

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.

Reference Manual written by Benjamin Weiss and Nicolas Sidi

Edited by Nicolas Sidi

Document Version: 1.1 (03/2010)

Product Version: 1.5 (03/2010)

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, 2010. All rights reserved.

Table Of Contents

1	Introduction.....	13
1.1	Welcome to MASCHINE!.....	13
1.2	About this Manual	14
1.3	Other Documentation	15
1.4	Before you start – Important notes	15
1.4.1	Name Plate Location	15
1.4.2	Serial numbers	15
1.4.3	Using the unit safely	16
1.4.4	Disposal Notice	17
1.4.5	Specifications subject to change	17
1.4.6	Copyright.....	17
1.4.7	Disclaimer.....	17
1.5	Installing MASCHINE	18
1.5.1	System Requirements.....	18
1.5.2	Installing MASCHINE on Windows® XP and Windows® Vista.....	18
1.5.3	Installing the MASCHINE Software on Mac OS® X.....	19
1.5.4	Activating MASCHINE	20
1.5.5	Connecting the MASCHINE Controller.....	21
1.6	MASCHINE Controller: Overview	22
1.7	MASCHINE Software: Overview	24
1.7.1	The Header.....	25
1.7.2	The Arranger	25
1.7.3	The Browser.....	26
1.7.4	The Control Area.....	27
1.7.5	The Pattern Editor	28
1.7.6	The Sampling Area.....	29

2	Basic Concepts	30
2.1	Names and concepts you should know	30
2.2	Common Operations	32
2.2.1	Switching Views	32
2.2.2	Showing and hiding user interface areas	32
2.2.3	Navigating Parameter Pages in the Control Area	35
2.2.4	Undo and Redo	36
2.3	Stand-alone and Plug-in Mode	37
2.3.1	Switching Instances with the Hardware in Plug-in Mode	37
2.4	Preferences	38
2.4.1	Preferences – General Tab	39
2.4.2	Preferences – Default Tab	41
2.4.3	Preferences – User Paths Tab	42
2.4.4	Preferences – Libraries Tab	43
2.4.5	Preferences – Hardware Tab	44
2.5	Audio and MIDI Settings	45
2.5.1	Audio Tab	45
2.5.2	Routing Tab	47
2.5.3	MIDI Tab	48
2.6	Connecting External MIDI Equipment	49
2.6.1	Sync to External MIDI Clock	49
2.6.2	Send MIDI Clock	50
3	Browser	51
3.1	Elements of the Browser	51
3.1.1	Browser Mode Selector	52
3.1.2	File Type Selector	52
3.1.3	Tag Filter	53
3.1.4	Text Search field	54
3.1.5	Search Result List	54
3.1.6	Locating missing Samples	55

3.2	Adding your own Samples	56
3.2.1	Importing a Sample into the Library	58
3.2.2	Tagging your Samples, Sounds, Groups, FX Presets, Patterns and Projects.....	59
3.3	Quick Browse	60
3.3.1	Using Quick Browse	61
3.3.2	In-Place Auditioning	61
3.4	The Browser on the Hardware	62
4	Creating Sounds	64
4.1	Choosing a Source for Your Sound	64
4.2	The Sampler Parameters in the Sound's Source Tab (SRC)	65
4.2.1	Page 1: Voice Settings and Engine	66
4.2.2	Page 2: Pitch/Gate and Amplitude Envelope	68
4.2.3	Page 3: FX and Filter Settings	70
4.3	FX	70
4.3.1	Page 4: Modulation Envelope and Destination.....	71
4.3.2	Page 5: LFO and Destination.....	72
4.3.3	Page 6: Velocity Destination and Modwheel Destination	74
4.4	The Sampler Parameters in the Sound's Output Tab (OUT)	75
4.4.1	Page 1: Main, Aux 1 and Aux 2	75
4.4.2	Page 2: Pre Mix Options	76
4.5	Saving a Sound	77
4.6	Copying and Pasting Sounds	78
4.7	Resetting a Sound	79
4.8	Mute & Solo	80
4.9	Loading REX Files	83
4.10	Sound MIDI Options	84
4.10.1	Sound MIDI Batch Setup	85
4.10.2	Sound MIDI Settings	86
4.10.3	MIDI Output from Sounds	88

5	Creating Groups	90
5.1	The Group Source Tab Parameters	90
5.1.1	Page 1: Voice Settings.....	90
5.1.2	Page 2: Pitch & Swing.....	91
5.1.3	Page 3: Macro Controls	92
5.2	The Group Out Tab Parameters.....	95
5.2.1	Page 1: Routing, Volume and Pan	95
5.2.2	Page 2: Aux Pre and Post	96
5.3	Saving a Group	97
5.4	Copy and Paste Groups.....	98
5.5	Resetting a Group	98
5.6	Naming Groups & Sounds	99
5.7	Loading Groups without Patterns.....	100
5.8	MPC Program Import to Groups	101
5.8.1	Supported parameters from MPC Programs	101
5.8.2	Importing MPC Program files.....	103
6	Working with Patterns (Hardware)	105
6.1	Creating Patterns	105
6.1.1	Pattern Mode	105
6.1.2	Input Mode	106
6.1.3	Recording the Pads	108
6.1.4	The Metronome	108
6.1.5	Using the Step Sequencer.....	108
6.1.6	Using Note Repeat	110
6.1.7	Using the Piano Roll/Keyboard	111
6.1.8	Recording automation	112
6.1.9	Recording automation in the Step Sequencer	113
6.1.10	Step Grid, Pattern Length Grid and Quantization	113
6.2	Editing Patterns	115
6.2.1	Selecting notes and events.....	115

6.2.2	Erase/Clear	116
6.2.3	Copy/Paste.....	116
6.2.4	Nudge	117
6.2.5	Compare/Split	117
6.2.6	Transpose	117
7	Working with Patterns (Software)	118
7.1	The Pattern Editor	118
7.1.1	Selecting Patterns and Pattern Banks.....	119
7.1.2	Copy and Paste Patterns.....	120
7.1.3	Resetting Patterns	120
7.1.4	Saving Patterns	120
7.2	Editing Patterns	121
7.2.1	Mouse actions in the Pattern Editor.....	122
7.2.2	The Zoom Tool	123
7.2.3	Compare/Split	124
7.2.4	The Piano Roll/Keyboard	125
7.2.5	Recording and editing automation	125
7.2.6	Adding a Modulator	127
7.2.7	Step Grid, Pattern Length Grid and Quantization	128
7.2.8	Rendering Audio from Patterns using Drag & Drop.....	131
7.2.9	Rendering MIDI from Patterns using Drag & Drop.....	132
8	The MASCHINE Effects (FX)	134
8.1	Dynamics	135
8.1.1	Compressor	135
8.1.2	Gate.....	136
8.1.3	Limiter	137
8.1.4	Maximizer	137
8.2	Filtering	138
8.2.1	Filter	138
8.2.2	EQ.....	140

8.3	Modulation	141
8.3.1	Chorus	141
8.3.2	Flanger	142
8.3.3	FM	143
8.3.4	Freq Shifter.....	145
8.3.5	Phaser.....	146
8.4	Spatial and Reverb.....	147
8.4.1	Ice.....	147
8.4.2	Metaverb	148
8.4.3	Reflex	149
8.4.4	Reverb	150
8.5	Delay.....	151
8.5.1	Beat Delay	151
8.5.2	Grain Delay	152
8.5.3	Grain Stretch.....	153
8.5.4	Resochord	154
8.6	Distortion	155
8.6.1	Distortion.....	155
8.6.2	Lofi.....	156
8.6.3	Saturator	157
9	Using FX.....	158
9.1	Adding FX to a Sound	158
9.2	Adding FX to a Group.....	160
9.3	Adding FX to the Master	163
9.4	Applying FX to an external instrument	165
9.5	Recording FX automation.....	167
9.6	Saving FX Presets	167
9.7	Muting FX.....	169
9.8	Creating a Send Effect.....	170
9.9	Creating a Multi Effect	173

10	Creating a Song using Scenes	175
10.1	Selecting a Scene	175
10.2	Creating and deleting a Clip in the Arranger	176
10.3	Scene Sync	178
10.4	Inserting and Deleting Scenes	180
10.5	Copy and Paste Scenes	181
10.6	Using the Loop Mode to combine scenes	181
10.7	Triggering Scenes via MIDI	183
11	Sampling & Sample Mapping	185
11.1	Controlling Sampling from the Hardware.....	186
11.1.1	Recording a Sample (Hardware)	186
11.1.2	Editing a Sample (Hardware)	188
11.1.3	Slicing a Sample (Hardware).....	191
11.1.4	Mapping a Sample (Hardware)	194
11.2	Controlling Sampling from the Software	196
11.2.1	Recording a Sample (Software)	196
11.2.2	Editing a Sample (Software)	199
11.2.3	Slicing a Sample (Software).....	201
11.2.4	Mapping a Sample (Software)	207
12	The Master Section.....	210
12.1	The Master Source Tab (SRC)	210
12.1.1	Page 1: Master Mixer	210
12.1.2	Page 2: Group Panning.....	211
12.2	The Master Output Tab (OUT)	211
13	Exporting Audio	213
13.1	Export Audio	213
13.2	Collate Audio	215

14	Appendix A: MASCHINE Controller Quick Reference Chart	216
14.1	Basic Sequencer Controls.....	216
14.2	Loading and Saving	217
14.3	Scene Operations	217
14.4	Pattern Operations	218
14.5	Basic Editing.....	219
14.6	Group Operations	219
14.7	Sound Operations.....	220
14.8	Effects.....	220
14.9	Muting.....	221
14.10	Soloing.....	221
14.11	Automation	221
14.12	Basic Sampling	222
14.13	Secondary Pad Functions	223
14.14	Navigation Shortcuts on the MASCHINE Controller	224
14.15	Other Shortcuts on the MASCHINE Controller	226
15	Appendix B: Keyboard Shortcuts	229
15.1	Views	229
15.2	Navigation	230
15.3	Editing.....	230
15.4	Transport.....	232
16	Appendix C: Tips for playing live	233
16.1	Preparations.....	233
16.1.1	Focus on the Hardware	233
16.1.2	Customize the Pads of the Hardware	233
16.1.3	Check your CPU power before playing.....	233
16.1.4	Name your Groups and Sounds.....	234
16.1.5	Consider using a Limiter on your Master.....	234
16.1.6	Hook up your other gear and sync it with MIDI clock	234

16.1.7	Improvise.....	234
16.2	Basic Techniques	235
16.2.1	Use Mute & Solo	235
16.2.2	Use Scene Mode and Scene Sync	235
16.2.3	Create variations of your drums in the Step Sequencer	235
16.2.4	Use Note Repeat	235
16.2.5	Set up your own Multi FX Groups and automate them	236
16.3	Special Tricks	236
16.3.1	Changing Pattern Length for variation	236
16.3.2	Using the Loop Mode to cycle through Samples	236
16.3.3	Load long audio files and play with the start point	236
17	Index.....	237

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.

Special Paragraphs

The manual uses distinctive paragraphs to point out special facts and to warn of potential dangers. The icons included in the paragraphs 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:

<http://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 2010.

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® 7 / Vista / XP, Pentium® / Athlon® 2 GHz, 2 GB RAM
- Mac OS®10.5, 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



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

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 onscreen instructions.
8. After the installation has been performed successfully, click **FINISH**.
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, the following screen should appear:
10. Select *No, not this time* and click **NEXT**.



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

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.



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.

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).
10. 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.



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

11. Click INSTALL to continue. The Setup Program will lead you through the installation procedure. Follow the onscreen instructions.
12. 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

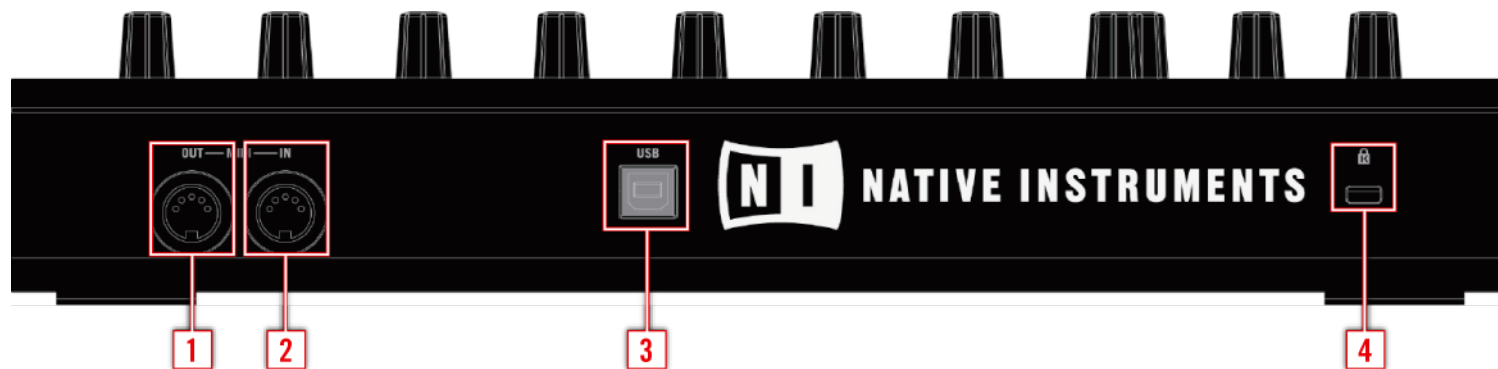
1.5.5 Connecting the MASCHINE Controller

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 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.

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.

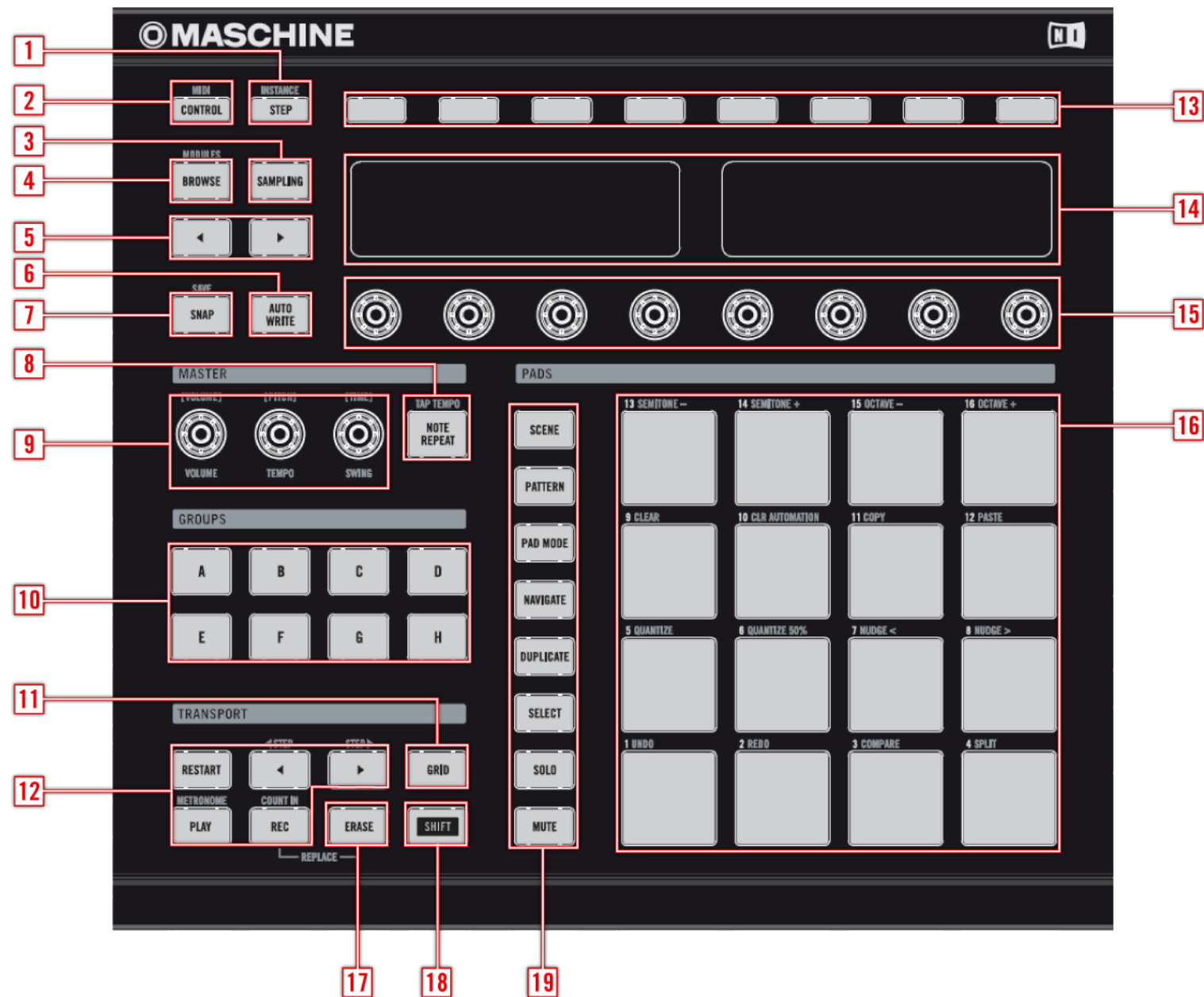


MASCHINE Controller, rear panel:

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

1.6 MASCHINE Controller: Overview

This chapter will introduce you to the MASCHINE Controller's hardware elements. Virtually all functions are available on both interfaces and you can access them through the software as well as through the hardware. 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!



The MASCHINE Hardware Controller

- 1 Step Mode / Instance Button
- 2 Control Mode / MIDI Button
- 3 Sampling Button
- 4 Browse / Modules Button
- 5 Page Buttons
- 6 Auto Write Button (F2)
- 7 Snap Button (F1)
- 8 Note Repeat / Tap Tempo Button
- 9 Master Encoders: Volume, Tempo and Swing
- 10 Group Buttons
- 11 Grid Button
- 12 Transport Buttons
- 13 Buttons 1-8
- 14 MASCHINE Displays
- 15 Knobs 1-8
- 16 Pads
- 17 Erase Button
- 18 Shift Button
- 19 Modifier Buttons



If you own an older Hardware Controller, some of its Buttons might have a different name. In this document, we use the new names, followed by the older ones in brackets if necessary.

1.7 MASCHINE Software: Overview

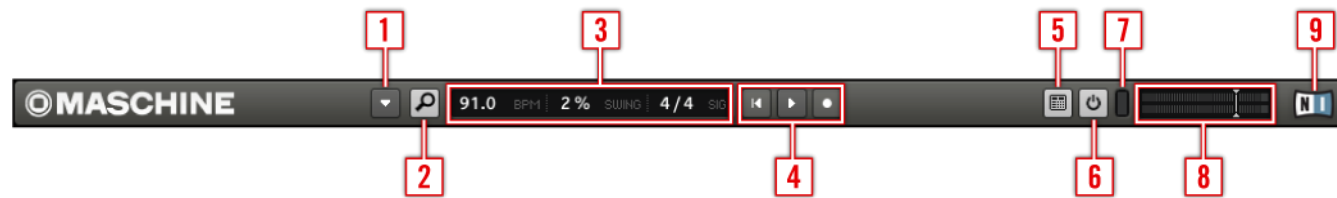
This chapter will introduce you to the MASCHINE software's user interface elements. As mentioned previously in the MASCHINE Controller Overview chapter, you can access virtually all of MASCHINE's functions via the MASCHINE Controller as well as in the software. If you need to look up a certain user interface element's name, you can return to this chapter at any time for a refresher!



The MASCHINE Software

- 1 Header
- 2 Browser
- 3 Arranger
- 4 Control Area
- 5 Pattern Editor

1.7.1 The Header



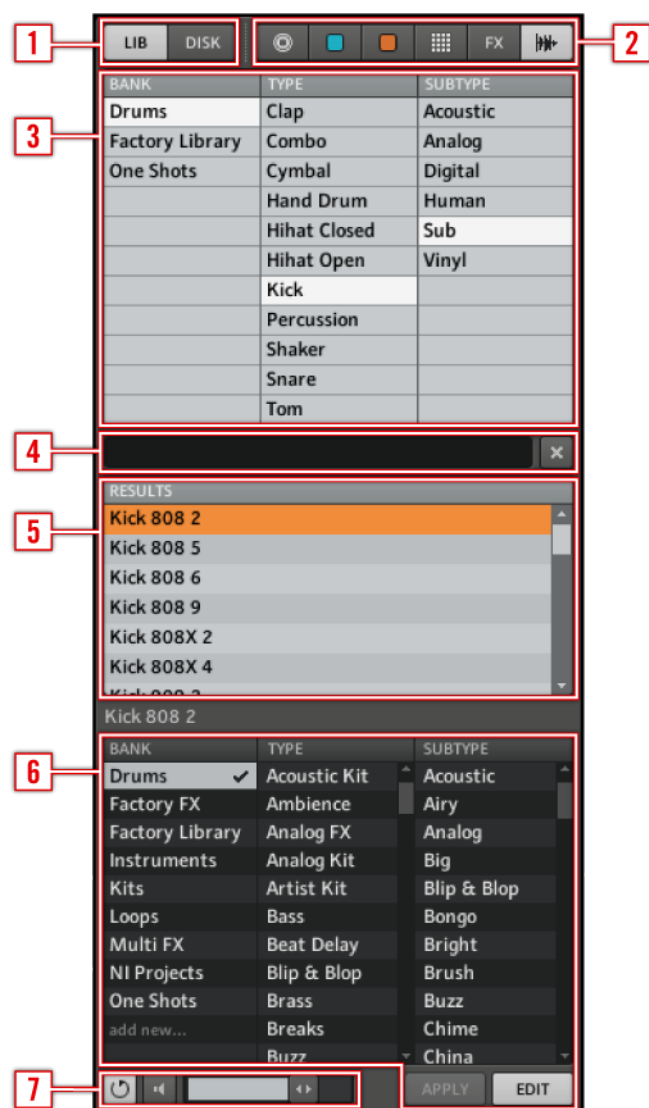
- 1 Menu Button
- 2 Browser Button
- 3 Display Area
- 4 Transport Controls
- 5 Connect Button
- 6 Audio Engine Button
- 7 CPU Meter
- 8 Volume Control
- 9 NI Logo

1.7.2 The Arranger



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

1.7.3 The Browser



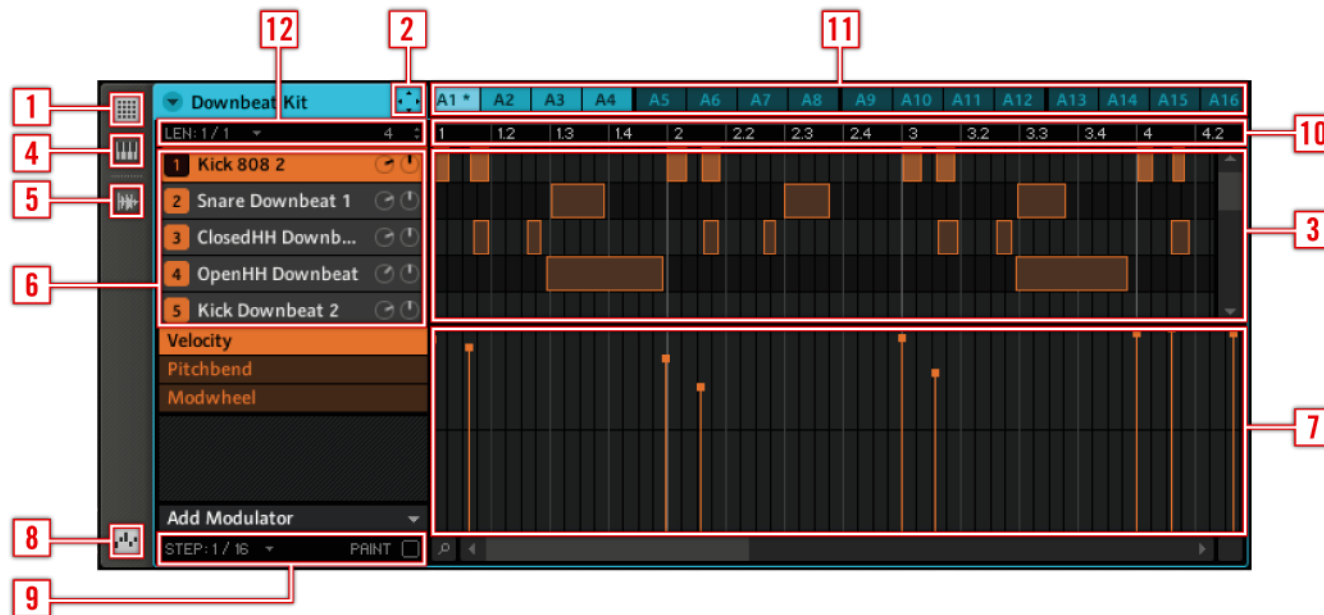
- 1 Browser Mode Selector
- 2 File Type Selector
- 3 Tag Filter
- 4 Text Search Field
- 5 Search Result List
- 6 Tag Editor
- 7 Audition Controls

1.7.4 The Control Area



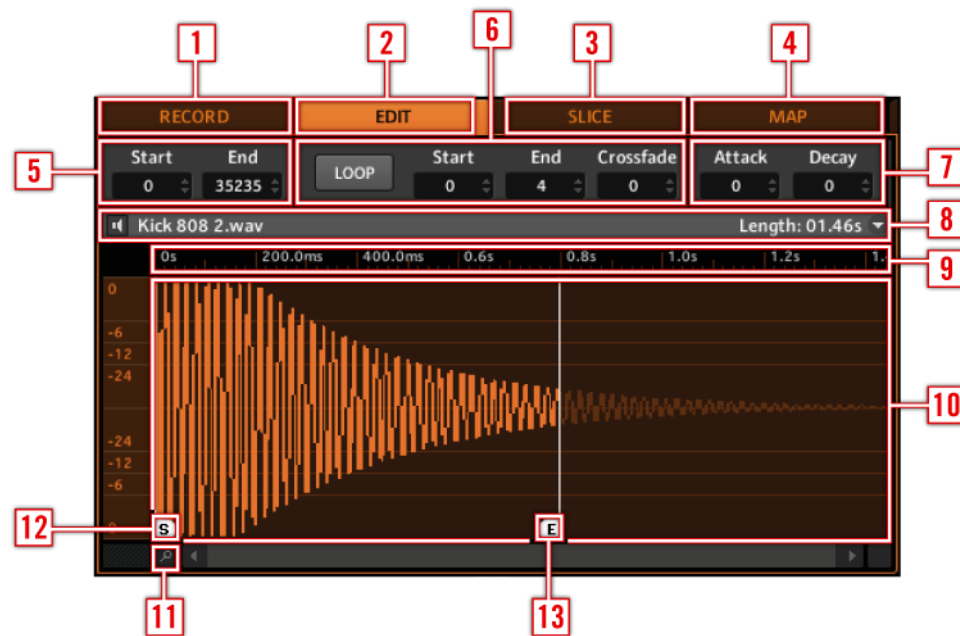
- 1 Master Tab
- 2 Group Tab
- 3 Sound Tab
- 4 Source Tab
- 5 FX1 Tab
- 6 FX2 Tab
- 7 Output Tab
- 8 Quick Browse Area
- 9 Page Selector
- 10 Parameter Pages, depending on the selected Tab and Page

1.7.5 The Pattern Editor



- 1 Step Editor View Switch
- 2 Dragger Icon
- 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

1.7.6 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 <http://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 Factory 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"

Sounds

A Sound can hold either a single Sample or multiple Samples mapped across the keyboard. Sounds are organized in Groups (see the Groups paragraph below). Two Insert FX and six pages of parameters per Sound are available. Each Sound of the currently selected Group is mapped to one of the 16 Pads on the MASCHINE Controller, so you can play the Sounds by hitting the Pads. Refer to chapter 4, "Creating Sounds" for more information on Sounds.

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 four Banks. Refer to chapter 5, “[Creating Groups](#)” for more information on Groups.

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 can be found in chapter 6, “[Working with Patterns \(Software\)](#)” and chapter 7, “[Working with Patterns \(Software\)](#)”

Scenes

A Scene represents a combination of different Groups with their associated Patterns. Scenes are used to chain patterns in order 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](#)”

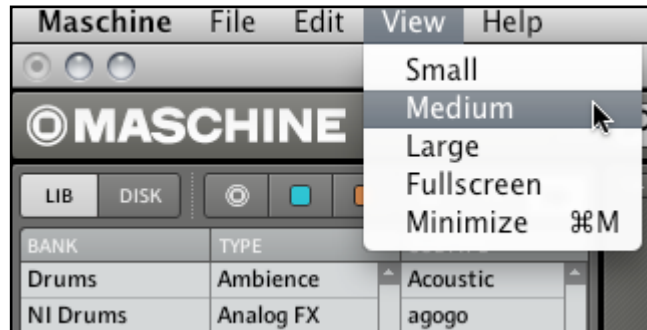
Master

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 10, “[Creating a Song using Scenes](#).”

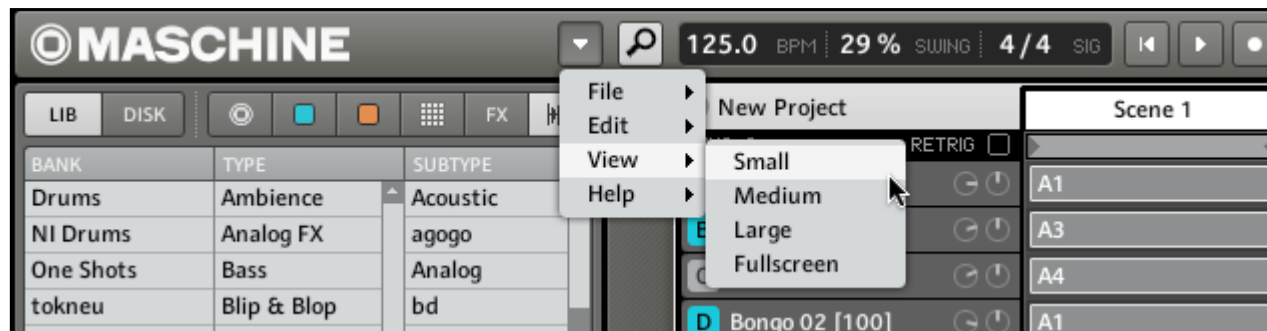
2.2 Common Operations

2.2.1 Switching Views

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



The View entry in the Main Menu (Mac OS® X depicted)



The View entry in the Plug-in Menu

The Fullscreen View is also available from your computer keyboard via the F5 function key.

2.2.2 Showing and hiding user interface areas

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.

Showing and hiding the Browser

Hardware

- Press and hold NAVIGATE; now press Button 5 to hide the Browser.



To bring it back, press Button 5 again.



The Navigate screen on the Left and Right Display of the MASCHINE Controller

Software

- Click on the Browser Button (with the magnifier symbol) in the Header to show and hide the Browser.



The Browser Button in the Header

Minimizing the Arranger

Hardware

- ▶ Press and hold NAVIGATE; 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 Minimize Button (showing an 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

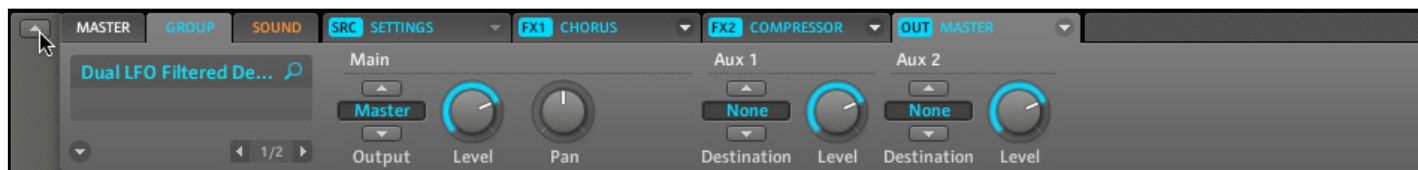
Hiding Parameter Pages in the Control Area

Hardware

- ▶ Press NAVIGATE and then Button 7 to show and hide the parameter pages in the Control Area.

Software

- ▶ Click on the Minimize Button (showing an arrow) to the left of the Control Area to show and hide the Parameter Pages in the Control Area.



The Control Area in full size

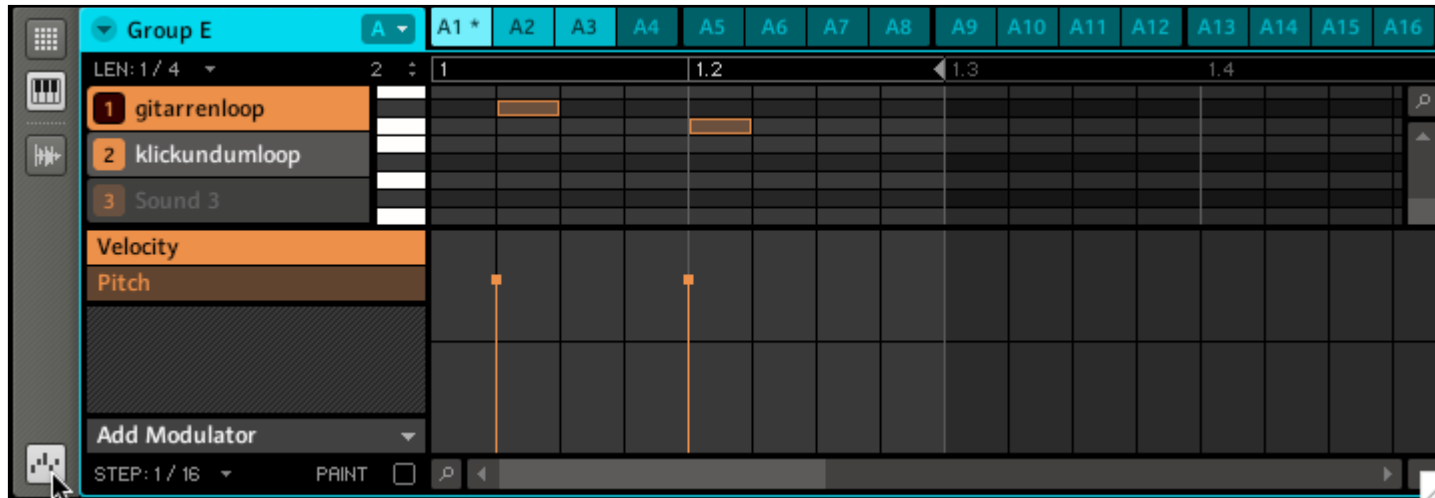
Hiding the Modulation Lane

Hardware

- ▶ Press NAVIGATE 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.



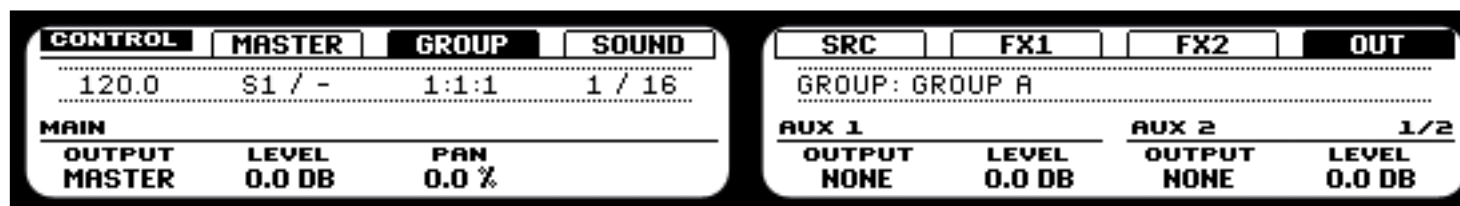
The Automation View Switch

2.2.3 Navigating Parameter Pages in the Control Area

In some situations, the Control Area consist of more parameters than the displays can show at once. Examples of this are the Groups' Output Tab and the Sounds' Source Tab if set to Sampler. 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 a Group Output Tab

Moreover, if there is another Page available to the left or to the right of the current Page, the corresponding Page Button will be lit on your Controller.

Software

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



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

2.2.4 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 the Hardware and 7.2.3, “Compare/Split” for the 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 any actions performed before saving!

Hardware

- On the Hardware, perform the Undo operation by holding SHIFT and pressing Pad 1. To perform the Redo operation, hold SHIFT and 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 stand-alone 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](#).”

