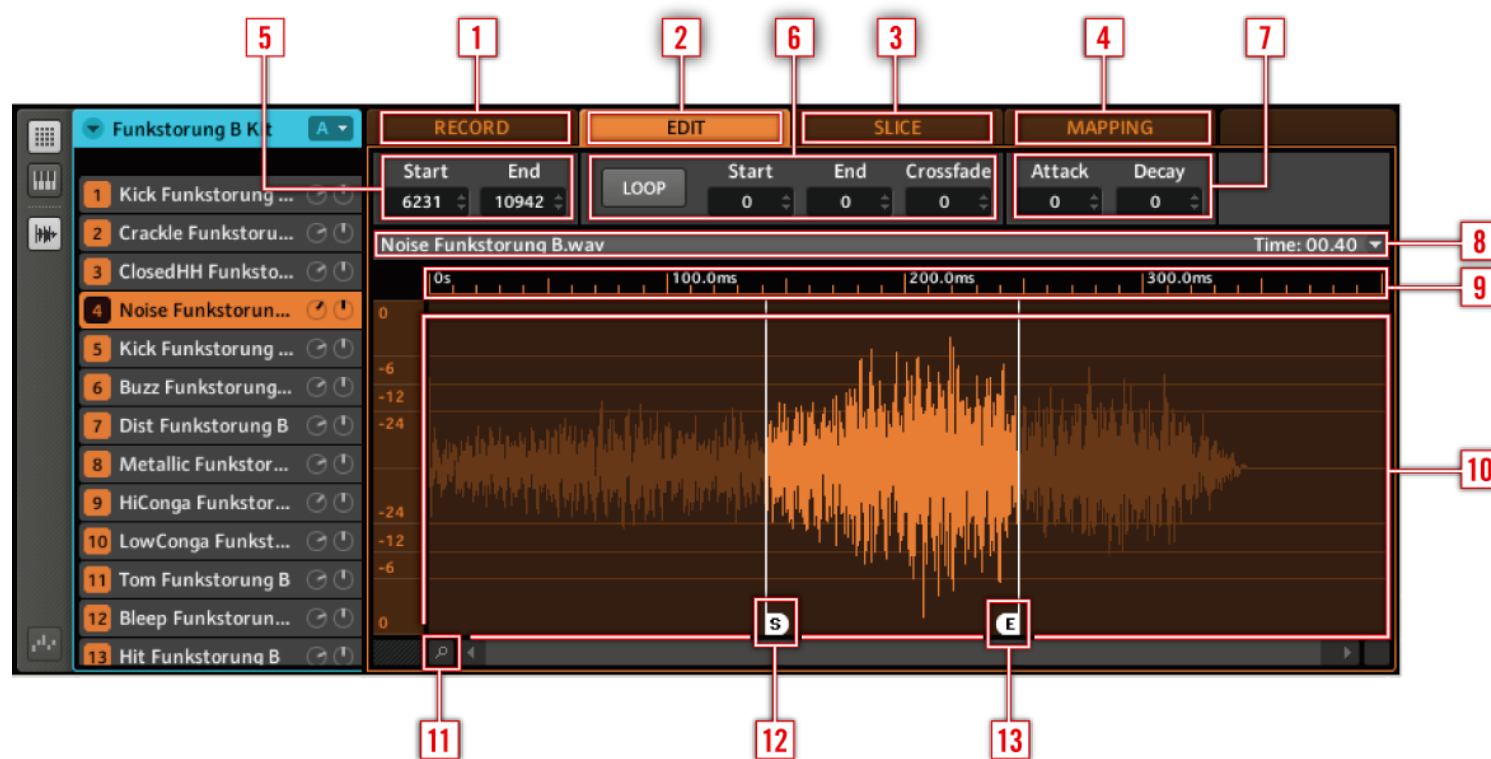
- 1 Master Tab
- 2 Group Tab
- 3 Sound Tab
- 4 Source Tab
- 5 FX1 Tab
- 6 FX2 Tab
- 7 Output Tab
- 8 Quick Browse Area
- 9 Page Selector
- 10 Parameter Pages, depending on the selected Tab

The Pattern Editor



- 1 Step Editor View Switch
- 2 Pattern Bank Menu
- 3 Step Editor
- 4 Piano Roll/Keyboard View Switch
- 5 Sampling View Switch
- 6 Sound Slots
- 7 Automation Lane
- 8 Automation View Switch
- 9 Edit Controls
- 10 Pattern Timeline
- 11 Pattern Slots
- 12 Pattern Length Controls

The Sampling Area



- 1 Record Tab
- 2 Edit Tab
- 3 Slice Tab
- 4 Mapping Tab
- 5 Trim Controls
- 6 Sample Loop Controls
- 7 Zone Envelope Controls
- 8 Info Bar
- 9 Sample Timeline
- 10 Sample View
- 11 Zoom Tool
- 12 Start Marker
- 13 End Marker

2 Basic Concepts

This chapter will introduce you to MASCHINE's main elements and terminology and explain how they relate to one another. You will also learn how to set up your audio interface and how to connect MIDI devices. Make sure to also check out the tutorial video regarding Basic Concepts: "Overview" (to be found on the Native Instruments website www.native-instruments.com).

2.1 Names and concepts you should know

We will start with a list defining the most important concepts and names.

Browser

The Browser is the front end for accessing all the elements of your MASCHINE Projects: Projects, Groups, Sounds, Samples, Patterns and FX Presets. Each of these can be stored and "tagged", meaning categorized in a way that allows you easy access to all of them. MASCHINE's library is already completely tagged, and you can also import your own Samples to the library and tag them as well. To learn more about the Browser, please read [chapter 3 "Browser"](#).

Projects

A Project contains all data needed for a Song: up to eight Groups with their Patterns, 64 Scenes and all settings, automation, FX, Routings, Sounds and Samples. It's like a snapshot of the entire state of MASCHINE. You can find more information in the [chapter 3 "Browser"](#).

Groups

A Group contains 16 Sound Slots, each of which can hold one Sound. It can have up to two Insert FX and up to 64 Patterns assigned to it which are organized in 4 Banks. Refer to [chapter 5 "Creating Groups"](#) for more information on Groups.

Sounds

Each Group consists of 16 Sound Slots that can be filled with either one Sample each or with multiple Samples mapped across the Keyboard. These are called Sounds. Sounds can have up to two Insert FX and 5 pages of parameters to further shape them. Each Sound corresponds to (and can be played by) one of the 16 Pads on the MASCHINE controller. Refer to [chapter 4 “Creating Sounds”](#) for more information on Sounds.

Patterns

A Pattern is a sequence that plays sounds from the current Group. A Pattern is therefore usually linked to a Group since it is a part of the Group; however you can also save it independently from the Group. This is useful if you want to try out different drum kits with the same Pattern or different Sounds with a given melody. More information on Patterns is found in [chapter 6 “Working with Patterns \(Hardware\)”](#) and [chapter 7 “Working with Patterns \(Software\)”](#).

Scenes

Scenes represent a combination of different Groups with their associated Patterns. They are used to chain patterns to build up a finished arrangement, or to trigger different parts of a Song while you are playing live. More information on Scenes can be found in [chapter 10 “Creating a Song using Scenes”](#).

Effects (FX)

MASCHINE comes with 21 different effects that are called FX in MASCHINE terminology. Two of them can be directly applied as insert effects to each Group, each Sound, or the Master. With the Routing System you can also create send effects and multi-effects. You may also record modulations of effect parameters. Refer to [chapter 9 “Using FX”](#).

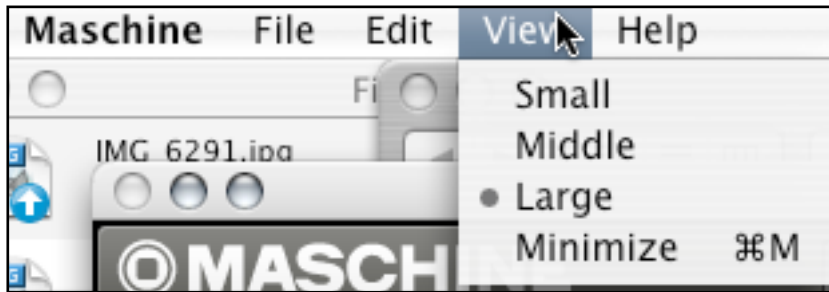
Master

This is where all audio signals from each of the Groups and Sounds come together and get mixed. The Master bus can also host two Insert FX of its own. More information on the Master can be found in [chapter 12 “The Master Section”](#).

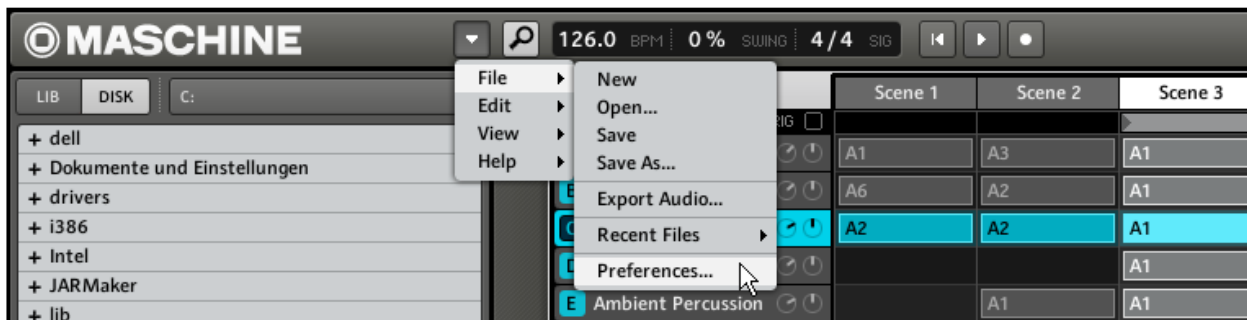
2.2 Common Operations

2.2.1 Switching Views

From the Main Menu & the Plug-in Menu you can select one of three different sizes to display MASCHINE's Software GUI:



The View entry in the Main Menu



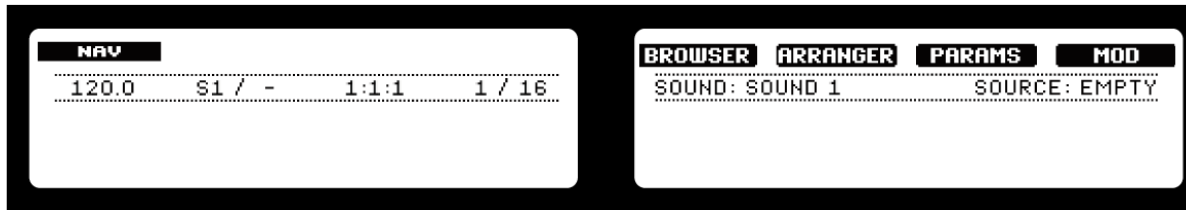
The View entry in the Plug-in Menu

There are several areas on the software's user interface that you can fold away or reduce in size in order to give you a better overview on your screen. This is helpful if you have a small display connected to your computer, or want to concentrate on one element without being distracted by the other. This can be done on the MASCHINE Controller as well as in the software, but only affects your computer's display.

2.2.2 Showing and hiding the Browser

Hardware

Press and hold the Navigate Button; now press Button 5 to hide the Browser and again to bring it back.



The Navigate screen on the left and right display of the MASCHINE Controller

Software

Click on the Magnifier symbol in the Header to show and hide the Browser.



The Magnifier symbol in the Header

2.2.3 Minimizing the Arranger

Hardware

Press and hold the Navigate Button; now press Button 6 to minimize the Arranger to the currently selected Group Slot and again to show all Group Slots.

Software

Click on the Arrow on the left of the Arranger to minimize the Arranger to the currently selected Group Slot and again to show all Group Slots.



The Arranger in minimized view showing the Group Slot in focus

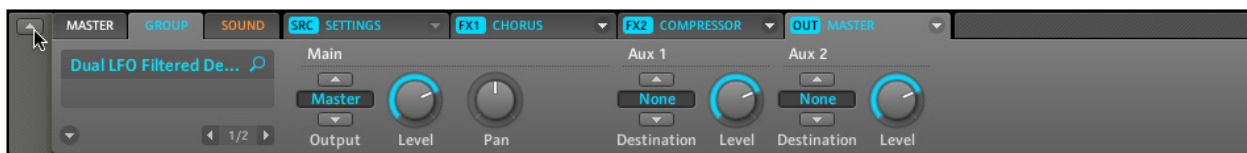
2.2.4 Hiding Parameter Pages in the Control Area

Hardware

Press the Navigate Button and then Button 7 to show and hide the parameter pages in the Control Area.

Software

Click on the Arrow to the left of the Control Area to show and hide the Control Area.



The Control Area

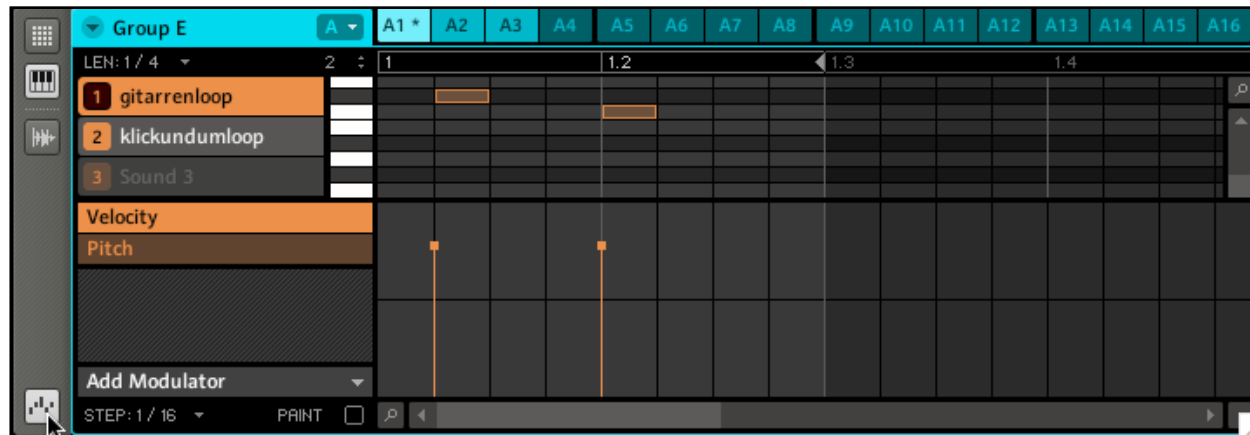
2.2.5 Hiding the Modulation Lane

Hardware

Press the Navigate Button and then Button 8 to show and hide the Modulation Lane.

Software

Click on the Automation View Switch on the left of the Modulation Lane to show and hide it.



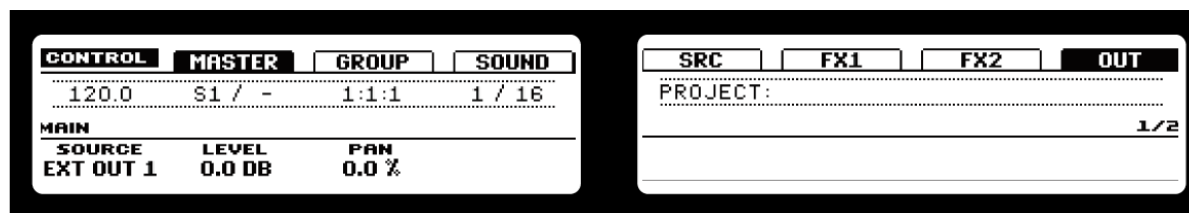
The Automation View Switch

2.2.6 Navigating Parameter Pages in the Control Area

Some Parameter Pages in the Control Area consist of more parameters than the displays can show at once. Examples of this are the Master Out Tab and the Sampler Parameter Pages. In these cases, the number of Parameters is divided into several Parameter Pages that you can easily navigate with the Hardware and Software.

Hardware

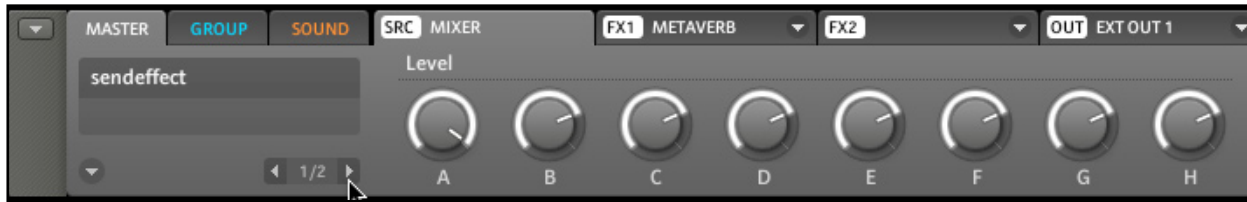
On the MASCHINE Controller you can use the Page Buttons to navigate through the Parameter Pages. Whenever there is more than one Page, it will be shown on the right of the Right Display like this:



The display of available Pages in the Master Out Tab

Software

On the Software you click the Page Buttons to navigate through the Pages:



The Page Buttons in the Control Area: first Page of the Master Source Tab

2.2.7 Undo and Redo

Undo and Redo are useful to cancel operations you have performed or to compare two versions before and after a change (also see the Compare / Split functions explained in [chapter 6.2.5 “Compare / Split”](#) for Hardware and [7.2.3 “Compare / Split”](#) for Software. In MASCHINE you can undo everything you did after loading or creating your Project. Note: If you save your Project, you will no longer be able to Undo or Redo anything you did before saving!

Hardware

On the Hardware, perform the Undo operation by holding Shift and pressing Pad 1. To perform the Redo operation, hold the Shift Button, then press Pad 2.

Software

On the Software, use the common Keyboard Shortcuts for the Undo and Redo functions. For Undo, press CTRL+Z (Command+Z on Mac OS X). For Redo, press CTRL+Y (Command + Y on Mac OS X).

2.3 Stand-alone and Plug-in Mode

You can run MASCHINE as a standalone application or integrate it into your favorite Digital Audio Workstation (or DAW, in short) by loading it as a plug-in. MASCHINE is available in the VST, Audio Unit and RTAS 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. If you did not install the plug-ins when installing the MASCHINE Software, learn how to do add them in [chapter 1.5 “Installing Maschine”](#).

2.3.1 Differences between Standalone and Plug-in Mode

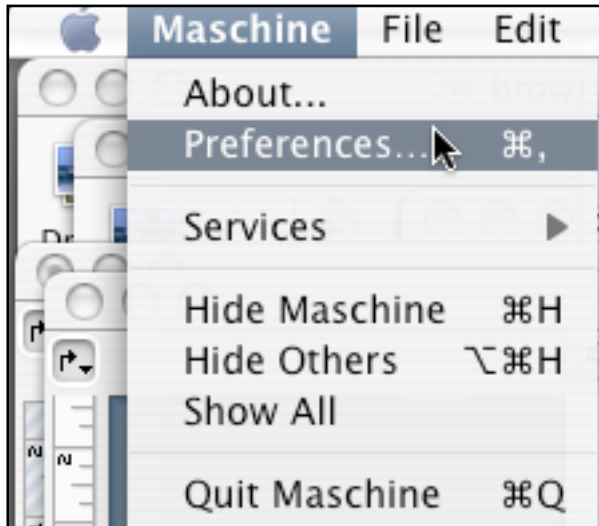
When you are using MASCHINE as a plug-in within a host application (i.e. sequencer software like Cubase or Pro Tools), you can open multiple MASCHINE instances. Actually, you can load as many instances of MASCHINE as your computer and your host application can handle CPU-wise. In contrast to the standalone application, they are always synced to the host. In Plug-in Mode you can also send a MIDI Program Change message from your host to switch between MASCHINE’s Scenes. To learn more about this, have a look at [chapter 10 “Creating a Song using Scenes”](#).

2.3.2 Switching Instances with the Hardware in Plug-in Mode

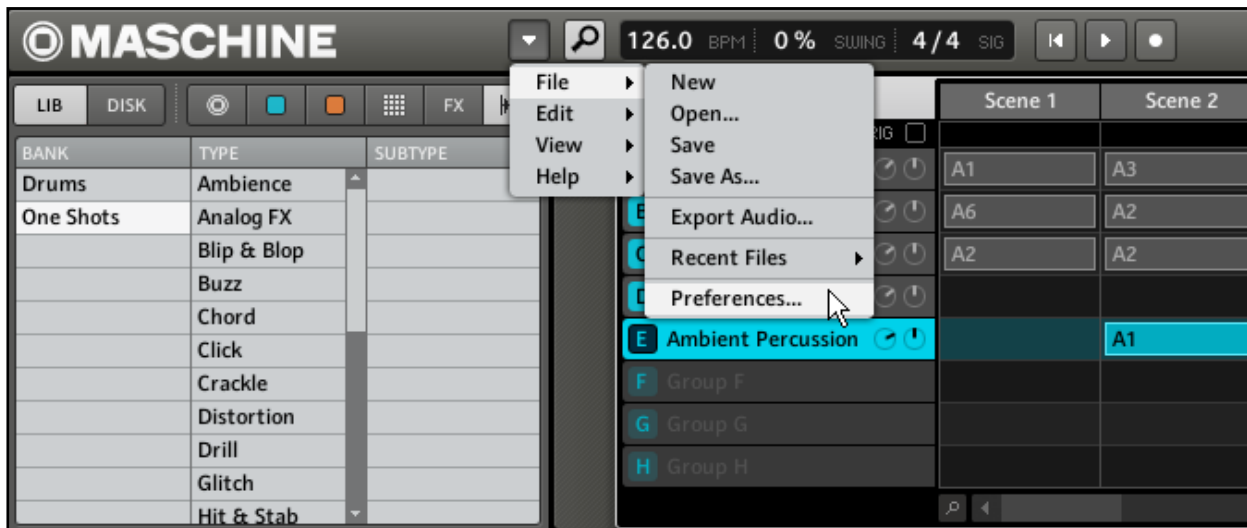
To switch from one instance to another in Plug-in Mode, press Shift and Step; using Knob 5 you can now select the desired instance and load it by hitting Button 8.

2.4 Preferences

You can find the Preferences dialog under MASCHINE in the Main Menu / Plug-in menu:

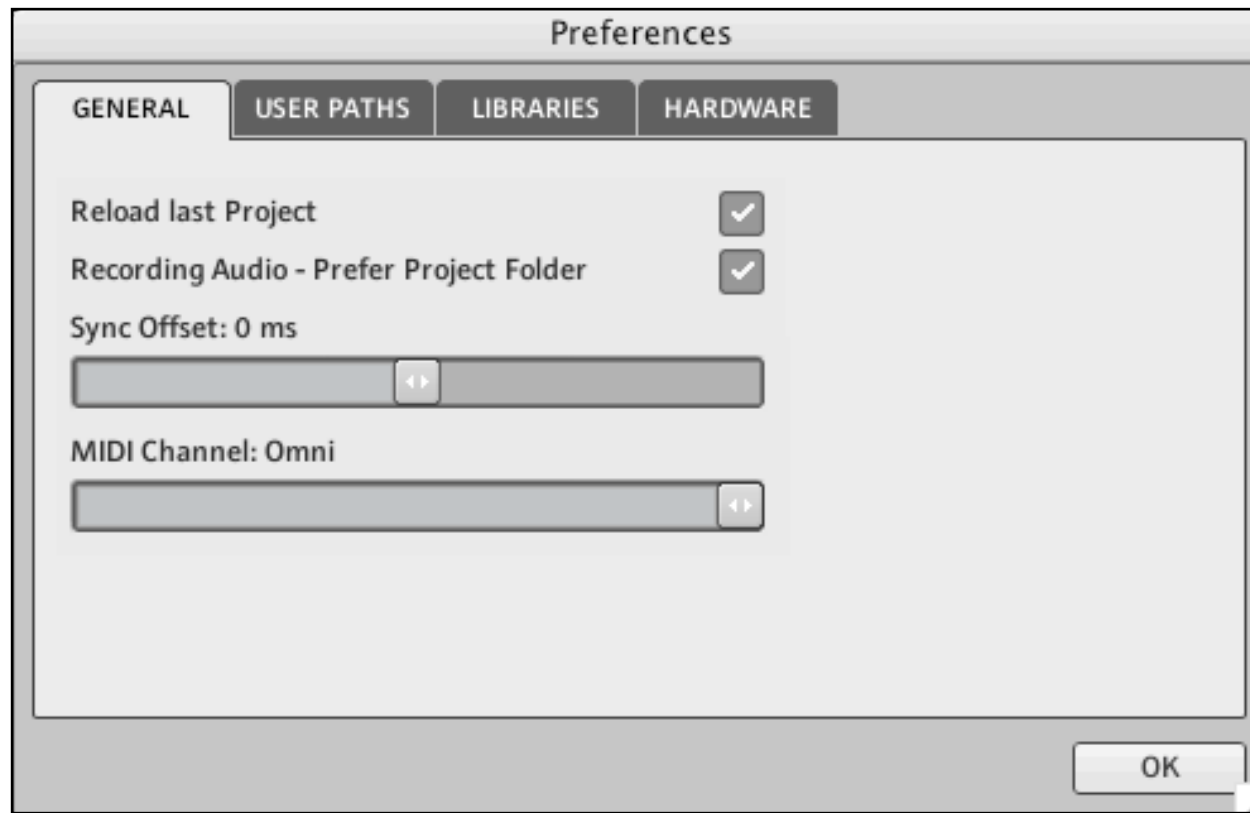


Preferences on the Main Menu



Preferences on the Plug-in Menu

2.4.1 Preferences – General Tab

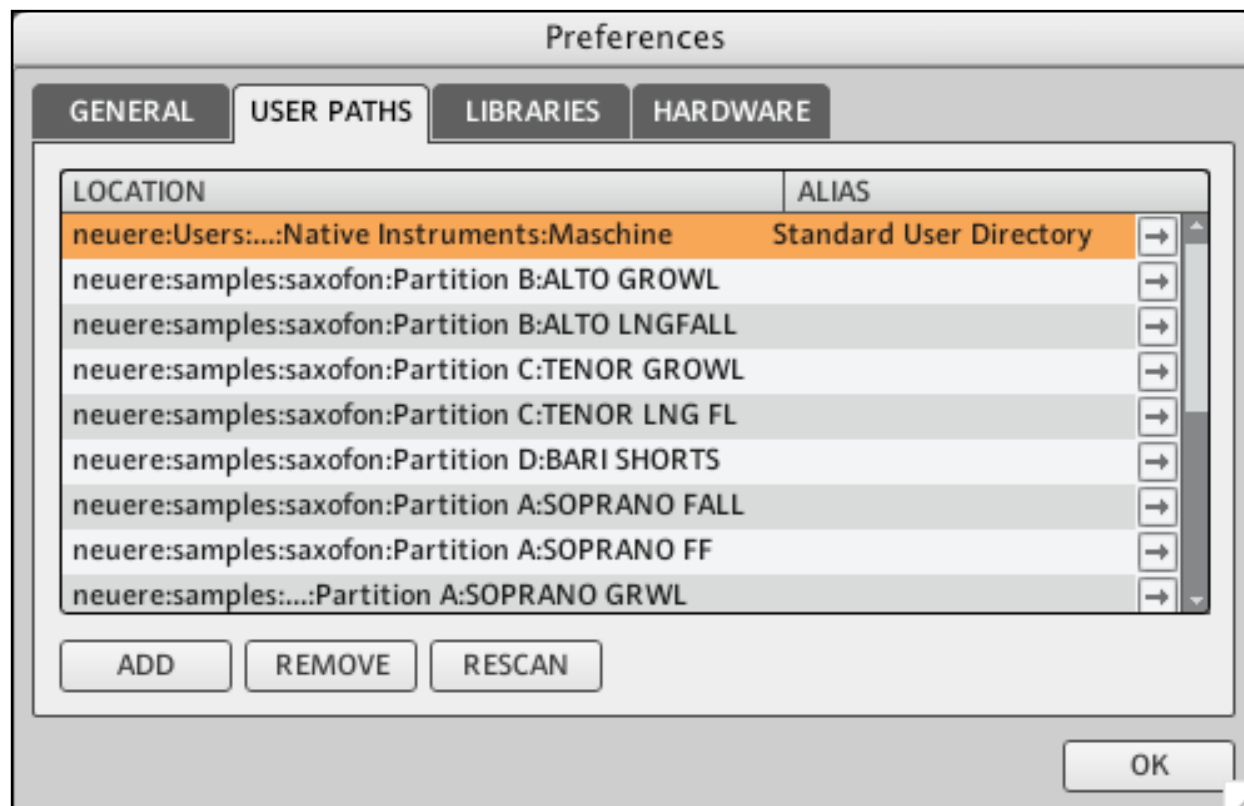


The Preferences – General Tab

RELOAD LAST PROJECT	If this option is checked, the last Project you worked on when quitting MASCHINE will be loaded as soon as you start MASCHINE again.
RECORDING AUDIO – PREFER PROJECT FOLDER	If this checkbox is marked, the Samples you record will be put in the Project Folder.

SYNC OFFSET	Depending on various variables such as the speed of your CPU, your audio interface, your MIDI interface and the Latency you selected in the Audio and MIDI Settings, you may experience a lack of synchronization between MASCHINE and the external MIDI Master. To compensate for that, you can adjust the Sync Offset in ms in the Preferences General Tab using the slider. An easy way to do that is to play a 4/4 Kick drum Pattern or a Metronome sound on both MASCHINE (see chapter 6.1.4 “ The Metronome ” on how to activate the Metronome) and the external MIDI Master and mix them together moving the slider until they are played at exactly the same time. As soon as you can hear a Flanger-like effect, you know you are close to the correct Sync Offset value. Keep on adjusting the Sync Offset until you can neither hear the flanging effect nor two separate signals.
MIDI Channel	Use the MIDI Channel control to set the MIDI channel you want MASCHINE to receive MIDI messages on. Limiting MIDI input to one channel can keep MASCHINE from playing unwanted MIDI notes sent by external devices.

2.4.2 Preferences – User Paths Tab

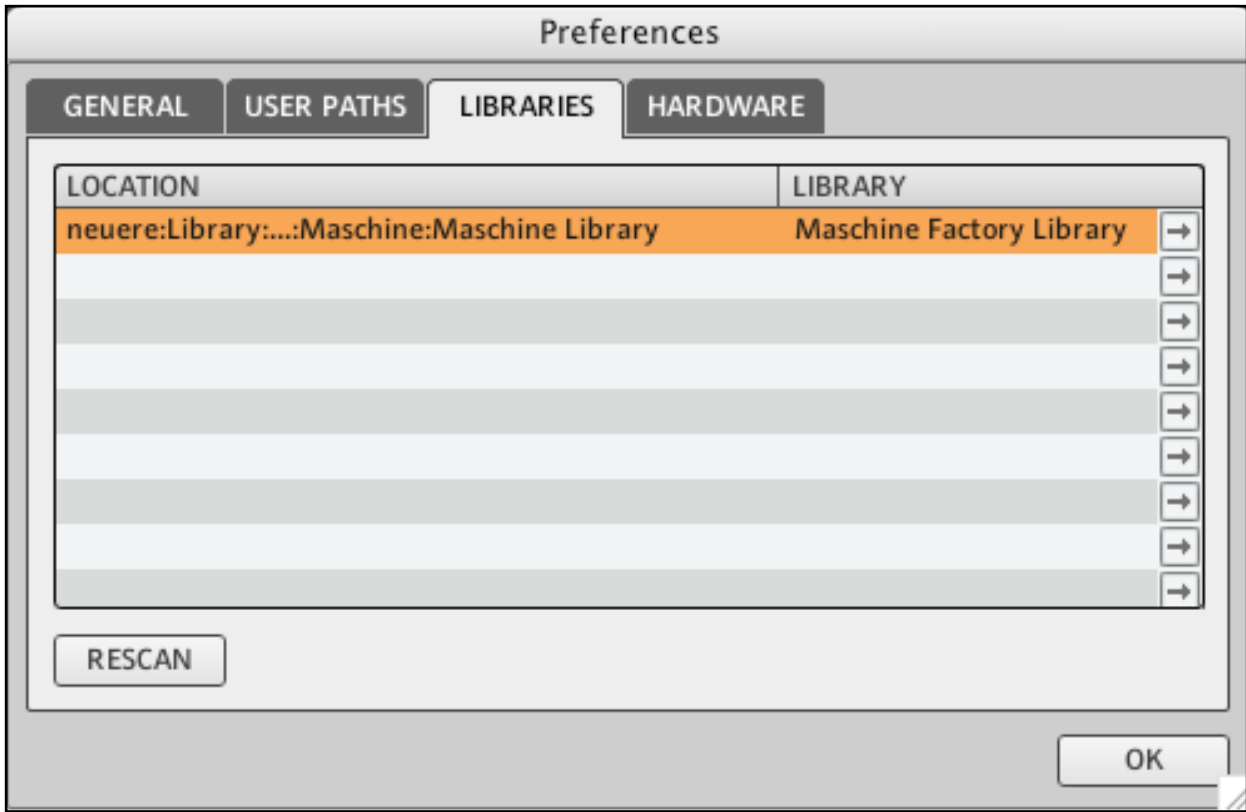


The Preferences – User Paths Tab

The User Paths Tab shows the locations of all the Samples you have added to the Library (consult [chapter 3 “Browser”](#) for more information on adding your own samples). By clicking on the Arrow to the right, you can jump directly to the selected directory.

ADD	Click ADD to manually add directories to the Library; keep in mind that any MASCHINE-compatible files in those directories will not be tagged if you add them like this (see the Browser chapter for more information on tagging your files).
REMOVE	Click REMOVE to remove directories from the Library.
RESCAN	If you have changed the content of the selected directory (such as added or removed files), you should rescan it in order to let MASCHINE know which files have been removed and / or added so that they show up in the MASCHINE Library.

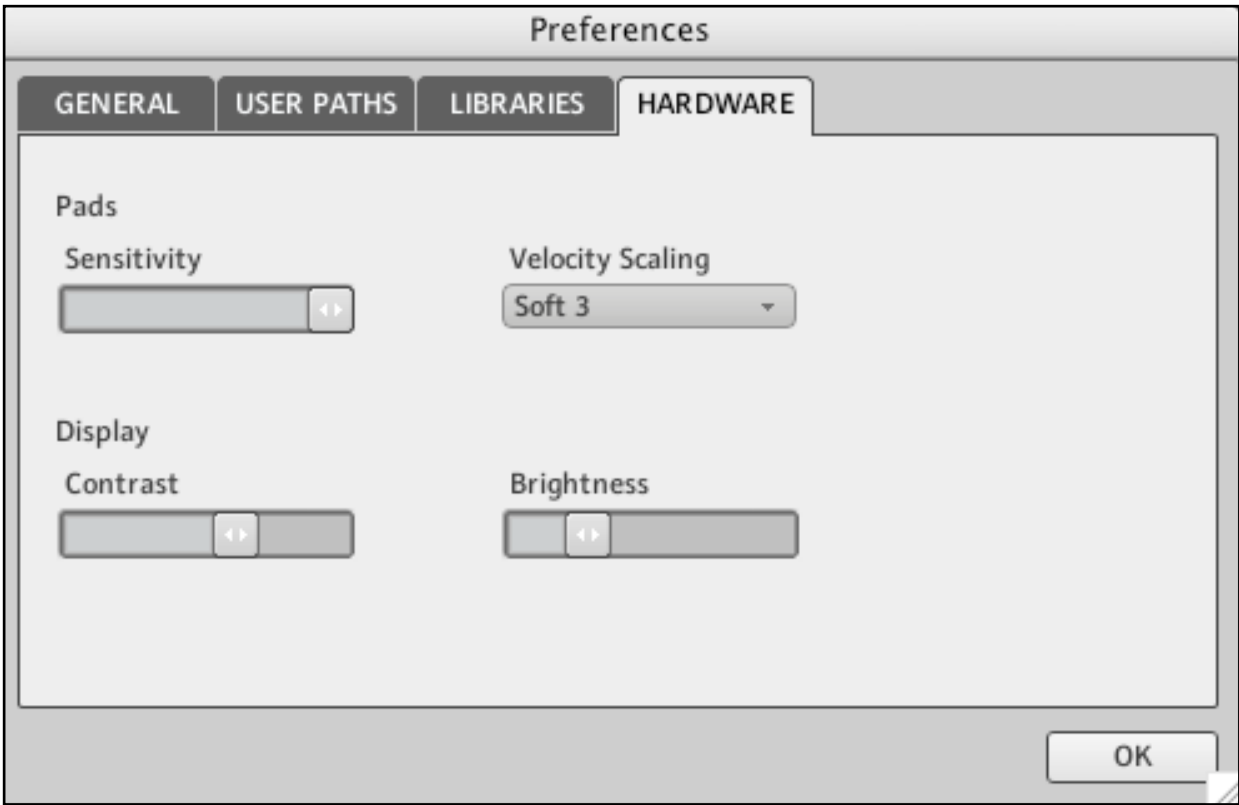
2.4.3 Preferences – Libraries Tab



The Preferences – Libraries Tab

RESCAN	Click this button to rescan the MASCHINE factory Library. This is useful if you have moved the factory Library to another hard drive or to another location on the same hard drive.
--------	---

2.4.4 Preferences – Hardware Tab



The Preferences – Hardware Tab

The Preferences on the Hardware Tab enable you to customize how the Pads react to your playing and how bright the Left and Right Display are.

