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NI **NATIVE INSTRUMENTS**

Table of Contents

1   Welcome to MASCHINE MK2!

Thank you for buying MASCHINE MK2!

MASCHINE MK2 is essentially the synergy of the MASCHINE MK2 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 MK2 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 rearrange them easily turning your ideas into full productions.

However, MASCHINE MK2 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 for purchase from Native Instruments website to further enhance your library of sounds.

You can also control your external MIDI Hardware and Software with the MASCHINE MK2 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   Where To Start?

MASCHINE MK2 provides you with many information sources. The main documents are meant to be read in the following sequence:

1. **MASCHINE MK2 Setup Guide**
2. **MASCHINE MK2 Getting Started** (this document) and online **video tutorials**
3. **MASCHINE MK2 Manual**

> 💡 The Setup Guide is available in printed form in the product box. The whole documentation set is 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.

> ⚠ Please check Service Center or the Native Instruments website regularly for up-to-date and localized versions of these documents.

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

▪ **MASCHINE MK2 Hardware Control Reference**

▪ **Controller Editor Manual**

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

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 MK2, from the very beginning to the first sound coming through your speakers.

First read the Setup Guide. Then proceed with this MASCHINE MK2 Getting Started to get more familiar with MASCHINE MK2.

MASCHINE MK2 Getting Started

After reading the Setup Guide and following its instructions, your MASCHINE MK2 should be up and running. The next step is to read this MASCHINE MK2 Getting Started. This gives you a practical approach to MASCHINE MK2 via a set of tutorials covering easy and more advanced tasks in order to help you familiarize yourself with MASCHINE MK2.

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.

MASCHINE MK2 Manual

The MASCHINE MK2 Manual provides you with a comprehensive description of all MASCHINE software and hardware features.

MASCHINE MK2 Hardware Control Reference

The MASCHINE MK2 Hardware Control Reference provides an overview of a MASCHINE Project, the quick access options performed using the MASCHINE MK2 hardware controller, and lots of keyboard shortcuts.

Controller Editor Manual

Besides using your MASCHINE MK2 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 MK2 controller. The Controller Editor should have been installed during the MASCHINE installation procedure. For more info on this, please refer to the Controller Editor Manual available as a PDF file in the Documentation subfolder of the Controller Editor installation folder on your hard disk.

Other Online Resources

If you are experiencing problems related to your Native Instruments product that the supplied documentation does not cover, there are several ways of getting help:

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

You will find more info on these in chapter ↑11, Troubleshooting – Getting Help.

1.2   In This Manual

What you are reading now is the MASCHINE MK2 Getting Started. It basically consists of a set of tutorials that will guide you through common workflows in MASCHINE MK2. Please follow these tutorials in the described order. You will learn a little something in each of them which will be essential later on. On the way, you will get to know the main objects and concepts of MASCHINE MK2. After reading this, you should have the basic know-how allowing you to make music with MASCHINE MK2!

> Even if you're already familiar with MASCHINE, all tutorials are worth a read as every chapter may have little workflow hints of which you weren't aware. Should you wish to revise a specific task covered in a later tutorial, be sure to check the prerequisites listed at the beginning of that chapter!

This document is structured as follows:

- The first part is this introduction.
- The second part (**Chapter 2** to **9**) holds the tutorials:
  - Chapter ↑2, First Steps: Load a drum kit from the factory library via the Browser, play this kit with the pads and use it to record a simple rhythmic pattern — all this using your MASCHINE MK2 controller only.
  - Chapter ↑3, Building Your Own Drum Kit: Customize your drum kit by quickly exchanging some of its sounds via the Browser and by adjusting some of the sounds' basic settings.
  - Chapter ↑4, Creating Beats: Record a second pattern and discover how to fine-tune your patterns.
  - Chapter ↑5, Adding a Bass Line: Add a bass line to your song using a VST/AU instrument plug-in in MASCHINE.
  - Chapter ↑6, Adding Effects: Add effects to the various instruments in your song and quickly automate the effect parameters.
  - Chapter ↑7, Creating Beats with the Step Sequencer: Create a Pattern, this time with the step sequencer — another great way of creating grooves from your controller.

- Chapter ↑8, Creating a Song Using Scenes: Arrange your Patterns into Scenes, develop your Scenes into a song and play your Scenes live!

- Finally, Chapter ↑9, What's Next? lets you glimpse some more advanced tasks and workflows covered in the MASCHINE MK2 Manual: adjusting the Sound, Group, and Master Properties; using advanced routings; sampling…

▪ The third and last part (**Chapter 10** to **12**) consists of useful global information on MASCHINE MK2 to be used at any time:

- Chapter ↑10, Quick Reference provides you with a quick reference of the MASCHINE MK2 hardware controller and the MASCHINE software. It gives you a good overview of the main concepts and features of MASCHINE, along with lists of hardware shortcuts for various tasks. You can use it as a quick reminder before you dive into the MASCHINE MK2 Manual.

- Chapter ↑11, Troubleshooting – Getting Help gathers useful information for troubleshooting and getting help.

- Chapter ↑12, Glossary holds a glossary defining all important terms and concepts used in MASCHINE MK2.

1.3   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 setup 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 MK2 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 MK2 controller** (or just **controller**) as the hardware controller and **MASCHINE software** as the software installed on your computer.

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

Unlabeled Buttons and Knobs

The buttons and knobs above and below the displays on your MASCHINE MK2 controller do not have labels (all other elements on the controller do).

The unlabeled buttons and knobs on the MASCHINE MK2 controller.

For better reference, we applied a special formatting here: throughout the document, the elements are capitalized and numbered, so the 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.

Button Combinations and Shortcuts on Your Controller

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

"Press SHIFT + PLAY"

means:

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

2   First Steps

In this first tutorial, we will load a drum kit from the factory library, play it with the pads and record some simple rhythmic pattern. We will focus here on your MASCHINE MK2 controller to get acquainted with some of its powerful features.

Prerequisites

We assume here that you carefully followed the instructions of the Setup Guide found both in PDF and as printed version in the product box. Hence, MASCHINE should already be installed on your computer, its basic audio settings correctly configured, and the hardware controller connected to your computer. If this is not the case, please return to the Setup Guide for more information before going any further.

▶   If you haven't already, please start MASCHINE via one of the usual ways on your operating system — for example, by double-clicking the alias placed on your desktop during the installation procedure.

A Project in MASCHINE

In MASCHINE, your whole song (or track) is called **Project**. A Project consists of all sounds, instruments, effects, settings, along with all arrangement information you will create — in other terms, a Project holds everything defining your song.

▶   If you already started testing MASCHINE, please start again with a blank, new Project by clicking the File menu and choosing *New* or by using the shortcut [Ctrl] + [N] ([Cmd] + [N] on Mac OS X).

For the time being, we suggest you move away from your computer and solely focus on your MASCHINE MK2 controller. Sit back comfortably, and grab your controller. We are now ready to start!

2.1 Loading a Drum Kit from the Factory Library

We will first choose a complete drum kit from the huge factory library included with MA-SCHINE, and load it. To do this, we will use the MASCHINE Browser. The Browser is your tool for finding, tagging and categorizing all types of objects used in MASCHINE.

A drum kit basically consists of several instruments — called **Sounds** in MASCHINE terminology. Those Sounds are put together into a **Group** that represents the complete kit. Your song can hold up to eight such Groups, labeled from A to H. So let's look for a nice kit and load it into Group A.

On your controller, do the following:

1. Press button A on the left of your controller to select the first Group slot. This is where we are going to load our drum kit. The button A should be lit in blue to indicate that it is selected.
2. Press the BROWSE button at the top left of your controller.
   The BROWSE button lights up. In the left display, you now are presented with a selection of choices.
3. Press Button 2 above the displays to select GROUP.
4. Turn Knob 1 under the displays until the FILTER field on the left display turns to GROUP.

This way, only Groups will be displayed now on the right display.

5. Turn Knob 2 until the BANK field is set to KITS, so that only drum kits are shown on the right display.
6. Turn Knob 3 until the TYPE field is set to URBAN KIT, this will further reduce the results list on the right display to the kits of that type.

7. Turn the Control encoder (the bigger knob on the left of your controller) or Knob 5 (under the right display) to scroll down the list until EK-TL A KIT is selected.

8. Now press Button 7 above the displays so that PATT. is *deselected* (the Button must be off — we'll get back to this later).

9. Press the Control encoder or Button 8 (above the displays) to load the selected entry.

→   The drum kit is loaded into the first Group slot.

As last step, let's leave the Browser and get back to the default Control mode of your controller:

►   Press the lit BROWSE button to leave the Browser (the button turns back off).

That's it! You just loaded a drum kit into a Group slot of MASCHINE. It is now ready to be played from the pads, as we will see in the next section.

> The process of loading from the Browser is the same for all kinds of objects: In the Browser, after choosing the desired object, you select the desired bank, type, and subtype, then you scroll through the result list and select an object for loading.

2.2   Playing with the Pads

As soon as a Group is loaded (here the EK-TL A Kit) and the corresponding Group slot selected (here Group slot A), this Group can be played from the sixteen pads on the right part of your controller. Each pad triggers one of the sixteen Sounds included in the Group.

►   Play the pads to get the feel of your controller: reactivity, sensitivity to the force you apply while playing (called velocity), etc.

> If you don't hear any sound when playing on your pads, check that none of the buttons in the column to the left of the pads is accidentally lit (if any button is lit, press it to disable it).

While playing, take a look at your pads. You will note the following:

- When you press a pad, it flashes and then stays fully lit.

- At any time, only one pad is fully lit. This is the pad you pressed last.

- All other pads are dim lit to indicate that they are loaded with a Sound ready to be played.

- An unlit pad would indicate that it has no Sound loaded — hence, pressing it would not have any effect.

While keeping on playing on the pads, focus now on the eight Group buttons on the left of your controller. You will note the following:

- All Group buttons except the button A are off, indicating that they are not loaded with anything.

- The button A is fully lit, indicating that Group slot A is selected. This means that the pads currently trigger the Sounds of this Group.

► Now press any other Group button (B–H) to select it.
  You will note the following:

- Group buttons become fully lit when pressed and the pads trigger the Sounds of the selected Group. Since we haven't loaded anything in Groups (B–H) yet, all the pads are off, except one of them (indicating that it is currently selected).

- Button A is dim lit, indicating that Group slot A has something loaded in it (namely, the EK-TL Kit we just loaded).

- Button A and B have different colors: These are the default colors for Group A and B.

- All dim and fully lit pads have the color of the selected Group button: They mirror the color of their Sounds, which is by default the color of the Group they are belonging to.

As you can see, MASCHINE communicates in both directions: The commands you give via the pads and buttons control the software, but the software also communicates information back to you via the display and the LEDs.

► Select Group A again by pressing button A and continue playing on the pads to get familiar with them.

When you feel ready, move on to the next section, where we will record a little rhythmic pattern using this drum kit!

2.3 Recording Your First Pattern

Now that you feel comfortable with the pads, let's use them to live record some rhythm into a **Pattern**. A Pattern is a recorded sequence of notes played on the Sounds of the current Group. Each Group in your song can hold up to 64 Patterns.

We will now use the transport controls, which are located at the bottom left of your controller:

The TRANSPORT section on your controller (here while recording).

1. Press PLAY to start the sequencer.
   The PLAY button lights up green. You won't hear anything yet because nothing has been recorded.
2. Press SHIFT + PLAY to activate the metronome so you get a rhythmical reference.
   You now hear the metronome indicating each beat, the first beat of each bar being indicated by a different note.
3. Play along the metronome to get a feel for the tempo.
4. If you'd like to increase or decrease the tempo to make your playing feel more comfortable, press the TEMPO button at the left of the controller (the button lights up), turn the Control encoder, and press TEMPO again to deactivate it (the button turns off).
   The tempo value is indicated in the left display.
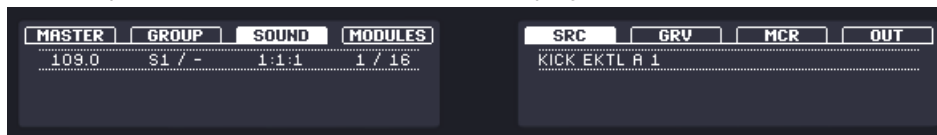
> You can also adjust the volume of the metronome by holding SHIFT + PLAY, pressing the VOLUME button (above the TEMPO button) and turning the Control encoder. When you're done, press VOLUME again to deactivate it!

> We recommend you to start with a simple sequence using a few Sounds only (e.g., the kick and the snare on pads 1 and 2). You will have the possibility to enrich your Pattern later!

When you feel ready, start recording:

1. With the sequencer playing, press REC to enter recording mode.
   REC lights up red.
2. Play the desired rhythm on the pads. By default, the recorded Pattern is one bar long. Your playing is recorded and directly played in a loop. As long as you don't press PLAY again, the new Pattern keeps playing.
3. Press REC again to stop recording.

→ You just created your first Pattern!

You can now deactivate the metronome by pressing SHIFT + PLAY again and listen to your newly created rhythm.

► To stop the sequencer, press PLAY again.

Quick Edits on Your Pattern

At any time, you can **undo** your last action by pressing SHIFT + pad 1 — whether you are currently recording or not. You can **redo** it by pressing SHIFT + pad 2.

> The undo and redo commands are global in MASCHINE: Almost any action in MASCHINE can be undone/redone!

At any time, you can enrich your Pattern by activating PLAY and REC again, and playing the pads. This way, you can progressively build up a complex Pattern step by step.

2.4   Playing with Your Pattern

Now that you have a nice Pattern, let's introduce a few powerful tools for playing your Pattern live.

2.4.1   Mute and Solo

1.   Press PLAY to start the sequencer.
      Your Pattern starts playing. You see each pad flashing as the corresponding drum is trig-
      gered.
2.   Press and hold the MUTE button at the bottom of your controller.
      All pads become fully lit. They continue flashing with the rhythm.
3.   While holding MUTE, press pad 1.
      The pad turns dim lit and you don't hear the kick drum anymore.
4.   While holding MUTE, press a few other pads to mute their Sound to your liking.
5.   While holding MUTE, press pad 1 again.
      The pad returns to being fully lit and the kick drum is playing again.
6.   While holding MUTE, press again the pads you just muted to bring their Sounds back.
7.   Release MUTE.
8.   Now press and hold the SOLO button (just above MUTE).
      Again, all pads turn fully lit and continue flashing with the rhythm.
9.   While holding SOLO, press pad 1.
      Pad 1 stays fully lit while all other pads turn dim lit and you can't hear their Sounds any-
      more.
10.   Now release SOLO and hold MUTE again.
11.   Press the dim lit pads one by one, progressively bringing each drum back in the mix.

→   The combination of muting and soloing Sounds allows you to create effective breaks on
      the fly!

> 💡 You can also solo and mute whole Groups by holding SOLO or MUTE and pressing the de-
> sired Group button — for now we only have one Group loaded, thus it would not make
> much sense yet.

2.4.2   Note Repeat

1.   Check that your Pattern is playing — if not, press PLAY to start the sequencer.
2.   Hold the NOTE REPEAT button.

3. While holding NOTE REPEAT, hold any pad.
    The Sound of the pad is repeatedly triggered at the rate shown at the bottom of the controller's display.

4. While holding NOTE REPEAT, press Button 5, 6, 7 or 8 above the right display to select another repetition rate.

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

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

2.5 Save Your Work!

A drum groove is an ideal starting point for the creation of a song. All the instruments you record afterwards will be based on the feeling of that rhythm. Before we get to adding new elements and editing your pattern, it is advised to save our work right away:

1. To save your modifications to the Project, press SHIFT + ALL.
    Since our current Project was not saved yet, MASCHINE asks you to name it before saving. For this, you need to get back to your computer. A Save File As… dialog opened and is waiting for your input.

2. On your computer keyboard, type a name (e.g., "My First Project") in the field and press [Enter] to confirm.

→   Your Project with its new Pattern is now saved on your hard disk. Should you close MASCHINE or open another Project, you will still be able to open this Project later.

2.6 To Sum Up…

In this first tutorial, we have learned to:

▪   Load a Group using the Browser.

▪   Use the pads to play the Sounds of that Group.

▪   Record a simple Pattern with that Group.

▪ Use the Mute, Solo and Note Repeat features to create variations on the fly.

▪ Save the current Project for a later use.

Once you feel comfortable with these tasks, please proceed to the next tutorial, where we will customize our drum kit, and have a closer look at the MASCHINE software user interface.

3 Building Your Own Drum Kit

In this tutorial, we will exchange some of the Sounds of our drum kit, and adjust a few settings for our Project and our Group. On the way, we will discover some features of the MASCHINE software user interface.

Prerequisites

We assume here that you followed the previous tutorial. In particular, you already know how to:

- Load a Group using the Browser.
- Use the pads to play the Sounds of that Group.
- Record a simple Pattern with that Group.
- Save the current Project for a later use.

If you have any doubts about these tasks, please refer to chapter ↑2, First Steps before proceeding!

3.1 Opening Your Project

If for any reason our tutorial Project is not currently open in MASCHINE (e.g., you opened another Project in the meanwhile), you first need to open it again. You can do this with the controller or in the software, for example using the MASCHINE Browser.

> ⚠ If you closed MASCHINE and started it again, your last Project should automatically load by default. If you changed this setting, follow these instructions to load the tutorial Project again!

If the tutorial Project is already open in MASCHINE, you can skip to section ↑3.2, Customizing Your Drum Kit.

Available both on your controller and in the software, the Browser will be the preferred way to open a project when working on your controller. We will use here a nice feature of MASCHINE: Each file you created and saved in MASCHINE is automatically put in the Bank "User." Hence, we will select this Bank to quickly find our tutorial Project again.

Software

In the MASCHINE software, the Browser is found in the left part of the window.

If you cannot see the Browser in the MASCHINE software, click the little magnifying glass in the Header at the top of the MASCHINE window in order to show the Browser:
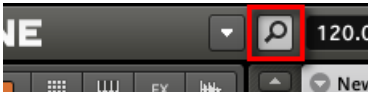
Enable the magnifying glass to display the Browser.

To open the tutorial Project, do the following:

1. At the top left, click the button showing the Project icon to get a list of all available Projects in the Library:

2. In the BANK column below, click User to select only the user-created Projects:
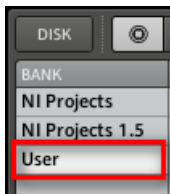
    In the result list below, we now have one unique Project left — our "My First Project":
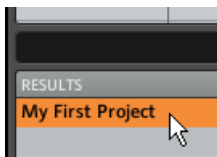
3. Double-click this unique entry to load the Project in MASCHINE.

    > Of course, if you have created other Projects in MASCHINE, they will also appear in the result list along with our tutorial Project.

Hardware

Now try operating MASCHINE via the MASCHINE MK2 controller wherever possible. To open a Project via the controller, we will follow the same process as above, filtering MASCHINE objects to narrow our search until we find our tutorial Project. This is similar to what we did when loading a drum kit in the previous tutorial. Do the following:

1. Press BROWSE to show the Browser.
    The BROWSE button lights up.
2. Press Button 1 above the displays to select MASTER.
3. Turn Knob 1 under the displays until the FILTER field on the left display turns to PROJECT.

This way, only Projects will be displayed now on the right display.

4. Turn Knob 2 until the BANK field is set to USER, so that only user-created Projects are shown on the right display.

5. In case you already created more than one Project, turn Knob 5 or the Control encoder until MY FIRST PROJECT is selected on the right display. If the Control encoder does not scroll the result list, check that the VOLUME, SWING, and TEMPO buttons to the left are off — if not, press the lit button to turn it off.
6. Press Button 8 or the Control encoder to load the Project.
7. Press BROWSE to leave the Browser.
    The BROWSE button lights off.

That's it! Now we can continue to work on our tutorial Project.

> You will note that every action we did on the controller is directly mirrored in the Browser of the MASCHINE software. This is true in both directions!

3.2 Customizing Your Drum Kit

You might want to replace one or more drums from the Group "EK-TL A Kit" with ones that sound better with your Pattern. To do this, let's make use of the Browser again.

3.2.1 Selecting Another Snare Sample

For the sake of providing an example, we will replace the Sample "Snare Ektl A 2" used in the Sound of the pad 6. We want something less intrusive.

Hardware

On your controller, do the following:

1. Press BROWSE to show the Browser. The BROWSE button should be lit.
2. Press Button 3 to select SOUND.
3. Press pad 6 to select its Sound.
4. Turn Knob 1 under the displays until the FILTER field on the left display turns to SAMPLE.
   The Browser will now show Sample files only.
5. Turn Knob 2 until the BANK field is set to DRUMS.
   The Browser will now show the drum samples only.
6. Turn Knob 3 until the TYPE field is set to SNARE.
   The Browser will now show the snare drum samples only… but the factory library still holds many hundreds of them, so we need to narrow our search a bit more.
7. Turn Knob 4 until the SUBTYPE field is set to (for example) SIDE STICK.
   On the right display, you now see that the side stick samples are ready to be browsed.

8. Press Button 4 to activate the **Prehear** feature.
9. Turn Knob 5 or the Control encoder to scroll through all side stick samples. You can hear each sample that you select thanks to the enabled Prehear feature.

10. Once you have found a nice side stick sample, press Button 8 or the Control encoder to load it into the Sound slot currently selected (the one triggered by pad 6).

To help you decide which sample would fit best, MASCHINE offers you an additional, convenient help: **Autoload**. This allows you to replace the selected Sound on the fly with the Sound currently selected in the Browser's result list while your Pattern is playing. Thus, you can listen to each sample in the context of your Pattern. To do this:

1. Press PLAY to start the sequencer.
   The Pattern you created starts playing.
2. Press Button 4 to *deactivate* the Prehear feature. In the display, PREHEAR should not be enabled anymore.
3. Now, instead of using Knob 5 or the Control encoder for scrolling through the Samples, use Buttons 5 and 6 above the right display.
→ The selected Sample will automatically load into the Sound slot triggered by the pad 6. Since your Pattern is playing, you will hear the selected Sample in place of the former "Snare Ektl A 2" Sample in the context of your recorded Pattern.