Differences between Stand-alone and Plug-in Mode

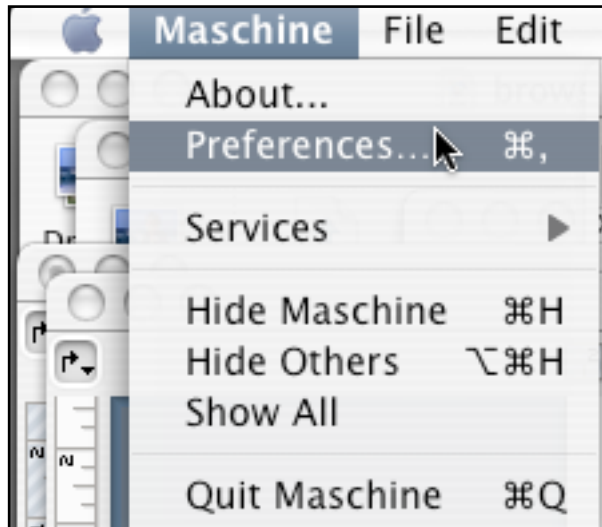
When you are using MASCHINE as a plug-in within a host application (i.e. sequencer software like Cubase® or Pro Tools®), you can open multiple MASCHINE instances. Actually, you can load as many instances of MASCHINE as your computer and your host application can handle CPU-wise. In contrast to the stand-alone application, they are always synced to the host. In plug-in mode you can also send a MIDIProgram Change message from your host to switch between MASCHINE’s Scenes or record automation using the Macro Controls. To learn more about these, have a look at chapter 10, “[Creating a Song using Scenes](#)” and 5.1, “[The Group Source Tab Parameters](#).”

2.3.1 Switching Instances with the Hardware in Plug-in Mode

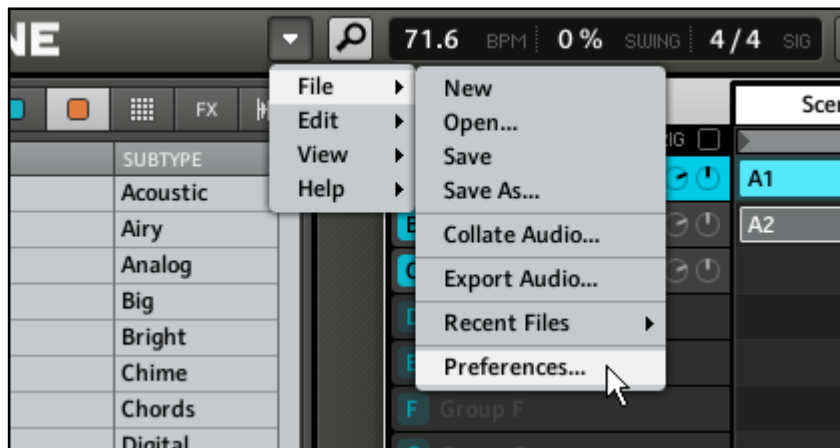
To switch from one instance to another in plug-in mode, press Shift and Step; using Knob 5 you can now select the desired instance and load it by hitting Button 8.

2.4 Preferences

You can find the Preferences dialog under MASCHINE in the Main Menu (Mac OS® X) or in the File menu (Windows®), as well as in the File submenu of the Plug-in menu:



Preferences on the Main Menu (Mac OS® X depicted)



Preferences in the Plug-in Menu

2.4.1 Preferences – General Tab



The Preferences – General Tab

Startup	
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.
MIDI	

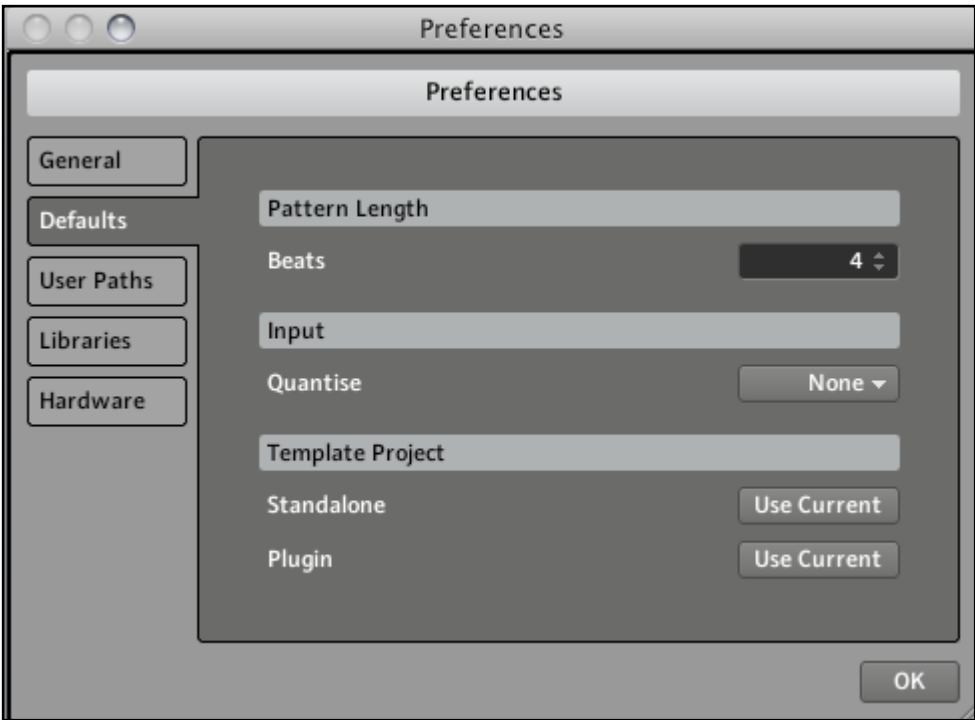
SYNC OFFSET SLAVE

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 this Sync Offset Slave value in milliseconds. 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 Slave value. Keep on adjusting the Sync Offset Slave until you can neither hear the flanging effect nor two separate signals.

INPUT CHANNEL

Use the Input 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 – Default Tab

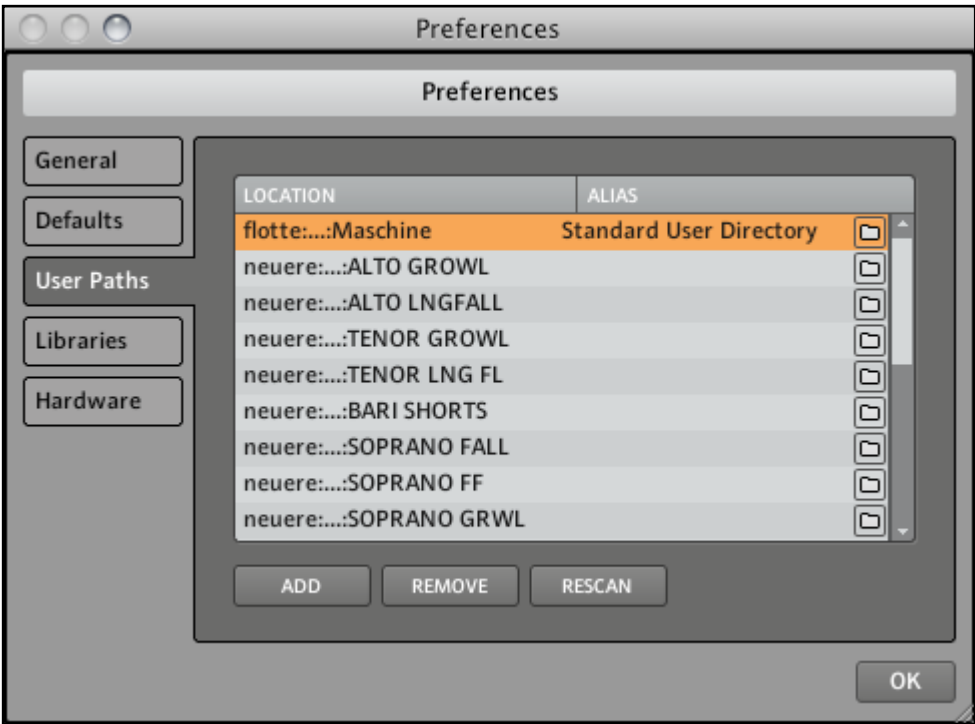


The Preferences – Defaults Tab

The Defaults Tab allows you to define a few default settings that will be used for every new Project.

Pattern Length	
BEATS	Here you can define the default length of the Patterns.
Input	
QUANTISE	This allows you to select one of the three quantise options: <i>None</i> (no quantization), <i>Record</i> (quantization only in Record mode) or <i>Play/Rec</i> (quantization in Play and Record Mode).
Template Project	
STANDALONE	Here you can select a Project that will automatically be loaded when you start MASCHINE in stand-alone mode.
PLUGIN	Here you can select a Project that will automatically be loaded when you start MASCHINE in plug-in mode.

2.4.3 Preferences – User Paths Tab

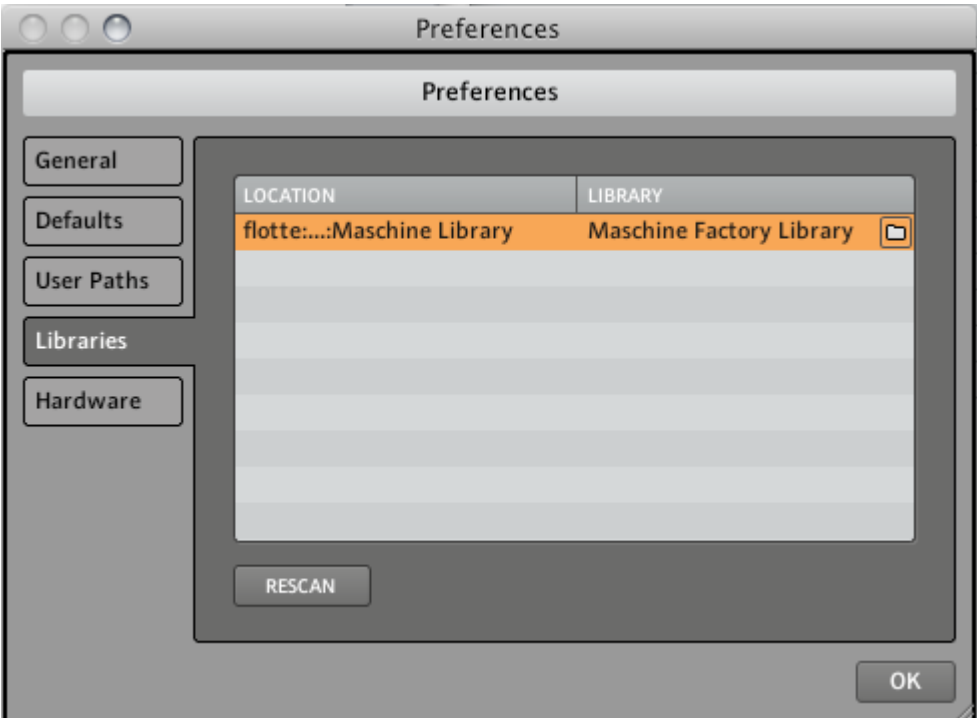


The Preferences – User Paths Tab

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 folder icon 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.

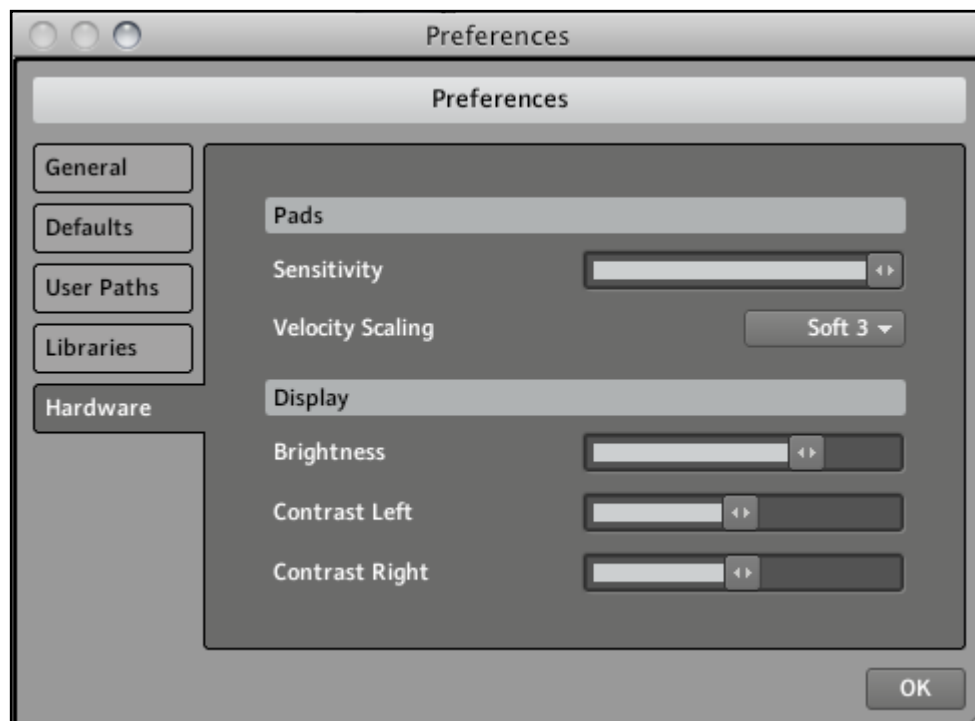
2.4.4 Preferences – Libraries Tab



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.
--------	---

2.4.5 Preferences – Hardware Tab



The Preferences – Hardware Tab

The Hardware Tab enables you to customize how the Pads react to your playing, and the brightness/contrast of the Displays.

Pads	
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.”
VELOCITY SCALING	VELOCITY SCALING determines how your playing is translated into velocity values: starting from Soft 3 (a soft touch is enough to get a big velocity value) through Linear to Hard 3 (you really have to hit the Pad hard to get a big velocity value).
Display	
BRIGHTNESS	The Brightness Slider allows you to adjust the brightness of both Left and Right Displays of the MASCHINE Controller.
CONTRAST LEFT & RIGHT	With these sliders you can adjust the contrast of the Left and Right Displays separately.

Adjusting the Settings from the Hardware

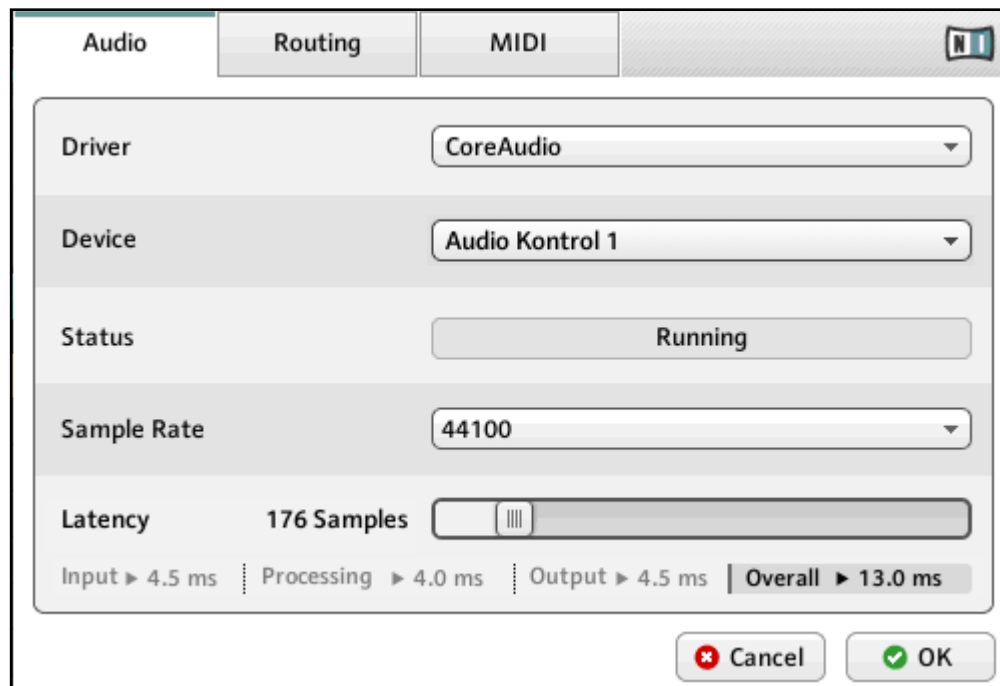
You also have access to these settings from the Hardware. To do this, you first have to enter the MIDI Mode by pressing SHIFT + CONTROL. From this MIDI Mode, press SHIFT + Button 4 to show the Settings Display Mode. In this Display Mode, the Left Display gives you access to all of the settings described above, with the exception of the VELOCITY SCALING. The Knobs 1-4 allow you to adjust the BRIGHTNESS, PAD SENSITIVITY, CONTRAST LEFT and CONTRAST RIGHT, respectively.

When you're done, press SHIFT + CONTROL again to quit the MIDI Mode and get back to the MASCHINE Mode.

2.5 Audio and MIDI Settings

- To open the Audio and MIDI Settings dialog, select the *Audio and MIDI Settings...* entry from the File menu.

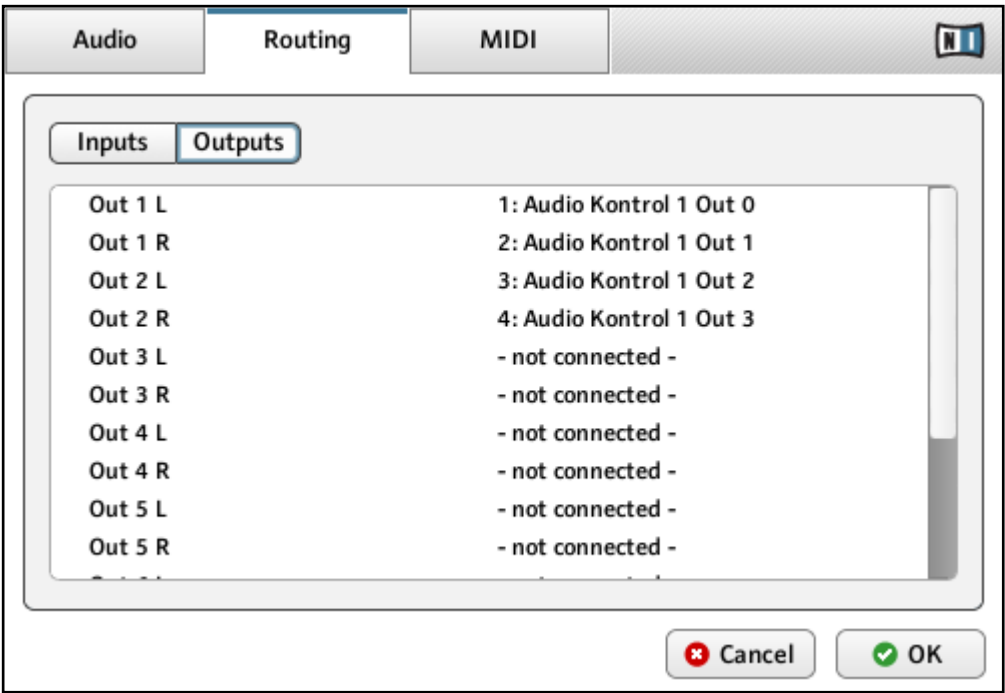
2.5.1 Audio Tab



The Audio Tab of the Audio and MIDI Settings dialog

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	<p>Mac OS® X: This slider allows you to adjust the latency of your audio interface in samples. Lower values result in a more immediate playing response but are heavier on both the CPU and the audio driver, and may result in audible clicks and pops. Larger values are easier on the CPU, but introduce a larger latency (i.e. there may be a 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.</p> <p>Windows®: When using an ASIO driver on the Audio and MIDI Settings dialog shows an ASIO Config button instead of the Latency slider. Click this button to open the settings dialog of the selected ASIO driver.</p>

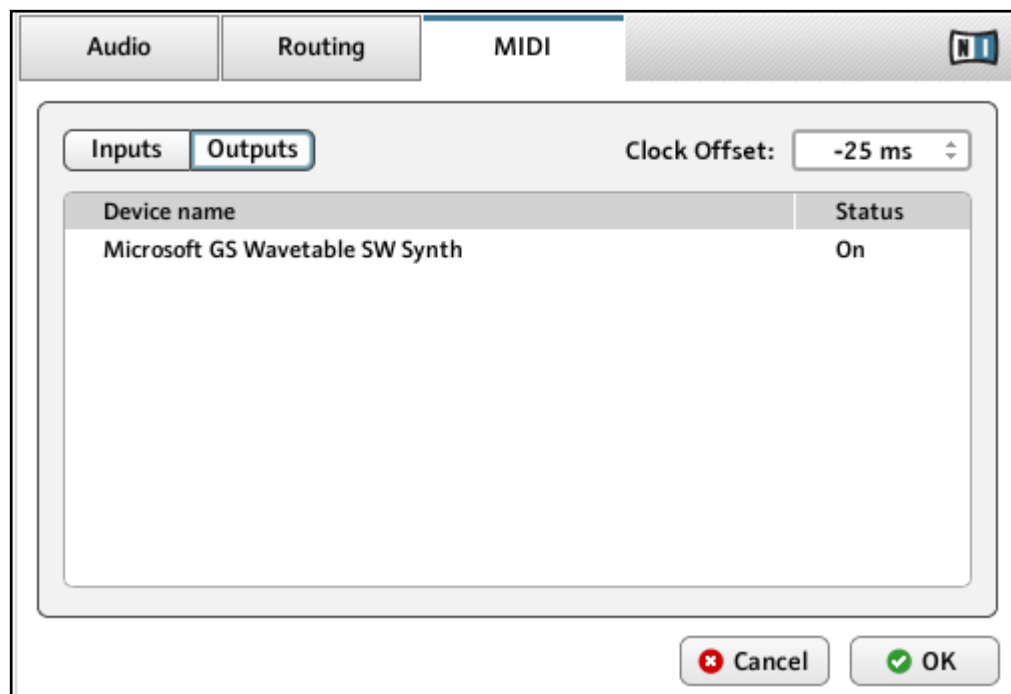
2.5.2 Routing Tab



The Routing Tab of the Audio and MIDI Settings dialog

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 the fields: 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.

2.5.3 MIDI Tab



The MIDI Tab of the Audio and MIDI Settings dialog (Mac OSX version pictured; entries may vary on your computer)

INPUTS	Clicking on INPUTS 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 OUTPUTS displays a list of all the available MIDI Outputs of your system. You can activate each Output by clicking in the Status column.
OFFSET	<p>Use the OFFSET control to compensate delay that may occur during MIDI data transmission. Delayed MIDI clock data will cause external devices to respond too late, thus making your track sound out of sync.</p> <p>Adjust the Offset value to set an amount of latency to be compensated (in milliseconds). MASCHINE will then send MIDI clock events ahead of time as defined.</p>

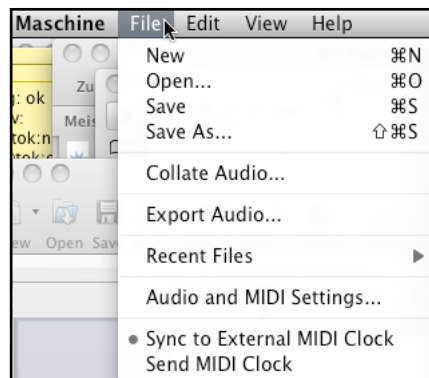
2.6 Connecting External MIDI Equipment



To connect your external MIDI equipment, hook it up to the MASCHINE Controller's MIDI In or MIDI Out socket on the rear panel. 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."

2.6.1 Sync to External MIDI Clock

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 this, select the *Sync to External MIDI Clock* entry from the File menu:



External Sync activated



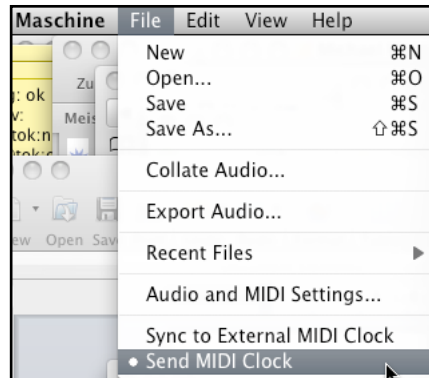
If you use MASCHINE as a plug-in, it is automatically synced to the host application so you don't have to activate External Sync!



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

2.6.2 Send MIDI Clock

MASCHINE can also send a MIDI Clock signal to any device that is capable of receiving MIDI Clock. This could be hardware such as a drum machine, another groovebox or sequencer, or even another software sequencer. To enable *Send MIDI Clock*, select it from the File menu:

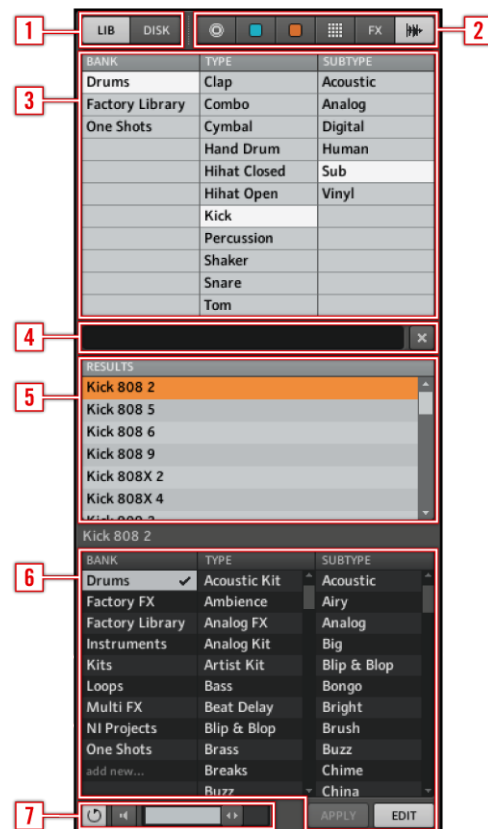


Send MIDI Clock activated

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 (<http://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



- 1 Browser Mode Selector
- 2 File Type Selector
- 3 Tag Filter

- 4 Text Search Field
- 5 Search Result List
- 6 Tag Editor
- 7 Audition Controls

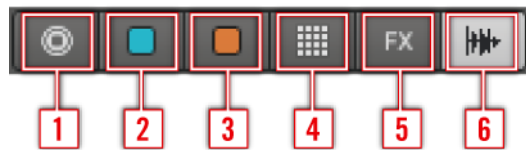
3.1.1 Browser Mode Selector



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).

3.1.2 File Type Selector

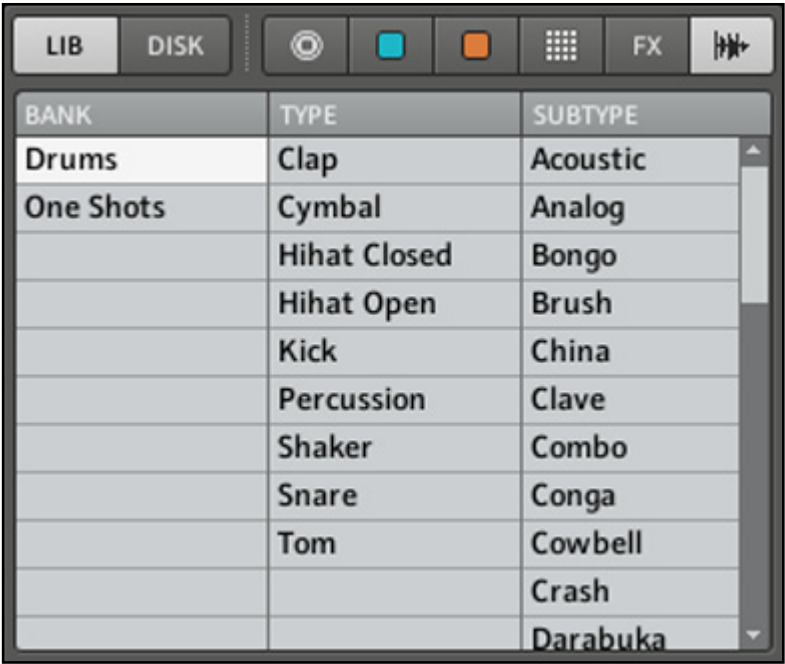


- 1 Projects (.mprj)
- 2 Groups (.mgrp)
- 3 Sounds (.msnd)
- 4 Patterns (.mpat)
- 5 FX Presets (.mfxp)
- 6 Samples (.wav, .aiff)

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.

3.1.3 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.

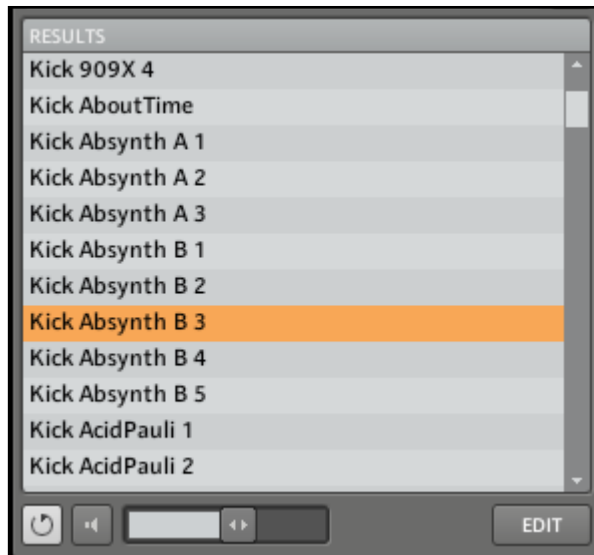
3.1.4 Text Search field



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, the list of matches will start narrowing in the Search Result List. To the right of it you will find the Reset Switch that resets both text search and tag search.

3.1.5 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. 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.
- If it is a Group, it will be loaded into the Group Slot currently in focus.
- If it is a Sound, it will be loaded into the Sound Slot currently in focus.

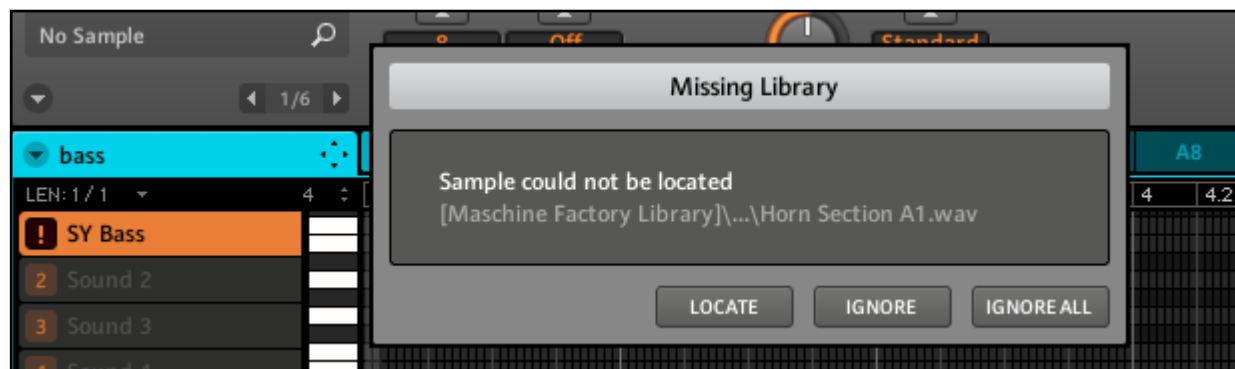
- If it is a Pattern, it will be loaded into the Pattern Slot currently in focus.
- If it is a FX Preset, it will be loaded into the FX Slot currently in focus.
- If it is a Sample, it will be loaded into the selected Zone of the Sound in focus replacing the current one.



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 Groups, Sounds, Patterns, FX Presets and Samples into specific Slots or Tabs by dragging them from the Browser and dropping them on the desired location.

3.1.6 Locating missing Samples

If you are loading a MASCHINE Project and the referenced samples cannot be found for any reason, a dialog in which you can locate the missing samples will open.



The Missing Library Dialog allows you to locate missing samples

Sounds and Groups referencing missing samples are marked with an exclamation mark.



You can open the Missing Library dialog manually from the MASCHINE plug-in Menu. The *Purge Missing Samples* and the *Find Missing Samples* menu entries only show up in the File Menu when sample references cannot be resolved.

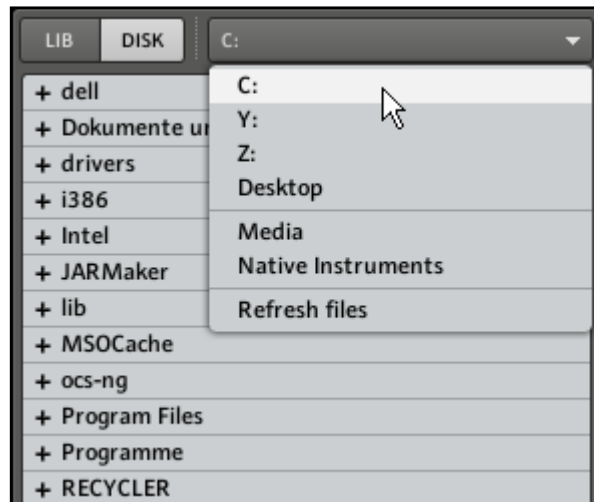


The Purge Missing Samples and the Find Missing Samples entries in the Maschine File Menu

- Select *Purge Missing Samples* to remove all sounds with missing samples from your MASCHINE Project.

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:



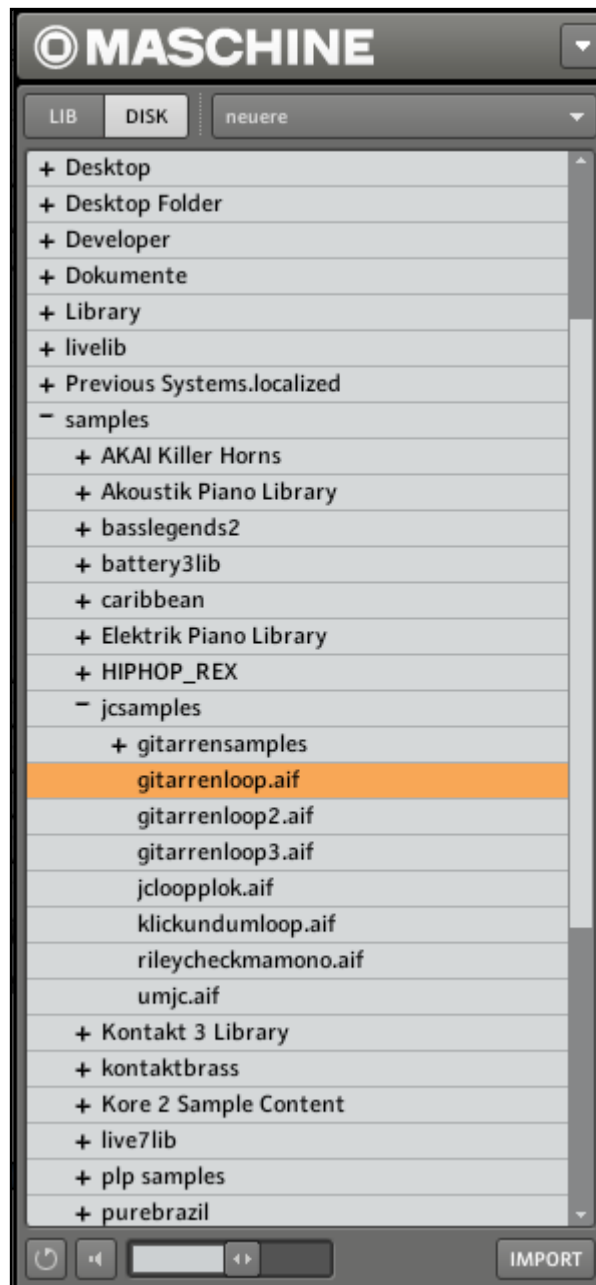
The Browser with DISK selected showing the available volumes

In the tree view, 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 hard drive

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 **Ctrl** key (PC) or the **Command** key (Mac). After pressing **Import**, you will be presented with the **Tag Editor** to tag the Sample(s) 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)

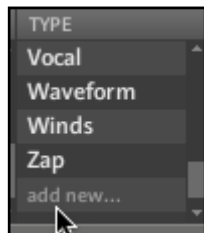


Make sure to be as precise as possible when tagging your files in order to be able to find what you are looking for later.

