

© MASCHINE



Getting Started



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.

“Native Instruments”, “NI” and associated logos are (registered) trademarks of Native Instruments GmbH.

Mac, Mac OS, GarageBand, Logic, iTunes and iPod are registered trademarks of Apple Inc., registered in the U.S. and other countries.

Windows, Windows Vista and DirectSound are registered trademarks of Microsoft Corporation in the United States and/or other countries.

All other trade marks are the property of their respective owners and use of them does not imply any affiliation with or endorsement by them.

Document authored by: David Gover

Document version: 1.0 (08/2011)

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. 29-30
D-10997 Berlin
Germany
www.native-instruments.de

USA

Native Instruments North America, Inc.
6725 Sunset Boulevard
5th Floor
Los Angeles, CA 90028
USA
www.native-instruments.com



© Native Instruments GmbH, 2011. All rights reserved.

Table of Contents

1	Welcome to MASCHINE!	8
1.1	The MASCHINE Documentation	9
1.1.1	Manual Conventions	9
1.1.2	Where To Start?	10
1.1.3	In This Manual	11
2	Overview	13
2.1	MASCHINE Hardware	14
2.1.1	CONTROL Section	15
2.1.2	MASTER Section	17
2.1.3	GROUPS Section	18
2.1.4	TRANSPORT Section	18
2.1.5	PADS Section	20
2.2	MASCHINE Software	22
2.2.1	The Header	23
2.2.2	The Browser	25
2.2.3	Arranger	26
2.2.4	Control Area	27
2.2.5	Pattern Editor	28
3	Overview of a MASCHINE Project	30
3.1	The Structure of a MASCHINE Project	30
3.1.1	Sound Content	31
3.1.2	Arrangement	33
3.2	Unlabeled Buttons and Knobs	36
3.3	Controller Modes and Mode Locking	36
4	Creating a Pattern	39
4.1	Finding Samples in the Browser	39

4.2	Selecting Sounds and Creating a Group	41
4.3	Creating Patterns	42
4.3.1	Adjusting Quantization using the Grid	43
4.3.2	Adjusting Pattern Length	43
4.3.3	Recording a Pattern with the Controller	45
4.3.4	Step Sequencer	46
4.3.5	Recording a Pattern with the Software	48
4.4	Creating Patterns in Keyboard Mode	48
4.5	Creating Patterns with Plug-in Instruments	50
4.5.1	Module Slots	51
4.5.2	Defining Sources for Module Slots	51
4.5.3	Loading an Instrument Plug-in	52
4.5.4	Opening and Closing Plug-in Windows	55
4.6	Mute & Solo	57
4.6.1	Hardware	57
4.6.2	Software	58
5	Using Effects & Routing	60
5.1	Available Internal Effects	60
5.1.1	Dynamics	60
5.1.2	Filtering	60
5.1.3	Modulation	61
5.1.4	Spatial and Reverb	61
5.1.5	Delay	61
5.1.6	Distortion	62
5.2	Applying Effects to a Sound	62
5.3	Applying Effects to a Group	64
5.4	Applying Effects to the Master	67
5.5	Bypassing Effects	68

5.6	Automating Effects and Sampler Parameters	70
6	The Input Module and Advanced Routing	72
6.1	Applying an Effect to an external audio source	72
6.2	Setting up a Send Effect	74
6.3	Routing Tips	77
7	Creating a Song using Scenes	79
7.1	Creating a Clip in the Arranger	79
7.2	Inserting and Deleting Scenes	81
7.3	Using the Loop Mode	82
8	Sampling	83
8.1	How to Sample	83
8.2	Editing a Sample	86
8.3	Slicing a Sample	88
8.4	Mapping Samples	91
9	Managing Projects	94
9.1	Saving Sounds, Groups, Patterns	94
9.1.1	Saving a Sound	94
9.1.2	Saving a Group	95
9.1.3	Saving a Pattern	95
9.2	Saving and Recalling Module Presets	96
9.2.1	Saving Module Presets	96
9.2.2	Recalling Module Presets	96
9.3	Exporting Audio	98
10	Tips for playing live	101
10.1	Focus on the Hardware	101
10.2	Check your CPU power before playing	101
10.3	Name your Groups and Sounds	101
10.4	Use Mute & Solo and Scenes and Patterns with the Lock function	101

10.5	Use Note Repeat	102
10.6	Set up your own Multi-effect Groups	102
10.7	Use a Limiter on your Master	102
10.8	Hook up your other gear and sync it with MIDI clock	102
11	Glossary	103

1 Welcome to MASCHINE!

Thank you for buying MASCHINE!

MASCHINE is essentially the synergy of the MASCHINE controller hardware and the MASCHINE software combining the advantages of both worlds for making music, live as well as in the studio. The intuitive, hands-on qualities of a dedicated Instrument, the MASCHINE controller, with the advanced editing features and the versatility of the MASCHINE software turn it into the creative center of your musical productions.

You can create tight rhythms, harmonies and melodies — the highly enjoyable instrument combines a pattern-based sequencer, professional sampler, multi-effect unit and VST/AU plug-in host. Everything is intuitively controllable via the fully integrated hardware — once you touch the tactile controller the fun and intuitive workflow takes over, allowing you to stay focused on your music.

Since you can integrate it in any DAW that supports VST, Audio Units or the RTAS format with multiple instances, you can profit from its abilities in almost any software setup or use it as a stand-alone application. You can sample your own material, slice loops and re-arrange them easily turning your ideas into full productions.

However, MASCHINE is a lot more than an ordinary Groovebox or Sampler: It comes with a 6 Gigabyte Library programmed and created by well known artists and a sophisticated, yet easy to use tag-based Browser to give you instant access to the sounds you are looking for. But it doesn't stop there! You can create your own sounds and samples or use MASCHINE EXPANSION packs, available from Native Instruments website to further enhance your library of sounds.

You can also control your external MIDI Hardware and Software with the MASCHINE controller and customize the functions of the pads, knobs and buttons to your needs, utilizing the Controller Editor Application.

We hope you enjoy the MASCHINE playground as much as we do. Now let's get going!

1.1 The MASCHINE Documentation

1.1.1 Manual Conventions

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



Whenever this exclamation mark icon appears, you should read the corresponding note carefully and follow the instructions and hints given there if applicable.



This light bulb icon indicates that a note contains useful extra information. This information may often help you to solve a task more efficiently, but does not necessarily apply to the set-up or operating system you are using; however, it's always worth a look.

Furthermore, the following formatting is used:

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) and paths to locations on your hard drive or other storage devices is printed in *italics*.
 - Text appearing elsewhere (labels of buttons, controls, text next to checkboxes etc.) is printed in *blue*. Whenever you see this formatting applied, you will find the same text appearing somewhere on the screen.
 - Text appearing on labels of the MASCHINE controller is printed in *orange*. Whenever you see this formatting applied, you will find the same text on the controller.
 - Important names and concepts are printed in **bold**.
 - References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Return]").
- Single instructions are introduced by this play button type arrow.
→ Results of actions are introduced by this smaller arrow.

Naming Convention

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

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

1.1.2 Where To Start?

MASCHINE provides you with many information sources. The main sources are meant to be read in the following sequence:

1. **MASCHINE Setup Guide**
2. **MASCHINE Getting Started Guide** (this document) and online **video tutorials**
3. **MASCHINE Reference Manual**
4. **MASCHINE Hardware Control Reference**

Hereafter is a quick description of each of these documentation sources.



The Setup Guide is available in printed form in the product box. The whole documentation set is also available in PDF format and located within the MASCHINE installation folder on your hard drive. You can also access these documents from the application's [Help](#) menu.

Your First Stop: the Setup Guide

A printed Setup Guide is included in the product box. It will guide you through the software and hardware installation of MASCHINE, from the very beginning to the first sound coming through your speakers. This should be your first stop in learning MASCHINE.

First read the Setup Guide. Then proceed with this MASCHINE Getting Started Guide to get more familiar with MASCHINE.

MASCHINE Getting Started Guide

After reading the Setup Guide and following its instructions, your MASCHINE should be up and running. The next step is to read this MASCHINE Getting Started Guide. The MASCHINE Getting Started Guide first gives you an overview of MASCHINE and a practical approach to creating a project.

MASCHINE Reference Manual

The MASCHINE Reference Manual provides you with a detailed reference of your MASCHINE software along with extra information (solving common issues, specifications, etc.).

MASCHINE Hardware Control Reference

The MASCHINE Hardware Control Reference provides an overview of a MASCHINE project, the quick access options performed using the MASCHINE hardware controller, and lots of keyboard shortcuts.

Video Tutorials

The Native Instruments website provides you with a lot of video tutorials that give you a hands-on approach to many sides of the MASCHINE workflow. To see them, point your favorite browser to following URL: <http://native-instruments.com/maschinemedia>.

Controller Editor Reference Manual

Besides using your MASCHINE hardware controller together with its dedicated MASCHINE software, you can also use it as a powerful and highly versatile MIDI controller to pilot any other MIDI-capable application or device. This is made possible by the Controller Editor software, a little application that allows you to precisely define all MIDI assignments for your MASCHINE controller. The Controller Editor should have been installed during the MASCHINE installation procedure. For more info on this, please refer to the Controller Editor Reference Manual available as a PDF file in the Documentation subfolder of the Controller Editor installation folder on your hard disk.

1.1.3 In This Manual

What you are reading now is the MASCHINE Getting Started Guide Manual. This manual is structured as follows:

The first part is this introduction.

- **Chapter 2** quickly introduces you to the MASCHINE hardware and software.
- **Chapter 3** provides an overview of a MASCHINE project and a description of how sound content and arrangement elements are linked.
- **Chapter 4** is the first tutorial, and focused on creating a Pattern — the basic starting point for a MASCHINE project. You will discover how to use both MASCHINE hardware and software to layout a Pattern with some drums, a bass line and a melody. This practical example will simplify the learning process and get you quickly started making beats!
- **Chapter 5** provides an overview of effects and routing and also contains the second tutorial focused on adding effects to the Pattern you created in chapter 4.
- **Chapter 6** describes the Input Module and more advanced routing options.
- **Chapter 7** shows you how to arrange your patterns and develop them into a song using the arranger.
- **Chapter 8** describes how to use your soundcard and MASCHINE software to sample internal and external audio.

- **Chapter 9** provides an overview of how to efficiently manage MASCHINE Project, by saving different elements independently so you can easily use and find them in other Projects.
- **Chapter 10** provides some hands-on tips for producing music with MASCHINE as well as for performing live.

2 Overview

This mini-chapter will quickly introduce you to the main areas and concepts of MASCHINE, both on your MASCHINE hardware controller and in the MASCHINE software. By now you should have read the printed Setup Guide included in the product box and will have setup MASCHINE by making the necessary connections and configuring the software.



Please take the time to read this chapter in full, as it will familiarize you with MASCHINE's workflow and functionality.

First of all lets have a quick look at the MASCHINE hardware.

2.1 MASCHINE Hardware



MASCHINE hardware controller overview

(1) **CONTROL section:** provides instant access to all Sound, Group and Master parameters via the knobs and encoders. The displays offer visual feedback on MASCHINE's current state which is mirrored in the software. For more information on this section please view [↑2.1.1, CONTROL Section](#).

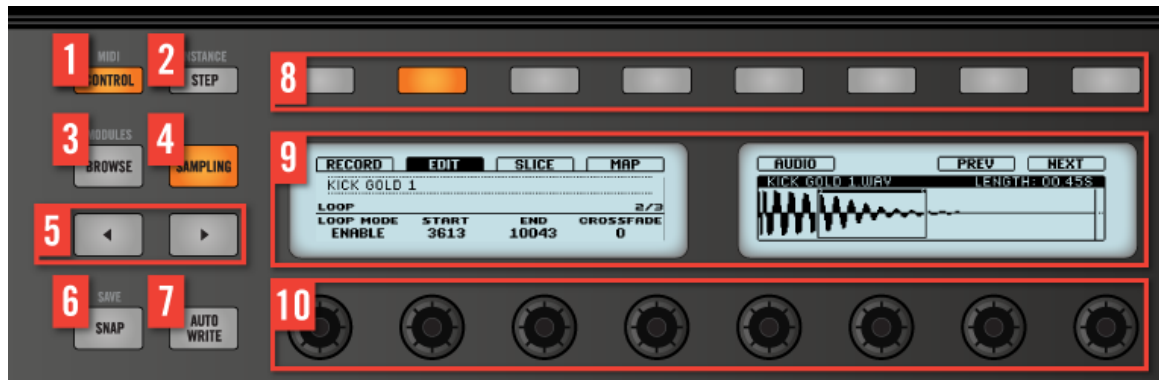
(2) **MASTER section:** contains dedicated knobs that control Volume, Tempo and Swing. The Note Repeat button is also positioned here, ready to help with the creative process of making beats. For more information on this section please view [↑2.1.2, MASTER Section](#).

(3) **GROUPS section:** The dedicated Group buttons allow you to instantly access each Group of Sounds. For more information on this section please view [↑2.1.3, GROUPS Section](#).

(4) **TRANSPORT section:** Start, stop and restart playback, activate record and skip bars while playing, simply by pressing the dedicated buttons in the transport area of the MASCHINE controller. For more information on this section please view [↑2.1.4, TRANSPORT Section](#).

(5) **PADS section:** Access the various modes of MASCHINE using the vertical row of buttons on the left-hand side of this section. By pressing any of the 16 pads you will hear the corresponding Sound assigned to that pad. For more information on this section please view [↑2.1.5, PADS Section](#).

2.1.1 CONTROL Section



CONTROL section overview

(1) **CONTROL mode/MIDI** button: Press **CONTROL** at anytime to return to the default mode of MASCHINE. In this mode, each pad represents a Sound which can be played live and recorded into the internal sequencer or your DAW (Digital Audio Workstation). At the same time, **Control mode** provides instant access to all Sound, Group and Master parameters via the buttons and knobs. You can also use the **CONTROL** button to access MIDI mode by pressing **SHIFT** + **CONTROL**. This mode will enable you to use MASCHINE as a MIDI controller.

(2) **STEP mode/Instance** button: As a complement to Control mode, MASCHINE in **Step mode** doubles as a full-featured step sequencer. In this mode, each pad represents one step of the selected Grid size. During playback, a running light shows the current position of the step sequencer. Pressing the pads creates notes on the corresponding step (causing them to light up) or it removes them. Use the **Page** buttons scroll through the steps of the pattern.

Press **SHIFT** + **STEP** to enter **Instance** mode. In this mode you can select another instance of MASCHINE if you have more than one open in your Digital Audio Workstation (DAW).



For more information on using the step sequencer please see section [↑4.3.4, Step Sequencer](#).

(3) **BROWSE/MODULES** button: MASCHINE comes with over 6GB of sample content, organized in an infinitely expandable library. The browser is fully integrated into the hardware-based workflow of MASCHINE, so finding the right Sound in MASCHINE is easier and faster than anything you've experienced before. Anytime you press the **BROWSE** button, the characteristics of the currently selected Sound are used to filter the Library (e.g., Drums/Snare/Analog) so that you can immediately step through and audition alternatives. This feature is known as Quick Browse.

You can also use the **BROWSE** button to access **MODULES** by pressing **SHIFT** + **BROWSE**.



For more information on Modules please see [↑4.5.1, Module Slots](#).

(4) **SAMPLING** button: MASCHINE comes with fully integrated sampling functionality. Record external audio from a turntable, instrument or MP3 player or resample the MASCHINE output to create tightly cut loops.

(5) **Page** buttons: Almost any feature of MASCHINE can be accessed using the hardware controller. You should not need to use your mouse. For a clear and simple layout of the LCD screens, the parameters are grouped into different pages — these are selected using the **Page** buttons.

(6) **SNAP/SAVE** button: The **SNAP** button on its own currently does not have any functionality. However, you can use the **SNAP** button to save your project by pressing **SHIFT** + **SNAP**.

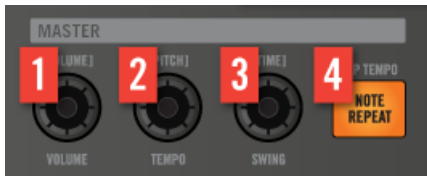
(7) **AUTO WRITE** button: In MASCHINE, automation of almost any parameter on the Sound and Group level is achieved with one-touch simplicity. Press and hold this button while turning any of the eight knobs (or any combination) to record automation for the corresponding parameter(s).

(8) **Buttons 1-8**: About one fourth of the hardware is occupied by the multi-functional control area, which forms the core of MASCHINE's mouse-free workflow. The eight buttons above the displays dynamically adapt their function to the currently active environment, allowing direct access to the most important sub-sections and functions. The action they perform is shown below each button in the displays.

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

(10) **Knobs 1-8**: Each knob dynamically controls the parameter shown in the display above it. When **AUTO-WRITE** is pressed, parameter changes are instantly recorded to an automation track.

2.1.2 MASTER Section



MASTER section overview

(1-3) **VOLUME, TEMPO** and **SWING** knobs: Control the master volume, tempo and swing of your project with three dedicated knobs. Press and hold a pad then turn the **VOLUME**, **TEMPO** (Pitch) or **SWING** knob to change these parameters for an individual Sound. Press and hold a Group button then turn the **VOLUME**, **TEMPO** (Pitch) or **SWING** knob to change these parameters for an individual group.