> When Autoload is enabled, and you have found a nice Sample you don't need to explicitly load it, since it is already loaded in the Sound slot.

► Don't forget to press BROWSE again to leave the Browser once you have found the ideal Sample.

Software

We already used the Browser in the software to open our tutorial Projects. We will show you here another use for the Browser: This time, we won't select Banks or Types, but instead use the text search.

1. Click the Sound slot containing the "Snare Ektl A 2" that we want to replace:

    The Sound slot 6 gets highlighted to indicate that it is selected.

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

3. 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:
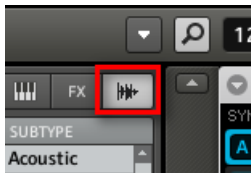
4. Since we want to find a side stick, type "side stick" into the empty field above the list of Samples. As soon as you start typing, you will see the list below being updated to display Samples matching your query.
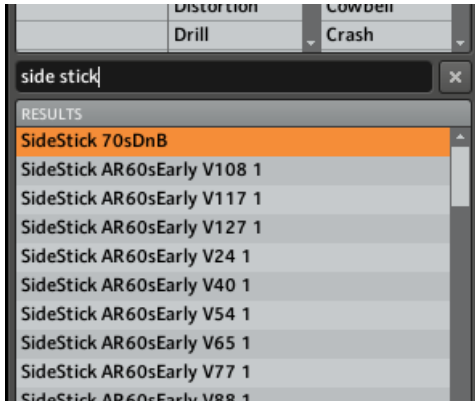
5. Now activate **Prehear** by clicking the Prehear button (with the loudspeaker symbol on it) at the bottom of the Browser:
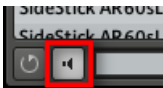
6. Now you can listen to the available side sticks by clicking on their names in the list and choose one you like.

7. When you have found a nice side stick Sample, double-click it to load it in the Sound slot. You can also drag and drop it on the Sound slot.

> You can also mix both search methods: You can simultaneously select specific Banks (and Types, Subtypes…) and type the desired search query in the Search field.

As with your controller, you can activate the **Autoload** feature to listen how the selected Sample work with the other percussions in your Pattern. To do this:

1. Click the Autoload button at the bottom left corner of the Browser to activate it (you can deactivate the Prehear button next to it):
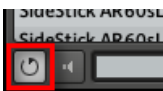
2. Now click any Sample in the result list: It will automatically load in the selected Sound slot, replacing the previously loaded Sample. If the Pattern is playing, you can directly hear the new Sample in context.

Try to exchange a few Samples to familiarize yourself with the procedure described above, both on your controller and in the software. This should allow you to build a custom drum kit that fits your needs!

Note that you can also start from a blank Group and entirely fill it up with the Sounds of your choice!

3.2.2   Adjusting the Volume and the Swing

After selecting the right Samples for your drum kit, you might need to adjust the level of some of the Samples. MASCHINE holds a powerful sampler that allows you to fine-tune many settings for each generated sound. Without entering in too many details yet, lets look at a quick way to adjust the levels and swing for your Group and its Sounds.

Hardware

► Press the VOLUME button at the left of the Control encoder.
The VOLUME button lights up.

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

▪ To adjust the overall volume, turn the Control encoder. Hold SHIFT and turn the Control encoder to adjust the value in finer increments.

▪ To adjust the volume of a particular Group, press and hold its Group button (A–H) and turn the Control encoder. Hold SHIFT additionally to adjust the value in finer increments.

▪ To adjust the volume of an individual Sound, press and hold its pad and turn the Control encoder. Hold SHIFT additionally to adjust the value in finer increments.

As you adjust the volume, the left display indicates the volume's current value.

> We recommend you to do all this while your Pattern is playing, you will immediately hear the effect of your changes!

Let's adjust the overall **swing** of our Project, too. The Swing feature shifts some of the played notes, hereby adding some "groove" to your Pattern. The procedure is similar to the one described above for the volume:

1. Press the SWING button at the left of the Control encoder.
    The SWING button lights up. If the VOLUME button was still on, it turns off.
2. Turn the Control encoder to adjust the Swing for your overall Project.

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

> In the same manner, pressing the TEMPO button (under the SWING button) allows you to adjust the overall tempo of your song by turning the Control encoder. If you additionally hold any Group button or pad, you can then adjust the pitch of the Group/Sound!

▶ When you are done with your volume, swing, and tempo changes, press the lit VOLUME, SWING, or TEMPO button to deactivate it.

Software

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

▶ To adjust the overall output level, click and drag the Master Volume slider located on the right part of the Header, at the top of the window.

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

▶ To adjust the volume of a particular Group, click and drag the left knob in the Group slot.
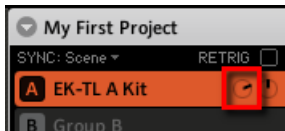
Use the left knobs in the Group slots to adjust the volume of each Group.

▶ To adjust the volume of an individual Sound, click and drag the left knob in the Sound slot.
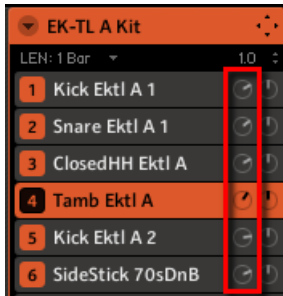
Use the left knobs in the Sound slots to adjust the volume of each Sound.

> In each Group or Sound slot, the right knob allows you to adjust the panoramic position of that Group or Sound!

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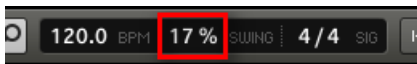
The SWING control in the Header.

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

3.2.3   Changing the Colors

MASCHINE allows you to change the color of each Group or Sound. This can be done in the MASCHINE software only. It can be very useful to see at a glance who's playing what. For example, let's assign different colors to the different types of percussions in our drum kit:

► Right-click ([Cmd] + click on Mac OS X) on the desired Sound slots, select *Color* in the context menu, and select the desired color according to the type of percussion in that Sound slot.

As an example, here is what you could get:

Our drum kit full of colors.

Have a look at the pads: They mirror the new Sound colors. This helps you see much quicker where the kicks, the snares, etc., are.

> You can assign colors to your Sounds, Groups, Patterns, and Scenes — we will describe Scenes later. It's up to you to decide which colors to use. You can use colors to distinguish different sound types, purposes, or anything else that best fits your needs and workflow!

3.2.4 Moving your Sounds and Groups

You can exchange the position of your Sounds and Groups at any time. This can be done in the MASCHINE software only. It can be helpful to organize your Sounds or Groups more conveniently. Notably, this allows you to move your Sounds to other pads, and create a Group that is easier to play from the pads.

For example, let's exchange the positions of the "Kick Ektl A 2" and the "Snare Ektl A 1" in order to have both kicks on pads 1 and 2, and both snares on pads 5 and 6:

1. Click and hold the Sound slot 5 containing the "Kick Ektl A 2."
2. While holding the mouse button, drag your mouse up.
   As the mouse cursor moves up, an insertion line appears at the potential places where you can drop your Sound.
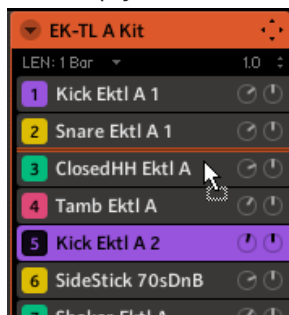
3. When the insertion line appears under the other kick, release the mouse button.

→ Your second kick takes place under the first kick in the Sound slot 2. It will now be triggered by the pad 2 on your controller.

In a similar manner, we will now move the "Snare Ektl A 1" to pad 5:

1. Click and hold the Sound slot 3, which now contains the "Snare Ektl A 1."
2. While holding the mouse button, drag your mouse down. When the insertion line appears above the other snare, release the mouse button.

→ Your first snare takes place above the second snare in the Sound slot 5. It will now be triggered by pad 5 on your controller.

Keep in mind that any change in the Sound slot positions also affects the pads triggering the corresponding Sounds! Hence, we recommend you to practice enough with your new mapping to avoid confusion.

3.3 Save Your Work!

Again, it is highly recommended to regularly save your work. We already saved our tutorial Project earlier, hence we only need here to save the changes we made. To do this:

► On your controller, press SHIFT + ALL to save your Project.

or

► In the software, press [Ctrl] + [S] ([Cmd] + [S] on Mac OS X) to save your Project.

That's it! You can now open another Project or close MASCHINE and take a break, your tutorial Project will be recalled as is the next time you open it.

3.4 To Sum Up…

In this tutorial, we have learned to:

- Open a Project using the Browser (both on your controller and in the software).
- Replace some of the Sounds of the original Group with other Samples taken from the factory library using the Browser.
- Adjust the overall volume of MASCHINE along with the individual volume levels of your Groups and Sounds, both on your controller and in the software.
- Adjust the overall Swing of your song, both on your controller and in the software.
- Change the colors of your Sounds, and possibly of your Groups, Patterns and Scenes (more on Scenes later).
- Move your Sounds across your Group to assign them to other pads on your controller.

Once you feel comfortable with these few tasks, proceed to the next tutorial, where we will learn more on Patterns!

4   Creating Beats

In this tutorial, we will further enhance our tutorial Project with the following:

- We will double our Pattern and fine-tune it.

- We will add a second Pattern for breaks.

> Even though we have only dealt with drum kits until now, MASCHINE is much more than a rhythm box. Indeed, it also does a great job with melodic instruments! For those who can't wait: Please be patient, we will add a bass line in the next tutorial.

Prerequisites

We assume here that you followed the previous tutorials in chapter ↑2, First Steps and ↑3, Building Your Own Drum Kit. In particular, you already know how to:

- Open a Project (↑3.1, Opening Your Project).

- Use the pads to play the Sounds of the loaded Group (↑2.2, Playing with the Pads).

- Record a simple Pattern with that Group (↑2.3, Recording Your First Pattern).

- Save the current Project for a later use (↑2.5, Save Your Work!).

If you have any doubts about these tasks, please refer to the previous tutorials before proceeding!

In case your tutorial Project "My First Project" is not open, please open it now:

► Open the tutorial Project "My First Project."

4.1   Fine-tuning our First Pattern

We will start by improving our first Pattern using some of the powerful editing features of MASCHINE.

4.1.1 Our Pattern in the Software

First of all, let's have a quick look at the Pattern Editor in the software:
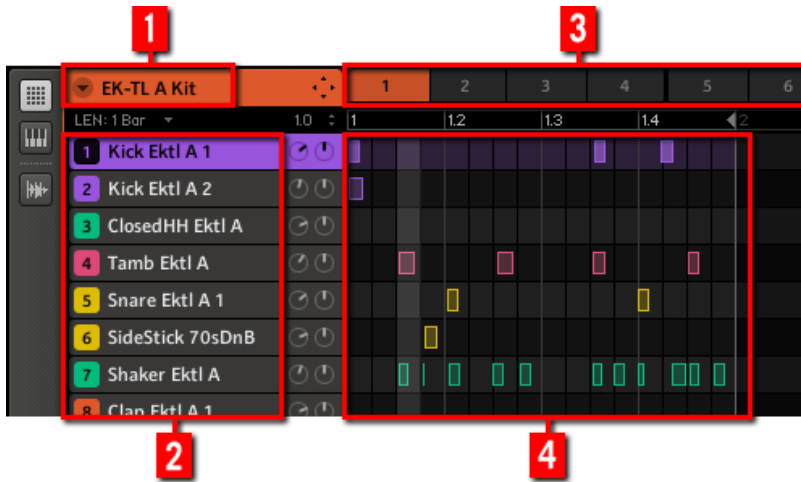
Our first Pattern displayed in the Pattern Editor.

In the Pattern Editor, you will note the following:

- At the top left (**1**), EK-TL A Kit indicates the name of the Group currently selected — that is, our customized drum kit.

- Under the Group name, you see a vertical list of all Sounds included in the Group (**2**). If the list does not fit into the screen, a vertical scroll bar at the right end of the Pattern Editor allows you to display the missing Sounds. At any time, the selected Sound slot is highlighted (in the picture above, the Kick Ektl A 1, triggered by the pad 1).

- At the right of the Group name, you find a row of numbered slots (**3**). These represent the **Pattern slots** for that Group. At any time, the selected Pattern slot is highlighted (in the picture above, the Pattern slot 1).

- The biggest area of the Pattern Editor (**4**), in the lower right part, displays the **events** (the notes) of the Pattern currently selected. In other terms, you see here what you recorded in ↑2.3, Recording Your First Pattern. Events mirror the colors of their respective Sounds.

Vertical lines indicate the beats (grey lines) and their subdivisions (black lines). The thick, transparent grey line indicates the current play position. At the bottom, an horizontal scroll bar allows you to display other parts of the Pattern, in case it is too long to fit.

Now that we have a better overview of our Pattern, we can start fine-tuning it.

4.1.2   Doubling the Pattern

For now, our Pattern is four bars long. When played in a loop, it might get a bit monotonous. To solve this, we will double it and add a little variation at its end. On your controller, do the following:

1. Press PATTERN and hold it.
   The displays turn to Pattern mode and provides you with Pattern-specific options.

2. While holding PATTERN, press Button 2 above the displays to select DOUBLE.
   In the software, you see that the Pattern now is twice as long, and all its events have been replicated in the second half of the Pattern.
3. Release the PATTERN button.
4. Press PLAY to listen to your Pattern.
   You don't hear any difference yet, since both halves are exactly identical.
5. Check that the CONTROL button at the top left corner of your controller is lit — if not, press it to enter Control mode.
6. Press REC to start recording (the button lights up), and add a few notes with the pads when the second half of the Pattern is playing.
7. At any time, don't hesitate to undo/redo your last action(s) by pressing SHIFT + pad 1 and SHIFT + pad 2, respectively.
8. Once you are satisfied with the ending of your extended Pattern, disable REC to stop recording.

→   You now have an 8-bar Pattern containing a new variation!
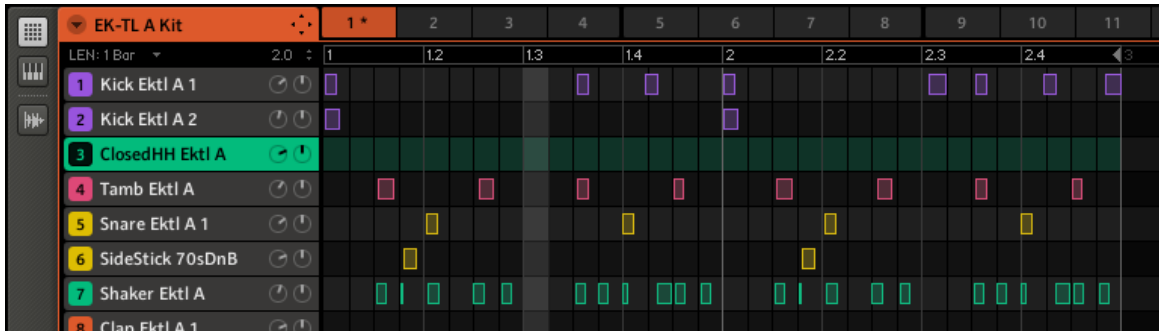
Our Pattern after doubling and having added a few kicks in the second half.

When recording, you don't necessarily need to be super-accurate in your playing: The next section will show you how the Quantize functions can correct the timing of your playing to a set of discrete values.

4.1.3   Quantizing the Rhythm

It takes a little practice to be very precise when playing the pads. Sometimes (especially if you're new to MASCHINE) your timing maybe slightly off and this will be evident when you record your Pattern. MASCHINE has a solution for this! It's called quantization.

Zooming In Your Pattern

To check this, let's zoom on specific parts of our Pattern in the software. Go to the bottom of the Pattern Editor in the software. At the left of the horizontal scroll bar, you see a little magnifying glass icon, called the **Zoom Tool**:
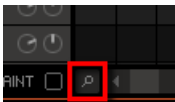
The Zoom Tool in the Pattern Editor.

► Click the Zoom Tool in the Pattern Editor, hold the mouse button, and drag your mouse vertically to zoom in/out.

At any time, the horizontal and vertical scroll bars are at your disposal to select another part of the Pattern for displaying.

If you zoom in, you can see that some of our hits were not really accurate:
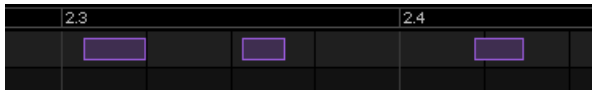
A detailed view of our live recorded Pattern: The first two kicks are late, the third one is in advance.

MASCHINE provides you with a powerful quantization feature that allows you to correct this to the desired extent.

Quantizing Your Pattern

The process of **quantization** (sometimes called "note snap") consists of forcing events to stick to the beats or to their subdivisions. This ensures that the rhythm is perfectly tight. On your controller, do the following:

► To quantize the events of your Pattern, press SHIFT + pad 5.

→ Your Pattern now plays perfectly tight. In the Pattern Editor, you can see that all events now are exactly on the beats or their subdivisions.

Quantizing Your Pattern, but Not Too Much

Sometimes, having beats perfectly tight might sound too "mechanical" and dull. Indeed, the groove often comes from all these little imperfections in the rhythm. Hence, to avoid losing the Pattern's groove, MASCHINE lets you half-quantize your events: Events are moved half way toward the closest beat/subdivision. Thus, you get a tighter rhythm while keeping its human touch and groove.

► To half-quantize the events of your Pattern, press SHIFT + pad 6.

You can apply half quantization several times in a row: Each time, events will move half of the remaining way to the beats/subdivisions.

Here is the effect of half-quantization and quantization on an event:

Original event, half-quantized event, and quantized event.

> At any time, don't hesitate to undo/redo your last action(s) by pressing SHIFT + pad 1 and SHIFT + pad 2, respectively.

A Few Notes on Quantization

Here are a few points worth noting on quantization:

- The use of quantization notably depends on the music style of your song: In some cases, the rhythm must be perfectly tight, while in other cases, half-quantization (or even no quantization at all) would fit best.

- For now, we haven't selected any event yet, and quantization (or half-quantization) was applied to all events — in other terms, to the whole Pattern. If by chance you selected some events in your Pattern, the quantization would have been applied to these events only! This can be very useful if you want to build a tight rhythmic basis (e.g., kick and snare) while keeping specific events or Sounds "out of rhythm" (e.g., ornaments, slightly shifted hi-hat…). This can help create a powerful groove. For more info on selecting particular events in a Pattern, please refer to the Manual.

- You can change the resolution of the subdivisions to which events will be quantized. We will tackle this in ↑7.2, Adjusting the Step Grid.

- You can also quantize events directly when playing on the pads and/or recording! By default, this option is disabled. You can enable it in *Preferences > Defaults > Input > Quantize*. Please refer to the Manual for more info.

4.2 Adding a Second Pattern

We now want to create another Pattern that we could use as a break in our song. This will allow us to introduce a few other tasks and features of MASCHINE, namely the selection of Patterns, the Pattern Length, and the Count-in.

4.2.1 Selecting a Pattern Slot

Until now, we only used the first of the 64 Pattern slots available in our Group. We will now select another Pattern slot, in which we will later record our second Pattern.

Hardware

1. Press PATTERN and hold it.
    All pads light off except pad 1, which is fully lit. This indicates that all Pattern slots are empty except the first Pattern slot, which is additionally selected.
2. While holding PATTERN, press pad 2.

→   Pattern slot 2 is now selected. Selecting an empty Pattern slot automatically creates a blank Pattern in it.

Have a look at the pads:

-   Pad 1 is dim lit: There is a Pattern inside but the slot is not selected.

-   Pad 2 is fully lit: There is a blank Pattern inside and the slot is selected.

-   All other pads are off: They contain no Pattern.

Software

►   At the top of the Pattern Editor, click Pattern slot 2.

Click Pattern slot 2 to select it.

→   Pattern slot 2 now is selected. Selecting an empty Pattern slot automatically creates a blank Pattern.

You will note that the slots' lighting behavior in the software mirrors the pads' lighting behavior on the controller:

-   Pattern slot 1 is dim lit: There is a Pattern inside but the slot is not selected.

-   Pattern slot 2 is fully lit: There is a blank Pattern inside and the slot is selected.

-   All other Pattern slots are dark: They contain no Pattern.

4.2.2 Adjusting the Pattern Length

You have already learned how to change the Pattern Length by doubling the Pattern: the Pattern's length was doubled and its content reproduced in the second half (see ↑4.1.2, Doubling the Pattern). Here we will show you how to adjust the Pattern Length without affecting its events, if any.

> You can adjust the Pattern Length at any time, even if you already put events in the Pattern. If you reduce the Pattern Length so that some events are not included in the Pattern anymore, these events have not been deleted: They stay at their location — if you extend your Pattern again, you can include them again.

Hardware

1. Press PATTERN and hold it.
   At the bottom of the left display, you see that the LENGTH parameter is currently set to 1.0 BAR, which means one bar.

2. While holding PATTERN, turn Knob 1 to set a new value for the Pattern Length.

→ The empty Pattern in the Pattern slot 2 now has a new length, as you can see in the software's Pattern Editor.

> You can change the resolution used to adjust the length by pressing and holding GRID, and pressing Button 3 then pressing the desired pad! More info on this in the Manual.

Software

In the software, you can change the Pattern Length in two ways:

▶ In the timeline of the Pattern Editor, click the right limit of the Pattern (indicated by a little triangle pointing to the left) and drag your mouse horizontally in the timeline to change the Pattern Length.

▶ At the top left of the Pattern Editor, at the left of the timeline, click the value and drag your mouse vertically to change the Pattern Length.

> 💡 You can change the resolution used to adjust the length by clicking on 1 Bar on the left and selecting another value in the menu that opens. More info on this in the Manual.