SENSITIVITY SLIDER	Use the Sensitivity Slider to adjust how sensitive the Pads respond to your touch. This sets the minimum threshold at which MASCHINE will register a “hit.”
-----------------------	---

Adjusting Pad Sensitivity on the Hardware

On the Hardware, press Shift + Control and release Shift then turn Knob 2 to adjust the Pad Sensitivity.

VELOCITY SCALING	Velocity Scaling determines how your playing is translated into velocity values: starting from Soft 3 (a soft touch is enough to get a big velocity value) through Linear to Hard 3 (you really have to hit the Pad hard to get a big velocity value).
CONTRAST	With this slider you can adjust the contrast of the Left and Right Display of the MASCHINE Controller.

Adjusting Contrast on the Hardware

On the Hardware press Shift + Control and release Shift: you can now adjust the Contrast for the Left Display by turning Knob 3, for the Right Display by turning Knob 4.

BRIGHTNESS

The Brightness Slider allows you to adjust the brightness of the Left and Right Display.

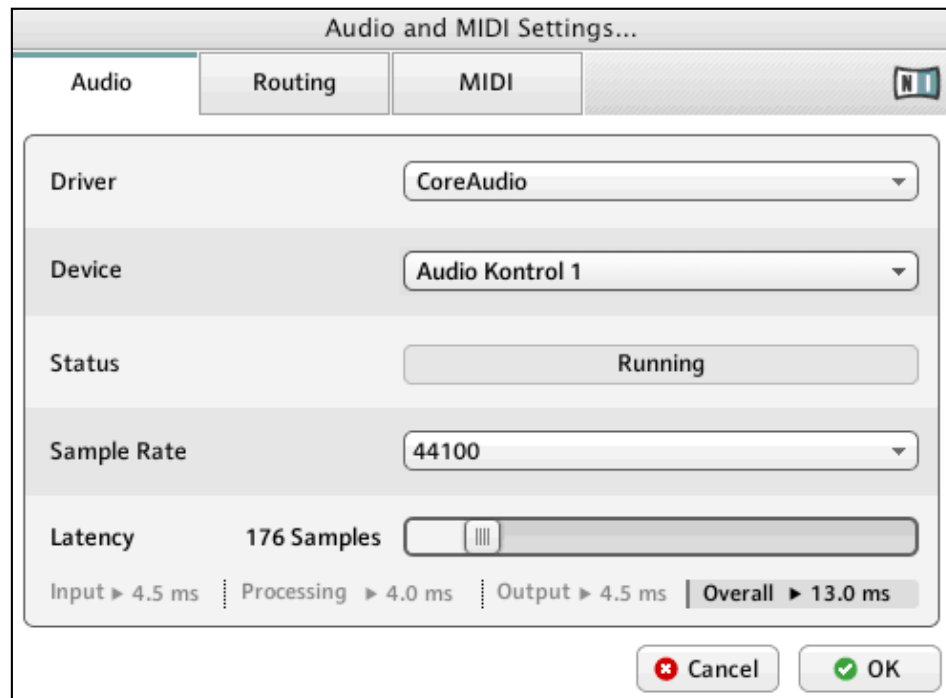
Adjusting Brightness on the Hardware

On the Hardware press Shift + Control and release Shift: you can now adjust the brightness by turning Knob 1.

2.4.5 Audio and MIDI Settings

You can find the Audio and MIDI Settings dialog in the Main Menu under File.

Audio and MIDI Settings – Audio Tab

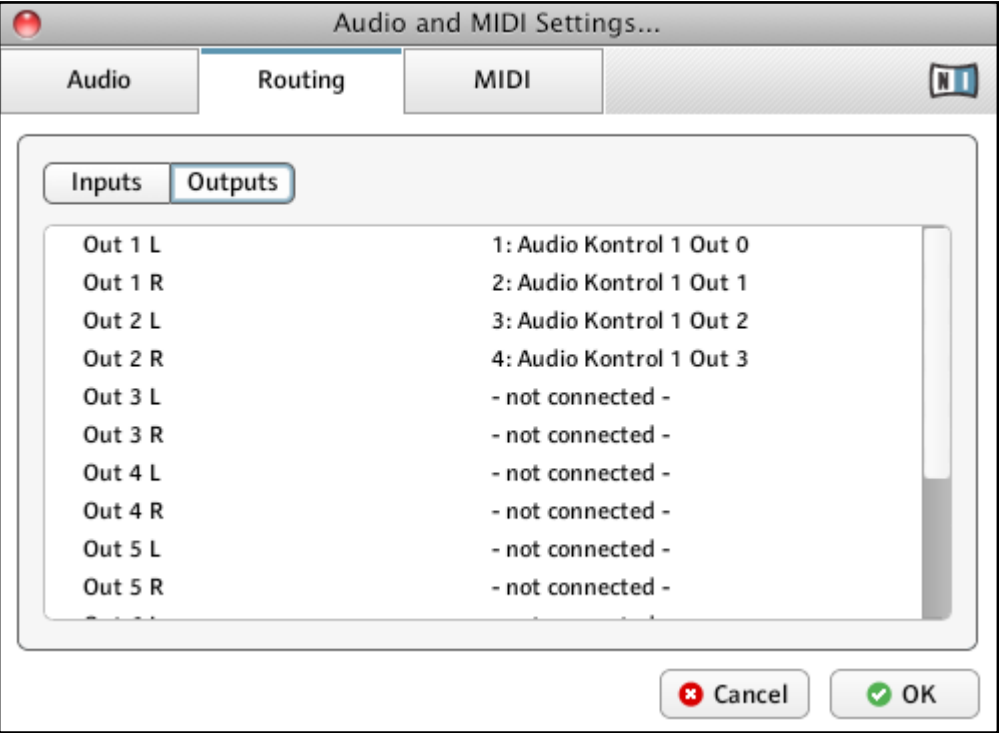


The Audio Tab

DRIVER	Select your audio driver here.
DEVICE	This allows you to choose available devices if you have connected more than one audio interface.
STATUS	This shows you whether your audio interface is currently running.
SAMPLE RATE	The currently selected Sample Rate of your audio interface.

LATENCY	This slider allows you to adjust the latency of your audio interface in samples. Lower values result in a more immediate playing response but are heavier on the CPU, and may result in audible clicks and pops. Larger values are easier on the CPU, but introduce a larger latency (i.e. there may be a very small delay between when you hit a pad and when you actually hear it). You should therefore experiment with this setting so that it is as low as possible without overloading your CPU or introducing any audio artifacts.
---------	---

Audio and MIDI Settings – Routing Tab

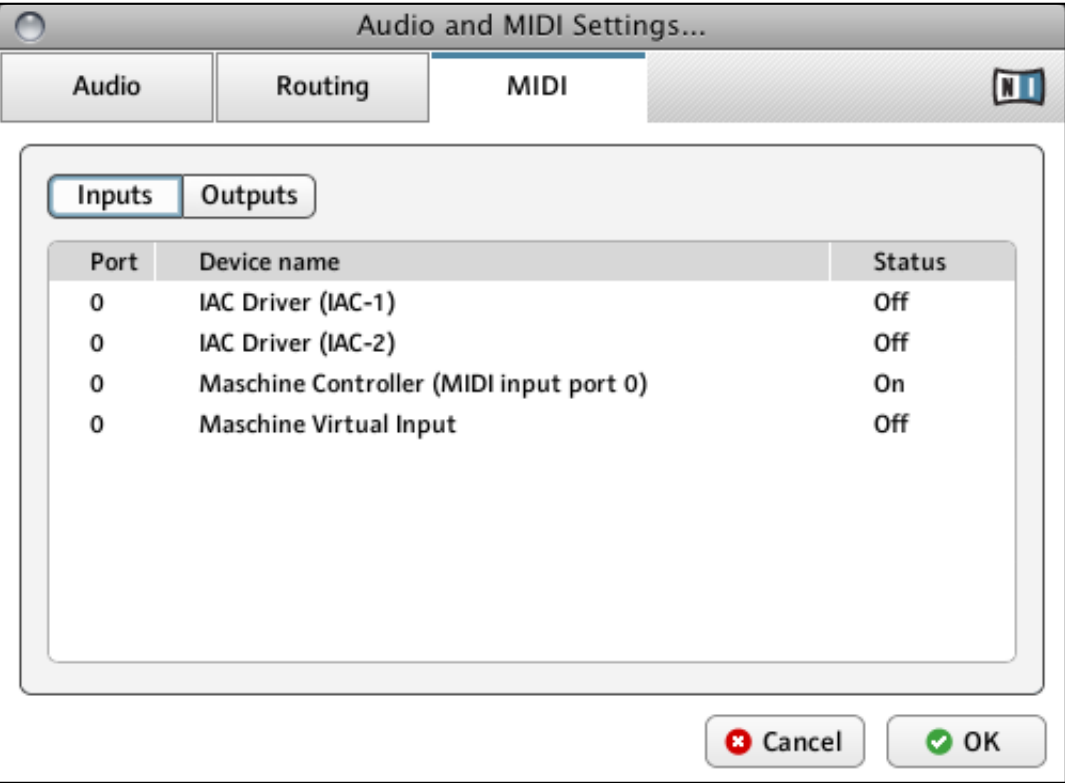


Routing Tab

INPUTS	By clicking on this Button, you can define which two inputs on your audio interface will be seen by MASCHINE. Select the Inputs of your audio interface on the right column by clicking on it: you will be presented with a dropdown menu with all the available Inputs.. The choices made here will determine which Inputs can be used when Sampling external sources, for example.
--------	--

OUTPUTS	By clicking on Outputs, you will be presented with a list of the eight stereo outputs from MASCHINE: in the right column, you can assign them to the outputs of your audio interface via a dropdown menu.
---------	---

Audio and MIDI Settings – MIDI Tab



MIDI Tab (Mac OSX version pictured; entries may vary on your computer)

INPUTS	Clicking on Input displays a list of all the available MIDI Inputs of your system. You can activate each Input by clicking in the Status column.
OUTPUTS	Clicking on Output displays a list of all the available MIDI Outputs of your system. You can activate each Output by clicking in the Status column.

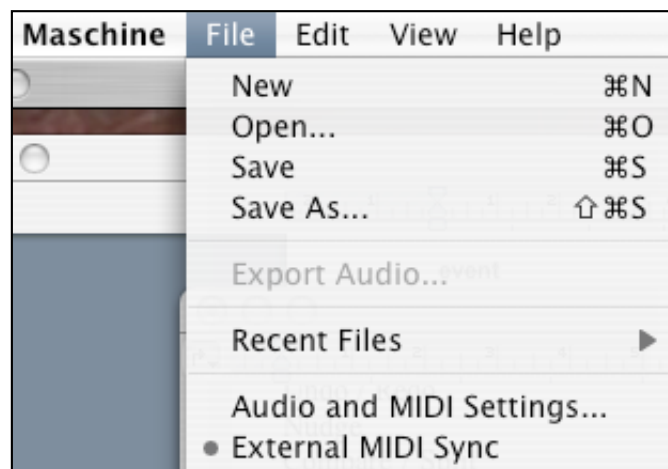
2.5 Connecting external MIDI Equipment




To connect your external MIDI Equipment, hook it up to MASCHINE's MIDI In or to MASCHINE's MIDI Out. If you connect a MIDI Keyboard to the MIDI In, you can directly play the currently selected Sound with it without having to set anything up. You can also switch Scenes remotely by sending MIDI Program Change messages to MASCHINE. More on this in [chapter 10 "Creating a Song using Scenes"](#).

External Sync

MASCHINE can be controlled externally via MIDI Clock by any device that is capable of sending MIDI Clock. This could be hardware such as a drum machine, another groovebox or sequencer, or even another software sequencer. To enable External Sync, select it from File in the Main Menu:



External Sync activated

 If you use MASCHINE as a plug-in, it is automatically synced to the host application so you don't have to activate External Sync!

You have to define at least one Input in the Audio and Midi Settings MIDI Tab to enable External Sync.

3 Browser

The Browser is the place where you can organize and categorize all of your Samples, Sounds, Groups, Projects, FX Presets and Patterns. This is done by tagging them, which means categorizing them by using keywords. Have a look at the tutorial videos “Browser & Library Part One” and “Browser & Library Part Two” available on the Native Instruments Website (www.native-instruments.com) for more information. 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.

3.1 Elements of the Browser



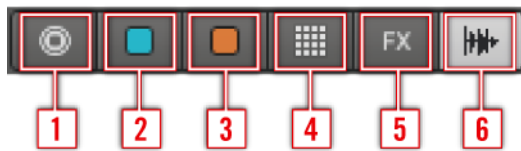
Browser Mode Selector



The Browser Mode Selector with LIB selected

On the Browser Mode Selector, you can choose whether you want to browse the Library (click LIB) or one of your hard drives (click DISK).

File Type Selector

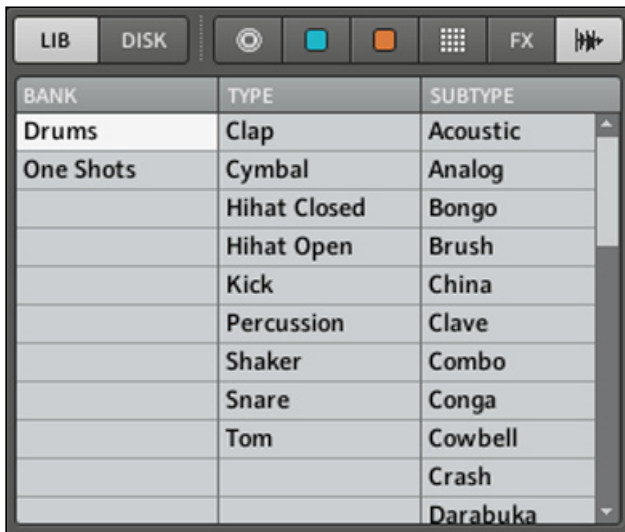


The File Type Selector only appears up when you have selected the Library tab in the Browser Mode Selector. On the File Type Selector you will find 6 icons representing the different file types of MASCHINE: Projects (1), Groups (2), Sounds (3), Patterns (4), FX Presets (5) and Samples (6). By clicking on one of them, it causes only the files of the selected type to be displayed in the Search Result List. You may also deactivate all of them to perform your search on all file types at once.

- 1 Projects (.mprj)
- 2 Groups (.mgrp)
- 3 Sounds (.msnd)
- 4 Patterns (.mpat)
- 5 FX Presets (.mfxp)
- 6 Samples (.wav, .aiff)

Tag Filter

As with the File Type selector, the Tag Filter only shows up when you have selected the Library in the Browser Mode Selector. Then it turns into the three category columns Bank, Type and Subtype.



The Tag Filter with the filetype Sample selected

BANK	The Bank category is meant to define a basic structure. If you add a large library with many types of Samples, this might be the place to put its name.
TYPE	The Type category is the first in the tag hierarchy of MASCHINE, and should be used to categorize your file in a general way.
SUBTYPE	With the Subtype, you can narrow down the description of your file even further.

Text Search field



In the Text Search Field you can enter your search query. The search will be performed on the file paths, the file name and the tags. If you want to search for a combination of two words (e.g. “bass” and “analog”) just enter both words in the Text Search Field with a gap in between. As you start typing, a list of matches will start appearing in the Search Result List. To the right of it you will find the Reset Switch that resets both text search and tag search.

Search Result List

The Search Result List shows all the files that match your query. Double-clicking one of the matches will load the respective file. Depending on what File type you have selected, the file will be loaded to different locations within MASCHINE:



The Search Result List showing Kicks from the MASCHINE Factory Library

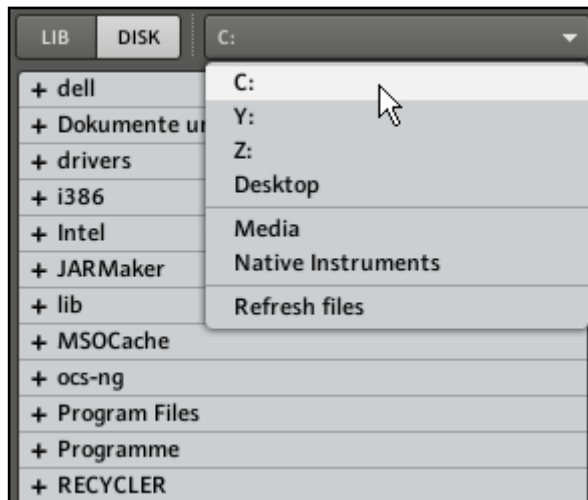
- ▶ If it is a Project it will load all associated files replacing all files currently in memory.
- ▶ If it is a Sample, it will be loaded into the selected Zone of the Sound in focus replacing the current one.
- ▶ If it is a Sound, it will be loaded into the Sound Slot currently in focus.
- ▶ If it is a Group, it will be loaded into the Group Slot currently in focus.
- ▶ If it is a FX Preset, it will be loaded into the FX Slot currently in focus.
- ▶ If you load a new Project, a dialog will appear asking you if you want to save changes to the currently loaded Project. This is to prevent you from losing changes you performed on it by accidentally loading a new Project without saving the old one.



Since the FX Slots are not necessarily always in focus, you will have to make sure to select one before being able to load a FX Preset. Alternatively, you can load FX Presets by dragging them from the Browser and dropping them on the desired FX Tab.

3.2 Adding your own Samples

Apart from the huge Library, you might still want to use your own Samples. The supported file types are Wav and Aiff. To be able to find them in the Browser from the Hardware, you will have to import them into the Library. Importing Samples does not mean they will be moved from the directory they currently reside in, they will only be referenced by the Browser. That's why whenever you move Samples, make sure to update the paths to their respective directories as described in [chapter 2.4 "Preferences"](#). Click on DISK in the File Type Selector and on the right of it, you will be presented with a list of your hard drives:



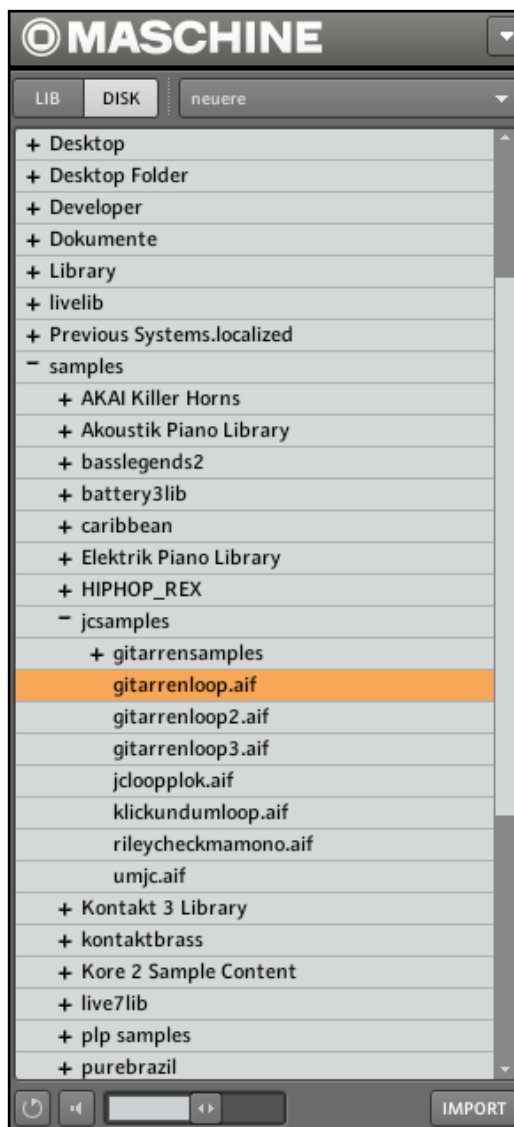
The Browser with DISK selected showing the available volumes

Choose the directory that contains your Samples. You can preview the Samples automatically before loading them by activating the Audition function in the lower row of the Browser. Click on the Audition Button; the slider to the right is the Volume Slider for the Audition Control.



From left to right: SWAP BUTTON, AUDITION BUTTON, VOLUME SLIDER, IMPORT BUTTON

3.2.1 Importing a Sample into the Library



Selecting a Sample on your harddrive

After you have found your Sample, you can add it to the Library by clicking the Import Button. If you want to add multiple files at once, such as a folder of your favorite Samples, you can select the whole folder and tag all files at once using the same dialog as when importing single files. You can also make non-contiguous selections within a directory by clicking while holding down the Ctl key (PC) or the Command key (Mac). After pressing Import, you will be presented with the Tag Editor to tag the Sample / Samples you are about to import to the Library.

3.2.2 Tagging your Samples, Sounds, Groups, FX Presets, Patterns and Projects

In the three category columns of the Tag Editor (Bank, Type and Subtype), select the tags you want to apply to the Sample you are importing:



The Tag Editor with selected Tags (highlighted and checkmarked)

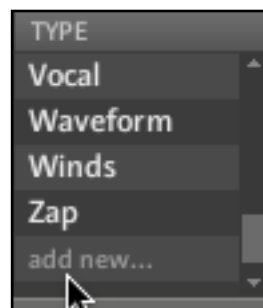
You can add as many Tags to a file as you want to by clicking on them. A checkmark will appear next to the selected Tags. To remove the Tag from the Sample, click on it again. After you have finished tagging, click the OK Button to import the Sample to the Library and apply the selected Tags. You can cancel the Import by clicking the Cancel Button.



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

Adding new Tags

You can also add your own Tags. On the bottom of each of the three category columns in the Tag Editor, there is an “add new” entry:



Adding a new Tag in the Type Column

To add a new Tag, click on it and enter the Tag name with your computer keyboard. The new Tag will then be available in that Tag category.

Editing Tags

It is also possible to edit the Tags that are on existing files in your Library. Just click on the file you want to edit the tags of in the Search Result List, click the Edit Button and select / deselect Tags by checking / unchecking the respective checkmarks next to them.

3.3 Quick Browse

Quick Browse is a feature that allows you to quickly recall a search query you performed to get to a given file. Let's say you have loaded a Kick Sound after browsing the Library, then loaded a Snare Sound to another Sound Slot and now you realize you are not satisfied with that Kick Sound, but you heard a nice Kick Sound 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 Sounds (given that the MASCHINE Library already has around 700 Kick Sounds, this may take a considerable amount of time). With Quick Browse you can restore the query with just one click. Quick Browse is available in the Sound Tab (for Sounds and Samples), in the Group Tab (for Groups) in the Master Tab (for Projects) and the FX Tabs (for FX and).

3.3.1 Using Quick Browse



The Quick Browse function in the Sound Tab

The Quick Browse function is activated by clicking on the Magnifier Tool next to the file name. If you click on the Magnifier Tool the search query for the currently selected file will be restored allowing you to choose other results for that query from the Search Result List. By using the cursor keys on your computer keyboard, you can browse through files in the Search Result List and they will be instantly loaded if In-Place Auditioning is activated.

3.3.2 In-Place Auditioning

To activate In-Place Auditioning, click on the Swap Button in the bottom row of the Browser which will be highlighted in white:



Activating In-Place Auditioning by clicking the SWAP BUTTON

This allows you to listen to Samples, Sounds, Groups, and FX Presets which will be instantly loaded and can be listened to in context with the rest of your Project while it is playing. To deactivate this function, just click on the Magnifier Tool on the right of the Text Search Field. You will still be presented with the Search Result List if you click on the Magnifier Tool next to the file name in the respective Tab, but they will not be loaded automatically while browsing them.

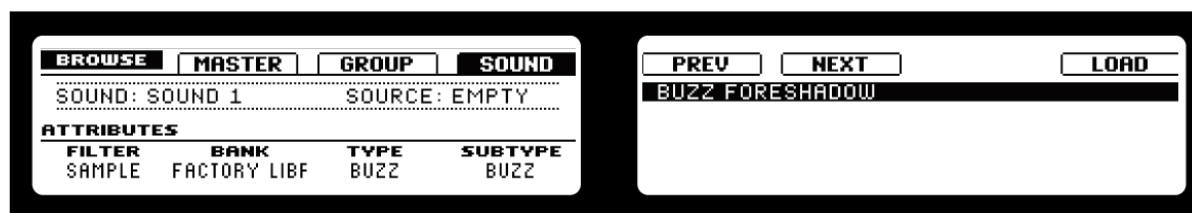


In-Place Auditioning is not only useful to look for an appropriate Sound, Group, FX or Sample, but can also be very inspiring: with a Pattern playing, browse through your Library with In-Place Auditioning activated and listen to Sounds and Samples you normally would not use in that context.

3.4 The Browser on the Hardware

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

To enter the Browser on the MASCHINE Controller press the Browse Button.



The Browser on the hardware displays with the Sound Tab in focus

Filter

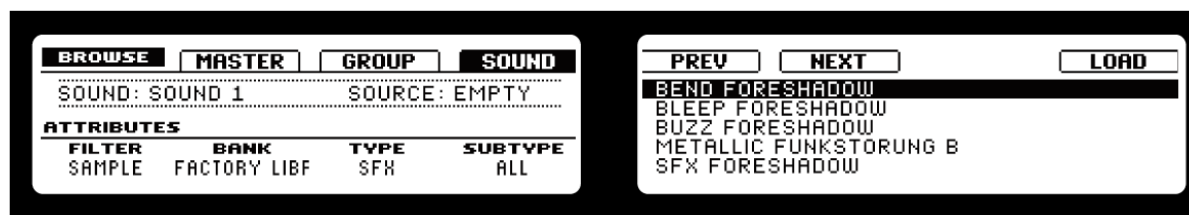
Dial Knob 1 to select a file type you are looking for. Depending on which of the Buttons 2-4 are selected (the picture above shows the Browser with Button 4, the Sound Tab selected), the Filter will allow you to select compatible file types only:

MASTER	GROUP	SOUND
Project	Group	Sound
FX	Patterns	FX
	FX	Sample

BANK	The BANK category is meant to define a basic structure. Examples for the Bank category from the Factory Library are DRUMS or LOOPS or FACTORY FX.
TYPE	The TYPE category is the first in the tag hierarchy of MASCHINE and categorizes the file in a general way. Examples for the TYPE category from the Factory Library are BRASS, ANALOG FX or KICK.
SUBTYPE	With the SUBTYPE, you can narrow down the description of your file even further. Examples for the SUBTYPE category are DJEMBE, GLITCH or ANALOG.

The Left Display is used to define your filters and the Tag categories by turning Knobs 1-4.

The Right Display shows the Search Result List and enables you to load a file.



The Browser on the hardware showing a Search Result List

You can browse through the Search Result List by turning Knob 5; once you want to load a file, hit Button 8. Button 5 and 6 allow you to directly load the next or the previous file from the Search Result List in order to be able to compare them easily (just like In-Place Auditioning on the software).



If you want to use your Hardware a lot make sure to tag all the files you want to use extensively! This makes it a lot easier to access them using the Hardware.

4 Creating Sounds

Each Group consists of 16 Sound Slots that can be filled with either one audio file (a Sample in MASCHINE terminology), or with multiple audio files mapped across the Keyboard, as well as any accompanying effects (a Sound in MASCHINE terminology). A Sound can also be used as an effect source in MASCHINE; you could for example use a Sound to host a Send Effect for other Sounds, or even route external audio signals through a given Sound (read [chapter 9 “Using FX”](#) for more details on this). You can also sample directly to a Sound Slot (read [chapter 11 “Sampling & Sample Mapping”](#) for more details on this).

4.1 The Sampler parameters in the Sampler Source Tab (SRC)

The Sampler Parameters offer various ways to further shape each of your Sounds individually. You can tune, change basic dynamics and apply effects as well as different modulation options. Not only are these parameters automatable but they were designed to be tinkered with! See [chapter 6.1.8 “Recording automation”](#) for hardware and [chapter 7.2.5 “Recording and editing automation”](#) for software.

The Sampler parameters are organized in 5 pages:

- ▶ Page 1: Voice Settings and Velocity Automation
- ▶ Page 2: Pitch/Gate and Amplitude Envelope
- ▶ Page 3: FX and Filter Settings
- ▶ Page 4: Modulation Envelope and Destination
- ▶ Page 5: LFO and Destination

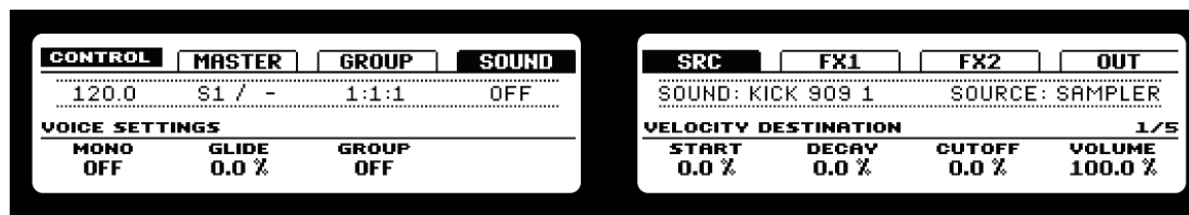


On the MASCHINE Controller, step through the pages by pressing the Page Buttons.



In the software, step through the pages by clicking the Page Selector's arrow buttons.

Page 1: Voice Settings and Velocity Automation



Page 1 of 5 from the Sampler Source Tab on the hardware



Page 1 of 5 from the Sampler Source Tab on the software

On the MASCHINE Controller, press Shift+Browse to select the sound source. Alternatively, click the Arrow in the Header of the Sampler Source Tab (SRC). There are two modes: Sampler, and Input. Sampler allows the selected slot to play back Samples (as you will be doing most of the time). Change the mode to Input, however, if instead of playing back a Sample, you would like the selected Sound to be available as a bussing point for other Sounds. You might for example like to host an effect such as a reverb in this slot that can be made available to other Sounds in your Project. Tip: you don't really ever need to explicitly choose Sampler; this will be done for you automatically any time you load a sound into the slot.

4.1.1 Voice Settings

MONO	If this Button is selected, the Sound will be played in Mono mode.
GLIDE	If Mono is selected, this allows for a portamento-effect between consecutive steps.
GROUP	You can choose one of the 8 Voice Groups here or leave this option set to Off. If you assign more than one Sound to the same Voice Group, they will cancel each other out. This is a behavior you can find in vintage drum machines (typically used to “choke” the open hi-hat with the closed one), but also in monophonic synthesizers that are only capable of playing one note at a time.

4.1.2 Velocity Destination

START	This is a built-in modulation source that allows you to modulate the sample Start parameter on Page 2 based on the input velocity. Positive values shift the sample start position later in time as you play harder, negative values shift it closer to the beginning of the sample as you play harder. Tip: a typical example for this parameter is setting it so that the initial attack transient of a snare drum is heard only at high velocity values. This makes it sound “snappier” when you play hard, and “mushier” or muted when you play softly.
DECAY	This allows you to modulate the Decay parameter of the Amplitude Envelope on page 2 by using Velocity.
CUTOFF	This allows you to modulate the Cutoff parameter of the Filters with filter types LP, HP, BP (on page 3).
VOLUME	This allows you to modulate Volume, which is what Velocity normally is used for.

Page 2: Pitch/Gate and Amplitude Envelope

CONTROL

MASTER

GROUP

SOUND

120.0

S1 / -

1:1:1

OFF

PITCH / GATE

TUNE

START

REVERSE

TYPE

0.00

0.0 %

OFF

AHD

SRC

FX1

FX2

OUT

SOUND: KICK 909 1

SOURCE: SAMPLER

AMPLITUDE ENVELOPE

2/5

ATTACK

HOLD

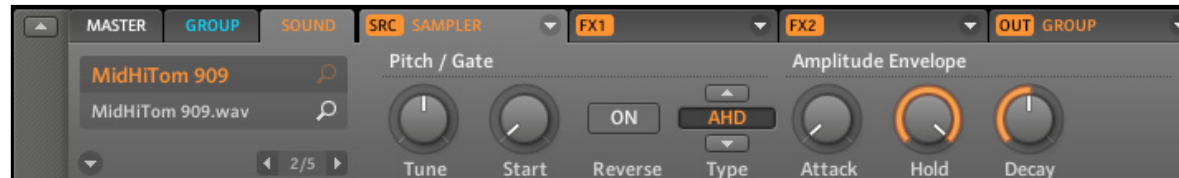
DECAY

0.0 %

100.0 %

50.0 %

Page 2 of the Sampler Source Tab on the Hardware



Page 2 of the Sampler Source Tab on the Software

4.1.3 Pitch / Gate

TUNE	Defines the basic pitch of your Sample: turn the knob to the right for a higher pitch and to the left for a lower pitch.
START	Determines the start point of the Sample(can also be modulated with Velocity control, described above).
REVERSE	If Reverse is activated, the Sample will be played backwards.

4.1.4 Amplitude Envelope

The Amplitude Envelope allows you to tailor your Sample in terms of its loudness over time.

TYPE



Oneshot: This is typical vintage drum machine behavior: the sample is played in its entirety from beginning to end with no envelope. Note: if ONESHOT is activated, the following parameters will not be available!



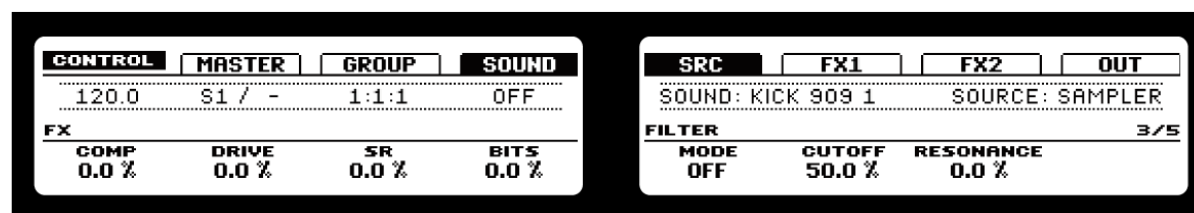
AHD: AHD mode disables the Sustain and Release controls, and replaces them with the Hold parameter. AHD mode is ideal for “fire and forget” behavior, whereby you would like to have the sound trigger for a certain amount of time regardless of how long you hold the Pad down.



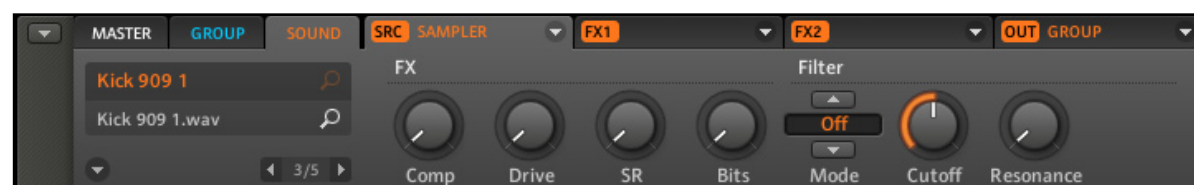
ADSR: Typically, the ADSR envelope is used for longer, sustained Samples that require complex dynamic control. Tip: unlike many other hardware devices, the Pads on MASCHINE are sensitive not only to being hit, but also to being *held*—so using the ADSR envelope, you can make the Pads behave like a MIDI keyboard and sustain a note only for as long as it is held down.

ATTACK	Attack determines how quickly the Sound reaches full volume after being triggered.
HOLD	Hold determines how long the envelope will stay at its maximum level.
DECAY	Decay determines how fast the envelope drops to the Sustain level in ADSR mode; in AHD-mode it is used to adjust how fast the Sound dies down. This parameter can be modulated by Velocity.
SUSTAIN	Sustain determines the constant level being kept after Decay until the note ends.
RELEASE	Release determines how long the sound takes to fade out after the note has ended.