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.

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 this entry 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.

Deleting Tags

To delete a Tag from the Tag Editor, right-click (on Mac OS® X: Control-click) on the Tag to open the delete menu. It is possible to delete multiple Tags by selecting them in the Tag Filter and then right-click (on Mac OS® X: Control-click) on the selection to open the delete menu.

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).

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 (see below).

3.3.2 In-Place Auditioning

To activate In-Place Auditioning, click 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



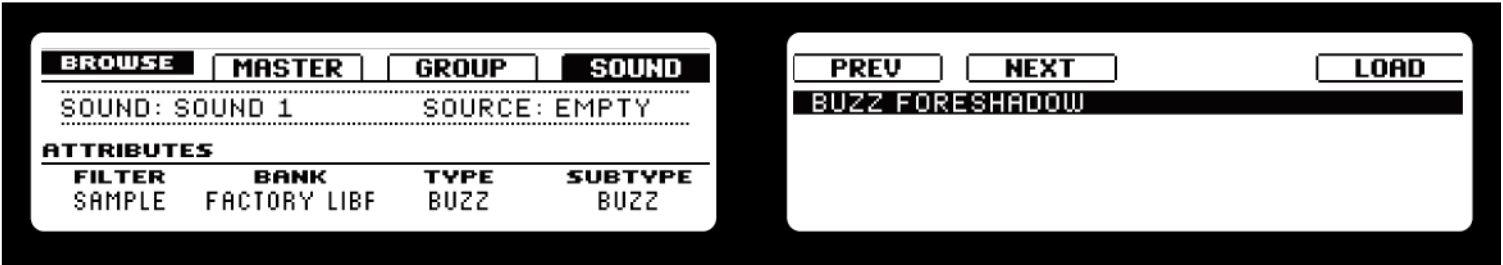
In-Place Auditioning is not only useful to look for an appropriate Sound, Group, FX or Sample, but can also be very inspiring: with a Pattern playing, browse through your Library with In-Place Auditioning activated and listen to Sounds and Samples you normally would not use in that context.

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.

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 BROWSE.



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

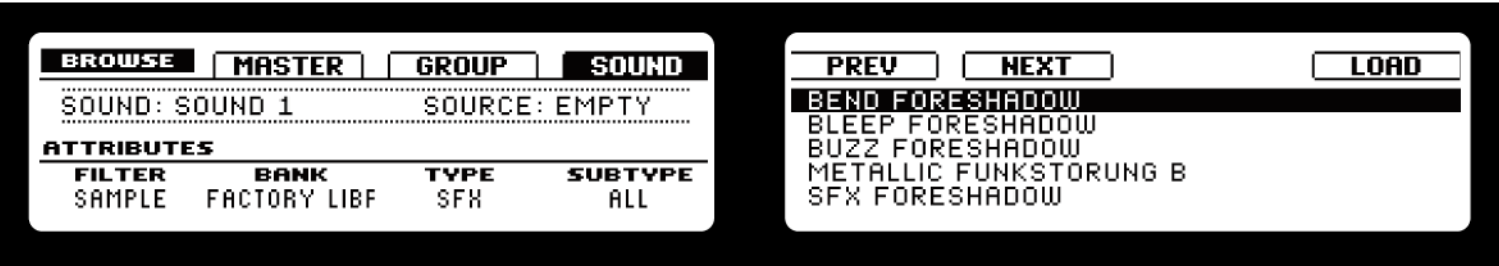
Filter

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, i.e. 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	<p>With the Subtype, you can narrow down the description of your file even further. Examples for the Subtype category are Djembe, Glitch or Analog.</p> <p>The Left Display is used to define your filters and the Tag categories by turning Knobs 1-4.</p> <p>The Right Display shows the Search Result List and enables you to load a file.</p>
---------	---



The Browser on the hardware showing a Search Result List



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.

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).

Quick Browse

The Browser on the MASCHINE Controller always restores the search query you performed to get a given file. Read more about the Quick Browse function in section 3.3, “Quick Browse.”

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), or use it to send MIDI notes (see section 4.10.3, “MIDI Output from Sounds”).

4.1 Choosing a Source for Your Sound

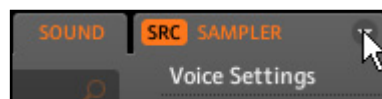
We will first look at the Source Tab of your Sound, which allows you to define what source the Sound is going to use.

Hardware

On the MASCHINE Controller, first press the Pad corresponding to the desired Sound. Press Button 4 to select the Sound Tab, then press Button 5 to show its Source Tab (SRC). Then press SHIFT + BROWSE to select the sound source.

Software

Alternatively, in the Software, click the Arrow in the Header of the Sound’s Source Tab (SRC):



Click on the little arrow in the Source Tab header to choose the source to use for that Sound.

There are three modes available: Sampler, Input and MIDI Out:

- *Sampler*: allows the selected slot to play back Samples (as you will be doing most of the time).
- *Input*: instead of playing back a Sample, this allows 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. For more info on how to use this mode, please refer to chapter 9.8, “[Creating a Send Effect.](#)”

- *MIDI Out*: allows you to use a Sound to send MIDI notes to your host application or your external MIDI equipment. For more info on the MIDI Out mode, refer to chapter 4.10.3, “[MIDI Output from Sounds.](#)”

In the following section, we will concentrate on the Sampler mode, which is probably the one you will use the most.

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.

4.2 The Sampler Parameters in the Sound’s 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 the Hardware and chapter 7.2.5, “[Recording and editing automation,](#)” for the Software.

The Sampler Parameters are organized in 6 pages:

- Page 1: Voice Settings, Pitchbend and Engine Settings
- Page 2: Pitch/Gate and Amplitude Envelope
- Page 3: FX and Filter Settings
- Page 4: Modulation Envelope and Destination
- Page 5: LFO and Destination
- Page 6: Velocity Destination and Modwheel Destination

Hardware

- On your MASCHINE Controller, use the Page Buttons to step through the various Parameter Pages.



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

Software

- In the Software, use the Page Selector to step through the Parameter Pages.



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

4.2.1 Page 1: Voice Settings and Engine



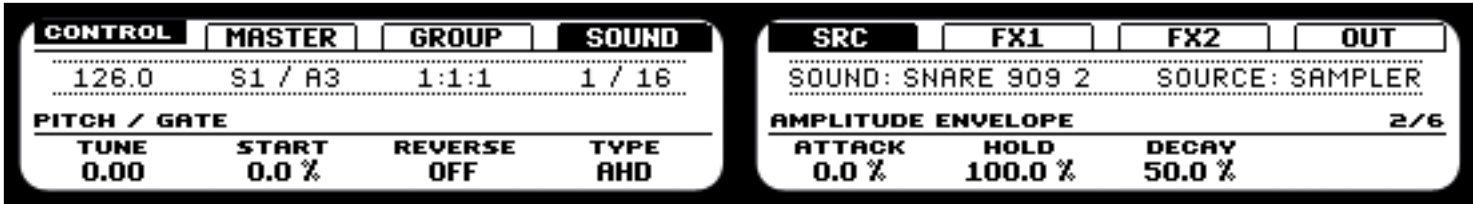
Page 1 of 6 from the Sampler Source Tab on the hardware



Page 1 of 6 from the Sampler Source Tab on the software

Voice Settings Controls	
POLYPHONY	Here you can define a voice limit for the Sound. The default value is 8, the minimum 1 and the maximum 32 voices. You can also set this to Legato.
CHOKE GROUP	You can choose one of the 8 Choke Groups here or leave this option set to Off. If you assign more than one Sound to the same Choke 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.
GLIDE	If Legato is selected, this allows for a portamento-effect between consecutive steps.
PITCHBEND	Here you can adjust how the Sound reacts on incoming MIDI Pitchbend messages from an external MIDI Controller or your host application. For more information on how to setup your Sounds to receive MIDI, refer to section 4.10.1 , “ Sound MIDI Batch Setup .”
Engine Controls	
MODE	This allows you to determine the mode of the sampling engine. Available options are <i>Standard</i> and <i>Vintage</i> .
MODEL	If you choose <i>Vintage</i> in Mode, you can select between two Models emulating the sonic characteristics of two legendary Samplers often used in Hip-Hop.
FILTER	If you choose the S1200 model (see above), you can further shape the emulation model by activating a filter here. The available filters are: <i>None</i> (no filter), <i>Low</i> , <i>Lo-Mid</i> , <i>Hi-Mid</i> , and <i>High</i> .

4.2.2 Page 2: Pitch/Gate and Amplitude Envelope



Page 2 of the Sampler Source Tab on the Hardware



Page 2 of the Sampler Source Tab on the Software

Pitch/Gate Controls	
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 on Page 6, see below).
REVERSE	If REVERSE is activated, the Sample will be played backwards.

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!



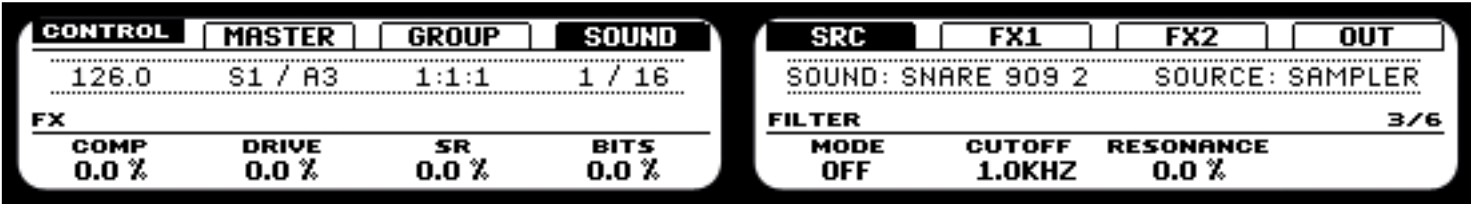
AHD: AHD mode disables the Sustain and Release controls, and replaces them with the Hold parameter. AHD mode is ideal for “fire and forget” behavior, whereby you would like to have the sound trigger for a certain amount of time regardless of how long you hold the Pad down.



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.

Amplitude Envelope Controls	
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. This can also be controlled by an external MIDI controller or keyboard using MIDI CC 64.
RELEASE	Release determines how long the sound takes to fade out after the note has ended.

4.2.3 Page 3: FX and Filter Settings



Page 3 of 6 from the Sampler Source Tab on the hardware



Page 3 of 6 from the Sampler Source Tab on the software

4.3 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."

FX Controls	
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 Modes

The MODE menu in the Filter section gives you access to a set of different filters. Using the arrows you can choose from different filter types: EQ, HP2, BP2 and LP2. Each type results in different parameters to the right of it:

Filter Controls	
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, the LFO or the MIDI Modulation Wheel.
BP2	BP2 is a bandpass filter with CUTOFF. CUTOFF can be modulated by Velocity, the Modulation Envelope, the LFO or the MIDI Modulation Wheel.
LP2	LP2 is a low pass filter with CUTOFF and RESONANCE. CUTOFF can be modulated by Velocity, the Modulation Envelope, the LFO or the MIDI Modulation Wheel.

4.3.1 Page 4: Modulation Envelope and Destination



Page 4 of 6 from Sampler Source Tab on the hardware



Page 4 of 6 from Sampler Source Tab on the software

Modulation Envelope

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 (pictured) will be available for modulation.

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

Destination

This is where you define modulation targets for the Modulation Envelope. 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

4.3.2 Page 5: LFO and Destination

CONTROL	MASTER	GROUP	SOUND	SRC	FX1	FX2	OUT
126.0	S1 / A3	1:1:1	1 / 16	SOUND: SNARE 909 2	SOURCE: SAMPLER		
LFO				DESTINATION 5/6			
TYPE	SPEED	PHASE	SYNC	PITCH	CUTOFF	DRIVE	PAN
SINE	1.14 HZ	0.0 %	OFF	0.0 %	0.0 %	0.0 %	0.0 %

Page 5 of 6 from the Sampler Source Tab on the hardware



Page 5 of 6 from the Sampler Source Tab on the software

LFO

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

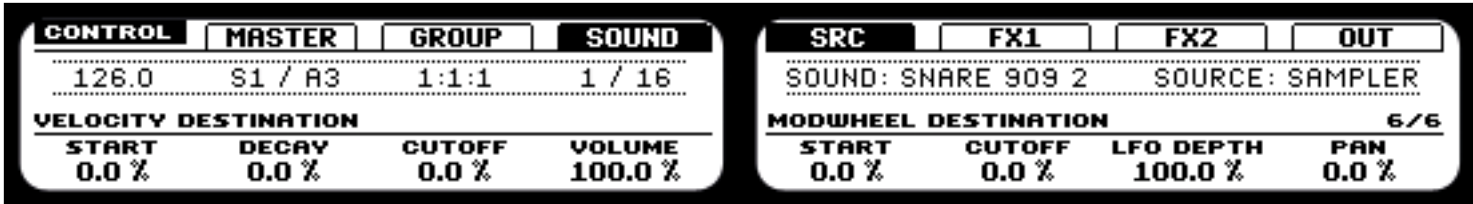
TYPE	Here you can choose the shape of the LFO waveform. Available shapes are <i>Random</i> , <i>Saw</i> , <i>Rect</i> (Rectangle), <i>Tri</i> (Triangle) and <i>Sine</i> .
SPEED	Controls the speed of the LFO measured in Hz (Hertz). If you choose to synchronize the Speed by activating Sync, it will show 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

4.3.3 Page 6: Velocity Destination and Modwheel Destination



Page 6 of 6 from the Sampler Source Tab on the hardware



Page 6 of 6 from the Sampler Source Tab on the software

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.

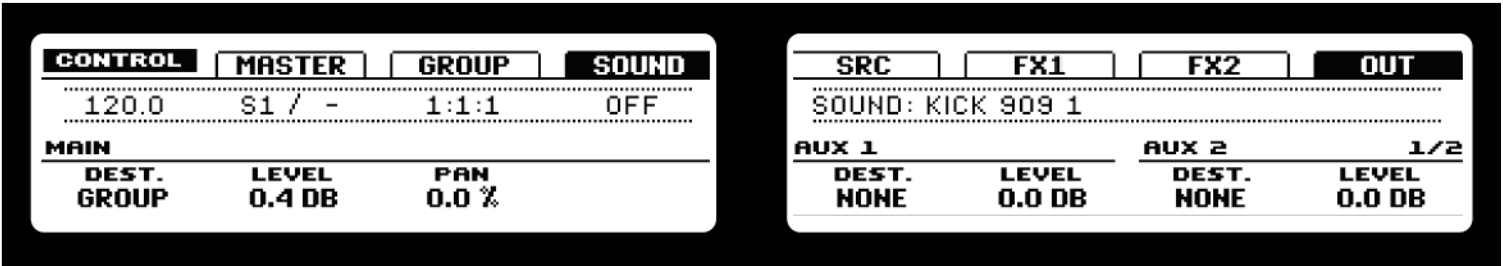
Modwheel Destination

START	Here you can determine how incoming MIDI Modulation Wheel data affects the Sample start parameter on Page 2.
CUTOFF	This allows you to modulate the Cutoff parameter of the Filters with filter types LP, HP, BP (on Page 3) using the MIDI Modulation Wheel.
LFO DEPTH	Here you can adjust the effect of the MIDI Modulation Wheel data on the LFO Depth of the LFO on Page 5.
PAN	Another modulation target for the MIDI Modulation Wheel: the panorama position on Output Parameter Page 1.

4.4 The Sampler Parameters in the Sound's Output Tab (OUT)

The Sound's 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 chapter 9.8, "Creating a Send Effect," to get to know more about how to set up a classic Send Effect.

4.4.1 Page 1: Main, Aux 1 and Aux 2




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.



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.

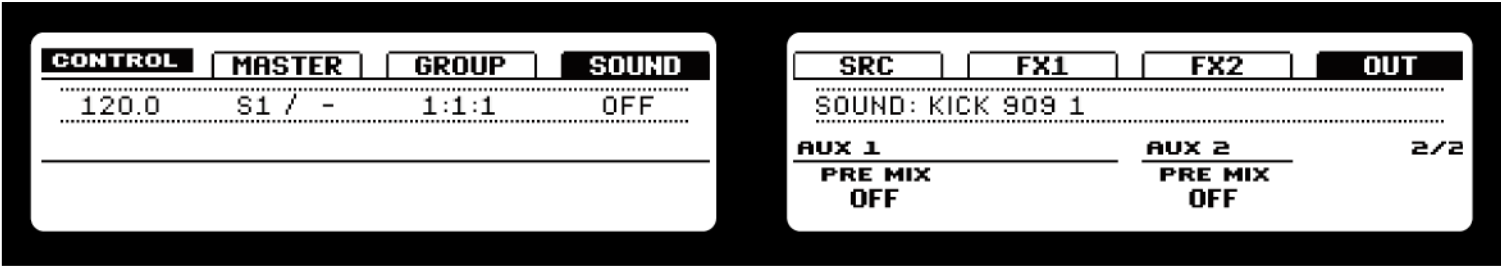
Aux 1

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.

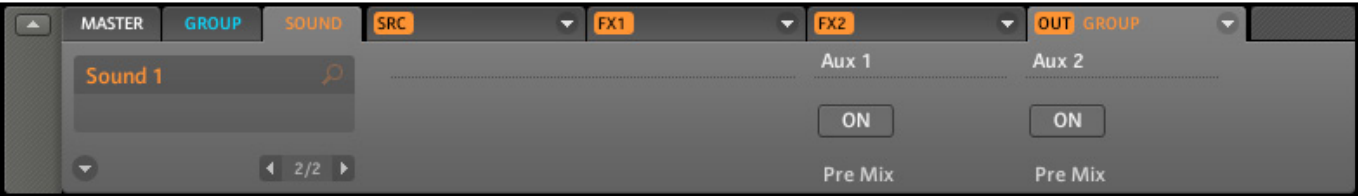
Aux 2

DESTINATION	The destination for Aux 2: available destinations are Master, Group, all Sounds with Input enabled, the External Outputs 1-8 and None.
LEVEL	Here you adjust the level of the signal that gets sent to the Aux 2 destination.

4.4.2 Page 2: Pre Mix Options



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.

4.5 Saving a Sound

To save a Sound, right-click (on Mac OS® X: Control-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 the MASCHINE Software.

4.6 Copying and Pasting Sounds

Hardware

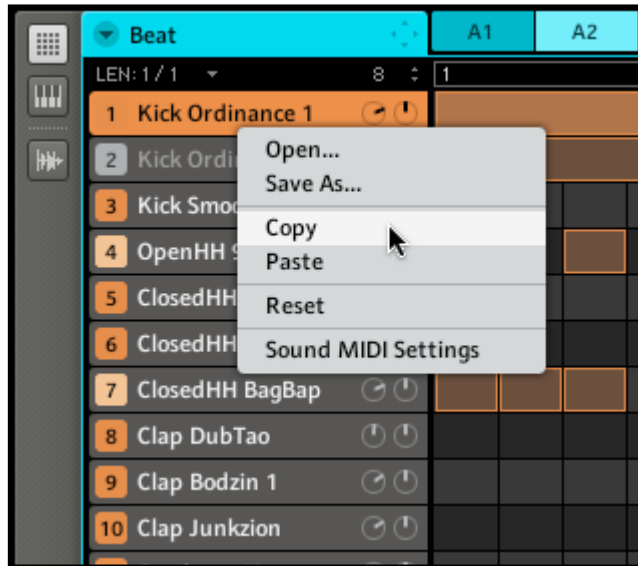
To copy a Sound from one pad to another, press and hold DUPLICATE, press the Pad of the Sound you want to copy, then select your target Sound Slot (this can also be in another Group, in this case first press one of the Group Buttons) by hitting its Pad. All parameters of the Sound will be copied including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



To duplicate Sounds excluding the Pattern content, disable the EVENTS option (Button 2) on the Duplicate Screen.

Software

You can copy & paste Sounds by right-clicking (on Mac OS® X: Control-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 right-clicking (Mac OS® X: Control-click) 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

4.7 Resetting a Sound

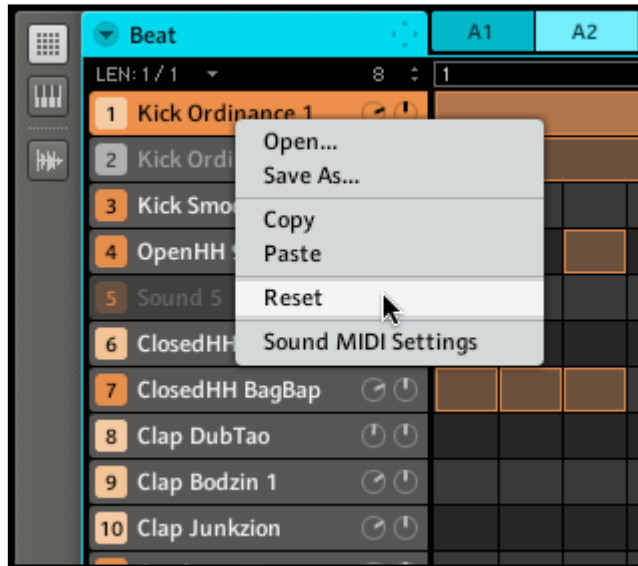
Resetting a Sound results in removing its associated Sample(s) and FX as well as putting all Sampler Parameters back to their default value.

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: Control-click) the Sound Slot and choose *Reset* from the dropdown menu.



Resetting a Sound

4.8 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

Soloing Sounds and Groups

- Press SOLO 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 SOLO 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 On (press Button 3) to turn all Sounds on and None (press Button 4) to turn all Sounds of the Group currently in focus off.



The Solo Screen on the hardware

Muting Sounds and Groups

Mute works in the same way as the Solo Mode: hold MUTE to mute Sounds by pressing their respective Pads, and Groups by pressing the Group Buttons. You can also lock the Mute function by pressing MUTE and 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 None (press Button 4) to turn all Sounds of the Group currently in focus off.



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.

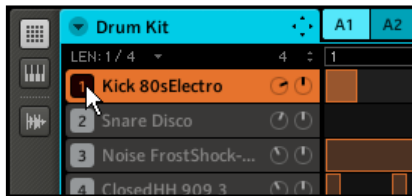


The Mute Screen on the hardware

Software

Soloing a Sound

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

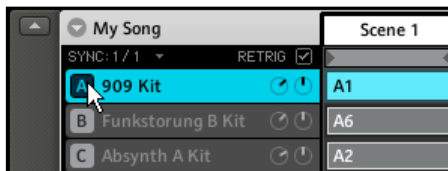


Soloing the Kick Sound

- ▶ To unsolo a Sound, right-click (on Mac: Control-click) on the Pad icon again.

Soloing a Group

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

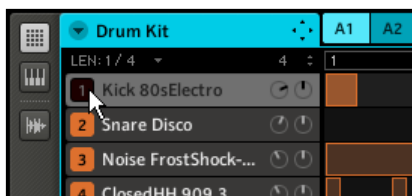


Soloing a Group

- ▶ To unsolo a Group, right-click (on Mac: Control-click) on the Group icon again.

Muting a Sound

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

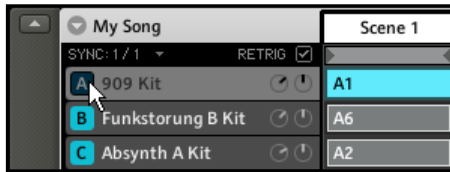


Muting a Sound

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

Muting a Group

- 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.

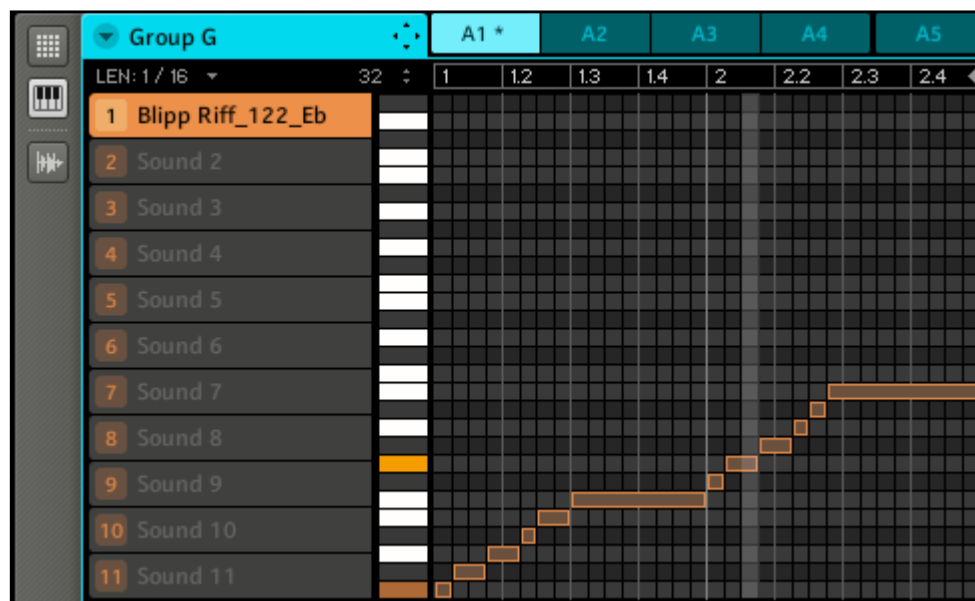
4.9 Loading REX Files

MASCHINE supports REX (ReCycle) files to be loaded. REX files are loops that are already sliced and mapped to MIDI notes.



Only REX2 files are currently supported.

1. First select an empty Sound that you want to load the REX file to by clicking on its Sound Slot.
2. Now use the Browser to navigate to the REX file on your hard disk that you want to load.
3. Double-click on the REX file or drag it to a Sound Slot; you will notice that a new Pattern has been created in the Piano Roll/Keyboard View. This Pattern contains the sequence data of the REX file. For each REX file you import a Pattern will be created and added.



A REX file loaded on Sound 1 in the Piano Roll/Keyboard View

4.10 Sound MIDI Options

MASCHINE's Groups and Sounds can be triggered via MIDI, both globally and individually. To configure the appropriate MIDI settings, you have two functions at your disposal: Sound MIDI Batch Setup (for whole Groups) and Sound MIDI Settings (for individual Sounds). Furthermore, you can configure your Sounds' outputs for sending MIDI data.



You can also trigger your Scenes using MIDI messages. Please refer to section [10.7](#), "Triggering Scenes via MIDI," for more info on this.

4.10.1 Sound MIDI Batch Setup

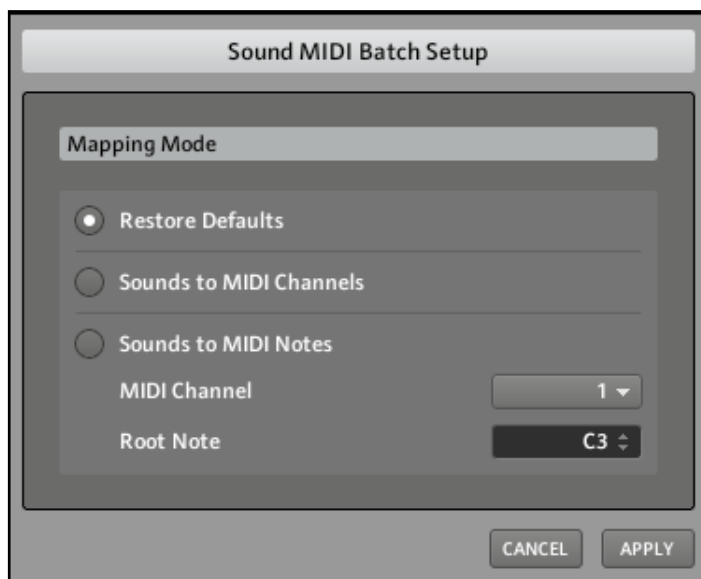
To create a MIDI setting for an entire Group, you can use the Sound MIDI Batch Setup function. Here you can set up how all Sounds of the selected Group respond to MIDI.

- ▶ Right-click (on Mac OS® X: Ctrl-click) on the Group Slot in the Arranger and choose *Sound MIDI Batch Setup* from the pop-up menu.



Selecting Sound MIDI Batch Setup for a Group

Now you will be presented with the Sound MIDI Batch Setup dialog:



The Sound MIDI Batch Setup dialog

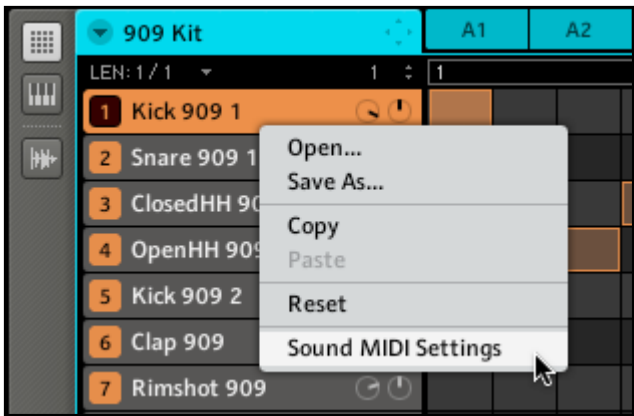
Sound MIDI Batch Setup Options

Mapping Mode	
RESTORE DEFAULTS	Select this radio button to restore the Sound MIDI Batch Setup to its default values. In the default state, each Sound in this Group will receive notes from all MIDI channels, as long as it is in focus.
SOUNDS TO MIDI CHANNELS	Select this radio button to have Sounds mapped to individual MIDI channels. This is useful if you want to play a Sound in a tonal way.
SOUNDS TO MIDI NOTES	Select this radio button to have Sounds mapped to MIDI notes, starting with the Root Note. This is useful for drum-kits.
MIDI CHANNEL	Select a MIDI channel here if you have selected the <i>Sounds to MIDI Notes</i> option.
ROOT NOTE	Choose a Root Note here if you have selected the <i>Sounds to MIDI Notes</i> option.

4.10.2 Sound MIDI Settings

You can also assign individual Sounds to MIDI. This is done in the Sound MIDI Settings.

- Right-click (on Mac OS® X: Ctrl-click) on the Sound Slot of a Sound and choose *Sound MIDI Settings* from the pop-up menu.



Choosing Sound MIDI Settings for a Sound

Now you will be presented with the Sound MIDI Settings dialog:



The Sound MIDI Settings dialog



If the Sound MIDI Settings are disabled (i.e., the checkbox is unchecked), any incoming MIDI note will trigger the Sound as long as the Sound is in focus.

Status Options	
ENABLE	To enable Sound MIDI Settings, click this checkbox.
Input Options	
CHANNEL	Choose on which MIDI Channel the Sound will receive MIDI by selecting it in the dropdown menu.
LOW NOTE	Define the lowest note on which the Sound will respond to MIDI here.
HIGH NOTE	Define the highest note on which the Sound will respond to MIDI here.
Destination Options	
ROOT NOTE	Define the Root Note of the selected Sound here.



Combining the MIDI Settings for Scenes, Groups and Sounds, you can easily create your custom MIDI setup and create a keyboard split for your live set, for example: first octave controlling the Scenes, second octave controlling your drumkit, third one for the piano sound and so forth.



The settings for Sounds have a higher priority than the Group settings, as well as the settings for Groups have a higher priority than the Scene settings.

4.10.3 MIDI Output from Sounds

You can output MIDI notes from individual Sounds allowing you to control your host application and/or external MIDI gear from MASCHINE's sequencer.

Hardware

1. Select an empty Sound by pressing its Pad.
2. Press Button 5 to select the Source Tab (SRC).
3. Press SHIFT + BROWSE. By using Buttons 5 & 6 or Knob 5 you can select either Sampler, Input or MIDI Out.
4. Select MIDI Out and press Button 8 to confirm your selection.



Selecting MIDI Out in the Source tab

5. Press BROWSE to leave this dialog and use Knob 1 to select the MIDI Channel you want the Sound to send note data to.



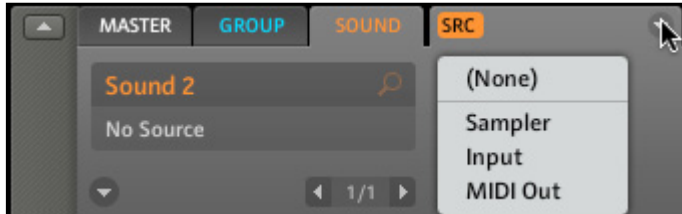
Sound 5 sending MIDI data on MIDI Channel 1



You will notice that the Sound was automatically renamed to “MIDI Out” for clarity’s sake!

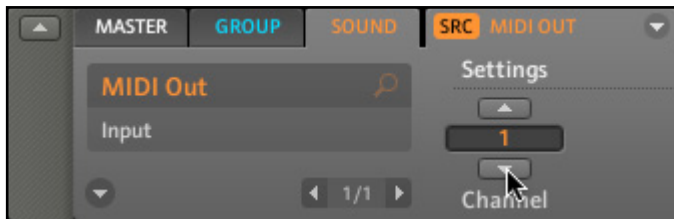
Software

1. Select an empty Sound Slot by clicking on it.
2. Select the Source tab (SRC) and click on the arrow to open the dropdown menu.



The dropdown menu in the Source tab

3. Choose *MIDI Out*, then select the MIDI Channel you want the Sound to send MIDI to.



Choosing MIDI Channel 1 as output for Sound 2

5 Creating Groups

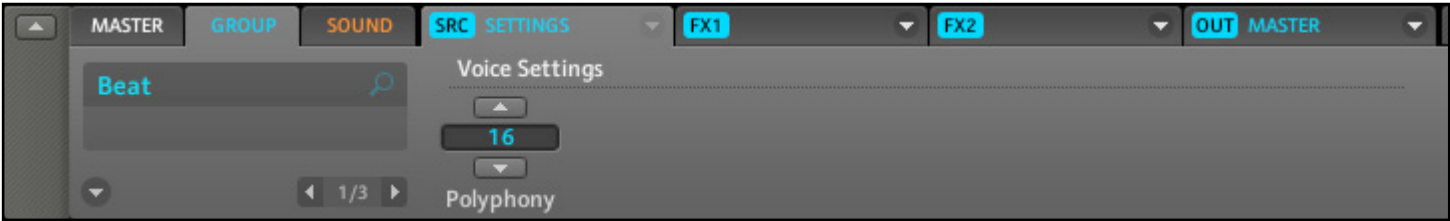
A Group contains 16 Sound Slots with all their parameters. It can have up to two Insert FX and up to 64 Patterns assigned to it, which are organized in 4 Banks. More on Patterns in chapter 6, "Working with Patterns (Hardware)," and chapter 7, "Working with Patterns (Software)."

5.1 The Group Source Tab Parameters

5.1.1 Page 1: Voice Settings



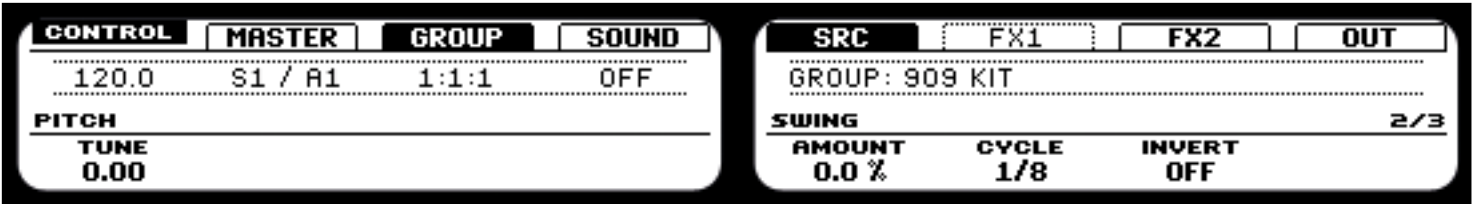
The Group Source Tab Parameters on the hardware



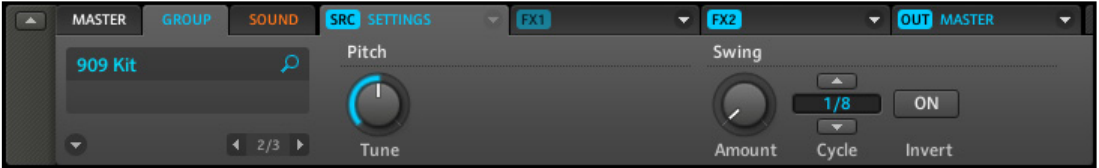
The Group Source Tab Parameters on the software

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.