(4) **NOTE REPEAT / TAP TEMPO** button: Can be used as a performance feature to come up with new patterns when recording in real time: press and hold one or more pads to play the corresponding sound(s) repeatedly. You can change the speed by selecting one of four predefined notes values — even while you're playing! In addition, you can set the tempo of your project using Note Repeat function: Press **SHIFT** and repeatedly tap the **NOTE REPEAT** button to set the required tempo.

2.1.3 GROUPS Section



GROUP section overview

(1) **GROUP** buttons: Press the one of the eight dedicated Group buttons to select the Group you want to work in. These buttons are also used to solo and mute Groups on the fly when **SOLO** or **MUTE** buttons are pressed — great for jamming out your project and performing live! Press and hold a Group button then turn the **VOLUME**, **TEMPO** (Pitch) or **SWING** knob to change these parameters for an individual group.

2.1.4 TRANSPORT Section



TRANSPORT section overview

- (1) **RESTART** button: Press the **RESTART** button to restart the track at anytime. Playback will begin at bar 1 of the project.
- (2) **Step Backwards** button: Skip back through the arrangement one bar at a time. Press the **SHIFT** button and **STEP** to skip backwards through the arrangement at the interval set in the Pattern Editor's Grid Step.
- (3) **Step Forwards** button: Skip forward through the arrangement one bar at a time. Press the **SHIFT** button and **STEP** to skip forwards through the arrangement at the interval set in the Pattern Editor's Grid Step.

(4) **GRID** button: Select grid sizes for quantization when recording single events, for changing pattern lengths or switching scenes. Turn the grid off completely for a direct groove without quantization.

(5) **PLAY** button: Press the **PLAY** button to activate playback. Press **PLAY** a second time to stop playback. During playback or recording press **SHIFT** + **PLAY** to turn the Metronome on. Press **SHIFT** + **PLAY** a second time to turn the Metronome off.

(6) **REC** button: Press **PLAY** + **REC** at the same time to begin recording. Press **PLAY** + **REC** a second time to stop recording. Press **SHIFT** + **REC** to start recording with a one bar count in — recording will automatically begin after one bar with the metronome on.

(7) **ERASE** button: When creating music, erasing needs to be as quick and simple as recording, so there is a dedicated button for this! Hold the **ERASE** button during playback and press any number of pads to erase the events of the currently activated pattern on the fly. Press the button of a Group to erase all its events at once. If you turn any knobs while holding the **ERASE** button, it will clear the automation of the associated parameter.

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

All MASCHINE controller shortcuts are explained in the Hardware Control Reference, available from the Help menu in the MASCHINE software.

2.1.5 PADS Section



PADS section overview

(1) **SCENE:** Create Scenes to work out the structure of your track. During playback, you can switch to other Scenes for quick on-the-fly arrangement. Dimmed pads represent Scenes that contain Clips, while a fully lit pad represents the selected Scene.

(2) **PATTERN:** Working with Patterns allows you to create different beats with the same set of Sounds. Switch between different patterns or create a new one during playback. In this mode, Dimmed pads show which Patterns contain Events, fully lit pads show the currently selected Pattern.

(3) **PAD MODE:** MASCHINE is designed to record drum sounds, but the pads can easily be used to play melodies or even chords! Besides the standard layout mapping, there are two options to map a single Sound to all 16 pads. In Keyboard mode, the pads represent 16 chromatic steps, ascending from the selected root note — this way you can play the selected Sound like an instrument. You can also use button 7 to transpose down or button 8

to transpose up an octave at a time. In 16 Velocities mode, the pads represent 16 levels from the softest to the full velocity — this is especially useful for building up dynamic grooves.

(4) **NAVIGATE:** When working on large projects, it is sometimes necessary to look at the computer screen. With MASCHINE there is no need to use the mouse and search for scroll bars or magnifying glasses! Just use the pads and the knobs to zoom in and out or scroll through Patterns and Scenes.

(5) **DUPLICATE:** Use the **DUPLICATE** button to swiftly create another instance of any Sound, Pattern, Group or Scene. This can be useful for creating variations or try out something new while preserving the current state of your work.

(6) **SELECT:** Select a Sound without having to play it, or select the notes playing a particular Sound, which is useful for limiting quantization, nudging notes and other operations specific to the selected events.

(7) **SOLO:** Instantly solo any Sound or Group (equals muting all other Sounds/Groups) — useful to tweak the sound or for performing live. Sounds and Groups that are muted are represented by their corresponding button or pad being dimmed. In Solo mode, the display screens show the names of all the Groups and Sounds as well as their current status.

(8) **MUTE:** Instantly mute Sounds or Groups — good for getting on top of your production when you have many sounds playing and especially useful for performing live. Muted Sounds and Groups are represented by the corresponding buttons' lights turning off. In Mute mode, The display screens show the names of all the Groups and Sounds as well as their current status.

(9) **Pads 1-16:** Hitting the ultra responsive pads will play (and record, if REC is on) the corresponding Sound. At the same time, the Sound is selected and you can instantly edit all of it's parameters. Hold the pad and turn the **VOLUME**, **TEMPO (TUNE)** and **SWING** knobs to instantly access these parameters for an individual Sound or Group.

2.2 MASCHINE Software



The MASCHINE Software

(1) **Header:** The Header contains the main controls for the MASCHINE software including the Display Area, Transport controls and the main volume output levels. You can also use this area to toggle the Browser, connect to MASCHINE controller and monitor your computers CPU usage.

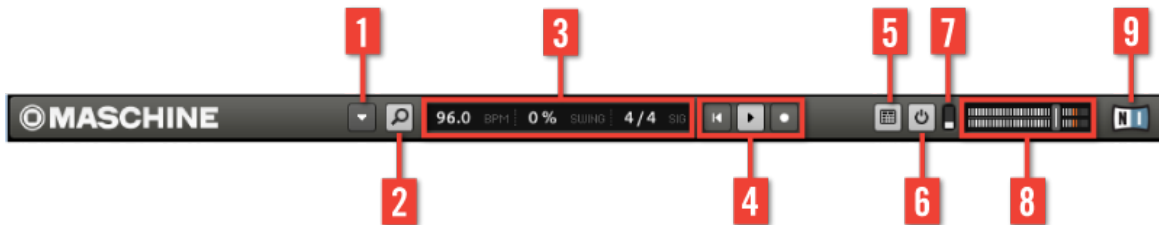
(2) **Browser:** The Browser is your tool for managing, finding, tagging and categorizing Projects, Groups, Patterns, Sounds, Samples, FX and Plug-in presets. Using the search facility you can quickly find things and audition sounds.

(3) **Arranger:** Use this area to drag and drop up to 64 Scenes in order to build your track and make arrangements.

(4) **Control Area:** The Control Area allows you control parameters and settings for each of the four modules at each project level (Sound, Group and Master). This area can hold settings for Samples, Sounds, Plug-ins, internal FX, MIDI and Routing.

(5) **Pattern Editor:** The Pattern Editor features both step programming and real-time recording and is the basis for each Scene. Up to 8 groups of 64 patterns can be created here and then arranged into Scenes in the Arranger. The Pattern Editor also supports automation for Sounds, Samples, FX, Plug-ins and mixer parameters.

2.2.1 The Header



The Header

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

(2) **Browser button:** Use the Browser button to toggle the Browser. The Browser is your tool for managing, finding, tagging and categorizing Projects, Groups, Patterns, Sounds, Plug-in and FX presets. From the Browser you can directly search your computer or an external drive to add new samples. You may also audition sounds directly from the Browser and apply new tags.

(3) **Display Area:** The Display area provides visual feedback regarding Tempo, Global Swing and Time signature.

(4) **Transport controls:** The Transport control contains buttons like a conventional tape recorder or CD player, such as Play, Restart, Record and Stop.

(5) **Connect button:** Use the Connect button to connect an instance of MASCHINE to the hardware controller.

(6) **Audio Engine button:** Click the Audio Engine button to completely bypass the sound processing of MASCHINE.

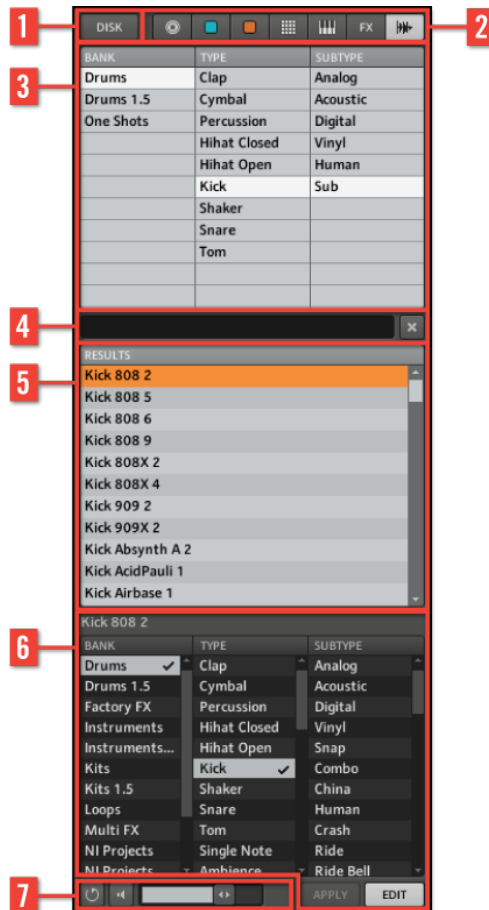
(7) **CPU Meter:** The CPU Meter represents the current load on your computer's processor and is constantly measured; it should not go above 70% to avoid clicks and interruptions. You can save CPU power by sampling the audio output of MASCHINE if necessary using export.

Please refer to the Reference Manual for more information on exporting audio from MASCHINE.

(8) **Volume control:** Shows the amplitude of the MASCHINE audio output and features an integrated Volume fader that controls the output level.

(9) **NI Logo:** The NI logo and MASCHINE logo opens the About Screen which displays the version number and edition of your MASCHINE software.

2.2.2 The Browser



The Browser

- (1) **Disk button:** Use the Disk button to access your computer hard drives.
- (2) **File Type Selector:** This contains 7 icons each representing the different files types of MASCHINE. From the left to right the file types are Project, Group, Sound, Pattern, Instrument, FX, and Sample. By clicking one of them it causes only the files of the selected type to be displayed in the Search Result List.

(3) **Tag Filter:** The Tag Filter allows you to search for file types based on tags that have been applied to them. You can quickly find files based on the Bank, Type and Subtype categories.

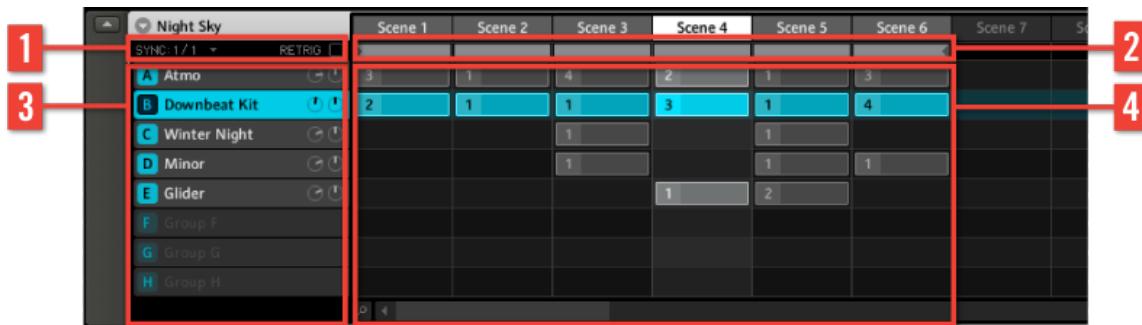
(4) **Text Search Field:** Use the Text Search Field to quickly find files based on their name or tagged attribute. Select the type of file you are looking for from the File Type Selector and enter the name or category of a file into the Text Search Field to perform a search. Results are displayed in the Search Result List below.

(5) **Search Result List:** The Search Result List displays all files that match your query.

(6) **Tag Editor:** The Tag Editor allows you to edit Tags applied to files and add Tags to new files from the three available categories.

(7) **Audition controls:** This allows you to listen to Samples, Sounds, which can be listened to in context with the rest of your Project while it is playing.

2.2.3 Arranger



The Arranger

(1) **Play mode controls:** This area contains the controls for Scene Sync which allow you to quantize Scene transitions and retrigger them.

(2) **Arranger Timeline:** This area displays the current position within the track and allows you to set the loop range.

(3) **Group Slots:** The Group Slots each contain 16 Sound Slots, each of which can hold one Sound.

(4) **Clip Area:** Each Clip represents a Pattern from a given Group. A combination of several Clips stacked vertically is called a Scene. A Scene can be moved freely by dragging and dropping it into place, or you can use more conventional Copy, Paste and delete functions.

2.2.4 Control Area

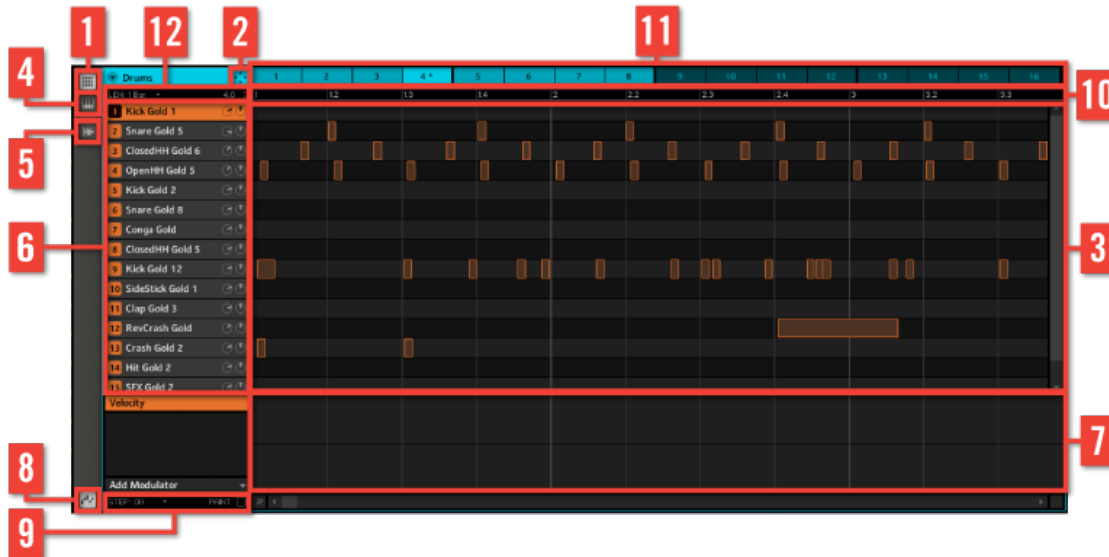


The Control Area

- (1) **Master tab:** Controls sound at the main outputs of MASCHINE (including all Groups).
- (2) **Group tab:** Use the Group tab to gain access to the Group page which contains the Group Modules and Group Property Pages. Controls on the Group tab affect the sound of the currently selected Group A-H (including all Sound Slots).
- (3) **Sound tab:** Use the Sound tab to gain access to the Sound page which contains the Sound Modules and Sound Property Pages. Controls on the Sound Page affect the sound of the currently selected Sound Slot (1-16).
- (4) **Module tabs 1-4:** There are four modules on each project level; Sound, Group and Master. They can contain instruments and FX and are the building blocks for your project. Use modules to change sound parameters, setup FX sends and route audio. These will be explained in more detail in chapter [4.5.1, Module Slots](#).
- (5) **Quick Browse Area:** The Quick Browse area can be used to recall a file in the Browser and the search query you performed to find to the given file. If you rollover the Quick Browse Area with your mouse when using a VST/AU plug-in the edit icon appears. Click this to open the plug-in in a separate window.
- (6) **Property Page buttons:** Use the Property Pages to control the Source, Groove, Macro and Output properties. These are available at each level of the Project.

(7) **Parameter Pages:** Displays parameters based on the selected Tab and Property Page.

2.2.5 Pattern Editor



The Pattern Editor

- (1) **Pattern Editor view switch:** Use this button to select the Pattern Editor view.
- (2) **Dragger Icon:** The Dragger Icon allows you to conveniently drag and drop audio or MIDI patterns to your desktop or host software.
- (3) **Pattern Editor:** Here you can see rectangular blocks known as Events from the selected Pattern Slot. In Pattern Editor view these represent each part of your drum pattern. In Piano Roll/Keyboard view they represent musical notes. The Events can be edited using your mouse; they can be dragged to a new position, elongated, shortened or deleted. Use the Edit Control (9) to change the steps in which Events can be moved.
- (4) **Piano Roll / Keyboard view switch:** Use this button to select the Piano Roll/Keyboard view.
- (5) **Sampling view switch:** Use this button to select the Sampling view.