Page 3: FX and Filter Settings



Page 3 of 5 from the Sampler Source Tab on the hardware



Page 3 of 5 from the Sampler Source Tab on the software

4.2 FX

This is a small selection of basic FX, not to be mixed up with the FX section covered in depth in [chapter 9 “Using FX”](#).

COMP	Basic compressor allowing you to give a Sound more density.
DRIVE	Defines the amount of saturation applied to a Sound.
SR	SR stands for sample rate: you can use it to lower the original sample rate in order to give a Sound a lo-fi touch.
BITS	Allows you to lower the original bit rate of the Sound, resulting in a more rough, digital sounding lo-fi effect.

Filter

This section gives you access to a set of different filters.

Mode

Using the arrows you can choose from different filter types: EQ, HP2, BP2, LP2 and Off. Each type results in different parameters to the right of it:

EQ

The EQ is an equalizer with FREQUENCY, BANDWIDTH and GAIN.

HP2

HP2 is a highpass filter with CUTOFF and RESONANCE. Cutoff can be modulated by Velocity, the Modulation Envelope or the LFO.

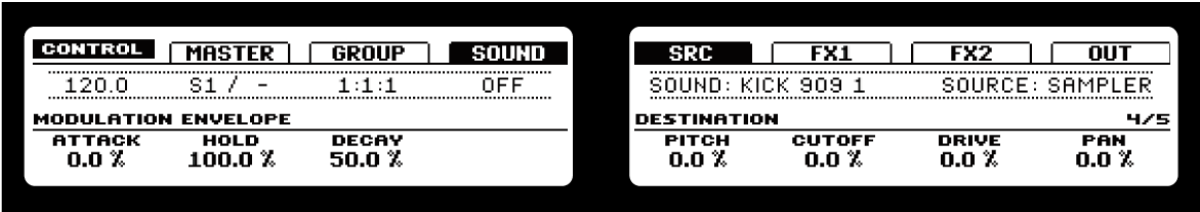
BP2

BP2 is a bandpass filter with CUTOFF. CUTOFF can be modulated by Velocity, the Modulation Envelope or the LFO.

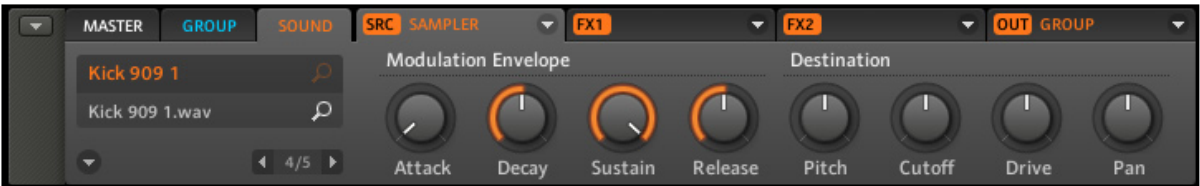
LP2

LP2 is a low pass filter with CUTOFF and RESONANCE. CUTOFF can be modulated by Velocity, the Modulation Envelope or the LFO.

Page 4: Modulation Envelope and Destination



Page 4 of 5 from Sampler Source Tab on the hardware



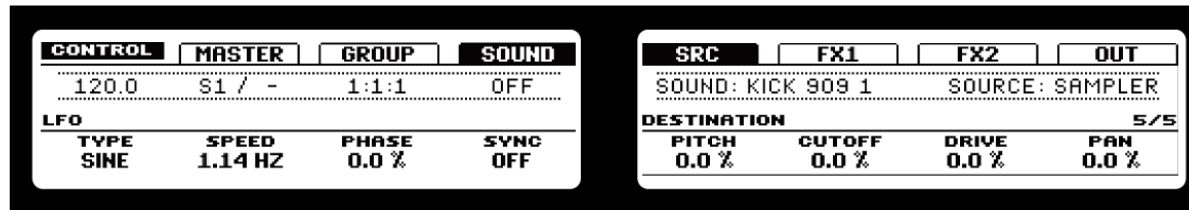
Page 4 of 5 from Sampler Source Tab on the software

The Modulation Envelope offers an envelope that shapes the modulation you apply to your Sound. Its parameters are matched to those of the Amplitude Envelope on Page 2, so that you have either an ADSR (Attack, Decay, Sustain, Release) envelope or an AHD (Attack, Hold, Decay) – envelope to control your modulations. If you choose ONESHOT Mode, only the AHD envelope will be available for modulation.

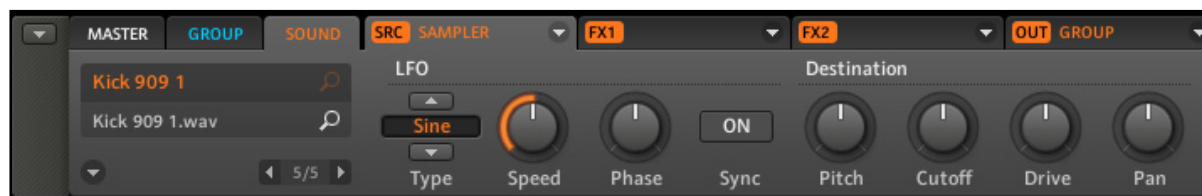
ATTACK	The time it takes for the envelope to reach its maximum level.
DECAY	With Decay you adjust how fast the envelope drops to the Sustain level in ADSR mode; in AHD-mode it is used to adjust how fast the envelope fades out.
HOLD	How long the envelope will stay at its maximum level.
SUSTAIN	The envelope level that will be maintained as long as the note is played.
RELEASE	The time for the sustain level to return to zero after the note has ended.
DESTINATION	This is where you define modulation targets for the Modulation Envelope. Available targets are:

- ▶ PITCH, located on Sampler Parameter Page 2
- ▶ CUTOFF, located on Sampler Parameter Page 3
- ▶ DRIVE, located on Sampler Parameter Page 3
- ▶ PAN, located on Output Parameter Page 1

Page 5: LFO and Destination



Page 5 of 5 from the Sampler Source Tab on the hardware



Page 5 of 5 from the Sampler Source Tab on the software

LFO

The LFO (Low Frequency Oscillator) is another modulation source based on waveforms with different shapes.

TYPE	Here you can choose the shape of the LFO waveform. Available shapes are Random, Saw, Rect (Rectangle), Tri (Triangle) and Sine.
SPEED	Controls the speed of the LFO measured in Hz (Hertz). If you choose to synchronize the Speed by activating Sync, it will show musical values instead.
PHASE	Defines the initial phase of the LFO waveform, expressed as a percentage.
SYNC	This button is used to activate synchronization of the LFO to the tempo of your Project. If enabled, the values on the Speed parameter will change into rhythmical values ranging from 16/1 (= one modulation cycle in 16 bars) to 1/32 (one modulation in 1/32nd note).

Destination

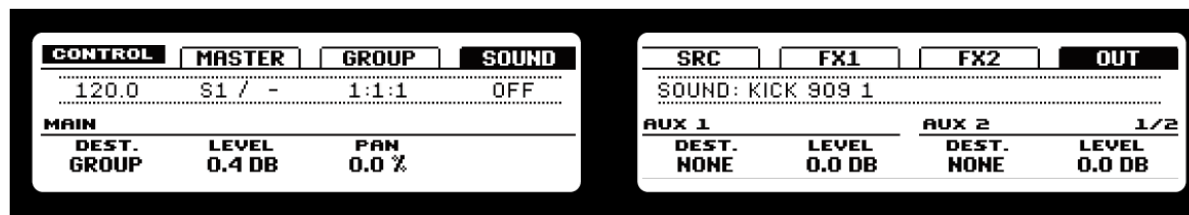
This is where you define up to four modulation targets for the LFO:

- ▶ PITCH, located on Sampler Parameter Page 2
- ▶ CUTOFF, located on Sampler Parameter Page 3
- ▶ DRIVE, located on Sampler Parameter Page 3
- ▶ PAN, located on Output Parameter Page 1

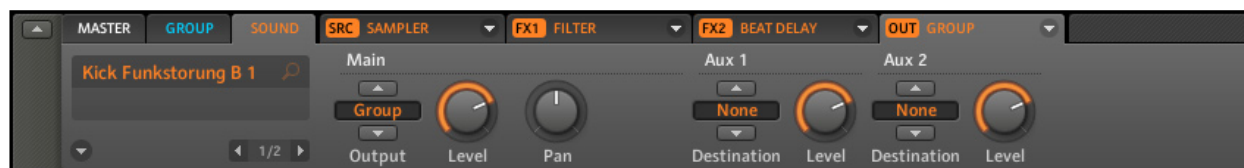
4.3 The Sampler Parameters in the Sampler Output Tab (OUT)

The Sampler Output Tab allows you to route your Sound and define Aux Sends. Aux Sends allow you to send a definable amount of your Sound to other Groups or Sounds for further processing. Read the [FX chapter](#) to get to know more about how to set up a classic Send Effect.

Page 1



Page 1 of 2 from the Sampler Output Tab on the hardware



Page 1 of 2 from the Sampler Output Tab on the software

MAIN	
OUTPUT	This is used to define where you want to send your Sound. Available options are Master, Group, any other Sound within the Project whose Source type is set to Input, the External Outputs 1-8, and None.
LEVEL	Here you adjust the overall volume level of your Sound.
PAN	Defines the pan position of your Sound in the stereo field.
AUX 1	
DESTINATION	The destination for Aux 1: available destinations are Master, Group, all Sounds with Input enabled, the External Outputs 1-8 and None.
LEVEL	Here you adjust the level of the signal that gets sent to the Aux 1 destination.
AUX 2	
DESTINATION	The destination for Aux 2: available destinations are Master, Group, all Sounds with Input enabled, the External Outputs 1-8 and None.
LEVEL	Controls the amount of the signal that gets sent to the Aux 2 destination.

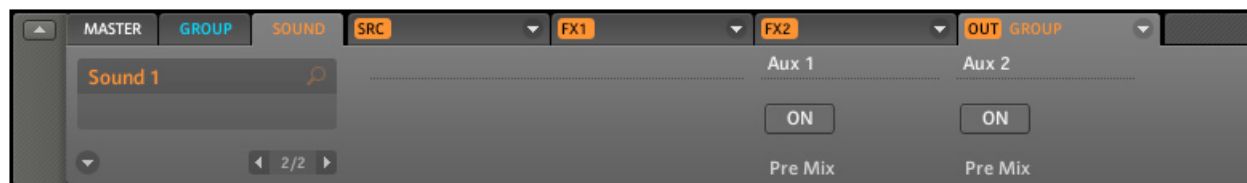


Tip: if Maschine is running as a plug-in, the External Outputs will correspond to virtual outputs in your host. This allows you to send individual Sounds from MASCHINE to their own mixer channel within your DAW, for example.

Page 2



Page 2 of 2 from the Sampler Output Tab on the Hardware

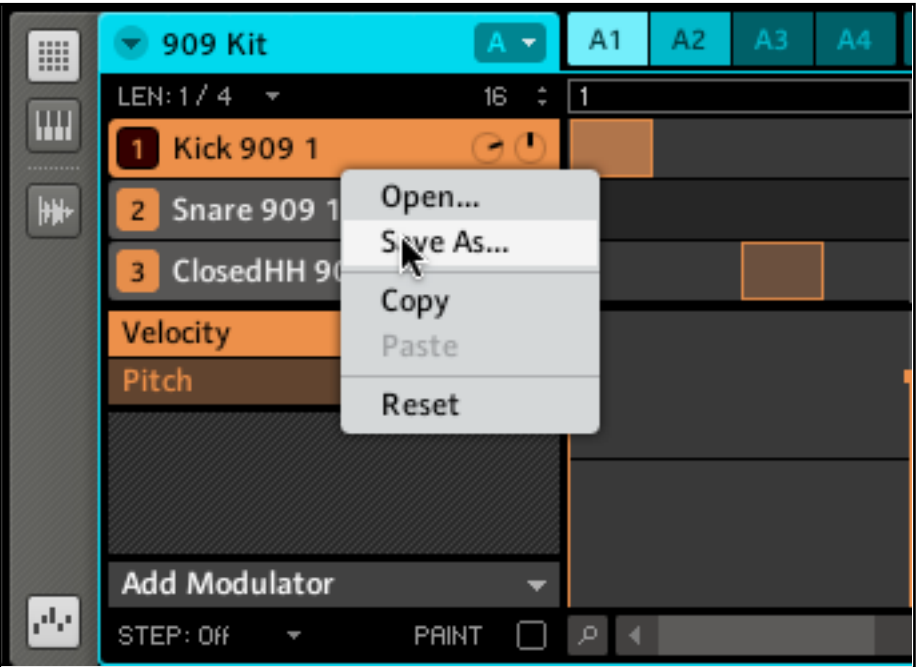


Page 2 of 2 from the Sampler Output Tab on the software

AUX 1	
PRE MIX	If this is enabled, the Sound will be fed into Aux 1 before Main Level and Pan of the Sound.
AUX 2	
PRE MIX	If this is enabled, the Sound will be fed into Aux 2 before Main Level and Pan of the Sound.

4.4 Saving a Sound

To save a Sound, right-click (on Mac OS X: Ctrl-click) on the Sound Slot in the Arranger and select *Save As...* from the dropdown menu:



Saving a Sound

The Sound will be added to the Library and is ready to be tagged.



Saving a Sound is only available in MASCHINE Software

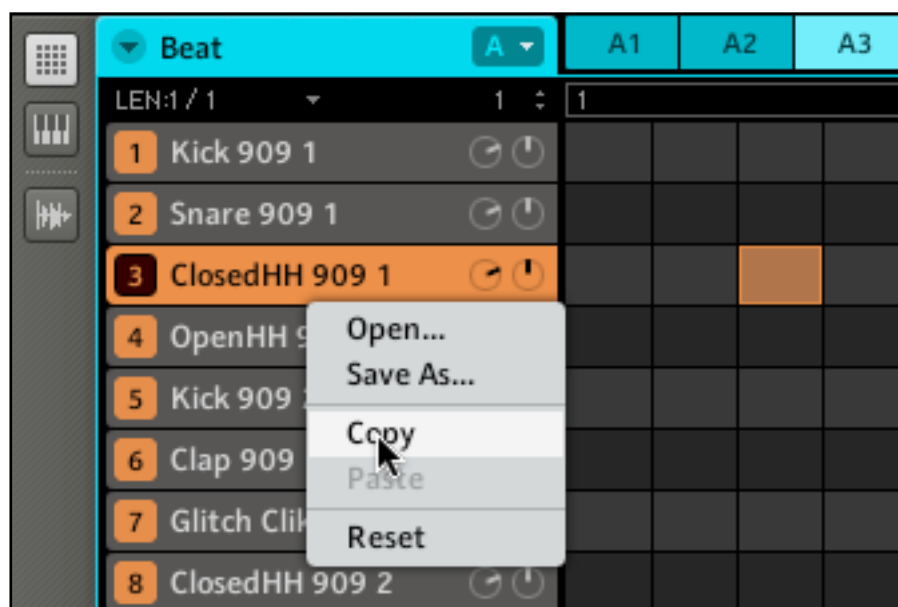
4.5 Copying and Pasting Sounds

Hardware

To copy a Sound from one pad to another, press and hold Duplicate, press the Pad of the Sound you want to copy, then select your target Sound Slot (this can also be in another Group, in this case first press one of the Group Buttons) by hitting its Pad. All parameters of the Sound will be copied except for the source's Pattern content.

Software

You can copy & paste Sounds by right-clicking (on Mac OS X: Ctrl-click) on the Sound Slot. In the dropdown menu, choose *Copy* to copy a Sound. To paste the Sound, select an empty Sound Slot by clicking on it and then select *Paste* from the dropdown menu. All parameters of the Sound will be copied except for the source's Pattern content.



Copying a Sound

4.6 Resetting a Sound

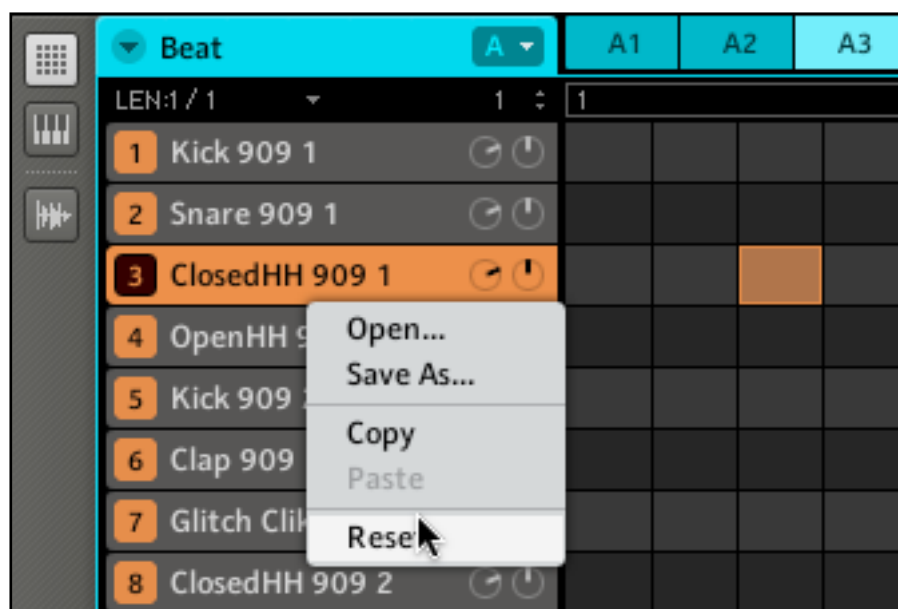
Resetting a Sound results in removing its associated Sample(s) and FX as well as putting all Sampler Parameters back to their default value.

Hardware

Hold Shift + Erase and then touch the Pad corresponding to the Sound to be reset.

Software

To reset a Sound, right-click (on Mac OS X: Ctrl-click) the Sound Slot and choose *Reset* from the dropdown menu.



Resetting a Sound

4.7 Mute & Solo

Muting is used to bypass the audio signal of either a Sound or a Group, whereas Soloing is pretty much the opposite: it mutes all other Sounds and Groups, 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.

Hardware

Solo

Press the Solo Button and hold it: now you can Solo Sounds by hitting their Pads, and Groups by hitting the corresponding Group Buttons. Solo is a temporary mode, therefore you will have to hold the Solo Button to access it. If you press Solo and Button 1 at the same time, the Solo function gets locked, e.g. you stay in Solo Mode until you press Solo again. There are two more functions in the Solo Mode: All (press Button 3) to turn all Sounds on and All Off (press Button 4) to turn all Sounds of the Group currently in focus off.



The Solo Screen on the hardware

Mute

Mute works in the same way as the Solo Mode: hold the Mute Button to mute Sounds by pressing their respective Pads, and Groups by pressing the Group Buttons. You can also lock Mute by pressing Button 1 at the same time and unlock it by pressing Mute again. Like in the Solo Mode there are two more functions in the Mute Mode: All On (press Button 3) to turn all Sounds on and All Off (press Button 4) to turn all Sounds of the Group currently in focus off.

Tip: Since pressing Solo mutes all sounds except one, the Mute button can be used to “release” sounds that have been muted. You can use this technique to create a break-down: Solo a given sound such as a kick drum, then build the track up again by bringing the muted sounds back in one at a time with the Mute button.

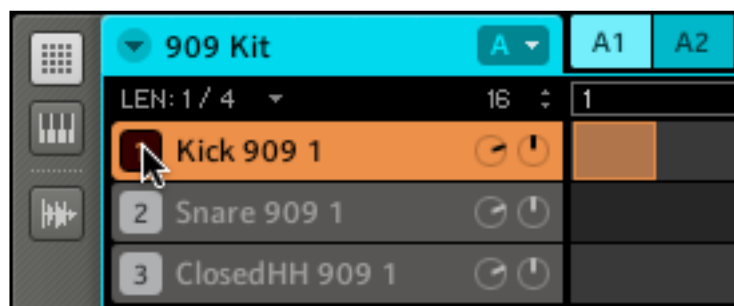


The Mute Screen on the hardware

Software

Solo

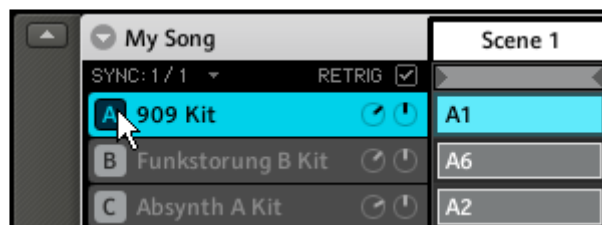
To solo a Sound, right-click (on Mac OS X: Ctrl-click) on the Pad icon in the Pattern Editor



Soloing the Kick 909 Sound

To unsolo it, right-click (on Mac: Ctrl-click) on the Pad icon again.

To solo a Group, right-click (on Mac: Ctrl-click) on the Group icon in the Arranger:

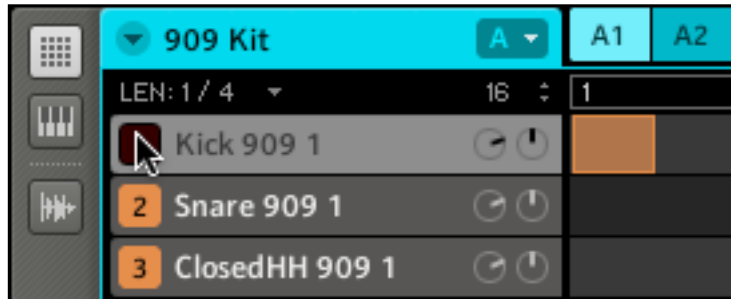


Soloing a Group

To unsolo it, right-click (on Mac: Ctrl-click) on the Group icon again.

Mute

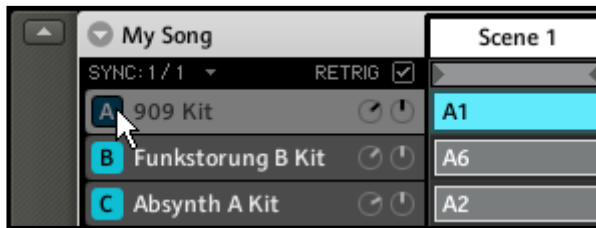
To mute a Sound, click on the Pad icon in the Pattern Editor



Muting a Sound

To unmute the Sound, click on the Pad icon again.

To mute a Group, click on the Group icon in the Arranger:



Muting a Group

To unmute the Group, click on the Group icon again.

5 Creating Groups

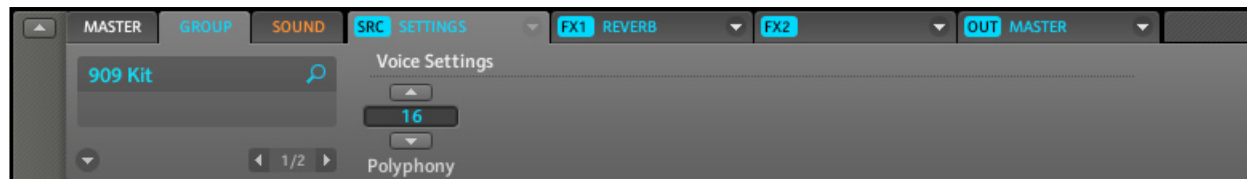
A Group contains 16 Sound Slots with all their parameters. It can have up to two Insert FX and up to 64 Patterns assigned to it, which are organized in 4 Banks. More on Patterns in [chapter 6 “Working with Patterns \(Hardware\)”](#) and [chapter 7 “Working with Patterns \(Software\)”](#).

5.1 The Group Source Tab Parameters

Page 1: Voice Settings



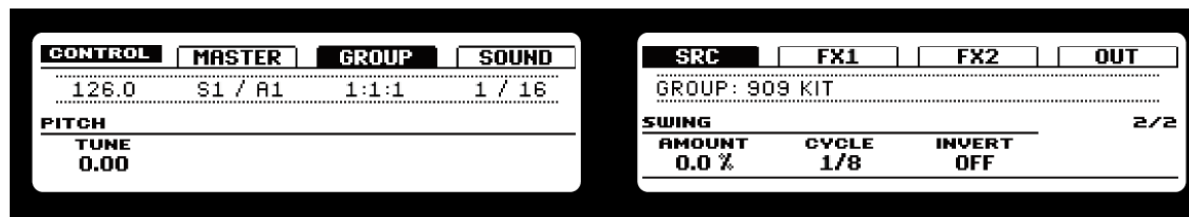
The Group Source Tab Parameters on the hardware



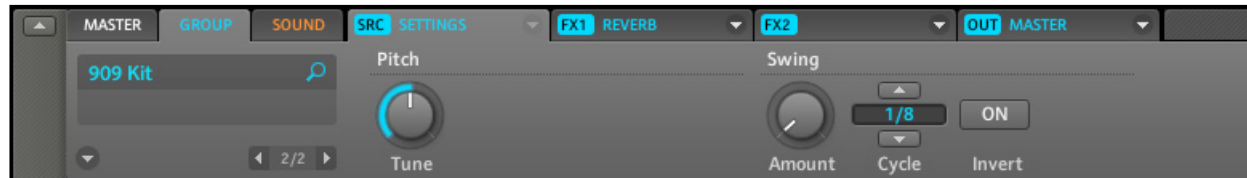
The Group Source Tab Parameters on the software

VOICE SETTINGS	
POLYPHONY	Here you can define a voice limit for the Group. The default value is 16, the minimum 1 and the maximum 32 voices.

Page 2: Pitch & Swing



The Pitch & Swing Page of the Group Source Tab on the hardware

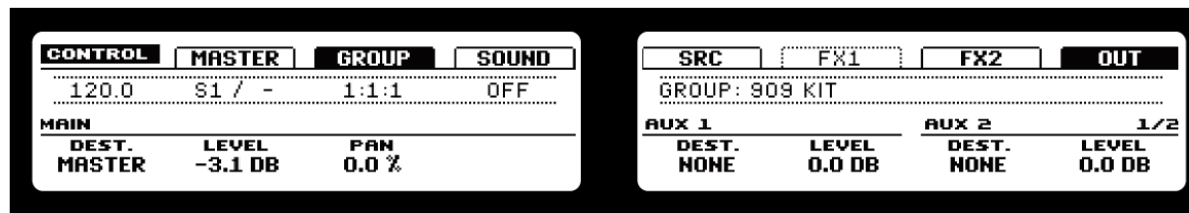


The Pitch & Swing Page of the Group Source Tab on the software

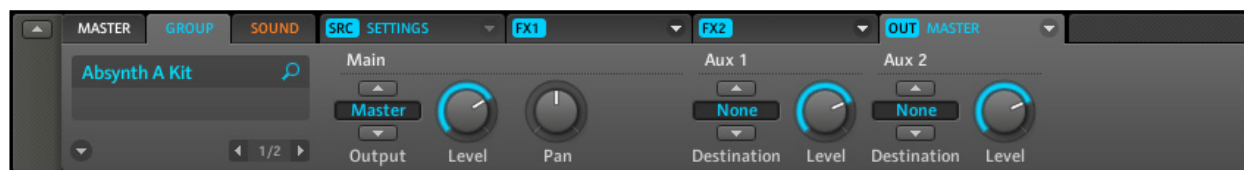
PITCH	
TUNE	This parameter provides tuning for the Group as a whole: all Sounds of the Group will be tuned together. Dial it to the right to get a higher pitch and to the left to get a lower pitch.
SWING	
AMOUNT	Groups can have an individual Swing value independent of the Global Swing settings. Swing allows for rhythmic shifting of a Pattern where the first note in a series plays up to twice as long as the one that follows, creating a “shuffled” feel. This effect is also found in vintage drum machines and is often used in Chicago House and some Hip-Hop styles. Increasing this parameter increases the strength of the effect. Swing is a function better heard than described!
CYCLE	This determines on what musical resolutions the Swing is applied. The default value is 1/8.
INVERT	This Button allows you to invert the Swing function so that instead of a long note followed by a short note, the opposite is true.

5.2 The Group Out Tab Parameters

Page 1: Routing, Volume and Pan



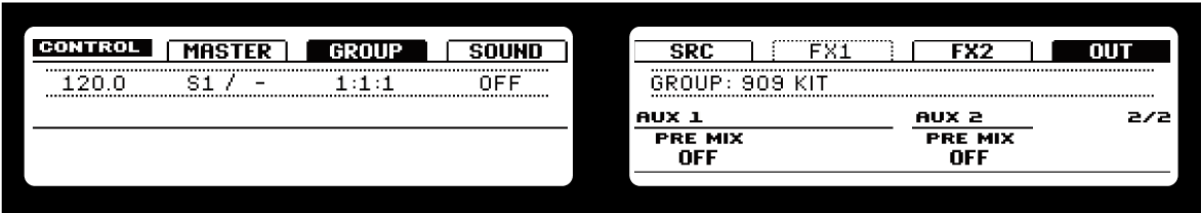
Page 1 of 2 from the Group Out Tab Parameters on the hardware



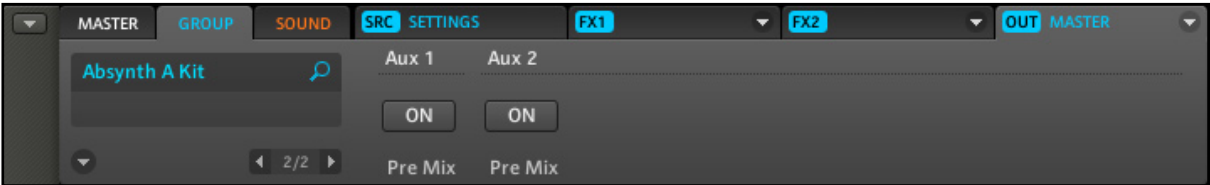
Page 1 of 2 from the Group Out Tab Parameters on the software

MAIN	
OUTPUT	This is used to define where you want to send your Group. Available options are Master, all Sounds with Input enabled, the External Outputs 1-8 and None.
LEVEL	Here you adjust the volume level of your Group.
PAN	Defines the panorama position of your Group in the stereo field.
AUX 1	
DESTINATION	The destination for Aux 1: available destinations are Master, all Sounds with Input enabled, the External Outputs 1-8 and None.
LEVEL	Here you adjust the amount of the signal that gets sent to the Aux 1 destination.
AUX 2	
DESTINATION	The destination for Aux 2: available destinations are Master, all Sounds with Input enabled, the External Outputs 1-8 and None.
LEVEL	Here you adjust the amount of the signal that gets sent to the Aux 2 destination.

Page 2: Aux Pre and Post



Page 2 of 2 from the Group Out Tab Parameters on the hardware



Page 2 of 2 from the Group Out Tab Parameters on the software

AUX 1 - PRE MIX	If this is enabled, the Group will be fed into Aux 1 before the volume control of the Group.
AUX 2 - PRE MIX	If this is enabled, the Group will be fed into Aux 2 before the volume control of the Group.


5.3 Saving a Group

To save a Group, right-click (on Mac OS X: Ctrl-click) on the Group’s Slot in the Arranger and select *Save As...* from the dropdown menu:



Saving a Group

The Group will be added to the Library and is ready to be tagged.

 Saving Groups is only available on MASCHINE Software.

5.4 Copy and Paste Groups

Hardware

To copy a Group, press and hold Duplicate, press the Group Button of the Group you want to copy, and then the Group Button of the target Group. All parameters of the Group will be copied, including all Pattern content.

Software

You can copy & paste Groups by right-clicking (on Mac OS X: Ctrl-click) on the Group Slot. In the dropdown menu, choose *Copy* to copy a Group. To paste a Group, select an empty Group Slot by clicking on it and select *Paste* from the dropdown menu. All parameters of the Group will be copied, including all Pattern content.



Copying a Group

5.5 Resetting a Group

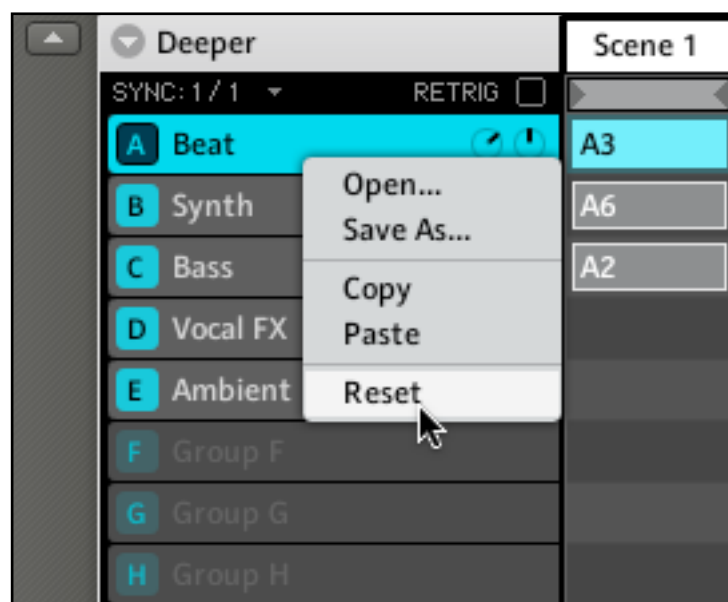
Resetting a Group means removing the associated Sounds and FX as well as putting all Group Parameters back to their default value.

Hardware

Hold Shift + Erase, then press the Group Button for the Group to be reset.

Software

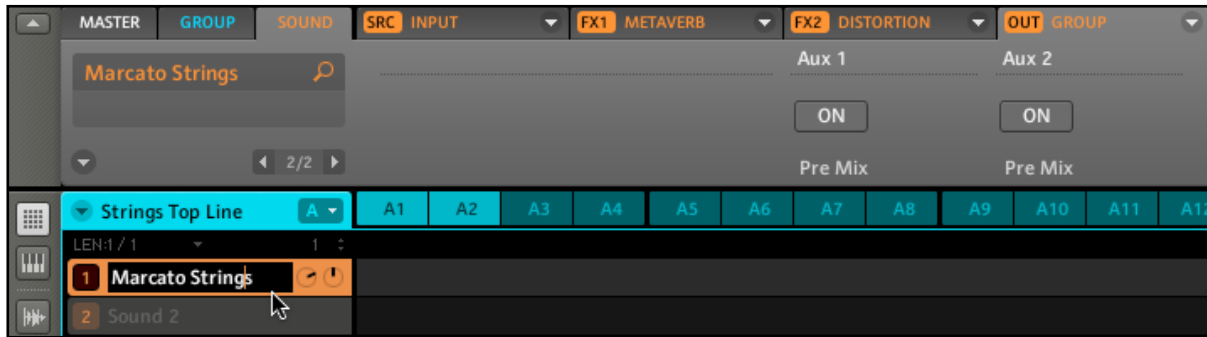
To reset a Group, right-click (on Mac OS X: Ctrl-click) the Group Slot and choose Reset from the dropdown menu.



Resetting a Group

5.6 Naming Groups & Sounds

Each Sound automatically gets the name of the Sample loaded into it; if there is no Sample, the name will be Sound 1-16 by default. To name a Sound, double-click on its Sound Slot:



Renaming the Sound “Marcato Strings”

You can now edit the name of that Sound. Group renaming is performed accordingly: double-click on the Group Slot to edit the name of the Group. To confirm, hit the Return key on your computer keyboard.



Renaming the Sound Group A

! Some hosts will catch the Return 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.

! Naming is only available from within the Software, but any changes will also show up on the Hardware.

6 Working with Patterns (Hardware)

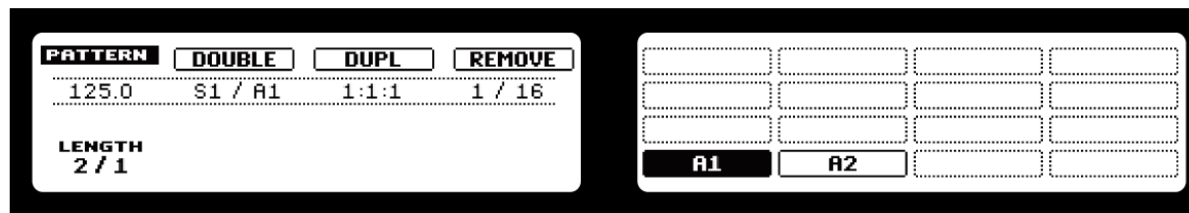
Creating a Pattern is where the fun starts, because the Sequencer really is the core of MASCHINE. It comes with a complex, yet easy to use Pattern Editor and sophisticated automation possibilities.

Make sure to also check out the tutorial videos regarding the Sequencer: “Step Recording” and “Live Recording 1-3”. The MASCHINE Controller is a sequencing instrument right at your fingertips; like any other instrument it needs some practice and some trial & error to get to know it, but you will be rewarded with a fun way of making music.