5.1.2 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.

5.1.3 Page 3: Macro Controls

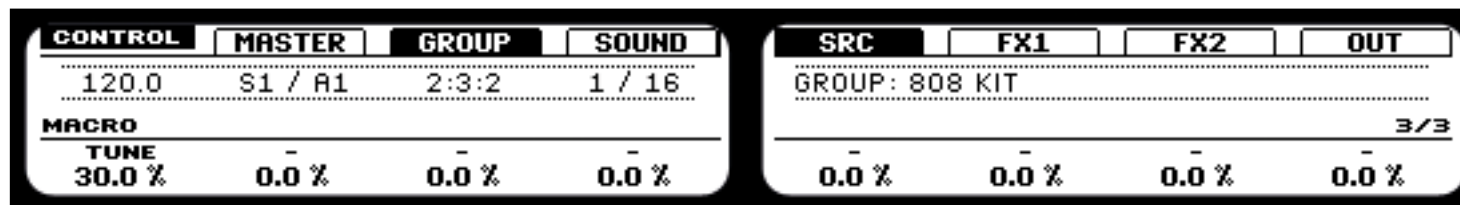
Macro Controls enable you to control selected parameters using eight Knobs per Group. This is useful for playing live since you can choose a set of parameters to manipulate on one screen without having to switch screens, but also allows you to automate MASCHINE parameters using the host automation of your DAW. Please refer to the manual of your DAW software for more information on that. In addition to that, Macro Controls also allow you to control MASCHINE parameters through external MIDI Controllers using MIDI CCs. Finally you can record them as automation in a Pattern (for more information on that, see section 6.1.8, "Recording automation," for the Hardware and section 7.2.5, "Recording and editing automation," for the Software).

Software



The Macro Controls on the Software

Hardware

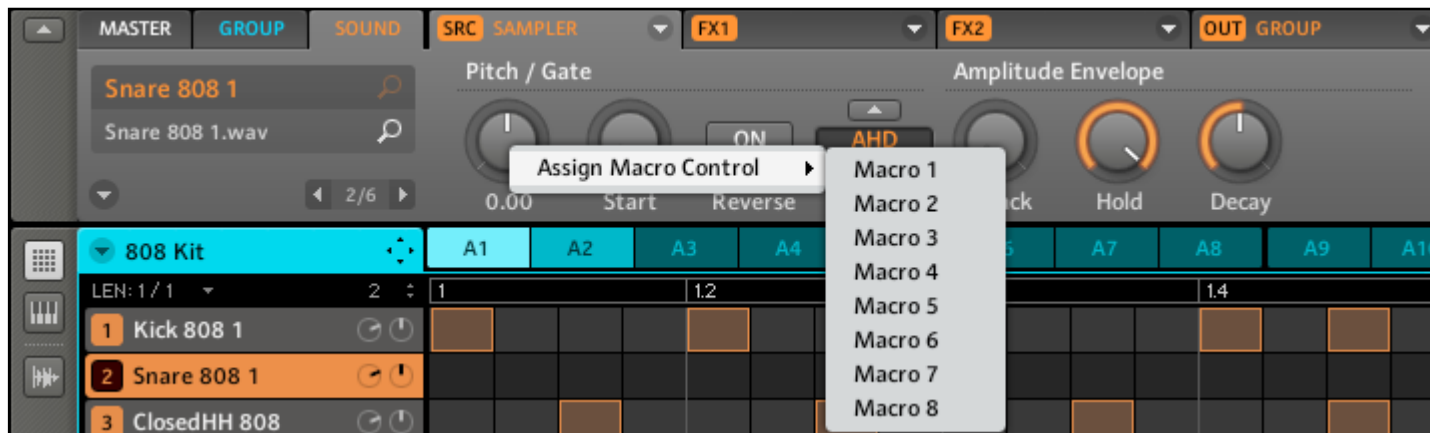


The Macro Controls on the Hardware

Assigning a Parameter to a Macro Control

The Macro Controls are assigned using the MASCHINE Software. Each Macro Control can be assigned to one destination with the full range of the selected parameter. Macro Controls are bipolar Knobs with a range of -100% to +100% (0% is centre). The value is being sent to the destination as internal modulation and can be recorded as such. It is possible to assign any modulatable parameters in the Group's Source, FX1, FX2 and Output Tabs as well as any modulatable parameter on any Sound inside the Group.

1. Choose any controllable parameter of your Group or the Sounds contained in it and right-click (on Mac OS® X: Ctrl-click) on it:



Assigning the Tune parameter of a Sound to a Macro Control

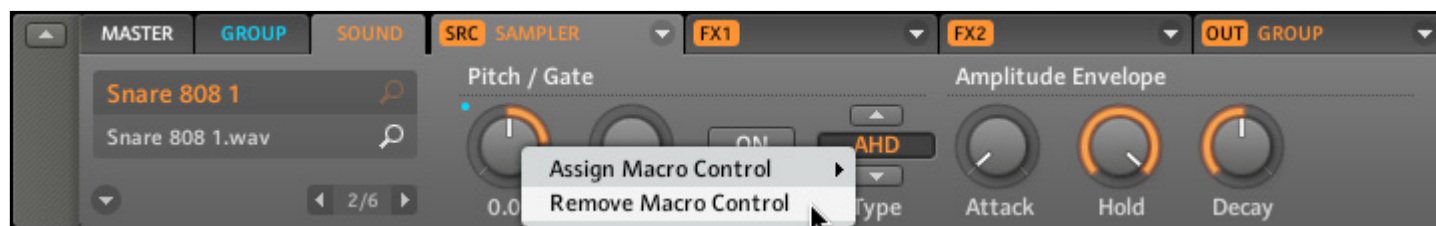
2. Now choose one of the available Macro Controls 1-8. After assignment is made, a blue dot shows that the parameter is assigned to a Macro Control:



Tune assigned to a Macro Control

Removing a Parameter from a Macro Control

To remove a parameter from the assigned Macro Control, right-click (on Mac OS® X: Ctrl-click) on it and select the *Remove Macro Control* entry from the pop-up menu:



Removing a parameter from a Macro Control

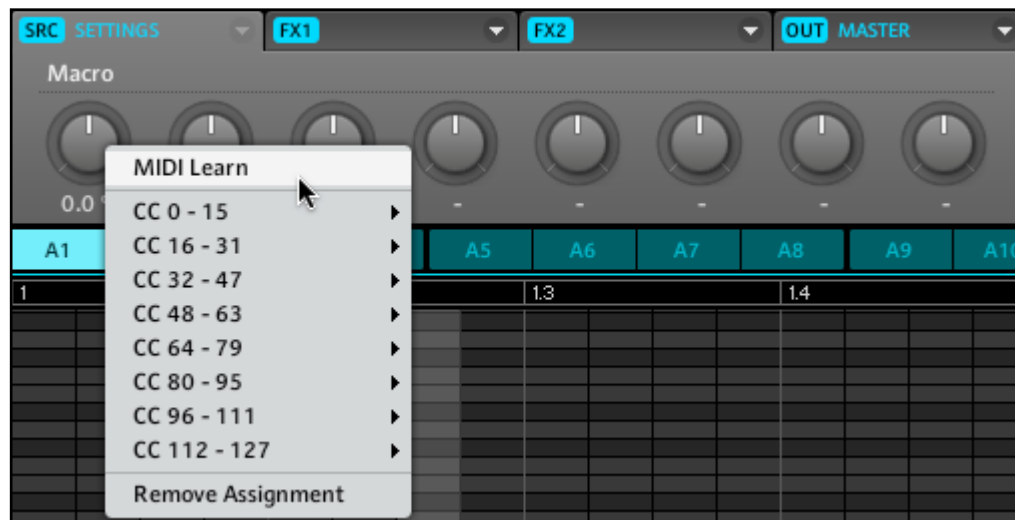
Assigning Macro Controls to external MIDI CCs

Just like the parameter assignment, the MIDI CC assignment is performed in the MASCHINE Software. To select a MIDI CC, get back to the Page 3 of the Group Source Tab, right-click (on Mac OS® X: Ctrl-click) on the Macro Control and choose your MIDI CC:



Assigning MIDI CC 1 to Macro Control 1

Alternatively, you can also let MASCHINE learn the MIDI CC it is supposed to react to. Choose *MIDI Learn* from the pop-up menu and move the desired knob or fader on your connected MIDI Controller:



Selecting MIDI Learn in the pop-up menu

As soon as you select *MIDI Learn*, a white dot starts to flash until the software receives an incoming MIDI CC:

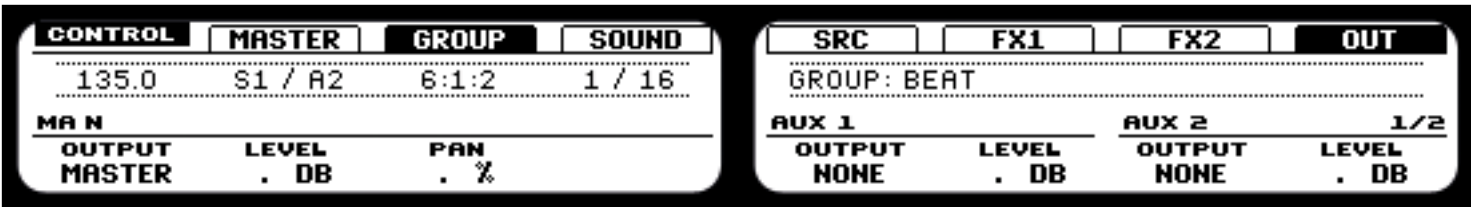


The white dot next to the Macro Control

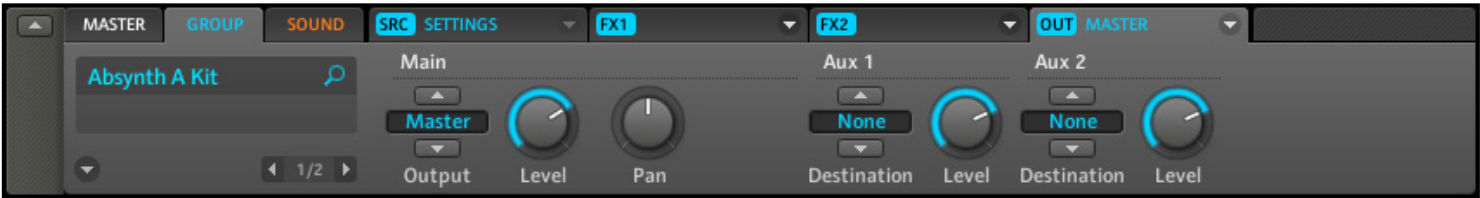
→ When the MIDI CC has been received, the white dot will stop flashing.

5.2 The Group Out Tab Parameters

5.2.1 Page 1: Routing, Volume and Pan



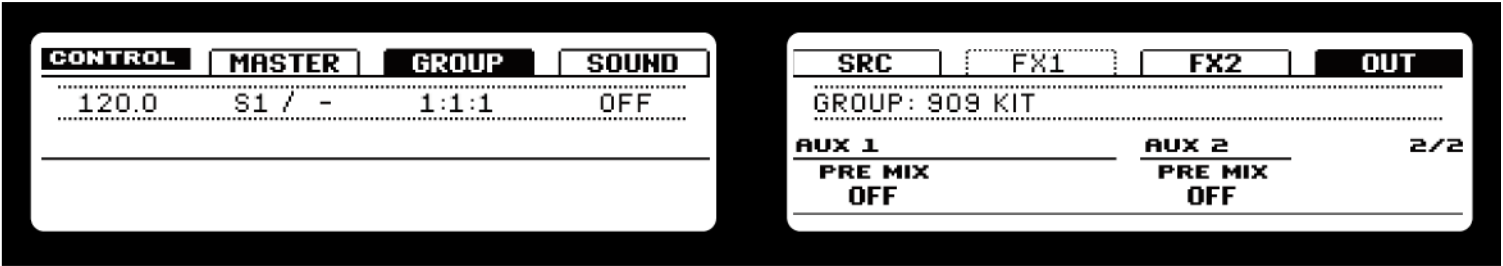
Page 1 of 2 from the Group Out Tab Parameters on the hardware



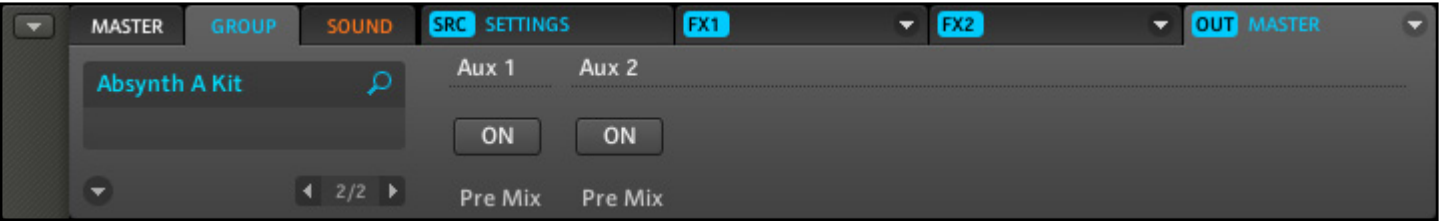
Page 1 of 2 from the Group Out Tab Parameters on the software

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 pan 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.

5.2.2 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: Control-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: Control-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

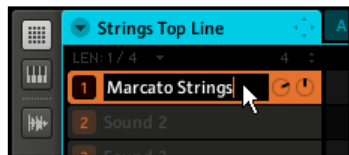
- To reset a Group, right-click (on Mac OS® X: Control-click) the Group Slot and choose Reset from the dropdown menu.



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. Press the Return key to confirm.



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

Group renaming is performed accordingly: double-click on the Group Slot to edit the name of the Group. To confirm, hit the Enter key on your computer keyboard.



Renaming the Sound Group A



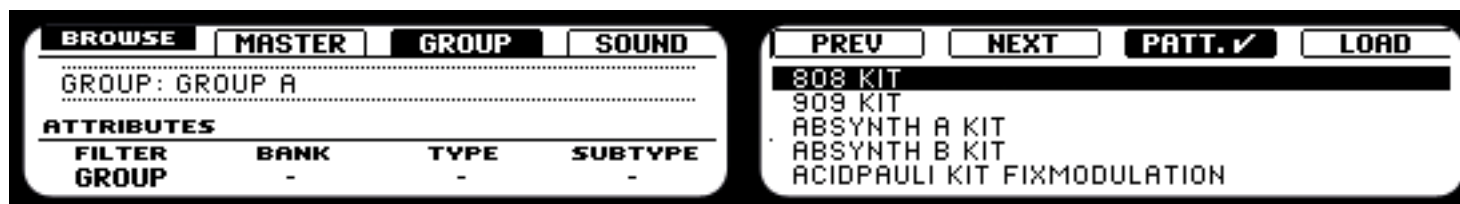
Naming is only available from within the Software, but any changes will also show up on the Hardware.

5.7 Loading Groups without Patterns

If you want to build a Group from scratch, you can load Groups without Patterns both on the MASCHINE Hardware and Software. Other than that, previously loaded Patterns will not be removed, enabling you to try out a Pattern using different Sounds.

Hardware

1. On the Hardware, enter the Browser by hitting BROWSE and select the Group tab by pressing Button 3.
2. On the Right Display you can now select whether you want to load the Group with or without its Pattern content by hitting Button 7. If Pattern is highlighted, the Pattern content will be loaded together with the Group.



A selected Group with Pattern load option activated

Software

1. To load a Group without a Pattern, select the Group in the Browser's Search Result List.
2. Uncheck the checkmark in the bottom of the Browser.



A selected Group in the Browser with the Pattern load option unchecked

5.8 MPC Program Import to Groups

MASCHINE allows you to import Drum program files (.PGM and .AKP) from the Akai MPC* series to Groups. Supported models include the MPC 4000, MPC 3000, MPC 2000, MPC 500, MPC 1000 and the MPC 2500.

5.8.1 Supported parameters from MPC Programs

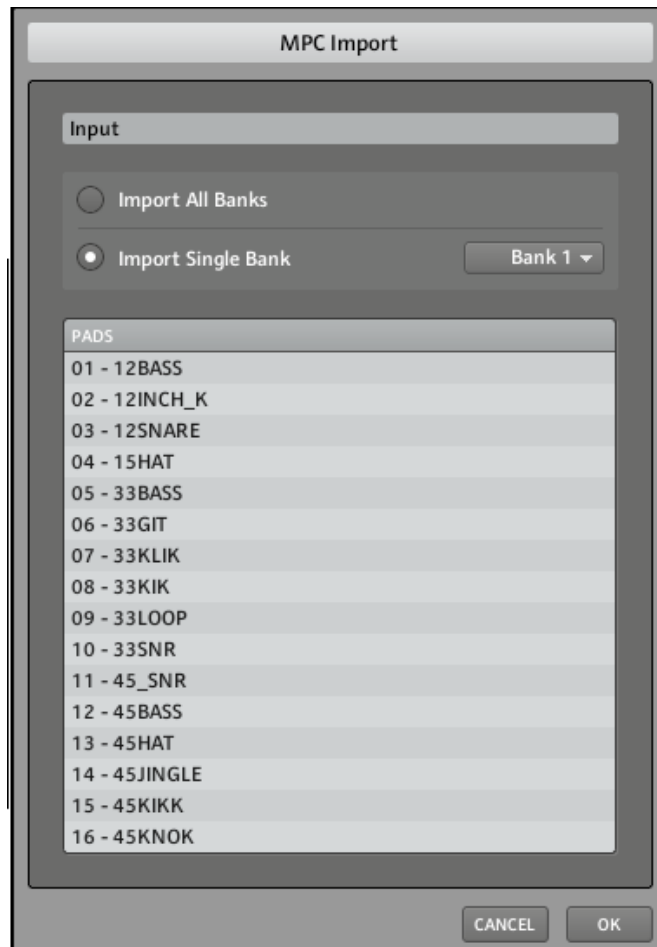
Since MASCHINE has a different approach to handling and naming parameters, please refer to this list to find out how MPC Program settings are being translated into MASCHINE settings.

*MPC is a trademark of Akai Professional, L.P. and used with permission.

MPC Parameter	MPC 500, 1000, 2500	MPC 4000	MPC 2000 (XL)	MPC 3000	MASCHINE Parameter
Sample Name	x	x	x	x	Sample Name
Play Mode	x	x	—	—	Playback Type (ADSR,One shot, AHD)
Sample Level	x	x	—	—	Zone Level
Sample Pan	—	x	—	—	Zone Pan
Range Lower/ Higher	x	x	—	—	High/Low Key
Tuning	x	x	x	x	Tune
Attack	x	x	x	x	Attack
Decay	x	x	x	x	Decay
Voice Overlap	x	—	x	x	Polyphony
Filter1 Type	x	—	—	—	Filter Type
Filter1 Frequency	x	—	x	x	Filter Cutoff
Filter1 Resonance	x	—	x	x	Filter Resonance
Filter1 Velocity to Frequency	x	—	—	—	Velocity Cutoff
Mixer Level	x	x	x	x	Track Level
Mixer Pan	x	—	x	x	Track Pan
Velocity to Level	x	—	—	—	Velocity to Volume
Mute Group	x	—	—	—	Choke Group

5.8.2 Importing MPC Program files

1. To import an MPC Program file, open the Browser on the MASCHINE software and enter DISK Mode.
2. Navigate to the MPC Program you want to import and double-click it. You will be prompted with the following dialog:



The MPC Import dialog

3. In the Input section of the dialog window, select one of the import options:

Input	
IMPORT ALL BANKS	Here you can import all Banks of an MPC Program. Each Bank will be loaded into a separate Group.
IMPORT SINGLE BANK	If you only want to import a single Bank choose this option. Use the dropdown menu to the right to select which Bank you want to import.

4. Click OK to start the import procedure.

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” available on the Native Instruments website at <http://www.native-instruments.com>. 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 on your MASCHINE Controller, hit PATTERN (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.

Copy and Paste a Pattern

To copy a Pattern to another Pad, press and hold DUPLICATE, press the Pad of the Pattern you want to copy, and then the target Pad for the Pattern copy.

Removing a Pattern

Pressing Button 4 removes the Pattern from the current Scene (Scenes are described in detail in chapter 10, “[Creating a Song using Scenes](#)”). 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, “[Name Plate Location](#),” for further information.

6.1.2 Input Mode

The Input Mode is reached by pressing PAD MODE (formerly KEYBOARD). It is a temporary mode and can therefore be locked by pressing PAD MODE (KEYBOARD) 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. You can switch to 16 Velocities Mode, then the velocity value of the Pads will be shown on the Right Display. This page will 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 a fixed velocity value for the Pads so that the selected Sounds (like drums) will play at the same volume no matter how hard you hit the Pads.

INPUT	KEYBD	16 VEL	FIXED VEL	99	107	117	127
125.0	S5 / A3	1:2:2	1 / 16	80	83	87	93
QUANTIZE	BASE KEY	VELOCITY		66	72	76	79
NONE	C3	127		32	42	52	60

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.
16 VEL (Button 3)	Activates the 16 Velocities setting for the currently selected Sound. This allows you to play the currently selected Sound in 16 different velocity values using all Pads.
FIXED VEL (Button 4)	Activates the Fixed Velocity setting for all Pads. Note: If neither 16 VEL nor FIXED VEL are activated, the Pads will be velocity sensitive, meaning they will play louder if you hit them harder.
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.
VELOCITY (Knob 4)	Here you can adjust the exact Velocity value for the Fixed Velocity Setting.



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.”

6.1.3 Recording the Pads

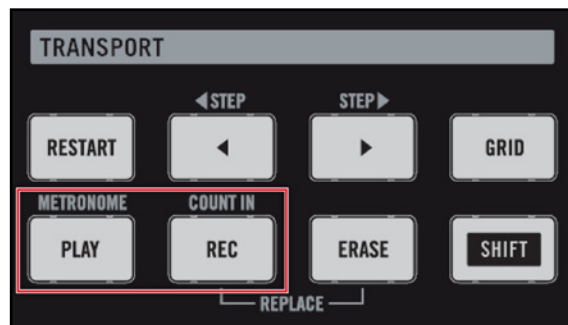
You can easily record beats with the Pads: press PLAY, then RECORD to enable Record Mode. Now hit the Pads you want to record and listen to what happens.



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

6.1.4 The Metronome

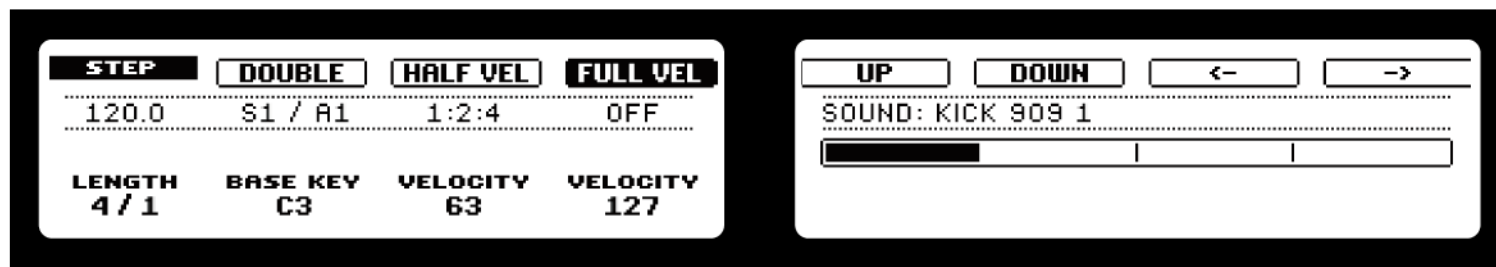
The Metronome will help you to keep time when recording in realtime. To activate the Metronome, hold down SHIFT and press PLAY. To deactivate the Metronome, hold SHIFT and press PLAY again.



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

1. Hit the Pad with the Sound you want to record to select it and press Play.
2. Press STEP. 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.
3. 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.

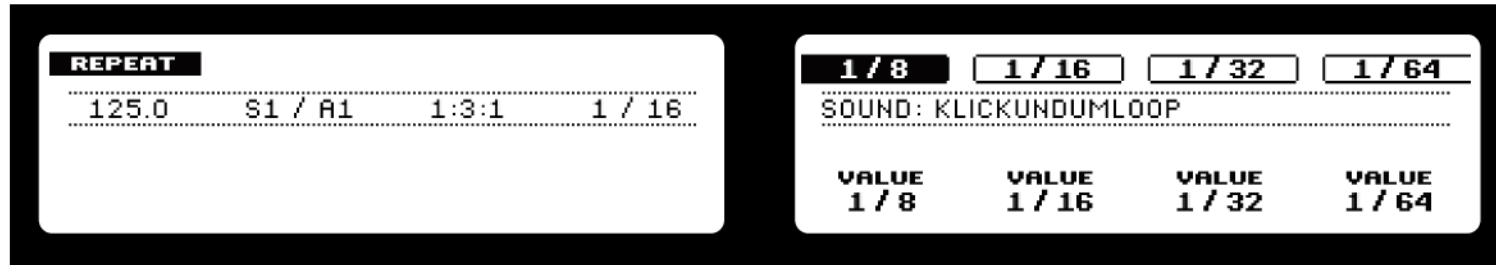
This way it's easy to quickly put some drums together. By default the first 16 steps will be represented in the Step Sequencer so if you want to program longer Patterns, you can switch to the next 16 steps by using Buttons 7 and 8. To switch to another Sound, use Buttons 5 and 6 located above the Right Display, or press and hold Select and the Pad of the Sound you want to switch to.



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

1. While holding NOTE REPEAT, press the Pad you want to record. The notes will now be repeatedly triggered at the selected quantization (shown on the Right Display).
2. With Buttons 5-8, you can select different quantization settings while playing.
3. 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

Select your Sound by hitting the Pad it is assigned to. Now enter Input Mode by hitting PAD MODE (KEYBOARD) and lock it by hitting Button 1.



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 PLAY then RECORD and start to record your melody!



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!

If you prefer to play your melodies with a MIDI keyboard, you can connect one to the MIDI In on the back of the MASCHINE Controller. You can also use any USB-MIDI keyboard selected in the Audio and MIDI Settings (see chapter 2.5, “[Audio and MIDI Settings](#),” to get to know how to set these up). The connected MIDI input device will always play the currently selected Sound without the need to enter Piano Roll/Keyboard mode.



The back side of the MASCHINE Hardware with the MIDI In port

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 AUTO WRITE (F2).

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.

Almost all Knob parameters including the Macro Controls 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 STEP. 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.



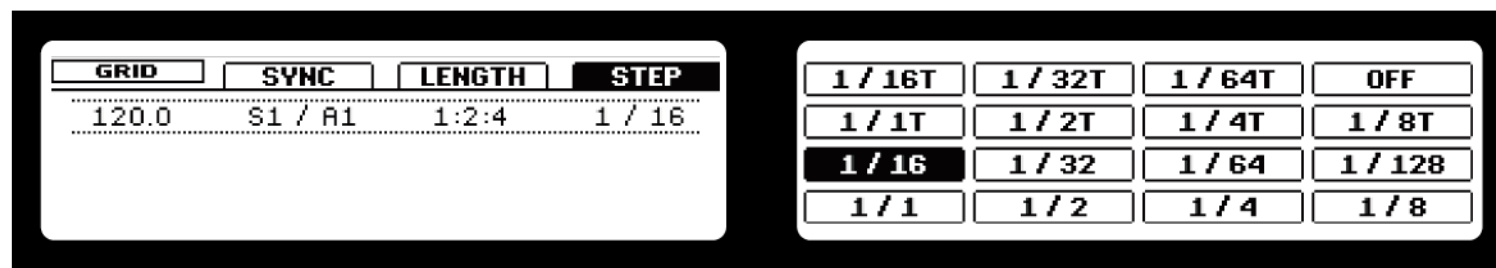
If you want to automate only one of the Steps, set the parameter of the next Step back to its default value.

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 GRID followed by Button 4; the Right Display will show you which Pad represents which Grid.

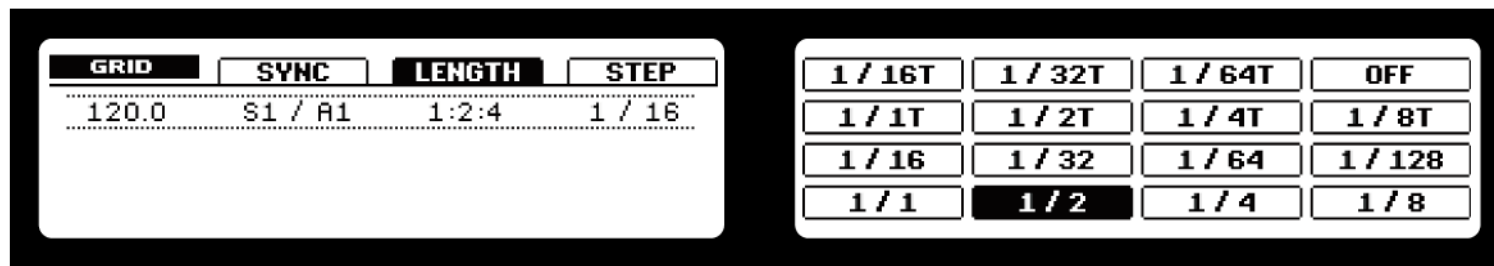


The Right Display showing the available Grids

Select a Step Grid resolution by hitting the corresponding Pad.

Pattern Length Grid

The Pattern Length Grid affects the resolutions available when holding PATTERN 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 by hitting Pad 16.



Try a short quantization like $\frac{1}{4}$ note and change the Pattern Length in Pattern Mode (see page 56) 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.

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.



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.”

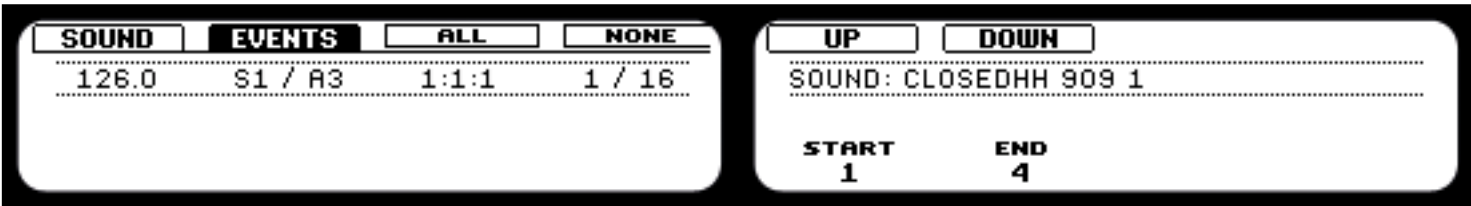
Quantization while recording and playing

You can also choose to have notes automatically quantized. Enter Input Mode by pressing PAD MODE (KEYBOARD). 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.

6.2 Editing Patterns

6.2.1 Selecting notes and events

You can select particular notes and events from your Hardware. To do this, hold SELECT and press Button 2 (EVENTS). While further holding SELECT, you can now select notes and events of Sounds using their Pads. The notes and events of every additional Sound you select using the Pads will be added to the selection. If you press a Pad again, the events of the Sound will be removed from the selection. Selecting specific Sounds and their events is useful because many of the operations described below can be applied to the selection instead of the entire Pattern.



The Select screen for notes and events on the hardware displays

ALL	Press SELECT + Button 3 (ALL) to select all events of the selected Sound.
NONE	Press SELECT + Button 4 (NONE) to deselect all events of the selected Sound.
Up/Down	While holding SELECT, use Buttons 5 (UP) and 6 (DOWN) to choose the Sound of which you want to select notes and events. Alternatively you can select Sounds using the Pads.

START	While holding SELECT, using Knob 5, you can determine at which event of the currently selected Sound the selection of notes and events will start.
END	While holding SELECT, using Knob 6, you can determine at which event of the currently selected Sound the selection of notes and events will stop.

6.2.2 Erase/Clear

To erase notes, press and hold both ERASE 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 time getting used to, especially when the tempo is very fast, but you can always use Undo/Redo (SHIFT + Pad 1, SHIFT + Pad 2) to get back to where you were before. 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.



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!).

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.

Transpose by semitones

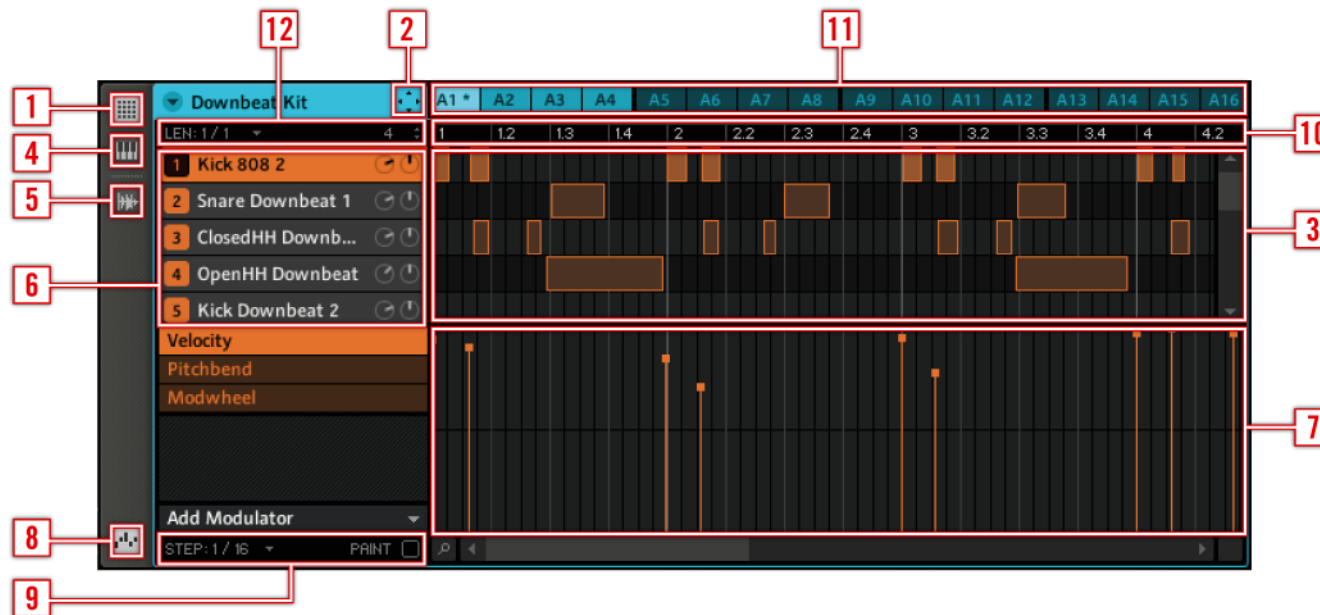
To transpose the selected notes down in semitones press SHIFT + Pad 13 (SEMITONE -); to transpose the selected notes up press SHIFT + Pad 14 (SEMITONE +). If no events are selected, all notes in the Pattern will be affected.

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.