- (6) **Sound Slots:** Sounds Slots 1-16 of a selected Group are listed here. Click a Sound Slot to bring it into focus.
- (7) **Automation Lane:** The Automation Lane provides a visual overview of the each parameters automation.
- (8) **Automation View Switch:** The Automation View Switch allows you to toggle the Automation Lane view on or off.
- (9) **Edit Controls:** The Edit Controls allow you to change the Grid of the Steps, select a new value from the drop-down Grid menu.
- (10) **Pattern Timeline:** The timeline at the top of the Arrange area displays musical time units, including bars and beats.
- (11) **Pattern Slots:** Each Group has 4 Pattern Banks which can contain up to 64 Patterns known as Pattern Slots. Each slot can contain many Events to make up a single Pattern. This can be a drum pattern or musical phrase. When a Pattern Slot is selected it is referenced by the selected Scene, this is known as a Clip. The Clip will take the name of the Pattern number although it is possible to give the Clip a unique name. Create different Clips from Pattern Slots to form an arrangement.
- (12) **Pattern Length controls:** The Pattern Length controls allow you to change the length of the pattern, select a new value from the drop-down Pattern Length menu.



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

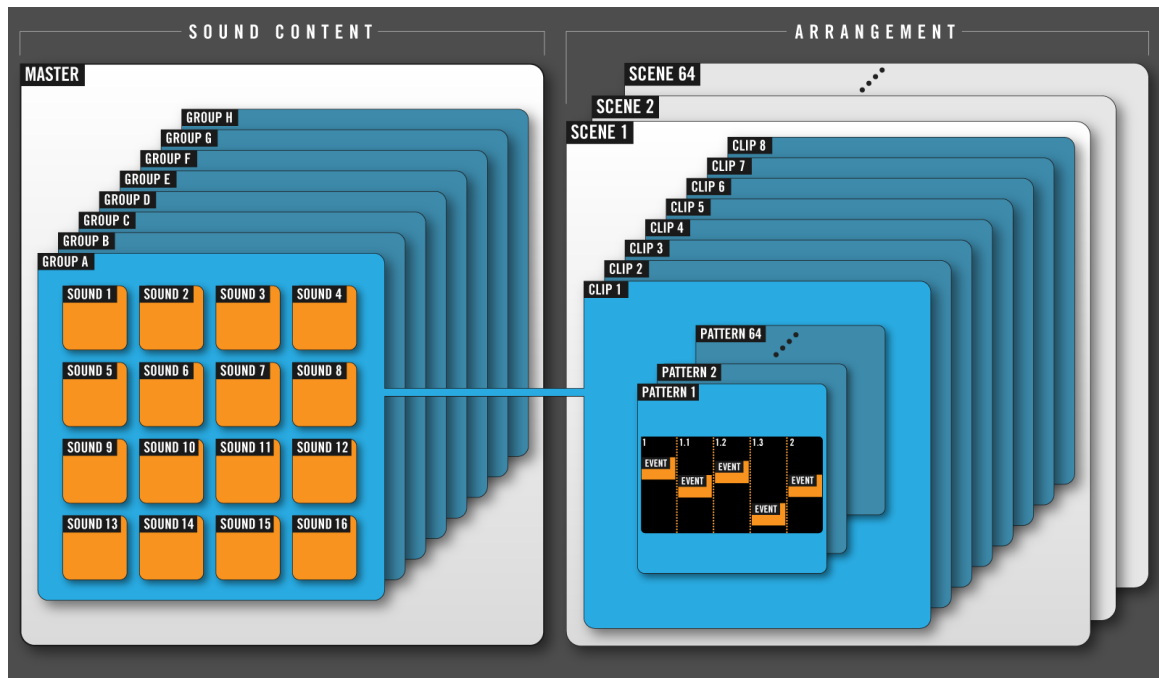
3 Overview of a MASCHINE Project

This chapter will familiarize you with the core concepts and terms of MASCHINE and explain the structure of a MASCHINE project.

3.1 The Structure of a MASCHINE Project

MASCHINE's file format is called a MASCHINE Project, and it has the file extension ".mprj."

A MASCHINE Project contains all the information stored with a MASCHINE-produced piece of music. In the following diagram we can see the different aspects of a MASCHINE Project.



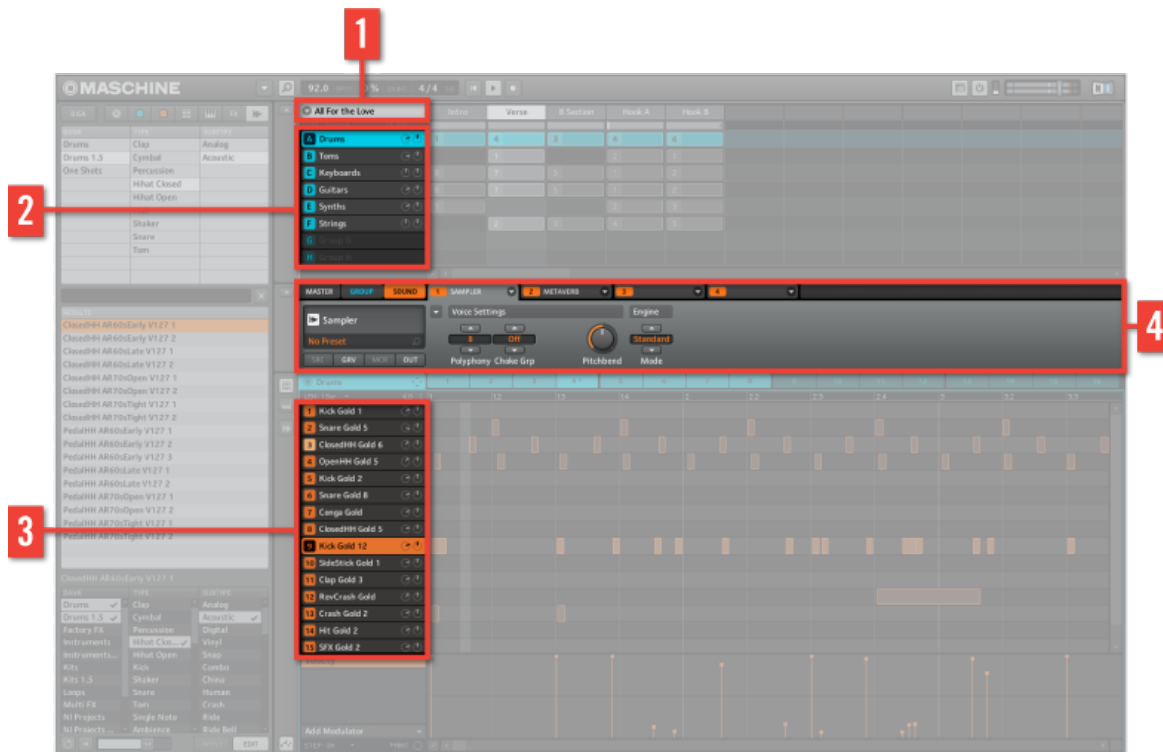
Overview of a MASCHINE Project.

- The Project references all the sound content, the instruments, sounds and samples, and all the effects you apply to them.

- The Project also contains the arrangement of your Song, how patterns are built from events which trigger Sounds, and how they are arranged into a song structure using Scenes and Pattern Clips.

So basically there are two aspects to a MASCHINE Project: the **sound content** and the **arrangement**. The following section will explain these aspects in detail.

3.1.1 Sound Content



The sound content aspect of a MASCHINE Project.

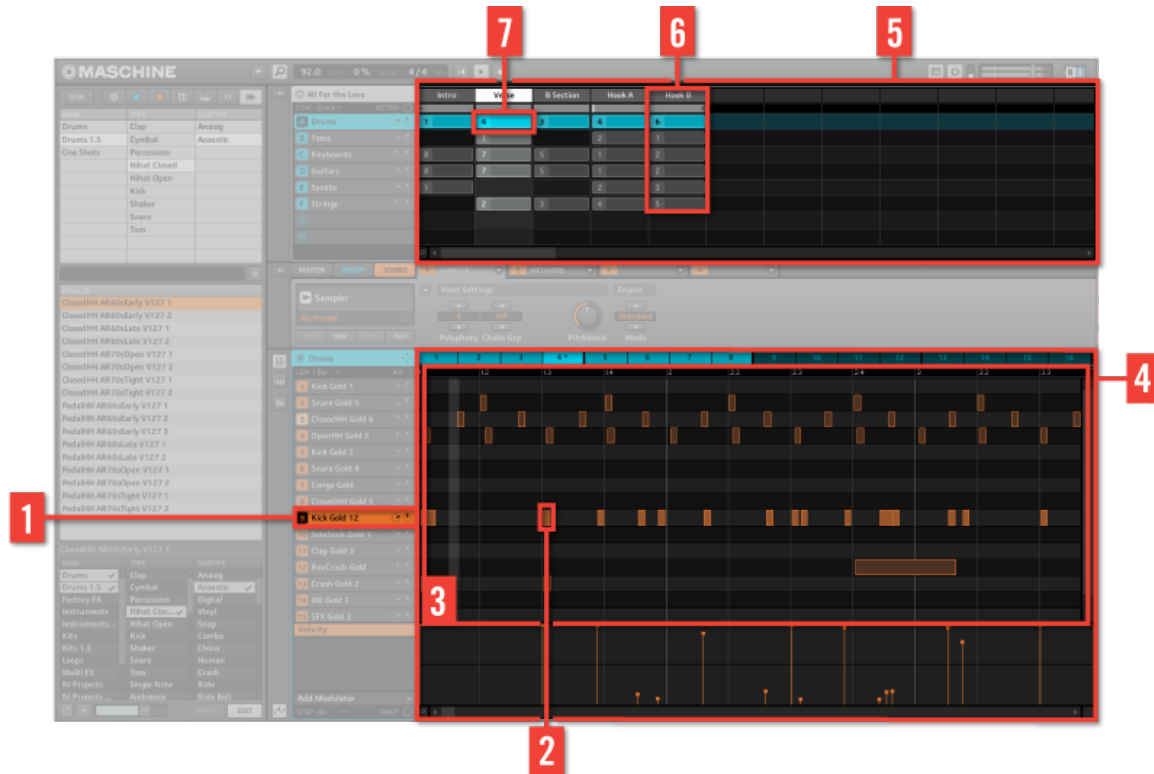
The sound content aspect of a MASCHINE Project includes all the audio material — the instruments and effects contained in your Project file, and how these are structured:

- A MASCHINE Project file (1) offers 8 Groups (A-H) (2), which again hold 16 Sound Slots (1-16) (3) each. Each Sound Slot can be filled with audio material.

- You can influence the sound on these three levels: the Project (or Master) level, the Group level, and the Sound level. The relevant controls are situated in the Parameter area **(4)**, which is your one-stop mixer, routing, effects, and plug-in section. The Parameter area has three tabbed pages: **MASTER**, **GROUP**, and **SOUND**.
 - The controls on the **MASTER** page affect the sound at the main outputs of MASCHINE.
 - The controls on the **GROUP** page affect the sound of the selected Group (A-H).
 - The controls on the **SOUND** page affect the sound of the selected Sound Slot (1-16).

MASCHINE has a top-to-bottom structure: an effect on the SOUND level will only affect the selected Sound Slot, while an effect on the Master will affect all Groups and all Sound Slots in your Project.

3.1.2 Arrangement



The arrangement aspect of a MASCHINE Project.

The arrangement aspect of a MASCHINE Project is about building patterns from audio material, and further about putting those patterns into a loop or a song structure. The basic workflow in building a MASCHINE Song is as follows:

- You load or sample audio into a Sound Slot (1).
- You record instances of your Sounds by playing the pads. A recorded instance of a Sound is called an Event (2).
- Several Events add up to a Pattern (3).
- All of this takes place in the Pattern Editor (4).
- In the upper half of the software's user interface you have the Arranger area (5).

- Here you combine your Patterns — represented by Pattern Clips **(7)** — into Scenes **(6)**.
- Several Scenes add up to a Song (...or a Beat, or an Arrangement, or whatever you want to call it).

An awful lot of terminology here, but it sounds more complicated than it is, you'll see.

For Completeness...

Now that you know about the core concepts, let's have a quick look at three other important areas of the user interface.



The Header and the Browser area.

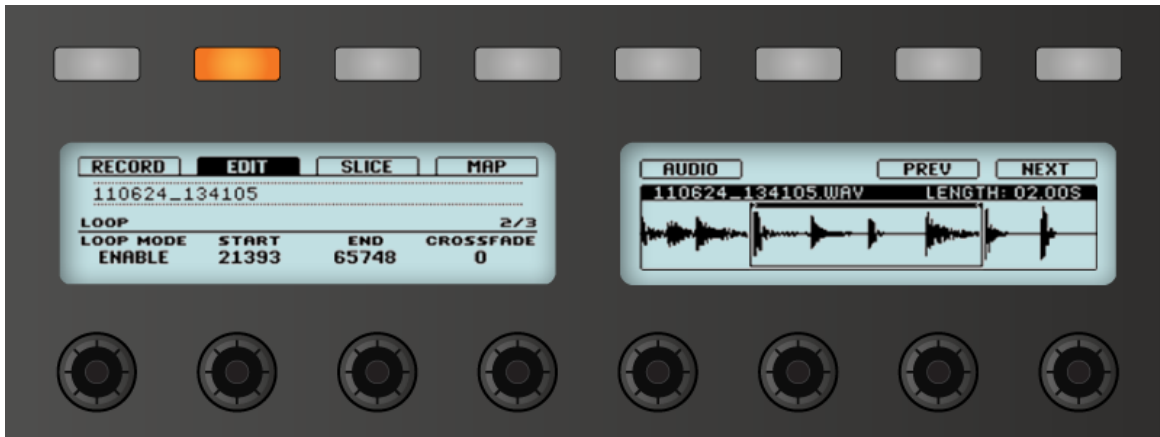
(1) The **Header**: Contains global settings such as the main Volume output, Tempo, Swing and viewing modes are also set here.

(2) The **Browser**: Here you manage your audio content and effect presets. For more detailed information on the MASCHINE Browser, please refer to the MASCHINE Reference Manual.

(3) The **Modules**: MASCHINE contains four Module Slots on each of the three MASCHINE Project levels Sound, Group, and Master. Apart from hosting Samplers, internal MASCHINE effects, they host VST and AU plug-ins too. These will be explained in more detail in chapter [↑4.5.1, Module Slots](#).

3.2 Unlabeled Buttons and Knobs

The buttons above and knobs below the displays on your hardware controller do not have labels (all other elements on the controller do).

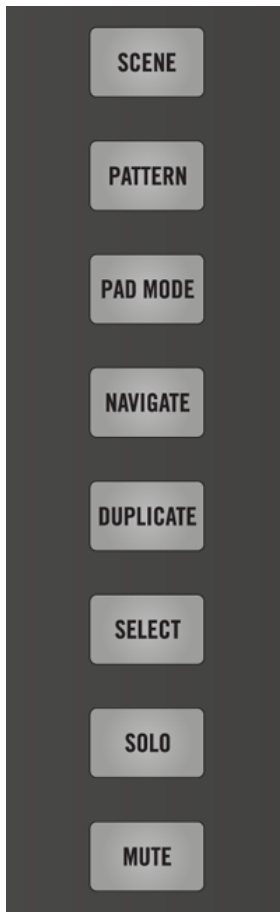


The unlabeled buttons and knobs on the MASCHINE controller.

For better reference, we applied a special formatting here: throughout the document these elements are **capitalized** and **numbered**, so these buttons are written **Button (1-8)**, while the knobs are written **Knob (1-8)**. E.g., whenever you see an instruction such as "*Press Button 2 to open the EDIT page*" you'll know it's the second button from the left above the displays.

3.3 Controller Modes and Mode Locking

In the middle of the controller, left of the pads, there is a vertical row of buttons.



The controller mode buttons on the MASCHINE controller.

These buttons represent different MASCHINE MIKRO controller modes, e.g., when pressing the **PAD MODE** button, the displays will show pad-specific control options. When released, the controller switches back to standard controller mode.

You can also lock controller modes, so the controller doesn't switch back when releasing a mode button:

1. Press and hold a controller mode button (e.g., **PAD MODE**).
2. Press Button 1 above the left display.

→ The controller will remain in Pad mode until you press Button 1 again.



For more detailed information on controller modes, please refer to the Reference Manual.

4 Creating a Pattern

The following tutorials are workflow-oriented and start with the simplest tasks and progressively lead you to more complex operation, helping you familiarize yourself with MASCHINE.

In order to get you started let's lay out a basic Pattern with some drums, a bass line and a melody. After reading this, you should have a basic understanding of how to create Sounds and Groups.

4.1 Finding Samples in the Browser

The Browser is your tool for finding, tagging and categorizing Projects, Groups, Patterns, Instruments, FX and Samples.

If you want to know more about the Browser's capabilities, please read the Browser chapter in the Reference Manual.