4.2.3 Recording a new Pattern using the Count-in

Once your empty Pattern in Pattern slot 2 has the desired length, you are ready for recording. You already learned how to record a Pattern by starting the sequencer then enabling the record mode, also using the metronome (see ↑2.3, Recording Your First Pattern). Here we will show you another useful aid for recording: the Count-in. This feature is available only on the controller:

1. Check that the CONTROL button at the top left corner of your controller is lit — if not, press it to enter Control mode.
2. Press SHIFT + REC to start recording using the Count-in.
    The metronome is automatically activated and plays a full bar *before* the sequencer and the recording actually start.
3. Play on the pads.
    Once the sequencer has started, your playing is recorded.
4. To stop the metronome, press SHIFT + PLAY. To stop the recording, press REC to disable it. To stop the sequencer, press PLAY to disable it.

The Count-in notably allows you to prepare yourself and e.g. get the downbeat on time!

4.2.4 Switching Patterns

Once you recorded something in the second Pattern slot, you can check that both Patterns fit well together by instantly switching between both:

Hardware

1. Press PLAY to start the sequencer.
2. Press and hold PATTERN.
3. Press pad 1 and pad 2 alternatively and listen how both Patterns fit together.

Software

1. Click the Play button in the Header at the very top of the MASCHINE window to start the sequencer (the Play button must be lit).
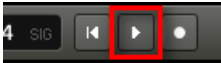
2. Click the Pattern slot 1 and 2 alternatively and listen how both Patterns fit together.

4.3 Editing Patterns in the Software

In the MASCHINE software, the Pattern Editor allows you to precisely tailor new or existing Patterns. We will only mention here the main mouse actions available.

► To create a new event, double-click into the grid at the desired location.

Double-click into the Grid to create an event. Right-click it to delete it.

▶ To clear an event, right-click ([Ctrl]-click on Mac OS X) it.

▶ To move an event, drag it (i.e. click it, hold the mouse button, drag your mouse to the desired location, and release the mouse button). Dragging horizontally will shift the event in time for the same Sound, while dragging it vertically will move it to another Sound while preserving its timing.

▶ To stretch an event, drag its right border (this makes more sense for melodic, sustained instruments than for percussive sounds).

> ⚠ When you create, drag or stretch an event, your action is automatically quantized according to the current quantization resolution. For more info on adjusting this, see ↑7.2, Adjusting the Step Grid.

> 💡 At any time, don't hesitate to undo/redo your last action(s) via the shortcuts [Ctrl]/[Cmd] + [Z] and [Ctrl]/[Cmd] + Y on your computer keyboard, or SHIFT + pad 1 and SHIFT + pad 2 on your controller, respectively.

You have many more actions at your disposal for editing events in the Pattern Editor, including a Paint mode, multiple selection, copy/paste, etc. For more info, please refer to the Manual.

4.4   Save Your Work!

Once more, it is highly recommended to regularly save your work.

▶ On your controller, press SHIFT + ALL to save your Project.

or

▶ In the software, press [Ctrl] + [S] ([Cmd] + [S] on Mac OS X) to save your Project.

That's it! You can now open another Project or close MASCHINE and take a break, your tutorial Project will be recalled as is the next time you open it.

4.5   To Sum Up…

In this tutorial, we have learned to:

- Double a Pattern.
- Quantize or half-quantize a Pattern.
- Select different Pattern slots.
- Adjust the Pattern Length.
- Use the Count-in for recording.
- Edit Patterns in the software.

Once you feel comfortable with these few tasks, proceed with the next tutorial, where we will add a bass line to our song!

5 Adding a Bass Line

MASCHINE is not only about rhythm. It is also a full-featured sequencing environment and, as such, lets you create melodic parts as well. As an example, we will add a bass line to our song. More precisely:

- We will create a new Group with a nice bass Sound using a VST/AU plug-in synthesizer.

- We will record a few bass lines.

- We will adjust the plug-in parameters to fine-tune the bass sound.

Prerequisites

We assume here that you followed the previous tutorials. In particular, you already know how to:

- Open a Project (↑3.1, Opening Your Project).

- Use the pads to play the loaded Sounds (↑2.2, Playing with the Pads).

- Select Pattern slots (↑4.2.1, Selecting a Pattern Slot).

- Record a Pattern (↑2.3, Recording Your First Pattern), possibly using the Count-in (↑4.2.3, Recording a new Pattern using the Count-in).

- Quantize a Pattern (↑4.1.3, Quantizing the Rhythm), and edit it in the software (↑4.3, Editing Patterns in the Software).

- Save the current Project for a later use (↑2.5, Save Your Work!).

If you have any doubts about these tasks, please refer to the previous tutorials before proceeding!

In case your tutorial Project "My First Project" is not open, please open it now:

► Open the tutorial Project "My First Project."

5.1   Selecting Another Group Slot

Until now, we have only used the first of the eight Group slots available in our Project. The eight Group slots are labeled from A to H. We will now select another Group slot and load a bass Sound into it. Loading the bass into a different Group slot will later allow us to handle it separately, and easily combine it with the existing drum kit Group and its Patterns.

Hardware

The eight buttons labeled A to H on the left of your controller represent the eight available Group slots. All are off except button A, which is fully lit. This indicates that all Group slots are empty except the first Group slot (A), which is selected.

1.   Press button B to select the second Group slot (B).

→   Group slot B now is selected.

Have a look at the Group buttons:

▪   Button A is dim lit: There is a Group inside but the slot is not selected.

▪   Button B is fully lit: The Group slot is selected.

▪   All other Group buttons are off: The Group slots are empty and not selected.

Software

►   In the top part of the MASCHINE window, click the name of the desired Group slot A–H to select it.
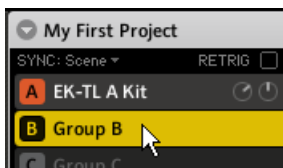
Click the Group slot's name to select that slot.

Upon selection, the Pattern Editor below switches to display the content of the newly selected Group slot. For now, this is still empty (no Sounds, no Patterns).

5.2   Renaming and Coloring the Group Slot

As we loaded the drum kit into the Group slot A (see ↑2.1, Loading a Drum Kit from the Factory Library), the slot automatically took the name of the loaded Group ("EK-TL A Kit"). Here we will manually rename the Group slot B to help keep our Project well organized. The renaming of Group slots can only be done in the software. To rename a Group:

1.   Double-click the Group slot's name.
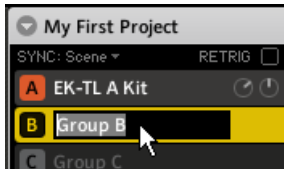
The slot's name gets highlighted.

2.   Type a new name (e.g., "Bass"), then press [Enter] on your computer keyboard to confirm.

→   The new name replaces the default name.
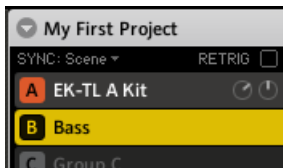
A new name for the Group slot B.

Let's quickly give our Groups different colors. The procedure is the same as for Sound slots (see ↑3.2.3, Changing the Colors for a quick reminder):

►   Right-click ([Cmd] + click on Mac OS X) each Group slot, select *Color* in the context menu, and select the desired color in the palette.
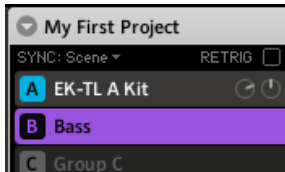
New colors for both Groups.

5.3 Loading a Plug-in Instrument for the Bass

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. This notably allows you to make use of your favorite synthesizer and effect plug-ins!

MASCHINE already includes the legendary synthesizer MASSIVE from Native Instruments. Among other things, this synthesizer is ideal for fat bass sounds — exactly what we need here.

5.3.1 Browsing the MASSIVE Presets

Not only is MASSIVE included with MASCHINE, but its factory library is fully integrated into the MASCHINE workflow and its preset sounds are directly available from the MASCHINE Browser. Hence, you can choose a bass sound with the common workflow we already used for loading a Group (see ↑2.1, Loading a Drum Kit from the Factory Library) or a Sample (see ↑3.2.1, Selecting Another Snare Sample): By filtering our choices, we progressively narrow our search by selecting the MASCHINE object, its Bank, its Type, and its Subtype.

Hardware

On your controller, do the following:

1. Press button B to select the Group slot B.
2. Press the pad 1 to select the Sound slot 1. Pad 1 should be fully lit.
3. Press BROWSE to show the Browser. The BROWSE button should be lit.
4. Press Button 3 to select SOUND.
5. Turn Knob 1 under the displays until the FILTER field on the left display turns to IN-STRUMENT.
    The Browser will now show instrument plug-in presets only.

6. Turn Knob 2 until the BANK field is set to MASSIVE.
   The Browser will now show presets for the MASSIVE plug-in only.

7. Turn Knob 3 until the TYPE field is set to MASSIVE FA. ("Massive Factory").
   The Browser will now show MASSIVE presets from the MASSIVE FACTORY library only.

8. Turn Knob 4 until the SUBTYPE field is set to BASS.
   On the right display, you now see the list of MASSIVE's bass presets.

→ You can now select bass presets by turning Knob 5 or the Control encoder, and load the selected preset into the selected Sound slot (Sound slot 1 in this example) by pressing Button 8 or the Control encoder. But don't leave Browse mode yet: We will show you useful features for choosing your bass in the next two sections.

Software

In the software, do the following:

1. Click the name of the first Sound slot to select that slot.
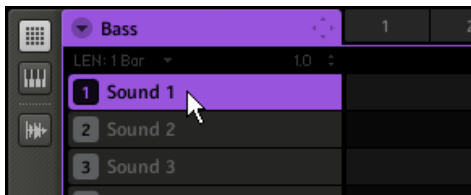
2. Show the Browser if it is currently hidden (reminder: click the magnifying glass in the MASCHINE Header).

3. At the very top of the Browser, select the keyboard icon from the File Type selector.
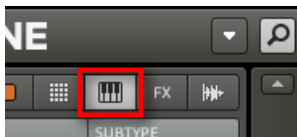
4. In the Tag Filter below, click Massive in the BANK column, Massive Factory in the TYPE column, and Bass in the SUBTYPE column.

BANK	TYPE	SUBTYPE
Absynth	Massive Exp. 1	Bass
Battery	Massive Exp. 2	Bowed Stri...
FM8	Massive Factory	Brass
Massive	Massive Threat	Drums
Prism	Urban Arsenal 1	Flute
Reaktor	Urban Arsenal 2	Guitar

→   You can now load a bass preset by double-clicking its entry in the result list below. But don't leave Browse mode yet: We will show you some useful features for choosing your bass in the next two sections.

5.3.2   Using the Keyboard Mode

Since we are not browsing Samples, we don't have the Prehear feature at our disposal to choose a nice bass preset. Instead, we can make use of the Autoload feature (see ↑3.2.1, Selecting Another Snare Sample for more info).

▶   Click the Autoload button in the software to activate it, or use Buttons 5 and 6 on your controller to enable the Autoload function.
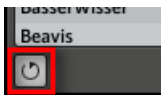
→   Each preset is now automatically loaded into the Sound slot 1 when selected.

For now we can hear the presets only by pressing the pad 1, which triggers a single note (C3). This is not ideal for choosing a preset — not to mention for recording a bass line. Hence, for melodic instruments like our bass, MASCHINE provides another pad mode called **Keyboard mode**, in which the pads play **different notes of the same Sound**. Let's switch to Keyboard mode.

Hardware

▶   Press SHIFT + PAD MODE (at the left of the pads).

→ From now on, your 16 pads don't trigger the 16 Sound slots of your Group anymore, but instead 16 notes of the selected Sound. This will make both choosing a bass preset and recording a bass line much easier!

> 💡 To disable this Keyboard mode, press SHIFT + PAD MODE again.

As long as the Keyboard mode is active, the PAD MODE button is dim lit to remind you the special pad behavior.

> 💡 Other pad modes are also available. For a detailed description of all pad modes, please refer to the Manual.

Software

► At the left of the Pattern Editor, click the Keyboard View button (with a keyboard icon) to activate the Keyboard view.
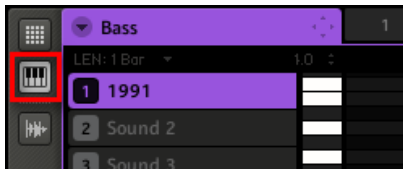
The Keyboard View button.

The Pattern Editor shows a vertical keyboard at the right of the Sound slots. The rows in the grid now represent each note for the selected Sound slot, instead of representing each Sound slot.

> 💡 The Keyboard mode on your controller and the Keyboard view in the software are strictly equivalent: By enabling the Keyboard View button in the software, you also switch your controller to Keyboard mode; by disabling the Keyboard mode on your controller, you also disable the Keyboard view in the software.

5.3.3   Adjusting the Base Key of the Pads on Your Controller

While trying out various bass presets on the pads, you will note that they are playing quite high notes. This is because your 16 pads play by default the notes from C3 to D#4 — not the most appropriate notes for playing bass. Hence, we need to lower the notes played by the pads. To do this:

1. Press and hold PAD MODE.
    You will note that, in Keyboard mode, the right display shows you which note will be played by each pad.

2. Turn Knob 3 until the BASE KEY field is set to C1.
3. Release PAD MODE.

→   Your pads now play two octaves lower.

> ⚠ This setting is only relevant for your controller: Indeed, in the software the vertical keyboard already displays all notes (use the vertical scroll bar on the right to display them all).
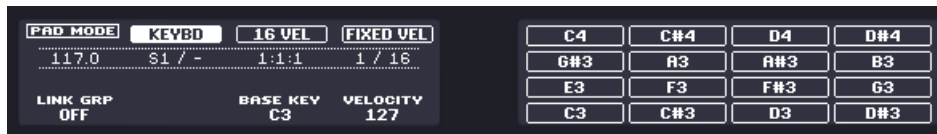
We now can choose a bass sound:

1. If you left Browse mode in the meanwhile, press BROWSE to enter it again.
2. Load various bass presets into Sound slot 1 and play them on the pads to choose the bass sound you would like to use.
3. Let's choose the Sound "Analovue," because it both has a nice bass content and some high-frequency ornaments. Moreover, it holds interesting rhythmic content synchronized to the Project tempo!

▶   Once you have found a bass to your liking, deactivate BROWSE to leave the Browser.

> 💡 In this example you don't need to specifically load the selected Sound, since it is already loaded via the Autoload function.

5.4 Recording a Bass Line

We are now ready to record a bass Pattern. This will allow us to review many of the tasks we have learned until now.

5.4.1 Creating a Bass Pattern

On your controller, do the following:

1. Check that the CONTROL button at the top left corner of your controller is lit — if not, press it to enter Control mode.
2. Press PLAY.
   You hear your drum Pattern playing.
3. Practice with the bass to get familiar with your instrument.
4. When you feel ready, press REC (the button lights up) and start recording a bass line.
5. When you are done, deactivate REC.

> Don't forget to reuse here all you have learned in the previous tutorials for recording Patterns: using the metronome, using the Count-in, adjusting the Pattern Length, editing the recorded Pattern, etc. If you have any doubt about these tasks, please refer to the previous tutorials (notably in section ↑2.3, Recording Your First Pattern and chapter ↑4, Creating Beats).

5.4.2 Creating a Second Bass Pattern

A single bass line is obviously not enough for your whole song. Let's record a second one that we could use as variation:

1. Switch to the second Pattern slot. As a reminder, you can do this on your controller by pressing PATTERN + pad 2, and in the software by clicking on the Pattern slot 2 in the Pattern Editor.
2. Record a second Pattern. Again, don't hesitate to reuse the various Pattern recording/editing tasks that we have already learned.
3. Check that both Patterns fit well together by switching repeatedly between both Pattern slots.

5.4.3   Loading an Additional Bass Sound

To enhance your song further, we will load another bass Sound next to "Analovue." This second bass could for example play rhythmic lines with somewhat higher frequencies.

Selecting the Sound Slot 2

Before you load another Sound, you first need to select another Sound slot — e.g., Sound slot 2.

In the software, you can select the Sound slot 2 as usual by clicking its name in the Pattern Editor.

On your controller, you will notice that pressing pad 2 only is not working for selecting Sound slot 2: Indeed, since your pads are in Keyboard mode, they don't play/select each Sound slot but play each note of the same Sound slot 1. To circumvent this, do the following on your controller:

1.   Press and hold SELECT.
2.   Check that SOUND is selected at the top of the left display. If not, press Button 2 to select it.
3.   While still holding SELECT, press pad 2 to select Sound slot 2.
→   Sound slot 2 is now selected.

> Holding SELECT while pressing the pad selects the Sound slot regardless of which pad mode is active; on the contrary, pressing the pad only does not select the Sound slot if the Keyboard mode is active. Moreover, when holding the SELECT button, you don't hear the Sound when you press the pad. This can be very useful when your song is playing and you don't want the audience to hear your selection!

> You can also press SELECT (and Button 2 if necessary) to visually check on your pads which Sound slot is currently selected!

Loading and Recording Another Bass

▶ Once Sound slot 2 is selected, repeat the steps described above in this tutorial to load another bass Sound (see ↑5.3, Loading a Plug-in Instrument for the Bass) and to record bass lines with that Sound in the same Patterns 1 and 2 as we did for the first bass (see ↑5.4.1, Creating a Bass Pattern and ↑5.4.2, Creating a Second Bass Pattern). For example, try with the Sound "Ad Voca" as a second bass!

Choosing Colors for Your Bass Sounds

Let's choose different colors for the two bass Sounds as we did for the Sounds of the Group "EK-TL A Kit" (see ↑3.2.3, Changing the Colors):

▶ Right-click ([Cmd] + click on Mac OS X) on each Sound slot, select *Color* in the context menu, and select the desired color.

5.5 Accessing the Plug-in Parameters

Once installed MASSIVE is fully integrated into MASCHINE. Not only does this mean that its factory presets are available in the MASCHINE Browser, but also that the MASSIVE parameters themselves are available from within MASCHINE. Here, we will discover another area of the MASCHINE software's user interface: the **Control area**.

The Control area is located in the middle of the MASCHINE software window.
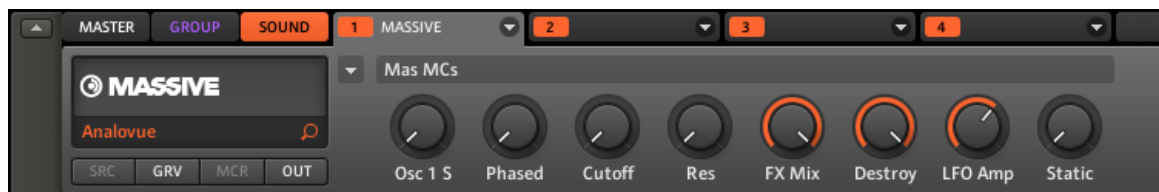
The Control area showing the MASSIVE plug-in parameters for our bass Sound "Analovue."

The Control area allows you, among many other things, to adjust the parameters of your plug-ins.

Here, we want to display the plug-in parameters for our first bass Sound "Analovue."

5.5.1 Displaying and Adjusting the Plug-in Parameters in the Software

1. At the left of the Pattern Editor, click the Sound slot's name (Analovue) to select that Sound slot.
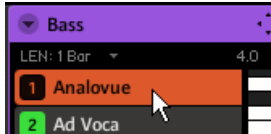
2. In the top left part of the Control area, click the SOUND tab to select it (it should be highlighted).
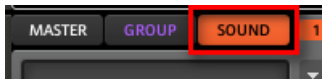
3. At its right, click the MASSIVE tab's label to select it.

→   The Control area now displays the parameters of your bass Sound "Analovue." You can check this by looking in the left part of the Control area:

The Control area indicating which parameters are displayed.

The large part of the Control area to the right is called the **Parameter area**. This gives you access to the desired parameters:

The parameters for the Sound "Analovue."

These parameters are organized into pages that you can select for displaying by clicking the little arrow at the top left of this area and selecting the desired page in the menu:

The Page menu allows you to display further parameters for your plug-in.

On each page, you can click and drag the knobs to adjust the corresponding parameters.

Example

As an example, let's adjust the amplification level of the second oscillator in our "Analovue" preset. Do the following:

1. Click the little arrow at the top left to open the Page menu.
2. In the Page menu, select the *Mas Osc2* entry.
   The Control area now displays the parameters of that page.
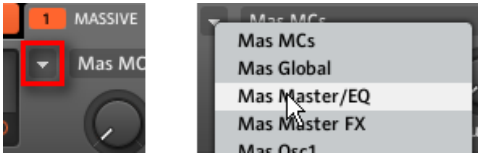3. Click the fourth knob (O2-AMP) and drag your mouse vertically to adjust the value.

> You can fine-adjust the parameter value by holding down [Shift] on your computer keyboard while you drag the mouse!

5.5.2 Displaying and Adjusting the Plug-in Parameters on Your Controller

1. Check that the CONTROL button at the top left corner of your controller is lit — if not, press it to enter Control mode.
2. Press Button 3 to select SOUND.
   This displays parameters for the selected Sound slot.
3. If the Sound slot 1 containing our "Analovue" Sound is not currently selected, select it by pressing SELECT + pad 1.
4. Press Button 4 to select MODULES (more on this later).
   The displays should now look like this:

→   You now have access to the parameters of your bass Sound "Analovue."

To adjust any parameter from your controller, do the following:

1. Turn any Knob 1–8 to adjust the value of the parameter indicated right above in the displays.
2. Press the Page buttons (showing two arrows) at the left of the displays to switch to another page of parameters.

Example

As an example, let's adjust the amplification level of the second oscillator in our "Analovue" preset. Do the following:
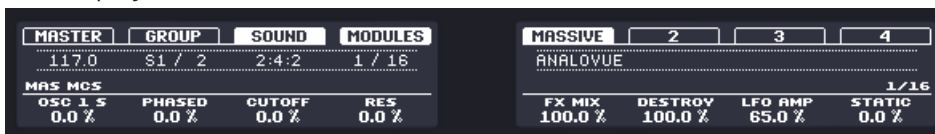
1. Press the Page buttons repeatedly until you see MAS OSC2 at the left of the left display. The right display shows 6/16 at its right (indicating that this is the sixth page of parameters from a total of 16 pages).
2. Turn Knob 4 to adjust the value of the O2-AMP parameter.

> You can fine-adjust the parameter value by holding SHIFT while turning Knob 4!

5.6   Save Your Work!

Once again, it is highly recommended to regularly save your work.