7 Working with Patterns (Software)

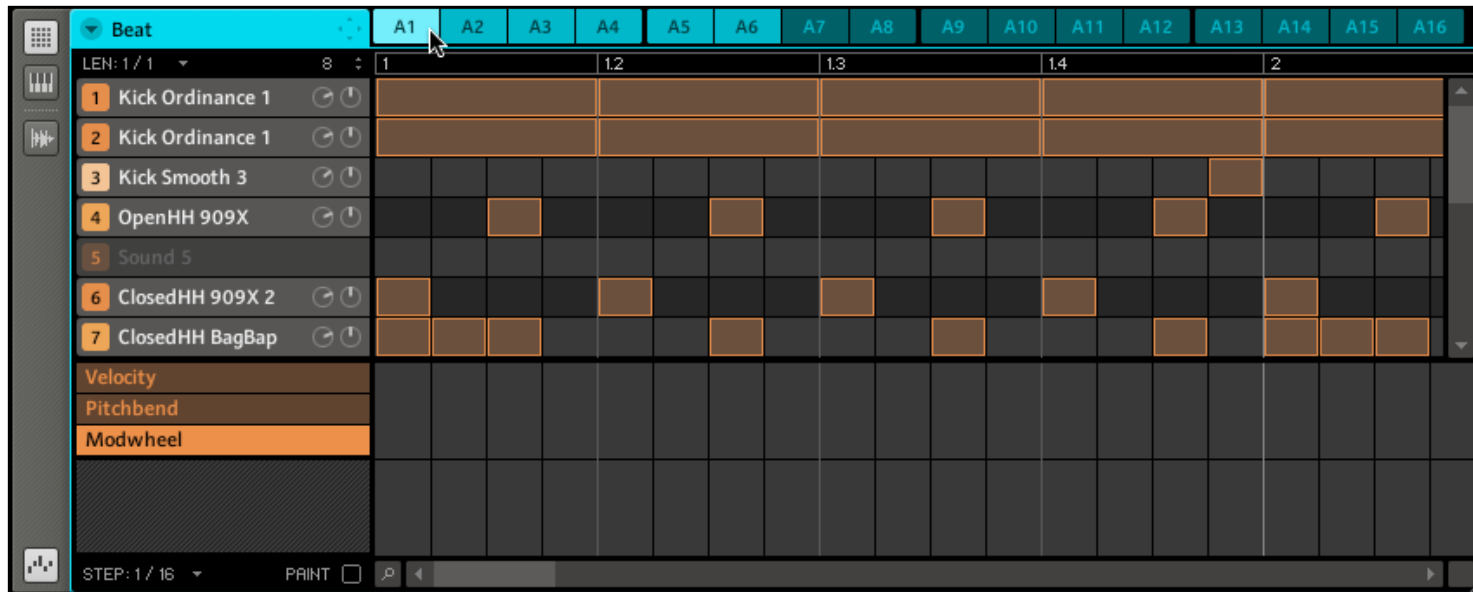
7.1 The Pattern Editor



- 1 Step Editor View Switch
- 2 Dragger Icon
- 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

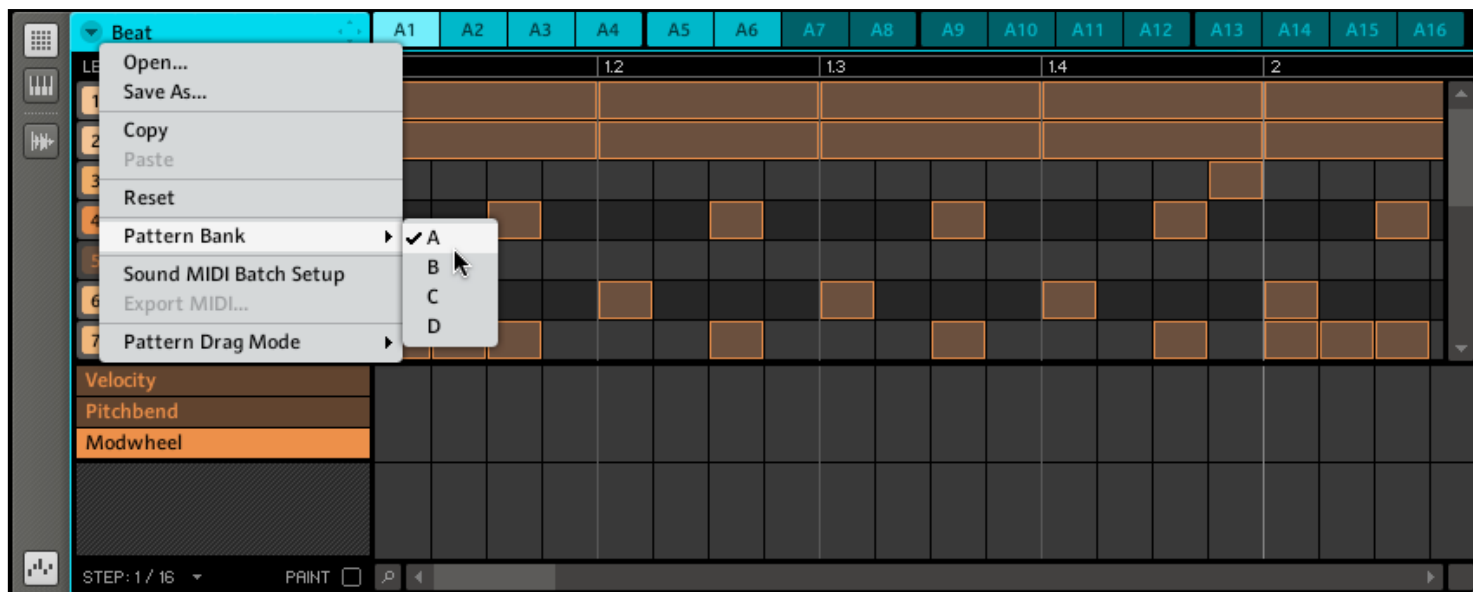
7.1.1 Selecting Patterns and Pattern Banks

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



The Step Editor with Pattern A1 selected

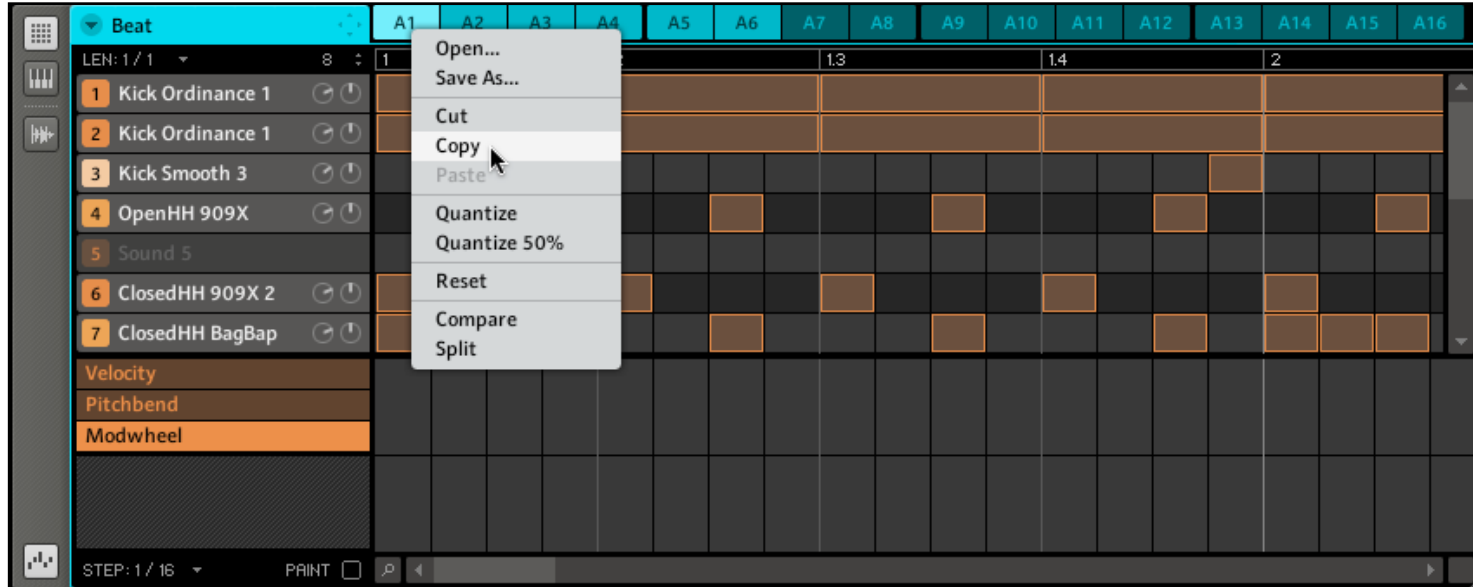
You can distinguish between different Pattern states by the brightness of the Pattern Slots: the brightest Slot represents the currently selected one, a little less bright (on the picture: A2 to A6) are the ones that have content but are not selected, the empty ones (all others starting with A7) being the darkest ones. To switch to another Pattern Bank, select it in the dropdown menu:



The Pattern Bank submenu

7.1.2 Copy and Paste Patterns

To copy a Pattern, right-click (on Mac OS® X: Control-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: Control-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: Control-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: Control-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).

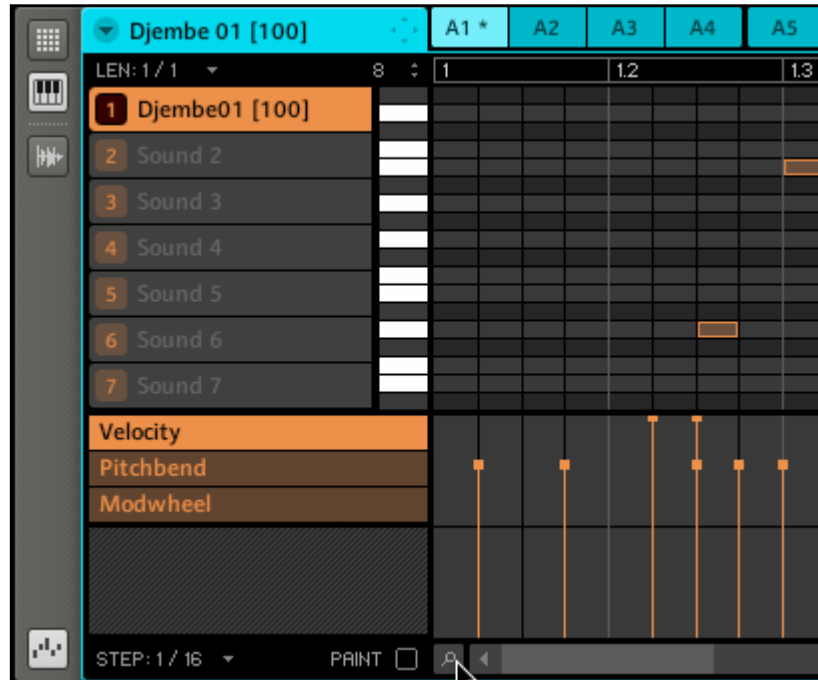
Key	Function
Ctrl (Mac OS X: Alt) + drag note(s)	copy selected note(s)
Drag right note border	change note length
Shift + Click on Note	Add note to selection
Drag in Grid	Multiple selection (selection frame)
Click in Grid	Deselect notes
Double click on note	Delete selected note(s)
Alt (Mac OS X: Cmd) + drag on note vertically	adjust note velocity

Switching to Paint Mode

To switch the mouse behaviour to Paint Mode, check the `PAINT` checkbox at the bottom of the Pattern Editor. With Paint Mode enabled, the mouse works like a paint-brush tool. Clicking and holding the left mouse button down will set notes everywhere you move the cursor. The other way round, left-clicking on a note and moving the mouse cursor with the button pressed will erase all notes under the Mouse cursor.

7.2.2 The Zoom Tool

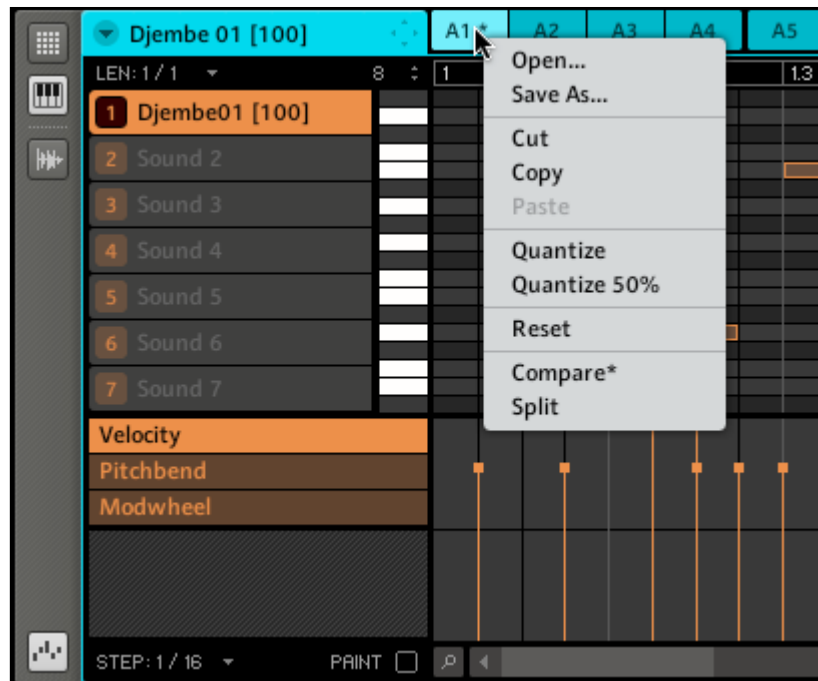
Using the Zoom Tool, you can zoom in and out in the Pattern Editor. Click on the Zoom Tool and drag upwards to zoom in and downwards to zoom out.



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 (Ctrl+clicking on the Mac OS® X) on the Pattern Slot and choosing the appropriate entry from the drop-down menu:



Compare/Split in the dropdown menu

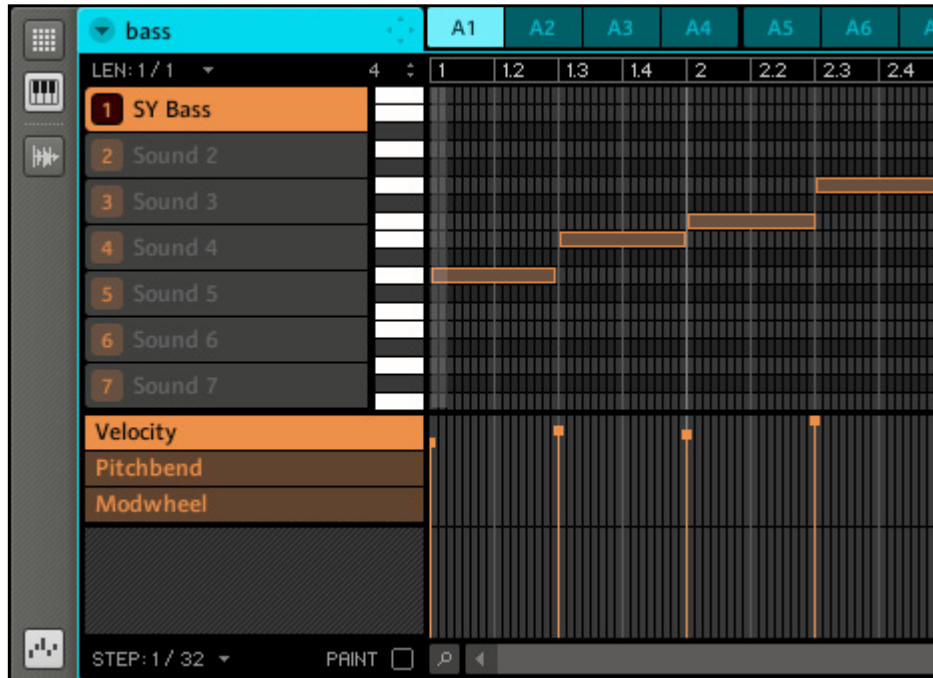
Edit a given Pattern by adding some notes or automation to it, then click on Compare to toggle between the original content and the new version you just created. If you like your new version you can copy it to the next empty Pattern by clicking on Split.



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

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 half-tones depending on where you put them, the lowest note being the lowest row in the Piano Roll/Keyboard Editor.

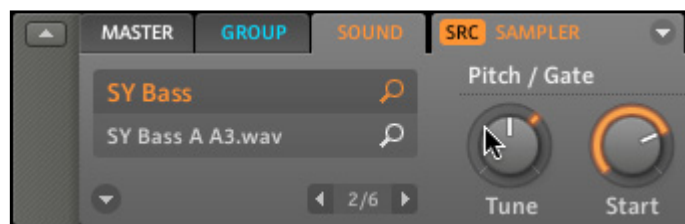


The Software view of the Piano Roll/Keyboard Editor

7.2.5 Recording and editing automation

If you take a closer look at the knobs on the Parameter Pages in the Control Area, you will notice they have an outer ring that changes its color to light grey as soon as you hover over it with the cursor.

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.



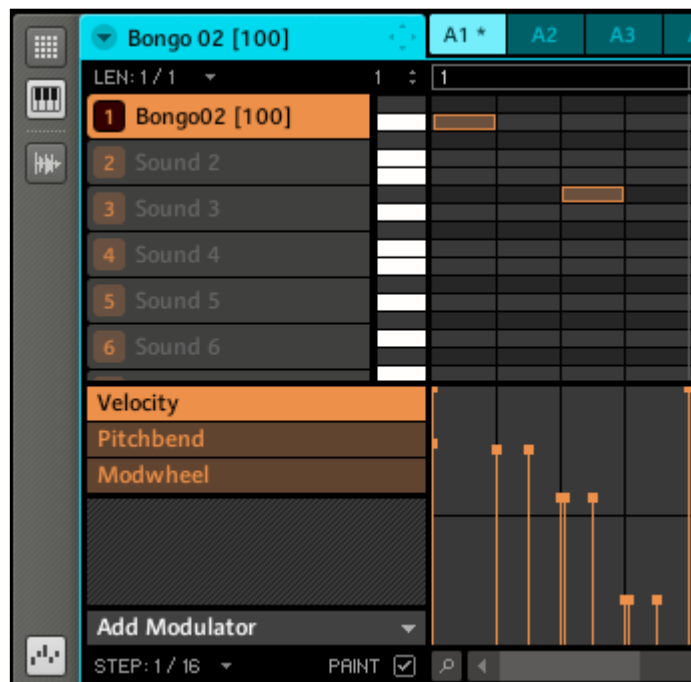
The outer ring of the knobs, used for displaying automation

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



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



The Automation Lane with the Velocity parameter in focus



To “draw” Automation, check the box labeled “Paint” at the bottom 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 opens a list of automatable parameters for the selected Sound of the current Pattern:



The Add Modulator dropdown menu showing a list of automatable parameters.

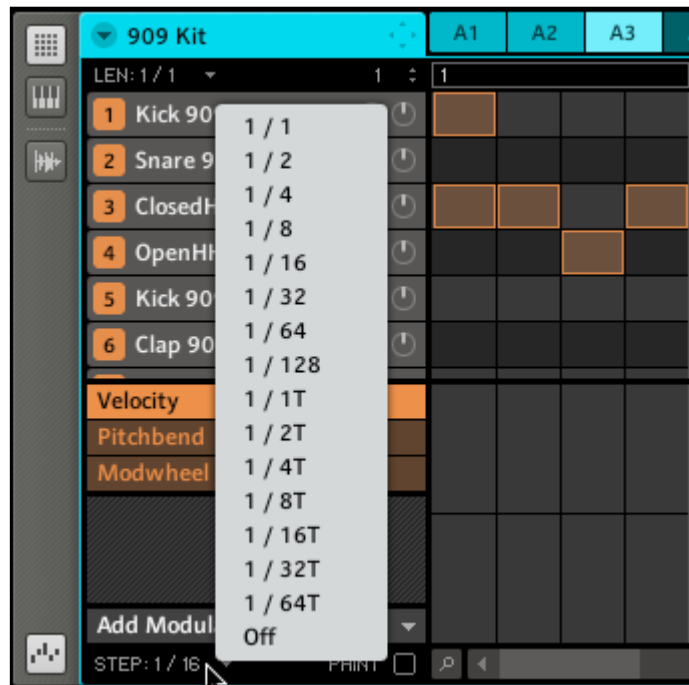
In the Automation Lane, you can now add automation points for the selected parameter by clicking in it, even if there is no note data present. The automation points will snap to the selected Step Grid.

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

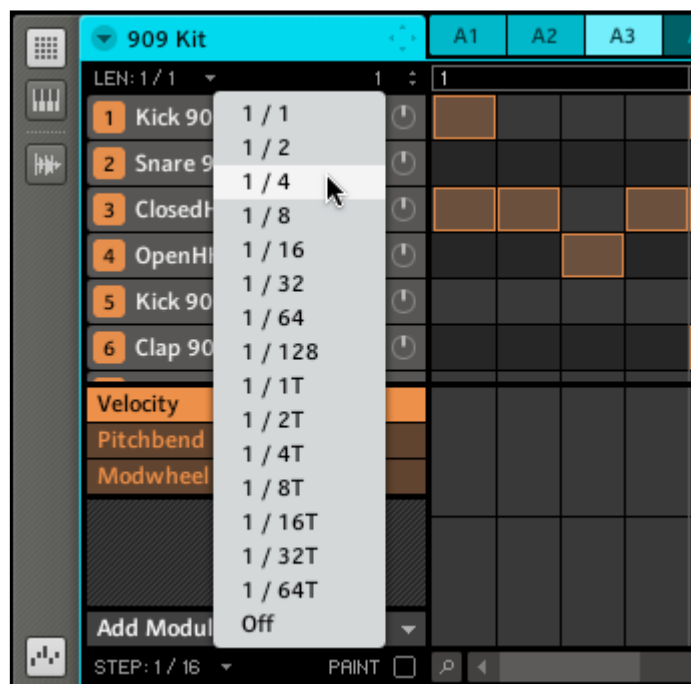
The Step Grid determines the quantization of the notes entered in the Pattern. It ranges from 1/1 (one full note) to 1/64T (1/64th note triplet) and can also be turned off. The default value is 1/16th. Select the Step Grid by clicking the STEP label in the Edit Controls, at the bottom left. This opens 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, located in the Pattern Length Control at the top left:

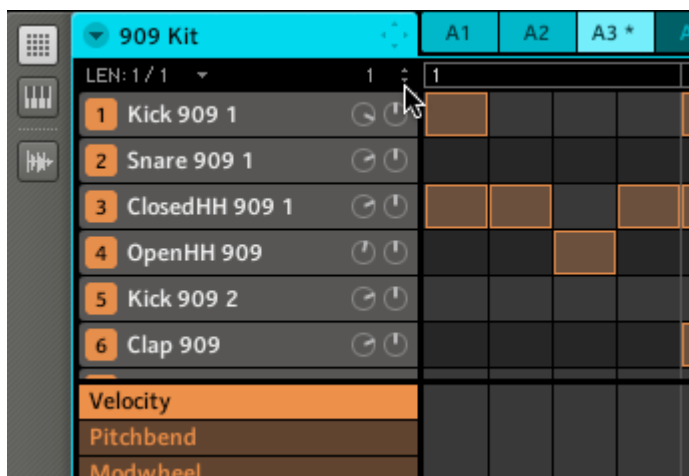


Available resolutions of the Pattern Length Grid

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

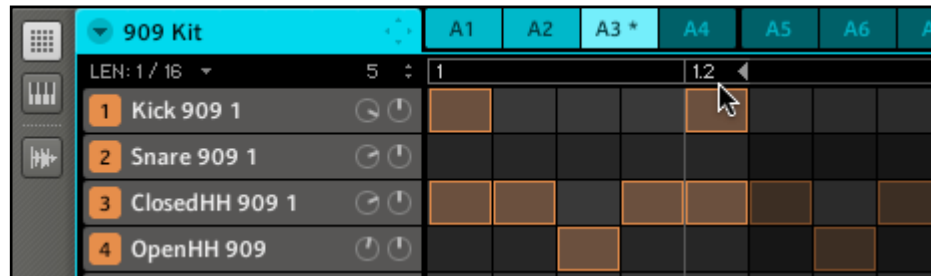
- To adjust the Pattern Length, click on the number in the right part of the Pattern Length Control, then drag it upwards to extend the Pattern or drag it downwards to shorten it.



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.

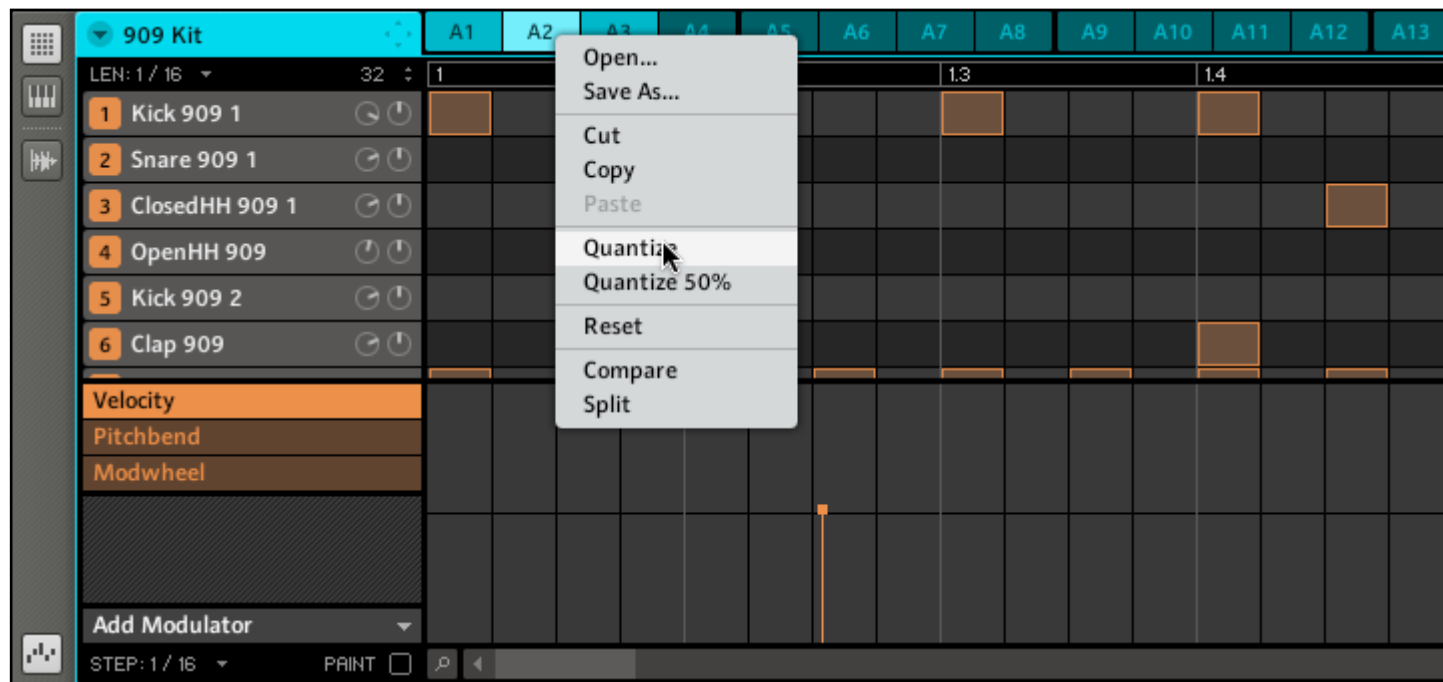
You can also drag the grey arrow at the end of the Pattern to change the Length of the Pattern:



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: Control-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.



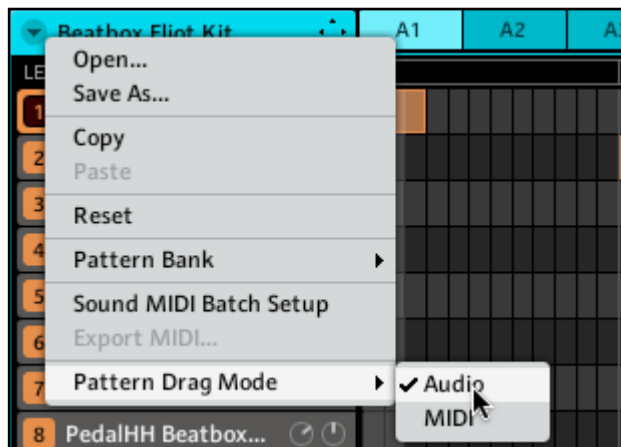
Quantize function for the Pattern content

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.

7.2.8 Rendering Audio from Patterns using Drag & Drop

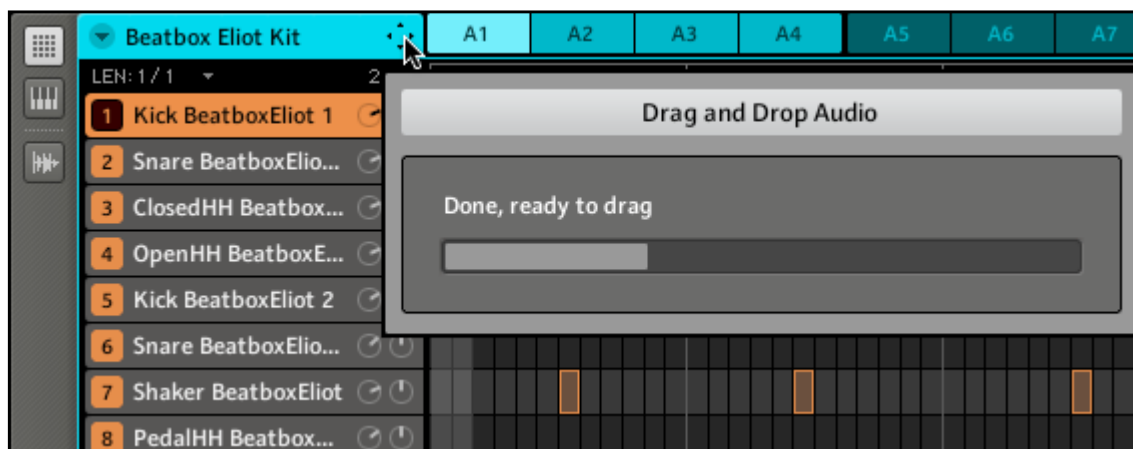
The Audio Drag and Drop function allows you to export audio from selected Patterns onto your desktop or into your host software by simply dragging the respective Group onto the target location or application. This function is only available on the Software. The audio will be exported as a WAV or AIFF file according to the Options in the Export Audio Settings. To render Patterns to audio files:

1. Select the Group and Pattern you want to export audio from.
2. Select the Sounds you want to exclude from the exported audio file by clicking their Mute button. Alternatively, include Sounds by clicking their Solo button.
3. Click and hold the Arrow on the left in the Header of the Pattern Editor. A dropdown menu will open. Choose *Audio* from the Pattern Drag Mode submenu:



The dropdown menu in the Pattern Editor Header

4. Click and hold the DRAGGER ICON in the Header of the Pattern Editor. A pop-up window will inform you about the rendering status.



The rendering status

5. As soon as rendering is finished, the DRAGGER ICON will display the name of the audio file you are about to drag:

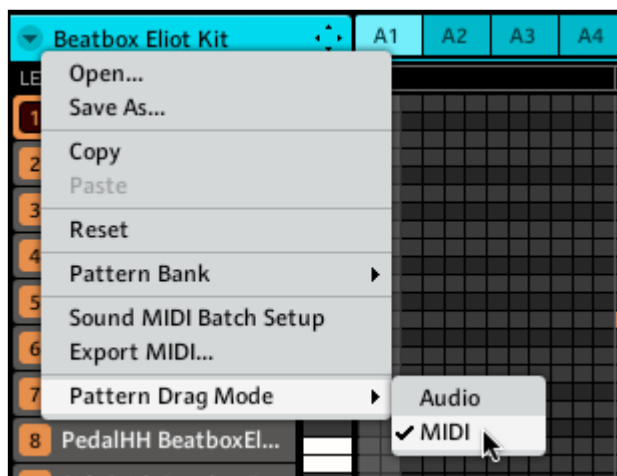


→ You can now drag the exported audio to your desktop or into an audio channel of your host application.

7.2.9 Rendering MIDI from Patterns using Drag & Drop

The MIDI Drag & Drop function allows you to export MIDI files from selected Patterns onto your desktop or into your host software by simply dragging the respective Group onto the Desktop or into a MIDI channel of your host software. This is useful if you want to edit them in another application. The audio will be exported as a MIDI file according to the Sound MIDI Batch Setup, so you need to set that up before (see chapter 4.10.1, “[Sound MIDI Batch Setup](#)”). To render Patterns to MIDI files:

1. Select the Group and Pattern you want to export MIDI from.
2. Click and hold the Arrow on the left in the Header of the Pattern Editor. A dropdown menu will open. Choose *MIDI* from the Pattern Drag Mode submenu:



The dropdown menu in the Pattern Editor Header

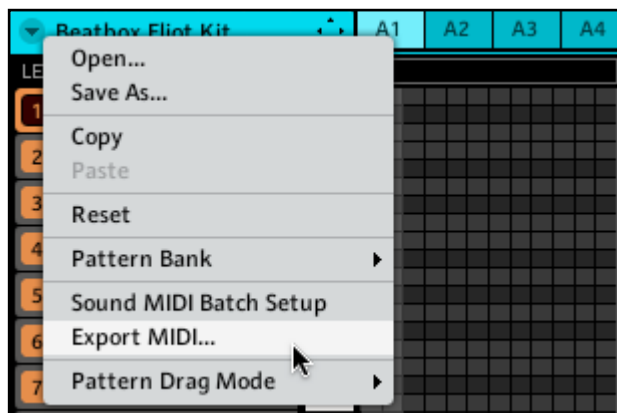
3. Click and hold the Dragger Symbol in the Header of the Pattern Editor. The Dragger will display the name of the MIDI file you are about to drag:



Rendered MIDI file, ready to be dragged.

- You can now drag the exported MIDI file to your desktop or into a MIDI channel of your host application.

Alternatively you can also use the *Export MIDI...* entry from the dropdown menu:



Choosing Export MIDI... from the dropdown menu

8 The MASCHINE Effects (FX)

MASCHINE provides a healthy selection of more than 20 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 Compressor

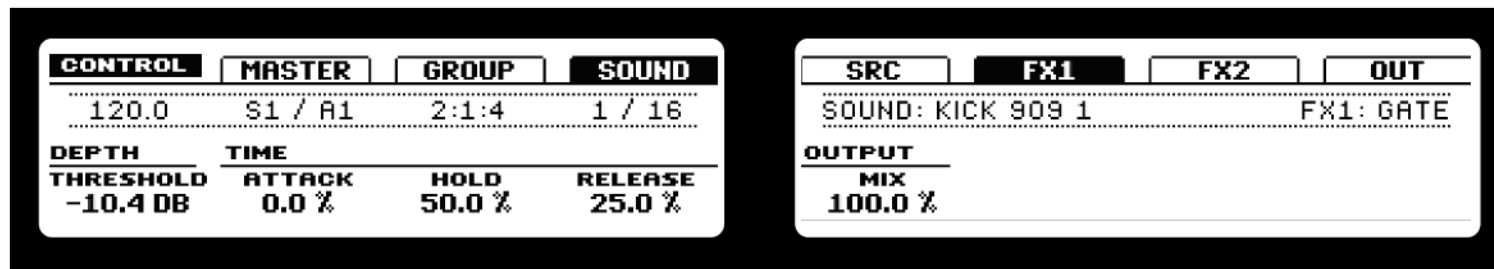


The Compressor on the software

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	
THRESHOLD	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.

8.1.2 Gate

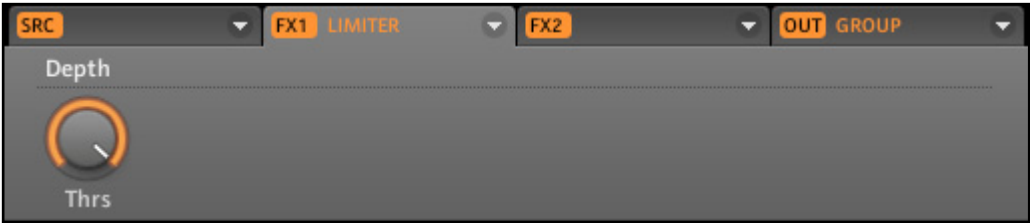


The Gate on the hardware

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 rises above the threshold.
Output	
Mix	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.1.3 Limiter



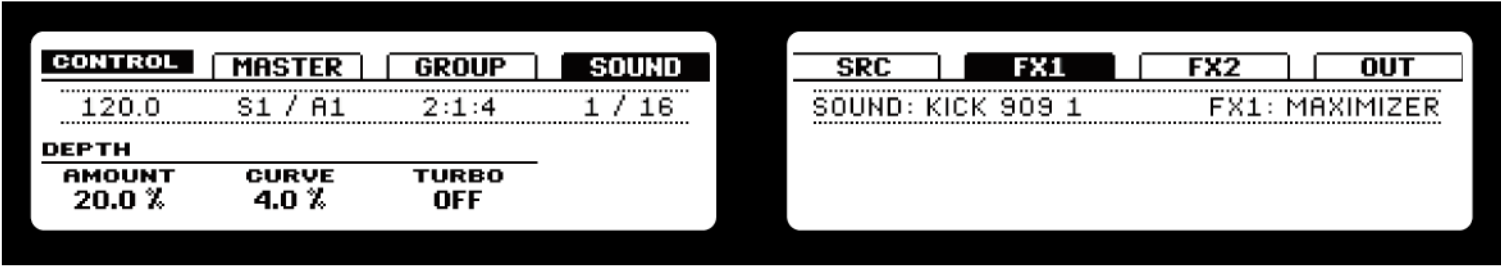
The Limiter on the software

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.
-----------	--

8.1.4 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).