6.1 Creating Patterns

6.1.1 Pattern Mode

The Pattern Mode is where you select your Patterns, change their length, remove Patterns or double their content. Each Group can have up to 64 Patterns. To enter Pattern Mode, hit the Pattern Button (lockable by pressing Button 1 at the same time).



The Hardware Displays in Pattern Mode

Selecting a Pattern

On the Right Display, you will see all available Patterns of a Pattern Bank. To select a Pattern, press the Pad corresponding to the desired Pattern. To switch between the four Pattern Banks, use Button 5 (for Bank A), Button 6 (for Bank B), Button 7 (for Bank C) or Button 8 (for Bank D).

Doubling a Pattern

If you want to double your Pattern Length as well as its content, you can do so by pressing Button 2 in Pattern Mode. Keep in mind that doubling a Pattern twice results in a Pattern that is four times as long.

Duplicating a Pattern

To duplicate a Pattern select it by pressing its corresponding Pad in Pattern Mode, then press Button 3 (Dupl). The Pattern will be copied to the next empty Pattern available.

Removing a Pattern

Pressing Button 4 removes the Pattern from the current Scene (Scenes are described in detail later). Note that it does not delete the Pattern!

Pattern Length

The Pattern Length can be adjusted in Pattern Mode by dialing Knob 1. The units available here are dependent upon the setting of the Length parameter in Grid mode. See [chapter 6.1.10 “Step Grid, Pattern Length Grid and Quantization”](#) for further Information.

6.1.2 Input Mode

The Input Mode is reached by pressing the Keyboard / Pad Mode Button. It is a temporary mode and can therefore be locked by pressing the Keyboard / Pad Mode Button together with Button 1. In Input Mode you make settings on the Left Display, and on the Right Display you will either see your Sounds or, if in Piano Roll / Keyboard Mode, the notes. This page will also allow you to enable Input Quantize so that your playing is immediately quantized to the current Grid value. Input Mode also allows you to select two fixed velocity values for the Pads so that the selected Sounds (like drums) will play at the same volume no matter how hard you hit the Pads.



The Input Mode on the hardware

KEYBD (Button 2)	Pressing KEYBD (Button 2) will get you into Piano Roll / Keyboard Mode. This mode is described in more detail below.
HALF (Button 3)	Activates the Half Velocity setting for all Pads.
FULL (Button 4)	Activates the Full Velocity setting for all Pads.
QUANTIZE (Knob 1)	Here you can choose when and if Input Quantization will be applied: NONE (no quantization), Record (only while recording) or Play/Rec (while playing and recording). This is described in more detail below. You can select the quantization value on the Step Grid (press Grid + Button 3).
BASE KEY (Knob 2)	When in Piano Roll/Keyboard mode, Knob 2 determines the base key for the MIDI note mapping on the Right Display. The value chosen for the base key will be assigned to Pad 1; the assignment of the other Pads will be reflected accordingly..
HALF (Knob 3)	Here you can adjust the exact Velocity value for the Half Velocity Setting.
FULL (Knob 4)	Here you can adjust the exact Velocity value for the Full Velocity Setting.



If neither HALF nor FULL are activated, the Pads will be velocity sensitive, meaning they will play louder if you hit them harder.



The Base Key can also be changed by using Buttons 5-8 in Keyboard mode: Buttons 5-6 will shift the Base key in Semitones, while Buttons 7-8 will shift it in octaves. This is useful for instantly transposing the pads “by ear.”



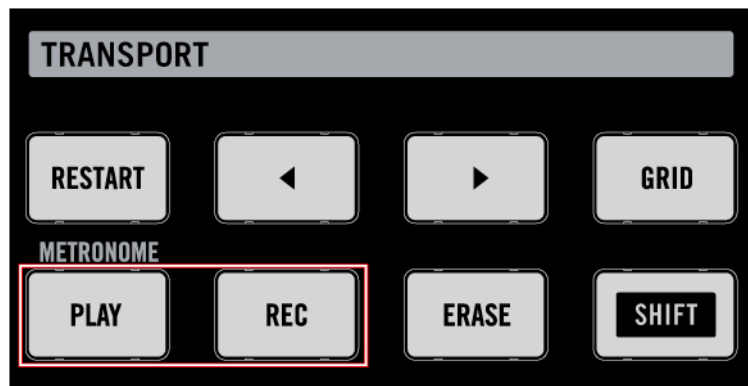
Take your time to set up the Pad Sensitivity and Velocity Scaling to your personal taste you will have even more fun playing MASCHINE!

6.1.3 Recording the Pads

You can easily record beats with the Pads: press the Play Button, then the Record Button to enable Record Mode. Now hit the Pads you want to record and listen to what happens.

6.1.4 The Metronome

The Metronome will help you to keep time when recording in realtime. To activate the Metronome, hold down Shift and press Play. To deactivate the Metronome, hold Shift and press Play again.



Recording a Pattern: press Play & Rec and hit some Pads!

6.1.5 Using the Step Sequencer

If you are familiar with classic drum machines you may want to program your Pattern using the Step Sequencer:



The Step Sequencer on the hardware Displays

Hit the Pad with the Sound you want to record to select it and press Play.

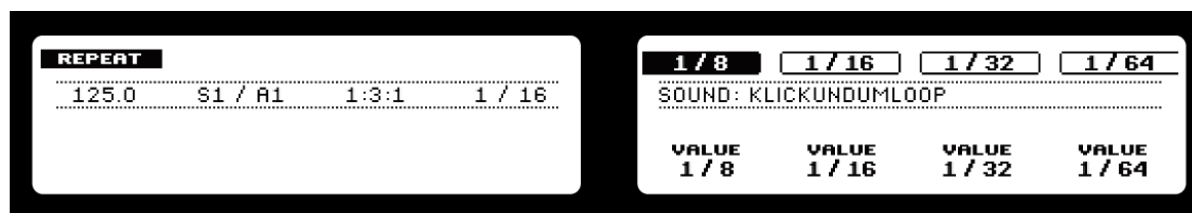
Press the Step Button. Now you will see a light chasing through the Pads, starting from Pad 1, going up all four rows from left to right and ending at Pad 16. Each Pad now represents one step of a 16-step sequence: you can activate that step by hitting the Pad once, lighting it up. If you hit it again, the step is gone. This way it's easy to quickly put some drums together. By default the first 16 steps will be represented in the Step Sequencer so if you want to program longer Patterns, you can switch to the next 16 steps by using Buttons 7 and 8. To switch to another Sound, use Buttons 5 and 6 located above the Right Display.



A typical 4/4 kick line in Step Sequencer mode

6.1.6 Using Note Repeat

Note Repeat is a really handy way to program beats: it plays the selected Sound automatically at a given quantization.



Note Repeat Mode on the hardware Displays

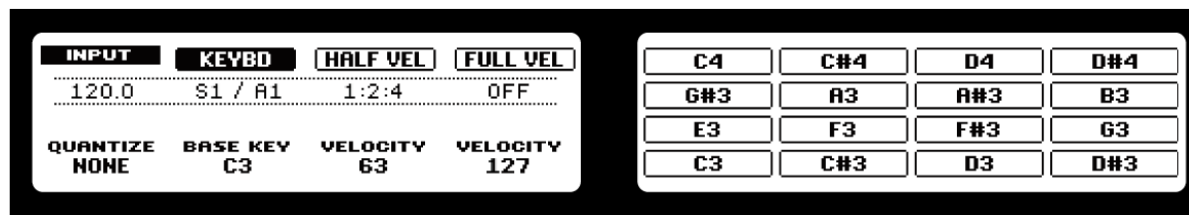
While holding the Note Repeat Button, press the Pad you want to record. The notes will now be repeatedly triggered at the selected quantization (shown on the Right Display). With Buttons 5 – 8, you can select different quantization settings while playing. If you want to use quantization settings other than the ones currently on display, turn Knobs 5-

8 to select the desired quantization setting. You can lock Note Repeat by pressing Note Repeat + Button 1.

- ▶ In Note Repeat all Pads will be both velocity and pressure sensitive, allowing for expressive drumrolls or dynamic basslines.
- ▶ Note Repeat is a really funky way to play percussion and drums live creating build-ups and breaks.
- ▶ Note Repeat is also interesting to use with tonal Sounds and you can access it from Piano Roll / Keyboard Mode to create synthesizer-like arpeggios.

6.1.7 Using the Piano Roll/KEYBOARD Mode

Select your Sound by hitting the Pad it is assigned to. Now enter Input Mode by hitting the Keyboard / Pad Mode Button and lock it.



Piano Roll/KEYBOARD Mode on the hardware Displays

Press Button 2 to enter Piano Roll/KEYBOARD Mode. If you hit the Pads now, you will hear that they all play the same Sound, but with a different pitch each. The pitch scale is divided in semitones, starting with Pad 1 as the lowest note going up to Pad 16 as the highest note. To navigate to another octave use Button 7 (octave down) or Button 8 (octave up). You can also navigate the scale in semitones: use Button 5 (semitone down) and Button 6 (semitone up). Press the Play Button, then the Record Button, and start to record your melody!

If you prefer to play your melodies with a MIDI keyboard, you can connect one to the MIDI In on the back of MASCHINE Controller. You can also use any USB-MIDI keyboard selected in chapter Audio and MIDI Settings (see [chapter 2.4.1 “Audio and MIDI Settings”](#) to get to know how to set these up) of the MASCHINE Preferences. The connected MIDI input device will always play the currently selected Sound without the need to enter Piano Roll/Keyboard mode.



Try to experiment with all kinds of Samples in the Piano Roll / Keyboard Mode; some rather boring sounding Samples can be really interesting if you play them very low or very high!



The backside of the MASCHINE Hardware with the MIDI In

6.1.8 Recording automation

One of the really cool features of MASCHINE is the ability to automate parameters from the FX Modules and the Sampler Modules both on the hardware and on the software in a very easy way.

To automate a parameter with the Hardware, first make sure the song is playing, then simply turn one of the 8 Knobs while holding down the F2/AUTOWRITE Button.

Your automation gets recorded now; if you want to discard it and try again, press Erase, hold it and again turn the Knob you used to record automation to delete its Automation. Shift+Pad 10 (Clr Automation) deletes all selected Automation events; if none are selected, all Automation of the Pattern will be cleared..

Note: almost all Knob parameters are automatable, exceptions being:

- ▶ Limiter
- ▶ Destination Controls
- ▶ Reverse parameters

Some of the Buttons are automatable:

- ▶ Reverb Freeze
- ▶ Maximizer Turbo
- ▶ Freq Shifter Invert

- ▶ Flanger Invert
- ▶ Grain Delay: Reverse
- ▶ Distortion Gate

The only select box that is automatable is the Swing Cycle.

6.1.9 Recording automation in the Step Sequencer

It is also possible to record automation in the Step Sequencer. Enter the Step Sequencer by pressing the Step Button. Hold the Pad representing the Step you want to automate and turn the Knob that represents the parameter you want to automate; after a short while, the Displays will show you the parameters of the selected Page. Note: all Steps after the one you recorded automation for will have the same parameters as the automated one since only the offsets are recorded.



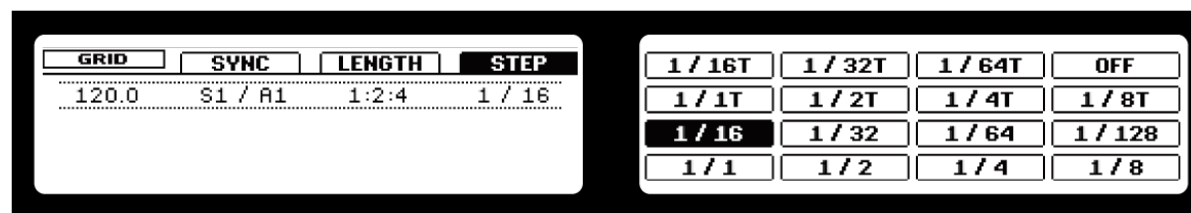
If you want to automate only one of the Steps, set the parameter of the next Step back to its default value.

6.1.10 Step Grid, Pattern Length Grid and Quantization

Step Grid

The Step Grid property affects all Pattern editing actions, including quantization (“note snap”). The default setting is 1/16th, however you may use another one or disable the Step Grid completely.

To change the Step Grid’s quantization settings, press and hold the Grid Button followed by Button 4; the Right Display will show you which Pad represents which Grid.

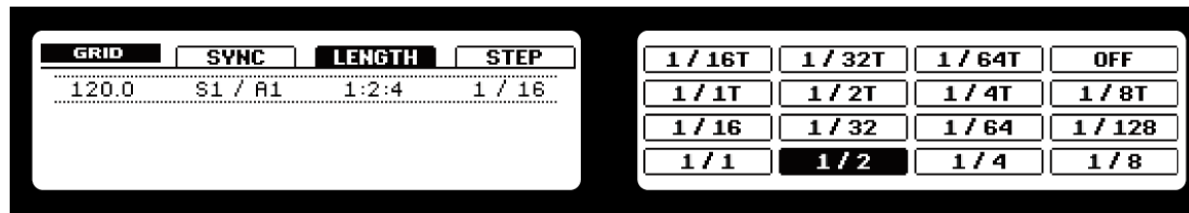


The Right Display showing the available Grids

Select a Step Grid resolution by hitting the corresponding Pad.

Pattern Length Grid

The Pattern Length Grid affects the resolutions available when holding the Pattern button and turning Knob 1. Changing this to a value less than 1 allows you to dial in lengths on the Pattern page other than a full bar for example.



The Pattern Length Grid on the hardware

Choose the Pattern Length Grid using the Pads in a range from 1/1 (one full note) to 1/64T (1/64 th note triplet); you can also turn it off.

Quantization after recording

You can quantize your notes, no matter how you recorded them. They will be quantized according to the Step Grid selected in your Pattern. If you turn the Step Grid off, no quantization will be applied. There are two strengths of quantization: full quantization and half quantization (50%). To apply full quantization, press Shift + Pad 5 (Quantize). All selected notes will now be shifted in time to the next position defined by the selected Step Grid. If you want to apply only a bit of quantization to keep the groove you created by playing your notes live, press Shift + Pad 6 (Quantize 50%). The result will be that the notes get shifted half way to the selected Step Grid.

Quantization while recording and playing

You can also choose to have notes automatically quantized. Enter Input Mode by pressing the Pad Mode / Keyboard Button. Using Knob 1 you can now choose when quantization should be performed: Record (only when recording), Rec/Play (when recording and when playing) or None, meaning no quantization will be performed. When Input Quantization is set to Record, the selected quantization value will automatically be applied to the Pattern on its next cycle. When it is set to Play/Rec, your playing is quantized in real time.



Try a short quantization like $\frac{1}{4}$ note and change the Pattern Length in Pattern Mode (see page 74) using Button 1 to create variations of a Pattern. If you select an even higher value like $\frac{1}{64^{\text{th}}}$ you can create stuttering breaks and rolls.

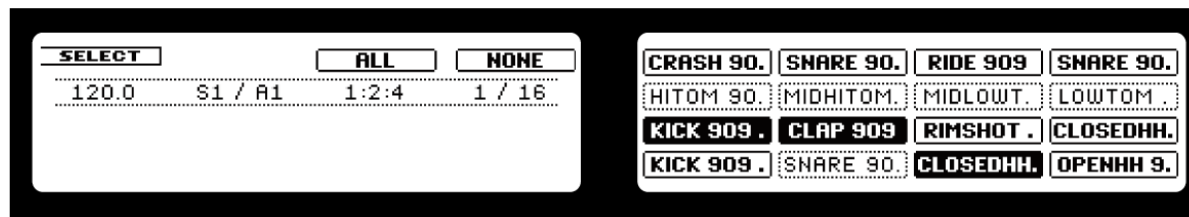


You can repeatedly apply Quantize 50% until you are happy; you could for example apply it until the notes are close enough to sound tight, but loose enough to maintain their basic “feel.”

6.2 Editing Patterns

6.2.1 Selecting notes and events

Selecting notes is performed by pressing the Select Button and holding it; on the Right Display you can now select Sounds and their associated events by hitting the respective Pads; all selected Sounds will be highlighted.



The Select screen on the hardware displays

Use Button 3 (All) to select all Sounds or Button 4 (None) to deselect all Sounds. Selecting specific Sounds is useful because many of the operations described below can be applied to the selection instead of the entire Pattern.

6.2.2 Erase / Clear

To erase notes, press and hold both the Erase Button and the Pad containing the desired sound while the Pattern is playing. The notes will be erased only during the moment the Pad is held down; you can use this to selectively erase notes at a particular place in the Pattern. This might take some getting used to, especially when the tempo is very fast, but you can always use Undo/Redo (Shift + 1, Shift + 2) to get back to where you were before. Shift + Pad 9 (Clear) will erase all selected notes and events; if nothing is selected, it will clear all notes and events.

6.2.3 Copy / Paste

You can also Copy and Paste notes. To copy all selected notes, press Shift + Pad 11 (Copy), to paste them, press Shift + Pad 12 (Paste). The notes will be pasted according to the Step Grid, shifted one Grid position to the right. You can also copy notes from one Pattern to another: to do this, copy the selected notes, select the Pattern you want to copy them to and then paste them.

6.2.4 Nudge

Nudge allows you to shift selected notes by the Step Grid value; press Shift + Pad 7 (< Nudge) to move the selected notes to the left, or Shift + Pad 8 (Nudge>) to move the selected notes to the right.

6.2.5 Compare / Split

This function allows you to compare a selected Pattern with its previous state, for example if you have added or edited events. This is an easy way to create variations or to compare two versions of a Pattern. To switch between the edited Pattern and its original state, press Shift + Pad 3 (Compare). If you want to keep the new version and the old version, you can copy the edited version to the next Pattern by pressing Shift + Pad 4 (Split).

6.2.6 Transpose

You can transpose selected notes by semitones or octaves to match their pitch to your taste.

6.2.7 Transpose by semitones

To transpose the selected notes down in semitones press Shift + Pad 13 (Semitone -); to transpose the selected notes up press Shift + Pad 14 (Semitone +). If no events are selected, all notes in the Pattern will be affected.

6.2.8 Transpose by octaves

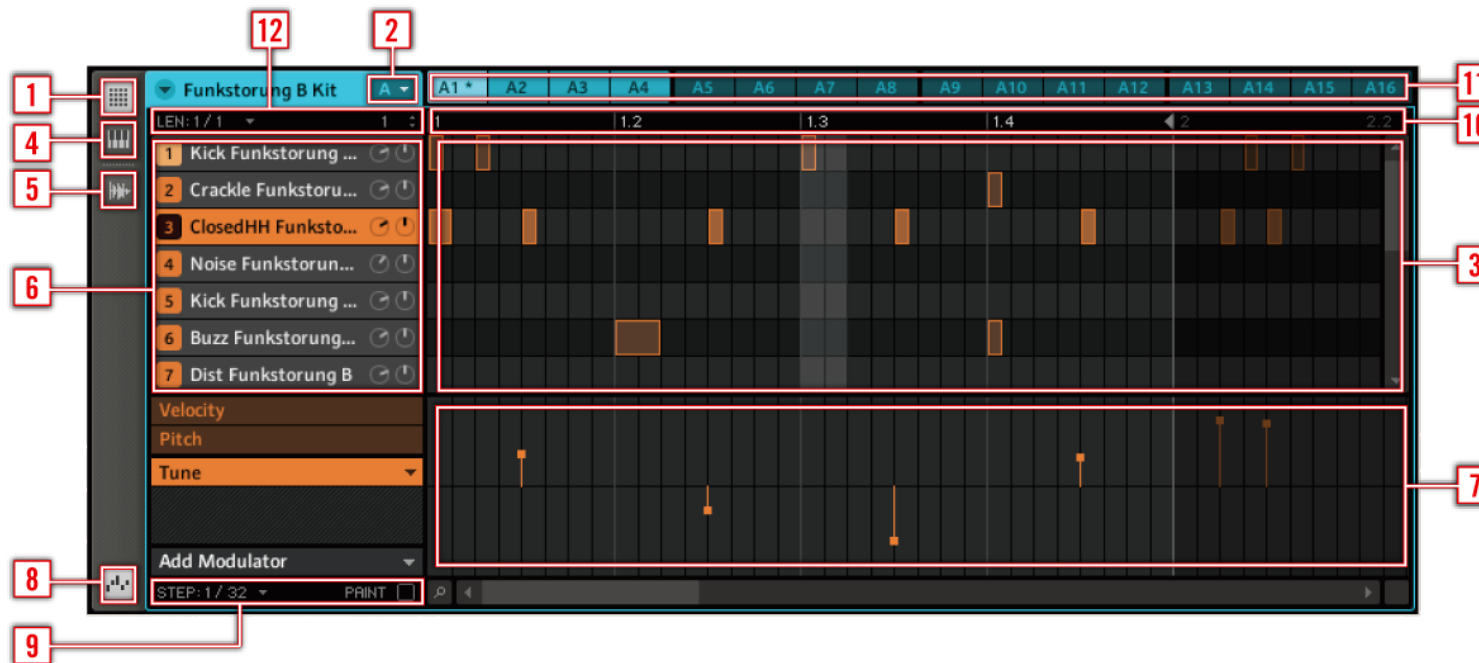
To transpose the selected notes down in octaves press Shift + Pad 15 (Octave -); to transpose the selected notes up press Shift + Pad 16 (Octave +). If no events are selected, all notes in the Pattern will be affected.



Setting the Step Grid to “Off “ and then using Nudge will shift notes 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!).

7 Working with Patterns (Software)

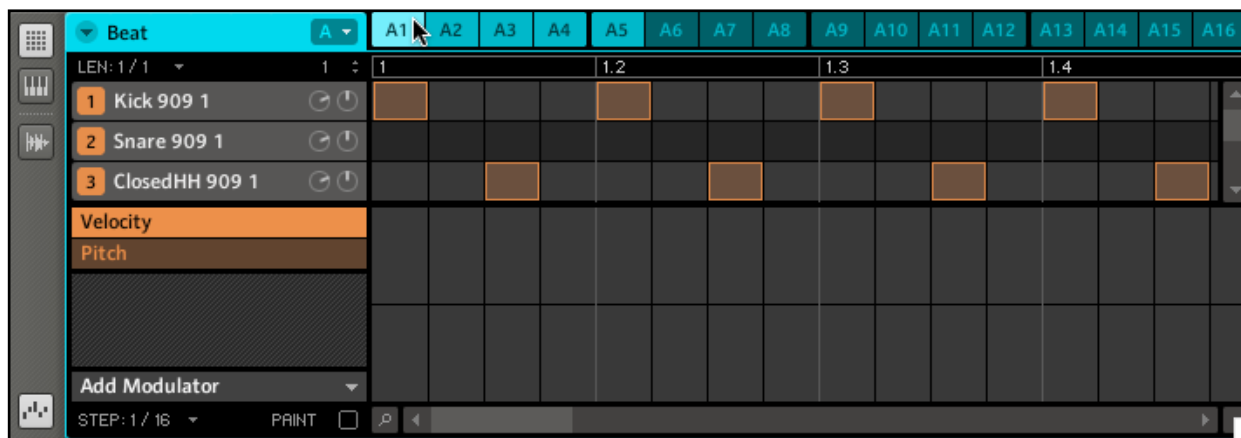
7.1 The Pattern Editor



- 1 Step Editor View Switch
- 2 Pattern Bank Menu
- 3 Step Editor
- 4 Piano Roll/Keyboard View Switch
- 5 Sampling View Switch
- 6 Sound Slots
- 7 Automation Lane
- 8 Automation View Switch
- 9 Edit Controls
- 10 Pattern Timeline
- 11 Pattern Slots
- 12 Pattern Length Controls

7.1.1 Selecting Patterns and Pattern Banks

To select a Pattern, click on its name above the top row of the Step Editor:



The Step Editor with Pattern A1 selected

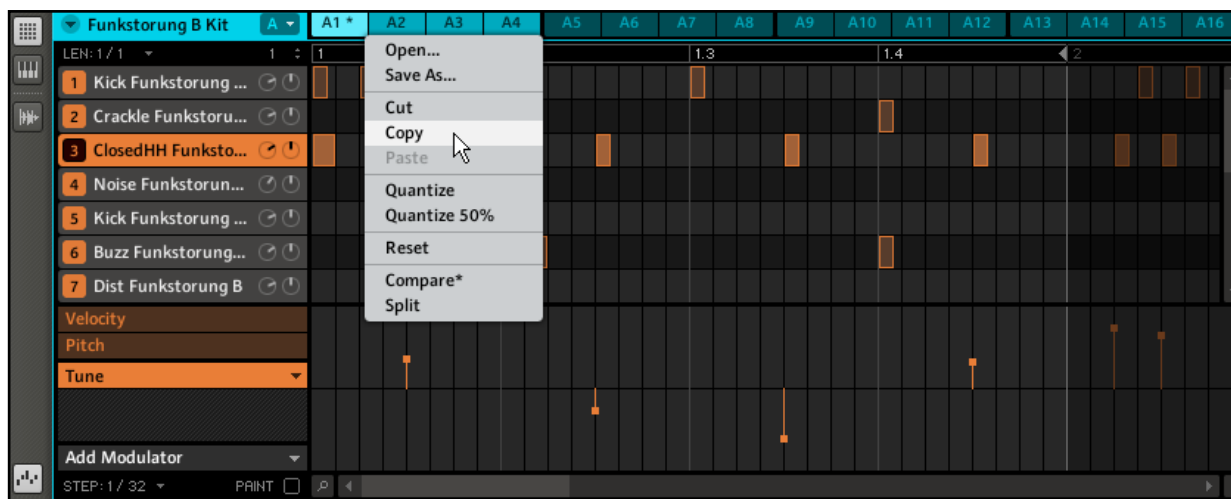
You can distinguish between different Pattern states by the brightness of the Pattern icons: the brightest icon represents the currently selected one, a little less bright (on the picture: A2, A3 and A4) are the ones that have content but are not selected, the empty ones (all others starting with A5) being the darkest ones. To switch to another Pattern Bank, click on the Pattern Bank Menu:



The Pattern Bank Menu

7.1.2 Copy and Paste Patterns

To copy a Pattern, right-click (on Mac OS X: Ctrl-click) on its Pattern icon and choose Copy from the dropdown menu:



Copying a Pattern

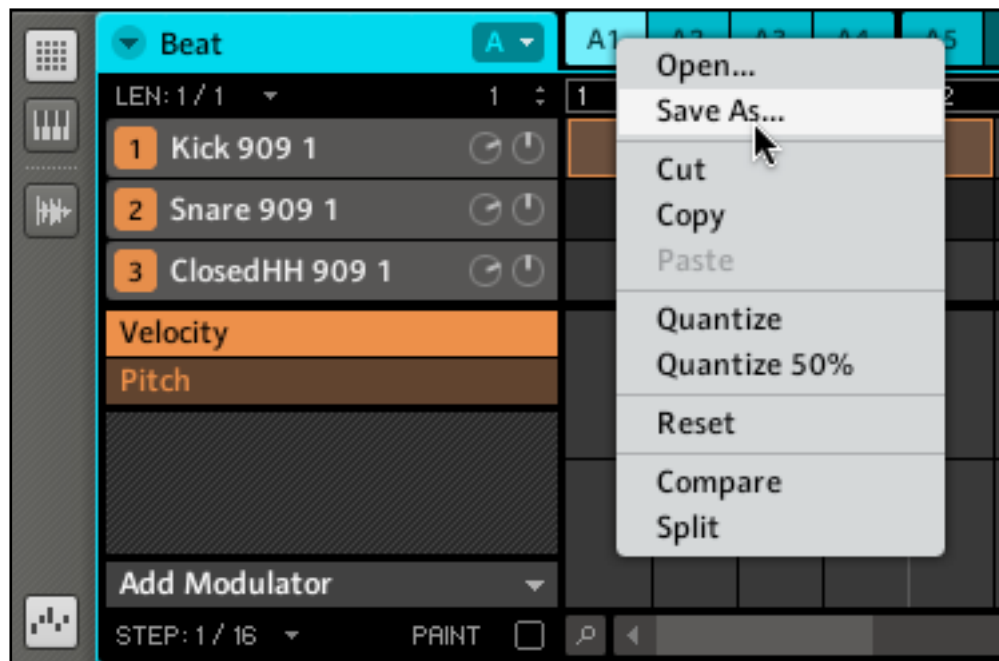
Now select an empty Pattern, right-click (on Mac OS X: Ctrl-click) on its Pattern icon and choose Paste from the dropdown menu to paste it to that Pattern.

7.1.3 Resetting Patterns

You can reset Patterns choosing Reset from the dropdown menu pictured above. This will erase all notes as well as any automation data and reset the Pattern Length. This is equivalent to using Clear (Shift + Pad 9) on the hardware.

7.1.4 Saving Patterns

You can save a Pattern independently from its Group. This is useful if you want to try out a Pattern with different Sounds. To save a Pattern, right-click (on Mac OS X: Ctrl-click) on the Pattern icon and select *Save As* from the dropdown menu:



Saving a Pattern

As with most saving operations, saving a Pattern is only available on MASCHINE Software.

7.2 Editing Patterns

You can enter notes by double-clicking in the Grid of the Pattern Editor. They will be applied according to the selected Step Grid. To delete them, you can either double-click or right-click (on Mac OS X: Ctrl-click) them. In the Step Editor the Sound in focus will change according to the row you put the note in. Selected notes turn white.

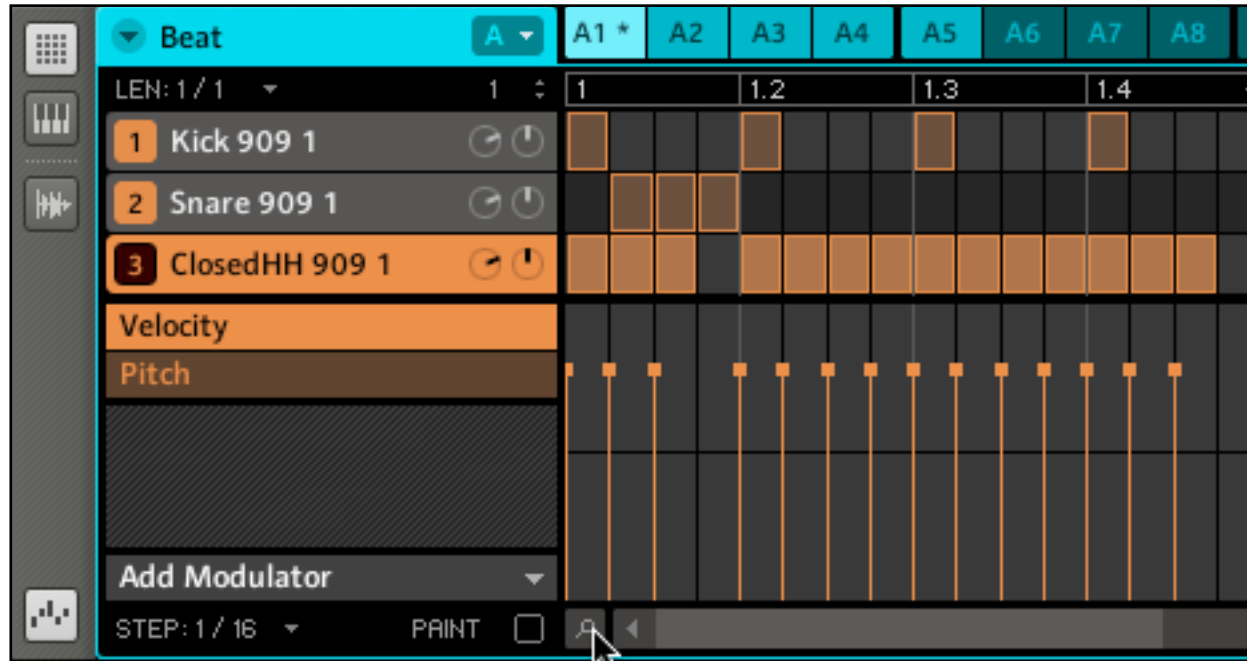
7.2.1 Mouse actions in the Pattern Editor

The following is a list of available actions in the Pattern Editor (works in both the Step Editor and the Piano Roll / Keyboard Mode):

Double-click in Grid:	set note
Shift + drag on grid:	set multiple notes horizontally
Drag right note border:	change note length
Click on Note:	add note to selection
Drag in Grid:	multiple selection
Click in Grid:	deselect selected notes
Double click on note:	delete selected note(s)
Right click on note:	delete selected note(s)
Shift + drag on note:	delete multiple notes horizontally
Drag on note:	move selected note(s)
Ctrl/Cmnd+Click:	copy selected note(s)
Alt+Click+drag vertically:	change note Velocity
Click on PAINT check box (bottom of Step Grid)	enables Paint mode (add multiple notes as dragging horizontally)

7.2.2 The Zoom Tool

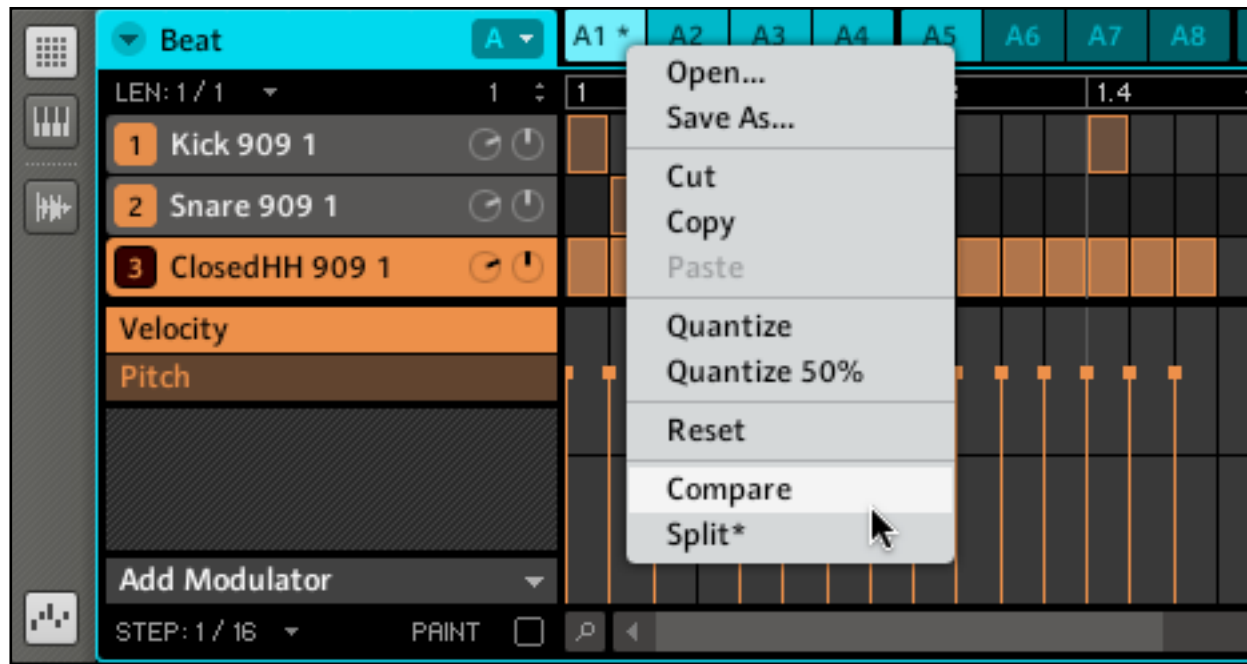
Using the Zoom Tool, you can zoom in and out in the Pattern Editor. Click on the Zoom Tool and drag upwards to zoom in and downwards to zoom out.