Hardware

1. On the MASCHINE controller, press the **BROWSE** button. In the left display, you will now be presented with a selection of choices.
2. Press the Button 3 above the left display to select the **SOUND** tab.
3. Turn Knob 1 until the filter on the left display turns to **SAMPLE**. This indicates that only Samples will be displayed now in the right display.
4. Since we are looking for a bass drum, first turn Knob 2 until the **BANK** entry is set to **DRUMS**. Turn Knob 3 to select **TYPE** entry **KICK**, then turn Knob 4 until the **SUBTYPE** is set to **SUB**. Using the right display and Knob 5 you can browse through all the bass drums now. With Button 8 you can now load the selected bass drum into your Sound Slot.



Software

1. Click the Browser button in the top row to show the Browser within the MASCHINE window (the button becomes highlighted):

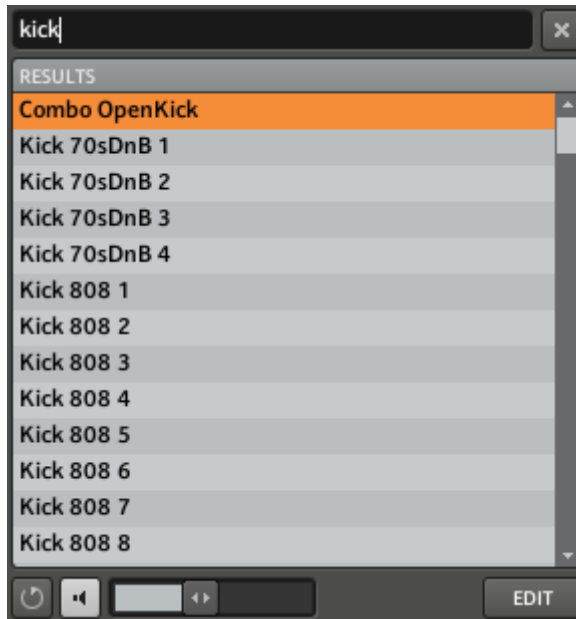


2. We will start by finding a bass drum for our Pattern: In the top row of the Browser, click the Sample icon on the far right to get a list of all the available samples in the library. Now activate Pre-listen by clicking the Audition button (with the loudspeaker symbol on it) underneath the list:



3. You can listen to the Samples by clicking on their names.

4. Since we want to find a bass drum first, type “kick” into the empty field above the list of Samples. As soon as you start typing, you will see the list below being updated to display Samples matching your query.



5. Now you can listen to the available bass drums by clicking on their names in the list and choose one you like.

Searching Samples by their names is not the only way to access the MASCHINE Library: you can also use the Browser’s Tag Filter to narrow down your search using Tags.

4.2 Selecting Sounds and Creating a Group

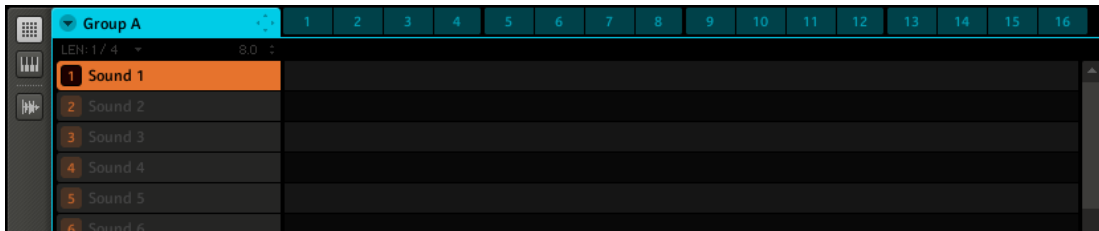
Now that you know how to find a Sample, we will create a Group which contains up to 16 Sounds and up to 64 Patterns associated with it.

Hardware

On the MASCHINE controller, you were just browsing through the Samples using Knob 5. Found a bass drum that matches your taste? Okay, then load it by pressing Button 8 on your MASCHINE controller. It will be loaded into the focused Sound Slot and playable by pressing the respective pad.

Software

1. In the Pattern Editor, select **Sound 1** by clicking on it:



2. In the Browser, double-click on the Sample you want to use or, alternatively, you can drag and drop the Sample (in this case the bass drum) onto the Sound Slot. After you have loaded a Sample into Sound Slot 1, you will recognize that pad 1 on your hardware is brightly lit. This indicates that there is a sample assigned to pad 1, so if you hit the pad, the bass drum sample will play.
3. In the same way you have just selected your bass drum, try to find some other drum sounds that make a good match: e.g. a clap, a snare drum, a hi-hat and maybe a cymbal, and put together your drum kit by assigning each sample to a Sound Slot one by one.



If you do not like the Sample's name that is being displayed in a Sound Slot, you can always rename it by double-clicking on the Sound Slot and typing a new name.

4.3 Creating Patterns

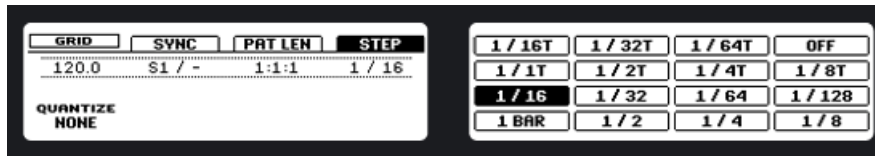
Now that you have assembled a nice drum kit, let's record a Pattern with it.

4.3.1 Adjusting Quantization using the 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.

Hardware

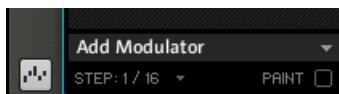
1. To change the Step Grid's quantization settings, press and hold the **GRID** button on the MASCHINE controller; the right display will show you which pad represents which Grid.



2. Select a Step Grid resolution by pressing the corresponding pad.
 - If you want to adjust the Pattern Grid (see section [4.3.2, Adjusting Pattern Length](#)), press Button 3; then select a Pattern Grid resolution by pressing the corresponding pad.

Software

The area to the right of the Sound Slots is called Pattern Editor. To change the Grid of the Steps, select a new value from the drop-down Grid menu.



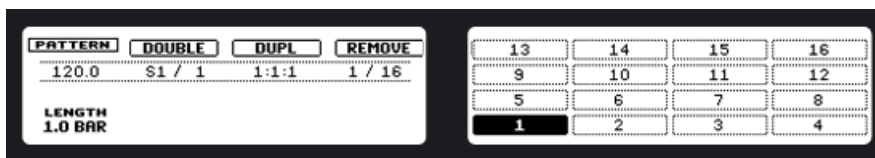
The Grid menu.

4.3.2 Adjusting Pattern Length

Now that you have adjusted the Pattern Grid, let's adjust the Pattern Length as well.

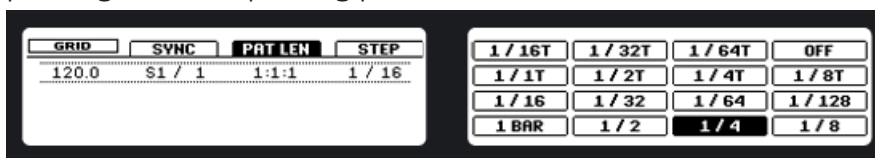
Hardware

- To change the Pattern length, press the **PATTERN** button, then turn Knob 1. Dialing to the right will extend the Pattern, dialing to the left will shorten it.



Adjusting the length of Pattern 1 by turning Knob 1

► To adjust the step width of the Pattern Length parameter (the so-called Pattern Grid), press and hold the **GRID** button and press the Button 3 above the left display; the right display will show you which pad represents which Grid. Select a Pattern Grid resolution by pressing the corresponding pad.

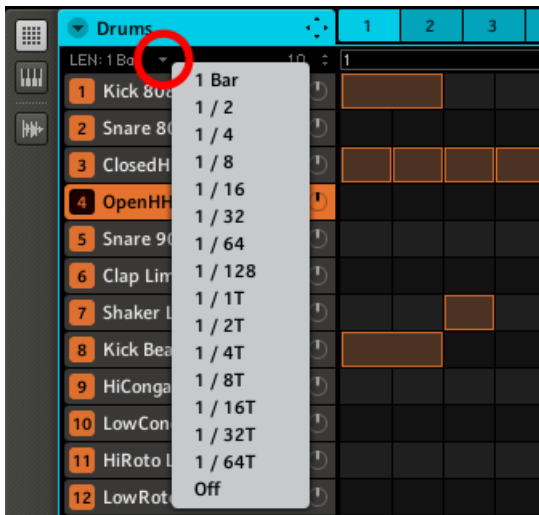


Software



Adjusting the Pattern length.

The Pattern length is represented by the highlighted area of the Pattern. To change the Pattern length, click in the Pattern Length bar at the position you want your Pattern to end, or alternatively, drag the end point. The Pattern length will resize to the mouse click position, quantized to the Pattern Grid value. To change the step width that the Pattern length can be resized in, select another resolution from the drop down Pattern Grid menu:



The Pattern Grid menu.

4.3.3 Recording a Pattern with the Controller

Now that you have chosen the Grid, let's get going with the Pattern, starting with some drums!

Recording live

First, let's record some beats with the pads: press the **PLAY** button, then the **RECORD** button (**REC**) to enable Record mode. Now tap the pads you want to record and listen to what happens. The Metronome will help you to keep the time when recording in real-time. To activate the Metronome, hold down **SHIFT** and press **PLAY**. To deactivate the Metronome, hold **SHIFT** and press **PLAY** again. If you want to quantize your recording afterwards, hold the MASCHINE controller's **SHIFT** button and press pad 5 (Quantize). Your pattern will be quantized according to the selected Grid.



Recording a Pattern: press PLAY & REC and then play some pads!

4.3.4 Step Sequencer

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

1. Press the pad with the Sound you want to record to select it.
2. Press the **STEP** button. Each pad now represents one step of a 16-step sequence: you can activate it by pressing the pad once, lighting it up. If you hit it again, the step is gone. This way it's quick and easy to create a drum pattern.
3. Press **PLAY** to hear your sequence. 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. You may continue to activate or deactivate pads to build your sequence during playback.
4. To switch to another Sound, use buttons 5 and 6, located above the right display or alternatively, press the **SELECT** button to see a list of available sounds you can select using the corresponding pad.



There is an Undo function available that you can access from the MASCHINE controller: hold the **SHIFT** button and press pad 1 to undo any pattern edits.



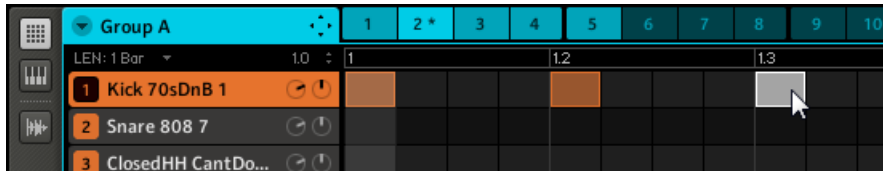
Only the first 16 steps will be represented in the Step Sequencer, so if you want to program longer Patterns, you will have to switch to the next 16 steps using the Right Arrow button.



A typical 4/4 kick in Step mode.

4.3.5 Recording a Pattern with the Software

► In the MASCHINE Software, set a step by double-clicking into the Grid to the right of the respective Sound.



► To clear the step, right-click (on Mac OS X: [Ctrl]+click) it. You may also drag it to the right or left, or stretch it by dragging its right border.



There is an Undo function available that you can access from the MASCHINE Software's *Edit* menu or by pressing [Ctrl]/[Cmd]+[Z] on your computer keyboard.

4.4 Creating Patterns in Keyboard Mode

Now lets add a melody and bass line to our drums. With MASCHINE you may choose an internal tonal Sample in the way you chose a drum Sample as described in [↑4.2, Selecting Sounds and Creating a Group](#) or, alternatively, you may use a VST/AU plug-in instrument as your sound source as described in [↑4.5, Creating Patterns with Plug-in Instruments](#).

If you prefer to play your melodies with a MIDI keyboard, connect it to the MIDI In on the MASCHINE Hardware. You can also use any USB MIDI keyboard selected in the **Audio and MIDI Settings** window. The connected MIDI input device will always play the selected Sound.



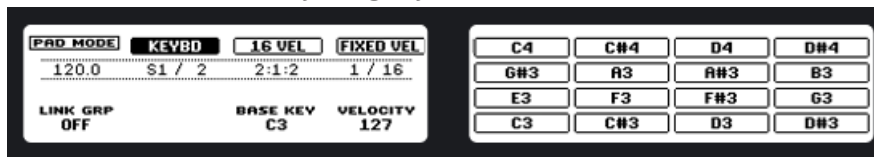
The backside of the MASCHINE controller with the MIDI In.



For details on making Audio and MIDI settings please refer to the printed Setup Guide.

Hardware

1. Select your Sound by pressing the pad it is assigned to.
2. Now press and hold the **PAD MODE** (Keyboard) button. On the left display, you can choose the desired Pad mode. Press Button 2 above the left display to select the Piano Roll/Keyboard mode; then release the **PAD MODE** (Keyboard) button (you will notice that the button stays slightly lit).



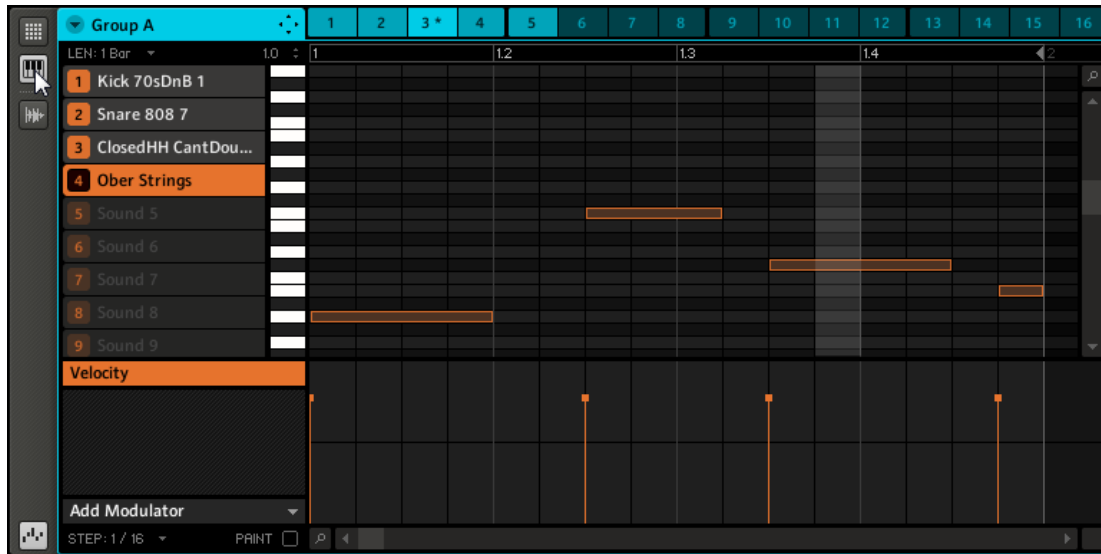
3. If you hit the pads now, you will hear that they all play the same Sound, but with a different pitch. The pitch scale is divided in halftones, starting with pad 1 as the lowest note going up to pad 16 as the highest note.
4. Press the **PLAY** button, then the **RECORD** button, and start to record your melody!



In Keyboard mode use Button 7 to transpose the pads down an octave or Button 8 to transpose up an octave.

Software

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



4.5 Creating Patterns with Plug-in Instruments

In addition to using the internal sounds of MASCHINE you may also use 32-bit and 64-bit VST/AU plug-ins from Native Instruments and third party manufacturers.

4.5.1 Module Slots



Module Slot 1 containing Native Instruments KONTAKT.

MASCHINE contains four Module Slots on each of the three MASCHINE Project levels Sound, Group, and Master. Apart from hosting Samplers and MASCHINE effects, Module Slots can host instrument and effect type plug-ins in the following combination:

- Module Slot 1 can host either an effect or an instrument plug-in.
- Module Slots 2, 3, and 4 can host effect plug-ins only.

See the following section for further explanation.

4.5.2 Defining Sources for Module Slots

There are four Source options available from a Module Slot 1's drop-down menu: [Sampler](#), [Input](#), [MIDI Out](#), and [Plug-ins](#):

- **Sampler:** allows the selected Slot to play back Samples. This is the most common Source type, as adding a Sample to the Sound Slot will automatically set the Module Source to [Sampler](#).
- **Input:** this allows the selected Sound Slot to be available as a bussing point for external Inputs.
- **MIDI Out:** allows you to use a Sound to send MIDI notes to your host application or your external MIDI equipment.
- **Plug-ins:** allows the use of VST/AU plug-ins from Native Instruments and third-party manufacturers.



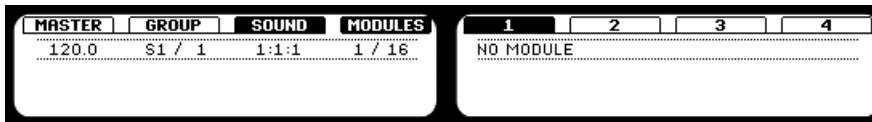
If you use the MIDI Out Module in Slot 1, Slots 2-4 will not be effective.