8.2 Filtering

8.2.1 Filter

CONTROL	MASTER	GROUP	SOUND
120.0	S1 / A1	2:1:4	1 / 16
TYPE	FREQ	RES	MODULATI.
MODE	CUT	50.0 %	AMOUNT
LP	1.41 KHZ		0.0 %

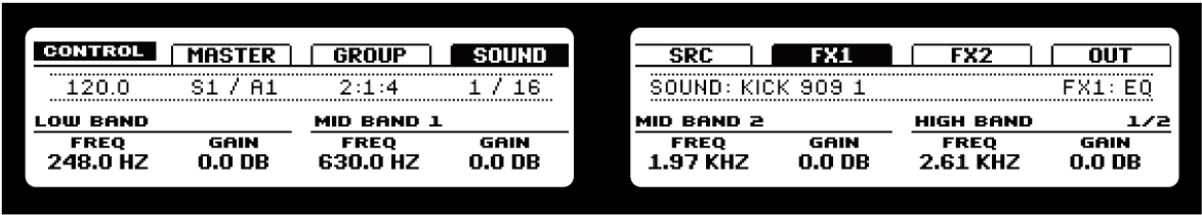
SRC	FX1	FX2	OUT
SOUND: KICK 909 1	FX1: FILTER		
SOURCE	SPEED	SHAPE	
LFO	1.14 HZ	50.0 %	

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.
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.

8.2.2 EQ



The EQ on the hardware

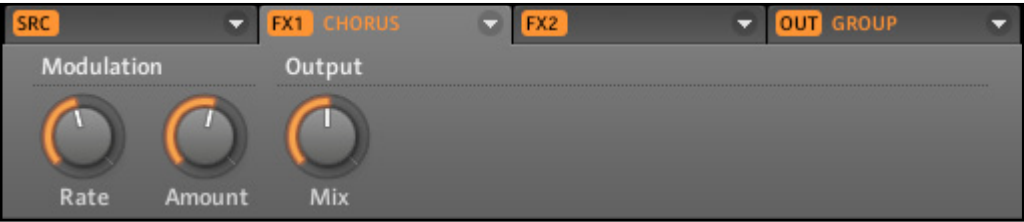
Use the EQ to boost or cut selective frequencies of the audio signal. The EQ is mainly a tool to tailor your audio signal to taste by cutting out selected frequencies or boosting others, but can also be used quite efficiently as a DJ-style cut-and-boost effect. Note that the parameters cover two pages.

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 Mid Band 1. Ranges from 40 Hz to 16 kHz.
GAIN	Gain Control for the Mid Band 1.
Mid Band 2	
FREQ	Frequency selector for the Mid Band 2. Ranges from 40 Hz to 16 kHz.
GAIN	Gain Control for the Mid Band 2.
High Band	
FREQ	Frequency selector for the High 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.

8.3 Modulation

8.3.1 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.

8.3.2 Flanger



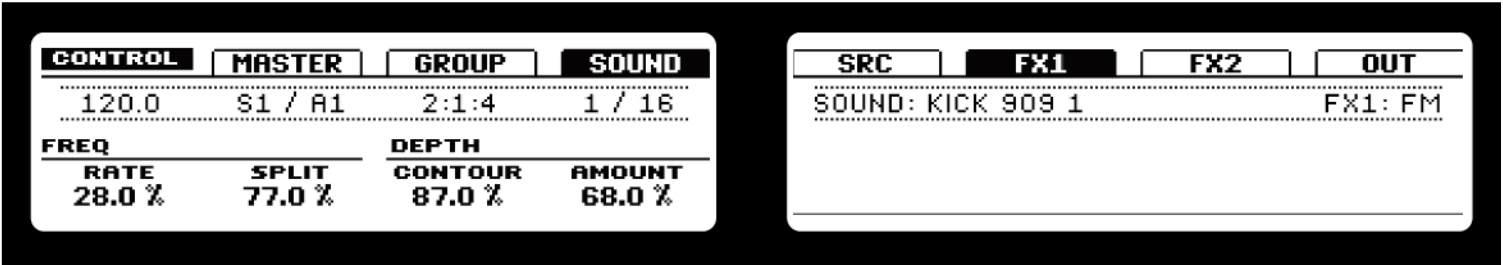
The Flanger on the hardware

Classic Flanger with LFO and Envelope Follower 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.

8.3.3 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.

8.3.4 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.

8.3.5 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.

8.4 Spatial and Reverb

8.4.1 Ice

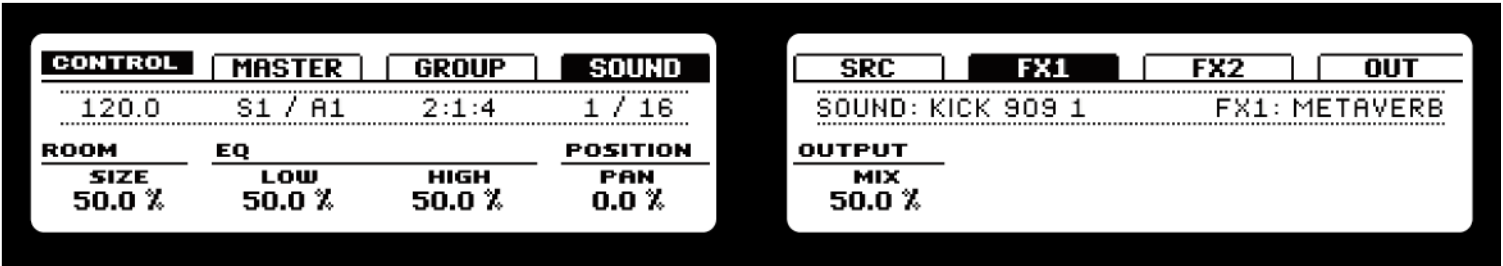


The Ice on the software

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.

8.4.2 Metaverb

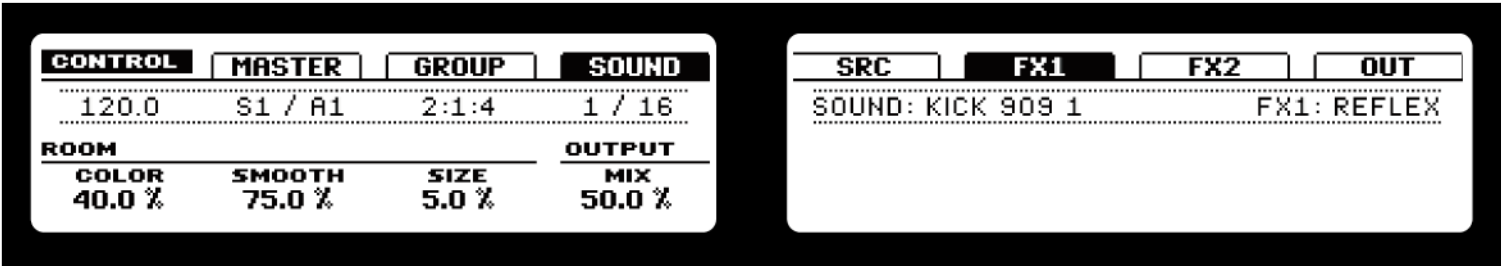


The Metaverb on the hardware

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 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.



Automating the Color parameter usually yields very pleasing results.

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.

8.4.4 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.

8.5 Delay

8.5.1 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.

8.5.2 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 feed-back-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.

8.5.3 Grain Stretch



The Grain Stretch on the software

The Grain Stretch effect uses granular synthesis to manipulate the speed and pitch of the incoming signal.

Master	
ON	Enables the effect. Every time this button is switched on, the Grain Stretch effect buffers incoming audio for 32 x 1/16th.
Time	
STRETCH	Defines the timestretch amount. Set to 50% for half speed.
LOOP	Sets a loop length, in 1/16th steps.
Pitch	
PITCH	Adjust the pitch of the grains
LINK	When on, grain size is corrected by the pitch
SIZE	Adjust the size of the grains
Out	
MIX	Mix lets you adjust the amount of the effect in relation to the dry original audio signal.

8.5.4 Resochord



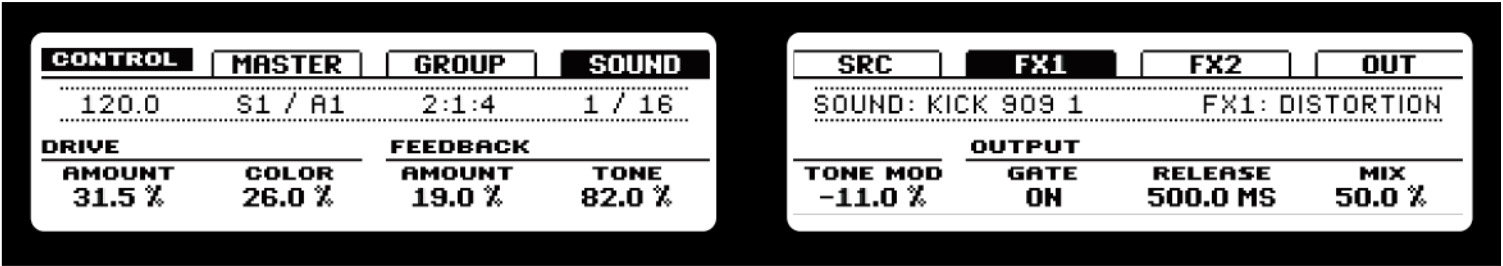
The Resochord on the software

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.

8.6 Distortion

8.6.1 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.

8.6.2 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.

8.6.3 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.

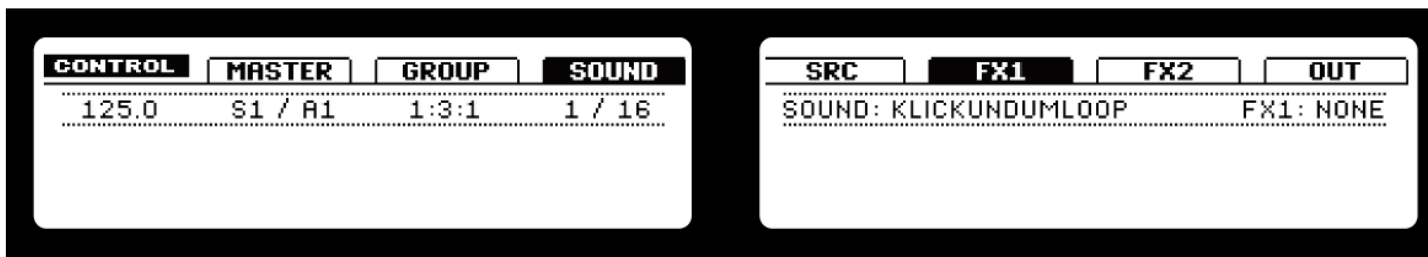
9 Using FX

9.1 Adding FX to a Sound

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

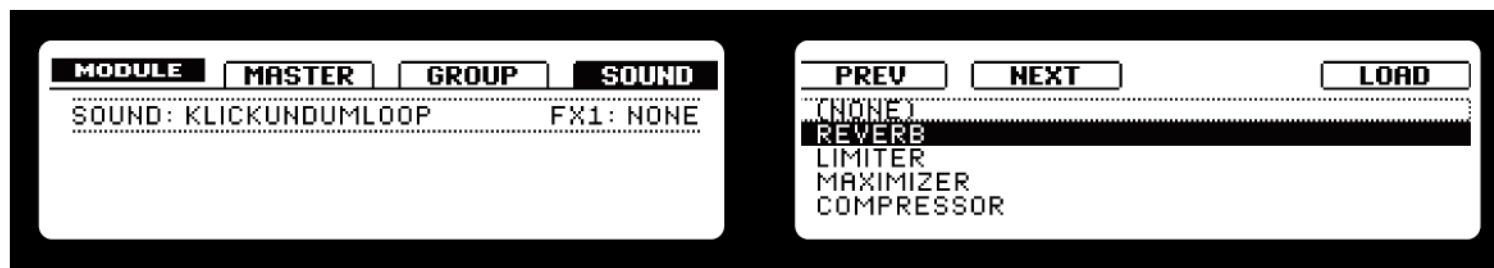
Hardware

1. In Control Mode, 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

2. 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

3. 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 want to load an FX Preset instead, press BROWSE (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 any FX presets after pressing BROWSE, turn Knob 1 to change the tag filter to FX.



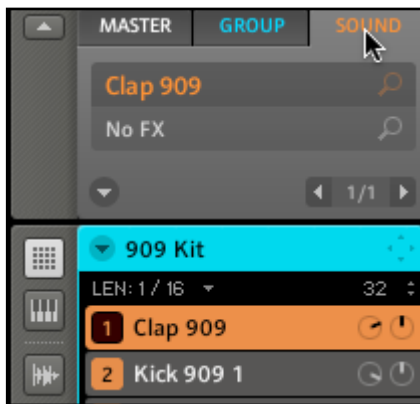
Some of the Effects will have more than one parameter page; in this case, use the Page Buttons to navigate between them.



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.

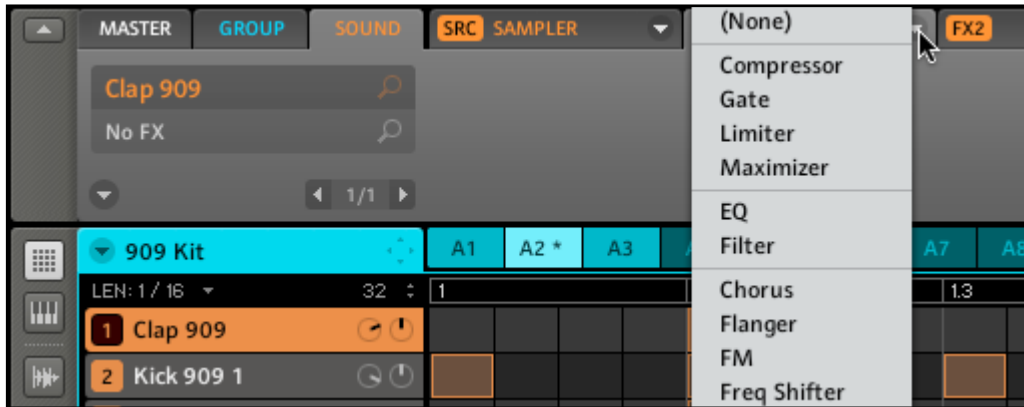
Software

1. 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

2. 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

3. 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



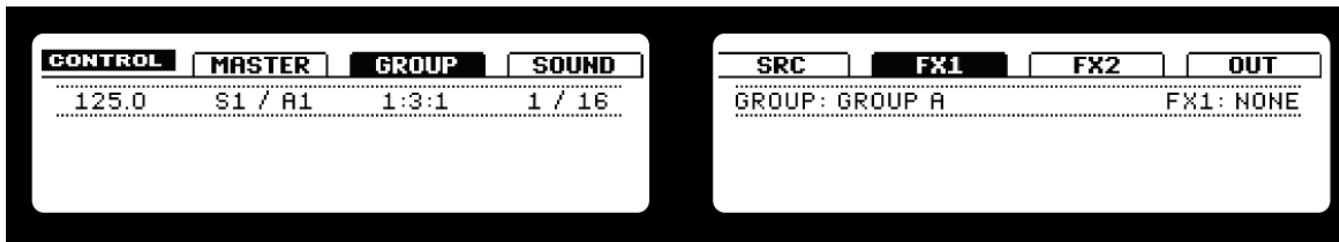
Some of the Effects will have more than one parameter page; in this case, use the Page Selector to navigate between them. You can also load FX Presets from the Browser either by double-clicking them or by dragging them to the FX Slot you want to use.

9.2 Adding FX to a Group

You can apply two effects (FX) directly to each Group. The effects will then be applied to all the Sounds which send their audio output to the Group.

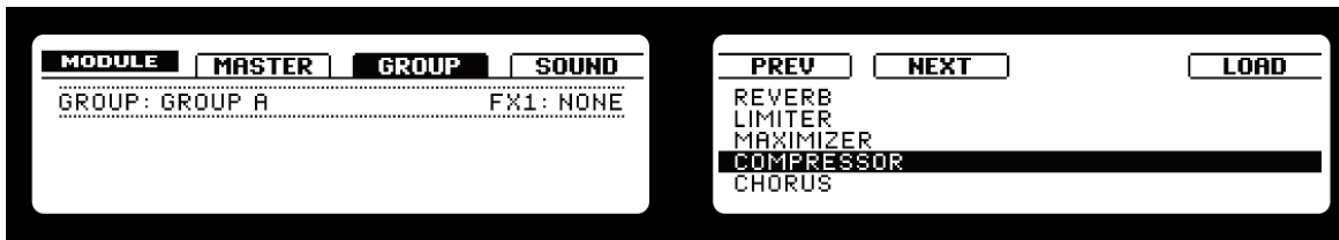
Hardware

1. 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

2. 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.

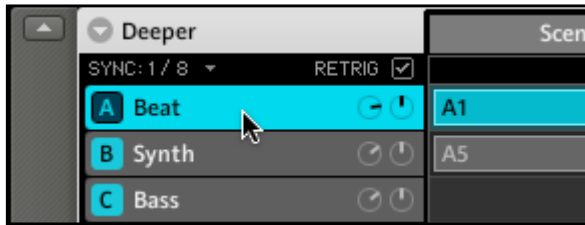


The Right Display showing the Load option

- 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 any FX presets after pressing BROWSE, turn Knob 1 to change the tag filter to FX.

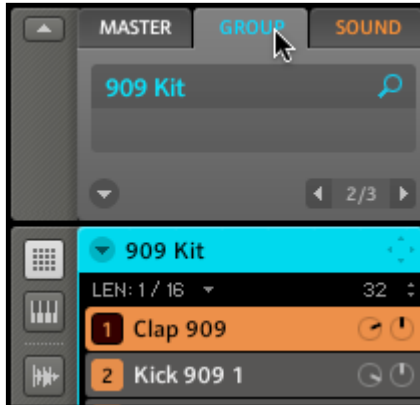
Software

1. 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:



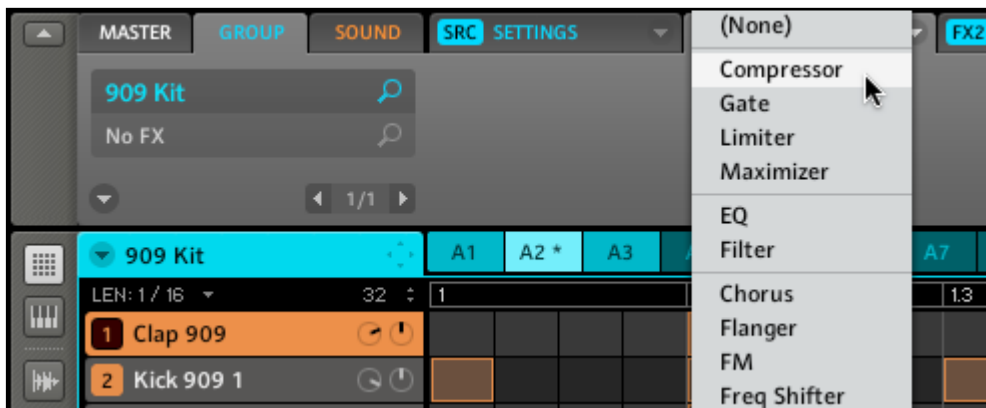
The Group in focus on the Arranger

- 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



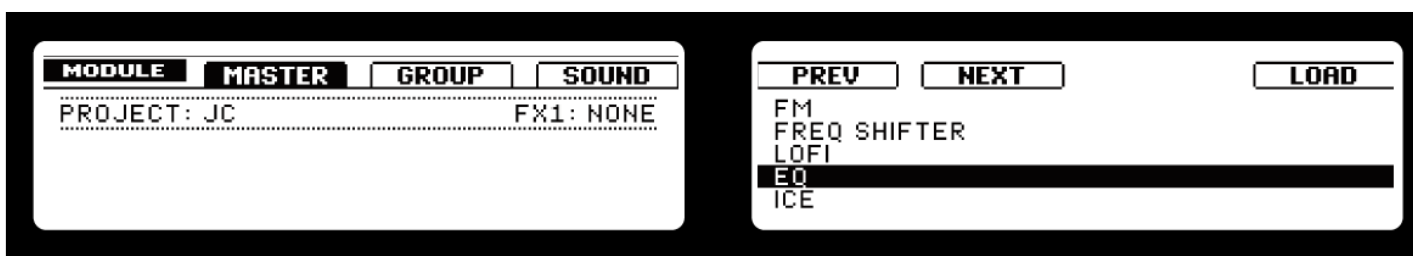
Some of the Effects will have more than one parameter page; in this case, use the Page Selector to navigate between them. You can also load FX Presets from the Browser either by double-clicking them or by dragging them to the FX Slot you want to use.

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

1. Press Button 2 to put the focus on the Master Tab which gets selected on the Left Display.
2. 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

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

CONTROL	MASTER	GROUP	SOUND	SRC	FX1	FX2	OUT
125.0	S1 / A1	1:3:1	1 / 16	PROJECT: JC	FX1: EQ		
LOW BAND		MID BAND 1		MID BAND 2		HIGH BAND	
FREQ	GAIN	FREQ	GAIN	FREQ	GAIN	FREQ	GAIN
248.0 HZ	0.0 DB	630.0 HZ	0.0 DB	1.97 KHZ	0.0 DB	2.61 KHZ	0.0 DB

The parameters of the EQ in the FX1 Module of the Master Tab on the Left and Right Display

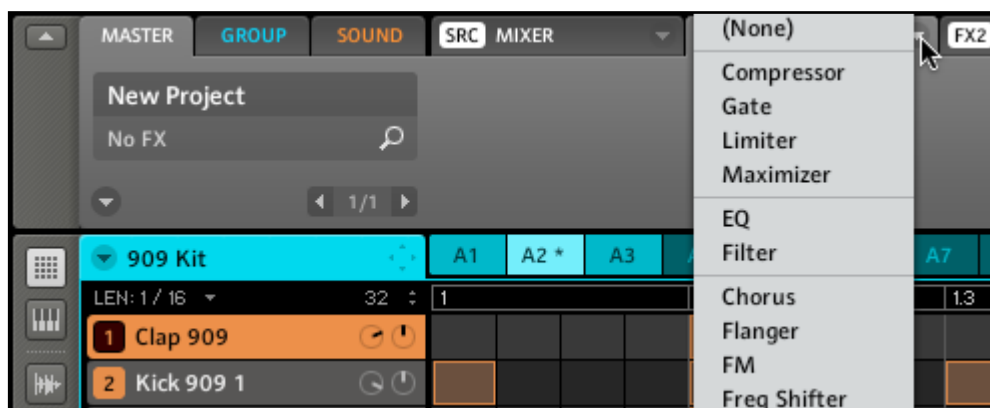


Some of the Effects will have more than one parameter page (like the EQ pictured above); in this case, use the Page Buttons to navigate between them.

- 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

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



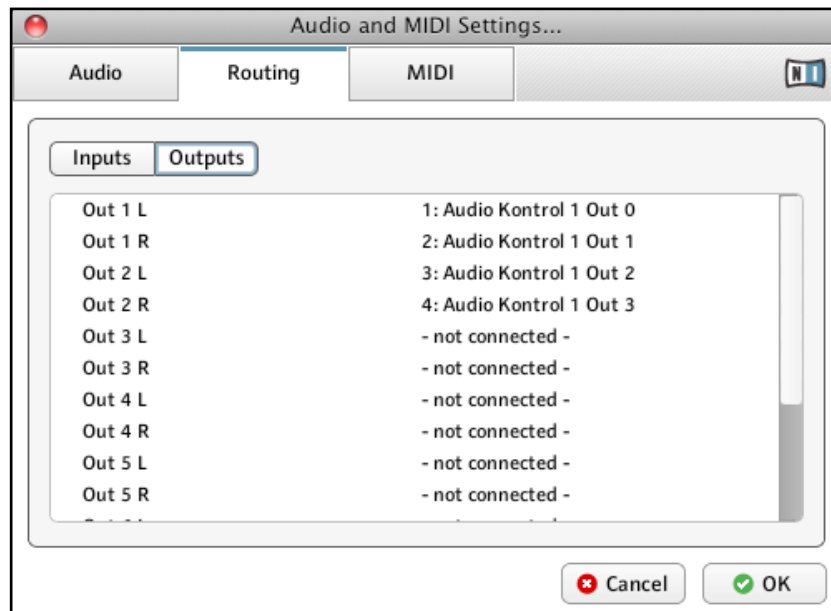
The list of available Effects for the Master



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. To do this, open the *Audio and MIDI Settings...* from the File Menu, activate the desired inputs by clicking on them, then click OK:



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

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

Hardware

1. Choose an empty Group by selecting it with one of the Group Buttons.
2. Select an empty Sound Slot by pressing one of the Pads, let's say Pad 1, and then select the Sound Tab by pressing Button 4.
3. Press Button 5 to select its Source Tab (SRC).
4. Press and hold SHIFT, followed by BROWSE. By using Buttons 5 & 6 or Knob 5 you can select between Sampler, Input and MIDI Out.
5. Select Input and press Button 8 to confirm your selection.

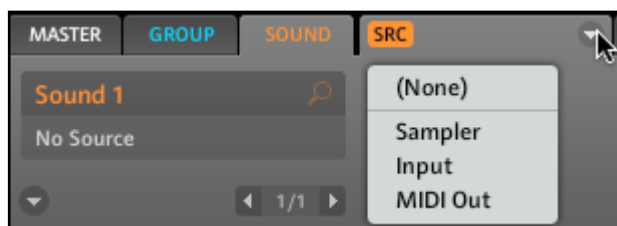


Selecting the Input Source

6. Press BROWSE again to leave the Browse mode. You can now select your external source by turning Knob 2.
7. Select one of the FX Modules: FX1 by pressing Button 6 or FX2 by pressing Button 7.
8. Press SHIFT followed by BROWSE: now you see the list of the available Effects.
9. 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

1. Choose an empty Group by selecting it in the Arranger, then choose one of the Sound Slots by clicking on it.
2. Select the Sound Tab.
3. 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 three options in the dropdown menu: *Sampler* , *Input* and *MIDI Out*. Select *Input*.



Selecting the Input Module

4. You will now see two parameters: one knob for the Level of the external input and a read-out between two arrows that let you select a Source. Select *Ext In 1* as the Source.



Selecting the Input Source: Ext In 1

5. 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 \(Software\)](#)”).



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 entry *Save...* in the dropdown menu of the FX Module containing the Effect you want to save.



The dropdown menu of the FX Module with the Save entry



This function is only available in the MASCHINE Software.



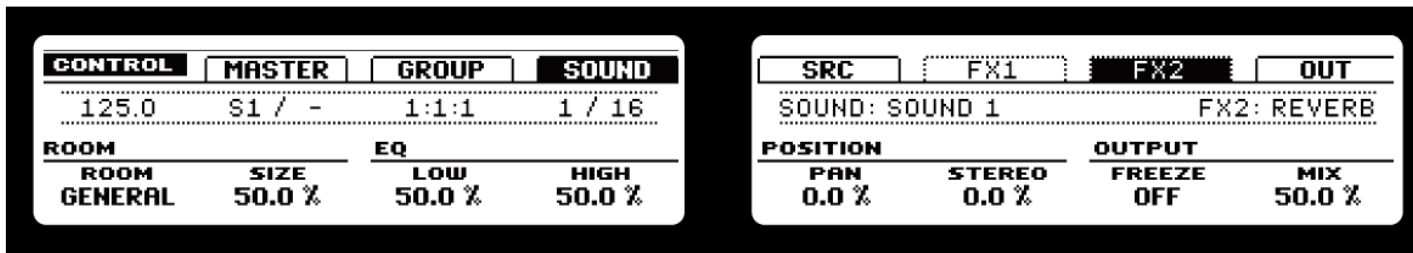
Your FX Presets are automatically included in the MASCHINE Library after saving them, so you can tag them right away!

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

1. 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).
2. Now the Right Display shows the FX Modules. To mute one of the FX, hold SHIFT and press either Button 6 (for FX1) or Button 7 (for FX2).



The Right Display with FX1 and FX2 muted

- To unmute the FX, hold SHIFT followed by the respective Button (6 or 7) again.

Software

1. 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.
2. 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.



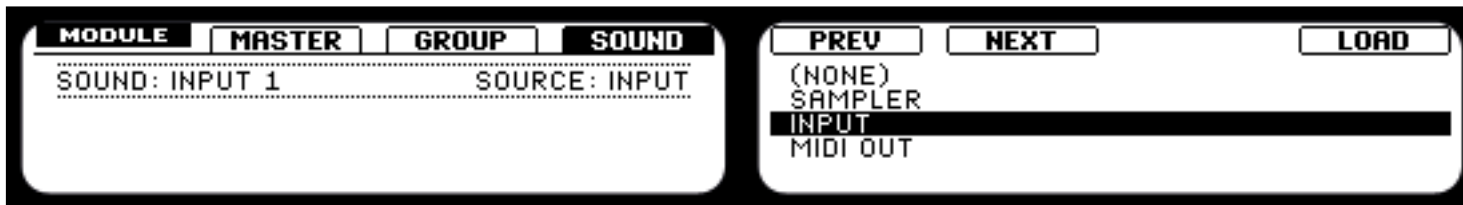
Muting the Reverb

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

1. Press CONTROL to ensure that you are in Control Mode.
2. Select an empty Group (let's say Group B) by pressing its Group Button.
3. Select an empty Sound Slot (let's say Sound 1), by pressing its Pad.
4. Press Button 5 to select the Source Tab (SRC).
5. Press SHIFT + BROWSE. By using Buttons 5 & 6 or Knob 5 you can select either Sampler, Input or MIDI Out.
6. Select Input and press Button 8 to confirm your selection.



Selecting the input source

7. Switch back to Control Mode by pressing BROWSE again or pressing CONTROL. You will notice that our Sound was automatically renamed to “Input 1”.
8. Select FX1 by pressing Button 6 or FX2 by pressing Button 7.
9. Press SHIFT + BROWSE: now you see the list of the available Effects. Select the Effect you want to use, and load it using Button 8.
10. Switch back to Control Mode by pressing BROWSE again or pressing CONTROL.
11. 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).
12. Select the Output Tab (OUT, Button 8) and turn Knob 5 to select the Aux 1 destination: in our case, select *B: INPUT 1* (which means the Sound “Input 1” from the Group B).

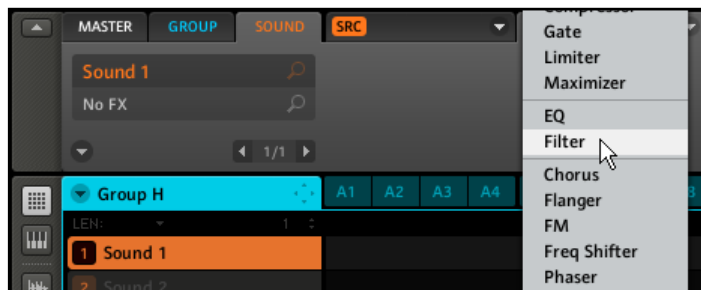
CONTROL	MASTER	GROUP	SOUND	SRC	FX1	FX2	OUT
120.0	S1 / -	1:1:1	1 / 16	SOUND: SNARE 808 1			
MAIN				AUX 1	AUX 2		
OUTPUT GROUP	LEVEL 0.0 DB	PAN 0.0 %		OUTPUT B: INPUT 1	LEVEL 0.0 DB	OUTPUT NONE	LEVEL 1/2 0.0 DB

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.

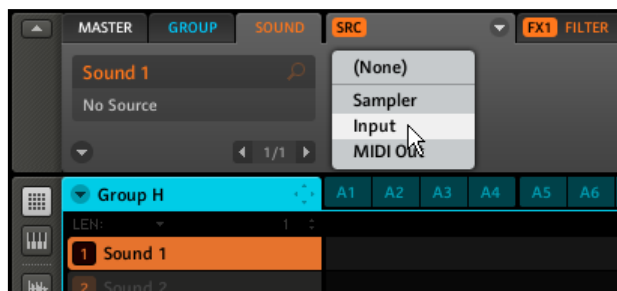
Software

1. 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 Filter

2. On the Source Tab (SRC), select *Input* and leave the Source set to *Internal*:



The SRC Input Tab



The Sound is automatically renamed to “Input 1” (if you chose the Sound 1). But you can rename the Sound further to be able to clearly 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 *H: Input 1* to send the (Snare 909) Sound to the Effect in the Sound “Input 1” of the Group H (in our example):

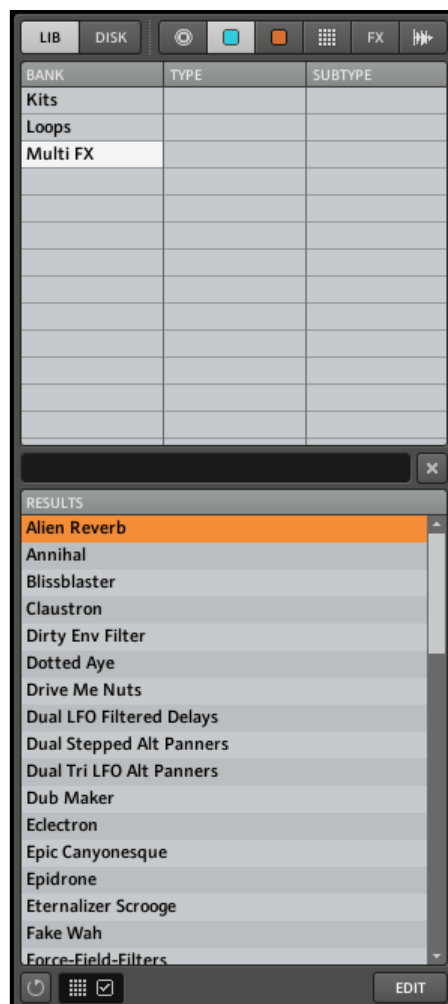


Choosing Aux1 Send

→ As you can hear, the Snare 909 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 it.