The Zoom Tool selected

7.2.3 Compare / Split

Compare and Split is useful to create variations of a Pattern and to compare them. Compare and Split are accessed by right-clicking (Ctl+clicking on the Mac) on the Pattern name and choosing the appropriate entry from the drop-down menu:



Compare / Split in the dropdown menu

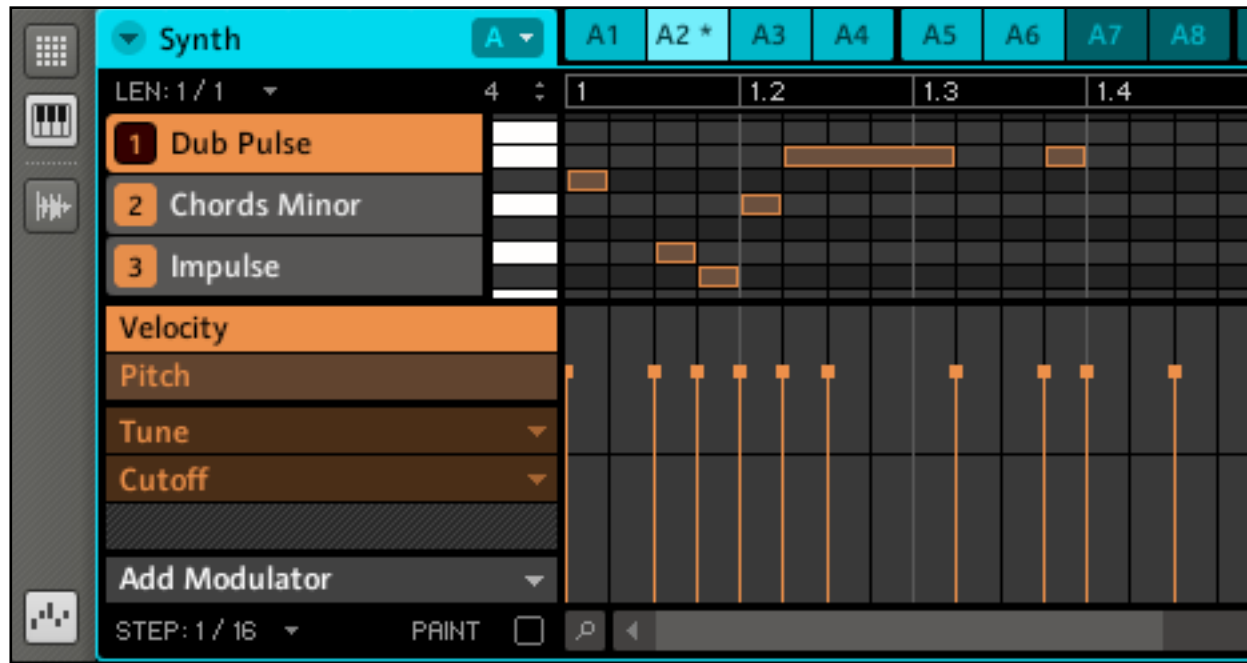
Edit a given Pattern by adding some notes or automation to it, then click on Compare to toggle between the original content and the new version you just created. If you like your new version you can copy it to the next empty Pattern by clicking on Split.



You can see that a Pattern has been edited by way of an asterisk symbol displayed in its icon. The new state will be confirmed as soon as you select another Pattern and the asterisk will vanish.

7.2.4 The Piano Roll/KEYBOARD Mode

In order to select the Sound you want to record a melody with, click on its Sound Slot. Now click the PIANO ROLL/KEYBOARD ICON: the Grid that showed all Sounds of the Group in one row now only shows the Sound you selected. By adding steps, you can choose their pitch in halftones depending on where you put them, the lowest note being the lowest row in the Piano Roll/Keyboard Editor.

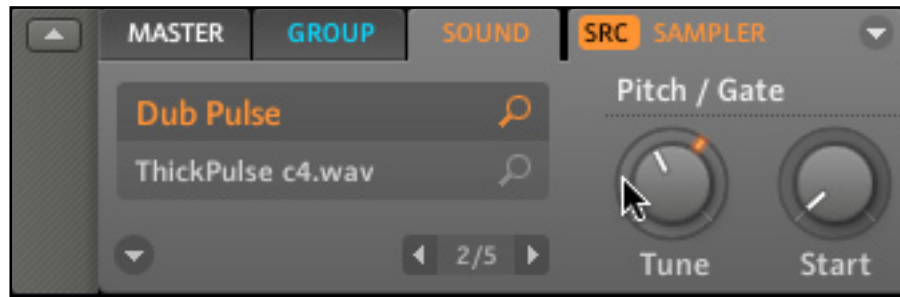


The Software view of the Piano Roll/Keyboard Editor

7.2.5 Recording and editing automation

If you take a closer look at the knobs on the parameter pages 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.

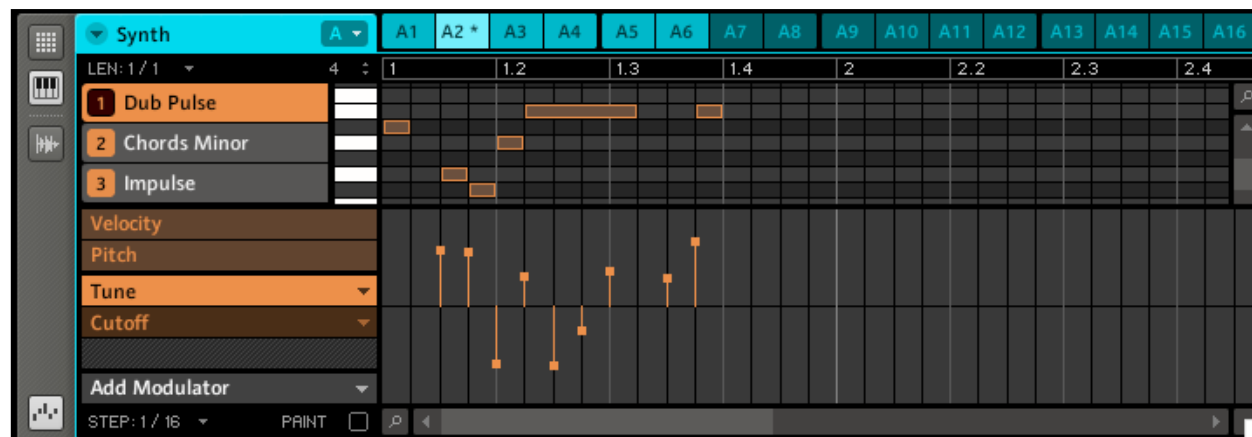
You can record Automation by moving that ring with a left click on it and then dragging it up and down during playback. Almost all parameters are automatable, the exception being all Buttons.




The outer ring of the knobs, used for automation


To remove the Automation, simply right-click (on Mac: Ctrl-click) on that outer ring. Alternatively you can also select individual automation points in the Automation Lane and right-click (on Mac: Ctrl-click) on them.

To edit the Automation, drag the automation points in the Automation Lane. You can select several automation points in the Automation Lane together by clicking and dragging a rectangle around them; now you can edit them by dragging them up or down. You will see that they keep their relative distance although they change their absolute values.



The Automation Lane with the Tune parameter in focus

 Double-clicking creates an Automation event and replaces the others on this Step

 To “draw” Automation, check the box labeled “Paint” and click-drag in the Automation Lane.

7.2.6 Adding a Modulator

Another way to create automation is to draw it with the mouse. On the left of the Automation Lane you will see the Add Modulator dropdown menu. Clicking on it produces a pop-up with a list of automatable parameters for the selected Sound of the current Pattern:



The Add Modulator drop-down menu showing a list of automatable parameters.

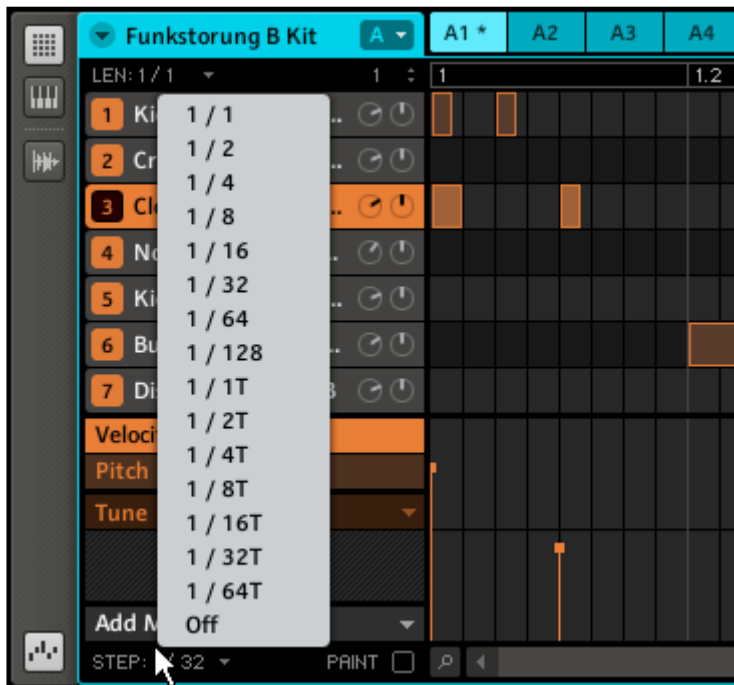
In the Automation Lane, you can now add automation points for the selected parameter by clicking in it, even if there is no note data present. The automation points will snap to the selected Step Grid.

If you want to automate Group parameters, just click on the Group Tab in the Control Area to be presented with available parameters of the Group:

7.2.7 Step Grid, Pattern Length Grid and Quantization

Step Grid

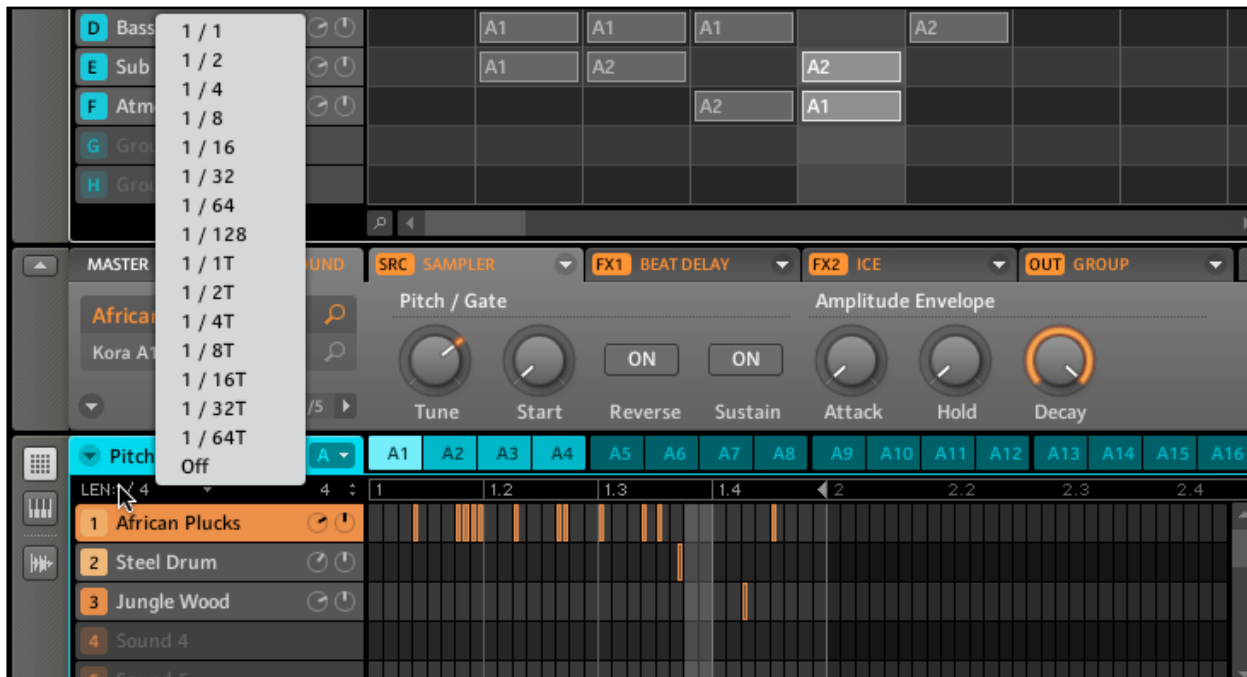
The Step Grid determines the quantization of the notes entered in the Pattern. It ranges from 1/1 (one full note) to 1/64T (1/64th note triplet) and can also be turned off. The default value is 1/16th. Select the Step Grid by clicking the STEP label that opens up a dropdown menu:



The dropdown menu of the Step Grid

Pattern Length Grid

In addition to the Step Grid there is the Pattern Length Grid which determines the increments in which the Pattern Length can be resized (described below). Choose the Pattern Length Grid by clicking on the **LEN** label:



Available quantization resolutions of the Pattern Length Grid

Now you can choose the Pattern Length Grid in a range from 1/1 (one full note) to 1/64T (1/64th note triplet); you can also turn it off.

Pattern Length

Adjusting the Pattern Length is done by clicking on the number underneath the Pattern Bank Selector (1) dragging it up to make the Pattern longer or dragging it down to make it shorter.



Adjusting the Pattern Length

The Pattern Length depends on the Pattern Length Grid, as it will alter the Length of the Pattern in increments of the Pattern Length Grid.

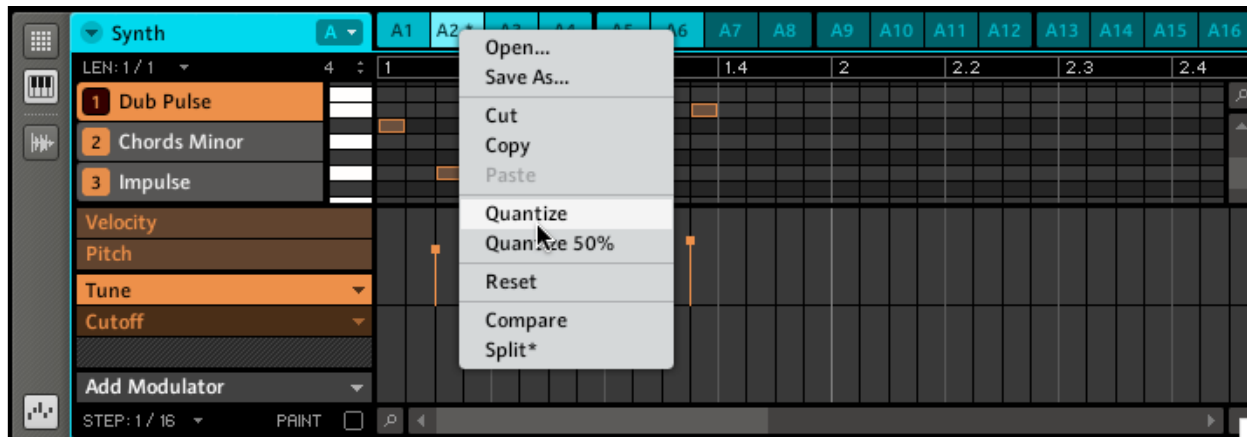
Note: You can also drag the grey arrow at the end of the Pattern (2) to change the Length of the Pattern:



Changing the Pattern Length by dragging the grey arrow.

Quantization

To apply quantization after recording some notes from a connected MIDI-keyboard or after changing the Step Grid to another value, you can do so by right-clicking (on Mac OS X: Ctrl-click) on the Pattern icon. If notes and events are selected, the quantization will only affect the selected ones; if no note or event is selected, the whole Pattern content will be quantized.



Quantize function for the Pattern content

Available quantization options are Quantize (simply quantizes the notes strictly according to the Step Grid) and Quantize 50% (only moves the notes half way towards the selected Step Grid). If you record notes from a MIDI keyboard or using the Pads, it often happens that you create double notes where you don't want them; MASCHINE automatically detects and removes these double notes while quantizing.

8 The Maschine Effects (FX)

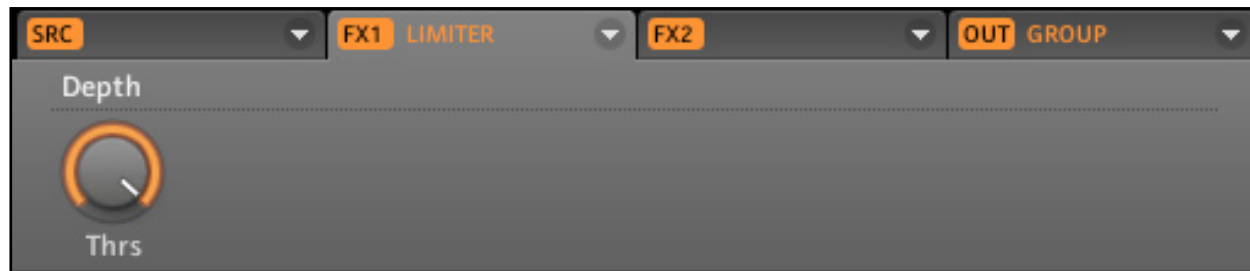
MASCHINE provides a healthy selection of 21 different Effects (FX) that can be quickly applied to Sounds, Groups and the Master, all as Insert Effects. By using MASCHINE's powerful Routing System, it is also easy to setup Send Effects, build complex Effect Chains or apply an Effect to an external source that is connected to your audio interface, such as an instrument, vocals or a turntable. As before we recommend you load a Project from the Factory Library to get to know how Effects can be used. There are also two interesting tutorial videos on the Native Instruments website (www.native-instruments.com) covering FX: "FX & Automation Part 1" and "FX & Automation Part 2 ". The titles say it all: MASCHINE FX are designed to be modulated and automated! That's when the sounds really come to life - when you start recording the knob movements.

Available FX

Many types of effects are available and nearly all applications are represented. You will of course find traditional effects such as Delays, Reverbs and Distortions, as well as engineering tools such as EQs, Dynamics, and Filters. But as you may have come to expect from Native Instruments, we have also provided you with a series of unique and unusual effects such as Reflex, Ice, and Resochord.

8.1 Dynamics

8.1.1 Limiter

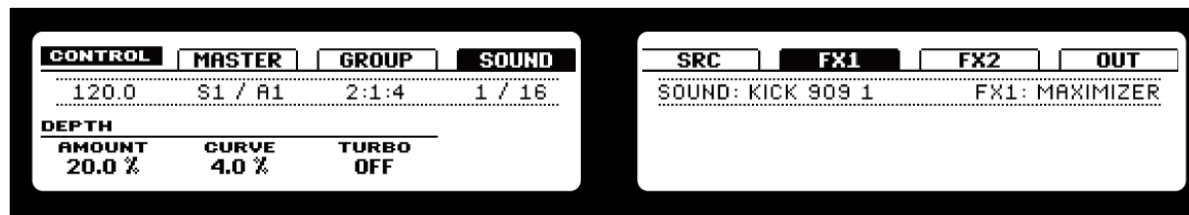


The Limiter on the software

The Limiter does two things: firstly it ensures that the signal level stays below 0db, 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 the Master FX slot. Note that the Limiter introduces a small latency.

DEPTH	
THRESHOLD	This value determines the threshold where the Limiter kicks in. If you use it to prevent your signal from clipping, leave it at 0 dB; if you want to make your signal louder, dial the Knob to the left.

8.1.2 Maximizer



The Maximizer on the hardware

The Maximizer reduces the dynamics within the sound, making the overall sound louder. It is comparable to the Limiter, but it specifically designed for increasing the perceived volume. For an example, load the Project “Be Mine” from the Library: the Maximizer is used on the Master FX here.

DEPTH	
AMOUNT	This parameter is used to adjust the amount of the Maximizer effect.
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, (causing the maximizing algorithm to be applied twice).

8.1.3 Compressor

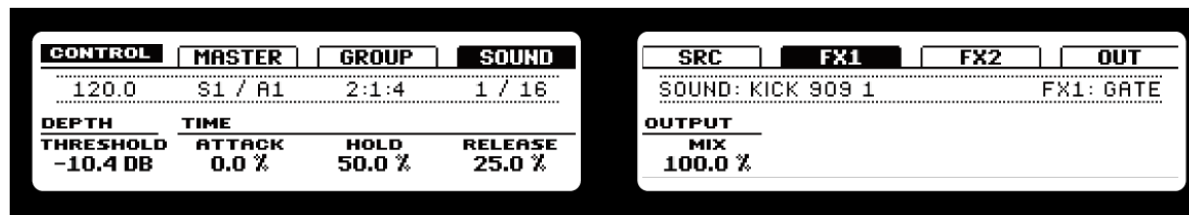


The Compressor on the software

This is a classic compression effect to control the dynamic information of an audio signal. You can use the Compressor to fatten up your drums or to control signals that have a very wide dynamic range. In the Library Project “Pounder” it is used heavily on pretty much all Groups, creating a very dense sound.

DEPTH	
THRESHHOLD	This value determines the threshold at which the Compressor starts to work.
AMOUNT	The amount of the Compressor effect, sometimes called Ratio in typical applications.
KNEE	This parameter defines how the Compressor starts to work: with a low setting, the transition into compression is soft, whereas with a high setting, the Compressor abruptly starts to work once the threshold is reached.
TIME	
ATTACK	With Attack you can adjust how fast the Compressor reacts on the incoming signal: the more you dial it to the right, the slower it will react.
RELEASE	The time the compressor will take to not compressing any more after the input signal falls below the threshold.
OUTPUT	
GAIN	Simple Gain Control to adjust the volume of the resulting signal; sometimes called “make-up gain” as it can be used to compensate for any reduction in the signal induced by the settings above.

8.1.4 Gate



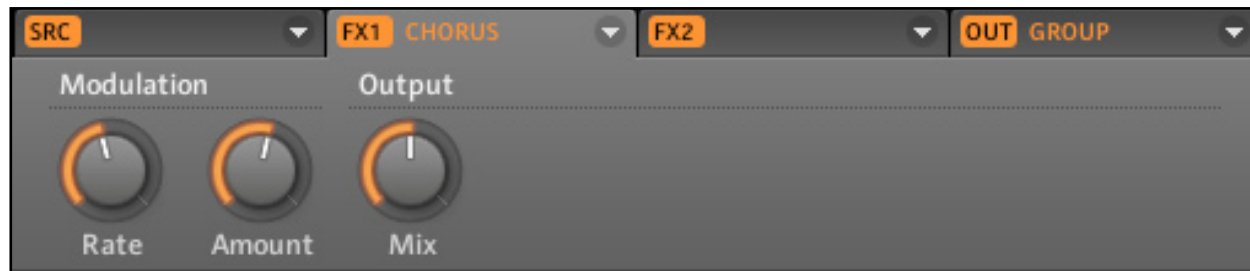
The Gate on the hardware

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 sound more “punchy” or slice up vocal samples or pads for a stutter effect.

DEPTH	
THRESHOLD	This value determines the threshold at which the Gate starts to work. Higher values will let only the loudest parts of the signal through the Gate.
TIME	
ATTACK	With Attack you can adjust how fast the Gate reacts to the incoming signal: the more you dial it to the right, the slower it will react, resulting in a softer transition between the gated and the not gated parts of the signal.
HOLD	The Hold parameter is used to determine how long the gated signal is held; lower values will result in a more „choppy“ effect.
RELEASE	The time the Gate will take to release the input signal after it falls below the threshold.
OUTPUT	
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.2 Modulation

8.2.1 Chorus

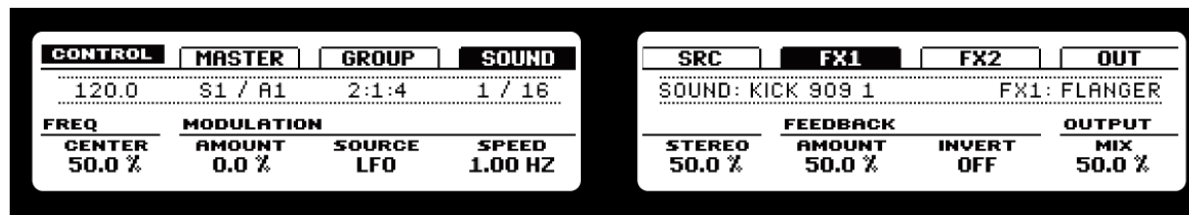


The Chorus on the software

The Chorus is useful to “thicken” signals and enhance the stereo content. It is most effective on melodic sounds, but can also be used on hihats to make them more vivid or on a voice sample to create a doubling effect (thereby making it sound as if there were several voices). It works by splitting the audio signal up into two versions and slightly detuning one of them.

MODULATION	
RATE	The Rate defines how fast the pitch of the signal is being modulated.
AMOUNT	The amount of the Chorus effect.
OUTPUT	
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.2.2 Flanger



The Flanger on the hardware

Classic Flanger with LFO and Envelope- modulators. The Flanger sounds a bit like the Chorus, but the difference between them is that the Flanger modulates the signal faster and is equipped with a Feedback parameter and can be synchronized to the Song Tempo.

FREQ	
CENTER	This defines the center frequency of the Flanger.
MODULATION	
AMOUNT	The amount of the Flanger effect.
SOURCE	Here you can select the modulation source of the Flanger: available options are ENVELOPE, LFO SYNC and LFO SPEED . Depending on your selection, the parameter to the right will change:
ENVELOPE SHAPE	Change the Shape of the envelope here.
LFO SPEED	The Speed of the LFO in a range from 0,03 Hz up to 8 Hz.
LFO SYNC	Defines the speed of the modulation in musical values from 16/1 (once every 16 bars) up to 1/16 note.
STEREO	This parameter widens the stereo field of the effect.
FEEDBACK	
AMOUNT	Adjust the amount of the Feedback here.
INVERT	Inverts the Flanger.
OUTPUT	
MIX	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.2.3 Phaser

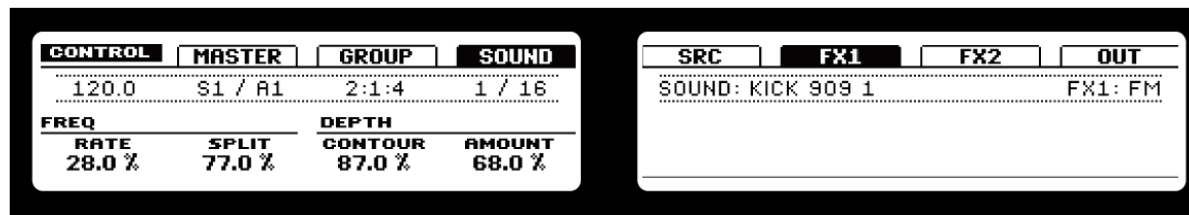


The Phaser on the software

Classic Phaser with LFO and envelope-follower modulators. The Phaser splits the signal into two parts and continuously modulates the phase of one of them.

FREQ	
CENTER	This defines the center frequency of the Phaser.
MODULATION	
AMOUNT	The amount of modulation.
SOURCE	Here you can select the modulation source of the Phaser: available options are ENVELOPE, LFO SYNC and LFO. Depending on your selection, the parameter to the right will change:
ENVELOPE SHAPE	Change the Shape of the envelope here.
LFO SPEED	The Speed of the LFO in a range from 0,03 Hz up to 8 Hz.
LFO SYNC	Defines the speed of the modulation in musical values from 16/1 (once every 16 bars) up to 1/16 note.
STEREO	This parameter widens the stereo field of the effect.
FEEDBACK	
AMOUNT	Adjust the amount of the Feedback here.
8POLE	Activating this causes the Phaser to use the 8Pole Mode, resulting in a more intense Phaser effect.
Output Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.2.4 FM



FM on the hardware

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.

FREQ	
RATE	This is for adjusting the speed of the FM-modulation.
SPLIT	<p>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.</p> <p>With high Split settings, the effect becomes more “gritty” and crackling.</p>
DEPTH	
CONTOUR	Contour determines the extent to which the input volume affects the intensity of the effect.
AMOUNT	Determines the amount of the FM Effect.

8.2.5 Freq Shifter



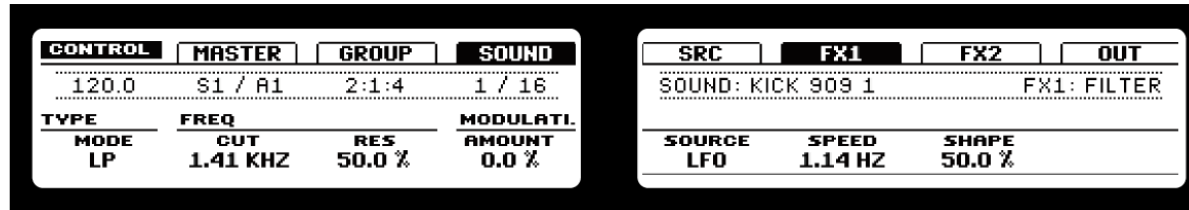
The Frequency Shifter on the software

The Frequency Shifter shifts selected frequencies of the audio signal by a user-specified amount.

FREQUENCY	
COARSE	This is used to define the basic frequency of the Freq Shifter.
FINE	Finetune the Frequency here.
FEEDBACK	
AMOUNT	Adjust the amount of Feedback introduced in the Frequency Shifter here.
STEREO	This parameter widens the stereo field of the effect.
OUTPUT	
INVERT	Invert the settings of the Frequency Shifter here.
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.3 Filtering

8.3.1 Filter



The Filter on the hardware

Filter with selectable characteristics that can be modulated via LFO or envelope follower. 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.

TYPE	
MODE	Here you can select between four different filter-types: NOTCH, HP (highpass), BP (bandpass), and LP (lowpass). Depending on the filter type, the following parameters vary as indicated.
FREQ	
CUT	CUT stands for Cutoff Frequency and is available with all filter-types.
RES	Res controls the amount of Resonance - the amount of amplification around the cutoff frequency. It is not available with filter-type Notch.
MODULATION	
AMOUNT	This defines how much the Filter gets modulated by the modulation source.
SOURCE	Here you can select between three different modulation sources: ENVELOPE, LFO SYNC and LFO. Depending on your choice for the modulation source, the following parameters appear to the right:
ENVELOPE DECAY	With Decay you adjust how fast the envelope fades out.
SMOOTH	Smooths the shape of the ENVELOPE.
SHAPE	Change the Shape of the envelope here.

MODULATION	
LFO SYNC SPEED	Defines the speed of the modulation in musical values from 16/1 (once every 16 bars) up to 1/32 note.
SHAPE	Change the shape of the LFO waveform here.
PHASE	Adjusts the start phase of the LFO.
LFO SPEED	Defines the speed of the modulation in Hz (Hertz) ranging from 0,03 Hz up to 16 Hz.
SHAPE	Change the shape of the LFO waveform here.

8.3.2 Resochord

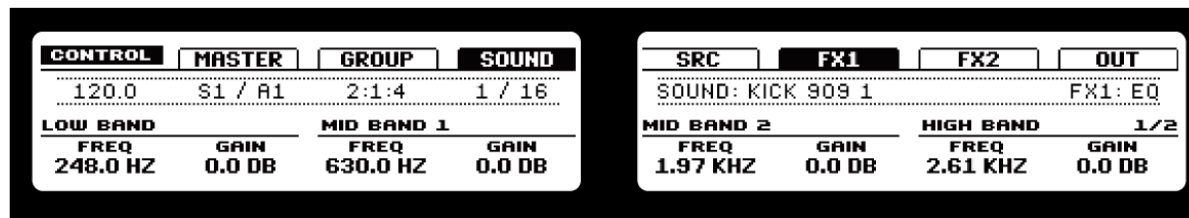


The Resochord on the software

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	
MODE	Here you can select between the two modes of the Resochord: CHORD and STRING. In Chord mode, the 6 combs are tuned according to various chords. In String mode, the 6 combs are centered around 1 frequency and can be spread for an intense chorus-like effect. Depending on your selection the other parameters in the Pitch area will change.
SPREAD	SPREAD is only available if STRING MODE is selected. It allows you to define how big the difference in tuning between the combs is.
STYLE	STYLE is only available if CHORD MODE is selected. You can select between different chord-styles such as minor or major.
CHORD	CHORD is only available if CHORD MODE is selected. Here you can choose from different chords to be applied to your audio signal.
TRANPOSE	TRANPOSE is only available if CHORD MODE is selected. It allows you to transpose the Resochord in semitones.
COLOR	
BRIGHTNESS	This is to determine the basic sound characteristic of the Resochord: higher values will brighten the sound by adding high frequencies.
FEEDBACK	Adjust the amount of the Feedback here.
DECAY	With Decay you adjust how fast the Resochord fades out.
MIX	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.3.3 EQ



The EQ on the hardware

Use the EQ to boost or cut selective frequencies of the audio signal. The EQ is mainly a tool to tailor your audio signal to taste by cutting out selected frequencies or boosting others, but can also be used quite efficiently as a DJ-style cut-and-boost effect. Note that the parameters cover two pages.

Page 1:

LOW BAND	
FREQ	Frequency selector for the Low Band. Ranges from 20 Hz to 8 kHz.
GAIN	Gain Control for the Low Band.
MID BAND 1	
FREQ	Frequency selector for the Low Band. Ranges from 40 Hz to 16 kHz.
GAIN	Gain Control for the Mid Band 1.
MID BAND 2	
FREQ	Frequency selector for the Low Band. Ranges from 40 Hz to 16 kHz.
GAIN	Gain Control for the Mid Band 2.
HIGH BAND	
FREQ	Frequency selector for the Low Band. Ranges from 50 Hz to 20 kHz.
GAIN	Gain Control for the High Band.

Page 2:

MID BAND 1	
WIDTH	Bandwidth control for Mid Band 1.
MID BAND 2	
WIDTH	Bandwidth control for Mid Band 2.
OUTPUT	
GAIN	Gain control for the filter altogether.

8.4 Spatial and Reverb

8.4.1 Reverb

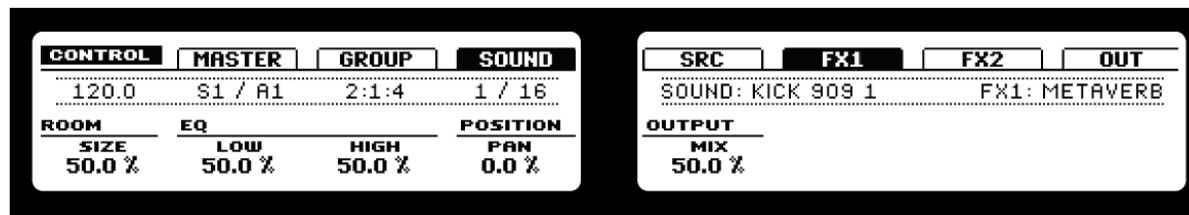


The Reverb on the software

The Reverb adds room information to the signal, making it sound more spacious and natural. It is particularly suited to drum sounds, but also useful to add a more “natural” sound for all sorts of other signals.

ROOM	
ROOM	This allows you to choose one of four basic characteristics of the Reverb: Shatter, Guitar, Bright and General.
SIZE	Adjust the size of the virtual room here.
EQ	
LOW	Low band EQ to cut or boost bass frequencies.
HIGH	High band EQ to cut or boost high frequencies.
POSITION	
PAN	Panorama control of the Reverb.
STEREO	This parameter widens the stereo field of the effect.
OUTPUT	
FREEZE	Freezes the Output of the Reverb, trapping its current state in a temporary buffer so that it holds indefinitely. Designed to be adjusted in real time.
MIX	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.4.2 Metaverb



The Metaverb on the hardware

Like the Reverb, the Metaverb adds spacial room information. However, in contrast to the Reverb it has a much more “synthetic” sound, which is particularly suited for melodic content.

ROOM	
SIZE	Adjust the size of the virtual room here.
EQ	
LOW	Low band EQ to cut or boost bass frequencies.
HIGH	High band EQ to cut or boost high frequencies.
POSITION	
PAN	Panorama control of the Metaverb.
OUTPUT	
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.4.3 Ice

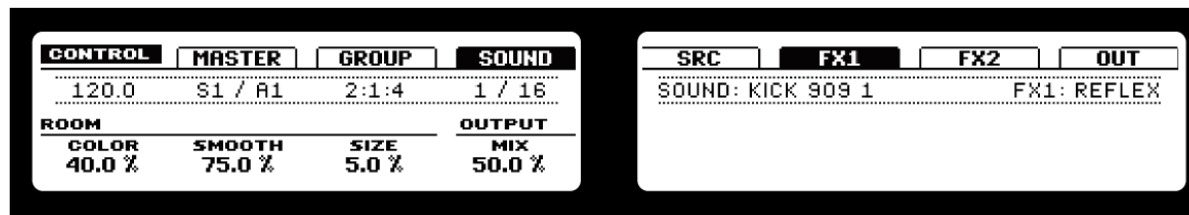


The Ice on the software

Ice includes a bank of self-oscillating filters for interesting and colorful effects. In the “Greenhouse” – Project from the Library, you can hear how it creates deep soundscapes in the “FX” – Group.