4.5.3 Loading an Instrument Plug-in

To load a plug-in instrument we must be at the Sound level, where there are four Module Slots available. Module Slot 1 can host either source Modules or effect Modules. Module Slots 2, 3 and 4 can host effect Modules only (of course you can put an effect Module behind a source Module and add them in series) but more on using effects in the next chapter. For now, let's load an instrument plug-in to a Sound Slot:

Hardware

1. Press the **CONTROL** button to enter the Control mode.
2. Press the pad you want to load the instrument to.
3. Press Button 3 to put the focus on the Sound tab.
4. Make sure **MODULES** is activated to show Module Slots 1 to 4 (Button 4).

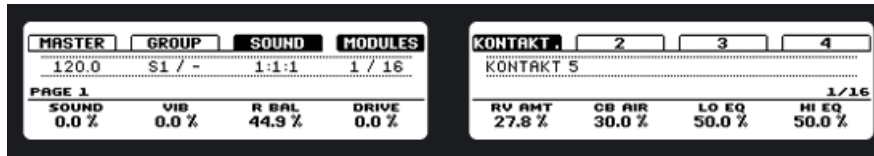


5. Press Button 5 to select Slot 1.
6. Press **SHIFT + BROWSE** to select the sound source. On the left display, change the TYPE to **PLUG-IN** using Knob 1.
7. Using Knob 2, set the **SUBTYPE** entry to **INSTRUMENT**. The right display now shows the list of available instrument plug-ins.



8. Turn Knob 5 to browse the available instruments.
9. When you have found the instrument plug-in you want to use, press Button 8 to load it.
10. Press the **CONTROL** button to switch back to Control mode.
11. Now you can try out the instrument plug-in by playing the pad.

12. Edit the plug-in parameters using the knobs 1-8.



13. Press > < (Step forward and Step back buttons) to step through the parameter pages of the plug-in.



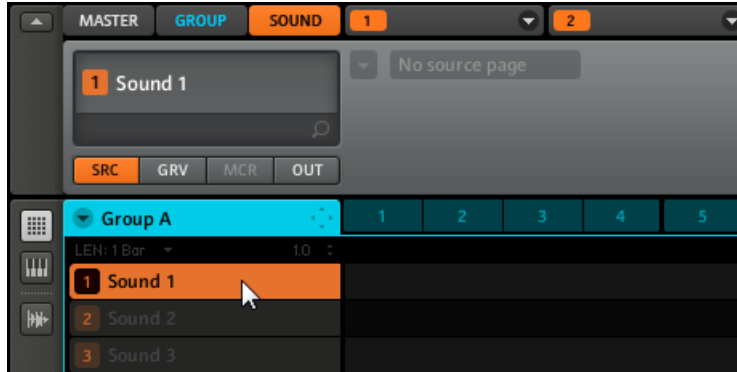
To play the instrument plug-in chromatically using the pads on the MASCHINE hardware; hold *SHIFT* then press the *PAD MODE* button to quickly toggle to Keyboard mode.



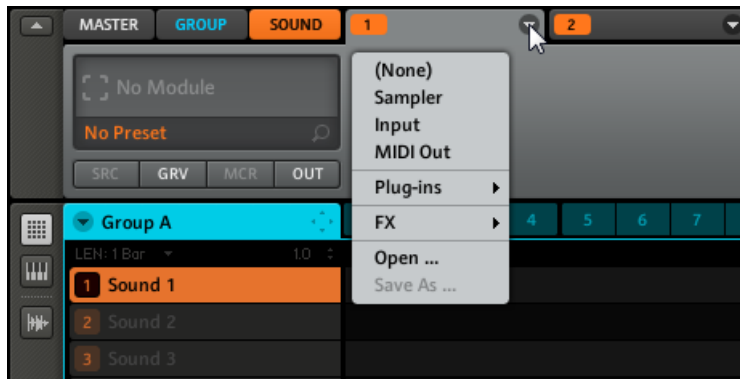
For information on changing and assigning plug-in parameters please read the MASCHINE Reference Manual.

Software

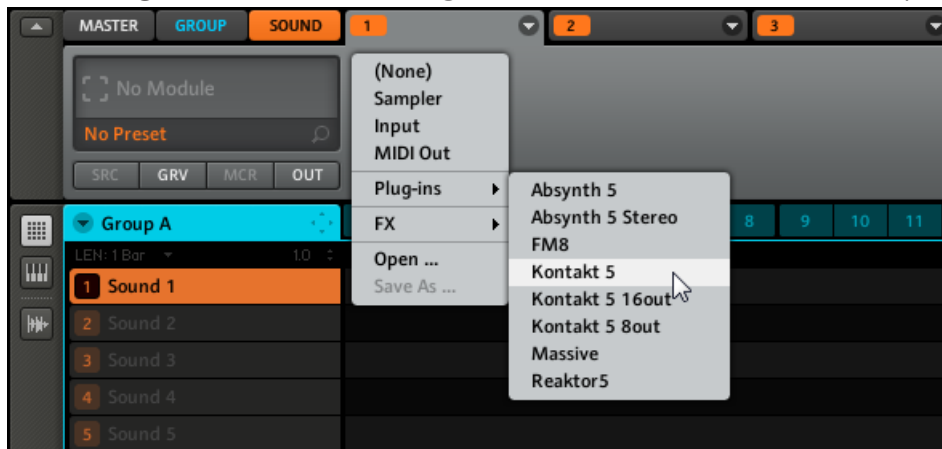
1. Click on the **SOUND** tab to switch to the Sound level.
2. Click on the Sound Slot you want to load an instrument to.



- Click on the first Module Slot (only Module Slot 1 can host instrument plug-ins) and click the drop-down arrow at the right end of it.



- Select *Plug-ins* from the menu to get a list of all available instrument plug-ins.



- As an example: let's choose the Native Instruments KONTAKT plug-in. After selecting it with the mouse, KONTAKT will be loaded, and its parameters will be displayed on the parameter area of the Module tab: Now you can try out the instrument plug-in by pressing the pad.



- Choose different Parameter Pages via the Page menu by clicking the triangle on the top left side of the parameter area.
- If you find a good sound setting, save it as a preset as described in section [↑9.2, Saving and Recalling Module Presets](#).



To play the instrument plug-in chromatically using the pads on the MASCHINE hardware; press and hold *SHIFT* then press the *PAD MODE* button to quickly toggle to Keyboard mode.



For information on changing and assigning plug-in parameters please read the MASCHINE Reference Manual.

4.5.4 Opening and Closing Plug-in Windows

You can open floating windows for all plug-ins of a MASCHINE project. MASCHINE will always show the open floating windows of the selected Sound, Group or the Master at a time.

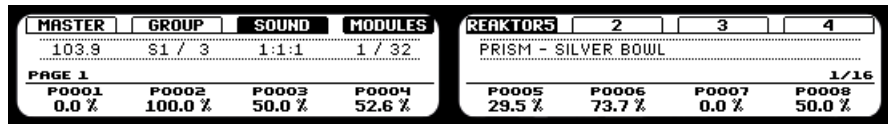


4.1 MASCHINE with GUITAR RIG and MASSIVE plug-in user interfaces opened.

You can open or close floating windows for plug-ins as described in the following.

Hardware

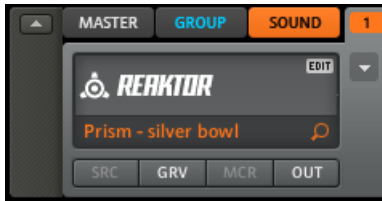
1. Select a Module Slot with a plug-in loaded by pressing buttons 5-8.
2. Press the selected Module Slot button to open the plug-in window on your computer screen. Press the button a second time to close the plug-in window.



Press Button 5 on the MASCHINE controller to open or close the REAKTOR 5 floating window

Software

When a plug-in has been assigned to a Module Slot, the plug-in icon will appear in the Quick Browse area.



An edit icon appears when the mouse cursor is placed over the REAKTOR logo

To open a floating window for the plug-in:

1. Place your mouse cursor over the plug-in icon; an **EDIT** button appears.
2. Click the **EDIT** button to open the plug-in in a separate floating window. A second click on the **EDIT** button will close the plug-in window.

4.6 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.

4.6.1 Hardware

Solo

Press the **SOLO** button and hold it: now you can solo Sounds by pressing their pads, and Groups by pressing the corresponding Group buttons. Solo is a temporary mode, therefore you will have to hold the **SOLO** button to access it. If you press **SOLO** and Button 1 at the same time, the Solo function gets pinned, e.g. you stay in Solo mode until you press **SOLO** again.

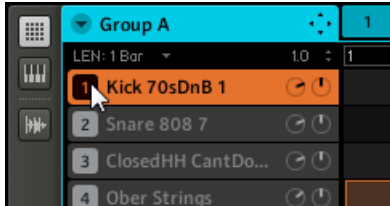
Mute

The Mute mode works in the same way as the Solo mode: hold the **MUTE** button to mute Sounds by pressing their respective pads, and Groups by pressing the Groups buttons. You can also pin the Mute function by pressing Button 1 at the same time and unpin it by pressing **MUTE** again.

4.6.2 Software

Solo

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



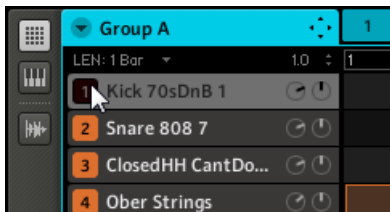
- To unsolo it, right-click (on Mac: [Ctrl]+click) on the pad icon again.
- To solo a Group, right-click (on Mac: [Ctrl]+click) on the Group icon in the Arranger:



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

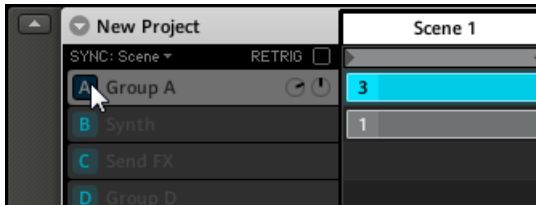
Mute

- To mute a Sound, click on the pad icon in the Pattern Editor:



- To unmute the Sound, click on the pad icon again.

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



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

In the next chapter, you will learn how to add effects and get to know the powerful routing system of MASCHINE.

5 Using Effects & Routing

Now that we have created the Pattern, let's spice it up with some effects. MASCHINE provides a healthy selection of effects (FX) that can be applied on Sounds, Groups and the Master, all as Insert effects. In addition, you may also use 32-bit and 64-bit plug-in effects from Native Instruments and third party manufacturers. By using the Routing dialogue in Audio and MIDI Settings, effects can also be applied to external Inputs and set up as Send effects.



For information on the Routing dialogue in Audio and MIDI Settings please refer to the printed Setup Guide.

5.1 Available Internal Effects

The internal MASCHINE effects cover a wide range of sonic possibilities; for an in-depth description of all effects and their parameters, read the **Effects** chapter in the Reference Manual.

MASCHINE effects are really designed to be modulated. That's when the sounds really come to life—when you start recording the knob movements. This is described in section [↑5.6, Automating Effects and Sampler Parameters](#).

5.1.1 Dynamics

- **Compressor:** Classic compression effect to control the dynamic information of an audio signal.
- **Gate:** The Gate cuts parts of the input signal which fall below the input threshold. This can be used to rhythmically chop the signal and make it sound more “punchy.”
- **Limiter:** The Limiter ensures that the signal level stays below 0 dB, thus preventing digital clipping. It is recommended to place the Limiter in the Master effects slot. The Limiter can also increase the overall perceived volume by reducing the threshold. Note that the Limiter introduces a small latency.
- **Maximizer:** The Maximizer reduces the dynamics within the sound, making the overall sound louder.

5.1.2 Filtering

- **EQ:** Use the EQ to boost or cut selective frequencies of the audio signal.

- **Filter:** This Filter has selectable characteristics that can be modulated via an LFO or envelope follower.

5.1.3 Modulation

- **Chorus:** The Chorus is useful to “thicken” signals and enhance the stereo content. It is most effective on melodic sounds.
- **Flanger:** This is a standard Flanger with LFO and envelope-follower modulators.
- **FM:** FM modulates the frequency of the audio signal based on FM synthesis. High frequency settings are useful for adding a subtle “gritty” texture to the input signal.
- **Freq Shifter:** The Frequency Shifter allows for shifting selected frequencies of the audio signal.
- **Phaser:** Standard Phaser with LFO and envelope-follower modulators.

5.1.4 Spatial and Reverb

- **Ice:** Ice includes a bank of self-oscillating filters for interesting and colorful effects.
- **Metaverb:** 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 to melodic content.
- **Reflex:** At moderate settings the Reflex can be useful to emulate small, “tight” rooms. At more extreme settings, it can produce interesting artificial, metallic textures.
- **Reverb:** The Reverb adds room information to the signal, making it sound more spacious and natural. It is particularly suited to drum sounds.

5.1.5 Delay

- **Beat Delay:** This delay is specifically designed for creating delays that are synced to the tempo.
- **Grain Delay:** 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.
- **Grain Stretch:** The Grain Stretch effect uses granular synthesis to manipulate the speed and pitch of the incoming signal. Increase Time, Loop and Pitch to quickly 'stretch' or 'warp' any sound.
- **Resochord:** The Resochord is a bank of 6 comb filters, each of which is individually tuned according to a particular chord. The Resochord will print its own harmonic content on to any input material.

5.1.6 Distortion

- **Distortion:** Combining overdrive, feedback and modulation, the Distortion produces a heavy distortion/fuzz effect.
- **Lofi:** 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.
- **Saturator:** The Saturator combines compression and saturation to increase the overall loudness and add additional harmonics. The Contour control determines how closely it responds to the input volume.

5.2 Applying Effects to a Sound

There are four Module Slots available at the Sound level. Using each Module Slot, you can apply up to four MASCHINE effects and VST/AU plug-in effects directly to each Sound Slot.



Module 1 is often used to contain a Sampler or live Input so choose one of the free Modules (2-4) to insert an effect.



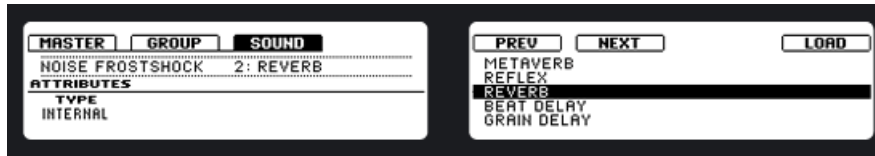
If you plug one of the internal MASCHINE effects or a plug-in effect to Module Slot 1 of a Sound, you will find this effect as a bussing point in the [Output](#) menu of other Sound Slot's [Main](#) control section (in the Control Area). You can also route MIDI events to the effects in Module Slot 1.

Hardware

1. Press the **CONTROL** button to select the Control mode.
2. Press Button 3 to put the focus on the **SOUND** tab which is selected on the left display, then hit the pad with the Sound you want to apply the effect to.
3. Press Button 4 to put the focus on the **MODULES** tab.
4. On the right display, you can now see the Modules 1-4. Select Module 2 by pressing Button 6.



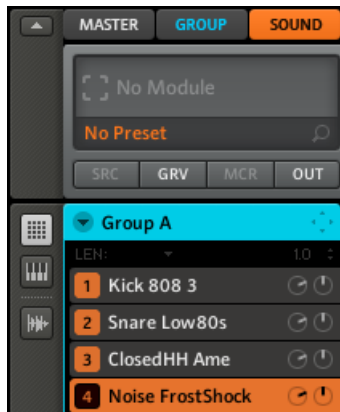
5. To select an effect for Module 2, press **SHIFT + BROWSE**.
6. On the left display, use Knob 1 to set the **TYPE** to **INTERNAL** for MASCHINE FX or **PLUG-IN** for VST/AU plug-ins. The right display now shows the list of the available effects. If you want to load a VST/AU plug-in effect select **PLUG-IN**.



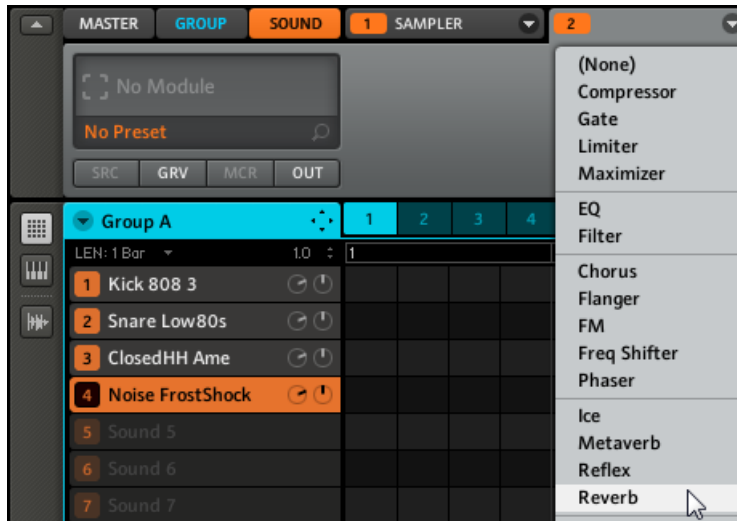
7. You can browse through the available effects by turning Knob 5. When you've found an effect you want to apply, press Button 8 to load it into Module 2. You can also use buttons 5 and 6 to step through the list and load the effect directly.
8. Switch back to Control mode by pressing the **CONTROL** mode button.
9. Now you can edit the effect using the knobs!