►   On your controller, press SHIFT + ALL to save your Project.

or

►   In the software, press [Ctrl] + [S] ([Cmd] + [S] on Mac OS X) to save your Project.

That's it! You can now open another Project or close MASCHINE and take a break, your tutorial Project will be recalled as is the next time you open it.

> You can also save your custom settings for the MASSIVE plug-in as a preset for later use in another context (a different Sound, Group or even Project). For more info on this, please refer to the Manual.

5.7   To Sum Up…

In this tutorial, we have learned to:

- Select different Group slots and rename them.

- Load a VST/AU plug-in instrument into a Sound slot.

- Use the Keyboard mode on your controller (and the Keyboard view in the software) to play and record melodic instruments.

- Adjust the Base Key when using Keyboard mode.

- Adjust the plug-in parameters both from your controller and in the software (using the Control area).

Once you feel comfortable with these few tasks, proceed with the next tutorial, where we will add effects to our Sounds and Groups!

6 Adding Effects

Now that we have created a few Patterns, let's spice them up with some effects. On the way, this will allow us to introduce another important feature of MASCHINE: the Modules.

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.

> 💡 Effects can also be applied to external audio or set up as send effects. These tasks will be covered in the Manual.

In this tutorial, we will:

- Apply effects to various Sounds and Groups of our tutorial Project.
- Tweak the loaded effects.
- Automate the effect parameters.

Prerequisites

We assume here that you followed the previous tutorials. In particular, you already know how to:

- Select Groups (↑5.1, Selecting Another Group Slot).
- Select Sounds by pressing their pad or clicking the Sound slots in the software.
- Access the parameters of an instrument plug-in (↑5.5, Accessing the Plug-in Parameters).

If you have any doubts about these tasks, please refer to the previous tutorials before proceeding!

In case your tutorial Project "My First Project" is not open, please open it now:

► Open the tutorial Project "My First Project."

6.1   Loading Effects

In this section we will show you how to load effects in MASCHINE.

6.1.1   The Module Slots

Before we load an effect, let's have a quick look again at the Control area for our bass Sound "Analovue" in the software (see ↑5, Adding a Bass Line):

1.   Select the Group "Bass" (Group slot B).
2.   Select the Sound "Analovue."

Now have a look at the Control area:
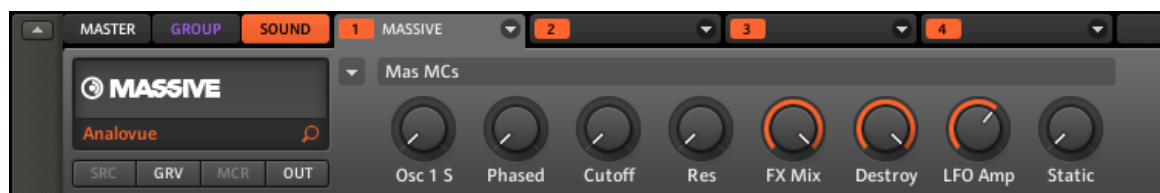
The Control area showing some MASSIVE plug-in parameters for our bass Sound.

In the top right of the Control area, you see a row of four tabs numbered from 1 to 4, with the first tab being selected. These tabs represent the **four Module slots** available for this Sound. Each Module slot can hold one Module. A **Module** is a sound source (e.g., a sampler, synthesizer…) or a sound processor (an effect). It can be an internal Module included with MASCHINE or any VST/AU plug-in. The processing order is from left to right (from Module slot 1 to Module slot 4).

Here are a few examples:

▪   In the Sound "Analovue," the first Module is the MASSIVE plug-in. This plug-in is the sound source of this Sound "Analovue."

▪   In each Sound of the Group "EK-TL A Kit," the first Module is the Sampler — the MA-SCHINE internal sampler. The Sampler is the sound source of each of these Sounds.

In MASCHINE, Module slots are available at three different levels of your Project:

▪ Sound level: Each Sound offers four Module slots. The first Module slot is the only slot that can contain a sound source (e.g., a Sampler or a VST/AU instrument plug-in) or an effect. The other three Module slots (2 to 4) can only contain effects.

▪ Group level: Each Group also offers four Module slots for effects that will process all Sounds of that Group together.

▪ Master level: There is an additional four Module slots for effects that will process the overall audio of your Project before it is sent to the master output.

> If you plug an effect Module (one of the internal MASCHINE effects or a plug-in effect) to Module slot 1 of a Sound, you will find this Sound slot as a bussing point for other signals in MASCHINE. For more info on this, please refer to the Manual.

6.1.2 Loading an Effect into a Module Slot

We would like to further shape our "Analovue" bass line by fattening its low frequency content while enhancing its overall warmth. For this, we will use one of the internal effects included with MASCHINE: the Saturator.

In MASCHINE, there are two different ways to load effects (and any other Modules) into Module slots:

▪ **Using the Browser**: We already used the Browser to load Projects, Groups, Samples, and VST/AU instrument plug-ins. Similarly, you can use it to search for internal effects as well as VST/AU effect plug-ins.

▪ **Using the Module slot menu** : You can also choose the desired Module directly from the Module slot itself via its **Module slot menu**.

Note that these methods work for all Module slots, whether they are at the Sound, Group or Master level.

> The difference between the two methods of loading an effect is that the Browser allows you to find effect *presets* (from the factory library or user-created), while the Module slot menu allows you to load effects in their default state.

Since you should be familiar with the Browser (if not, check for example section ↑2.1, Loading a Drum Kit from the Factory Library, ↑3.2.1, Selecting Another Snare Sample, ↑5.3.1, Browsing the MASSIVE Presets…), we will use the Module slot menu method of loading effects.

Hardware

1. Check that the CONTROL button is lit at the top left corner of your controller — if not, press it to enter Control mode.
2. Press button B to select the Group "Bass" containing the bass lines.
3. Press SELECT + pad 1 to select the Sound "Analovue."
4. Press Button 3 to select the SOUND tab.
5. Press Button 4 to select MODULES.

6. Press Button 6 to select Module slot 2.
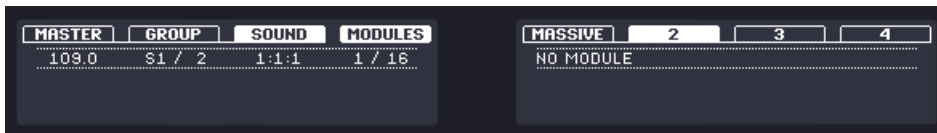
7. Press SHIFT + BROWSE to select an effect.
    If we would have pressed BROWSE alone here, we would have accessed the Browser. By additionally holding SHIFT, we access the Module slot menu instead!
8. Turn Knob 1 until the TYPE field is set to INTERNAL (for MASCHINE internal effects).

    If you have VST/AU effect plug-ins installed you may also browse them by selecting PLUG-IN instead of INTERNAL.
    The right display shows you the available MASCHINE effects.
9. Turn the Control encoder or Knob 5 to select SATURATOR, and press the Control encoder or Button 8 to load it.

10. Press SHIFT + BROWSE again to leave the effect selection.

→ The Saturator Module is now loaded into Module slot 2 and is ready to be tweaked.

> To load a Module at the Group level, please follow the same procedure except at the third step press Button 2 (GROUP) instead of Button 3 (SOUND). Similarly, to load a Module at the Master level (to process the audio of the whole Project), press Button 1 (MASTER) at this step.

Software

1. In the top part of the MASCHINE window, click the Group slot Bass to select it.
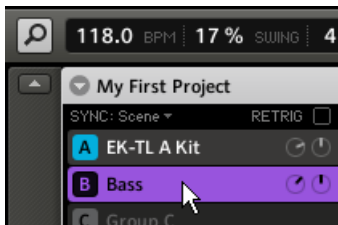
2. In the Control area below, click the SOUND tab to select the Sound level, since you want to apply the saturation to a Sound.
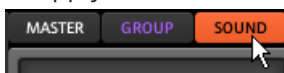
3. The actual Sound that you assign the effect to is always the one in focus. Hence, at the left of the Pattern Editor, click the Sound slot's name (Analovue) to select that Sound slot.
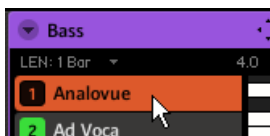
4. In the Control area, click in the free space of the second tab (labeled 2) to select Module slot 2.

5. Click the arrow to the right of the tab.

   The Module slot menu opens and shows you a list of all available effects.

6. In this menu, click the *Saturator* entry to load it.
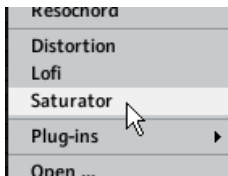
→ The Saturator Module is now loaded into Module slot 2 and is ready to be tweaked.

> 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.

> If you wish to load a Module at the Group level, just follow the same procedure except at the second step click the GROUP tab instead of the SOUND tab! Similarly, if you wish to load a Module at the Master level (to process the audio of the whole Project), click the MASTER tab at this step.

6.2   Playing with Effects

Once the Saturator Module is loaded into Module slot 2, you will find its parameters displayed in the Control area when Module slot 2 is selected:

When Module slot 2 is selected, the Control area displays the parameters for the Saturator loaded in that Module slot.

6.2.1 Adjusting the Effect Parameters

Let's now adjust the effect parameters to our needs. The method is basically the same as when we adjusted the parameters for the MASSIVE plug-in in ↑5.5, Accessing the Plug-in Parameters.

> Press PLAY on your controller or the [Space] bar on your computer keyboard to start the sequencer. This way, you can directly hear how your settings affect the sound!

Hardware
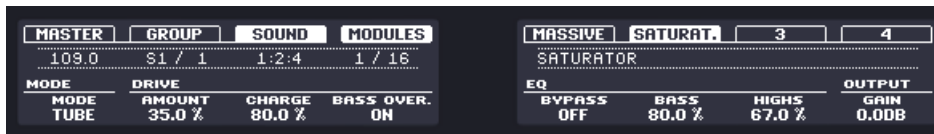
Adjusting the parameters for the Saturator.

1. Check that the CONTROL button is lit — if not, press it to enter Control mode.
2. Turn Knob 1 until the MODE field reads TUBE.
   This selects the Tube mode of the Saturator.
3. Similarly, adjust the other parameter values by turning the corresponding Knobs.

Software

In the Control area, you can quickly adjust each parameter with the mouse:

1. Click in the display of the Mode selector at the left and select the *Tube* entry in the menu that opens.

Upon your selection, the other parameters change in the Parameter area, giving you access to settings specific to this saturation mode.

2. To adjust the various parameters, click and drag the knobs to change their values, and click the buttons to activate/deactivate them.

6.2.2 Practice Makes Perfect!

Don't hesitate to practice with loading effects in different places of the tutorial Project and adjusting their parameters. For example:

- You could load a Chorus on the Sound "Snare Ektl A 1" of the drum kit Group to slightly widen its sound (use a low value for the Mix parameter of the effect).

- In that same drum kit Group, you could apply a slowly evolving Flanger on the Sound "Shaker Ektl A" to make it livelier.

- On the way, you will note that the drum kit Group itself ("EK-TL A Kit") already has its Module slot 1 filled with a Maximizer that processes the whole drum kit. Why not load a subtle Reverb in its Module slot 2 to make the kit sound more natural?

6.2.3 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. Bypassing effects is also a great tool when playing live!

Hardware

1. Check that the CONTROL button is lit — if not, press it to enter Control mode.
2. Depending on the level (Master, Group or Sound) the effect you want to bypass is located, do the following:

- Effect on Master: Press Button 1 (MASTER).

- Effect on a Group: Press Button 2 (GROUP) to select the Group level, then press the desired Group button (A–H) to select the corresponding Group.

- Effect on a Sound: Press Button 3 (SOUND) to select the Sound level, press the desired Group button (A–H), then press the desired pad (or SELECT + the desired pad if the Keyboard mode is active) to select the corresponding Sound.

1. Hold SHIFT and press the desired Button (5–8) above the right display to bypass the corresponding Module slot.
   The effect unit does not affect the sound anymore. On the right display the Module slot's frame turns dashed to indicate that this Module slot is now bypassed. For example, here the Saturator and the Chorus are bypassed:
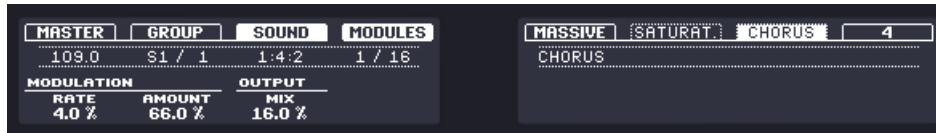
2. To activate the bypassed Module slot again, press again SHIFT + the Button in question.

Software

1. At the top left of the Control area, click the tab of the level (either SOUND, GROUP or MASTER) where you want to bypass the effect.
2. If you want to bypass an effect at the Sound or Group level, make sure you have the right Sound (click it on the left of the Pattern Editor) and/or Group (click it on the left of the Arranger) selected.
3. Now click the colored number (1–4) on the left side of the desired Module slot to bypass the contained effect.
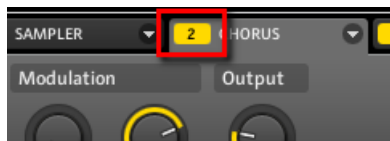
   The effect unit does not affect the sound anymore. The number is grayed out to indicate that this slot is now bypassed.
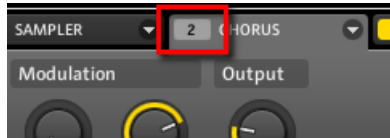
4. To activate the bypassed slot again, click its grayed out number.

> 💡 Bypassing effects can be very useful when adjusting effect parameters in order to compare the sound with/without an effect. But more than this, bypassing effects is also a powerful creative tool when playing live!

6.3   Automating Effect Parameters

One of the really cool features of MASCHINE is the ability to **automate** parameters from the Modules in a very easy way — both from the controller and in the software. Automating a parameter means recording the changes of its value over time in order for these changes to be played back again automatically in your song. The automation data is saved into the current Pattern. As an example, you could use this to create a filter sweep played in loop with your Pattern.

> Automation is not limited to effects: In MASCHINE, you can automate just about any parameter at the Group or Sound level as soon as it has a continuous range of values — in other terms, any parameter controlled by a knob in the Parameter area!

6.3.1   Recording Automation

Let's record some simple automation for the effect parameter of your choice.

Hardware

To automate a parameter from your controller:

1.   Check that the CONTROL button is lit — if not, press it to enter Control mode.
2.   Press PLAY to start the sequencer.
3.   Select the Module slot containing the effect you want to automate.
4.   Press and hold AUTO WR., and turn Knob 1–8 under the displays corresponding to the parameter that you want to automate.

→   Your automation gets recorded now. On the next loop, the parameter changes will be reproduced.

> There is also another way to record automation from your controller: the step sequencer. More on this in ↑7, Creating Beats with the Step Sequencer!

If you want to discard the automation you just recorded and try again, do the following:

▶   Press and hold ERASE, and turn the same Knob 1–8 to delete the automation of the corresponding parameter.

Software

If you take a closer look at the knobs in the Parameter area you will notice they have an outer ring. This ring serves for recording automation:

▶ To record automation, check that your song is playing, click the outer ring of the desired knob and then drag it vertically.

Recording automation for a parameter.

→ You will note that in this ring the colored worm usually representing the current value of the parameter turned to a colored little dash. This dash follows the movements you just recorded.

To remove an automation, do the following:

▶ To remove the automation for a parameter, right-click ([Ctrl] + click on Mac OS X) on its outer ring.

→ The dash in the outer ring turns back to the usual indicator for non-automated parameters.

6.3.2   Editing Automation

We want to quickly mention here that you can also edit any recorded automation in the software. For this, the Automation Lane is at your disposal at the bottom of the Pattern Editor:
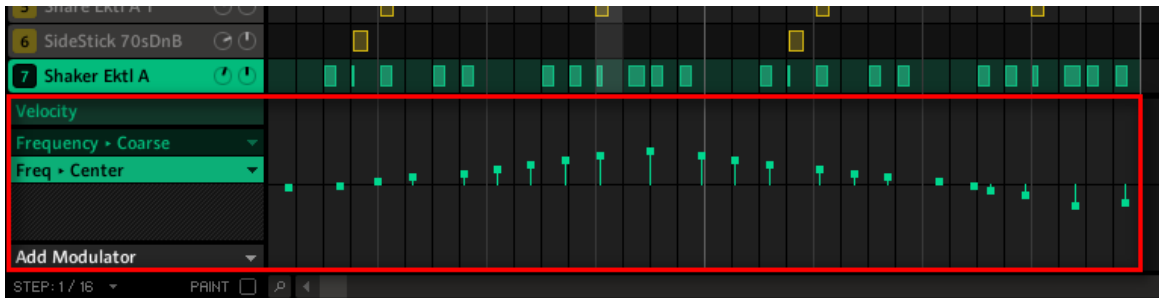
The Automation Lane displays the changes you recorded for each automated parameter.

To edit the automation:

1. Click the desired parameter in the list of automated parameters (on the left) to select it.
2. Drag the automation points vertically in the Automation Lane.

For more info on this, please refer to the Manual!

6.4   Save Your Work!

As usual, we highly recommend you to regularly save your work!

▶   On your controller, press SHIFT + ALL to save your Project.

or

▶   In the software, press [Ctrl] + [S] ([Cmd] + [S] on Mac OS X) to save your Project.

That's it! You can now open another Project or close MASCHINE and take a break, your tutorial Project will be recalled as is the next time you open it.

> You can also save your custom settings for the various effect Modules as presets for later use in other contexts (different Sounds, Groups or even Projects). Similarly, you can save any modified Sound/Group with its newly added and customized effects as a new Sound/ Group for later use. For more info on this, please refer to the Manual.

6.5   To Sum Up…

In this tutorial, we have learned the following:

- The concept of Module (and Module slot).
- The hierarchic structure of a Project (Sound level, Group level, and Master level).
- How to load Modules using the Module slot menu.
- How to adjust Module parameters.
- How to bypass Module slots.
- How to automate Module parameters.

Once you feel comfortable with these few tasks, proceed with the next tutorial, where we will discover another great way for creating beats: the step sequencer.

7 Creating Beats with the Step Sequencer

We will show you here a completely different way to create Patterns from your controller: the Step mode. The Step mode turns your controller into a fully featured step sequencer. If you are familiar with classic drum machines, you should quickly feel at home. Throughout this tutorial, you will also discover more about the Step Grid and quantization settings.

In this tutorial, we will:

- Switch the controller to Step mode and create a new Pattern in this mode.
- Adjust the Step Grid.
- Use Step mode to record automation to some Modules.

Prerequisites

We assume here that you followed the previous tutorials. For this tutorial you will especially need to be acquainted with the following topics:

- Quantization basics (↑4.1.3, Quantizing the Rhythm)
- Pattern Length (↑4.2.2, Adjusting the Pattern Length)
- Adjusting Module parameters (↑5.5, Accessing the Plug-in Parameters and ↑6.2, Playing with Effects)
- Automation (↑6.3, Automating Effect Parameters)

If you have any doubts about these tasks, please refer to the previous tutorials before proceeding!

In case your tutorial Project "My First Project" is not open, please open it now:

▶ Open the tutorial Project "My First Project."

7.1 Building Up a Beat in Step Mode

Until now, we recorded all Patterns "live": We hit the various pads at the desired moments while the sequencer was playing and the sequencer directly recorded our hits. This is the recording workflow when the controller is in Control mode. On the contrary, in **Step mode** you progressively build up the Pattern by programming a sequence for each individual Sound of the selected Group. Notably, the sequencer does not need to be playing.

7.1.1 Using Step Mode

On your controller, do the following:

1. Press button A to select the Group slot A (with the drum kit).
2. Press PATTERN + pad 3 to select the Pattern slot 3 (still empty).
3. Hit the pad with the Sound you want to sequence.
4. Press the STEP button at the top left of your controller to enter Step mode.
    Each pad now represents one step of a 16-step sequence: you can activate each step by pressing a pad once, lighting it up. If you press the pad again, the step is removed. This way it's quick and easy to create a drum pattern.
5. Press PLAY to start the sequencer.
    Now you will hear the sequence and 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.
6. To switch to another Sound, use Buttons 5 and 6 above the right display or alternatively, press SELECT and the pad with the Sound you want to sequence.

→   Progressively, you build up a new Pattern.

At any time, you can leave Step mode and get back to Control mode:

►   Press the CONTROL button at the top left of your controller to get back to Control mode. The STEP button lights off and the CONTROL button lights up.

For now, let's stay in Step mode — we want to show you a few more things in this mode — so press STEP again if needed (STEP must be lit).

7.1.2 Adjusting the Pattern Length in Step Mode

At any time, you can adjust the Pattern Length directly from the Step mode:

► Turn Knob 1 to adjust the Pattern Length.

Only 16 steps will be represented on your pads, so if you want to program longer Patterns, you will have to switch to the previous/next 16 steps:

► Use Button 7 and 8 or the Page buttons (at the left of the displays) to switch to the previous/next 16 steps of the Pattern.

In Step mode, the bar on the right display always indicates which part of the Pattern is currently represented on your pads:
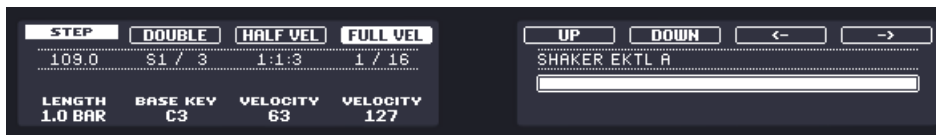
The 16 pads representing the full Pattern (the Pattern is one bar long).
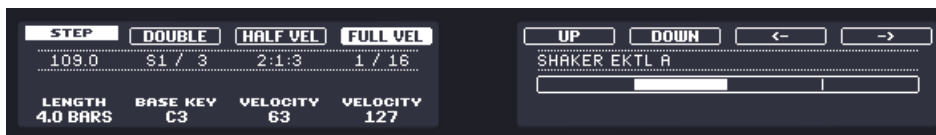
The 16 pads representing the second quarter of the Pattern (the Pattern is four bars long).