ROOM	
COLOR	With lower settings, the general sound is a bit more muffled. The higher the settings, the brighter it sounds.
ICE	The “ICE”-factor: higher values sound more metallic. This is a parameter better experienced than described!
SIZE	Adjust the size of the virtual room here.
OUTPUT	
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.4.4 Reflex



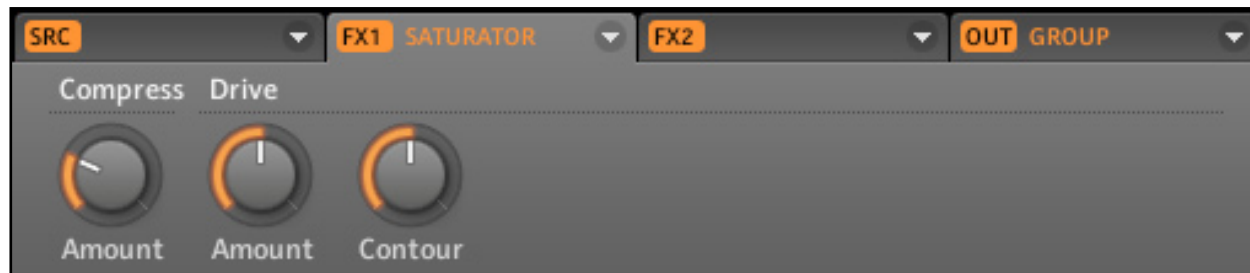
The Reflex on the hardware

At moderate settings the Reflex can be useful to emulate small, “tight” rooms. At more extreme settings, it can produce interesting artificial, metallic textures.

ROOM	
COLOR	At lower settings, the general sound is a bit more muffled; the higher the settings, the brighter it sounds.
SMOOTH	With this parameter, you can soften the metallic character of Reflex.
SIZE	Adjust the size of the virtual room here.
OUTPUT	
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.5 Distortion

8.5.1 Saturator

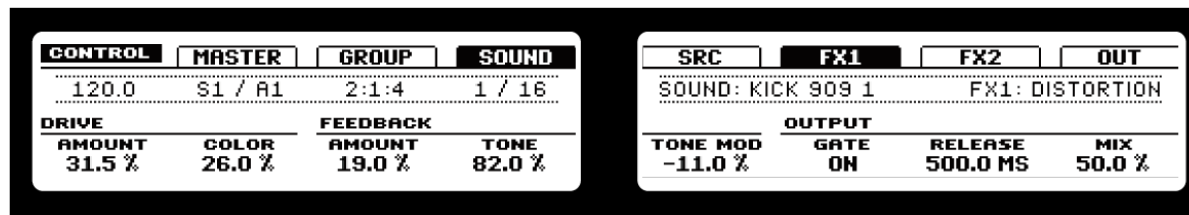


The Saturator on the software

The Saturator combines compression and saturation to increase the overall loudness and add additional harmonics.

COMPRESS	
AMOUNT	This parameter lets you adjust the amount of compression performed on the audio signal.
DRIVE	
AMOUNT	The amount of the distortion introduced by the Saturator.
CONTOUR	The Contour control determines how closely it responds to the input volume.

8.5.2 Distortion



The Distortion on the hardware

Combining overdrive, feedback and modulation, the Distortion produces a heavy distortion/fuzz effect, comparable to distortion stomp-boxes for guitars.

DRIVE	
AMOUNT	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	
AMOUNT	Adjust the amount of the Feedback here.
Tone	General tonal characteristic of the Feedback.
TONE MOD	Modulation introduced in the Feedback.
OUTPUT	
GATE	The Gate Button is used to cancel out feedback-loops introduced by high Feedback settings.
RELEASE	This parameter determines how fast the distorted Sound dies down when the Gate is enabled.
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.5.3 Lofi



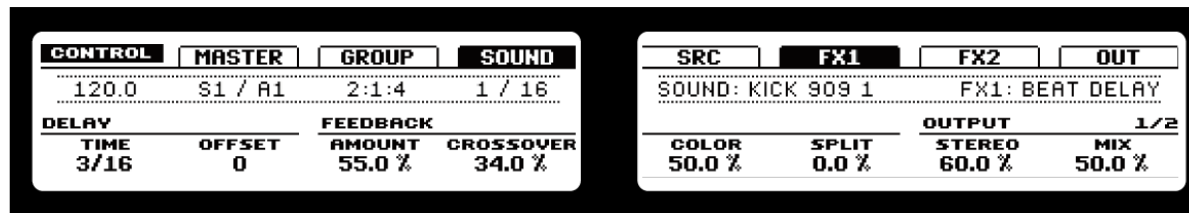
The Lofi on the software

The Lofi effect reduces the Bitrate and Sample Rate of the audio signal for an interesting “vintage” effect at subtle settings, and heavy digital distortion at extreme settings.

RESAMPLE	
SR	SR stands for Sample Rate and ranges from CD-quality (44,1 kHz) to 0,1 kHz which results in a hissy crackle.
SMOOTH	Smooth reduces the aliasing introduced by the LOFI effect.
STEREO	This parameter widens the stereo field of the effect.
BITCRUSH	
BITS	Introduces a distortion based on bit reduction.
OUTPUT	
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.6 Delay

8.6.1 Beat Delay



The Beat Delay on the hardware

The Beat Delay is a delay that is specialized for creating delays that are synced to the tempo. If you wonder how this sounds, load up the “Deeper” – Project from the Library: the Beat Delay is used on all Groups here (except for the Bass) and offers a lot of rhythmic sonic possibilities.

DELAY	
TIME	The Time parameter defines the delay in musical values from 1/32 to 16/16.
OFFSET	This parameter is used to shift the start of the delay in relation to the tempo.
FEEDBACK	
AMOUNT	Amount of the Feedback introduced to the Beat Delay.
CROSSOVER	Allows for panning the Feedback rhythmically in the stereo field.
COLOR	Defines the basic frequency of the Feedback: lower values result in a deeper sound, whereas higher values brighten the sound.
SPLIT	Controls the extent and center of the frequency crossover which occurs in the feedback chain.
OUTPUT	
STEREO	This parameter widens the stereo field of the effect.
MIX	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.6.2 Grain Delay



The Grain Delay on the software

By chopping the input into small “grains,” the Grain Delay is useful for creating ambient textures. Increase Size, Space and Density to quickly transform any sound into an evolving ambient texture. As a unique experimental effect, it is best experienced firsthand.

GRAIN	
PITCH	Determines the pitch of the grains: low values result in a deep, slowly repeating grain, high values speed up the grain, making it sound faster and higher.
SIZE	Defines the length of the grains.
JITTER	Introduces artifacts into the grains.
REV	This Button if activated results in reverse playback of the grain.
CLOUD	
SPACE	Determines the spacing between the grain clouds: the higher the value, the bigger the space between the clouds.
DENSITY	Creates a more “dense” cloud: higher values create feedback-like effects.
MOD	The amount of modulation introduced to the grain cloud.
OUTPUT	
MIX	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

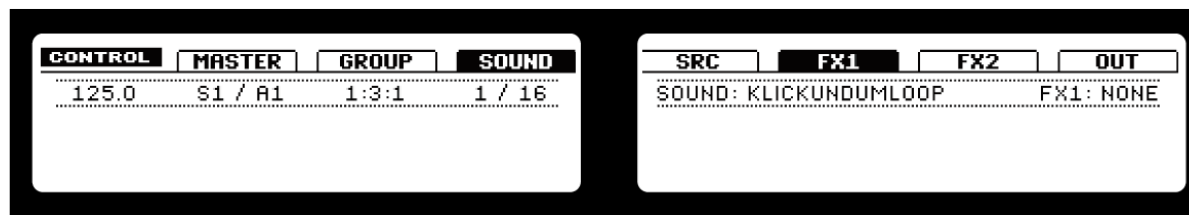
9 Using FX

9.1 Adding FX to a Sound

You can apply two Effects directly to each Sound as Insert Effects.

Hardware

Press Button 4 to put the focus on the Sound Tab which gets selected on the Left Display, then hit the Pad with the Sound you want to apply the Effect to. On the Right Display, you can now see the Modules FX1 and FX2. Select FX1 by pressing Button 6 or FX2 by pressing Button 7.



The Right Display showing the Modules FX1 and FX2 with FX1 selected

To select an Effect for the selected FX Module, press Shift followed by Browse. The Right Display now shows the list of the available Effects.



The Right Display showing a list of available Effects

You can browse through the available Effects by turning Knob 5. When you've found an Effect you want to apply, press Button 8 to load it into the FX Module. You can also use Buttons 5 and 6 to step through the list and immediately load the selected FX.

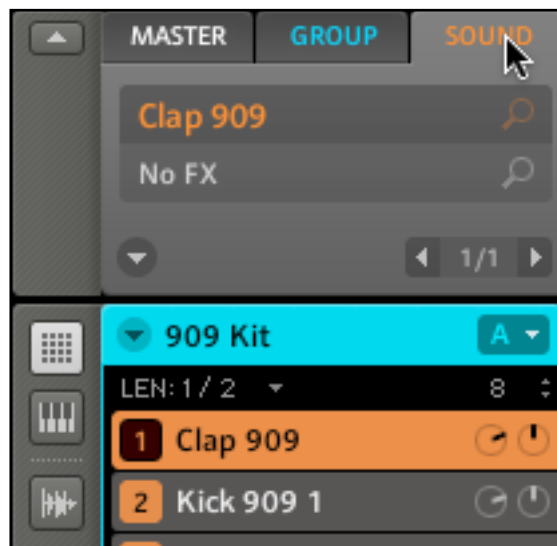
The above method loads the initialized FX algorithm. If you instead want to load an FX Preset, press Browse but without pressing Shift. You will now be presented with a list of the available FX Presets; you can browse them in the usual manner by turning Knob 5 and load one by pressing Button 8, or load them directly by using Buttons 5 and 6. If you don't see FX presets after pressing Browse, turn Knob 1 to change the tag filter to FX.

Some of the Effects will have more than one parameter page; in this case, use the Page Buttons to navigate between them.

Tip: you can also choose to select an FX module (FX1 or FX2) *after* pressing Browse by using the Page buttons. This is useful if you forget to select an FX module before entering Browse mode.

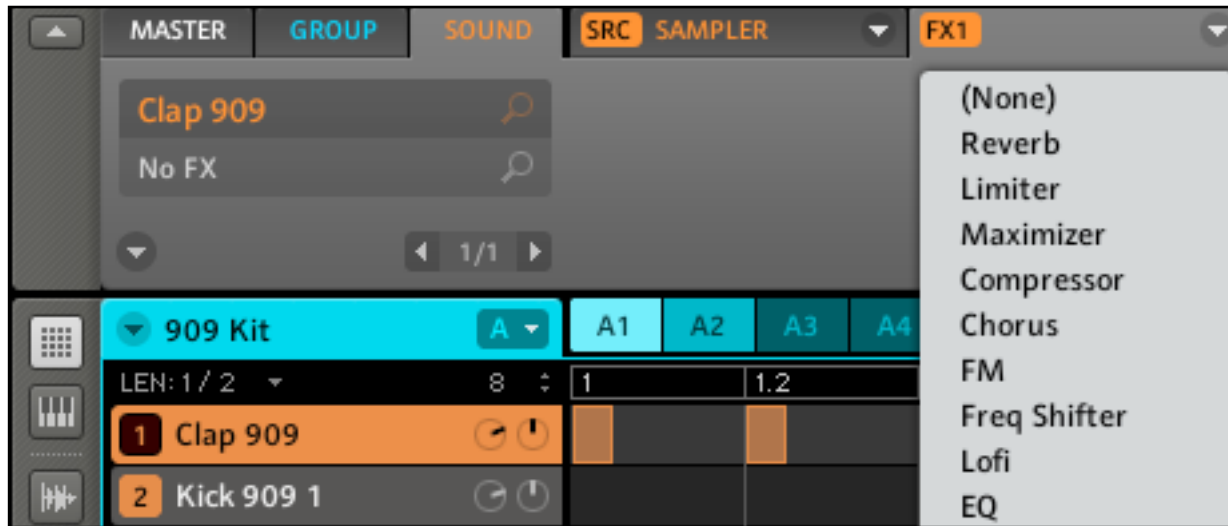
Software

Click on the Sound Tab to select the Sound you want to apply Effects to. The actual Sound that you assign the FX to is always the one currently in focus; in the example below it's the Clap 909 Sound.



The Sound Tab with the Clap 909 Sound in focus

Select one of the two FX Modules and click the Arrow to the right to get a list of all available FX:



The dropdown menu of the FX1 Module showing the Effects

After selecting the Effect with the mouse, you will find the parameters displayed in the FX Module:



The parameters of the Reverb, ready to be tweaked

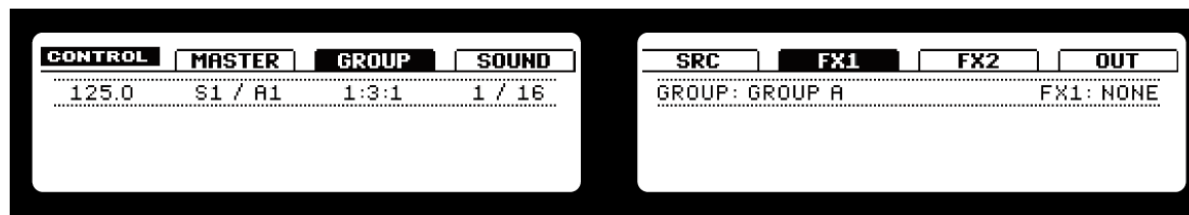
Some of the Effects will have more than one parameter page; in this case, use the Page Selector to navigate between them. You can also load FX Presets from the Browser either by double-clicking them or by dragging them to the FX Slot you want to use.

9.2 Adding FX to a Group

You can apply two Effects directly to each Group. The Effects will then be applied to all the Sounds in the Group together.

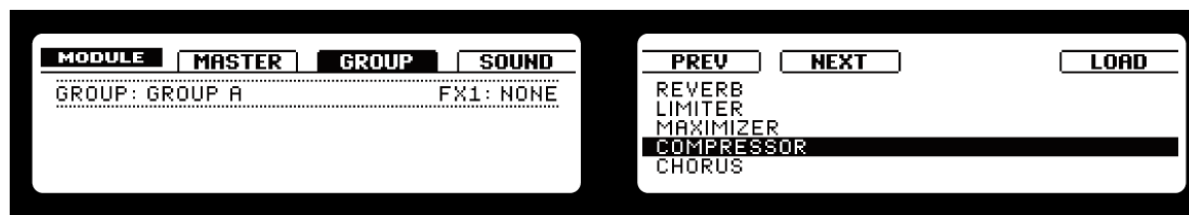
Hardware

Press Button 3 to put the focus on the Group Tab which gets selected on the Left Display, then press the Group Button of the Group you want to apply the Effect to. On the Right Display, you can now see the Modules FX1 and FX2. Select FX1 by pressing Button 6 or FX2 by pressing Button 7.



Pressing Button 6 on the Right Display

To select an Effect for the FX Module, press Shift followed by Browse. The Right Display now shows the list of the available Effects. You can browse through them by either turning Knob 5, or load them directly by using Buttons 5 and 6. When you've found an Effect you want to apply, press Button 8 to load it into the FX Module.

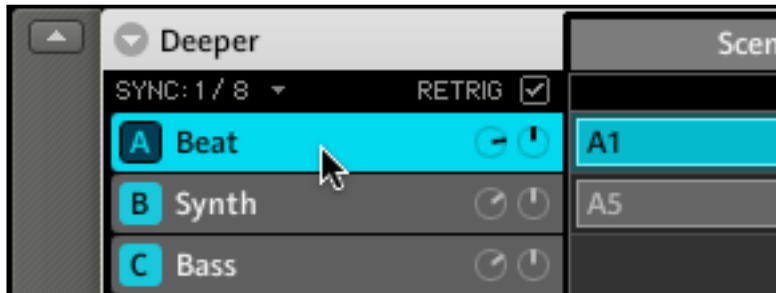


The Right Display showing the Load option

If you want to load an FX Preset, press Browse without Shift. You will now be presented with a list of the available FX Presets; you can browse them by turning Knob 5 and load one by pressing Button 8, or load them directly by using Buttons 5 and 6. If you don't see FX presets after pressing Browse, turn Knob 1 to change the tag filter to FX.

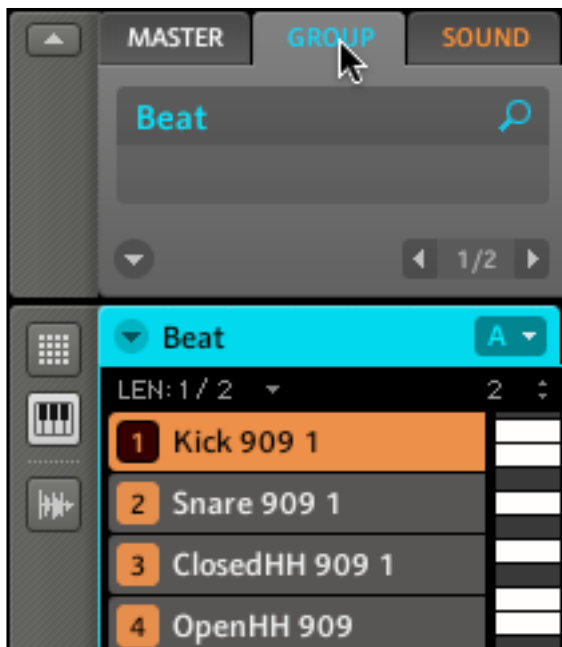
Software

In the same way that FX get applied to the Sound currently in focus, they get applied to the Group currently in focus, so make sure to have your Group in focus in the Arranger by clicking on it:



The Group in focus on the Arranger

Now click on the Group Tab in the Control Area to switch to the Group level:



The selected Group Tab

Select one of the two FX Modules and click the Arrow to the right to get a list of all available FX:



The list of available Effects for the Group

After selecting the Effect with the mouse, you will find the parameters displayed in the FX Module:



The EQ applied to a Group

Some of the Effects will have more than one parameter page; in this case, use the Page Selector to navigate between them. You can also load FX Presets from the Browser either by double-clicking them or by dragging them to the FX Slot you want to use.

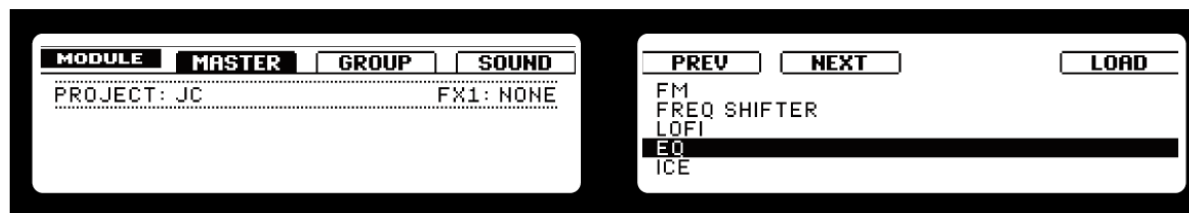
9.3 Adding FX to the Master

You can apply two Effects to the Master so that all your Sounds and all your Groups together are being sent into the Effect.

Hardware

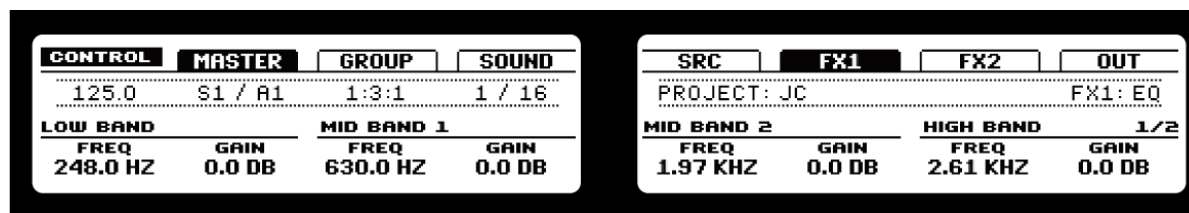
Press Button 2 to put the focus on the Master Tab which gets selected on the Left Display. On the Right Display, you can now see Modules FX1 and FX2. Select one of them by pressing Button 6 (for FX1) or Button 7 (for FX2). To load an Effect for a FX Module, press Shift followed by Browse. The Right Display now shows the list of the available Effects.

You can browse through them by either turning Knob 5, or using Buttons 5 and 6 you can directly load them.



The list of available Effects for the Master on the Right Display

When you've found an Effect you want to apply, press Button 8 to load it into the selected FX Module.



The parameters of the EQ in the Master Tab on the Left and Right Display

Some of the Effects will have more than one parameter page (like the EQ pictured above); in this case, use the Page Selector to navigate between them.

If you want to load a FX Preset, press Browse without Shift. You will now be presented with a list of the available FX Presets; you can browse them by turning Knob 5 and load one by pressing Button 8, or load them directly by using Buttons 5 and 6.

Software

First you select the Master Tab by clicking on it in the Control Area and then you click on the Arrow on the right of one of the FX Modules to select an Effect for the Master.

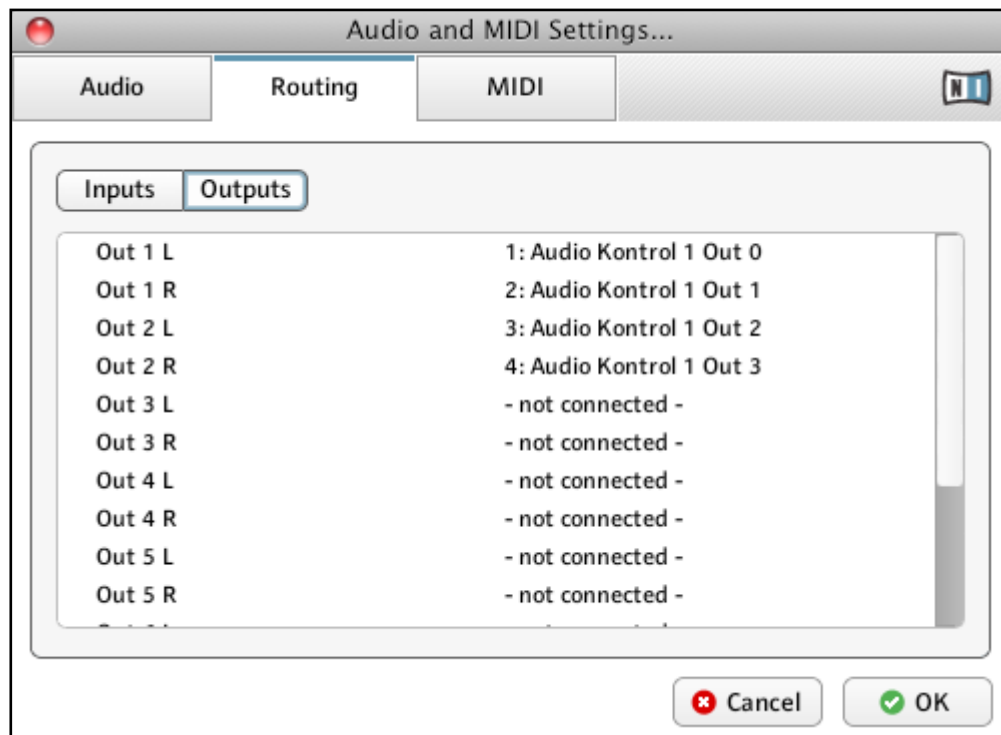


The list of available Effects for the Master

You can also load FX Presets from the Browser either by double-clicking them or by dragging them to the FX Slot you want to use.

9.4 Applying FX to an external instrument

Please make sure that you have connected an external audio signal source to your audio interface and that the inputs of the audio interface are activated. Open *Audio and MIDI Settings* from the File Menu. Now activate the desired inputs by clicking on them, then click OK:

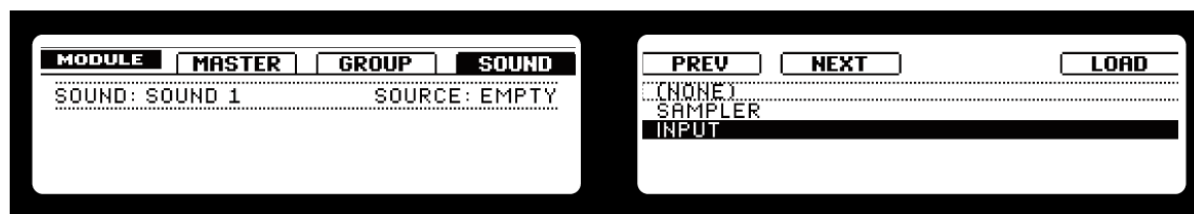


MASCHINE's Outputs configuration in the Audio and MIDI Settings dialog

Audio signals coming from external sources will now be routed to MASCHINE's FX section!

Hardware

First choose an empty Group by selecting it with one of the Group Buttons. Select an empty Sound Slot by pressing Button 4 and then one of the Pads, let's say Pad 1. Press Button 5 to select SRC (source). After that press and hold Shift, followed by Browse. By using Buttons 5 & 6 or Knob 5 you can select between Sampler and Input. Select Input and press Button 8 to confirm your selection.



Selecting the Input Source

You can now select your external source by leaving Browse mode and turning Knob 2. Then select one of the FX Modules: FX1 by pressing Button 6 or FX2 by pressing Button 7. Press Shift followed by Browse: now you see the list of the available Effects. Choose an Effect and load it using Button 8. Alternatively you can also load a FX Preset by hitting Browse and selecting one of the available FX Presets, loading it using Button 8. Now the external audio will be processed by the Effect.

Software

Choose an empty Group by selecting it in the Arranger, then choose one of the Sound Slots by clicking on it. Select the Sound Tab and then click on the Source Tab. On the right of the Source Tab, you will find an Arrow. Click on it and you will be presented with two options in the dropdown menu: *Sampler* and *Input*. Select *Input*.



Selecting the Input Module

You will now see two parameters: one knob for the Level of the external input and a Button that lets you select a Source. Select *Ext In 1* as the Source.



Selecting the Input Source: Ext In 1

Click on one of the FX Modules next to the Input Module and select an Effect using the Effect Menu from the upper right corner of the FX Tab. Alternatively you can also load a FX Preset by dragging it from the Browser or double-clicking it. Now the external audio will be processed by the Effect!

9.5 Recording FX automation

Automating FX is performed in the same way as automating one of the sampler parameters (see [chapter 7 “Working with Patterns \(Software\)”](#)).

Tip: if you don't know exactly what you can do with a certain effect, automating it using the Hardware is a good way to find out!

9.6 Saving FX Presets

If you created a nice FX setting you can put it to further use by saving it as an FX Preset. To save an FX Preset simply select the menu entry *Save...* in the dropdown menu of the FX Module of the Effect you want to save.



The dropdown menu of the FX Module



This function is only available in the MASCHINE Software.



Your FX Presets are automatically included in the MASCHINE Library after saving them, so you can tag them right away!

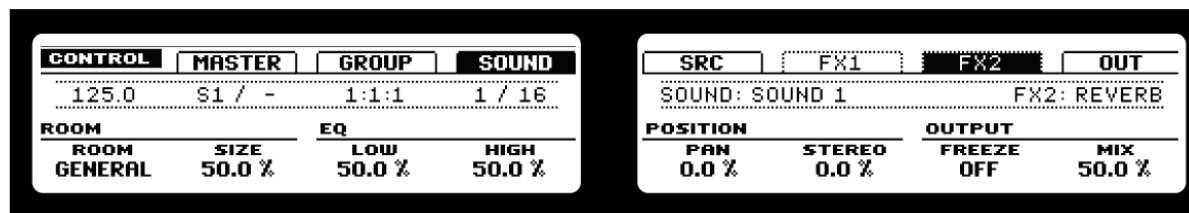
9.7 Muting FX

Muting FX might come in handy whenever you want to return to a dry, unaltered signal: such as after applying so much Reverb that you can't hear the dry signal anymore, or to get rid of the Feedback while using the Delay for example.

Hardware

Depending on the Tab you used the Effect on, press either Button 2 (for the Master), Button 3 (for a Group + the Group Button) or Button 4 (for a Sound + the Pad containing the Sound).

Now the Right Display shows the FX Modules. To mute one of the FX, press Shift followed by either Button 6 (for FX1) or Button 7 (for FX2).



The Right Display with FX1 and FX2 muted

To unmute the FX, press Shift followed by the respective Button (6 or 7) again.

Software

Select the Tab where you want to mute the Effect (either Sound, Group or Master) by clicking on it. Make sure you have the right Sound (click on it in the corresponding Sound Slot on the left of the Grid) or Group (click on the corresponding Group Slot on the left of the Arranger) in focus. For the Master, select the Master Tab. Now click on the label (orange if it is a Sound, blue if it is a Group, white if it is the Master) on the left side of the FX Modules to mute and unmute the desired Effect.



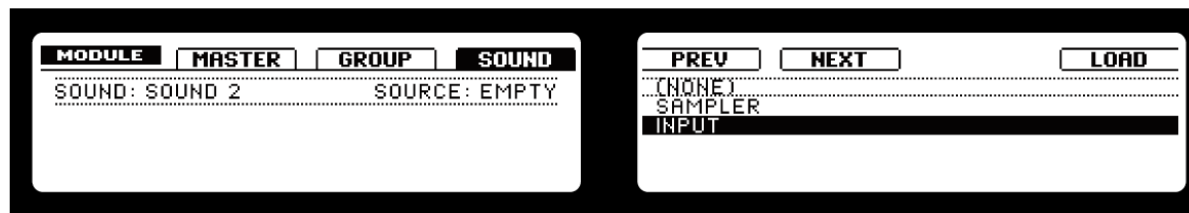
Muting the Reverb

9.8 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. The process is similar to applying FX to an external sound source as described above. This is how to set it up.

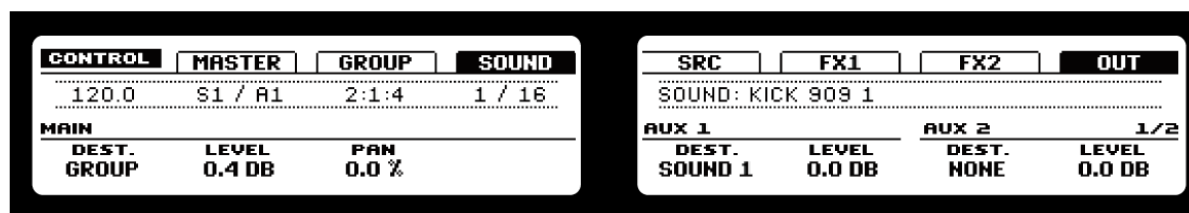
Hardware

Select an empty Group with an empty Sound Slot, let's say Sound 1. Select it by pressing its Pad. Press Button 5 to select the Source Tab (SRC). After that press Shift and Browse. By using Buttons 5 & 6 or Knob 5 you can select either Sampler or Input. Select Input and press Button 8 to confirm your selection.



Selecting the input source

To select an Effect Slot, press the Control Mode Button and then select FX1 by pressing Button 6 or FX2 by pressing Button 7. Press Shift followed by Browse: now you see the list of the available Effects. Select the Effect you want to use, and load it using Button 8. Switch back to Control Mode by pressing the Browse Button again or pressing the Control Mode Button. Now get back to the Group and select the Sound you want to apply the Send Effect to by pressing Pad 2 (load a Sample onto this Pad if there isn't one already). Go to the Output Tab (OUT, Button 8) and turn Knob 5 to select the Aux 1 destination: select *Sound 1* from the list.

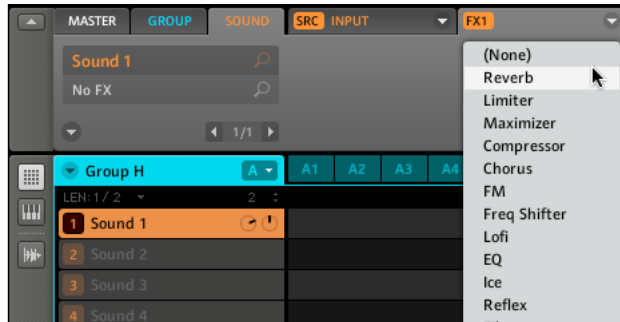


Selecting Aux 1 on the hardware

As you can hear, the Sound is already being sent to the Effect; by turning the Aux 1 Level, you can adjust the amount of signal that gets sent into the Effect.

Software

Select the first Sound Slot of an empty Group; now load an Effect into the Sound Slot's FX Tab by selecting it in the dropdown menu:



Loading the Reverb

On the Source Tab (SRC), select *Input* and leave the Source at *Internal*:



The SRC Input Tab

Tip: Name the Sound to be able to identify it as an Effect later! This will help you choose the right Sound from the Aux destination list.

Now select another Group with content (in this case the 909 Kit Group) and click the Output Tab (OUT) of the Sound you want to apply a Send Effect to (here: Snare 909):



The Output Tab

You can see the two Aux Sends, Aux 1 and Aux 2. In the dropdown menu of Aux 1, select Sound 1 to send the (Snare 909) Sound to the Effect in Sound 1:

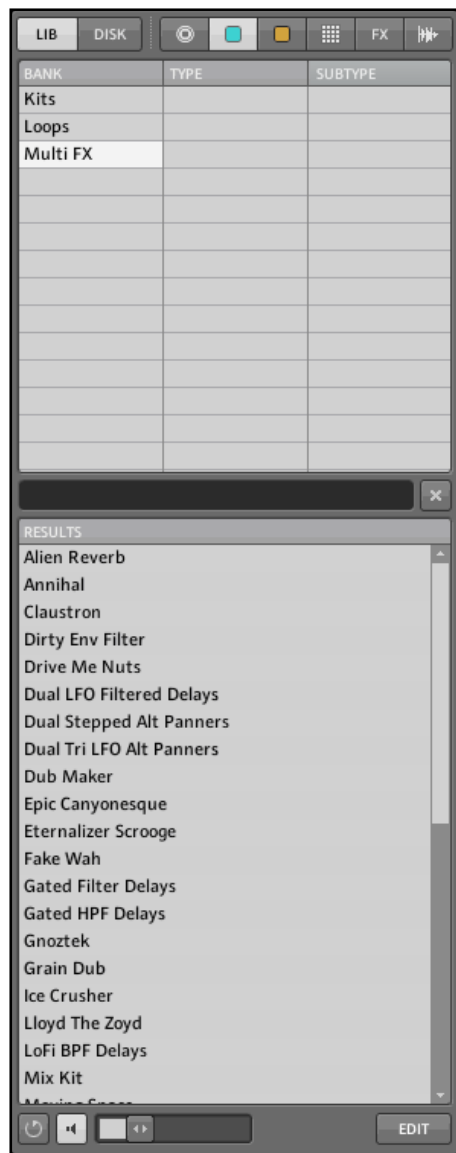


Choosing Aux1 Send

As you can hear, the Snare is already being sent to the Effect; by turning the Aux 1 Level, you can adjust the amount of signal that gets sent into it.

9.9 Creating a Multi Effect

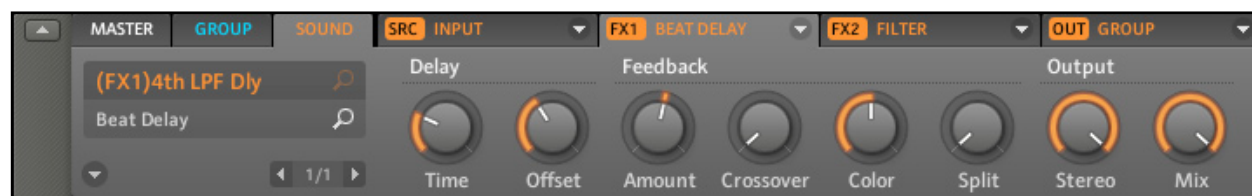
Creating a Multi Effect Group is basically the same thing as creating a Send Effect. As described in the previous [chapter „Creating A Send Effect“](#), you can set up two Effects for every Sound in the Group, adding up to 32 Effects per Group this way! This can be useful if you like a certain combination of Effects for your live setup or in the studio. Although this might seem like overkill, you can afterwards still add two more Effects on the Multi Effect Group itself. Make sure to name every Sound in this Multi Effect Group after the Effect 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. Learn more on creating complex Effect Chains in [chapter 9 “Using FX”](#). In the Library there are already a number of Multi Effect Groups tagged “Multi FX”:



The Multi FX of the Library in the Browser

Example: The Multi FX Dual LFO Filtered Delays

The Multi FX Dual LFO Filtered Delays consists of a combination of the Beat Delay with the Filter. Try out some other Multi FX from the Library to get some ideas on how to set up your own Multi FX!