Software

1. Click on the **SOUND** tab to select the Sound you want to apply an effect to. The actual Sound that you assign the effect to is always the one in focus; in the example underneath it's **Noise FrostShock**.



2. Select one of the Modules (in this case we select Module 2) and click the arrow to the right to get a list of all available effects:



3. As an example, let's choose the **Reverb** effect. After selecting it with the mouse, you will find the parameters displayed in the Control area of Module 2:



4. Now you can try out some of the parameters: turn the **Size** knob for a bigger Reverb or adjust the Stereo Width by using the **Stereo** knob.



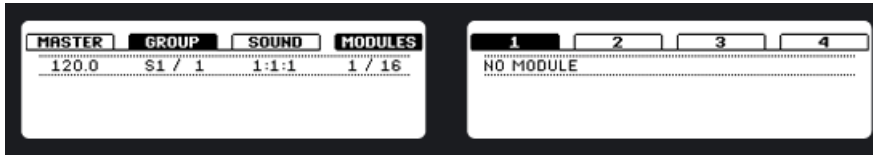
If you have VST/AU effect plug-ins installed you may also load them from the effects menu by selecting *Plug-ins* from the list.

5.3 Applying Effects to a Group

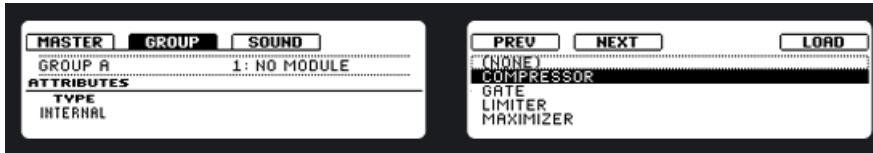
You can apply four effects directly to each Group. The effects will then be applied to all the Sounds in the Group.

Hardware

1. In Control mode, press Button 2 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.
2. Press Button 4 to put the focus on the **MODULES** tab.
3. On the right display, you can now see the Modules 1-4. Select Module 1 by pressing Button 5.



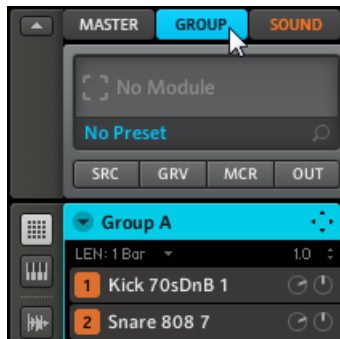
4. To select an effect for Module 1, press **SHIFT + BROWSE**. The right display now shows the list of the available effects.
5. On the left display, use Knob 1 to set the **TYPE** to **INTERNAL** for MASCHINE FX or **PLUG-IN** for VST/AU plug-ins. The right display now shows the list of the available effects. If you want to load a VST/AU plug-in effect select **PLUG-IN**.
6. You can browse through them by either turning Knob 5.
7. When you've found an effect you want to apply, press Button 8 to load it.



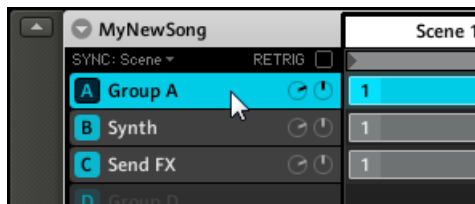
8. Switch back to Control mode by pressing the **CONTROL** mode button.
9. Now you can edit the effect parameters using the knobs!

Software

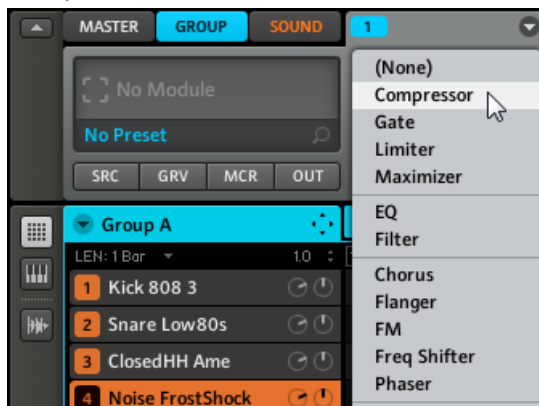
1. Click on the **GROUP** tab to switch to the Group level:



2. In the same way that effects applied to the Sound in focus, they get applied to the Group in focus, so make sure to have your Group in focus in the Arranger:



3. Since our Group is mainly for drums, let's apply some compression by adding the *Compressor* to Module 1:



4. Play around with the parameters of the Compressor to get used to it!



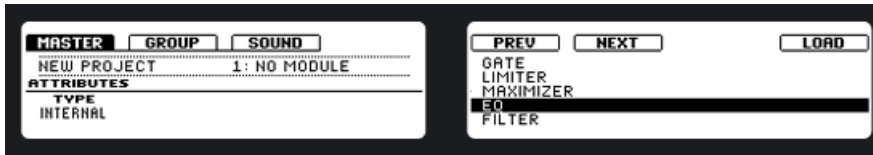
If you have VST/AU effect plug-ins installed you may also load them from the effects menu by selecting *Plug-ins* from the list.

5.4 Applying Effects to the Master

You can apply four effects to the Master so that all your Sounds and all your Groups together are being sent into the effect.

Hardware

1. Press Button 1 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 1-4. Select Module 1 by pressing Button 5.
3. To select an effect for Module 1, press **SHIFT** + **BROWSE**. The right display now shows the list of the available effects.
4. On the left display, use Knob 1 to set the **TYPE** to **INTERNAL** for MASCHINE FX or PLUG-IN for VST/AU plug-ins. The right display now shows the list of the available effects. If you want to load a VST/AU plug-in effect select **PLUG-IN**.
5. You can browse through them by either turning Knob 5, or by using buttons 5 and 6.

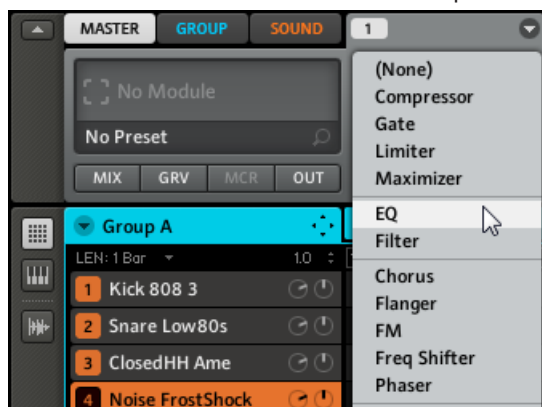


6. When you've found an effect you want to apply, press Button 8 to load it into Module 1.
7. Switch back to Control mode by pressing the **CONTROL** mode button.
8. Now you can edit the effect parameters using the knobs!

Software

Select the **MASTER** tab and then click the Arrow on the right of the Module to select an effect for the Master.

Since we want to fine-tune the frequencies of the Song, let's choose the *EQ*.



The list of available effects for the Master.

► Use the mouse to turn the knobs on the EQ Module. By using the Page Selector, you can access the other parameter page(s), if any:



The Page Selector in the Software.

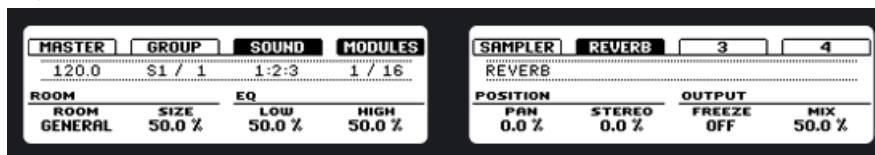
5.5 Bypassing Effects

Bypassing effects 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 1 (for the Master), Button 2 (for a Group + the Group button) or Button 3 (for a Sound + the pad containing the Sound).

- Now the right display shows the Modules containing effects. To bypass one of the effects, press **SHIFT** followed by either Button 5 (for Module 1), Button 6 (for Module 2), Button 7 (for Module 3) or Button 8 (for Module 4).



- To hear the effect again, press **SHIFT** followed by the respective Button (5-8).

Software

- Select the Tab where you want to bypass the effect (either **SOUND**, **GROUP** or **MASTER**) by clicking on it.
- Make sure you have the right Sound (click on it on the left of the Grid) or Group (click on it on the left of the Arranger) in focus. For the Master, select the **MASTER** tab.
- Now click on the label (orange if it is a Sound, blue if it is a Group, white if it is the Master) on the left side of the effect Modules to bypass the desired effect. Click the label again to hear the effect signal.



5.6 Automating Effects and Sampler Parameters

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

Hardware

► To automate a parameter with the Hardware, first make sure the song is playing, then simply turn one of the 8 knobs while holding down the **AUTO WRITE** (F2) button.

→ Your automation gets recorded now.

► If you want to discard it and try again, press **ERASE**, hold it and turn the knob again to delete the Automation of this parameter.

It is also possible to record Automation in the Step Sequencer.

1. Enter the Step Sequencer by pressing the **STEP** button.
2. Hold the pad representing the Step you want to automate and turn one of the knobs with the parameter you want to record Automation for.

Software

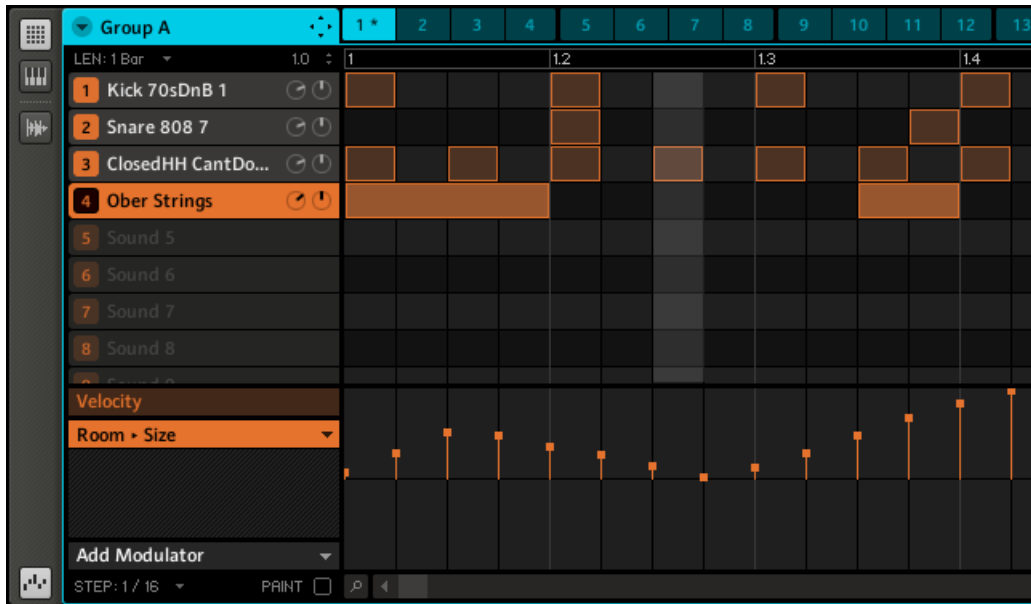
If you take a closer look at the knobs on the parameter pages you will notice they have an outer ring.

► You can record Automation by moving that ring with a left click on it and then dragging it up and down.



► To remove the Automation, simply right-click (on Mac: [Ctrl]+click) on that outer ring.

- To edit the Automation, drag the automation points in the Automation Lane.



6 The Input Module and Advanced Routing

The Routing features allow for a flexible way to handle routings within MASCHINE and together with external instruments. Since the Routing capabilities are quite powerful, we will focus on two common usage scenarios: routing external audio into the effects and setting up Send effects.

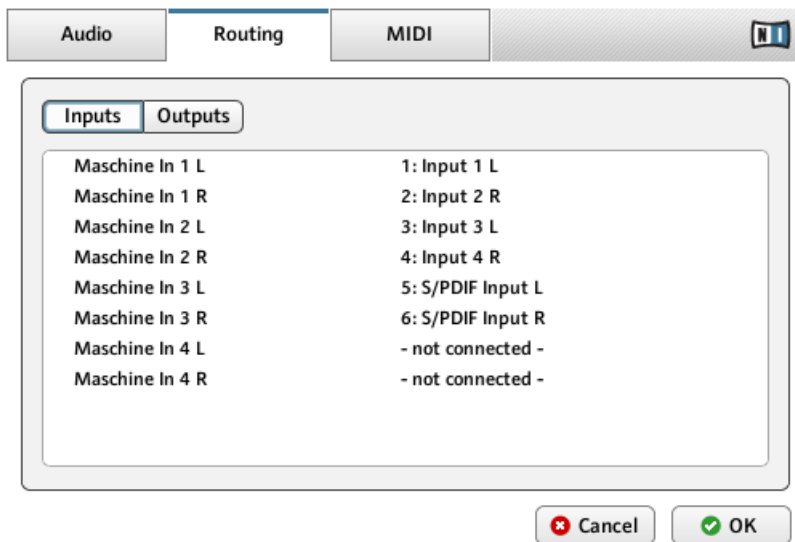


For more in-depth information, please read the **Routing** chapter of the Reference Manual.

6.1 Applying an Effect to an external audio source

Please make sure that you have connected an external audio signal source to your soundcard and that the inputs of the soundcard are activated. Open *Audio and Midi Settings* from the [File](#) menu.

Now activate the desired inputs by clicking on the fields on the right and selecting the desired physical input of your soundcard; then click [OK](#):

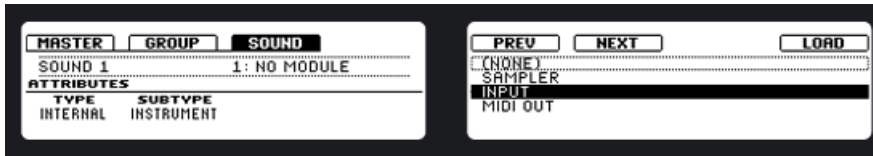


The Inputs of the soundcard in the Audio and MIDI Settings dialog.

→ Audio signals coming from external sources are now be routed to MASCHINE's modules where effects can be added. You can also use the audio signals for sampling. For detailed information on sampling external audio please refer to the Reference Manual.

Hardware

1. First choose an empty Group by selecting it with one of the **GROUP** buttons.
2. Select an empty Sound Slot by pressing Button 4 and then one of the pads, let's say pad 1.
3. Press Button 5 to select **SRC** (source). After that press **SHIFT + BROWSE**.
4. By using buttons 5 & 6 or Knob 5 you can select between **(NONE)**, **SAMPLER**, **INPUT** and **MIDI OUT**. Select **INPUT** and press Button 8 to confirm your selection.

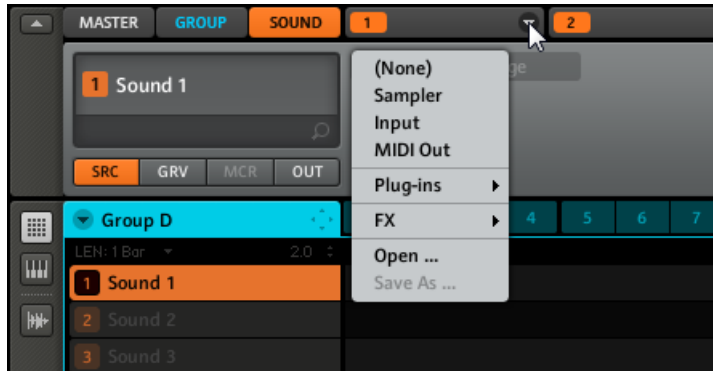


5. Switch back to Control mode by pressing the **BROWSE** button again or pressing the **CONTROL** button.
6. Now you can select your external source by turning Knob 2. Then select a spare Module, let's select Module 2 for example by pressing Button 6.
7. Press **SHIFT + BROWSE**: now you see the list of the available effects.
8. Choose an effect and load 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 and then click on Module 1.

- On the right of the **Module 1** tab, you will find an Arrow. Click on it and you will be presented with several options in the dropdown menu: *Sampler*, *Input* and *MIDI Out*. Select *Input*.



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



- Click on the Module 2 next to the **INPUT** Module and select an effect using the effect menu from the upper right corner of the **Module 2** tab.

→ Now the external audio will be processed by the effect!

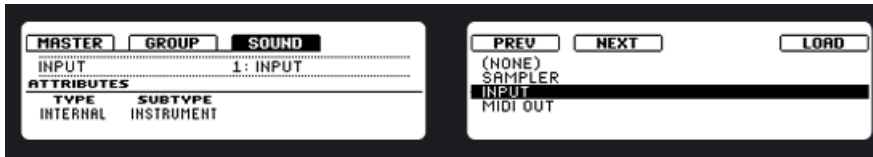
6.2 Setting up a Send Effect

Sometimes you may want to have a classic Send effect, for example a classic reverb which can be shared by multiple sound sources. This is how to set it up.

Hardware

- Lets send the Snare of the 909 Kit to a Reverb Send effect. Load the 909 Kit by double-clicking it in the Browser and create a basic Pattern.

2. Now select an empty Group with an empty Sound Slot, let's say Sound 1. Select it by pressing its pad.
3. Press Button 5 to select the Source tab (**SRC**). After that press **SHIFT + BROWSE**.
4. By using buttons 5 & 6 or Knob 5 you can select between **SAMPLER**, **INPUT** or **MIDI OUT**. Select **INPUT** and press Button 8 to confirm your selection.