7.1.3 Recording Automation in Step Mode

It is also possible to record automation in Step mode. This allows you to precisely define value changes for parameters at specific moments.

The procedure is straightforward:

1.   Hold the pad representing the step you want to automate.
     While you are holding the pad, the displays turns back to a mode similar to Control mode.

2.   While holding the pad, turn the Knob(s) under the displays with the parameter(s) you want to record automation for.

→   The value changes are stored for that particular step.

7.1.4   A Few Notes on Step Mode

Here are a few points worth noting on Step mode:

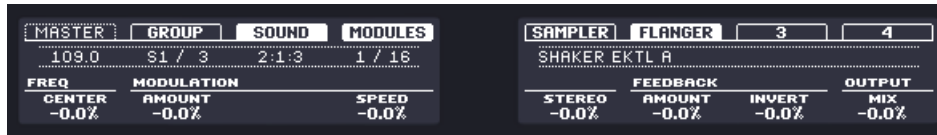▪   While you hold SELECT, the lighting behavior of the pads temporarily returns to Control mode: Each pad represents a particular Sound and lights up when this Sound is played. This can be helpful to quickly check which Sounds are currently playing or find a particular Sound for selecting (you then just need to press its pad to select it).

▪   In Step mode all notes are by definition quantized — i.e. they perfectly sit on the beats and their subdivisions (the steps). See ↑7.2, Adjusting the Step Grid below for more on this.

▪   You are free to use both Control mode and Step mode on the same Pattern! For example, you could start building a tight, basic beat in Step mode, then switch to Control mode and record live-played ornaments to add a human touch to your Pattern. Or you could record a natural Pattern in Control mode and correct the essential hits in Step mode.

7.2   Adjusting the Step Grid

As you have probably noticed, until now our beats were split into four steps each. In other words, the steps' default size is 1/4th beat (or quarter note), that is 1/16th note (i.e. sixteen steps fill a whole note). The set of all available steps is called **Step Grid**. The Step Grid is the place where you create/edit the events of your Pattern.

The Step Grid resolution — in other terms the step size — directly affects the precision of all Pattern editing actions, including quantization. As mentioned above, its default value is 1/16th. However you may use another Step Grid resolution or disable the Step Grid completely.

> ⚠ Although we introduced the Step Grid in the context of the Step mode, please note that the Step Grid equally affects both the Step mode (size and number of steps) and the Control mode (quantization resolution)!

As an example, you might want to reduce the step size from 1/16th note to 1/32nd note. This will allow you to place notes more precisely in the Pattern.

Hardware

On your controller, to change the Step Grid resolution, do the following:

1. Press and hold the GRID button.
2. Press Button 4 to select STEP and access the Step Grid's resolution setting.
   Now the pads represent the various resolution values available. The available resolutions are indicated on the right display. The selected resolution is also highlighted on the right display and the corresponding pad is lit.

3. Press any pad to select another value.

Software

In the Pattern Editor the Step Grid is represented by vertical lines on each step (black lines) and each beat (gray lines):

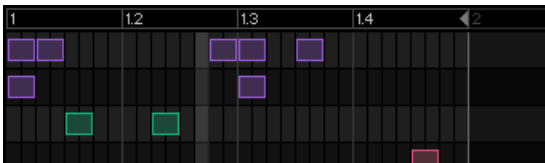The Step Grid with the default resolution (1/16th note).

To change the Step Grid resolution, do the following:

1. Click the STEP menu at the bottom left of the Pattern Editor.

2. Select the desired step size in the list that opens.

You can directly see your modification to the Step Grid resolution:

The Step Grid after selecting 1/32nd in the STEP menu.

> Selecting another step size in the STEP menu does not move any event in your Pattern. Instead, any edit (position, length) that you make to your events will now snap to the new step size, and in Step mode you have access to other steps on your controller.

> If you select *Off* in the STEP menu, the Step Grid is disabled. Nevertheless, the default step size (1/16th note) is still used to define your events in Step mode.

Similarly to changing the Pattern Length (see ↑7.1.2, Adjusting the Pattern Length in Step Mode), changing the Step Grid resolution can result in a greater amount of steps in your Pattern than what your sixteen pads can represent. In that case, as described earlier, you can use the Page buttons to display the previous/next sixteen steps of your Pattern.

7.3 Save Your Work!

You should now be used to it: Don't forget to save your work!

► On your controller, press SHIFT + ALL to save your Project.

or

▶ In the software, press [Ctrl] + [S] ([Cmd] + [S] on Mac OS X) to save your Project.

That's it! You can now open another Project or close MASCHINE and take a break, your tutorial Project will be recalled as is the next time you open it.

7.4 To Sum Up…

In this tutorial, we have learned to:

- Switch the controller to Step mode.
- Use Step mode to record Patterns.
- Record automation in Step mode.
- Adjust the Step Grid resolution.

Once you feel comfortable with these few tasks, proceed with the next tutorial, where we will discover how to build a full arrangement for your song!

8 Creating a Song Using Scenes

Now that we have created a few Patterns for both our drum kit Group and our bass Group, we can start to arrange them together in order to build up a structured song!

In MASCHINE, a song is made of a variable number of **Scenes**, which represent the different parts of the song — e.g., intro, verse, chorus, break, another verse… Scenes provide a very flexible way to arrange your song. In this tutorial, we will:

▪ Compose Scenes by combining together the Patterns we created in the previous tutorials.

▪ Get familiar with Scene handling and prepare our song for production or live performance.

▪ Discover various MASCHINE tools for performing live.

Prerequisites

We assume here that you followed the previous tutorials. In particular, you already know how to manipulate Groups (↑5.1, Selecting Another Group Slot) and Patterns (↑4.2, Adding a Second Pattern). If you have any doubts about these tasks, please refer to the corresponding tutorials before proceeding!

Furthermore, we assume that while following the previous chapters you accumulated a reasonable amount of Patterns for each Group (at least three or four Patterns per Group). If this is not the case, we invite you to do it now — you will need them to compose your song!

In case your tutorial Project "My First Project" is not open, please open it now:

► Open the tutorial Project "My First Project."

8.1 Creating Clips in the Arranger

In this section we will prepare a set of Scenes.

The place where you organize Scenes is the **Arranger**, located in the top right part of the MASCHINE window. The Arranger provides you with 64 Scene slots. Each slot can contain one Scene.
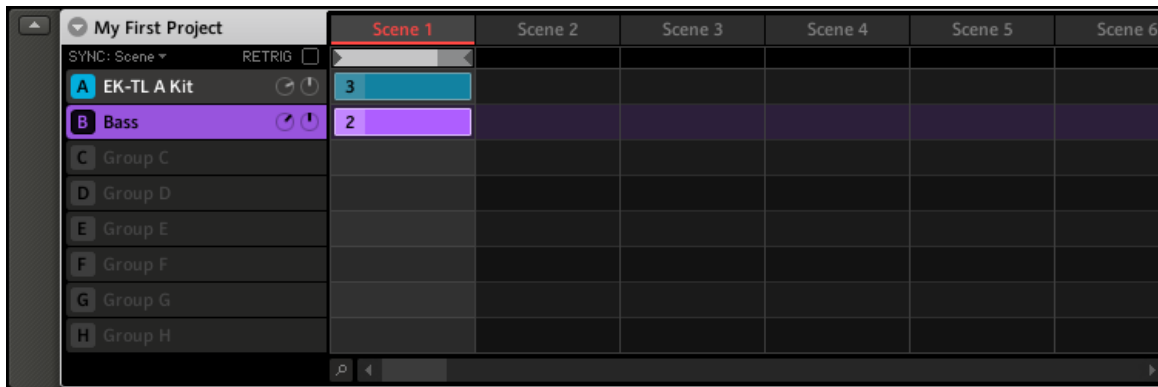
The Arranger is where you organize your Scenes in order to build up a song. Here, only the first Scene slot is used.

This is how Scenes work:

- Only one Scene is played at a time.

- In each Scene, you can choose to play one particular Pattern of each Group. For example, in the picture above, in Scene 1 we play the Pattern 3 of the Group "EK-TL A Kit" (our drum kit) together with the Pattern 2 of the Group "Bass" (our bass lines).

- In addition, a Pattern can be played in several Scenes: In fact a Scene only contains a **reference to your Pattern**, and you can place as many references to this Pattern as you want in different Scenes in the Arranger. When you modify your Pattern in the Pattern Editor, all references to it in the Arranger will get updated accordingly. These references are called **Clips**. In the Arranger, you create, delete, and edit Clips — that is, references to your Patterns.

> As a notable consequence, whatever you do in the Arranger, your Patterns stay untouched.

8.1.1 Composing the First Scene

First of all, you might wonder why we already have two Clips in Scene 1 even though we haven't used the Arranger since the very first tutorial (except for selecting Group slots on the left).

This is due to the way Clips are placed in the Arranger: Indeed, **as soon as you select a Pattern slot in the Pattern Editor** (for playing, editing, etc.), a Clip referencing this Pattern is created in the selected Scene. Since you selected quite a few Pattern slots in both Groups while following the previous tutorials, Scene 1 already contains a Clip for each existing Group in the Arranger!

Scene 1 already contains Clips!

Once again, the method is straightforward:

▶ To create a Clip referencing a particular Pattern slot in the selected Scene, simply select this Pattern slot (press PATTERN + the corresponding pad on your controller or click the desired Pattern slot in the Pattern Editor).

By repeating this for each Group you want to use in the selected Scene, you quickly compose your Scene.

8.1.2 Composing other Scenes

Let's compose a few more Scenes!

First of all, we recommend you compose your Scenes while the sequencer is playing:

▶ Press PLAY on your controller or the [Space] bar on your computer keyboard to start the sequencer. This way, you can directly hear how well the various Patterns fit together.

In all the tutorials, we often pressed PLAY and listened to our Patterns. In fact, we always played the first Scene, which is selected by default. This is a general rule: **Whatever Scene is currently selected, the sequencer plays this Scene in loop.**

As an example, we will now build the second Scene.

Hardware

Let's select the second Scene:

1. Press and hold the SCENE button.
    The pads now represent available Scenes. For the moment only pad 1 is lit: This indicates that Scene slot 1 is selected and all other slots are empty.
2. While holding SCENE, hit pad 2 to select Scene 2.
    Pad 2 lights up brightly to confirm its selection.
    Pad 1 turns dim lit, indicating that Scene 1 contains Clips but is not currently selected.
3. Release the SCENE button.

→   Scene 2 is now selected. If the sequencer is playing, you won't hear anything because this Scene is still empty.

Now we can select one Pattern in each Group to include in this new Scene:

1. Press the desired Group button A–H to select a Group you want to use in Scene 2.
2. Press PATTERN + the desired pad to select the Pattern you want to use in Scene 2.
    Upon selection, a Clip referencing this Pattern is automatically inserted into Scene 2.

→   By repeating these two steps for all Groups you want to use in this Scene, you progressively build up a new Scene.

You might also want to remove a Clip from the selected Scene:

▶   To remove the Clip for the selected Group from the selected Scene, press PATTERN + Button 4 (REMOVE).

→   The Clip is removed from the Scene. You will note that the corresponding Pattern is still there.

> Don't forget that you can at any time press SHIFT + pad 1 / pad 2 to undo/redo your actions!

Software

In the software, do the following:

1.	In the Arranger, click the cell located in the Scene 2 column and in the Bass row.
	This selects both the Scene and Group simultaneously.

	You can also click the Scene 2 label and the Bass label separately.

2.	Click the desired Pattern slot in the Pattern Editor to select it.

	Upon selection, a Clip referencing this Pattern is automatically inserted into Scene 2.

→	By repeating these two steps for all Groups you want to use in this Scene, you progres-
	sively build up a new Scene.

You might also want to remove a Clip:

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

→	The Clip is removed from the Scene. You will note that the corresponding Pattern is still
	there in the Pattern Editor.

> Don't forget you can also use the commands [Ctrl] + [Z]/[Y] ([Cmd] + [Z]/[Y] on Mac OS X)
> to undo/redo your actions!

Choose Your Own Workflow!

You can follow various workflows when composing Scenes:

- In the procedure above we composed Scenes one by one (first selecting a new Scene, then choosing Patterns to include from the various Groups available, then selecting the next Scene, etc.). This method allows you to quickly see how well Patterns from different Groups fit together.

- But you could also compose Scenes "Group by Group," by first selecting a particular Group (for example, the drum kit), filling a few Scenes with Patterns from that Group, then selecting the next Group, etc. This method puts the focus on how well Patterns fit together in the series of Scenes — notably this can be useful to check your transitions are working.

- You could also use any combination of the workflows mentioned above to develop a method that best fits your own way of making music! For example, you could prepare a series of rhythmic Patterns for a number of Scenes, and then go on filling Scenes one by one for the other, more melodic Groups.

8.1.3   Pinning the Scene Mode

The following will describe a helpful feature on your controller that can improve your workflow in many situations: the ability to pin controller modes.

The Controller Modes

Until now we often used combinations of two elements to execute actions. For example, we pressed SCENE + pad to select a particular Scene. In fact, by pressing and holding SCENE, we switch the controller to **Scene mode**; in this mode we can (among other things) use the pads to select Scenes.

Pinning Modes

To avoid having to alternatively press SCENE + pad (to select a Scene) and PATTERN + pad (to select a Pattern) several times in a row — which is quite cumbersome — you could instead **pin the modes of your controller**:

1.   Press SCENE + Button 1.

2. Release all buttons.
   The controller doesn't switch back to standard behavior when you release SCENE but instead stays in Scene mode until you press SCENE again. As long as the mode is active, its button stays fully lit.

3. Now press pads alone to select Scenes, and press PATTERN + pads to select Patterns for each Scene.

→ Depending on the current task and on your liking, pinning one or more modes can greatly speed up your actions!

> 💡 See ↑10.1.1, Controller Modes and Mode Pinning for more info on controller modes and mode pinning.

8.2 Preparing Scenes

Now that we have created a few Scenes of interest, we want to organize them into a song. For this, the Arranger provides you with many editing facilities. Let's introduce the most important ones.

### 8.2.1 Renaming, Coloring, and Moving Scenes Slots

As with Sound slots and Group slots, you can change the name and color of your Scene slots for a better visual organization — especially useful in a live situation! You can also move them within the Arranger. These changes can only be done in the software. The procedures are the same as with Sound slots and Group slots (see for example ↑5.2, Renaming and Coloring the Group Slot and ↑3.2.4, Moving your Sounds and Groups).

► To rename a Scene slot, double-click its current name, type a new name, and press [Enter] on your computer keyboard.

Typing a new name for the first Scene slot.

▶ To assign another color to a Scene slot, right-click ([Cmd] + click on Mac OS X) the Scene slot's label, select *Color* in the context menu, and select the desired color in the palette.

▶ To move a Scene slot, click and hold its label, drag your mouse horizontally until the insertion line is at the desired place, and release the mouse button to drop the Scene slot at its new place.
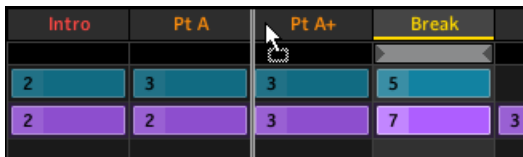
Moving the Scene Break between Scenes Pt A and Pt A+.

> You can also choose custom names and colors for your Pattern slots. Furthermore, both the Pattern name and color will be mirrored in each of its referencing Clips in the Arranger! Please refer to the Manual for more info on this.

8.2.2 Inserting and Deleting Scenes

MASCHINE offers you various editing tools for your Scenes and Scene slots. Here are some examples using your controller and a few more using the MASCHINE software.

Hardware

On your controller:

1. Press and hold SCENE to enter Scene mode (or pin it by pressing SCENE + Button 1).
   The right display shows the names of your Scene slots. Additionally, the selected Scene slot is highlighted.

2.   Press for example pad 3 to select Scene slot 3.

3.   Press Button 3 (DUPL) to duplicate this Scene slot.
     A new Scene slot is inserted right after Scene slot 3 with the exact same properties (name, color) and content (Clips). The existing Scene slots are shifted one slot to the right to make way for the new entry.
     Note that the duplicate slot is automatically selected.

4.   Press Button 4 (REMOVE) to remove this new Scene slot from your arrangement.

→   The Scene slot is removed. Scenes to the right of the removed Scene are shifted one slot to the left to fill the gap.

Software

In the Arranger:

1.   Right-click ([Cmd] + click on Mac OS X) for example the Scene slot 2 and select *Copy* in the context menu.
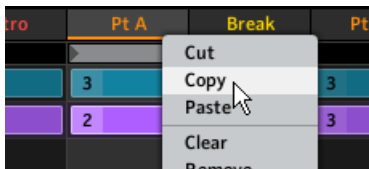
     The content of Scene slot 2 is copied to the clipboard for later use.

2.   Now right-click for example Scene slot 8 and select *Paste* in the context menu.

→   The properties (name, color) and content (Clips) of Scene slot 2 are pasted into Scene slot 8. Previous content and properties of Scene slot 8 are overwritten, if any.

Our new Scene slot 8.

8.3   Using Scenes to Play Live

At last we come to the real point of the Scenes: playing your song!

Studio Track or Live Performance?

If you are composing a studio track that you plan to export as is, you can arrange your Scenes so that your whole track can be played in one go from the very first Scene to the very last one.

> 💡 Please refer to the Manual for information on exporting audio.

On the other hand, if you are preparing a track for performing live, you will probably want to switch back and forth between different Scenes or a group of Scenes during your performance. For this, MASCHINE provides you with various tools to precisely control which Scene(s) has to be played, and when.

8.3.1   Selecting a Loop Range

We already learned how to select a Scene by clicking its Scene slot in the software's Arranger or by pressing SCENE + the desired pad on your controller (see ↑8.1.2, Composing other Scenes). A single selected Scene is always looping automatically.

But MASCHINE also allows you to select several consecutive Scenes and play them one after the other in a loop. Here's how to select the desired range of Scenes.

Hardware

On your controller:

1. Press and hold SCENE to enter Scene mode (or pin it by pressing SCENE + Button 1).
2. Press and hold the pad corresponding to the start Scene.
3. While holding the first pad, press the pad corresponding to the end Scene.

→   The start and end Scenes along with all Scenes in-between are played one after the other in a loop. On your controller, the pads corresponding to all these Scenes are fully lit to indicate the loop range.

Software

The Arranger provides a timeline located under the slot labels that always show the current loop range:

The Arranger timeline showing that the single Scene Pt A is looped.

To select another loop range:

1. In the Arranger timeline, click in the column of the start Scene and hold the mouse button.
2. Drag horizontally onto the column of the end Scene and release the mouse button.

→ The start and end Scenes along with all Scenes in-between are played one after the other in a loop. The Arranger timeline indicates the new loop range.

The loop range now contains three Scenes.

> You will note that selecting a single Scene amounts to selecting a one-Scene-long loop range.

8.3.2   Jumping to Other Scenes

By selecting another loop range or another Scene (which is nothing more than a one-Scene-long loop range!) for playing as described above, you can easily adapt your song live. MA-SCHINE provides you with two additional settings to fine-tune the jumps between the current Scene and the next selected loop range:

- The **Scene Sync** setting lets you choose the point at which the playhead has to leave the current Scene. It can be at the very moment at which you select another Scene/range, or at a set interval: on the next eight note, quarter note, etc., or even at the end of the Scene.

▪ The **Retrigger** setting lets you decide for the next loop range whether the playhead will start from the point equivalent to where the playhead leaves the current Scene or from the beginning of the loop range. The former (default setting) ensures that the global groove of your track is not interrupted!

Hardware

To adjust the Scene Sync setting:

1. Press and hold GRID to enter Grid mode (or pin it by pressing GRID + Button 1).
2. Press Button 2 to select SYNC.

On the right display you see the available Scene Sync values. The current value is high-lighted and the corresponding pad is lit. The default value SCENE means that the next time you select a new Scene or loop range for playing, the switch will happen once the current Scene has played to the end.

3. Press a pad to select the desired value, for example pad 3 (for 1/4, a quarter note).

→ The next time you select a new Scene or loop range, the switch will happen on the next quarter note.

To adjust the Retrigger setting:

1. Press and hold SCENE to enter Scene mode (or pin it by pressing SCENE + Button 1).

At the bottom left corner of the left display you see the current Retrigger value (OFF by default).

2. Turn Knob 1 to select the desired value, for example ON.

→ The next time you select a new Scene or loop range, it will start from the beginning.

Software

In the Arranger, you will find the SYNC menu and the RETRIG check box at the left of the timeline, right under the Project name:
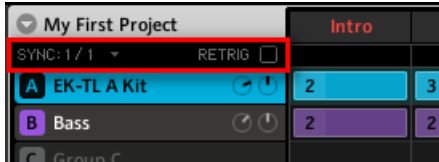
The SYNC and RETRIG controls.

► To adjust the Scene Sync setting, click the SYNC menu and select the desired entry in the menu, for example Scene.

→ The next time you select a new Scene or loop range, the switch will happen on the next Scene.

► To enable/disable the Retrigger setting, click the RETRIG check box.

→ The next time you select a new Scene or loop range, it will start from the beginning.

8.4   Save Your Work!

As usual, don't forget to save your work!

► On your controller, press SHIFT + ALL to save your Project.

or

► In the software, press [Ctrl] + [S] ([Cmd] + [S] on Mac OS X) to save your Project.

That's it! You can now open another Project or close MASCHINE and take a break, your tutorial Project will be recalled as is the next time you open it.

8.5   To Sum Up…

In this tutorial, we have learned to:

- Create Clips referencing our Patterns in different Scenes.

- Select a Scene for playing.

- Pin the various controller modes.

- Rename, color, move, insert, and delete Scenes slots.

- Select the desired loop range for playing.

- Adjust the behavior of the sequencer when jumping between Scenes or loop ranges.

Once you feel comfortable with these few tasks, proceed with the next chapter, where we will quickly introduce a few other powerful features of MASCHINE.