The Multi FX Dual LFO Filtered Delays on the software

10 Creating a Song using Scenes

Creating a Song on MASCHINE is easy and straightforward. The basic concept is this: a song is composed of Clips, each which represents a Pattern from a given Group.. A combination of several Clips stacked vertically is called a Scene, of which a Project can have up to 64. Scenes are useful as different parts of a Song that you can trigger independently—such as a beginning, a chorus or a break. To get you started we recommend you load a Project from the Factory Library and have a look at the Arranger:

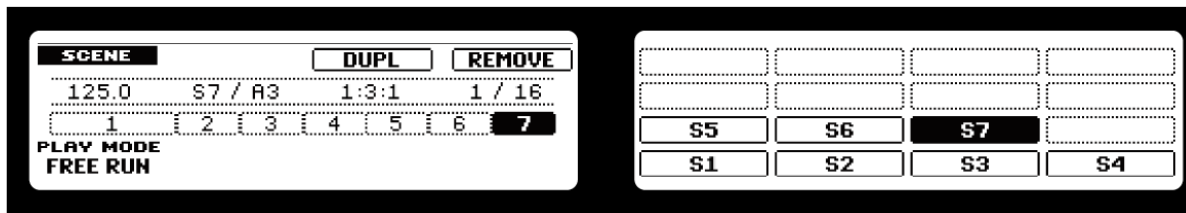


Factory Project “Deeper” in the Arranger with Scene 2 selected

10.1 Selecting a Scene

Hardware

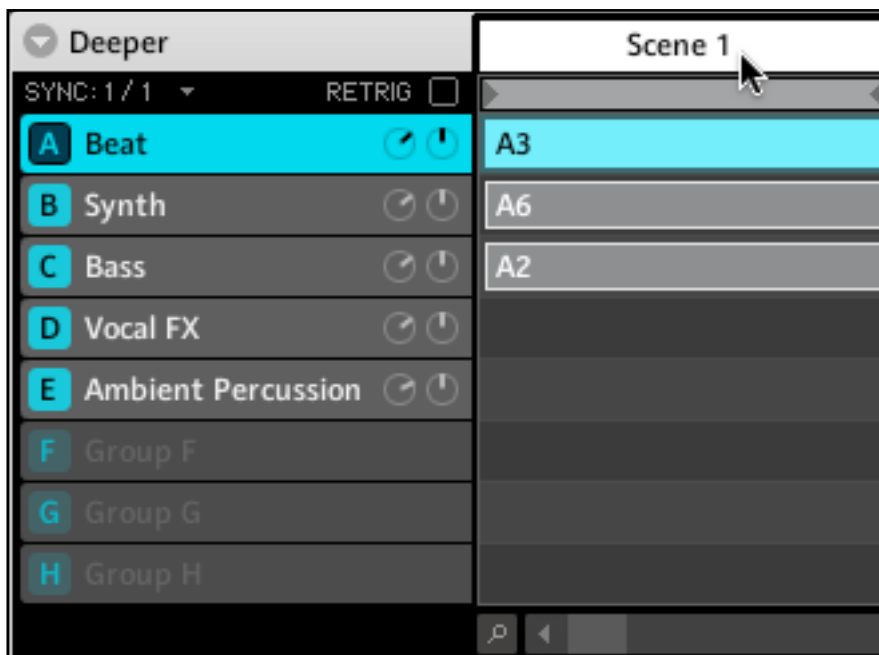
Enter Scene Mode by holding the Scene Button. You can lock the Scene Mode by hitting Button 1 at the same time. The Right Display gives you an overview of the available Scenes, with the selected Scene highlighted. Hit one of the Pads to select a Scene. To get to Scenes 17 – 64, use Buttons 6, 7 and 8. The Scene will then be changed according to the Scene Sync Settings (described below).



The Scene Mode on the hardware

Software

Select the Scene by clicking on the Scene Label in the Arranger Area. It will now be highlighted in white:



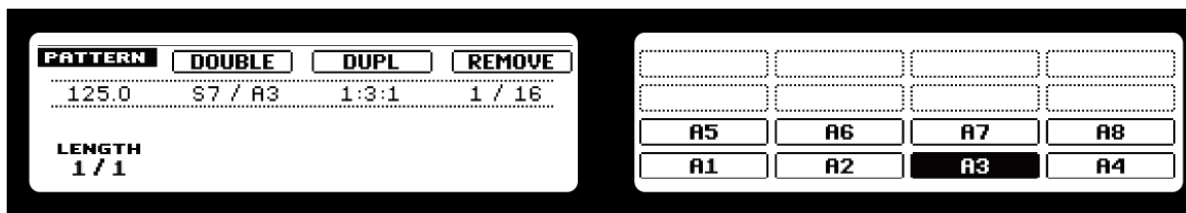
Selecting Scene 1

10.2 Creating and deleting a Clip in the Arranger

Each Clip placed in the Clip Area Arranger references one of the Patterns created in the Pattern Editor. Therefore, when a Pattern or any of its content is edited, all referencing clips in the Arranger will automatically get updated accordingly. The length of a given Scene always corresponds to the longest Pattern of a given Scene.

Hardware

Enter Pattern Mode by pressing Pattern and lock it by pressing Button 1 at the same time if you want. Choose your Pattern by selecting it with the Pads. To select the Pattern Banks A-D press Buttons 5 (Bank A) , 6 (Bank B), 7 (Bank C) or 8 (Bank D). The Right Display gives you an overview of the available Patterns with the selected Pattern highlighted. The selected Pattern will automatically be inserted into the selected Scene.

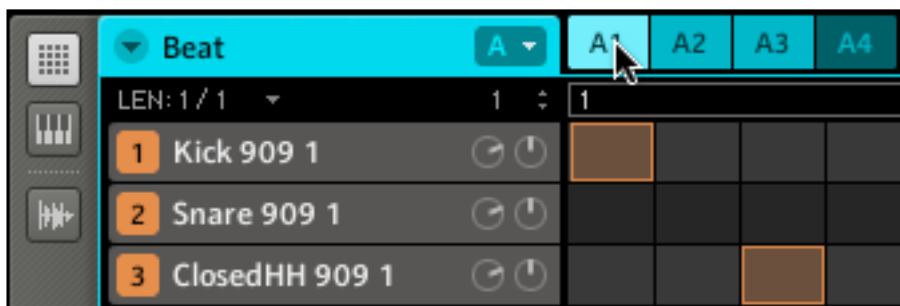


Overview of the Patterns on the Right Display

To remove a Clip from a Scene, press Button 4 labelled “Remove.” For further information regarding the Pattern Mode, take a look at [chapter 7 “Working with Patterns \(Software\)”](#).

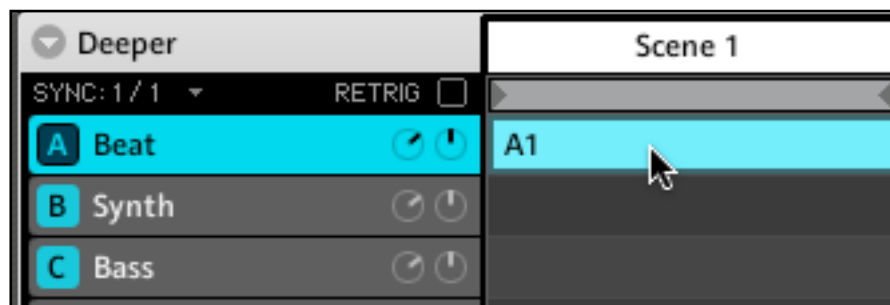
Software

Select the Pattern you want to use in the Scene by clicking on it in the Pattern Editor:



Selecting Pattern A1

A Clip with the selected Pattern will be automatically inserted into the focused Scene Column in the Arranger.



Creating a Clip

To delete a Clip, right-click (on Mac OS X: Ctrl-click) it.

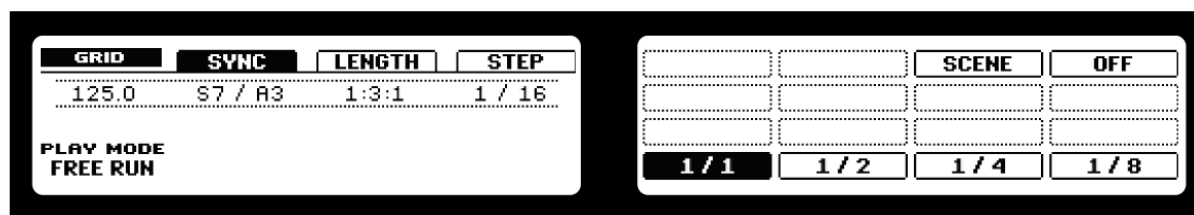


If you have a mouse that is equipped with a scroll wheel, you can also create Clips by hovering over the empty Clip Area while scrolling up or down. As you scroll, you will notice that the Patterns can be selected quickly using the scroll wheel!

10.3 Scene Sync

Scene Sync allows you to quantize the Scene transitions. For example, you might not want a newly selected Scene to fire off immediately—you might want it to wait until the next bar line. The available quantization values are 1/1 (= one bar), 1/2, 1/4, 1/8, Scene and Off. If you choose Off, the Scene change will be performed immediately after you select the next Scene.

Hardware



The Scene Sync on the hardware

Press Grid + Button 2; using the Pads, you can now select a Scene Sync.

- ▶ PLAY MODE
- ▶ FREE RUN

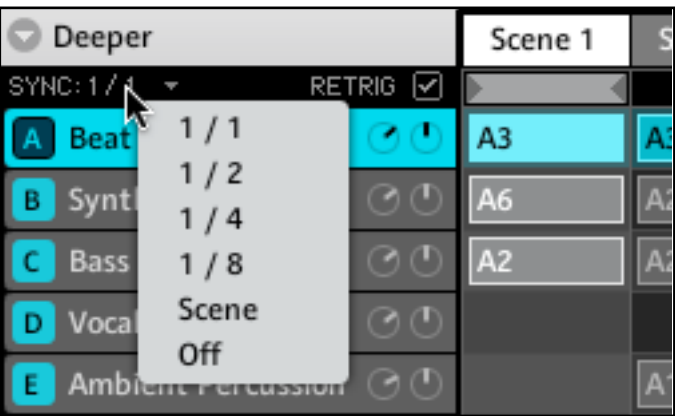
If FREE RUN is selected (Knob 1 in Scene Mode), the next Scene you choose will be played according to the Scene Sync selected and at the current position of the previously selected Scene: i.e., leaving the first Scene on beat 3 will cause the new Scene to start playing on its beat 3. If you have set Scene Sync to OFF, the Scene change will happen immediately.

► RETRIGGER

If RETRIG is enabled, (by holding down Scene and turning Knob 1), the next Scene you select will be forced to play from the start. This is useful if you always want your Scenes to play from the beginning regardless of what’s happening elsewhere in the music.

Software

In the Software click on the dropdown menu above the Group Slots and choose the desired quantization from the dropdown menu.



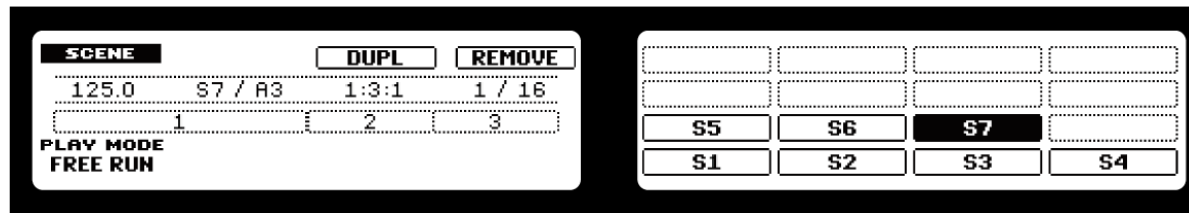
The Scene Sync on the software

RETRIG	As described above, selecting a new Scene while another is playing will cause it to trigger at a quantization interval that corresponds to the Scene Sync settings. However, the new Scene will also pick up at the same bar location as the previous Scene This can be musically useful. If Retrig is enabled, however, (click in the checkbox next to the RETRIG-label), the next Scene you select will be forced to play from the start. This is useful if you always want your Scenes to play from the beginning regardless of what’s happening elsewhere in the music.
--------	---

The Scene Position Marker

The Scene Position Marker helps you to keep track of where exactly you are in the current Scene.

Hardware



The Scene Position Marker on the hardware

Software

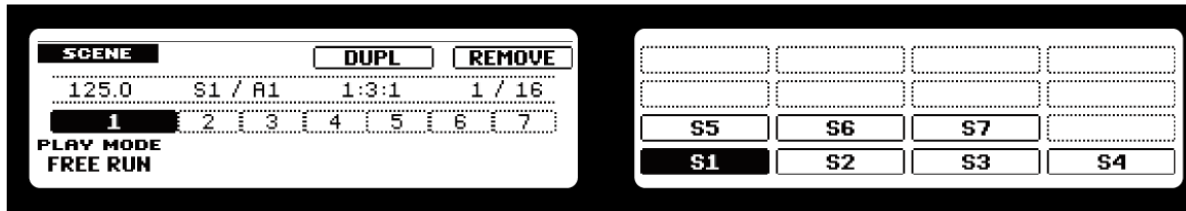


The Scene Position Marker underneath the Scene Label

10.4 Inserting and Deleting Scenes

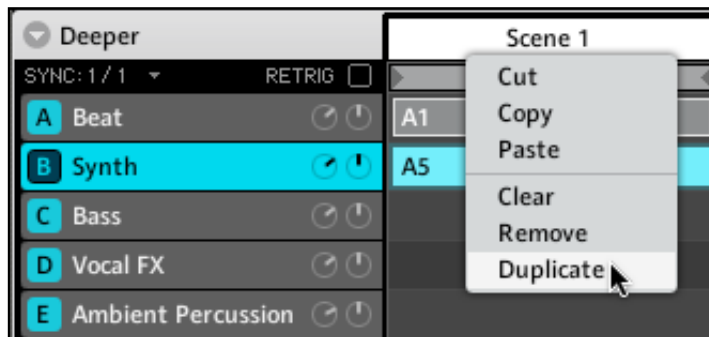
Hardware

Enter Scene mode and lock it (press Scene and Button 1 at the same time). Using Button 3 (Dupl) you can now copy the Scene currently selected to the following Scene. The copied Scene will immediately begin playback. To remove the Scene, press button 4 (Remove).



Scene View on the hardware: use Button 3 to duplicate a Scene and Button 4 to remove a Scene

Software



Scene editing menu (Software)

10.5 Duplicating a Scene on the software

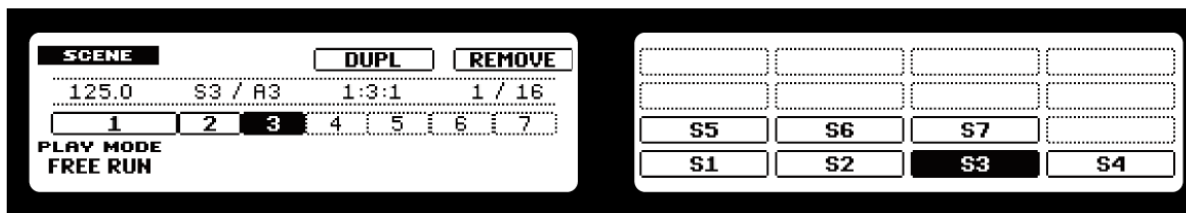
Right-click (Ctl-click on the Mac) on the Scene's label and choose Duplicate. The copied Scene will immediately begin playback. To remove the Scene, right-click (Ctrl-click on the Mac) on the Scene's label and choose Remove.

10.6 Using the Loop Mode to combine scenes

A single selected Scene is always looping automatically. The Loop Mode allows you to select several consecutive Scenes and play them one after the other in a Loop. This is useful to check if the Scenes go well together and/or if the arrangement works, but also comes in handy in a live situation.

Hardware

Enter Scene Mode by pressing the Scene Button and lock it by pressing Button 1 at the same time. The loop range can be defined by selecting a start Scene and an end Scene. First, select the starting Scene by pressing the corresponding Pad. Then, while holding the first Pad, press the Pad corresponding to the end Scene. Any Scene in between those two will be integrated in the Loop. To disable the Loop again, just select another Scene by pressing a Pad in Scene Mode.



A Loop in Scene View on the hardware: solid outlines signify the looped Scenes

Software

Click in the dark area below the Scene Label on the Scene you wish to define as the Start Scene and drag to the right. Release the Mouse Button in the Scene where you want the Loop to end. The currently active Loop will be highlighted in light grey. Now you will hear the first Scene and the second Scene in sequence. Any Scene in between those two will be integrated in the Loop. To disable the Loop, click below the Arranger Timeline. Double-click in the same area to create a Loop that ranges over all available Scenes.

Deeper	Scene 1	Scene 2	Scene 3	Scene 4
SYNC: 1 / 1 RETRIG <input type="checkbox"/>				
A Beat	A3	A3	A2	A1
B Synth	A6	A2	A1	A2
C Bass	A2	A2	A1	A1
D Vocal FX			A1	A1
E Ambient Percussion		A1	A1	A1
F Group F				

A Loop containing Scenes 1, 2 and 3 in the Arranger

11 Sampling & Sample Mapping

MASCHINE allows you to record internal or external audio signals using your audio interface 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. The slicing feature ([Hardware: 11.1.3 “Slicing a Sample”](#), [Software: 11.2.3 “Slicing a Sample”](#)) allows you to slice Loops in order to make them playable at any tempo without changing their pitch or timing. It is also useful to extract single Samples from Loops (e.g. a snare sound from a drum loop) quickly or to rearrange Loops by editing or muting their Slices, changing the order of the Slices, applying a different quantization or adding Swing. Last but not least you can map your Samples ([Hardware: 11.1.4 “Mapping a Sample”](#), [Software: 11.2.4 “Mapping a Sample”](#)), thereby creating multisample Sounds with individual velocity and note ranges, volume and panning. This is useful to emulate the behavior of classic instruments and synthesizers, but also allows for a large amount of Samples in only one Sound. The files you record will be stored either in the Project folder or in the MASCHINE Library folder, depending on your settings in the Preferences (see [chapter 2.4 “Preferences”](#)).

Make sure to also check out the tutorial videos regarding Sampling: “Sampling Part 1” and “Sampling Part 2” from the Native Instruments website (www.native-instruments.com).

11.1 Controlling Sampling from the Hardware

11.1.1 Recording a Sample (Hardware)

Choose an empty Sound Slot to record into by selecting it with its Pad.

Now hit the Sampling Button to enter Sampling Mode:



The Record Page on the hardware Displays

SOURCE	You can select the Source by using Knob 1: it can be either set to EXTERN for audio signals connected to your audio interface, or INTERN for audio signals from MASCHINE itself (either from another Group or from the Master Output).
INT. IN / EXT. IN	Using Knob 2 you can choose between the available Inputs. If EXTERN is selected, you can choose the external input of MASCHINE: IN 1 L, IN 1 R, or IN 1 L + R. If INTERN is selected you can select from the available Groups and the Master as a source.
MODE	MASCHINE offers two different modes for starting the recording available via Knob 3.
DETECT	If DETECT is selected, you can set a certain THRESHOLD value using Knob 4, and after pressing Start the input signal level exceeding this Threshold will start the recording. This is useful to record a singer or an instrumentalist for example.



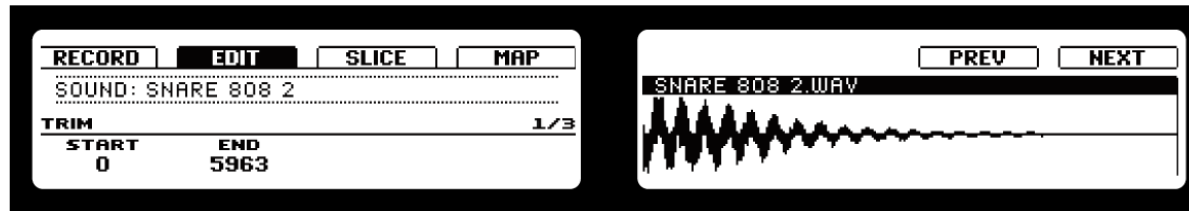
If you want to start and stop the recording manually, leave the MODE set to DETECT, dial the THRESHOLD up to 0 dB and start the recording by pressing START (Button 5). To stop recording, press STOP (Button 5).

SYNC	If SYNC is selected, you can synchronize the recording function to the sequencer, so that the recording starts in sync with the sequencer after you hit Start (Button 5). Note: the recording will start as soon as the sequencer starts; if it is already running, , the recording will start at the top of the next bar. Using Knob 4, you can choose a length for the Sample to be recorded: either 1, 2, 4, 8, or 16 BARS or choose FREE if you want to stop the recording yourself.
START	START (Button 5) will start the recording. If you have selected SYNC, MASCHINE will wait for the next bar before starting to record; if you have selected Detect, the recording will start as soon as the Threshold value is met. Cancel (Button 6) cancels the recording; the recorded Sample will not be saved. Cancel is only available after starting the recording using Button 5.
DELETE	All Samples are stored in the Recording History. Using Button 6 you can delete Samples you have recorded from the Recording History.
PREV	Hitting Button 7 allows you to select the previous Sample in case you have recorded more than one in this Sound Slot. Note: to play the Sample, just hit the Pad representing the Sound Slot you used for sampling.
NEXT	Hitting Button 8 allows you to select the next Sample in case you have recorded more than one in this Sound Slot.

11.1.2 Editing a Sample (Hardware)

With Button 2 you can reach the Edit Tab to edit the Sample. Here you can edit the start and end point of the Sample and create a Loop for it.

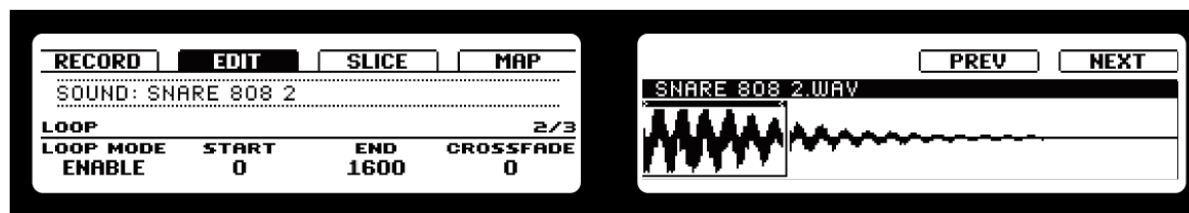
Page 1:



The Sample Editor on the hardware.

START	Using Knob 1 you can adjust the start point of the Sample here.
END	Using Knob 2 you can adjust the end point of the Sample here.

Page 2:



Setting a Loop within a Sample on the hardware

Loop Mode	Here you can choose to either disable or enable Loop Mode by dialing Knob 1. If enabled, you can see the Loop highlighted on the Right Display (as pictured above). The Loop will be repeated as long as the note is triggered, which can be useful to loop either a whole Sample or part of it to simulate a longer tone..
START	Defines the start point of the Loop with Knob 2.
END	Defines the end point of the Loop with Knob 3.
CROSSFADE	CROSSFADE (Knob 4) 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.

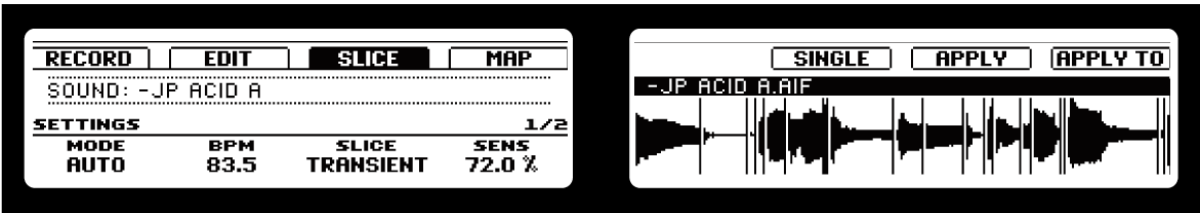
Page 3:

This particular amplitude envelope is mainly meant to allow you to get rid of clicks after slicing; you can either apply it to the whole Sample or to individual selected Slices.

ATTACK	The Attack determines how quickly the Sample / Slice reaches full volume after being triggered.
DECAY	Decay is used to adjust how fast the Sample / Slice dies down.

11.1.3 Slicing a Sample (Hardware)

Hit the Sampling Button and press Button 3 to enter the Slice Tab. The Right Display will show you the waveform of the Sample with the Slices pictured as vertical lines. Depending on how you set up the Slice settings, the Slice Markers will move.



The Slice Tab on the hardware

Page 1: Slice Settings

MODE	Using Knob 1, you can select either MANUAL to enter the tempo in BPM (Knob 2) manually or AUTO to let MASCHINE detect the tempo automatically.
BPM	With Knob 2 you can set the tempo; if you selected Auto before, you can choose between the tempo that MASCHINE detected, or half or double of that tempo.
SLICE	Choose between the two Slice Modes using Knob 3 here: Transient and 16th. Transient slices the Sample according to its transients, whereas 16th slices the Sample into equally spread 16th notes.
SENS	Sensitivity parameter for the transient recognition (Knob 4). Higher values will cause more Slices to be detected because more transients will be recognized, lower values will result in less slices. Adjust this parameter until all musically significant slices have been detected.

Page 2: Trim

TRIM	Use Knob 1 to set the Start point of the part you want to slice. Use Knob 2 to set the End point of the part you want to slice.
------	--

Right Display

SINGLE	Press Button 6 to enable Single mode, allowing you to select a single Slice from your Sample. This is useful if instead of slicing an entire loop, you are more interested in extracting a single sound (such as a kick drum) from the loop and putting it on its own pad. If activated, the selected Slice will be highlighted in the waveform display on the Right Display; to switch between Slices, dial Knob 5, 6, 7 or 8.
APPLY	Performs the slicing according to the settings above when you hit Button 7 and creates notes that trigger the slices in the currently selected Sound. If SINGLE is selected, APPLY is not available. After you hit Apply, MASCHINE will automatically switch to Piano Roll / Keyboard Mode and the loop will play back in time with the Project tempo.
APPLY To	APPLY To allows you to copy the selected Slice (if Single is selected) or the selected Loop to another Group or Sound. After you hit APPLY To, select the Group or Sound you want the Loop / Slice to be copied to. If you select a Group, the Slices will be mapped to individual Sounds and the Step Editor will open with notes for each Slice; if you choose a Sound, they will be mapped to one Sound and the Piano Roll / Keyboard Editor will open with notes for each Slice.



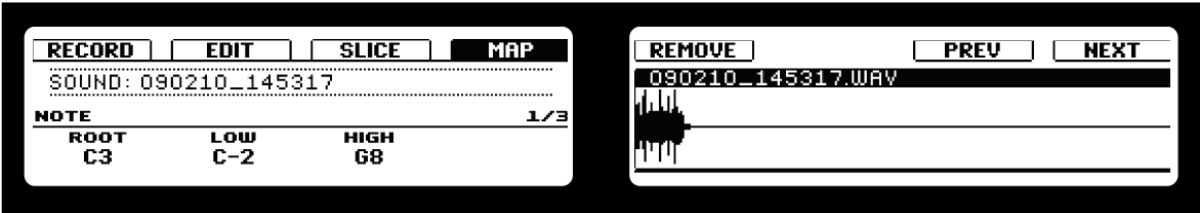
If you want to add effects to individual slices in a loop, you need to use APPLY To instead of APPLY.

11.1.4 Mapping a Sample (Hardware)

In Sampling Mode, hit Button 4 to enter the Mapping Tab. Here you can create Zones consisting of Samples and their note ranges and velocity ranges. The Zones can overlap, allowing you to trigger different Samples at once or triggering different Samples depending on how hard you hit the Pads.

To switch between Zones, use Buttons 7 (PREV) and 8 (NEXT). To delete a Zone, press Button 5 (REMOVE).

Page 1: Key Settings



The Mapping Editor displayed on the hardware)

ROOTKEY	Here you can define a root key for the Zone. This defines the note that when played will cause the sample to play back at its original pitch.
LOWKEY	This is to select the low key, meaning the lowest key of the selected Zone (Knob 2).
HIGHKEY	This is to select the High key, meaning the highest key of the selected Zone (Knob 3).

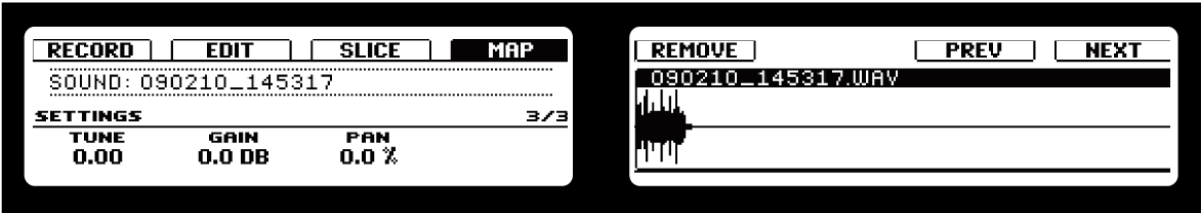
Page 2: Velocity Settings



The Velocity Range of the selected Zone displayed on the hardware)

LOWVELO	Dial Knob 1 to define the lowest velocity for the Zone’s velocity range.
HIGHVELO	Dial Knob 2 to define the highest velocity for the Zone’s velocity range.

Page 3: Tune, Volume and Pan



Basic parameters of the selected Zone (displayed on the hardware)

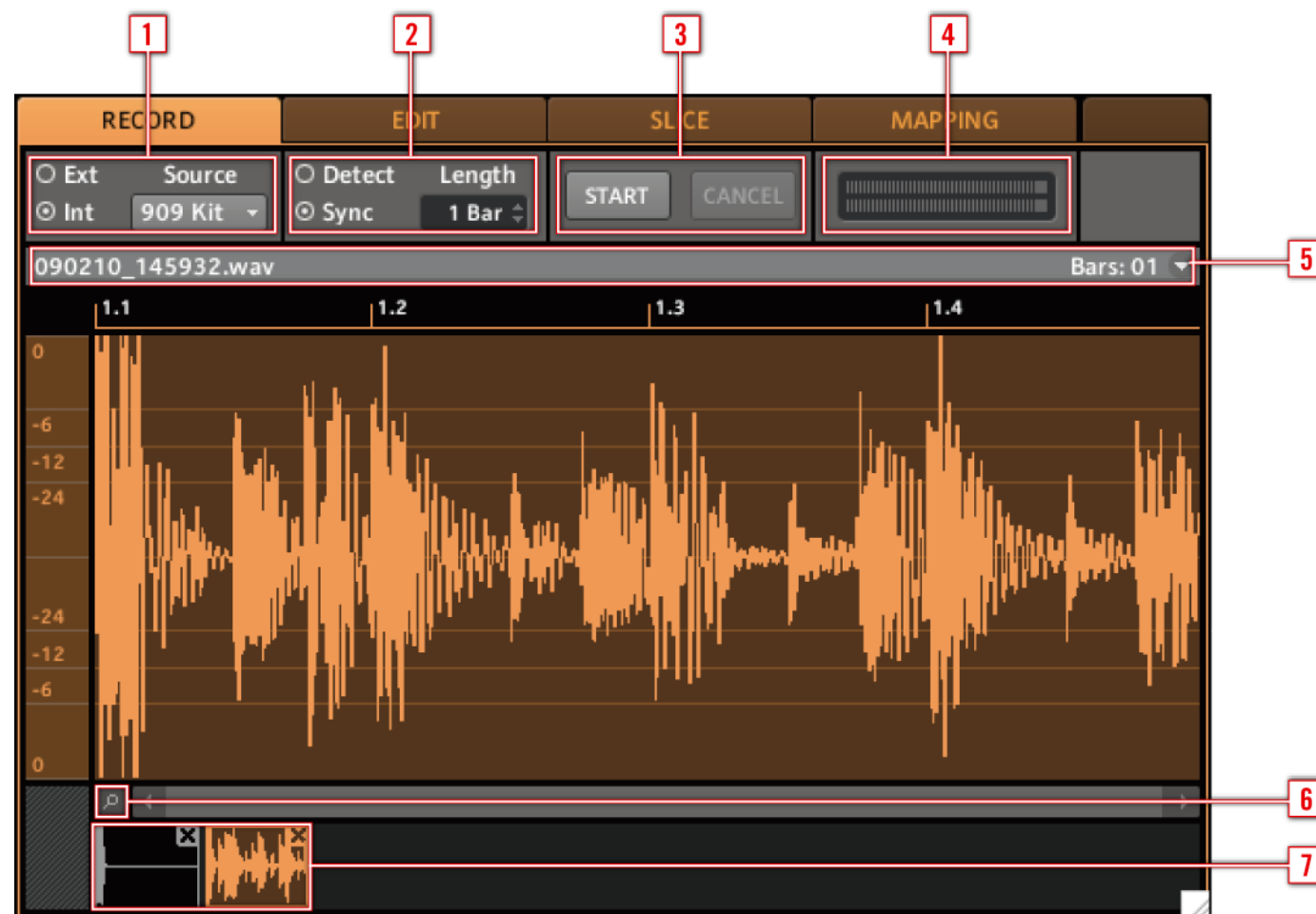
TUNE	Tune control for the Zone (Knob 1).
VOLUME	Volume level for the Zone (Knob 2).
PAN	Panorama position for the Zone (Knob 3).

11.2 Controlling Sampling from the Software

11.2.1 Recording a Sample (Software)

First choose an empty Sound Slot to record into by clicking on its name. Note: if you choose a Sound Slot that is not empty, all Samples assigned and mapped to it will be removed.

Now click the SAMPLING Button right underneath the PIANO ROLL/KEYBOARD Button:



- 1 Source Settings
- 2 Mode Settings
- 3 Start, Stop and Cancel
- 4 Input Meter
- 5 Timeline
- 6 Zoom Tool
- 7 Recording History

The Record Tab

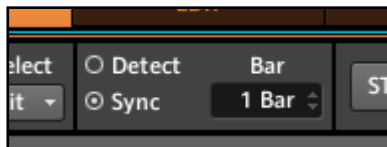
Source Settings

You can record Samples internally (check the **INT** radio button) from another Group, Sound or the Master Output or from one of the External Inputs of MASCHINE: In 1 L, In 1 R, or In 1 L + R (check the radio button labeled **EXT**).

Mode Settings

In the next Panel of the Record Tab, you can select a way to start the recording: either by setting a **THRESHOLD** value when you select the Detect radio button (adjustable with the mouse by dragging up and down) or in Sync with the Project Tempo.

If you select the Sync radio button you can choose a length for the Sample to be recorded: either 1, 2, 4, 8, or 16 bars; choose **FREE** if you want to stop the recording yourself.



Entering the length in bars

Start, Stop and Cancel

START will start the recording. If you selected Sync, MASCHINE will wait for the next bar before starting to record; if you have selected **DETECT**, the recording will start as soon as the Threshold value is met. The Start Button will change to Stop as soon as you press Start so that you can stop the recording as soon as you choose. If you hit **CANCEL**, the recording will be stopped and the resulting Sample will not be stored.

Input Meter

Shows the volume level of the input to be recorded; in Detect Mode you can drag the needle to adjust the Threshold value.

Timeline

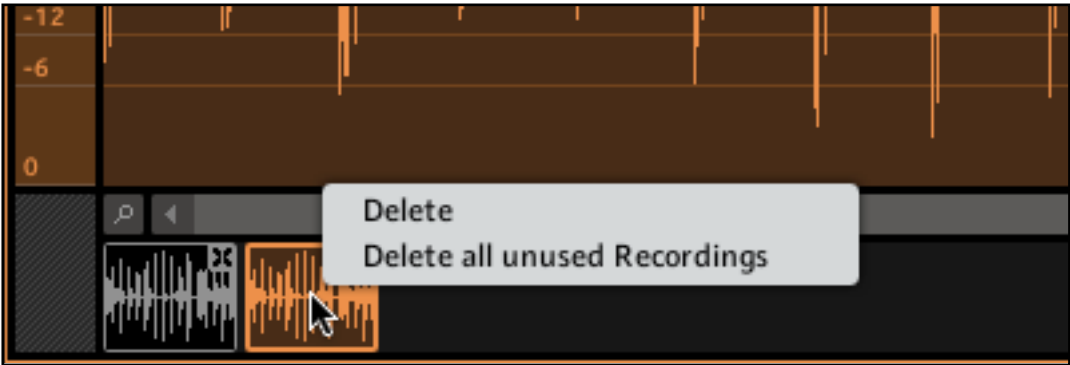
Shows the length of the Sample either in bars (when Sync Mode is selected) or seconds (when Detect Mode is selected).