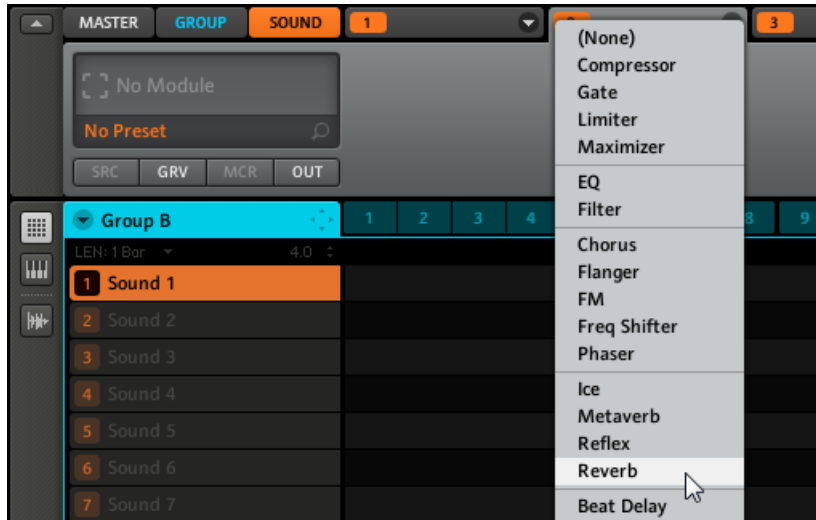


5. To select an effect Slot, press the **CONTROL** button and then select MODULE 2 by pressing Button 6.
6. Press **SHIFT + BROWSE**: now you see the list of the available effects.
7. Select the Reverb, and load it using Button 8. Switch back to Control mode by pressing the **BROWSE** button again or pressing the **CONTROL** button.
8. Now go back to the 909 Kit Group and select the Snare Sound by pressing pad 2.
9. Go to the Output tab (**OUT**, Button 8) and turn Knob 5 to select the Aux 1 destination: select *B: INPUT 1* from the list.

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

Software

1. Select the first Sound Slot of an empty Group. Load the Reverb into the Sound Slot's effects tab.



2. On the Source tab (SRC), select *Input* and leave the Source at *Internal*:



3. Now select the 909 Kit Group again and click the Output tab (OUT) of the Sound **Snare 909 1**:



4. You can see the two Aux Sends, **Aux 1** and **Aux 2**. In the dropdown menu of **Aux 1**, select **B: Input 1** to send the **Snare 909 1** Sound to the Reverb in Sound 1:



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

6.3 Routing Tips

- For a better overview, rename the Sound you use as a Send effect after the effects name.
- You can build your own multi-effects this way: up to three effects per Sound with 16 Sounds per Group allow up to 48 different effects in one Group!



Please be aware using too many effects may cause a high load on your computers CPU, as a result the amount of effects you should use is dependant on the processing power of your computer.

- Since you can save Patterns together with your Group, you can also prerecord automation for your effects, for example filter sweeps or complex effects clusters with multiple effects that you can use on your material.

The Routing in MASCHINE is a really powerful tool with a vast amount of possibilities. You can set up your own effects Chains, route Sounds through several other Sounds or out of your soundcard through a Hardware effect and then back into MASCHINE. For more information on Routing read the **Routing** chapter of the Reference Manual.

7 Creating a Song using Scenes

Creating a Song on MASCHINE is easy and straightforward. The basic concept is this: Groups and their Patterns are combined in Clips, a Clip being a representation of a Group with a specific Pattern. The Patterns are automatically named by their Pattern number, but Clips may be renamed at anytime. A Song is divided into up to 64 Scenes; the Scenes are parts of the Song containing different Groups and their Pattern content.

7.1 Creating a Clip in the Arranger

Each clip placed in the Arranger references one of the Patterns created in the Pattern Editor. Therefore, when the content or length of a Pattern is edited, all referencing clips in the Arranger will automatically get updated.

Hardware

1. Switch to Scene mode by holding the **SCENE** button. The right display gives you an overview of the available Scenes. Hit pad 1 to select Scene 1.
2. Enter Pattern mode by pressing **PATTERN** and lock it by pressing Button 1 at the same time.
3. Choose your Pattern by selecting it with the pads. Again the right display gives you an overview of the available Patterns. The selected Pattern will automatically be inserted into the selected Scene.



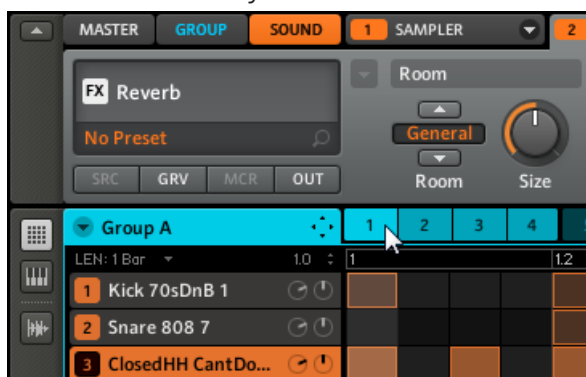
- To remove a Clip, press Button 4.
- By pressing Button 2, you can double the Pattern length with the same content.
- By pressing Button 3, you duplicate the selected Pattern.

Software

1. Select the Scene you want to edit by clicking on the **Scene 1** Label in the Arranger Area.



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



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

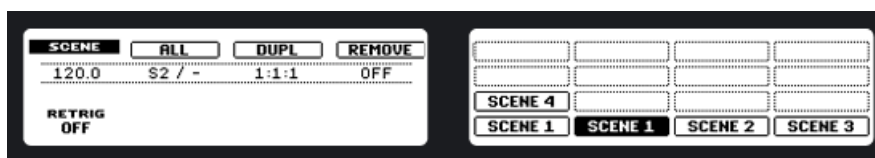


- To delete a Clip, right-click (on Mac OS X: [Ctrl]+click) it.

7.2 Inserting and Deleting Scenes

Hardware

1. Enter Scene mode by pressing the **SCENE** button and lock it by pressing Button 1.
2. Using Button 3 (Duplicate) you can now copy the Scene selected to the following Scene.



- ▶ To delete a Scene, press Button 4.
- ▶ To rearrange Scenes, use the Page buttons at the left of the Displays.



If there are already Scenes behind the one being copied, they will get shifted upwards one Scene number; respectively, if you delete a Scene, the following Scene will be shifted backward accordingly.

Software

1. Select the Scene you want to edit by clicking on it.
2. Now right-click (on Mac OS X: [Ctrl]+click) and you will be presented with a drop-down menu allowing you to **Cut**, **Copy** or **Paste** the Scene's content or to **Clear**, **Remove** or **Duplicate** the Scene.



3. To rearrange Scenes, use the [Left] and [Right] arrows on your computer keyboard while holding [Ctrl] depressed.

7.3 Using the Loop Mode

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.

Hardware

1. Enter Scene mode by pressing the **SCENE** button and lock it by pressing Button 1 at the same time.
2. The loop range can be defined by selecting a start Scene and an end Scene. First, select the starting Scene by pressing the corresponding pad. Then, while holding the first pad, press the pad corresponding to the end Scene.

Software

In **Scene 1** click in the Arranger Timeline and drag to the right. The active Loop will be highlighted. Release the Mouse button in **Scene 2**. Now you will hear **Scene 1** and **Scene 2** in sequence.



A Loop containing the first two Scenes.



By toggling between Scenes you can find out if two Scenes are a good match, if you have to add another one or edit it. Since the Scenes always loop, there is no break that could disturb your inspiration. On the Hardware, press Scene together with Button 1 to lock it and use the pads to change between Scenes; on the Software, click in the Scene row on the Scene you want to select.

8 Sampling

MASCHINE allows you to record internal or external audio signals using your soundcard. This is a useful feature if you want to record your own Samples or rearrange Loops that you have created yourself using MASCHINE.



For information on routing audio please refer to [↑6, The Input Module and Advanced Routing](#). You will also find detailed information in the Reference Manual.

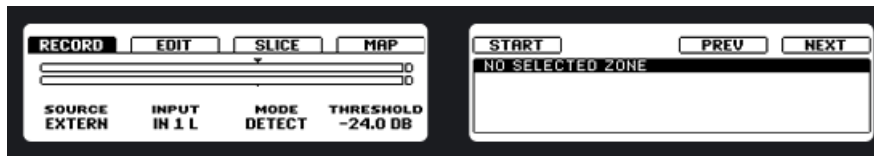


This chapter is a short introduction to Sampling, for detailed information please refer to the Reference Manual.

8.1 How to Sample

Hardware

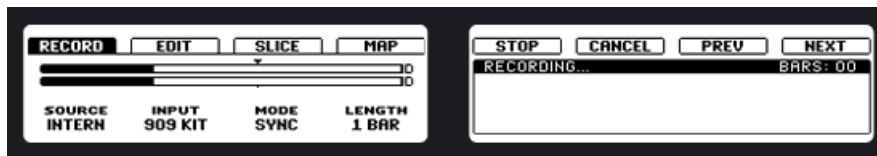
1. Choose an empty Sound Slot in Group B to record into by selecting it with its pad.
2. Now press the **SAMPLING** button to enter the Sampling mode:



3. You can select the Source by using Knob 1: it is either set to External (**EXTERN**) for audio signals connected to your audio interface, or Internal (**INTERN**) for audio signals from MASCHINE itself (either from another Group, Sound or from the Master Output).
4. In this case we record from the Group called 909 Kit, which is loaded on Group A with a pattern, so dial so dial Knob 1 to select **INTERN** followed by dialing Knob 2 to select the 909 Kit Group.
5. There are two different ways to start a recording:
 - You can set a certain Threshold value, and the input signal level exceeding this Threshold will start the recording.
 - You can synchronize the recording function to the sequencer by selecting the Sync option, so that recording starts as soon as you start the sequencer.

Since we want to record a drum loop, we select **SYNC** by dialing Knob 3, and then define a length of 1 bar by turning Knob 4.

1. Now hit Button 5 (**START**) and, since the recording is going to be triggered by the sequencer, press **PLAY**.

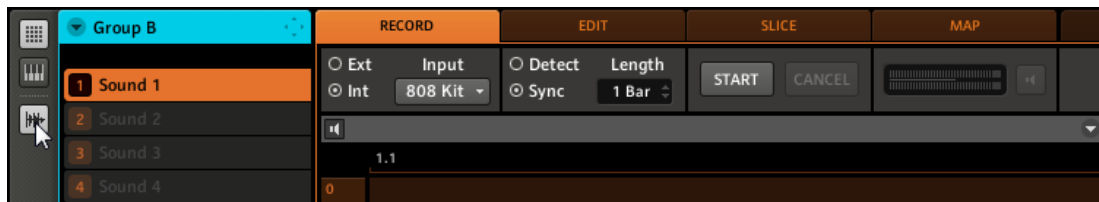


→ After the recording is finished, the right display will show you the recorded Sample as a waveform.

→ If you record multiple Samples, you can navigate between them by Button 7 and Button 8. This is called the Recording History.

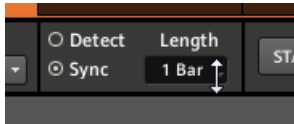
Software

1. First choose an empty Sound Slot to record into by clicking on its name.
2. Now click the **SAMPLING** button right underneath the **PIANO ROLL/KEYBOARD** button:



3. In the **RECORD** tab, select your Source. 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 (check the radio button labeled **Ext**). In this case we will record from the Group called 808 Kit.
4. In the next Panel of the **RECORD** tab, you can select a way to start the recording: either by setting a Threshold value (adjustable with the mouse by dragging) or in Sync with the Project Tempo. Since we want to record a drum loop from the 808 Kit, we select **Sync**.

- Click on the **Sync** radio button and enter a length of 1 bar using the mouse and dragging:



- Now click the **START** button and, since the recording is going to be triggered by the sequencer, click the Play button too.

→ After the recording stops, you will see the Waveform of your Sample:



Under the bigger Waveform representing the recorded Sample, you can see a small icon for each Sample that got recorded into this Sound Slot: this is called the Recording History. You can drag the Samples to other Sound Slots to use them separately.



For external Samples coming from an instrument that is not synced to MASCHINE by way of MIDI Clock, it is more useful to record it manually or in Threshold mode.

8.2 Editing a Sample

Hardware

With Button 2 you can reach the **EDIT** tab to edit the recorded Sample.

1. Change the Start and End point of the Sample with Knob 1 and 2.
2. Enable Loop mode by pressing the right PAGE button to navigate to the second page and then turn Knob 1.
3. Adjust the Start and End point of the Loop on the second page using knobs 2 and 3.

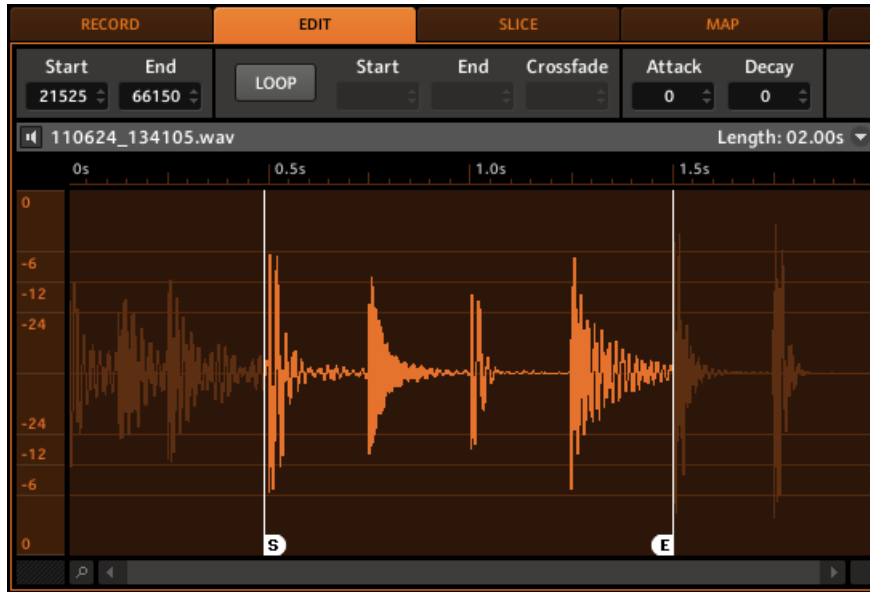


4. Since we recorded a drum loop in sync, there is no need to adjust Start and End of the Sample or the Loop here, but we have to enable Loop as described above.
5. To focus on a specific part of the waveform, you can press and hold the **NAVIGATE** button and use the knobs 5 and 6 to modify the zoom factor and the position in the waveform.

Software

1. Click the Sampling button to open the Sampling Area.
2. Select the **EDIT** tab by clicking on it.

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



- Enable Loop by clicking on the **LOOP** button.
- The Loop Area is now highlighted: you can change the Loop Area by moving the handles in the front and in the end of the Sample.

- If you want to have a bigger view of what's happening, put the mouse cursor over the timeline located above the waveform: the cursor turns into a small magnifying glass. Click and hold the mouse button, then drag your mouse vertically to zoom in/out and horizontally to scroll through the waveform.

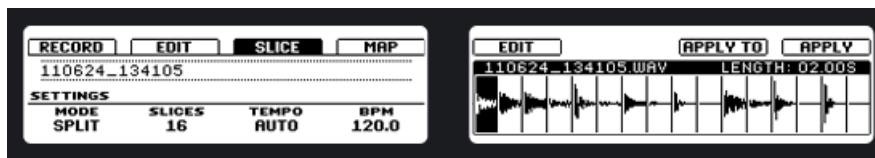


8.3 Slicing a Sample

Slicing a Sample is useful if you want to rearrange Loops or make them play correctly at another tempo. Let's slice the drum loop we have just recorded!

Hardware

- Press Button 3 to enter the SLICE tab.



2. You can now see the Slices of the Sample represented by vertical lines in the waveform on the right display. As we know the tempo is identical to our Project tempo, we select Auto using Knob 3.
3. There are three Slice modes: **SPLIT** slices the Sample into a predefined number of Slices, **GRID** slices the Sample into equally spread Slices with a predefined length, whereas **DETECT** is detecting the Slices by identifying their transients according to a predefined sensitivity.
4. Select the **DETECT** entry by dialing Knob 1.
5. Press **APPLY** (Button 7) to slice the Sample. If you press **APPLY TO** (Button 8), you can choose a different Sound or Group Slot to put the Slices on.

After that the display will automatically change to Keyboard/Piano Roll mode. Now you can play the Slices using the pads.

► If you change the tempo with the Tempo Encoder, you will hear the Loop changing its tempo accordingly.



Using the **APPLY TO** function (Button 8) you can also select another Group to spread the first 16 Slices on its pads.



Jam around with the Slices to see how it sounds: you can use **NOTE REPEAT** to make them stutter or just rearrange them by pressing the pads whenever you like.