9 What's Next?

This chapter quickly presents three more powerful features of MASCHINE:

- The Sound, Group, and Master Properties
- Advanced routing
- Sampling.

9.1 Changing the Sound, Group, and Master Properties

In an early tutorial, we learned how to adjust the Volume and Swing of the Project — see ↑3.2.2, Adjusting the Volume and the Swing for a reminder. In fact, Volume and Swing are only two of the numerous **Properties** available for each Sound, Group and at the Master level. These Properties are independent of which Modules are loaded in the Sound, Group or Master.

In the software, you see a series of four buttons at the bottom left of the Control area:

The Property selector in the Control area.

These buttons are called **Property selector** and allow you to select a particular set of Properties for displaying in the Parameter area on the right.

Let's look at a few examples. We will use the software or the controller alternatively, but — as usual — most of these tasks can be done from both!

9.1.1 Adjusting the Swing for a Particular Sound
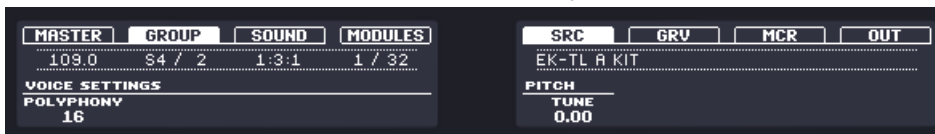
In the software, do the following:

1. Click the Group slot EK-TL A Kit in the Arranger to select it.

2. Click the Sound slot Closed HH Ektl A in the Pattern Editor to select it.

3. Click the SOUND tab in the Control area to select the Sound level and display the parameters for the Sound "Closed HH Ektl A" that we just selected.

4. In the Property selector, click GRV (see picture above) to select the Groove Properties.

→ Now the Parameter area on the right shows you the Groove Properties for the closed hi-hat of the drum kit.

▶ Adjust the Swing knob to set an individual Swing of that Sound.

9.1.2 Adjusting the Pitch for a Group

On your controller, do the following:

1. Check that the CONTROL button is lit at the top left corner of your controller — if not, press it to enter Control mode.

2. Press PLAY to start the sequencer.

3. Press button A to select Group slot A containing the drum kit "EK-TL A Kit."

4. Press Button 2 to select the GROUP tab.

5. Press Button 4 to *deselect* MODULES (Button 4 must be off).
This allows you to have the Group's Properties shown on the display instead of its Modules' parameters.

6. Press Button 5 (SRC) to select the Source Properties.

7. Turn Knob 5 to adjust the TUNE value.

→ You hear the whole drum kit being pitched down and up as your track is playing — don't hesitate to use this tool for powerful breaks and variations when playing live!

> If you remember, we quickly mentioned a shortcut for adjusting the Group's pitch in an early tutorial: Press the TEMPO button (at the left of the Control encoder), hold the Group button and turn the Control encoder! See ↑3.2.2, Adjusting the Volume and the Swing.

9.1.3 Using Macro Controls

In the software, do the following:

1. Click the Group slot Bass in the Arranger to select it.
2. Click the SOUND tab in the Control area to select the Sound level and display the parameters for the selected Sound.
3. Click the Sound slot Analovue to select it.
   Its parameters are now displayed in the Parameter area above.
4. Click the MASSIVE tab to select the corresponding Module and display its parameters.
5. Right-click ([Cmd] + click on Mac OS X) any knob of the parameter page (e.g., Osc 1 S on the Mas MCs page) and select *Assign Macro Control > Macro 1* in the context menu.

6. Click the SATURATOR tab to select the Saturator effect and display its parameters.
7. Right-click ([Cmd] + click on Mac OS X) any knob of the parameter page (e.g., Charge) and select *Assign Macro Control > Macro 2* in the context menu.
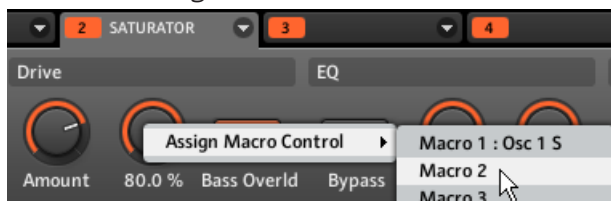
8. Now click the GROUP tab in the Control area to select the Group level and display the parameters for the whole Group "Bass."
9. In the Property selector (bottom left of the Control area), click MCR to select the Macro Control Properties.

→ Look at the Parameter area: The first two knobs display the names of the parameters that we just assigned.

The Macro Properties of our Group "Bass" now include two parameters of the Sound "Analovue."

MASCHINE's **Macro Controls** have some huge benefits:

▪ You can now control parameters from different Modules and Sounds on the **same page**. This can be especially useful in a live situation!

▪ Macro Controls are **revealed to your host application**. Hence, this is your gateway to pilot the MASCHINE plug-in via host automation!

▪ Macro Controls can also be **assigned to MIDI CCs** in order to remote control them via MIDI. By mapping the desired parameters to Macro Controls, you can remote control any parameter from any Sound/Group from an external software or hardware MIDI device!

For more details on all these features, please refer to the Manual!

> ⚠ The Macro Control assignation can be done in the software only.

9.2   Using Other Sound Sources

Until now we have used two different sound sources in our Sounds:

▪ In all Sounds of the drum kit Group, the sound source is the Sampler Module — MASCHINE's internal sampler.

▪ In both Sounds of the bass Group, the sound source is an instance of the MASSIVE VST/AU plug-in.

But you can also use other sound sources:

▪ You can use the audio coming from any other Group(s) and/or Sound(s).

▪ You can use the audio coming from an external source.

In this section we will quickly show you how to set this up. This will allow us to introduce the powerful routing facilities provided by MASCHINE.

> 💡 We will exclusively use the software, but most of these tasks can be done from your controller as well. Please refer to the Manual for more info.

9.2.1   Using Sounds and Groups as Sound Source

The sound source of a Sound is set in its first Module slot. In the software, do the following:

1.   Click the Group slot C in the Arranger to select it.
2.   Click the Sound slot 1 in the Pattern Editor to select it.
3.   Click the Module slot menu of Module slot 1.
       The menu opens and lets you choose a Module for loading.
4.   In this menu, select any effect from the *FX* submenu, e.g., *FM*.
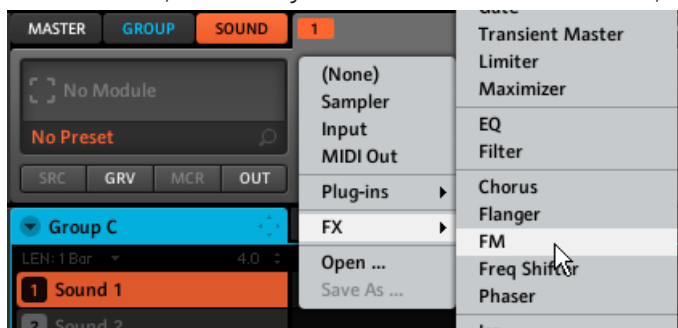
       The FM effect is loaded. You will notice that the Sound slot automatically mirrors the effect Module's name FM.
5.   Now click the Group slot Bass in the Arranger to select it.
6.   Click the GROUP tab in the Control area to select the Group level and display the parameters for the Group "Bass" that we just selected.

7. Click the OUT tab to select the Output Properties of that Group.

8. In the Aux 1 section, click the label None of the Output control.
    In the menu that opens, select *C: FM*.

→ You hear your bass line processed by the FM effect on top of the original bass line! You can adjust the level of the processed bass line via the Level knob in the same Aux 1 section.

In fact, we have just set up a send effect in MASCHINE. As we selected an effect Module in the Sound slot 1 of the Group C, MASCHINE automatically made this Sound available as an output for all other Sounds and Groups of your Project. By choosing this Sound in the Aux 1's Output selector of the Group "Bass," we told MASCHINE to send the audio of this Group additionally to the FM Sound.

Feel free to experiment with this feature:

▪ Add other effects in Group C's Sound slot 1.

▪ Route other Sounds or Groups to this same effect.

▪ Adjust each auxiliary level independently.

▪ Create new effects chains in other Sound slots of Group C and route other signals to them.

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 4 effects per Sound with 16 Sounds per Group allow up to 64 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 Patterns are saved 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 audio interface through a Hardware effect and then back into MASCHINE. For more info on routing, please refer to the Manual.

9.2.2 Using an External Sound Source

MASCHINE allows you to route not only other internal signals to your Sounds as described in the previous section (see ↑9.2.1, Using Sounds and Groups as Sound Source), but also audio coming from the external world. To do this, we will use another Module available in the first Module slot of the Sound level: the Input Module.

In the software, do the following:

1. Click *File > Audio and MIDI Settings...*.
   The Audio and MIDI Settings dialog opens.
2. In the Audio and MIDI Settings dialog, click the Routing tab.
3. In the Routing tab, click the Inputs button.
   You then see the list of MASCHINE input ports on the left. By clicking on the fields on the right, you can assign MASCHINE input ports to the physical audio inputs available on your audio interface.

4. Assign at least Maschine In 1 L and Maschine In 1 R to any pair of inputs on your audio interface.
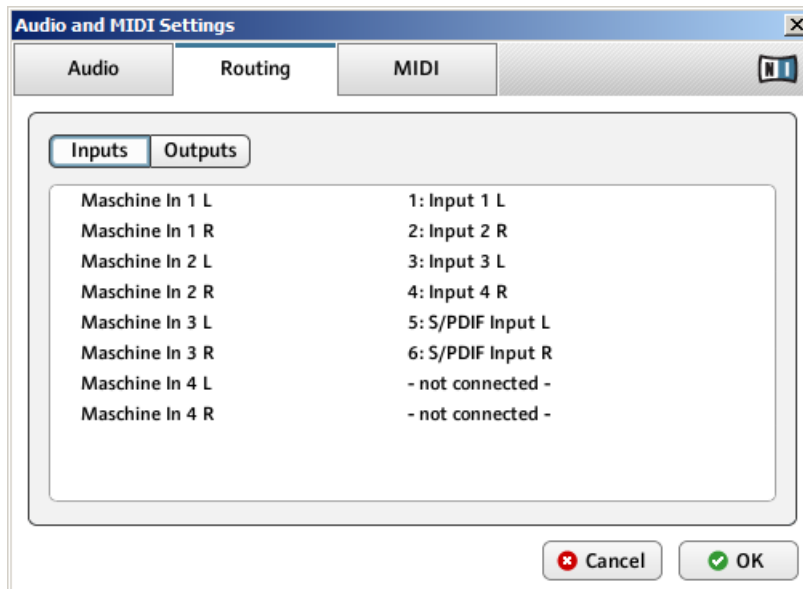
5. Click OK to close the Audio and MIDI Settings dialog.
6. Plug anything (e.g., a turntable) into the audio interface's input pair that you selected in the Audio and MIDI Settings dialog for the first two inputs of MASCHINE.
7. Now click the Group slot D in the Arranger to select it.
8. Click the Sound slot 1 in the Pattern Editor to select it.
9. Click the Module slot menu of Module slot 1.
    The menu opens and lets you choose a Module for loading.

10. In this menu, select *Input*.
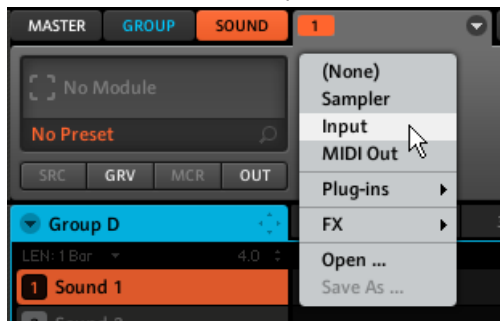
The Input Module is loaded. You will notice that the Sound slot automatically mirrors the effect Module's name Input.

11. In the Input Module, click the display of the Source selector (currently reading Internal) and select *Ext In 1* in the menu that opens.

→ You can hear the audio coming from your external device. Adjust its level via the Level knob of the Input Module.

MASCHINE provides you with four separate stereo inputs for using four distinct external stereo signals within your Project. For example you could try the following:

▪ Load effects in the other three Module slots to process the signal of your turntable.

▪ Send any external signal to the send effect we built in ↑9.2.1, Using Sounds and Groups as Sound Source.

▪ Plug a microphone and process it in real time in your live performance!

9.3 Sampling

Last but not least, we want to introduce you to another great feature of MASCHINE: its sampling facilities. MASCHINE allows you to record internal or external audio signals using your audio interface. This is a useful feature if you want to record your own Samples or rearrange loops that you have created yourself using MASCHINE.

> 💡 This chapter is a short introduction to sampling. We will exclusively use the software, but most of these tasks can be done from your controller as well. Please refer to the Manual for detailed information.

9.3.1 How to Sample

1. First choose an empty Sound slot to record into by clicking its name.
2. Now click the Sample Editor button right underneath the Keyboard View button, at the left of the Pattern Editor:


The Pattern Editor switches to the Sample Editor:
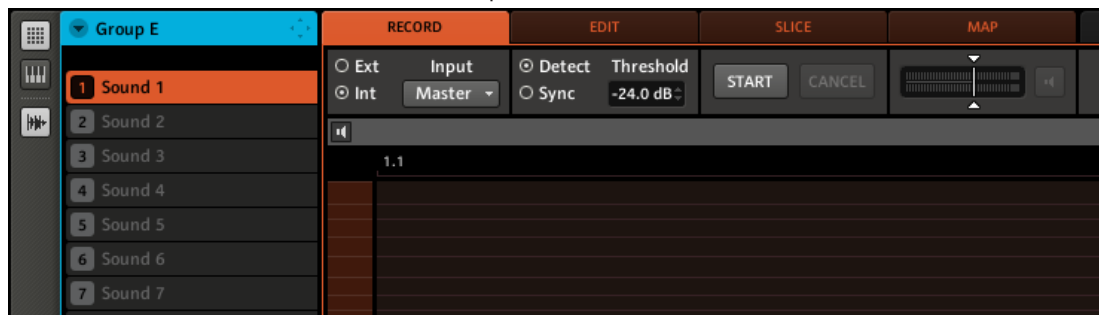
3. In the RECORD tab, select your Source. You can record Samples from an internal signal (check the Int radio button) or from one of the external inputs (check the Ext radio button). In this case we will record from the drum kit Group "EK-TL A Kit," so click the Int radio button and select *EK-TL A Kit* in the Input menu nearby:
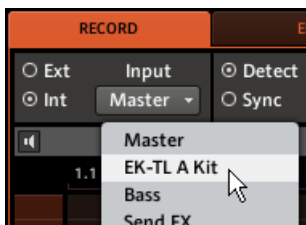
4. In the next section of the RECORD tab, you can select a way to start the recording: either by setting a threshold value (adjustable with the mouse by dragging) or in sync with the Project tempo. Since we want to record a drum loop from the EK-TL A Kit, we select Sync.

5. Click on the Sync radio button and enter a length of 1 bar by clicking the display of the Length control and dragging your mouse:
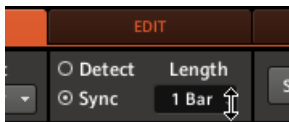
6. Now click the START button and, since the recording is going to be triggered by the sequencer, start the sequencer (e.g., by pressing PLAY on your controller or the [Space] bar on your computer keyboard).

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

Under the large Waveform representing the recorded Sample, you can see a small icon for each Sample that was recorded into this Sound slot: this is called the Recording History. You can drag the Samples 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. Please refer to the Manual for more info.

9.3.2 Editing, Slicing and Mapping Your Sample

MASCHINE provides you with many features to make an efficient use of your recorded Sample. These features are found in the other three tabs of the Sample Editor:

- The EDIT tab allows you to adjust the start and end point of your Sample, to define a loop range within the Sample, to adjust the envelope of the Sample, and to apply various audio processing commands to your Sample.

- The SLICE tab allows you to cut your Sample into slices in various ways and to distribute the slices across the keyboard —notably this allows you to play each drum hit of the Sample via a different pad in Keyboard mode!

- The MAP tab allows you to precisely define the note and velocity ranges assigned to each Sample.

For a detailed description of all the features of the Sample Editor, please refer to the Manual!

10 Quick Reference

This chapter introduces you to the main areas and concepts of MASCHINE. In the following sections, you will find:

- Information that will help you in your every-day work with your controller (↑10.1, Using Your MASCHINE MK2 Controller).

- An overview of a MASCHINE Project and a description of both its structure and content (↑10.2, Overview of a MASCHINE Project).

- A basic reference of your hardware controller, naming and quickly describing each of its control elements (↑10.3, MASCHINE Hardware Overview).

- A basic reference of the MASCHINE software (↑10.4, MASCHINE Software Overview).

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

10.1 Using Your MASCHINE MK2 Controller

This section holds useful information for your every-day work with the MASCHINE MK2 controller.

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

10.1.1 Controller Modes and Mode Pinning

The MASCHINE controller has different modes of operation. Besides the default Control mode (in which the pads notably trigger your Sounds), it provides many other modes for accomplishing various tasks. These modes are enabled by specific buttons on your controller (e.g., SCENE, BROWSE, GRID, etc.).

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

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

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

Pinning the Controller Modes

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

1. Press and hold a controller mode button, e.g., GRID.
2. Press Button 1 above the left display.

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

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

You can unpin any mode by pressing its button together with Button 1 again.

> 💡 See section ↑8.1.3, Pinning the Scene Mode for an example of use. For more detailed information on controller modes, please refer to the Manual.

10.1.2   Controlling the Software Views from Your Controller

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

1. Press and hold the NAVIGATE button to enter Navigate mode. You can also press NAVIGATE + Button 1 to pin the Navigate mode so that you can release NAVIGATE and stay in Navigate mode (see ↑10.1.1, Controller Modes and Mode Pinning).
2. Use the pads and buttons in the table below to navigate the MASCHINE software window.

Shortcuts for navigating the MASCHINE software from the MASCHINE MK2 controller.

Action	Shortcut
Hide/view Browser	Press Button 5
Hide/view Arranger	Press Button 6
Hide/view Control area	Press Button 7
Hide/view Automation Lane	Press Button 8

Action	Shortcut
Zoom Arranger in/out	Press pad 14/10 or turn Knob 1
Scroll Arranger left/right	Press pad 9/11 or turn Knob 2
Zoom Pattern Editor in/out	Press pad 6/2 or turn Knob 5
Scroll Pattern Editor left/right	Press pad 1/3 or turn Knob 6
Scroll Pattern Editor up/down	Press pad 8/4 or turn Knob 7

10.2   Overview of a MASCHINE Project

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:
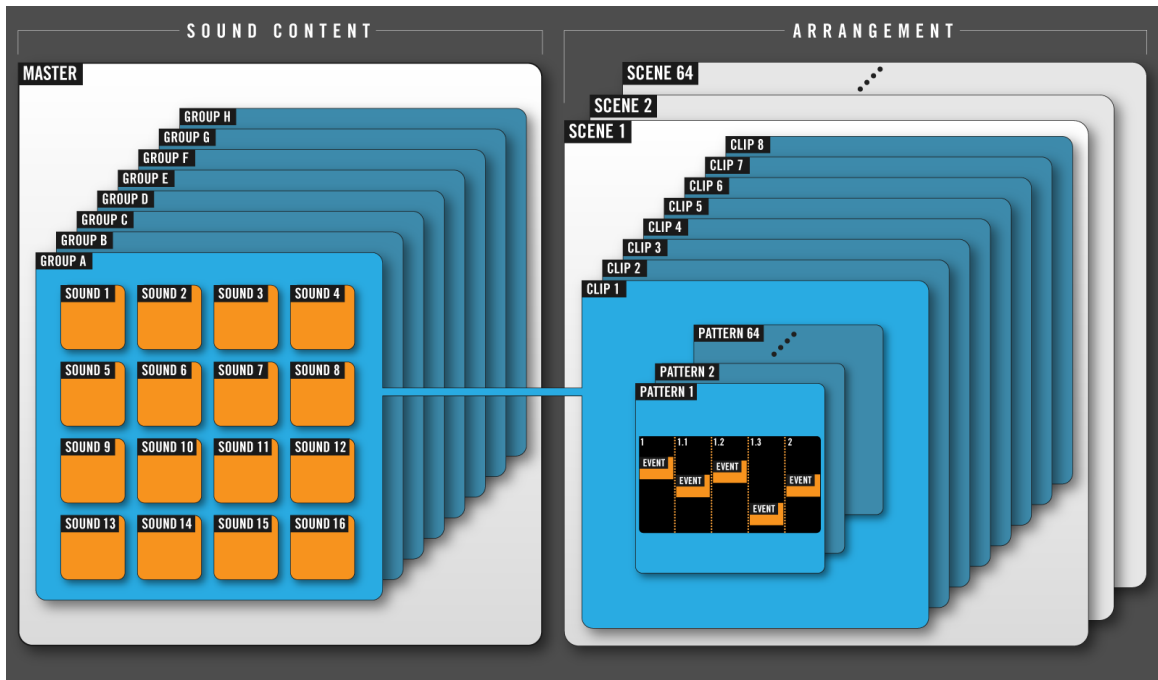
Overview of a MASCHINE Project.

- ▪ 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 Clips.

The following section will explain these two aspects in detail.