9.9 Creating a Multi Effect

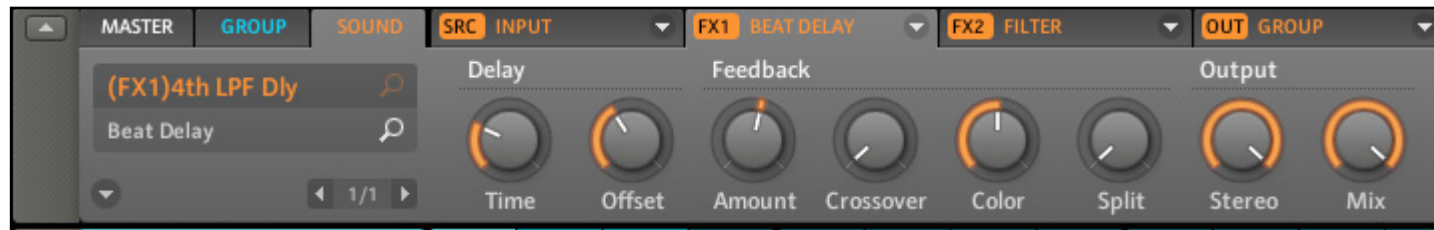
Creating a Multi Effect Group is basically the same thing as creating a Send Effect. As described in the previous chapter, you can set up two Effects for every Sound in the Group, adding up to 32 Effects per Group this way! This can be useful if you like a certain combination of Effects for your live 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(s) inserted and to give it a name that allows you to recognize it as an Effect; remember that you will be choosing this Effect from a potentially large list. 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 of 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:

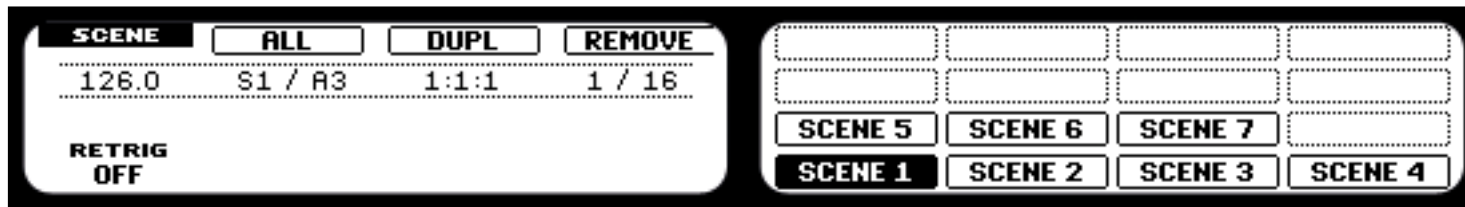


Factory Project “Deeper” in the Arranger with Scene 2 selected

10.1 Selecting a Scene

Hardware

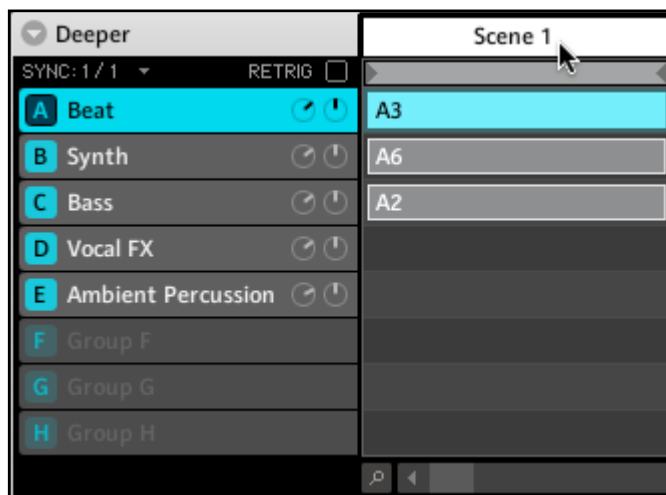
1. Enter Scene Mode by holding the SCENE. You can lock the Scene Mode by hitting Button 1 at the same time. The Right Display gives you an overview of the available Scenes, with the selected Scene highlighted.
2. Hit one of the Pads to select a Scene. To get to Scenes 17 – 64, use Buttons 6, 7 and 8. 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

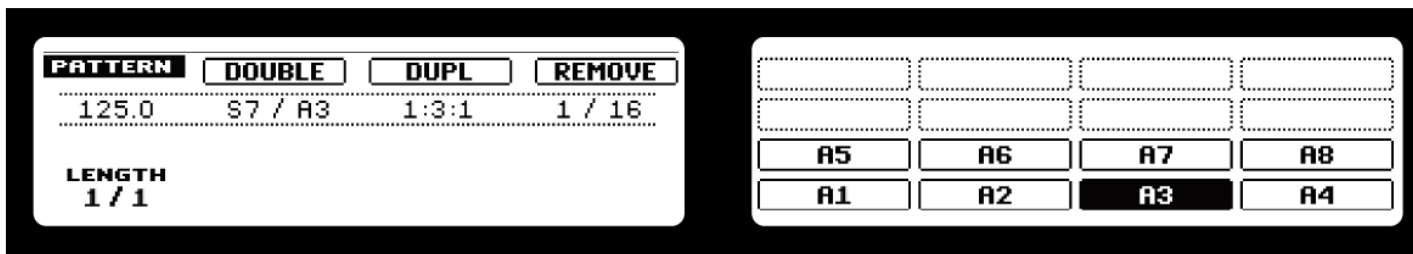
10.2 Creating and deleting a Clip in the Arranger

Each Clip placed in the Clip Area of the 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 this Scene.

Hardware

1. Enter Pattern Mode by pressing PATTERN and lock it by pressing Button 1 at the same time if you want.
2. Choose your Pattern by selecting it with the Pads.

3. 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.

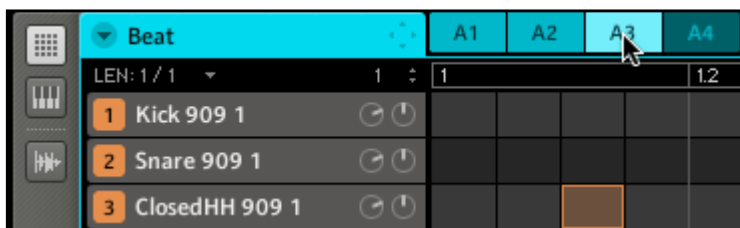


Overview of the Patterns on the Right Display

- To remove a Clip from a Scene, press Button 4 labeled “Remove.” For further information regarding the Pattern Mode, take a look at chapter 6, “[Working with Patterns \(Hardware\)](#),” and 7, “[Working with Patterns \(Software\)](#).”

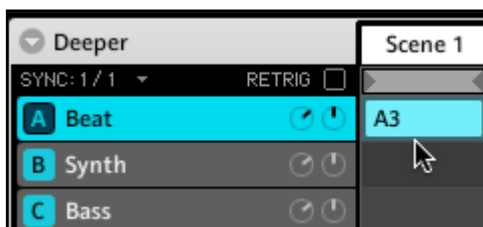
Software

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



Selecting Pattern A3

→ 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: Control-click) it.

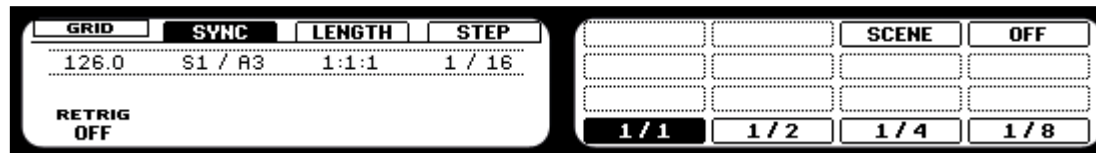


If you have a mouse that is equipped with a scroll wheel, you can also create Clips by hovering over the empty Clip Area while scrolling up or down. As you scroll, you will notice that the Patterns can be selected quickly using the scroll wheel!

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



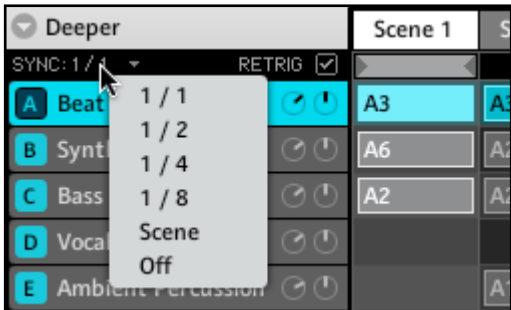
The Scene Sync on the hardware

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

RETRIGGER	If RETRIG is enabled (by 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. If RETRIG is set to OFF, 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.
-----------	---

Software

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



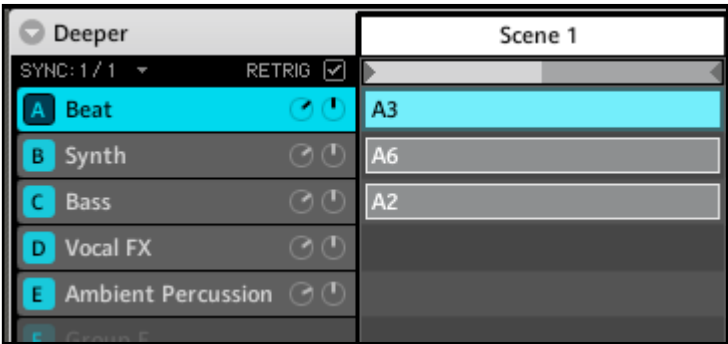
The Scene Sync on the software

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.

Software



The Scene Position Marker underneath the Scene Label

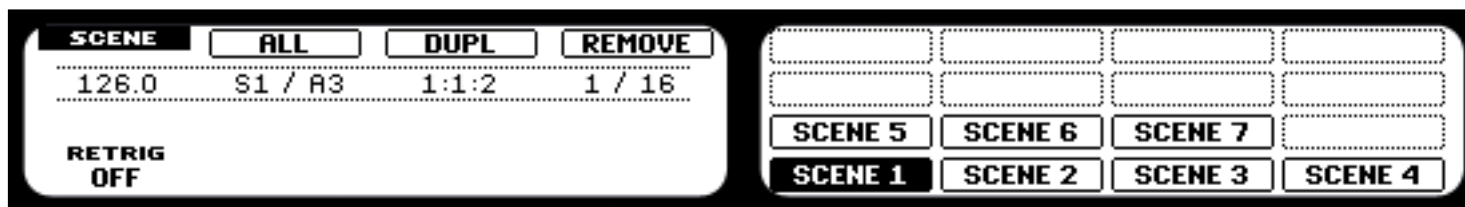
10.4 Inserting and Deleting Scenes

Hardware

1. Enter Scene mode and lock it (press SCENE and Button 1 at the same time).
2. 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).



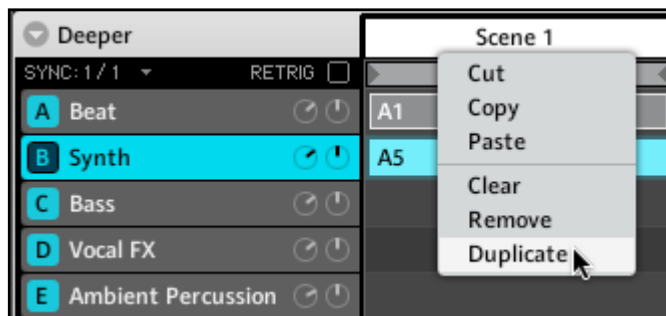
Scene View on the hardware: use Button 3 to duplicate a Scene and Button 4 to remove a Scene

Software

- Right-click (Ctrl-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*.



Scene editing menu (Software)

10.5 Copy and Paste Scenes

Hardware

- To copy a Scene to another Scene Slot, press and hold DUPLICATE. Press the Pad of the Scene you want to copy, and then the target Pad for the Scene copy.

Software

1. Right-click (Ctrl-click on the Mac) on Scene labels opens the Scene menu.
2. Select *Copy* from the Scene menu of the Scene you want to copy.
3. Select *Paste* from the Scene menu of the target Scene Slot.

10.6 Using the Loop Mode to combine scenes

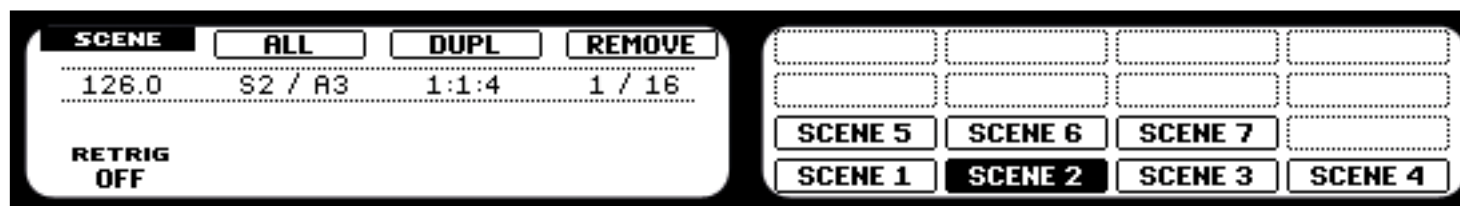
A single selected Scene is always looping automatically. The Loop Mode allows you to select several consecutive Scenes and play them one after the other in a Loop. This is useful to check if the Scenes go well together and/or if the arrangement works, but also comes in handy in a live situation.

Hardware

1. Enter Scene Mode by pressing the SCENE 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.
 2. Select the starting Scene by pressing the corresponding Pad.
 3. While holding the first Pad, press the Pad corresponding to the end Scene.
- 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 again, just select another Scene by pressing a Pad in Scene Mode.
To include all Scenes in the Loop, hit Button 2 (ALL).



The Scene View on the hardware: pressing Button 2 (ALL) creates a loop from Scene 1 to Scene 7

Software

1. 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.
2. 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.

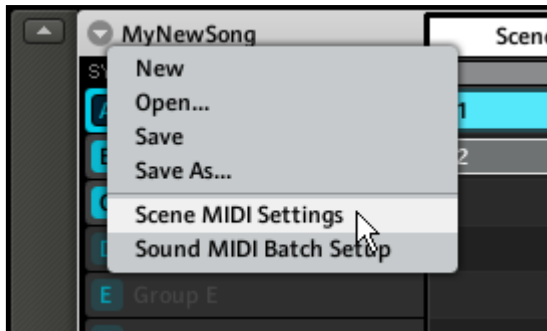
Deeper	Scene 1	Scene 2	Scene 3	Scene 4
SYNC: 1 / 1 RETRIG <input type="checkbox"/>				
A Beat	A3	A3	A2	A1
B Synth	A6	A2	A1	A2
C Bass	A2	A2	A1	A1
D Vocal FX			A1	A1
E Ambient Percussion		A1	A1	A1
F Group F				

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

10.7 Triggering Scenes via MIDI

The Scene MIDI Settings let you trigger and change Scenes using MIDI notes or MIDI Program Change messages. To access Scene MIDI Settings:

1. Click on the arrow in the Header Area of the Arranger, next to the Project's name:



Scene MIDI Settings selected in the dropdown menu

2. Choose *Scene MIDI Settings* from the dropdown menu to be presented with the Scene MIDI Settings dialog:



The Scene MIDI Settings dialog

This dialog allows you to define how you want your Scenes to be triggered via MIDI.

Status Options	
ENABLE	Click this checkbox to enable the Scene MIDI Settings.
Input Options	
MIDI NOTE	If this radio button is checked, Scenes will be controlled by incoming MIDI notes.
CHANNEL	From this dropdown menu, select the MIDI Channel the Scenes should receive MIDI notes from.
ROOT NOTE	This determines the MIDI note which triggers the first Scene. The following Scenes will be triggered by the following next higher MIDI notes.
MIDI PROGRAM CHANGE	If this radio button is checked, Scenes will be controlled by incoming MIDI Program Change messages. Program Change 1 will trigger Scene 1, and the following Scenes will be triggered by the subsequent Program Change numbers.
CHANNEL	From this dropdown menu, select the MIDI Channel the Scenes should receive MIDI Program Change messages from.

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: section 11.1.3, “Slicing a Sample (Hardware),” Software: section 11.2.3, “Slicing a Sample (Software)”) 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: section 11.1.4, “Mapping a Sample (Hardware),” Software: 11.2.4, “Mapping a Sample (Software)”), 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 (<http://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 SAMPLING 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).
INPUT	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.

SYNC	<p>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).</p> <p>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.</p>
START	<p>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.</p>
DELETE	<p>All Samples are stored in the Recording History. Using Button 6 you can delete Samples you have recorded from the Recording History.</p>
PREV	<p>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.</p>
NEXT	<p>Hitting Button 8 allows you to select the next Sample in case you have recorded more than one in this Sound Slot.</p>



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).

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. Use Knob 5 to zoom in on the waveform of the Sample and Knob 6 to navigate through it.

Page 1: Trim



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: Loop



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	Define 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: Envelope

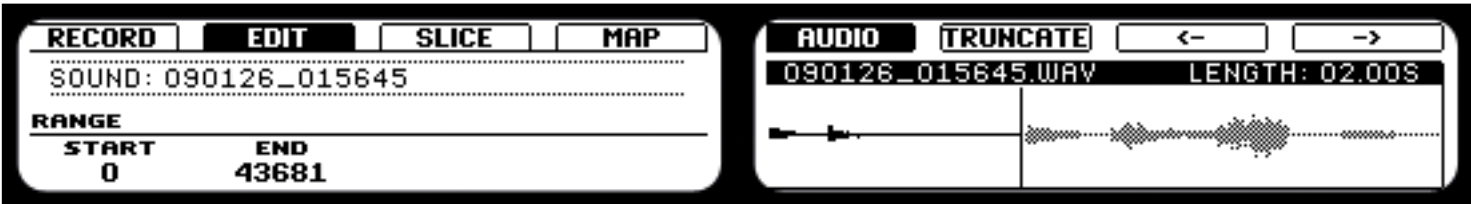


This particular amplitude envelope is mainly meant to allow you to get rid of clicks after slicing; you can either apply it to the whole Sample or to individual selected Slices.

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.

Audio Editing

Audio Editing allows you to process your Samples. Press Button 5 to enter Audio Editing:



RANGE	Using Knob 1 and Knob 2, you can select the part of the Sample that will be processed. To process the whole Sample, make sure you set the start and end point on Page 1 accordingly.
Start	Use Knob 1 to define the start point of the Sample to be processed.
End	Use Knob 2 to define the end point of the Sample to be processed.

Selecting audio processes

Use Button 7 and 8 to access the audio function you want to use. To perform the audio function on the Sample, press Button 6 after selecting it. Available functions are:

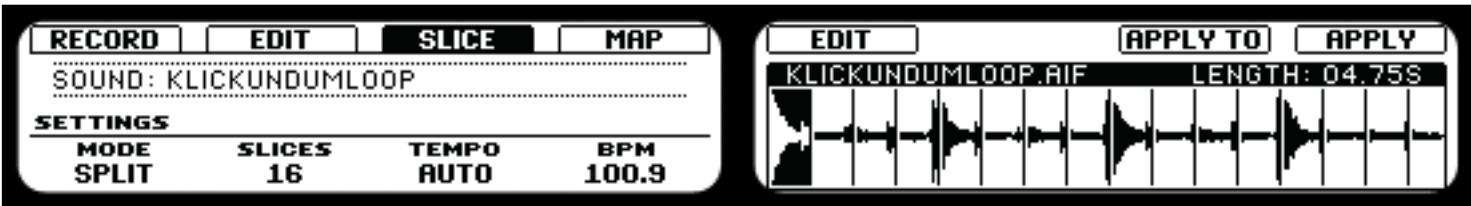
TRUNCATE	This causes the part of the Sample that is outside of the range to be deleted.
NORMALIZE	This increases the volume of the selected Sample to the maximum possible value without inducing distortion.
REVERSE	This reverses the Sample.
FADE IN	This creates a Fade In to the Sample.
FADE OUT	This creates a Fade Out of the audio file.
DC FIX	This removes the DC offset which may cause audible clicks in the beginning or the end of the Sample.
SILENCE	This silences the selected part of the Sample.
CUT	This causes the part of the Sample that is inside of the range to be deleted.
COPY	This copies the selected Sample.
PASTE	This pastes the selected Sample.
DUPLICATE	This duplicates the selected Sample.

11.1.3 Slicing a Sample (Hardware)

Hit SAMPLING 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.



Use Knob 5 and 6 to navigate and zoom the Slices!



The Slice Tab on the hardware

MODE	Using Knob 1, you can select either <i>Split</i> , <i>Grid</i> or <i>Detect</i> here.
Split Mode	In Split Mode, the Sample will be sliced into equally spread Slices.
SLICES	Here you can choose how many slices you want the Sample to be split into: 4, 8, 16 or 32.
TEMPO	Determines the tempo of the Sample: available options are <i>Auto</i> and <i>Manual</i> .
BPM	Shows the BPM based on the Tempo settings above; if Manual is selected, you can dial in a BPM value using Knob 4; if Auto is selected, you can choose from multiples of the Tempo calculated by MASCHINE.
Grid Mode	In Grid Mode the Sample will be sliced according to musical values.
LENGTH	Select the musical value using Knob 2: available lengths are 4th, 8th16th and 32th notes.
TEMPO	Determines the tempo of the Sample: available options are Auto and Manual.

BPM	Shows the BPM based on the Tempo settings above; if Manual is selected, you can dial in a BPM value using Knob 4; if Auto is selected, you can choose from multiples of the Tempo calculated by MASCHINE.
Detect Mode	In Detect Mode, the Sample will be sliced according to its transients.
SENS	Sensitivity parameter for the transient recognition (Knob 2). Higher values will cause more Slices to be detected because more transients will be recognized, lower values will result in less slices. This parameter should be adjusted until all the musically significant slices are being detected in the Right Display.
TEMPO	Determines the tempo of the Sample: available options are Auto and Manual.
BPM	Shows the BPM based on the Tempo settings above; if Manual is selected, you can dial in a BPM value using Knob 4; if Auto is selected, you can choose from multiples of the Tempo calculated by MASCHINE.
EDIT	You can edit separate Slices using the Edit Mode. Press Button 5 to enter Edit Mode (see picture of Edit mode below).



The Edit Mode in the Slice Tab

Selection	
SLICE	Choose the Slice you want to edit by dialing Knob 1 here; the display will show you which Slice is currently selected. You can also use the Pads to select Slices starting from Pad 1.
Slice	
START	Here you can adjust the start point of a Slice using Knob 3.
END	This lets you edit the end point of a Slice using Knob 4.
RESET	Reset your Slice edits using Button 6.
ADD	Add another Slice according to the Mode settings using Button 7.
REMOVE	Remove the selected Slice using Button 8. After you have performed your Slice edits, confirm them by pressing Button 5 again to return to the Slice Tab.
APPLY TO	APPLY TO allows you to copy the selected 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.
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. 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.

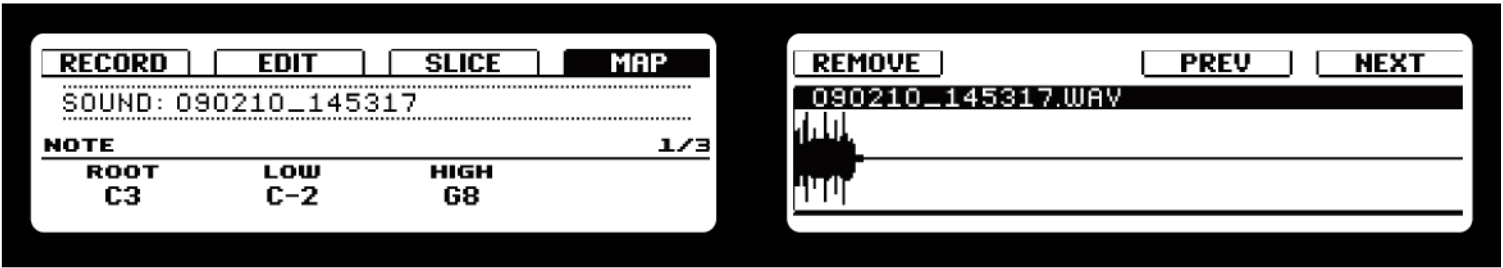
11.1.4 Mapping a Sample (Hardware)

- ▶ 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).

Adding Samples to the Map

1. To add a new Sample to the map, activate the ADD option (Button 7) on the right Browser display.
2. Select the Sample in the MASCHINE Browser.
→ A new zone will be created for the added sample.

Page 1: Note Settings



The Mapping Editor displayed on the hardware

Root	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.
Low	This is to select the low key, meaning the lowest key of the selected Zone (Knob 2).
High	This is to select the High key, meaning the highest key of the selected Zone (Knob 3).

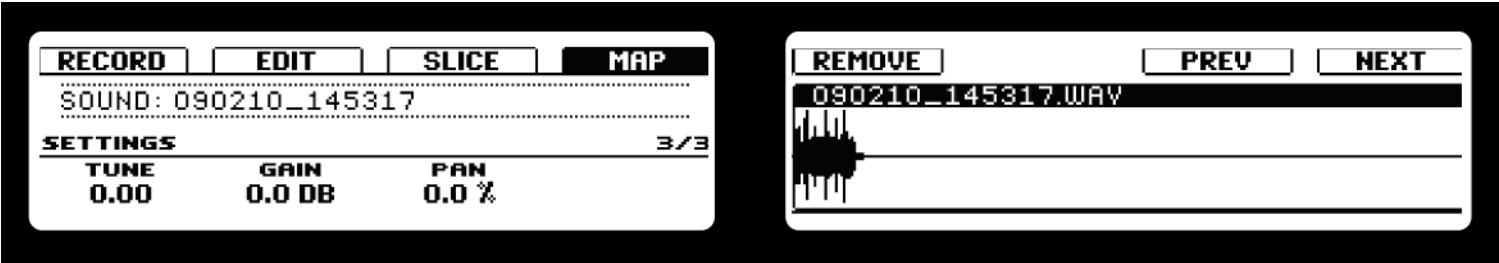
Page 2: Velocity Settings



The Velocity Range of the selected Zone displayed on the hardware

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

Page 3: Tune, Gain and Pan



Basic parameters of the selected Zone displayed on the hardware

TUNE	Tune control for the Zone (Knob 1).
GAIN	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)

1. First choose an empty Sound Slot to record into by clicking on its name.



If you choose a Sound Slot that is not empty, all Samples assigned and mapped to it will be removed.

2. Now click the SAMPLING Button right underneath the PIANO ROLL/KEYBOARD Button to open the Record Tab:



The Record Tab

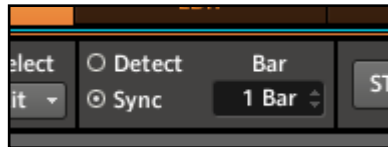
1 Source Settings

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**).

2 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

3 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.

4 Input Meter / Direct Monitoring Icon

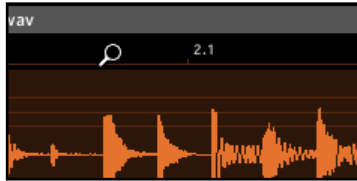
Shows the volume level of the input to be recorded; in **Detect Mode** you can drag the needle to adjust the Threshold value. Click on the **Direct Monitoring Icon** to its right to enable direct monitoring when sampling from an external source through your audio interface.

5 Info Bar

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

6 Zoom Tool

Use this to zoom in and out of the waveform by click-dragging up (zoom in) and down (zoom out). There is actually another, more intuitive way to both zoom and scroll through the waveform. Put the mouse cursor over the timeline located above the waveform: the cursor turns into a small magnifying glass:



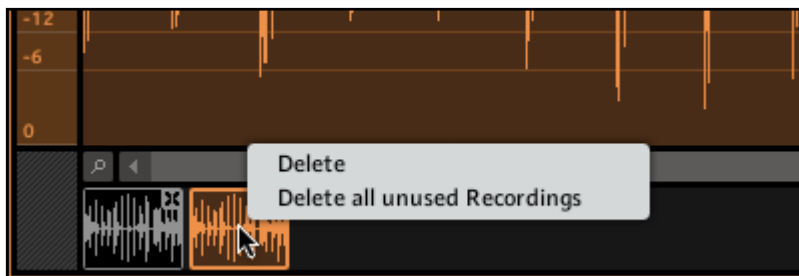
The cursor turns into a magnifying glass when hovering the timeline

Click and hold the mouse button, then drag your mouse vertically to zoom in/out and horizontally to scroll through the waveform!

7 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: Control-click) on a Sample in the Recording History, there is a dropdown menu that holds the following entries:

- *Delete*: This allows you to delete the selected recording.
- *Delete all unused Recordings*: This deletes all unused recordings.



The dropdown menu in the Recording History

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

1 Start and End of the Sample

Adjust the Start and End point 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.

2 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.

3 Info Bar

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

4 Sample Editor Menu

<i>Truncate</i>	This causes the part of the Sample that is outside of the range to be deleted.
<i>Normalize</i>	This increases the volume of the selected Sample to the maximum possible value without inducing distortion.
<i>Reverse</i>	This reverses the Sample.
<i>Fade In</i>	This creates a Fade In to the Sample.
<i>Fade Out</i>	This creates a Fade Out of the audio file.
<i>DC Fix</i>	This removes the DC offset which may cause audible clicks in the beginning or the end of the Sample.
<i>Silence</i>	This silences the selected part of the Sample.
<i>Cut</i>	This causes the part of the Sample that is inside of the range to be deleted.
<i>Copy</i>	This copies the selected Sample.
<i>Paste</i>	This pastes the selected Sample.
<i>Duplicate</i>	This duplicates the selected Sample.
<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.

5 Timeline

Shows the length of the Sample either in bars (when Sync Mode is selected) or seconds (when Detect Mode is selected). When you put the mouse cursor over the timeline, the cursor turns into a small magnifying glass: drag your mouse horizontally for scrolling through the waveform and vertically to zoom in/out.

6 Zoom Tool

Use this to zoom in and out of the Sample by click-dragging up (zoom in) and down (zoom out). You can also use the timeline (see above).

7 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. You can select and listen to individual Slices by clicking on their waveform.



The Slice Tab on MASCHINE software

1 Mode and Slices Settings

MODE	Here you can select either <i>Split</i> , <i>Grid</i> or <i>Detect</i> . In Split mode, the Sample will be sliced into equally spread Slices. In Grid Mode the Sample will be sliced according to musical values. In Detect mode, the Sample will be sliced according to its transients.
SLICES	Depending on the Mode selection you have made, you can adjust the following here:
	In Split mode: Choose the amount of Slices: 4, 8, 16 or 32.
	In Grid mode: Choose the musical value : 4th, 8th, 16th or 32th notes.
	In Detect mode: Adjust the Sensitivity of the transient detection here. Higher values will cause more Slices to be detected because more transients will be recognized, lower values will result in less slices. This parameter should be adjusted until all the musically significant slices are being detected in the waveform.

2 BPM Settings

AUTO	If this radio button is selected, MASCHINE will calculate the tempo automatically.
MAN	If this radio button is selected, you can enter the tempo in BPM manually.
BPM	If you have selected Auto, you can choose between the tempo that MASCHINE detected, or half or double of that tempo.

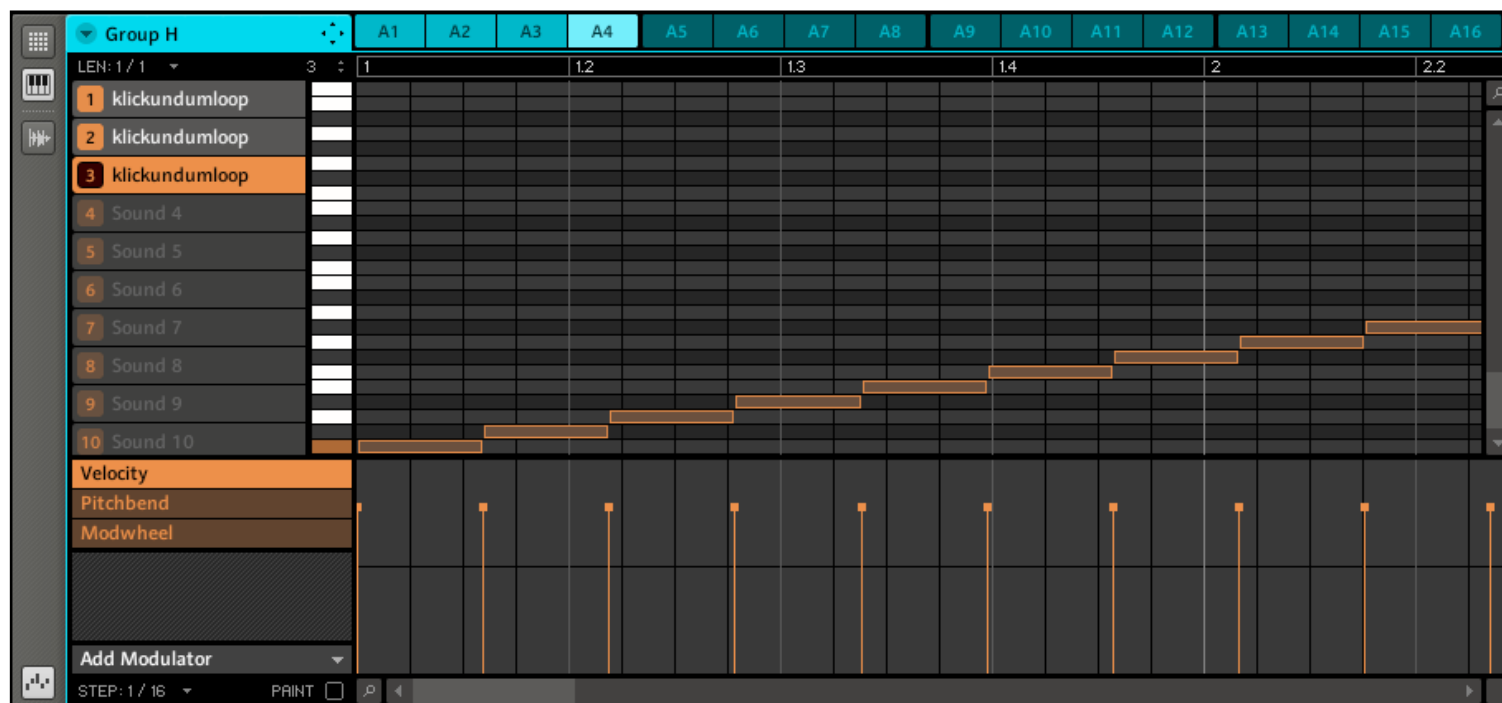
3 Add and Remove

ADD	This allows you to add a Slice according to the current selection and the Mode and Slices Settings.
REMOVE	Here you can remove the currently selected Slice.

4 Apply and Loop Dragger

APPLY	Hitting this Button applies 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:



The notes representing the Slices of a Loop



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

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.

<p>LOOP DRAGGER</p>	<p>The LOOP DRAGGER allows you to drag the Loop to another Sound or another Group. 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.</p>
---------------------	--

5 File Name

Displays the file name of the currently edited Sample and allows you to listen to the selected Slice by clicking on the loudspeaker icon.

6 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.
<i>Save As</i>	Allows you to save the Sample.

7 Timeline

Shows the length of the Sample in seconds. When you put the mouse cursor over the timeline, the cursor turns into a small magnifying glass: drag your mouse horizontally for scrolling through the waveform and vertically to zoom in/out (useful when editing individual Slices).

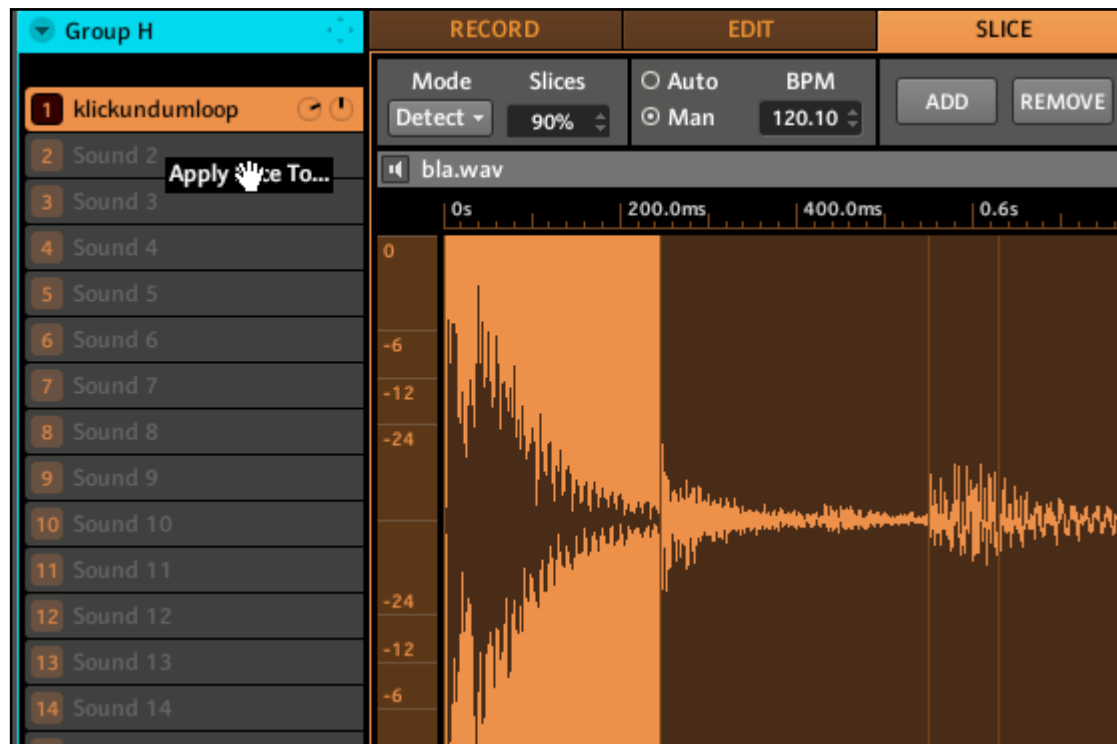
8 Waveform Display

Here you can adjust individual Slices by dragging their borders:



Dragging the border of a Slice adjusting its end point

To copy a Slice to another Sound, simply click and drag it:



Dragging an individual Slice to another Sound

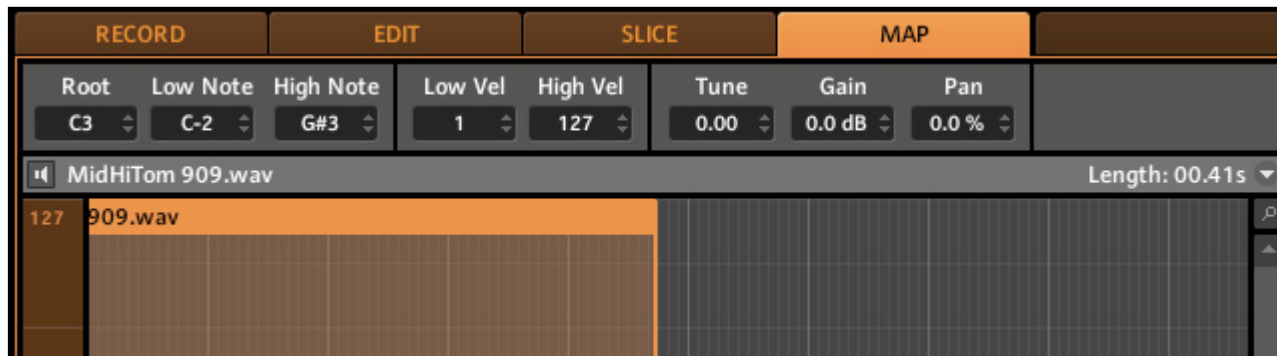
9 Zoom Tool

Use this to zoom in and out of the Sample by click-dragging up (zoom in) and down (zoom out). You can also use the timeline (see above).