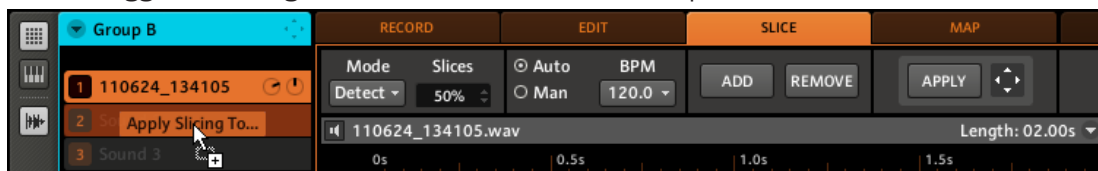
If you can hear a click noise at the beginning or end of a slice, try to adjust the attack or decay for this slice.

Software

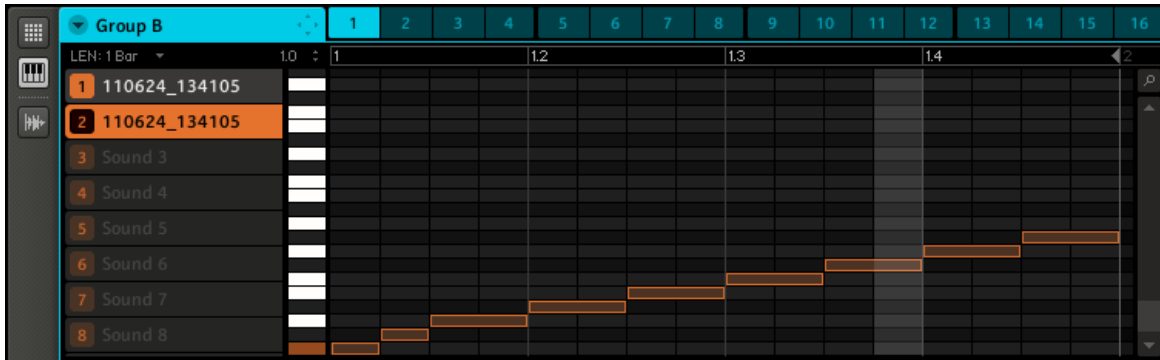
1. Click on the **SLICE** tab.



2. You can see that the Loop now has a couple of equally spread vertical lines in the waveform: this is where the Slices are going to be applied. As we know the tempo is identical to our Project tempo, click on **AUTO** in the Control Area; the BPM value will remain unchanged.
3. Next, select **Detect** in the **Mode** menu at the far left. This means that the Loop will be sliced according to the transients detected in the Sample (in contrast to slicing it into a specified number of Slices, or into Slices with a specified length). You will notice that the vertical lines have snapped to the transients.
4. Now click on the **APPLY** button to slice the selected Sample. Alternatively, click the Slice Dragger and drag it into another Sound or Group Slot:



→ The Piano Roll / Keyboard Editor will open automatically after that, and you will see a couple of notes:



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 just like we recorded it.

► Try changing the tempo now, and you will hear that the Loop automatically adjusts to the new tempo.

8.4 Mapping Samples

Mapping is useful for creating your own Sounds using multiple Samples instead of just one. In the Mapping Editor you can set a root note, a note range on the keyboard, velocity ranges and Tune, Gain and Pan for each Sample.

Hardware

1. In Sampling mode, hit Button 4 to enter the Mapping tab (MAP).
2. On the right display you will see the sample waveform of the selected zone now. To switch between the zones of a sound consisting of more than one Sample (Multi-sample Sound), use Button 7 and Button 8 for Previous and Next Zone.
3. To edit the velocity range of a Sample, switch to the next page using the Right Page button: Knob 1 and 2 are now used to define the lowest and the highest velocity.
4. The third page is used to enter Tune, Gain and Pan for the Sample Zone.

5. If you want to delete a Zone, select it and press Button 6 to remove it.



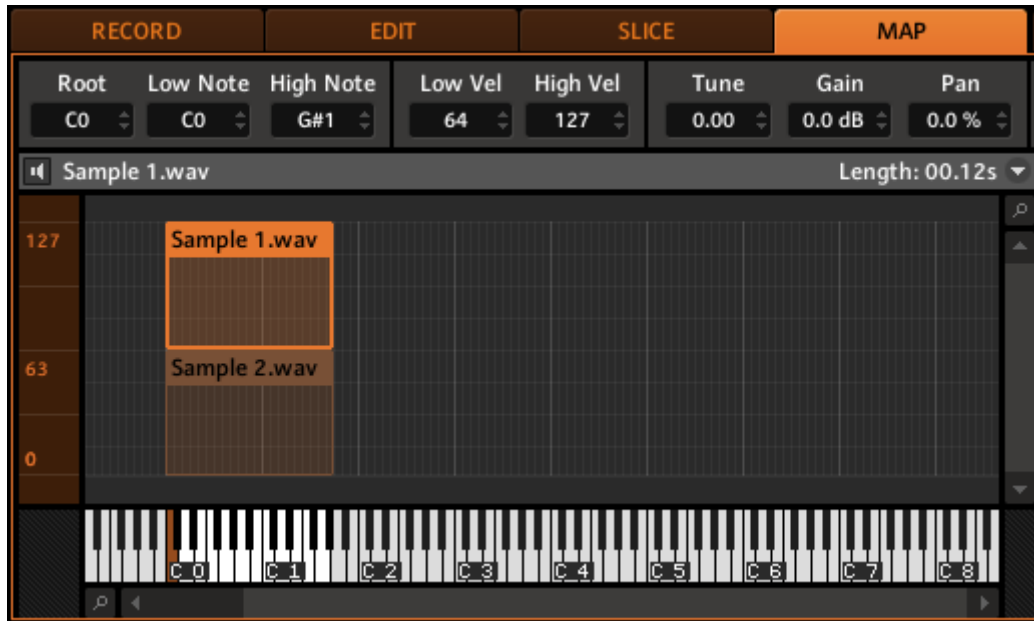
Software

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



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. The note range of several Zones can overlap.

3. 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.



→ Now you can set the selected Zone's parameters:

- Select a root note in the [Root](#) field.
- Set the note range's limits, using the [Low Note](#) and [High Note](#) fields.
- Set the velocity range, using the [Low Vel](#) and [High Vel](#) fields.
- Set the tuning in the [Tune](#) field.
- Set the gain in the [Gain](#) field.
- Set the panorama position in the [Pan](#) field.

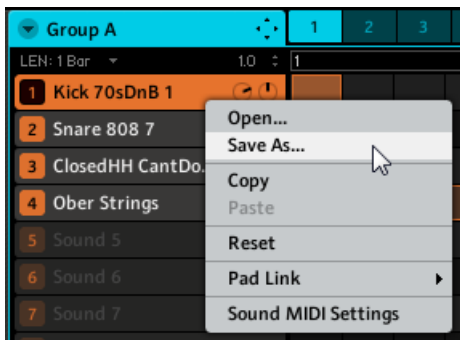
9 Managing Projects

In this chapter you will learn how to save different elements of Projects independently so that you can easily use and find them for other Projects. Some of these functions are only available in the MASCHINE Software. You will also learn how to export audio files from Groups, Sounds and the Master Output.

9.1 Saving Sounds, Groups, Patterns

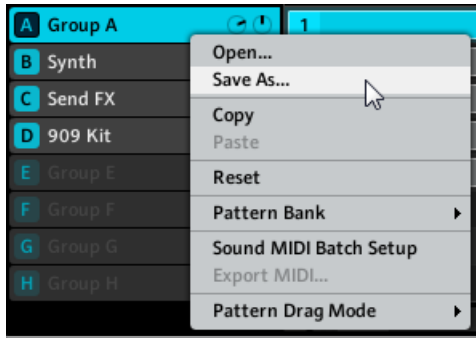
9.1.1 Saving a Sound

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



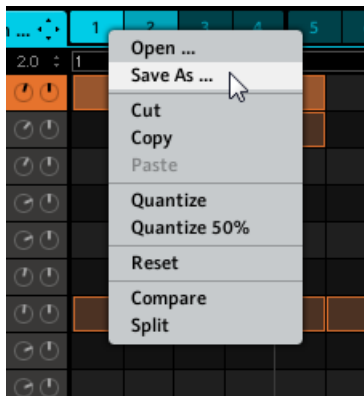
9.1.2 Saving a Group

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



9.1.3 Saving a Pattern

► To save a Pattern, right-click (on Mac OS X: [Ctrl]+click) on the Pattern Label in the Arranger and select *Save As...* from the dropdown menu:



9.2 Saving and Recalling Module Presets

9.2.1 Saving Module Presets

All settings and assignments of a MASCHINE Module Slot can be saved as Module presets. Once saved, Module presets can be accessed from the MASCHINE Browser. This is a very quick and convenient way to recall plug-ins as well as parameter assignments. To access the Module menu, click the drop-down arrow on the right-hand side of a Module tab:



The Module menu displaying options for loading Modules as well as saving and recalling Module presets.

► Select **Save As ...** from the Module menu to save your Module preset. It will automatically be tagged with the Module Type. In case of a VST/AU plug-in the type attribute will be the plug-in name.

9.2.2 Recalling Module Presets

All Module presets saved as described in [↑9.2.1, Saving Module Presets](#) are available in the MASCHINE Browser. You will find each Module preset automatically tagged with the Module type in MASCHINE's Browser.

Hardware

1. Press the **BROWSE** button on the MASCHINE controller
2. Select **INSTRUMENT** from the filter menu with Knob 1.
3. Set the **BANK** to **USER** with Knob 2.

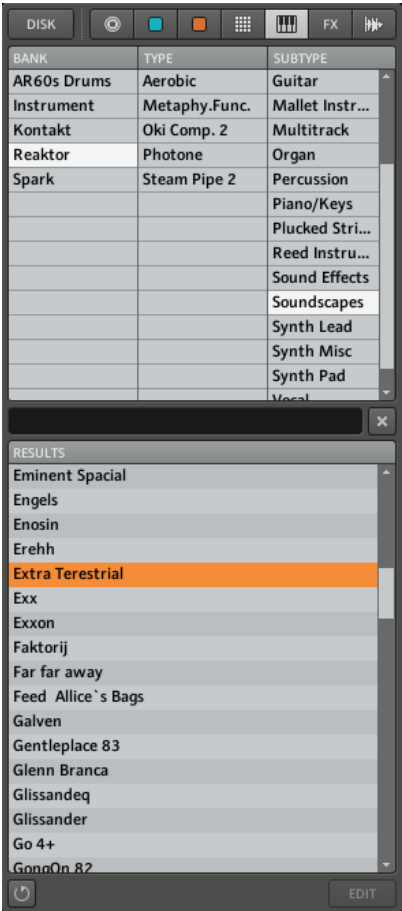
4. Use Knob 3 to set the Type to the name of the plug-in presets you want to browse.
5. On the right display, you can view all Module presets that were saved for the selected plug-in.
6. Browse through the list of Module presets with Knob 5.
7. Load the selected Module preset by pressing Button 8.

Software



The Instrument button in the file type selector of the MASCHINE Browser.

1. Click the [DISK](#) button if the file type selector is not visible.
2. Module presets can be found in either the Instruments or the FX section. In order to find e.g. a VST/AU plug-in effect, click on the FX button in the browser header.
3. In the [TYPE](#) column, select the name of the desired plug-in.
4. In the result list, you can double-click the desired Module preset now or drag it to the Module Slot, where you want to load it.

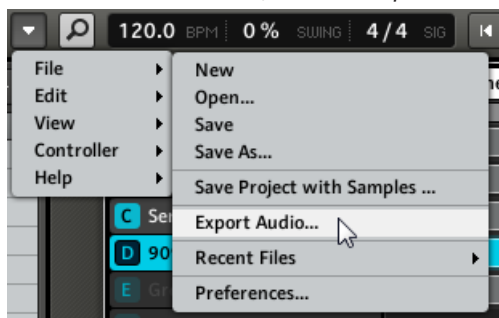


Instrument presets in the MASCHINE Browser.

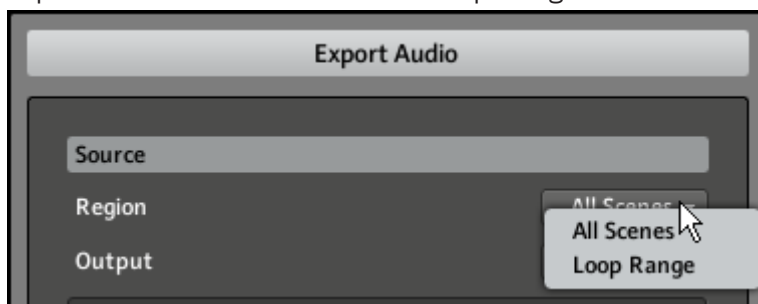
9.3 Exporting Audio

There are several ways to export audio files in MASCHINE:

1. From the *File* menu, select *Export Audio...*:



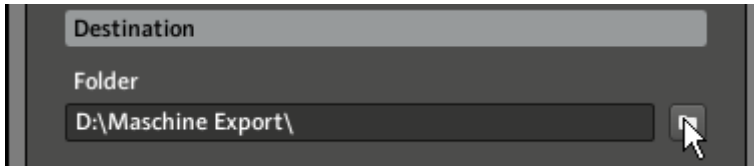
2. The Export Window opens up.
3. In the Export Window's *Region* dropdown menu you can select the Region you want to export: all Scenes or the current Loop Range.



4. From the *Output* menu, select what you want to export: the *Master*, *Groups* or *Sounds*. If you select *Groups* or *Sounds*, a list of available Groups or Sounds will be displayed with a checkbox next to each entry: check all Groups or Sounds you wish to export.



5. In the [Folder](#) field, you can choose the destination folder of the exported audio.



6. In the **Options** section, you can additionally select a [Bit Depth](#), enable Normalization ([Normalize](#)) and choose whether you wish to optimize the loop for looped playback ([Loop Optimize](#)).
7. When you are done, click on the [Export](#) button at the bottom. To cancel, click on the [Close](#) button instead.

10 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.

10.1 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.

10.2 Check your CPU power before playing

It could be very embarrassing, for example if you are on stage and your computer starts to have hiccups because it cannot handle the amount of effects or plug-ins you are using. Although the MASCHINE Software is programmed very efficiently, this might happen if your computer is old. So before you get on stage, give your live set a thorough performance check by first playing it at home. If necessary, keep an eye on the CPU meter in the Header of the MASCHINE software to see if there any peaks in during playback.

10.3 Name your Groups and Sounds

Naming your Scenes, Clips, 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.

10.4 Use Mute & Solo and Scenes and Patterns with the Lock function

Mute and Solo is a good way to build up a live set especially on MASCHINE as you can mute and solo Groups and Sounds at the same time. By locking the Mute and Solo function, you have both hands free to mute or solo Sounds and Groups. The same goes for Pattern and Scene modes: Locking modes is done by pressing Button 1 at the same time as the mode button, and unlocking by pressing Button 1 again.

10.5 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 bass line or a melody.

10.6 Set up your own Multi-effect Groups

As described in chapter [↑6, The Input Module and Advanced Routing](#), you can set up multi-effect Groups containing all the Send effects you want to use in a live set.

10.7 Use 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.

10.8 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.

11 Glossary

Browser

The Browser is the front end for accessing all the elements of your MASCHINE Projects: Projects, Groups, Sounds, Samples, Patterns, Instruments and FX Presets. Each of these can be stored and “tagged”, and categorized in a way that allows you easy access to all of them. MASCHINE's Factory Library is already completely tagged, and you can also import your own Samples to the Library and tag them as well.

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.

Sounds

A sound can hold up to 4 modules which can be a Sampler, VST/AU Plug-in Instruments or FX, internal MASCHINE FX, as well as an external Input, or a MIDI Out module. Each Sound of the selected Group is mapped to one of the 16 pads on the MASCHINE controller, so you can play the Sounds by pressing the pads.

Groups

A Group contains 16 Sound Slots, each of which can hold one Sound. In addition to the effects applied to an individual Sound, a Group can have up to 4 Insert FX. These affect all the Sounds in the Group. A Group can also contain up to 64 Patterns assigned from one of the four Pattern Banks.

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 up to four Insert FX of its own, these effect are applied to all Groups and the Sounds within them.

Modules

MASCHINE contains four Module Slots on each of the three MASCHINE Project levels Sound, Group, and Master. MASCHINE modules are the MASCHINE Sampler, VST/AU Plug-in Instruments or FX, internal MASCHINE FX, as well as the external Input module and the MIDI Out module.

Scenes

A Scene represents a combination of different Groups with their associated Patterns. Scenes are used to chain patterns (known as Clips in the arrangement area) in order to build up a finished arrangement, or to trigger different parts of a Song while you are playing live.

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.

Events

Events are the individual element that make up a pattern. In Step Editor mode these are visually represented in the MASCHINE software by rectangles. In Piano Roll mode they are represented by note information. Each event represents a musical note or a drum hit.

Effects (FX)

MASCHINE comes with many different effects that are called FX in MASCHINE terminology. You may also use VST/AU plug-in effects too. Up to four effects can be directly applied as insert effects to each Sound, Group or Master level. With the Routing System you can also create send effects and multi-effects.