10.2.1 Sound Content

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.
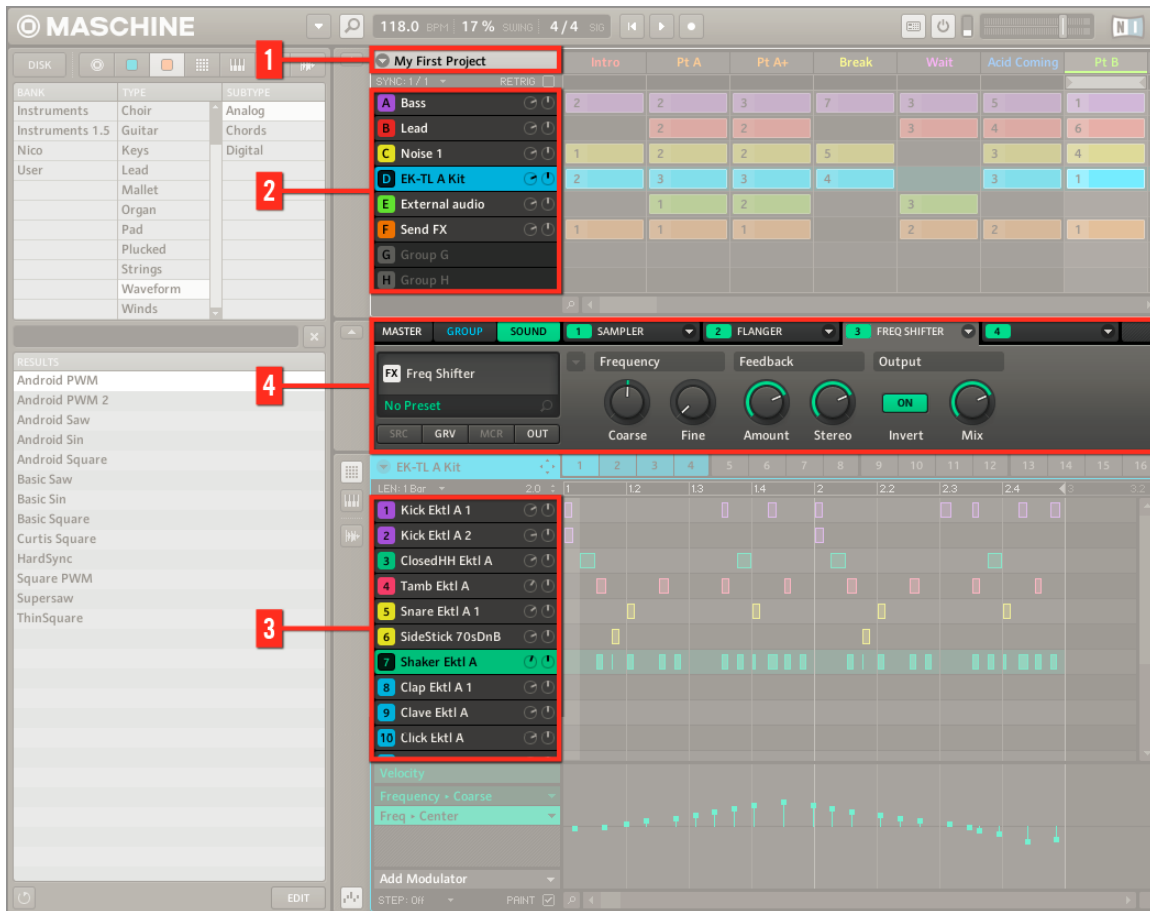
The sound content aspect of a MASCHINE Project.

- A MASCHINE Project file (**1**) offers 8 Groups slots (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 Control area (**4**), which is your one-stop mixer, routing, effects, and plug-in section. The Control area has three tabbed sections corresponding to each level: MASTER, GROUP, and SOUND.

- ◦ The controls in the SOUND section affect the sound of the selected Sound slot (1–16).

- ◦ The controls in the GROUP section affect the sound of the selected Group slot (A–H), i.e. the sound of all its Sound slots.

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

10.2.2 Arrangement

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.
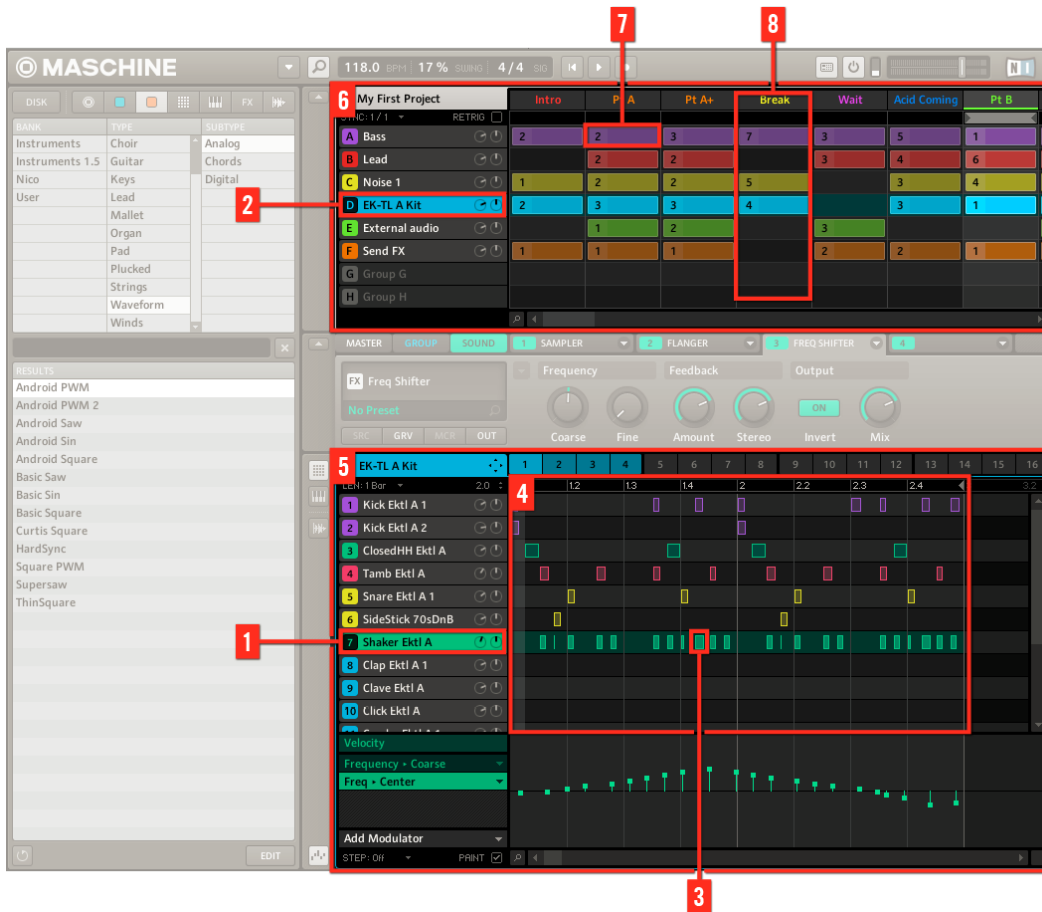
The arrangement aspect of a MASCHINE Project.

The basic workflow in building a song in MASCHINE is as follows:

- You load audio into the Sound slots (**1**) of the selected Group (**2**).

- You record instances of your Sounds by playing the pads. A recorded instance of a Sound is called an event (**3**).

- Together, the events add up to a Pattern (**4**) for this Group.

- All of this takes place in the Pattern Editor (**5**), where you can create several Patterns for each of your Groups.

- In the upper half of the software's user interface, the Arranger (**6**) lets you organize together the Patterns of your various Groups.

- Here you combine your Patterns — represented by Clips (**7**) — into Scenes (**8**).

- Several Scenes add up to a song (…or a track, or an arrangement, or whatever you want to call it).

Now that you have an overview of the core concepts, let's have a quick look at the various areas and control elements on your hardware controller and in the MASCHINE software.

10.3 MASCHINE Hardware Overview

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

Overview of the MASCHINE hardware controller.

(**1**) **CONTROL section**: Use this multi-purpose section to access to all parameters of the mode currently selected on your controller. There are also dedicated buttons to access the Browser, Step mode and the Sample Editor. For more information on this section please view ↑10.3.1, CONTROL Section.

(**2**) **MASTER section**: This section holds the multifunctional Control encoder in the middle which allows you to control the 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 ↑10.3.2, 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 ↑10.3.3, GROUPS Section.

(**4**) **TRANSPORT section**: Start, stop and restart playback, activate record and skip bars while playing, simply by pressing the dedicated buttons. Use SHIFT to access the secondary functions of your controller. For more information on this section please view ↑10.3.4, TRANS-PORT Section.

(**5**) **PADS section**: Access the various controller modes using the column of mode buttons on the left-hand side of this section. Besides playing the Sounds of the selected Group, the 16 pads give you access to many editing and selection commands depending on the selected controller mode. For more information on this section please view ↑10.3.5, PADS Section.

10.3.1 CONTROL Section

This section gives an overview of the CONTROL section.

Overview of the CONTROL section.

(**1**) **CONTROL** button: Press CONTROL at any time to return to Control mode — the default mode of the controller. In this mode, the pads represent the Sounds of the selected Group. At the same time, Control mode provides instant access to all Sound, Group and Master parame-

ters via the eight Buttons and eight Knobs above and under the displays. 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 (for more info on this, please refer to the Controller Editor Manual).

(**2**) **STEP** button: As a complement to Control mode, MASCHINE MK2 in **Step mode** doubles as a full-featured step sequencer. In this mode, each pad represents one step of the selected Step Grid resolution. During playback, a running light shows the current position of the step sequencer. Pressing the pads creates notes on the corresponding steps (causing them to light up) or it removes them. If your Pattern contains more than 16 steps, use the Page buttons (**5**) to skip to the previous/next 16 steps of the Pattern. Press SHIFT + STEP to enter **Instance mode**. In this mode you can select which instance of the MASCHINE plug-in you want to control from your hardware controller if you have more than one instance open in your Digital Audio Workstation (DAW).

> For more information on Step mode please see chapter ↑7, Creating Beats with the Step Sequencer.

(**3**) **BROWSE** button: Press the BROWSE button to access the Browser. Press SHIFT + BROWSE to access the Module lists and load a Module (internal or VST/AU plug-in) in the selected Module slot.

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

(**5**) **Page** buttons: Almost any feature of MASCHINE can be accessed using the hardware controller. For a clear and simple layout of the displays, the parameters are grouped into different pages — these are selected using the **Page** buttons.

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

(**7**) **AUTO WR.** 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) under the displays to record automation for the corresponding parameter(s).

> The Autowrite mode is pinnable: Press SHIFT + AUTO WRITE to pin/unpin the Autowrite mode. See ↑10.1.1, Controller Modes and Mode Pinning for more info.

(**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 WR. (**7**) is pressed, parameter changes are instantly recorded to an automation track.

10.3.2   MASTER Section

This section gives an overview of the MASTER section.

Overview of the MASTER section.

(**1**–**3**) **VOLUME**, **TEMPO**, and **SWING** buttons: Press these buttons to control the volume, tempo, and swing of your Project via the Control encoder (**4**), respectively. These buttons are mutually exclusive: Only one can be active at any time, and pressing any of them deactivates the previously active button, if any. When VOLUME, SWING or TEMPO is active (lit), hold a pad or a Group button and turn the Control encoder to change the volume, pitch or swing for that individual Sound or Group, respectively. Press the lit button to deactivate it and switch the Control encoder back to its default mode (see below).

(**4**) **Control encoder**: By default, the Control encoder acts as a jog wheel. Its function is similar to the function of the Step Backward/Forward buttons in the TRANSPORT section: Turn the Control encoder to skip through the loop range one bar at a time. Hold SHIFT and turn the Control encoder to skip one step at a time. When your controller is in Browse mode or when

you browse Module lists, turn the Control encoder to scroll through the list and press it to load the selected entry. When the VOLUME, SWING or TEMPO button on its right is active (lit), the Control encoder acts as a volume, swing or tempo/tune control, respectively (see above).

(**5**) **Arrow Left** button: : One press on the Arrow Left button is equivalent to turning the Control encoder (**4**) one notch counter-clockwise.

(**6**) **Arrow Right** button: One press on the Arrow Right button is equivalent to turning the Control encoder (**4**) one notch clockwise.

(**7**) **ENTER** button: Pressing the ENTER button is equivalent to pressing the Control encoder (**4**).

(**8**) **NOTE REPEAT** button: Note Repeat is a really handy way to play and record beats — it plays the selected Sound automatically at a given rate. While holding the NOTE REPEAT button, hold the pad you want to play: notes will be repeatedly triggered at the rate selected in the right display. With Buttons 5–8, you can select different rates while playing. You can select new rate values for each of these buttons by turning Knobs 5–8. In addition, you can set the tempo of your Project using this button: Press SHIFT and repeatedly tap the NOTE REPEAT button to set the required tempo.

> The Note Repeat mode is pinnable: Press NOTE REPEAT + Button 1 to pin/unpin the Note Repeat mode. See ↑10.1.1, Controller Modes and Mode Pinning for more info.

10.3.3   GROUPS Section

This section gives an overview of the GROUPS section.

Overview of the GROUPS section.

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

UME, TEMPO or SWING button is active (lit) in the MASTER section above, hold a Group button and turn the Control encoder to change the volume, pitch or swing for that individual group.

10.3.4 TRANSPORT Section

This section gives an overview of the TRANSPORT section.

Overview of the TRANSPORT section.

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

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

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

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

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

> 💡 The Grid mode is pinnable: Press GRID + Button 1 to pin/unpin the Grid mode. See ↑10.1.1, Controller Modes and Mode Pinning for more info.

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

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

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

(**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 finer increments when entering values with the Knobs.

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

10.3.5 PADS Section

This section gives an overview of the PADS section.

Overview of the PADS section.

> All the following buttons are pinnable: Simply press the desired button + Button 1 (above the left display) to pin/unpin the corresponding mode. See ↑10.1.1, Controller Modes and Mode Pinning for more info.

(**1**) **SCENE** button: Enters Scene mode. Scene mode allows you to create Scenes to work out the structure of your track. During playback, you can switch Scenes for quick on-the-fly arrangement. Dimmed pads show which Scenes contain Clips, while fully lit pads show the currently selected loop range.

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

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

- In the standard layout mapping, each pad represents one Sound of the Group and the Sounds' velocity is controlled by the pressure applied on the pads.

- In **Keyboard mode**, the pads represent 16 chromatic steps of the currently selected Sound, ascending from the selected root note — this way you can play the selected Sound like a melodic instrument. You can also use Knob 3 to adjust the Base Key for your pads. Press SHIFT + PAD MODE to quickly activate Keyboard mode.

- In **16 Velocities mode**, the pads represent 16 levels from the softest to the full velocity of the currently selected Sound — this is especially useful for building up dynamic grooves.

- In **Fixed Velocities mode**, each pad represents one Sound of the Group and all Sounds have the same fixed velocity, whatever pressure you apply on the pads.

(**4**) **NAVIGATE** button: Enters NAVIGATE mode. When working on large Projects, it is sometimes necessary to look at the computer screen. With NAVIGATE mode there is no need to use the mouse and search for scroll bars or magnifying glasses! Just use the pads and the CONTROL section to zoom in and out or scroll through Patterns and Scenes. See ↑10.1.2, Controlling the Software Views from Your Controller for more info. Furthermore, in Navigate mode Buttons 5–8 above the right display allow you to show/hide various parts of the software's user interface: Browser, Arranger, Control area, and Automation Lane.

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

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

(**7**) **SOLO** button: Enters Solo mode. In this mode, you can instantly solo any Sound or Group (equals muting all other Sounds/Groups) by pressing its pad or Group button — useful to tweak the Sound or for performing live. The pad of the soloed Sound or Group is fully lit, while all other pads (representing the muted Sounds/Groups) are dimmed.

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

(**9**) **Pads 1–16**: Besides playing and selecting your Sounds, the pads have many functions depending on the controller mode that is currently active. In addition, when used in combination with SHIFT, the pads trigger various commands:

- Press SHIFT + pad 1/2 to undo/redo your last action.

- Press SHIFT + pads 3–16 to access various editing functions in the selected Pattern.

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

10.4 MASCHINE Software Overview

The MASCHINE software.

(**1**) **Header**: The Header contains the main controls for the MASCHINE software including the Display area, the Transport controls and the Master Volume slider. You can also use this area to toggle the Browser, connect to your hardware controller and monitor the CPU usage of your computer.

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

(**3**) **Arranger**: Use the Arranger to combine your Patterns into up to 64 Scenes in order to build your track and make arrangements.

(**4**) **Control area**: The Control area allows you to control parameters and settings for each of the four Modules at each Project level (Sound, Group and Master). This area can hold settings for Groups, Sounds, Modules (internal or VST/AU plug-ins), MIDI, routing…

(**5**) **Pattern Editor**: The Pattern Editor features both step programming and real-time recording and is the basis for each Scene. Up to 64 Patterns for each Group can be created here and then arranged into Scenes in the Arranger. The Pattern Editor also lets you edit automation for the Sound, Group, and Module (internal or plug-in) parameters.

10.4.1   Header
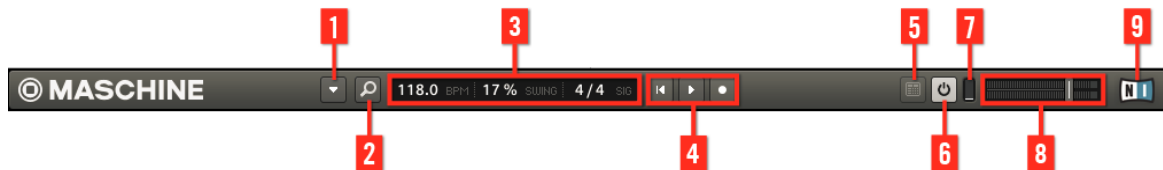
The Header.

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

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

(**3**) **Display area**: The Display area provides control regarding tempo, global swing and time signature.

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

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

(**6**) **Audio Engine button**: Click the Audio Engine button to disable the entire 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 (for more info, please refer to the Manual).

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

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

10.4.2   Browser
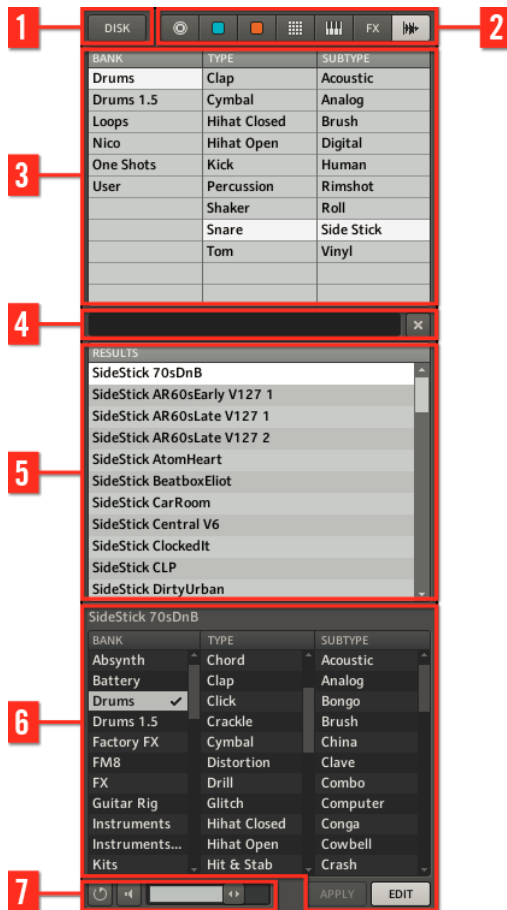
The Browser.

(**1**) **DISK button**: Use the DISK button to access your computer's hard drives.

(**2**) **File Type selector**: This contains 7 icons representing the different file types of MASCHINE. From left to right the file types are: Projects, Groups, Sounds, Patterns, instrument plug-in presets, effect presets, and Samples. By clicking one of them it causes only the files of the selected type to be displayed in the RESULTS 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**) **Search field**: Use the Search field to quickly find files based on their name or tagged attribute. Select the type of file you are looking for from the File Type selector and enter the name or category of a file into the Search field to perform a search. Results are displayed in the RESULTS list below.

(**5**) **RESULTS list**: The RESULTS 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 Bank, Type and Subtype categories. You can show/hide it by clicking the EDIT button at the bottom right.

(**7**) **Audition controls**: The Autoload button allows you to listen to the item selected in the RESULTS list in context with the rest of your Project while it is playing. Additionally, if you are browsing Samples, the Prehear button allows you to quickly hear each Sample you select in the RESULTS list, at the volume set by the slider nearby.

10.4.3 Arranger
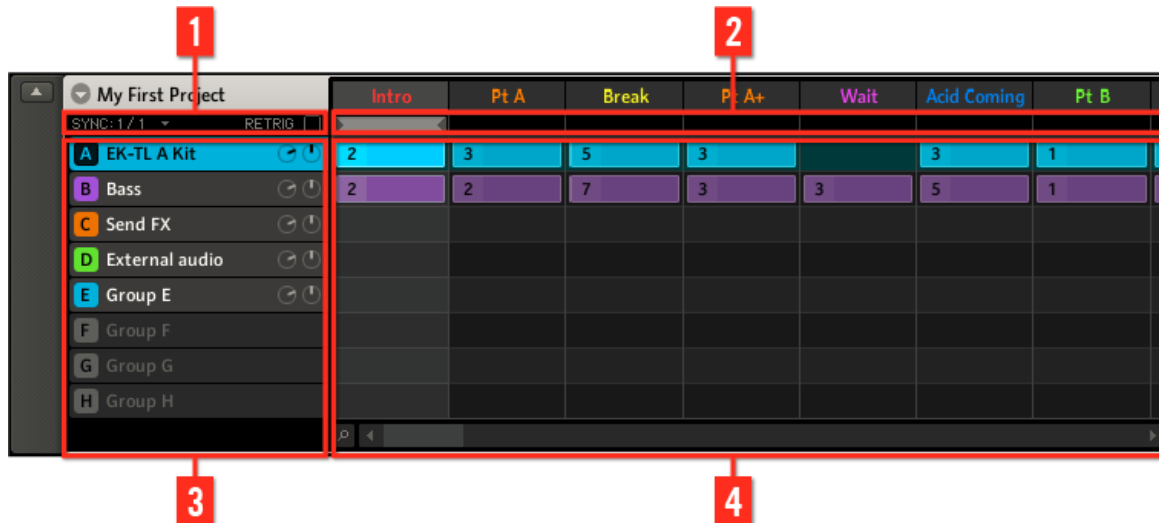
The Arranger.

(**1**) **Scene Sync and Retrigger controls**: This area contains the controls for Scene Sync, which allow you to quantize Scene transitions, and for Retrigger, which lets you choose whether Scenes have to be retriggered or not.