Zoom Tool

Use this to zoom in and out of the Sample by click-dragging up (zoom in) and down (zoom out).

Recording History

Under the large waveform representing the recorded Sample, you can see a small icon for each Sample that was recorded into this Sound Slot: this is called the Recording History. You can drag the Samples from here to other Sound Slots to use them separately. If you right-click (on Mac OS X: Ctrl-click) on a Sample in the Recording History, there is a dropdown menu:



The dropdown menu in the Recording History

<i>Delete</i>	This allows you to delete the selected recording.
<i>Delete all unused Recordings</i>	This deletes all unused recordings.

11.2.2 Editing a Sample (Software)

In the Edit Tab, you can do the following: adjust Start and End of the Sample, enable Loop Mode, adjust Start and End Points of the Loop, or set a Crossfade between the End and the Start point of the Loop.



The Edit Tab on the software

Start and End of the Sample

Adjusting the Start and End point is done by either dragging the small grey icons labeled “S” (for Start) and “E” (for End) left and right using the mouse, or by entering the Start and End points in their respective fields.

Loop Settings

Here you can define a Loop by clicking on the LOOP Button. The Loop will be repeated as long as the note is triggered, which can be useful to loop a whole Sample or part of it in order to simulate a longer tone. The Start and End point can be edited by entering the START and END points in their respective fields. Alternatively you can also alter the Start and End of the Loop by dragging the handles of the Loop and move the entire Loop by dragging its title bar. CROSSFADE allows you to define a crossfade value between the end and the start of the Loop.

Info Bar

Displays the file name and the length of the currently edited Sample.

Dropdown menu

<i>Remove sample from map</i>	This removes the Sample from the Sample Map.
<i>Open containing folder</i>	Opens the folder on your harddrive containing the Sample, providing quick access to the original file.

Timeline

Shows the length of the Sample either in bars (when Sync Mode is selected) or seconds (when Detect Mode is selected).

Zoom Tool

Use this to zoom in and out of the Sample by click-dragging up (zoom in) and down (zoom out).

Envelope

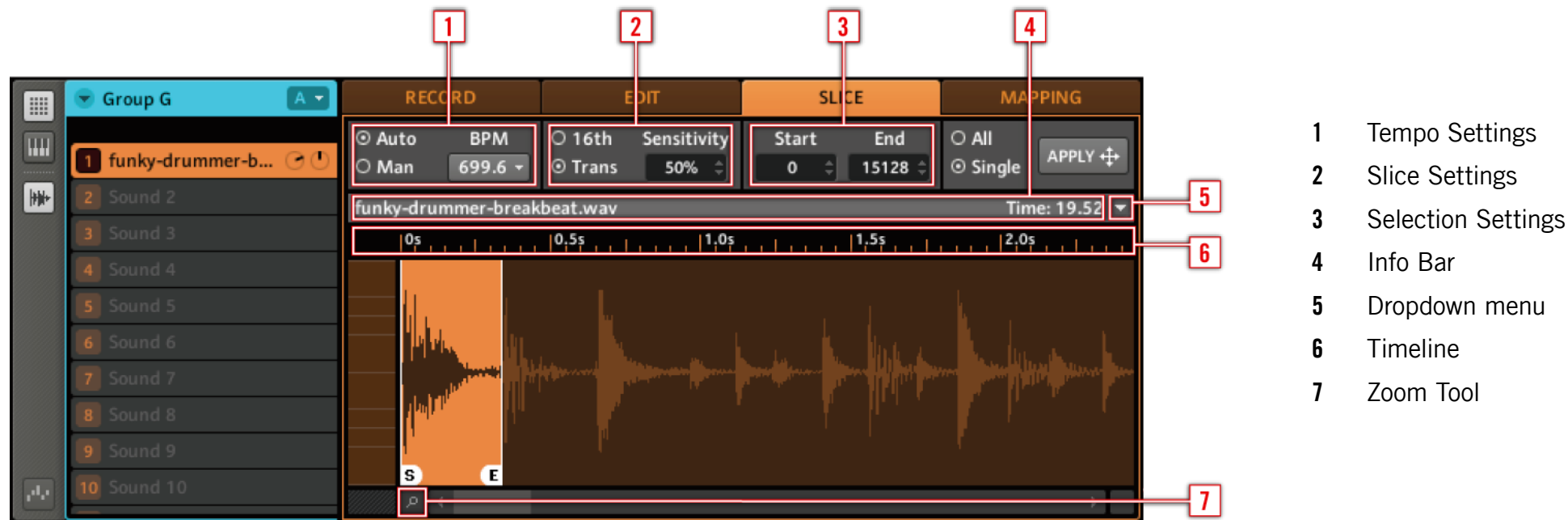
This amplitude envelope is mainly meant to allow you to get rid of clicks after slicing; you can either apply it to the whole Sample or to individual selected Slices.

ATTACK	The Attack determines how quickly the Sample / Slice reaches full volume after being triggered.
DECAY	Decay is used to adjust how fast the Sample / Slice dies down.

11.2.3 Slicing a Sample (Software)

Slicing allows you to chop up Loops to be able to extract single Sounds (the drum sounds of a drum loop for example), but is also good for preparing a Loop to be played back at another than the original tempo without changing its pitch or timing.

Drag a Loop or any other long Sample you wish to slice from the Browser (or sample one yourself!) and drop it in an empty Sound Slot. Press the SAMPLING Button and then the SLICE Tab. You can see that your Loop now has a couple of equally spread vertical lines in the waveform: this is where the Slices are going to be applied.



The Slice Tab on MASCHINE software

Tempo Settings

AUTO	If this radio button is selected, MASCHINE automatically determines the tempo of the Sample.
MANUAL	If this radio button is selected, you can enter the tempo manually in the BPM box.
BPM	Here you can directly enter the tempo in BPM, or (if Auto is selected), choose from these options: the tempo that MASCHINE detected, or half or double of that tempo.

Slice Settings

16 TH	If this radio button is selected, the Sample will be sliced into equally spread 16th notes.
TRANS	If this radio button is selected, the Sample will be sliced according to its transients depending on the Sensitivity setting.
SENSITIVITY	Use this to define the SENSITIVITY of the transient recognition. Click-dragging up will increase the Sensitivity, resulting in more Slices, click-dragging down will decrease the Sensitivity, resulting in less Slices. SENSITIVITY is greyed out if you choose the 16th setting.

Trim

START and END	Use this option if you want to slice only a part of a loop or recording. Adjust the Start and End point of the part you want to slice by either dragging the small grey icons labeled “S” (for Start) and “E” (for End) left and right using the mouse, or by entering the Start and End points in their respective fields.
---------------	---

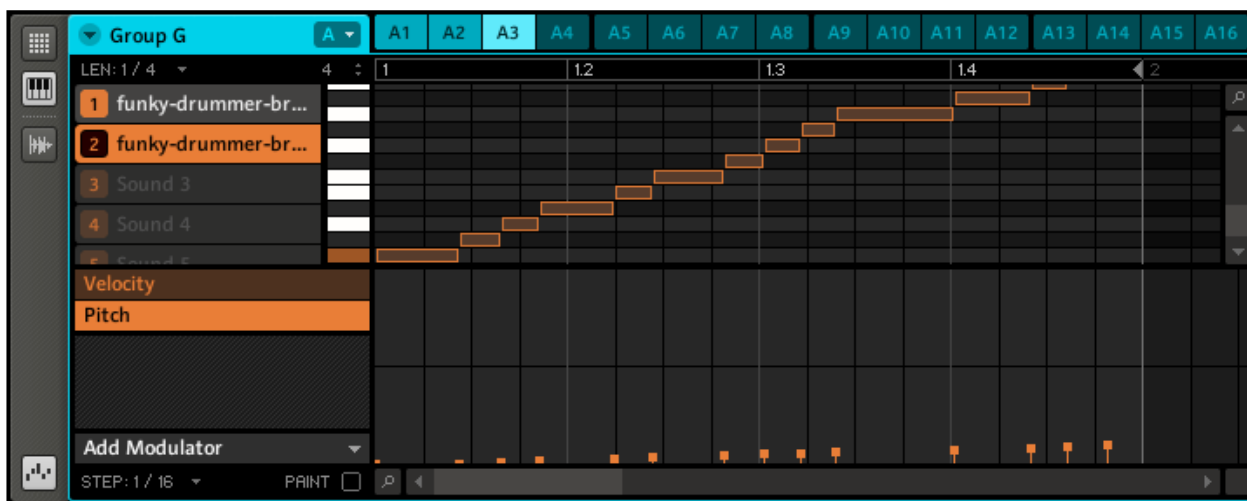
Selection Settings

ALL	If this radio button is checked, you can click-drag the waveform to copy the whole Loop to another Sound Slot or Group Slot. If you select a Group, the Slices will be mapped to individual Sounds and the Step Editor will open with notes for each Slice; if you choose a Sound, they will be mapped to one Sound and the Piano Roll / Keyboard Editor will open with notes for each Slice.
SINGLE	If this radio button is checked, you can click-drag the waveform to copy the selected Slice (highlighted in orange) of the Loop to another Sound Slot or Group Slot.



Dragging the sliced Sound onto a Sound Slot using the Apply Button

<p>APPLY BUTTON</p>	<p>Drag the APPLY BUTTON onto a Sound Slot to copy a selected Slice (when Single is selected) or Loops (when All is selected) to other Sounds & Groups, just like dragging the waveform works.</p> <p>Hit this Button to apply the slicing to the Sample, according to the settings defined. All Slices will be mapped to the same Sound Slot the Loop has been recorded to. If you hit apply, the Piano Roll/Keyboard Editor will open automatically after that, and you will see a couple of notes:</p>
----------------------------	---



The notes representing the Slices of a Loop

These notes represent the Slices and trigger them in order to play the Loop with correct timing and pitch. Try changing the tempo now, and you will hear that the Loop automatically adjusts to the new tempo.



Play around with the Slicing feature by removing some of these notes, quantizing or completely rearranging them!

Info Bar

Displays the file name and the length of the currently edited Sample.

Dropdown menu

<i>Remove sample from map</i>	Allows you to remove the Sample from the Sample Map.
<i>Open containing folder</i>	Opens up the folder containing the Sample, allowing you quick access to the original file.

Timeline

Shows the length of the Sample either in bars (when Sync Mode is selected) or seconds (when Detect Mode is selected).

Zoom Tool

Use this to zoom in and out of the Sample by click-dragging up (zoom in) and down (zoom out).

11.2.4 Mapping a Sample (Software)

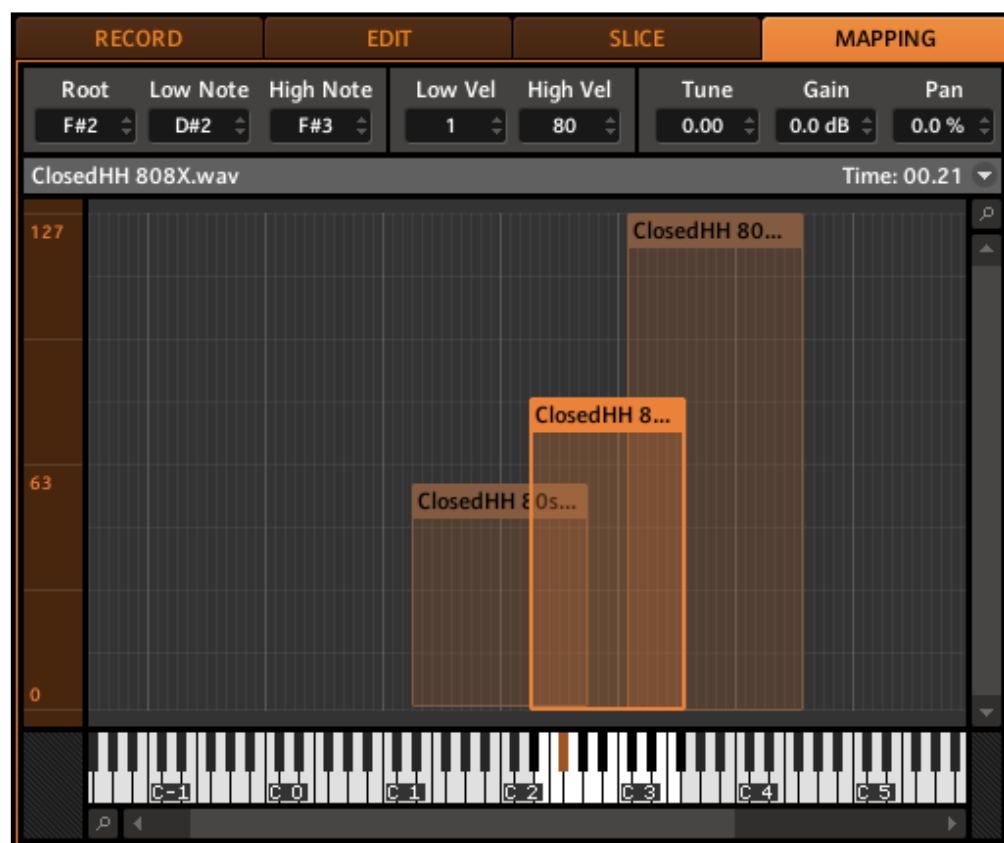
Mapping Samples is a way to create Sounds with more than one Sample across the MIDI keyboard.

Select an empty Sound Slot, then click the Sampling icon and enter the Mapping Tab by clicking on it:



Opening the Map Tab of the software

To add a new Sample, select one from the Browser and drag it into the mapping area. A Zone will be created; you can drag the left and the right border of the Zone with your mouse, thereby extending or minimizing it and defining a note range. Now you can add another Sample or drag a Sample onto an existing Zone replacing the Sample of that Zone. The note range of several Zones can overlap. You can also set all necessary parameters for a Zone in the Control Area: make sure the Zone is selected by clicking on it first though.



Several Zones in the Mapping Tab

ROOT	Select a root note in the ROOT field. The root note will be highlighted in brown on the Keyboard; to change it, you can also drag it to another note on the Keyboard.
LOW NOTE	Set the lowest note of the Zone by entering it here. Alternatively, you can drag the left border of the Zone to the lowest note. The note range of the selected Zone will be marked on the Keyboard with a slightly lighter color.
HIGH NOTE	Set the highest note of the Zone by entering it here. Alternatively, you can drag the right border of the Zone to the highest note.
LOW VEL	This defines the lowest velocity for the Zone's velocity range. Set it by entering the value in the text field or by dragging the lower border of the Zone.

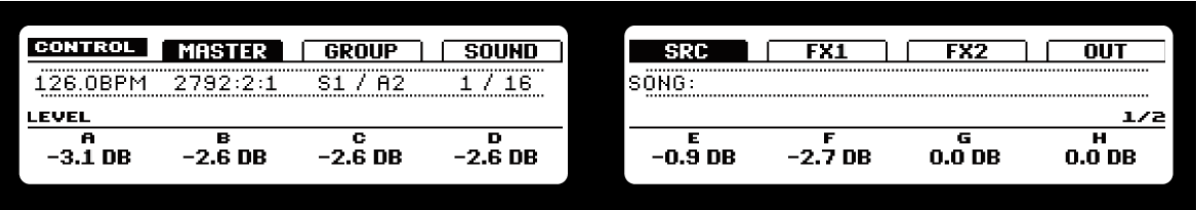
HIGH VEL	This defines the highest velocity for the Zone's velocity range. Set it by entering the value in the text field or by dragging the upper border of the Zone.
TUNE	Set the tuning of the Zone in the Tune field .
GAIN	Set the gain of the Zone here.
PAN	Set the panorama position of the Zone here.
Horizontal Zoom Tool	Use this to zoom in and out horizontally by click-dragging up (zoom in) and down (zoom out).
Vertical Zoom Tool	Use this to zoom in and out vertically by click-dragging up (zoom in) and down (zoom out).
DROPDOWN MENU	
<i>Remove sample from map</i>	Allows you to remove the Sample from the Sample Map.
<i>Open containing folder</i>	Opens up the folder containing the Sample, allowing you quick access to the original file.

12 The Master Section

The Master is the place where all signals from the Groups are being mixed together and their panorama position is set. Just like the Groups and Sounds, the Master can host up to two Insert FX.

12.1 The Master Source Tab (SRC)

Page 1: Master Mixer



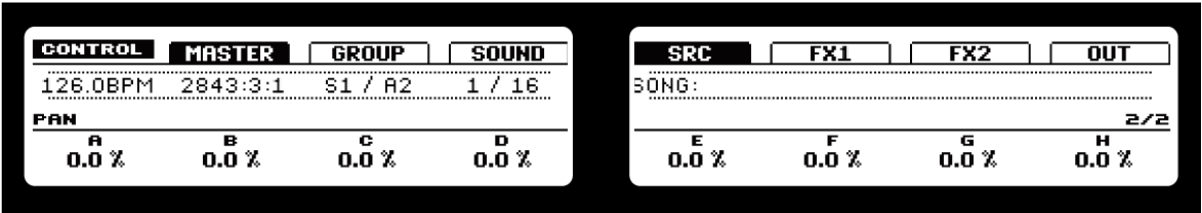
The Master Mixer on the hardware



The Master Mixer on the software

LEVEL	
A-H	This allows you to adjust the volume level of each Group. If you adjusted it already in the Group Out Tab, this will be represented here.

Page 2: Group Panning



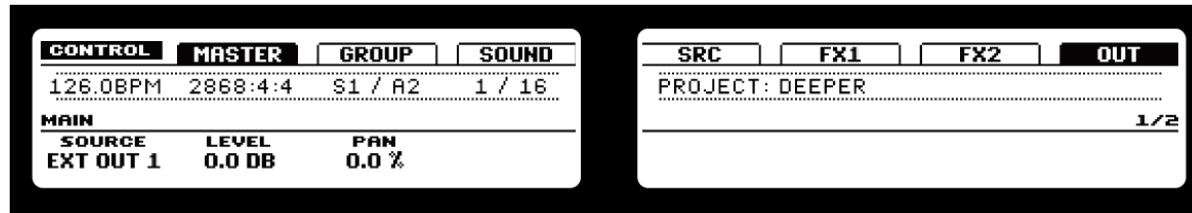
The Group Panning on the hardware



The Group Panning on the software

PAN	
A-H	This allows you to adjust the panorama position of each Group. If you adjusted it already in the Group Out Tab, this will be represented here.

12.2 The Master Out Tab (OUT)



The Master Out Tab on the hardware



The Master Out Tab on the software

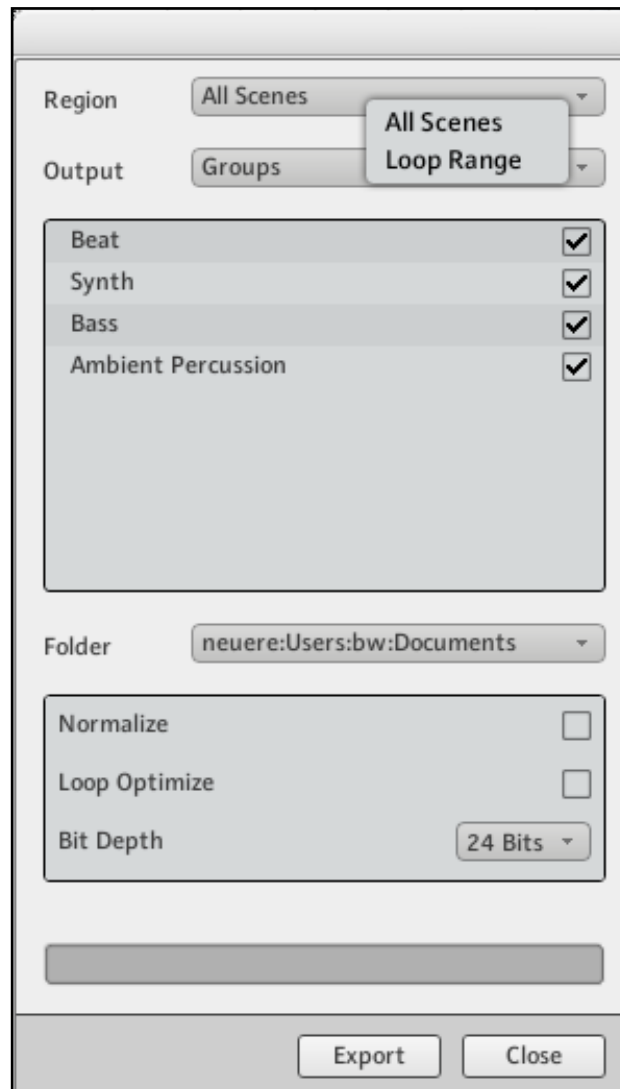
MAIN	
DESTINATION	Here you can choose to which output you would like to send the Master Signal: available options are EXT OUT 1-8. On the Software, click on the label to open the dropdown menu allowing you to choose an output, on the hardware use Knob 1.
LEVEL	This allows you to adjust the volume level of the Master output.
PAN	This allows you to adjust the panorama position of the Master output.

13 Exporting Audio

In some cases you might want to export your Groups, Sounds or complete Songs to files in order to be able to edit them further in other applications or burn a CD. The format of the exported audio files is WAV. Choose Export Audio from the File Menu and you will be presented with the following dialog:



Note: the Export function is only available in the Software!



The Export Audio window

REGION	Here you can choose a region you want to export. Available options are ALL SCENES (all Scenes of the Project will be exported) and LOOP RANGE (only the Scenes in the Scene Loop will be exported).
OUTPUT	This is to determine what gets exported:
MASTER	the Master Signal containing all Groups and Sounds and their FX in one audio file
GROUPS	All selected Groups will be exported to individual audio files. By clicking on the checkbox next to the Group names in the box below you can include and exclude Groups.
SOUNDS	All selected Sounds from the Group currently in focus will be exported to individual audio files. . By clicking on the checkbox next to the Sound names in the box below you can include and exclude Sounds.
FOLDER	This allows you to choose a folder on your harddrive where you want to save the exported audio file.
NORMALIZE	By checking this option, the resulting audio file will be brought to the highest possible volume level without distorting it.
LOOP OPTIMIZE	This option allows for optimizing the resulting audio file to use as a Loop. Amongst other little useful tricks it does stuff like rendering the tail of a Reverb in the beginning of an audio file, thus preventing the Loop from sounding „cut off“.
BIT DEPTH	Here you have the choice between three different bit depths: 8 BIT (sounds kind of Lofi and was used in many vintage samplers and drum-machines), 16 BIT (this is the bit depth of CDs) and 24 BIT (the highest available bit depth in MASCHINE, best for Mastering).
EXPORT	After having selected your options, click EXPORT to actually start exporting your audio file.
CLOSE	This is used to close the Export Audio window.

Appendix A: MASCHINE Controller Quick Reference Chart

This will give you a quick overview of the most used functions available on the MASCHINE Controller. You can print it so that you don't have to open the Manual every time you are looking for the basic functions.

Basic Sequencer Controls

Play/Stop	Press PLAY.
Activate Record	Press REC.
Play Loop from beginning	Press LOOP/RESTART.
Skip forward (1 Bar)	Press > in the Transport Section.
Skip backward (1 Bar)	Press < in the Transport Section.
Change Tempo	Dial the TEMPO Knob.
Swing	Dial the SWING Knob.
Note Repeat	Press and hold NOTE REPEAT together with the Pad you want to repeat.

Loading and Saving

Loading a File from the Browser	<ol style="list-style-type: none"> 1. Press BROWSE to enter Browse Mode. 2. Select the target tab with Buttons 2 - 4. 3. Select the file type by turning Knob 1. 4. Set attribute filters with Knobs 2 - 4. 5. Select a file dialing Knob 5. 6. Load it by hitting Button 8 7. Press BROWSE to exit Browse Mode
Saving a Project	Press SHIFT and F1/SNAP

Scene Operations

Switching Scenes	Press and hold SCENE; now select the Scene with the Pads.
Switching Scene Banks	Press and hold SCENE; now use Button 5-8 to switch Scene Banks.
Skip 1 Scene forward	Press SCENE and > in the Transport Section.
Skip 1 Scene backward	Press SCENE and < in the Transport Section.
Nudge left	Press SCENE and Page Button '<'.
Nudge right	Press SCENE and Page Button '>'.
Duplicate Scenes	Press and hold DUPLICATE together with SCENE and then the Pad of the Scene, you want to duplicate.
Delete Scenes	Press and hold ERASE together with SCENE and then the Pad of the Scene you want to delete.
Setting a Scene Loop	In Scene Mode, press and hold the start Scene of your Loop followed by the end Scene.
Select the Sync Grid	Press and hold GRID, then Button 2.
Change Sync Grid Value	<p>A) Press and hold GRID, then step through the values with < or > in the Transport Area.</p> <p>B) Press and hold GRID, then select a value by pressing a Pad.</p>

Pattern Operations

Locking Pattern Mode	Press PATTERN followed by Button 1.
Selecting Patterns	Press and hold PATTERN; now select the Pattern with the Pads.
Selecting Pattern Banks	Press and hold PATTERN; now use Button 5-8 to switch Pattern Banks.
Duplicate Patterns	Press and hold DUPLICATE together with PATTERN, then press the Pad of the Pattern you want to duplicate.
Delete Patterns	Press and hold ERASE together with PATTERN and then the Pad of the Pattern you want to delete.
Loading a Pattern	<ol style="list-style-type: none"> 1. Press BROWSE and then Button 3. 2. set the Filter to „Pattern“ by turning Knob 1. 3. select a Pattern by dialing Knob 5. 4. load it by hitting Button 8.
Select the Length Grid	Press and hold GRID, then Button 3.
Setting the Length Grid Value	<p>A) Press and hold GRID, then step through the values with < or > in the Transport Area.</p> <p>B) Press and hold GRID, then select a value by pressing a Pad.</p>

Basic Editing

Select the Step Grid	Press and hold GRID, then Button 4.
Change Grid Value	A) Press and hold GRID, then step through the values with < or > in the Transport Area. B) Press and hold GRID, then select a value by pressing a Pad.
Keyboard Mode	A) Press SHIFT and KEYBOARD/PAD MODE. B) Press and hold KEYBOARD/PAD MODE, then Button 2.
Step Sequencer Mode	Press STEP.
Selecting Events	Press and hold SELECT, then use the Pads to choose the Events you want to select.
Change Knob Resolution	Press SHIFT while turning a Knob.

Group Operations

Selecting a Group	Press one of the Group Buttons A-H.
Loading a Group	<ol style="list-style-type: none"> 1. Press Browse and then Button 3. 2. Set the Filter to „Group“ by turning Knob 1. 3. Select a Group by dialing Knob 5. 4. Load it by hitting Button 8.
Resetting a Group Slot	Press and hold SHIFT together with ERASE, then press the Group Button (A-H) of the Group you want to reset
Group Mixer	<ol style="list-style-type: none"> 1. Select the MASTER Tab with Button 2. 2. Select the SRC Tab with Button 5. 3. Use Knobs 1-8 to adjust the volume for the Groups individually.

Sound Operations

Selecting a Sound	Press the Pads until you hear the Sound you want to select
Loading a Sound	<ol style="list-style-type: none"> 1. Press Browse and then Button 4. 2. Set the Filter to „Sound“ by turning Knob 1. 3. Select a Sound by dialing Knob 5. 4. Load it by hitting Button 8.
Loading a Sample	<ol style="list-style-type: none"> 1. Press Browse and then Button 4. 2. Set the Filter to „Sample“ by turning Knob 1. 3. Select a Sample by dialing Knob 5. 4. Load it by hitting Button 8.
Resetting a Sound Slot	Press and hold SHIFT together with ERASE and then the Pad of the Sound you want to reset.
Sound Volume	<ol style="list-style-type: none"> 1. Select the SOUND Tab with Button 4. 2. Select the OUT Tab with Button 8. 3. Use Knobs 2 to adjust the volume of the selected Sound.

Effects

Muting FX	Press SHIFT and Button 6 to mute FX1 Press SHIFT and Button 7 to mute FX2.
Loading an FX	<ol style="list-style-type: none"> 1. Select an FX Slot with Button 6 or 7. 2. Press SHIFT and BROWSE. 3. select the FX using Knob 5. 4. load it by pressing Button 8.
Reset an FX Slot	Press ERASE and Button 6 to reset FX1 Press ERASE and Button 7 to reset FX2

Muting

Locking Mute Mode	Press MUTE together with Button 1.
Muting a Group	Press and hold MUTE and one of the Group Buttons A-H.
Muting a Sound	Press and hold MUTE and one of the Pads 1-16.
Muting FX	Press SHIFT and Button 6 to mute FX1. Press SHIFT and Button 7 to mute FX2.

Soloing

Locking Solo Mode	Press SOLO together with Button 1.
Soloing a Group	Press and hold SOLO and one of the Group Buttons A-H.
Soloing a Sound	Press and hold SOLO and one of the Pads 1-16.

Automation

Recording parameter automation	Press and hold AUTOWRITE/F2 and turn the Knob corresponding to the parameter you would like to automate.
Delete Automation Events	Press ERASE and turn the Knob to remove all events for the associated Parameter.
Step Automation	Press and hold a Pad to see the parameter for the Step on the displays.

Basic Sampling

Sampling from an external Source	<ol style="list-style-type: none">1. Press SAMPLING2. Set the Source to „Extern“ using Knob 1.3. Choose your Input Source by dialing Knob 2.4. Dial Knob 4 to set the recording threshold level.5. Press Button 5 to start the recording.
Sampling from an internal Source	<ol style="list-style-type: none">1. Press SAMPLING.2. Set the Source to „Intern“ using Knob 1.3. Choose your Input Source by dialing Knob 2.4. Dial Knob 4 until the Threshold reads 0 dB.5. Press Button 5 to start the recording.

Secondary Pad Functions

Undo	Press SHIFT and Pad 1
Redo	Press SHIFT and Pad 2
Compare	Press SHIFT and Pad 3
Split	Press SHIFT and Pad 4
Quantize	Press SHIFT and Pad 5
Quantize 50%	Press SHIFT and Pad 6
Nudge left	Press SHIFT and Pad 7
Nudge right	Press SHIFT and Pad 8),
Clear	Press SHIFT and Pad 9)
Clear Automation	Press SHIFT and Pad 10)
Copy	Press SHIFT and Pad 11)
Paste	Press SHIFT and Pad 12)
Semitone –	Press SHIFT and Pad 13)
Semitone +	Press SHIFT and Pad 14)
Octave –	Press SHIFT and Pad 15)
Octave +	Press SHIFT and Pad 16)

Appendix B: Keyboard Shortcuts

Views

KEY	FUNCTION
F6	Drum Grid View
F7	Piano Roll View
F8	Sampling View
F9	Browser
F10	Arranger
F11	middle area
F12	Automation

Focus (not in Browser)

KEY	FUNCTION
Page Up	Prev Group (rotate)
Page Down	Next Group (rotate)
Numeric -	Prev Pattern
Numeric +	Next Pattern
Numeric /	Prev Pattern Bank
Numeric *	Next Pattern Bank

Editing: Step Grid

KEY	FUNCTION
0	Grid Off
1	1/1
2	1/2
3	1/4
4	1/8
5	1/16
6	1/32
7	1/64
8	1/128
Shift + 1-7	Triplet Version
Q	Quantise
Shift+Q	Quantise 50%
Ctrl/Cmd+D	Duplicate Pattern Function (as on HW)
Ctrl/Cmd+Left	Nudge Left
Ctrl/Cmd+Right	Nudge Right
P	Paint Mode on/off
Shift+Click on Note (not in Paint Mode)	select

Transport

KEY	FUNCTION
Space	start/stop sequencer
Ctrl/Cmd+Space	start Sequencer from start

Appendix C: Tips for playing live

Since MASCHINE is a very hands-on tool for producing music as well as for performing live, we figured we would gather some tips for you to get you started playing live. If you are used to playing live, you may not need them, but maybe you will find some new ideas to integrate in your set.

Preparations

Focus on the Hardware

In a live situation it is not very comfortable or intuitive to look back and forth from your laptop screen running the MASCHINE Software to the MASCHINE Hardware.

Customize the Pads of the Hardware

Take your time to setup the Pad Sensitivity and Velocity Scaling to your personal taste you will have even more fun playing MASCHINE.

Check your CPU power before playing

Some things can be very embarrassing, for example if you are on stage and your computer starts to have the hiccups because it cannot handle the amount of effects anymore. Although the MASCHINE Software is programmed very efficiently, this might happen if your computer is one of the older kind. So before you get on stage, give your live set a thorough performance check by first playing it at home.

Name your Groups and Sounds

Naming your Groups and Sounds gives you a better overview of exactly what you are doing, especially if you focus on playing with the MASCHINE Hardware. It might not be something that is very interesting, but it certainly pays off in a sometimes rather hectic live situation to enable a quick overview.

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 soundcard, this is a useful safety measure. On the other hand 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!

Hook up your other gear and sync it with MIDI clock

If you have other gear such as a drum machine, a synthesizer or another sequencer that is able to send MIDI Clock, hook it up to the MASCHINE Controller's MIDI In and activate External MIDI Sync from MASCHINE's File Menu so that they can play together in sync. MASCHINE can also receive MIDI Clock via an internal MIDI port, so you can synchronize it with a MIDI Master. Make sure to also setup your Sync Offset correctly ([chapter 2 “Basic Concepts”](#)) so that all your machines and MASCHINE are tightly synchronized.

Improvise!

It is nice if a live set is working out exactly the way you planned it, but sometimes, this can get boring for you 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.

Basic Techniques

Use Mute & Solo

Mute and Solo is a good way to build up a live set especially on MASCHINE as you can mute and solo Groups and Sounds at the same time.

By locking the Mute and Solo function, you have both hands free to mute or solo Sounds and Groups. Since pressing Solo mutes all sounds except one, the Mute button can be used to “release” sounds that have been muted. You can use this technique to create a breakdown: Solo a given sound such as a kick drum, then build the track up again by bringing the muted sounds back in one at a time with the Mute button.

Use Scene Mode and Scene Sync

Scene Mode is useful to trigger different parts of an arrangement by switching Scenes. By using a short value for the Scene Sync, you can quickly combine Scenes and create new variations.

Create variations of your drums in the Step Sequencer

You can easily create interesting drums by adding or removing steps in the Step Sequencer. Breaks and build-ups like snarerolls or a double-tempo hihat can be created on the fly.

Use Note Repeat

Note Repeat is a very useful tool for playing live: use it to add some additional drums, drop in some effect sounds, play a bassline or a melody. Note Repeat is also interesting to use with tonal Sounds and you can access it from Piano Roll/Keyboard Mode to create synthesizer-like arpeggios.

Set up your own Multi FX Groups and automate them

You can setup Multi FX Groups containing all the Effects you want to use in a live set. You can find several Multi FX in the Library (check the Browser Bank for Multi FX) to give you an idea what works for you. To be able to quickly change and modulate the FX Settings, you can record automation for the Multi FX as Patterns. By using Patterns for the Multi FX Group you could for example trigger a filter-sweep or a wild modulated Beat Delay.

Special Tricks

Create your own Looper

Loopers are a handy tool for live performers such as human beatboxers, bass players or singers, since they allow you to record your performance and play it back immediately after recording in sync. This can be realized in an easy way by creating a Looper Group in MASCHINE. Enable Input on all Sounds of an empty Group and choose your sampling source; now put a note on the first step of the Pattern for each Sound. In the Record Tab, choose sync-mode and select 1 bar (or any other length you wish to record). If you record to a Sound now, your recording will be looped right after the first bar. This allows you to record up to 16 separate Loops, all in sync to the other Groups.

Note: make sure the Sound is in Oneshot Mode!

Changing Pattern Length for variation

Try a short quantization like a $\frac{1}{4}$ note in the Pattern Length Grid and change the Pattern Length in Pattern Mode (see chapter [6.1.1.0 “Step Grid, Pattern Length Grid and Quantization”](#)) using Button 1 to create variations of a Pattern. If you select an even higher value like 1/64th you can create stuttering breaks and rolls.

Using the Loop Mode to cycle through Samples

You can use the Loop Mode to cycle through Samples, creating glitches and stuttering breaks or interesting soundscapes. Just enter the Edit Tab in Sampling Mode, enable Loop Mode and play with the Knobs for the start and end point of the Loop.

Load long audio files and play with the start point

As you know you can adjust the start of a Sound in the Sampler Parameter Pages. If you load a long audio file, you can create interesting variations by tweaking the start.

Note: this technique requires that you choose either AHD or ADSR as the Amplitude Envelope.