11.2.4 Mapping a Sample (Software)

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

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



Opening the Mapping Tab in the software

2. 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.
3. 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. To listen to the Sample of a selected Zone click on the speaker icon left to its name.



Several Zones in the Mapping Tab

Mapping Tab: Controls

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 Too	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)

12.1.1 Page 1: Master Mixer



The Master Mixer on the hardware



The Master Mixer on the software

Level	
LEVEL KNOBS A-H	These knobs allow you to adjust the volume level of each Group. If you adjusted it already in the Group Out Tab, this will be represented here.

12.1.2 Page 2: Group Panning



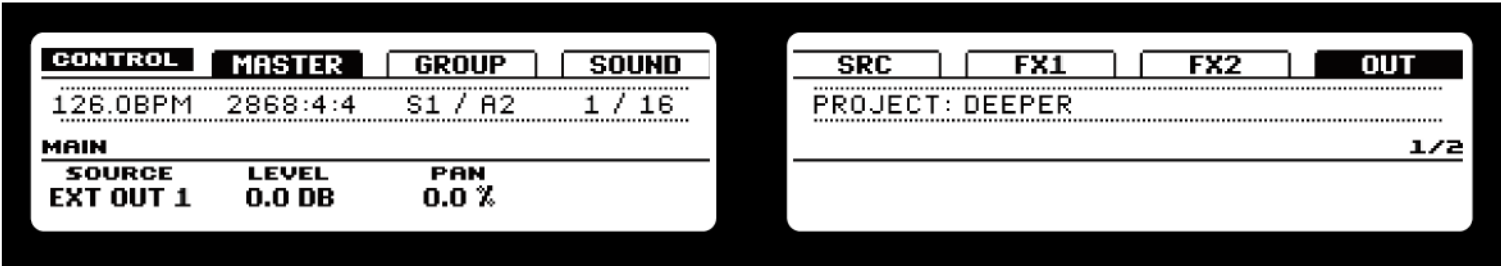
The Group Panning on the hardware



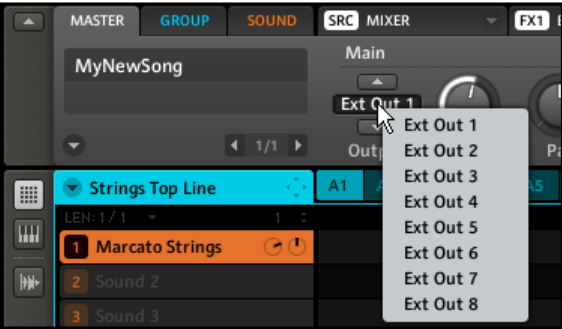
The Group Panning on the software

Pan	
PAN KNOBS 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 Output Tab (OUT)



The Master Output Tab on the hardware



The Master Output 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

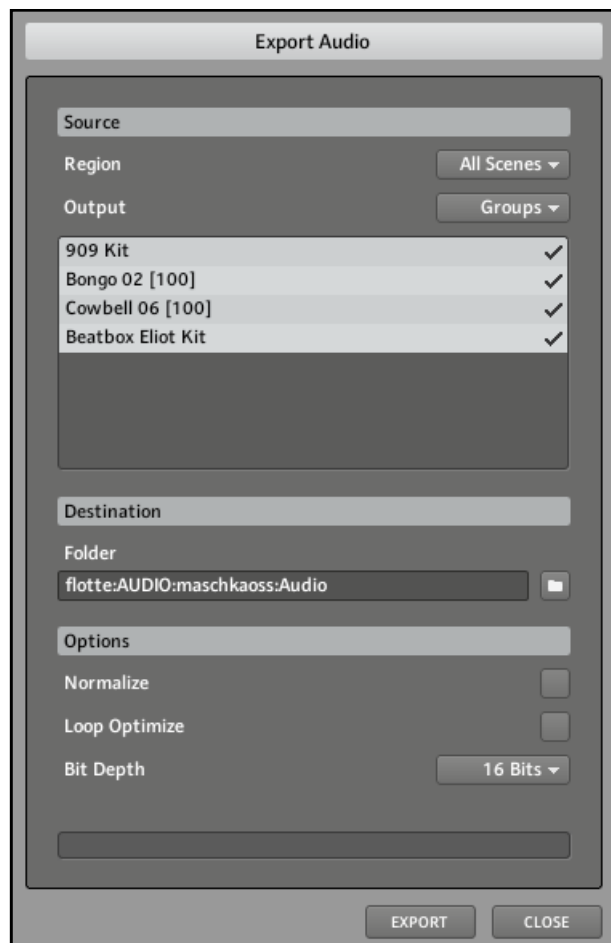


The Export function is only available in the Software!

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.

13.1 Export Audio

Choose *Export Audio* from the FILE MENU and you will be presented with the following dialog:



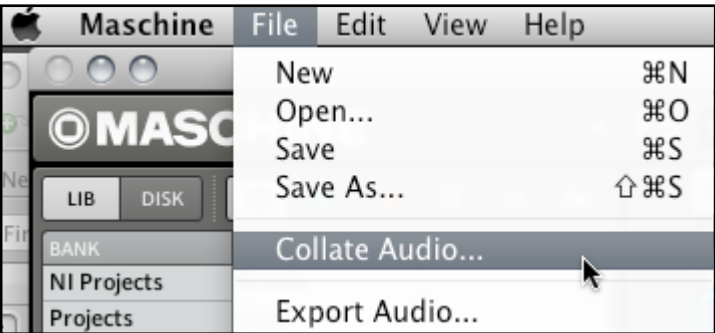
The Export Audio window

Source	
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:
	<i>Master:</i> The Master Signal containing all Groups and Sounds and their FX in one audio file.
	<i>Groups:</i> 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.
	<i>Sounds:</i> 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.
Destination	
FOLDER	This allows you to choose a folder on your harddrive where you want to save the exported audio file.
Options	
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 drummachines), 16 Bit (this is the bit depth of CDs) and 24 Bit (the highest available bit depth in MASCHINE, best for Mastering).

13.2 Collate Audio

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

Choose *Collate Audio...* from the File menu:



Choosing *Collate Audio...* from the File menu

You will be presented with the Collate Audio dialog:



The Collate Audio dialog

FOLDER	You can choose a folder to save the files to clicking on the folder icon.
DELETE UNUSED FILES	This checkbox allows you to delete unused files, thereby minimising the amount of audio data.
PROGRESS	The Progress Bar shows you the progress of the Collate Audio process.

14 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.

14.1 Basic Sequencer Controls

Play/Stop	Press PLAY.
Activate Record	Press REC.
Replace Events	Press and hold REC and ERASE (REPLACE) to replace Events with new Events.
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.

14.2 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 87. Press BROWSE to exit Browse Mode
Saving a Project	Press SHIFT and SNAP (F1)

14.3 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	In Scene Mode, press and hold DUPLICATE, tap the Pad of the Scene you want to copy, then tap the Pad where you want to paste the Scene.
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>

14.4 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	In Pattern Mode, press and hold DUPLICATE, tap the Pad of the Pattern you want to copy, then tap the Pad where you want to paste the Pattern.
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>

14.5 Basic Editing

Select the Step Grid	Press and hold GRID, then Button 4.
Change Grid Value	Press and hold GRID, then step through the values with < or > in the Transport Area. Press and hold GRID, then select a value by pressing a Pad.
Keyboard Mode	Press SHIFT and PAD MODE (KEYBOARD). Press and hold PAD MODE (KEYBOARD), 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.

14.6 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.

14.7 Sound Operations

Selecting a Sound	Press the Pads until you hear the Sound you want to select
Silently selecting a Sound	Press SELECT and the Pad of 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 Knob 2 to adjust the volume of the selected Sound.

14.8 Effects

Muting FX	<p>Press SHIFT and Button 6 to mute FX1</p> <p>Press SHIFT and Button 7 to mute FX2.</p>
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 the FX by pressing Button 8.
Reset an FX Slot	<p>Press ERASE and Button 6 to reset FX1</p> <p>Press ERASE and Button 7 to reset FX2</p>

14.9 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.

14.10 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.

14.11 Automation

Recording parameter automation	Press and hold AUTO WRITE (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.

14.12 Basic Sampling

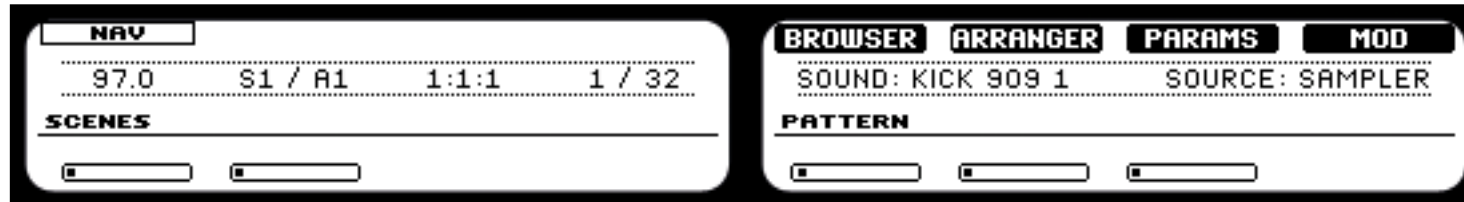
Sampling from an external Source	<ol style="list-style-type: none">1. Press SAMPLING.2. Set the Source to „Extern“ using Knob 1.3. Choose your Input Source by dialing Knob 2.4. Dial Knob 4 to set the recording threshold level.5. Press Button 5 to start the recording.
Sampling from an internal Source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

14.13 Secondary Pad Functions

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

14.14 Navigation Shortcuts on the MASCHINE Controller

If you are really “lost in the flow” you might not want to take your hands off the MASCHINE Controller. The Navigation Shortcuts enable you to zoom and navigate in the Arranger, the Pattern Editor and the Sampling View on your computer screen by using the MASCHINE Hardware. This is done by pressing the lit Pads in Navigate mode (press NAVIGATE to enter Navigate mode and Button 1 to lock it) and/or dialing the Knobs as described below.



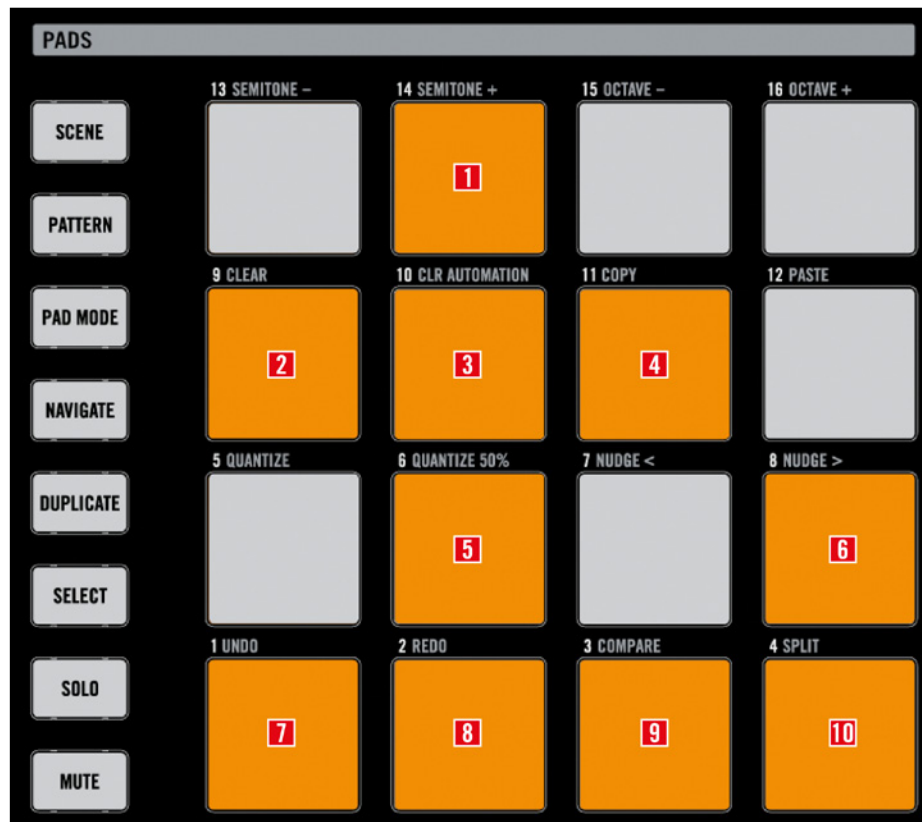
The Navigate Screen on the Hardware

Arranger Navigation

- ▶ Use Knob 1 to Zoom in and out in the Arranger.
- ▶ Use Knob 2 to navigate in the Arranger.

Pattern Editor/Sampling View/Keyboard View Navigation

- ▶ Use Knob 5 to zoom in and out in the Pattern Editor/Sampling View/Keyboard View
- ▶ Use Knob 6 to scroll horizontally in the Pattern Editor/Sampling View/Keyboard View
- ▶ Use Knob 7 to scroll vertically in the Pattern Editor/Sampling View/Keyboard View



Arranger Navigation

- 1 Pad 14: Zoom In in the Arranger
- 2 Pad 10: Zoom Out in the Arranger
- 3 Pad 9: Scroll Left in the Arranger
- 4 Pad 11: Scroll Right in the Arranger

Pattern Editor/Sampling View/Keyboard View Navigation

- 5 Pad 6: Zoom In in the Pattern Editor/Sampling View/Keyboard View
- 6 Pad 2: Zoom Out in the Pattern Editor/Sampling View/Keyboard View
- 7 Pad 1: Scroll Left in the Pattern Editor/Sampling View/Keyboard View
- 8 Pad 3: Scroll Right in the Pattern Editor/Sampling View/Keyboard View
- 9 Pad 8: Scroll up in the Pattern Editor/Sampling View/Keyboard View
- 10 Pad 4: Scroll down in the Pattern Editor/Sampling View/Keyboard View

14.15 Other Shortcuts on the MASCHINE Controller

Adjusting the Metronome volume

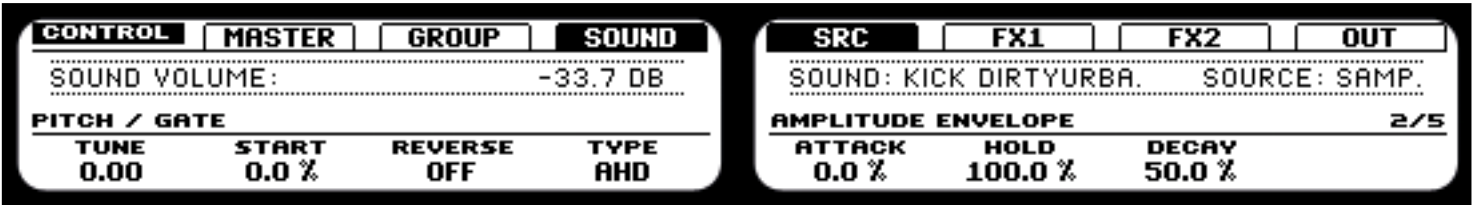
To adjust the Metronome volume, press and hold SHIFT + PLAY on the MASCHINE Controller and dial the VOLUME Master Encoder.

Activating Count-In

To activate a Count-In of one bar length, press SHIFT + RECORD on the MASCHINE Controller.

Sound Volume Shortcut

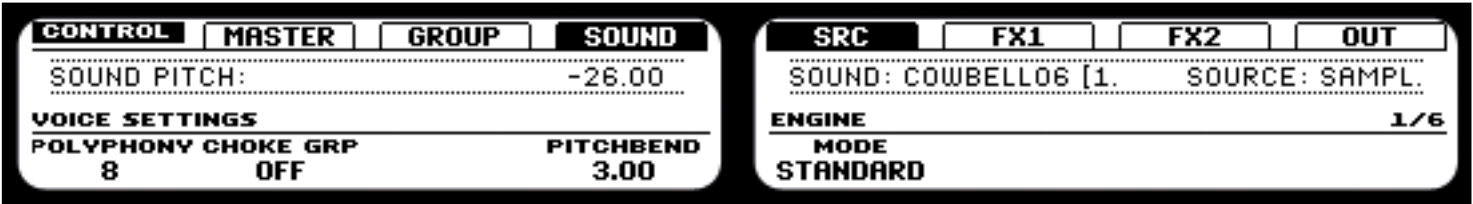
To adjust the volume of a selected Sound, press the corresponding Pad and dial the VOLUME Master Encoder. The Left Display will show a temporary level meter for the volume of the Sound.



Temporary level meter for a Sound

Sound Pitch Shortcut

To adjust the pitch of a selected Sound, press the corresponding Pad and dial the TEMPO Master Encoder. The Left Display will show a temporary indicator for the pitch of the Sound.



Temporary pitch indicator for a Sound

Group Volume Shortcut

To adjust the volume of a Group, hold the respective Group Button and dial the VOLUME Master Encoder. The Left Display will show a temporary level meter displaying the volume of the Group.



Temporary level meter for a Group

Group Pitch Shortcut

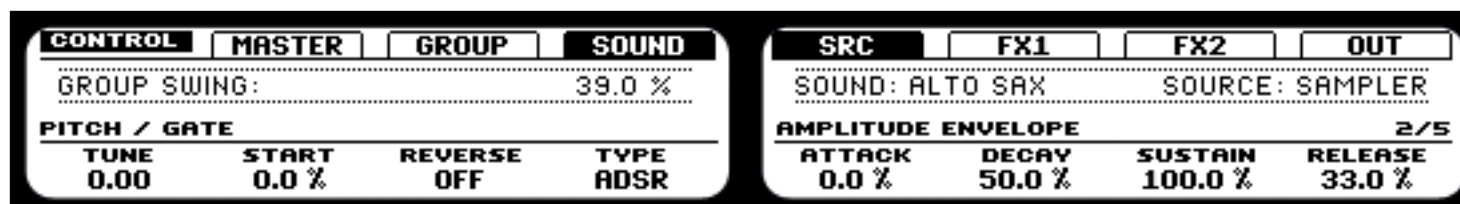
To adjust the pitch of a Group, hold the respective Group Button and dial the TEMPO Master Encoder. The Left Display will show a temporary indicator for the pitch of the Group.



Temporary pitch indicator for a Group

Group Swing Shortcut

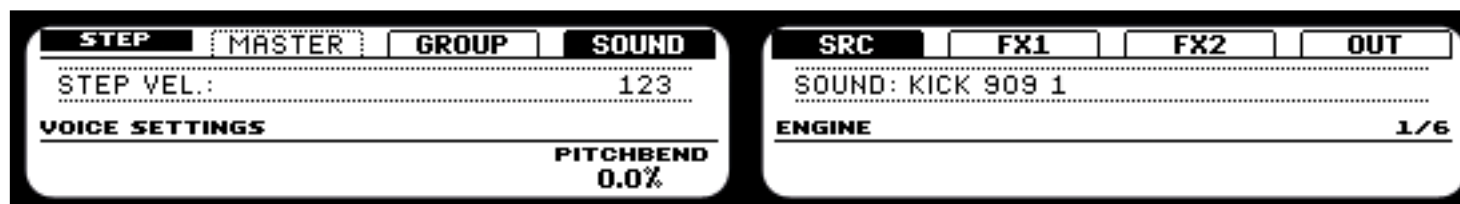
To adjust the Swing of a Group, hold the respective Group Button and dial the SWING Master Encoder. The Left Display will show a temporary meter displaying the Swing value of the Group.



Temporary meter for the Group Swing

Step Velocity Shortcut in the Step Sequencer

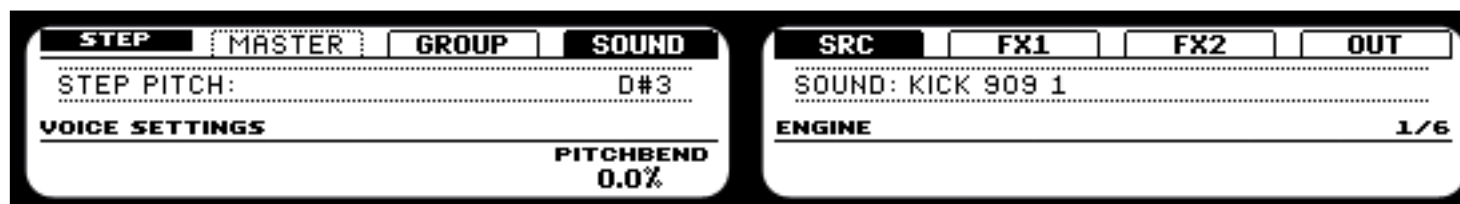
To adjust the Velocity of a Step in the Step Sequencer, hold the corresponding Pad and dial the VOLUME Master Encoder. The Left Display will show a temporary meter displaying the Velocity value of the Step.



Temporary meter for the Step Velocity

Step Pitch Shortcut in the Step Sequencer

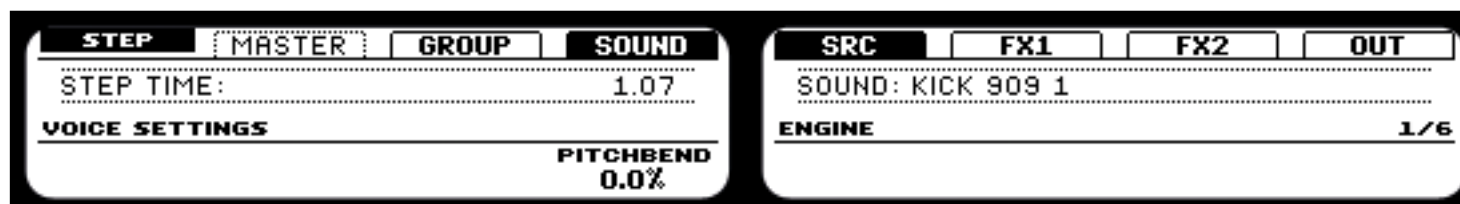
To adjust the Pitch of a Step in the Step Sequencer in semitones, hold the corresponding Pad and dial the TEMPO Master Encoder. The Left Display will show a temporary meter displaying the Note value of the Step.



Temporary meter for the StepNote value

Step Time Shortcut In The Step Sequencer

To adjust the Timing of a Step in the Step Sequencer, hold the corresponding Pad and dial the SWING Master Encoder. The Left Display will show a temporary meter displaying the new position of the Step.



Temporary meter for the Step position

15 Appendix B: Keyboard Shortcuts

15.1 Views

Key	Function
F5	Full Screen Mode
F6	Drum Grid View
F7	Piano Roll View
F8	Sampling View
F9	Browser
F10	Arranger
F11	Middle area
F12	Automation

15.2 Navigation



The Navigation shortcuts only work outside of MASCHINE’s Browser.

Key	Function
Page Up	Prev Group
Page Down	Next Group
Numeric -	Prev Pattern
Numeric +	Next Pattern
Numeric /	Prev Pattern Bank
Numeric *	Next Pattern Bank
Left / right	Select Scene
Up / down	Select Group

15.3 Editing

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	Quantize
Shift + Q	Quantize 50%
Ctrl/Cmd+D	Duplicate Pattern Function (as on HW)
Alt+Left	Nudge Left
Alt+Right	Nudge Right
P	Paint Mode on/off
Del	delete events
Ctrl/Cmd + Z	Undo
Ctrl/Cmd + D	Duplicate Pattern function (as on HW)
Ctrl/Cmd + left/right	Move Scene

15.4 Transport

Key	Function
Space	start/stop sequencer
Ctrl/Alt+Space	Start Sequencer from Scene Loop Start

16 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.

16.1 Preparations

16.1.1 Focus on the Hardware

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

16.1.2 Customize the Pads of the Hardware

Take your time to setup the Pad Sensitivity and Velocity Scaling to your personal taste (see section 2.4.5, “[Preferences – Hardware Tab](#),” to learn how to do that)—you will have even more fun playing MASCHINE.

16.1.3 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.

16.1.4 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.

16.1.5 Consider using a Limiter on your Master

This sounds rather conservative, but if you want to avoid digital distortion caused by an overload of your 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!

16.1.6 Hook up your other gear and sync it with MIDI clock

If you have other gear such as a drum machine, a synthesizer or another sequencer that is able to send MIDI Clock, hook it up to the MASCHINE Controller's MIDI In and activate Sync to External MIDI Clock from MASCHINE's File menu so that they can play together in sync. MASCHINE can also receive MIDI Clock via an internal MIDI port, so you can synchronize it with a MIDI Master. Furthermore, you can let MASCHINE send the MIDI Clock signal (see section 2.6, "[Connecting External MIDI Equipment](#)," for more info on these). Make sure to also setup your Sync Offset correctly (see chapter 2.4.1, "[Preferences – General Tab](#)") so that all your machines and MASCHINE are tightly synchronized.

16.1.7 Improvise

It is nice if a live set is working out exactly the way you planned it, but sometimes, this can get boring for you as well as for the audience. Something unexpected or even plain mistakes can be the key for inspiring tracks and performances as well as just jamming around with your Sounds and Samples.

16.2 Basic Techniques

16.2.1 Use Mute & Solo

Mute and Solo are 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.

16.2.2 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.

16.2.3 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.

16.2.4 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.

16.2.5 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 of 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.

16.3 Special Tricks

16.3.1 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 6.1.10, “[Step Grid, Pattern Length Grid and Quantization](#)”) using Button 1 to create variations of a Pattern. If you select an even higher value like $\frac{1}{64}$ th you can create stuttering breaks and rolls.

16.3.2 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.

16.3.3 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.

17 Index

A

Activation [20](#)

Arranger [24](#), [25](#)

minimizing [34](#)

Arranger Timeline [25](#)

Audio

exporting [213](#)

Audio and MIDI Settings

Audio [45](#)

MIDI [48](#)

Routing [47](#)

Audio driver

selecting [46](#)

Audio Engine Button [25](#)

Audio inputs

selecting [47](#)

Audio outputs

selecting [47](#)

Audio Source

Internal [171](#)

Audition Controls [26](#), [52](#)

Automation (Hardware)

recording [112](#)

recording in Step Sequencer [113](#)

Automation (Software)

drawing with mouse [127](#)

Automation View [35](#)

AUTO WRITE Button [112](#)

Aux [170](#), [171](#), [172](#)

Aux Sends [75](#)

B

Bitrate

Bitratereducing [156](#)

Browser [24](#)

in-depth [51](#)

introduction [30](#)

loading files [217](#)

on the Hardware [62](#)

showing and hiding [33](#)

Browser Button [25](#)

Browser Mode

selecting [52](#)

C

Clip [176](#)

Clip Area [25](#)

Connect Button [25](#)

connecting Controller [21](#)

Control Area [24](#), [27](#)

Controller [18](#), [19](#), [21](#), [234](#)

connecting [21](#)

driver installation [19](#)

CPU Meter [25](#)

CPU power [233](#)

Crossfade

setting [199](#)

D

Display Area [25](#)

Distortion

avoiding [234](#)

digital [156](#)

E

Effects [134](#)

applying to a Sound [159](#)

Delay FX [151](#)

Distortion FX [155](#)

Dynamics FX [135](#)

Filter FX [138](#)

Modulation FX [141](#)

Modules [167](#)

Spatial and Reverb FX [147](#)

using [158](#)

Equalizer [140](#)

Event

selecting using MASCHINE Controller [219](#)

Exporting Audio [213](#)

External Sync [50](#)

F

F2 Button [112](#)

File Browser

Overview [26](#)

File Type

selecting in Browser [52](#)

File Type Selector [26](#), [51](#)

Filter

selecting mode [71](#)

types [71](#)

Frequencies

boosting [140](#)

cutting [140](#)

Frequency Shifter [145](#)

FX [27](#), [134](#)

applying to a Group [160](#)

applying to external instruments [165](#)

applying to Master Channel [163](#)

Beat Delay [151](#)

Chorus [141](#)

Compressor [135](#)
creating multi effect [173](#)
creating send effect [170](#)
Distortion [155](#)
EQ [140](#)
Filter [138](#)
Flanger [142](#)
FM [143](#)
Grain Delay [152](#)
Ice [147](#)
Limiter [137](#)
loading [158](#)
loading using MASCHINE Controller [220](#)
Lofi [156](#)
Maximizer [137](#)
Metaverb [148](#)
muting [169](#)
muting using MASCHINE Controller [221](#)
Phaser [146](#)
recording automation [167](#)
Resochord [154](#)
Saturator [157](#)
FX automation
recording using MASCHINE Controller [221](#)

G

GRID Button [113](#)

Grids (Software) [128](#)
Grid Value
changing [219](#)
Group [80, 81](#)
adjusting volume using MASCHINE Controller [219](#)
loading using MASCHINE Controller [219, 220](#)
Multieffect [236](#)
muting [83](#)
muting using MASCHINE Controller [221](#)
naming [234](#)
soloing [82](#)
soloing using MASCHINE Controller [221](#)
Group Button [81, 160](#)
Group Buttons [165, 169](#)
Group icon [82](#)
Group Out
Parameters [95](#)
Groups
Copying and pasting [98](#)
Introduction [31](#)
saving [97](#)
Voice Settings [90](#)
working with [90](#)
Group Slot [25](#)
Group Tab [27, 160, 162](#)

H

Header [24](#)

I

Input [171](#), [197](#)

Input Module [167](#)

Input Tab [171](#)

Installation

Mac OS® X [19](#)

Windows® [18](#)

K

Kensington Lock [21](#)

L

Latency

setting [46](#)

LFO [138](#), [142](#), [146](#)

Library [18](#), [20](#)

installing [18](#)

Limiter [234](#)

lock [181](#)

Loop Mode

looping to combine scenes [181](#)

M

Macro Controls

assigning parameters to [92](#)

Manual Update [15](#)

Mapping Samples [207](#)

Mapping Tab [29](#), [194](#), [207](#)

MASCHINE Controller

Interface elements [22](#)

MASCHINE Controllersecuring [21](#)

Master

Introduction [31](#)

using Effects [234](#)

Master Output [186](#)

Master Section [210](#)

Output [212](#)

Source [210](#)

Master Tab [27](#), [163](#), [164](#)

Menu Button [25](#)

Metronome [108](#)

MIDI [13](#)

compensating delay [48](#)

connecting external equipment [49](#)

keyboard [111](#)

synchronizing [234](#)

triggering Scenes via [183](#)

MIDI clock [234](#)

MIDI Sync [234](#)

Missing samples

locating 55

Modes

Stand Alone and Plug-in 37

Switching 37

Modifier Buttons 23

Modulation Lane

hide 35

Multieffect 236

Mute 235

lock 81

unlock 81

MUTE (Controller) 81

Mute Mode

locking using MASCHINE Controller 221

N

Naming

Groups and Sounds 99

NI Logo 25

Note Repeat 110, 235

activating using MASCHINE Controller 216

note snap 113

O

OUT 75

Output Tab 27

own Samples 56

P

Pad icon 82

Pads

recording 108

Page 27

Page Selector 27

Parameter automation

recording using MASCHINE Controller 221

Parameter Page

hiding 34

Parameter Pages

navigating 35

Pattern

loading using MASCHINE Controller 218

Pattern Banks

switching and selecting using MASCHINE Controller
217, 218

Pattern Editor 24, 28

Pattern Mode 176

locking 176, 218

Patterns

Introduction 31

switching and selecting using MASCHINE Controller
218, 220

Patterns (Hardware)

adjusting length 106

creating 105
doubling 106
duplicating 106
editing 113
removing 106
selecting 105

Patterns (Software)

adjusting length 129
editing 121
saving 120
working with 118

Piano Roll 111, 203

Piano Roll (Hardware) 111

Pitch

Groups 91

Pitch scale 111

Play Mode Controls 25

Preferences 38

Defaults 41

General 39

Hardware 44

Libraries 43

User Paths 42

Pre-Listening 61

Projects

Introduction 30

Q

Quantization (Hardware)

quantizing after recording 114

quantizing while playing 115

Quantization (Software) 130

Quick Browse 60

Quick Browse Area 27

Quick Reference 216

Automation 221

Basic Sequencer Controls 216

Loading 217

Mixing, Basic 219

Muting 221

Patterns and Scenes 217, 218, 220

Sampling 222

Secondary Pad Functions 223

Selecting 219, 220

Soloing 221

R

Recording

from internal sources 197

Recording History 198

Record Tab 197

Redo 36

REX files

importing to Sounds 83

Root Note

setting 208

S

Safety 16

Sample

importing into Library 58

Sample Rate

reducing 156

selecting 46

Sampler Parameters

in the Output Tab 75

in the Source Tab 65

Sampling 185

from external source using MASCHINE Controller
222

from internal source using MASCHINE Controller
222

internal 185

Sampling Area 29

Sampling (Hardware) 186

editing a Sample 188

mapping a Sample 194

recording a Sample 186

slicing a Sample 191

Sampling Mode 186

Sampling (Software) 196

editing a Sample 199

slicing a Sample 201

Saving

Groups 97

Scene 175, 181

duplicating 181

inserting 180

selecting 175

synchronizing Scenes 178

SCENE Button 175, 181

Scene Column 177

Scene Loop

setting using MASCHINE Controller 217, 220

Scene MIDI Settings 183

Scene mode 180

Scene Mode 181

Scenes

Introduction 31

switching and selecting using MASCHINE Controller
217, 218

Search 26, 52

Service Center 15, 20

Slice Tab 191

Slicing 185

Software Interface

Overview 24

Solo 235

locking 80

Sound 82

SOLO (Controller) 80

Soloing 82

Solo Mode

locking using MASCHINE Controller 221

Song

creating 175

Sound 80

muting using MASCHINE Controller 221

selecting using MASCHINE Controller 220

soloing using MASCHINE Controller 221

soundcard 234

Sounds

Amplitude Envelope 68

copying and pasting 78

FX 70

Introduction 30

muting and soloing 80

Pitch/Gate 68

resetting 79

saving 77

Velocity Destination 74

Voice Settings 67

working with 64

Sound Source 170

Sound Tab 27, 166

Source 27, 166, 186

External 186

Internal 186

selecting 64

Source Tab 171

Source Tab (SRC)

Sound 64

SRC 65

Step Grid (Hardware) 113

changing quantization 113

default setting 113

Step Sequencer (Hardware) 108

Step Sequencer Mode

entering using MASCHINE Controller 219

Swing 91

T

Tag Editor 26, 52

Tag Filter 26, 51

using 53

Tagging 59

Tags

adding 59

deleting 60

editing 60

Text Search

using in Browser 54

Text Search Field 26, 52

Threshold 136, 137, 186

Transport Controls 25

Transpose (Hardware)

transposing 117

transposing by octaves 117

transposing by semitones 117

U

Undo 36

Update 176

USB 19, 21

User interface

showing and hiding 32

using 219

V

Velocity

fixed 106

View

switching 32

Views

switching by keyboard shortcut 229

Volume 25, 157