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

(**3**) **Group slots**: The 8 Group slots can hold one Group each. Select the desired slot to load a Group into it and display the Group's content (Sounds, Patterns…) in the Pattern Editor (see ↑10.4.5, Pattern Editor) and the Group's properties and Modules in the Control area (see ↑10.4.4, Control Area).

(**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 Remove functions.

10.4.4   Control Area
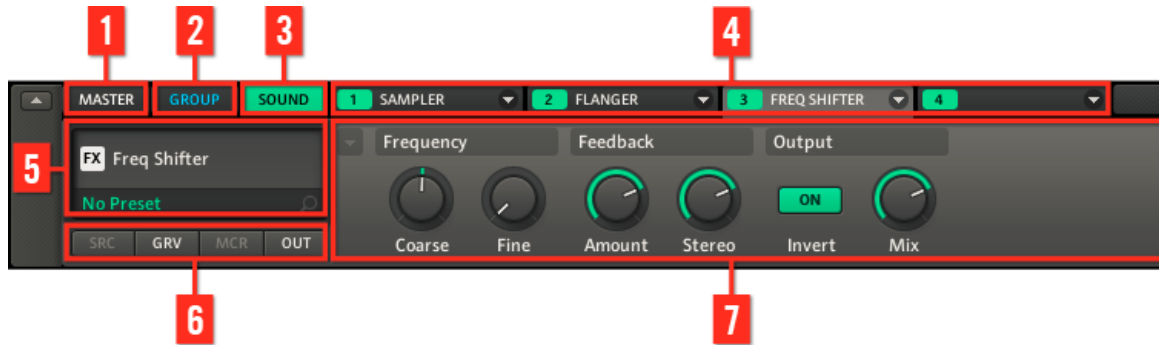
The Control area.

(**1**) **MASTER tab**: Click the MASTER tab to control the sound at the main outputs of MASCHINE (including all Groups).

(**2**) **GROUP tab**: Click the GROUP tab to gain access to the Modules and Properties of the Group loaded in the currently selected Group slot (A–H).

(**3**) **SOUND tab**: Click the SOUND tab to gain access to the Modules and Properties of the Sound in the currently selected Sound slot (1-16).

(**4**) **Module slots 1-4**: There are four Modules slots on each project level (Sound, Group and Master). Each of them can hold one effect Module. The first Module slot of the Sound level can also hold an instrument Module (sampler, VST/AU instrument plug-in…). Click the desired tab to display the parameters for that Module in the Parameter area below.

(**5**) **Quick Browse area**: The Quick Browse area displays the name of the Module loaded in the currently displayed Module slot. It can also be used to recall the search query you performed to find the currently loaded file/preset. If you rollover the Quick Browse area with your mouse when using a VST/AU plug-in an EDIT icon appears: Click anywhere in the area to open the plug-in interface in a separate window.

(**6**) **Property selector**: Click the Property selector to display and adjust various properties for the currently selected Sound/Group or for the Master in the Parameter area.

(**7**) **Parameter area**: Displays the parameters for the selected Module or Properties. Depending on the number of parameters to display, these can be split into several pages. In this case, click the little drop-down arrow at the top left of the Parameter area to select the parameter page to be displayed.

10.4.5   Pattern Editor
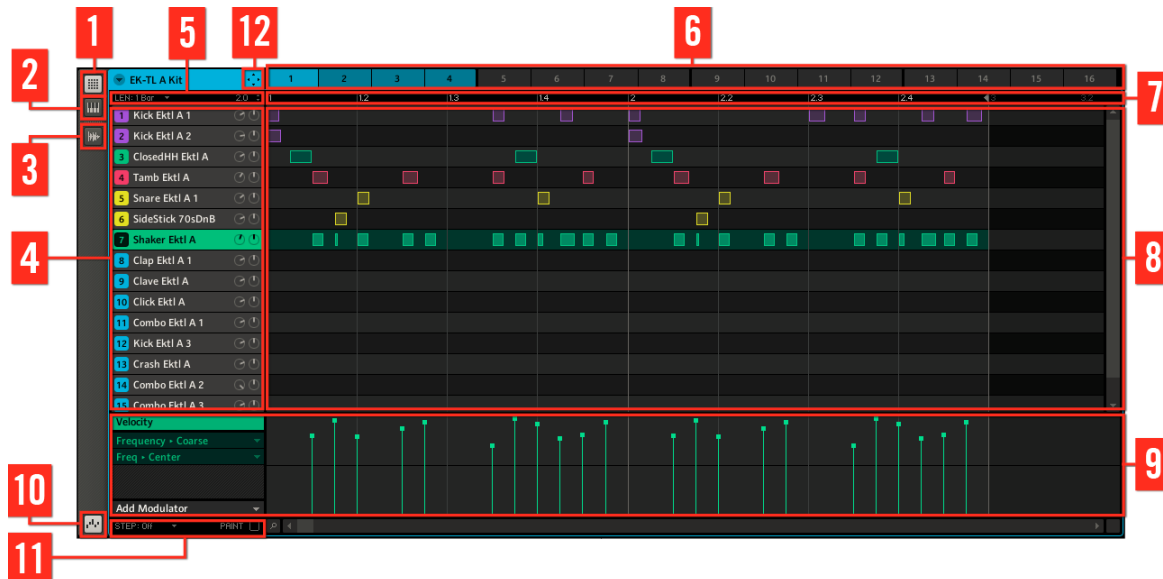
The Pattern Editor.

(**1**) **Group View button**: Click this button to show the Group view.

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

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

(**4**) **Sound slots**: Sounds slots 1–16 of the selected Group are listed here. Click a Sound slot to bring it into focus and display its Modules and Properties in the Control area (see ↑10.4.4, Control Area). In Keyboard view (**2**), click a Sound slot to display its events in the Step Grid (**8**).

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

(**6**) **Pattern slots**: Each Group has 4 Pattern Banks of 16 Pattern slots each. Each Pattern slot can hold one Pattern. A Pattern contains the events that make up a groove or a musical phrase for the selected Group. Click a Pattern slot to display and edit its Pattern. Upon slot selection this Pattern is also referenced by a Clip for that Group in the currently selected Scene in the Arranger (see ↑10.4.3, Arranger). The Clip will take the name of the Pattern and the number of its Pattern slot. Create Clips from various Patterns to form an arrangement.

(**7**) **Pattern timeline**: The timeline at the top of the Step Grid (**8**) displays musical time units, including bars and beats. Click anywhere in the timeline to resize the currently selected Pattern.

(**8**) **Step Grid**: Displays the content of the selected Pattern slot (**6**). Here you can see your recorded events as rectangular blocks. In Group view (**1**) these represent the Sounds of your Group. In Keyboard view (**2**) they represent musical notes of the selected Sound. The events can be edited using your mouse; they can be dragged to a new position, elongated, shortened or deleted.

(**9**) **Automation Lane**: The Automation Lane provides a visual overview and editing tools for the automation of each parameter.

(**10**) **Automation Lane button**: The Automation Lane button allows you to show/hide the Automation Lane (**9**).

(**11**) **Edit controls**: Use the STEP menu to change the step size in which events can be moved/resized and click the PAINT check box to toggle the Paint mode on/off.

(**12**) **Dragger icon**: The Dragger icon allows you to conveniently drag and drop audio or MIDI from your Patterns to your desktop or host software. See the Manual for more info.

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

11 Troubleshooting – Getting Help

This chapter assists you in solving common issues with MASCHINE and provides you with the necessary information for getting further assistance.

> ⚠ Before getting help please make sure you have downloaded the latest MASCHINE software and documentation from Service Center!

11.1 Troubleshooting

A few common issues and possible solutions when working with MASCHINE are listed in this section.

11.1.1 The MASCHINE Software Won't Start

- Check the system requirements for MASCHINE. The minimum requirements are the very least you can get by with and are often not enough for advanced use (e.g., many effects, complex routing…). Increasing your RAM may save you a lot of trouble.

- Make sure you have the most recent version of the MASCHINE software installed. You can find the latest available version following this link: http://www.native-instruments.com/updates.

- Make sure that you have not clicked an outdated application alias/shortcut.

- Try to restart your computer. Disconnect any other audio interfaces and computer peripherals like printers, scanners, and the like.

11.1.2 Latency Issues

- Please check if your computer is suited for handling real-time audio processing without dropouts. In general, it is not recommended to use laptops with shared-memory graphic cards. You will need all the memory and processing power available for your audio software.

- It is not recommended to run the laptop on battery, as built-in power management systems might slow the clock rate of the CPU in an effort to extend battery life.

- Disconnect all unused hardware (e.g., printer, scanner). This will increase the amount of processing power available for your music software.

- Laptops often are equipped with built-in devices that disturb audio processing, most commonly Bluetooth transceivers, an Ethernet network adapter, or a wireless LAN card. You might need to disable these devices while working with MASCHINE.

11.1.3   The MASCHINE Software Crashes

In case of a crash during runtime, please contact the Native Instruments technical support team as described in section ↑11.2.2, Technical Support and send them your crashlog. You will find the crashlog in the following folders:

- Windows: *My Documents\Native Instruments\Maschine\Crashlogs*
- Mac OS X: *Users/~/Library/Logs/CrashReporter*

11.1.4   Updates

Whenever you encounter problems, it is recommended that you first download and install any available software updates. Updates are released regularly to fix known problems, maintain compatibility with operating system updates, and to continuously improve the software. The version number of your software is displayed in the About dialog for any Native Instruments application. This dialog can be opened by clicking on the NI logo in the upper right corner of the user interface. Alternatively, you can find the version numbers of all installed Native Instruments applications when showing the details for an application within the Overview page of the Service Center. Updates are available on the Update page in Service Center or on our website under: http://www.native-instruments.com/updates.

11.2   Getting Help

If you are experiencing problems related to your Native Instruments product that the supplied documentation does not cover, there are several ways of getting help!

The links in the following sections can also be reached from the Service Center application: Open the Service Center application and click on the Support button in the upper-right corner.

11.2.1 Knowledge Base

The Online Knowledge Base gathers useful information about your Native Instruments product and can be of great help to solve possible issues you may encounter. You can reach the Knowledge Base via: www.native-instruments.com/knowledge.

11.2.2 Technical Support

If no Knowledge Base entry matches your problem, or if the matching entry does not solve the problem, you can use the Online Support Form to contact the Technical Support team of Native Instruments. The Online Support Form will ask you to enter information about your hardware and software setup. This information is essential for our Support team to be able to provide you with quality assistance. You can reach the Online Support via: www.native-instruments.com/suppform.

When communicating with the Native Instruments Support team, keep in mind that the more details you can provide about your hardware, your operating system, the version of the software you are running, and the problem you are experiencing, the better they will be able to help you.

In your description, you should mention:

▪ How to reproduce the problem

▪ What you have already tried to fix the problem

▪ A description of your setup, including all hardware and the version of your software

▪ The brand and specifications of your computer

When installing new software or software updates, a Readme file is included that contains late breaking news and new information that was not yet included in the documentation. Please open and read this Readme file before contacting Technical Support.

11.2.3 Registration Support

If problems occur during the product activation procedure, please contact our Registration

Support team: www.native-instruments.com/regsuppfrm.

11.2.4 User Forum

In the Native Instruments User Forum, you can discuss product features directly with other users and with experts moderating the forum. Please be aware that the Technical Support team does not participate in the forum. If you're encountering an issue that can't be solved by other users, contact Native Instruments' Technical Support team via the online support as described above. You can reach the User Forum via: http://www.native-instruments.com/forum.

12   Glossary

In this glossary you will find short definitions for numerous terms used in the MASCHINE context. If you have any doubts about the meaning of a word, this is the place to check!

Arranger

The Arranger is the big area located in the upper part of the MASCHINE window, right under the Header. On its left you can select Group slots. The Arranger allows you to combine Clips (references to Patterns) into Scenes, and arrange these Scenes into a song. You can adjust the Scene Sync resolution in order to adjust transitions between Scenes.

Autoload

When Autoload is enabled, any Group, Sound, Pattern, Module preset (instrument or effect), or Sample that you select in the Browser is instantly loaded into the selected Group slot, Sound slot, Pattern slot or Module slot. This way, you can listen to this object in the current context of your song.

Automation

Automation allows you to record changes of parameter values so that you don't need to actuate these parameters in real-time. Any automated parameter is displayed both in the Automation Lane (at the bottom of the Pattern Editor) and as a movement of the chosen parameter itself in the Control area.

Automation Lane

Located at the bottom of the Pattern Editor in the MASCHINE window, the Automation Lane shows and lets you edit the recorded automation in form of automation points for each automated parameter. You can add, remove, or manipulate existing automation points as well as add new parameters to automate.

Browser

The Browser is the front end for accessing all MASCHINE objects: Projects, Groups, Sounds, Patterns, presets for instrument and effect Modules, and Samples. Each of these can be stored, "tagged," and categorized in a way that allows you easy access to all of them. MASCHINE's factory library is already completely tagged, and you can also import your own files to the Library and tag them as well.

Bussing point

A bussing point is a point in the signal flow that can accept signals coming from various locations in the audio routing system. In MASCHINE for example, the first Module slot of a Sound usually contains a sound source (which you will hear by pressing the corresponding pad on your controller). If you load an effect Module in this first Module slot, though, the Sound won't generate audio itself but instead it becomes available for other Sounds and Groups to process their audio. You then only have to set up the desired Sound(s) and Group(s) of your Project to send some of their audio to this bussing point. This basically is the way to set up send effects in MASCHINE!

Clip

Clips are found in the Arranger in form of colored blocks. Clips are the building blocks for Scenes. A Clip is a reference to a particular Pattern. In one Scene you can create one Clip for each Group — in other terms, in each Scene you can play one Pattern of each Group. You can create more than one Clip referencing the same Pattern in different Scenes. When you modify your Pattern in the Pattern Editor, all Clips referencing this Pattern in the Arranger will get updated accordingly.

Control Area

The Control area is located in the middle of the MASCHINE window, between the Arranger (above) and the Pattern Editor (below). This area allows you to adjust all parameters (Properties and Modules) for the selected Sound/Group or the Master level: routing, effects, plug-ins, mixing, Macro Controls, etc.

Control Mode

Control mode is the default mode of your controller. In this mode, you can play or record your actions in real-time. Control mode also allows you to easily adjust any parameter of your Groups and Sounds via the CONTROL section of your controller.

Effect (FX)

An effect modifies the audio material it receives. MASCHINE already includes many different effects. You may also use VST/AU plug-in effects. Effects can be loaded as Modules in any Module slot of the Sound, Group, and Master levels. MASCHINE's flexible routing allows you not only to apply insert effects but also to create send effects and multi-effects.

Event

Events are the individual drum hits or notes that make up a Pattern. In the Pattern Editor, events are visually represented by rectangles in the Step Grid. Depending on the current view in the Pattern Editor, you can see events for all Sounds slots (Group view) or for the select Sound slots only (Keyboard view).

Groove Properties

The Groove Properties control the rhythmic relationship between events for the selected Group/ Sound or the Master level. By shifting some of the events, you can e.g. give a shuffling, ternary touch to your Patterns. The main parameter of the Groove Properties is the Swing control.

Group

A Group contains 16 Sound slots, each of which can hold one Sound. In addition to the effects applied to individual Sounds, a Group can have up to four insert effects loaded in its Module slots. These affect all the Sounds in the Group. A Group can also contain up to 64 Patterns organized into four Pattern Banks.

Group View

Group view is the view of the Pattern Editor in which events for all 16 Sound slots of the selected Group are visible and editable. In Group view, each row of the Step Grid represents a different Sound slot. This mode is well suited for rhythmic instruments (e.g., a drum kit).

Insert effect

An insert effect is an effect directly inserted in the signal path of the audio to be processed.

Header

The Header is the topmost row of controls in the MASCHINE software window. It contains global settings, such as the Master Volume slider, the Transport controls, controls for global swing, tempo, time signature, etc.

Keyboard View

Keyboard view is the view of the Pattern Editor in which only events of the selected Sound are visible and editable. The Keyboard view provides a vertical on-screen keyboard that indicates the pitch of each event (one row per semi-tone). This mode is well suited for melodic instruments (e.g., synthesizer). The Keyboard view of the Pattern Editor and the Keyboard mode on your controller are bound together: If you enable Keyboard view in the Pattern Editor, your controller automatically switches to Keyboard mode, and inversely.

Macro Control

Each Group provides a page of eight Macro Controls to which you can assign any continuous parameters (i.e. controlled by a rotary knob) from that Group or any of its Sounds. This way you can define for each Group a set of eight parameters that are quickly accessible. Furthermore, Macro Controls can be assigned to MIDI CCs to be controlled by an external MIDI controller or application. Last but not least, if you use MASCHINE as a plug-in in a host, Macro Controls are available for automation in your host too.

Master

The Master is where all audio signals from each of the Groups and Sounds come together and get mixed. The Master bus can also have up to four insert effects loaded in its Module slots. These effects are applied to all Groups and the Sounds within them.

Module

Modules can be sound sources or effects, and internal or external (VST/AU plug-ins). The Sound slots, the Group slots and the Master provide four Module slots each for loading Modules.

Mute and Solo

Muting allows you to bypass a Sound or a Group, whereas Soloing is pretty much the opposite: It mutes all other Sounds or Groups so that only the soloed Sound or Group is played. The combination of muting and soloing is a useful means both to play live and to test different sequences together.

Pad Mode

Your controller offers various Pad modes that allow you to play your Sounds from the pads in different ways: Depending on the selected Pad mode, you can either assign one Sound to all 16 pads (Keyboard mode and 16 Velocities mode) or trigger each Sound with a distinct pad (default mode and Fixed Velocity mode). The Keyboard mode on your controller and the Keyboard view in the software's Pattern Editor are bound together: If you enter Keyboard mode on the controller, Keyboard view gets automatically enabled in the software, and inversely.

Parameter Pages

The Parameter pages constitute the biggest part of the Control area in the MASCHINE window. They contain the adjustable parameters for the Modules and Properties of the selected Sound/Group or those of the Master.

Pattern

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. Using the Patterns you created in your different Groups, you can compose Scenes in the Arranger.

Pattern Editor

Located at the bottom of the MASCHINE window, the Pattern Editor allows you to select Sound slots (on the left), display and edit your Patterns, change the Step Grid settings and create/edit automation.

Plug-in

A plug-in is an external VST/AU instrument or effect unit, either by Native Instruments or a third-party manufacturer, that can be loaded as a Module into a Module slot to produce or alter sound. When a plug-in is loaded into a Module slot, the plug-in icon appears in the Quick Browse area (in the left part of the Control area). In opposition to plug-ins, instruments and effects included in MASCHINE are referred to as internal Modules.

Prehear

The Prehear feature allows you to listen to Samples directly from the Browser without loading them into Sound slots first. This way, you can quietly choose a Sample before modifying anything in your Project.

Project

A Project contains all data needed for a song: all Groups, Patterns, Sounds, Samples, Scenes and all settings, automation, effects, routings, etc. It's like a snapshot of the entire state of MASCHINE.

Properties

Properties are sets of parameters available at each Project level (i.e. for each Sound, each Group, and for the Master) that are independent of the Modules loaded in that Sound/Group/Master. Like the Module parameters, in the software the Properties parameters are displayed via Parameter pages in the Control area. For example, the volume, pan or swing controls are Properties of their respective Sound/Group/Master.

Quantization

To quantize a Pattern is to make its events snap to a set of equally distributed locations known as steps. This ensures that these events are on beat. You can also let MASCHINE automatically quantize events that you play and/or record live. Quantization makes it easier to get a rhythm going, but too much use can make the Pattern seem stiff or lifeless.

Sample

A Sample is any piece of audio that can be used e.g. to build a drum kit or a melodic instrument, or as a distinct loop in your song. You can load one or more Samples into each Sound slot.

Sample Editor

The Sample Editor can be displayed in place of the Pattern Editor. The Sample Editor is the all-in-one editor for Samples. It notably allows you to record Samples, edit them, split them into slices and map them across notes and velocities on your keyboard.

Scene

A Scene is a combination of Clips for your different Groups. Each Clip references a specific Pattern of a Group. In a Scene you can create one Clip for each Group. Scenes are located in the Arranger. They can be used to build up a finished arrangement or to trigger different parts of a song during a live performance.

Send Effect

A send effect is an effect available for audio signals located on other Sounds and/or Groups. These audio signals can be routed to a variable extent to the send effect for the effect to process them. Send effects notably allow you to reuse the same effect on different Sounds and/or Groups, thereby limiting the overall CPU load.

Sequencer

Generally speaking, a sequencer is a hardware unit or software tool that arranges musical sequences, e.g. drum patterns or chord progressions. Hardware sequencers typically function as a set of steps, where every step can be filled with musical content. The steps are then played back as a musical sequence. MASCHINE has its own sequencing abilities: you can record and play single Patterns as well as arrange Patterns into Scenes and Scenes into full songs.

Sound

Sounds are the building blocks of all sound content in MASCHINE. They are organized into Groups that can hold up to 16 Sounds each. Sounds can be played directly from the pads on your controller. A Sound can hold up to four Modules of various types (sound source or effect, internal or plug-in, etc.).

Step

Steps are elementary time blocks. They are notably used to apply quantization or to compose Patterns from your controller in Step mode. All steps together make up the Step Grid. In the software's Pattern Editor, steps are visualized by vertical lines. You can adjust the step size, e.g., to apply different quantization to different events or to divide the Step Grid into finer blocks to edit your Pattern more precisely.

Step Grid

The Step Grid is a set of parallel lines that divide the Pattern into steps. By changing the resolution of the Step Grid (i.e. the step size), you can adjust the note values at which you can quantize your Pattern and the number of steps available in Step mode on your controller.

Step Mode

In Step mode, your controller can be used as a traditional step sequencer, where each of the 16 pads represent a step in the Step Grid. Just as on classical drum machines, a light representing the sequence runs from pad 1 up to pad 16, highlighting each step during playback. Select a Sound and put events at chosen steps in the sequence by pressing the corresponding pads. By repeating the process Sound by Sound you build up the whole Pattern.

Swing

The Swing parameter allows you to shift some of the events in your Pattern to create a shuffling effect.

Solo

See Mute and Solo.

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