

AKAI[®]
professional

MPC

REFERENCE MANUAL

TABLE OF CONTENTS

1. Welcome to the MPC	3	5. The MPC Software in Detail	25
1.1 About this Manual	3	5.0 DRUM Program vs. KEYGROUP Program	27
1.2 Important Notes	3	5.1 The File Browser	29
2. Overview MPC Hardware	4	5.2 The Upper Section	31
2.1 The Top Panel	4	5.3 The Lower Section	32
2.2 The Front Panel	8	5.4 The Grid	34
2.3 The Rear Panel.....	8	5.5 The Main Mode	39
3 Installing the MPC Software	10	5.6 The Program Edit Mode	45
3.1 System Requirements.....	10	5.7 The Program Mixer Mode.....	55
3.2 Installation under Windows	11	5.8 The Track Mixer Mode	57
3.3 Installation under Mac OS X	12	5.9 The Track View Mode	60
3.4 Unlocking the MPC Software	13	5.10 The Song Mode.....	61
4. Quick Start Tutorial	14	5.11 The Next Sequence Mode.....	63
4.1 First Start	14	5.12 The Sample Record Mode	65
4.2 Feeding the MPC Software.....	14	5.13 The Sample Edit Mode.....	68
4.3 Recording a Drum Pattern	15	5.14 The Pad Mute Mode.....	78
4.4 Organization & Editing	15	5.15 The Track Mute Mode	80
4.5 Basic Sound Edits.....	16	5.16 The Step Sequence Mode.....	82
4.6 The Bassline Track	17	5.17 The Software Menus	84
4.7 Working with a Drumloop.....	19	6. Appendix.....	91
4.8 Pad and Track Mute.....	20	6.1 Effects & Parameters	91
4.9 Record and Edit a Sample	21	6.2 Keyboard Shortcuts.....	109
4.10 Step-by-Step with Step Recording .	23	6.3 Specifications	111
4.11 Automation.....	23	6.4 Support & Updates	113
4.12 Creating a Song	24	6.5 Glossary	114
4.13 Exporting the whole Song	24		
4.14 Working with the MPC as an Instrument Plugin	24		

1. WELCOME TO THE MPC

Thank you for purchasing the MPC.

Fusing Akai Professional's legendary MPC layout and workflow with the power of your computer, MPC Renaissance and MPC Studio are unrivaled instruments for music production.

The new flagship is a fully integrated hardware/software system: MPC Renaissance allows you to create using classic hardware controls and an integrated pop-up display, while its exclusive MPC Software empowers you with unprecedented, expandable production capabilities on your Mac or PC.

MPC Studio offers the most streamlined MPC experience yet. At under one-inch thin, with low-profile controls and a brushed aluminum body, it's made to move. MPC Studio merges real MPC pads, iconic workflow, and the same MPC Software used by MPC Renaissance to give you a fully integrated portable production solution.

Welcome to production anywhere! The world is now your studio!

We hope your investment will bring you many years of creative enjoyment and help you achieve your musical goals.

1.1 ABOUT THIS MANUAL

This manual was written to help you to become familiar with the MPC hardware and software. It will also aid experienced users with routine tasks.

To avoid confusion, the terminology in this manual is based on the MPC parameter names. You will find the various terms explained in a glossary at the end of this manual.

We also used a uniform set of symbols to show topics of particular interest or significance. Important terms are highlighted in bold letters.

i Info – Additional information on a given topic.

▶ MPC hardware – How to use the MPC hardware controls!

All buttons, controls and parameters are highlighted in **bold** letters throughout the manual.

Example:

"Press the **PROG EDIT** button" or "Turn the **Level** dial".

The value range of a continuous parameter is indicated in italic letters.

Example:

EDIT TAGS: *Kick, Clean or One Shot*

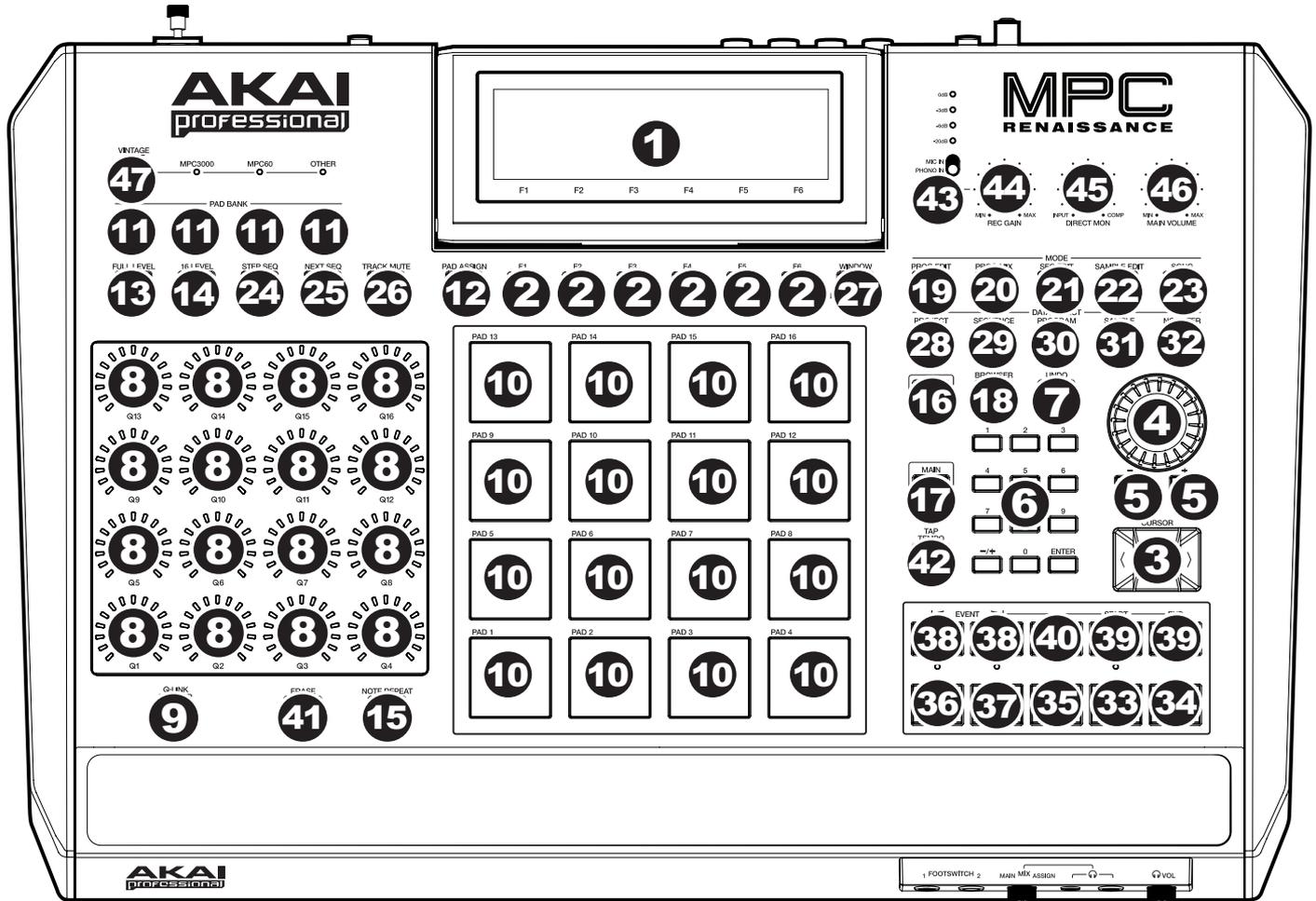
1.2 IMPORTANT NOTES

- READ SAFETY INSTRUCTIONS & WARRANTY INFORMATION BEFORE USING THE MPC HARDWARE AND SOFTWARE.
- Before getting started and connecting devices to the MPC hardware or turning the hardware on/off, make sure all devices are switched off.
- *Before connecting the MPC hardware to your computer*, insert the included DVD to install the MPC software (visit www.akaipro.com to check for available software updates). For more information about installing the MPC software refer to chapter 3.

2. OVERVIEW MPC HARDWARE

MPC Renaissance is hardware specifically designed to control the MPC software. This section describes all the hardware controls. For a complete explanation of the software, please read the corresponding chapter of this manual.

2.1 THE TOP PANEL



The top panel of the MPC Renaissance

NAVIGATION / DATA ENTRY CONTROLS

1. **DISPLAY** – This LCD shows all the information relevant to MPC Renaissance's current operation. Much of this information is also shown in the software. Use the CURSOR BUTTONS to navigate through the display, and use the DATA DIAL, and -/+ buttons to adjust the currently selected setting/parameter. Use the MODE buttons to change what page is shown, and use the F-BUTTONS to change what tab is shown. You can adjust the display contrast by holding down SHIFT and turning the DATA DIAL.
2. **F-BUTTONS** – Press one of these buttons to select its corresponding tab, shown above the button in the display.
3. **CURSOR BUTTONS** – Use these buttons to navigate through the fields of menus and options shown in the DISPLAY.
4. **DATA DIAL** – Use this dial to scroll through the available menu options or adjust the parameter values of the selected field in the DISPLAY.
5. **-/+** – Press these buttons to increase/decrease the value of the selected field in the display.

6. **NUMERIC KEYPAD** – If the selected field in the DISPLAY is a number, use these numbered buttons as a standard numeric keypad to enter a value. Press the keypad's ENTER to enter it.
7. **UNDO / REDO** – Press this button to undo your last action. You can undo up to 200 actions. Hold down SHIFT and press this button to redo the last action you undid.

PAD / Q-LINK KNOB CONTROLS

8. **Q-LINK KNOBS** – Use these touch-sensitive knobs to adjust various parameters and settings. The LEDs surrounding each knob indicate the knob's current position.
9. **Q-LINK TRIGGER** – Hold this button down, then touch one of the Q-LINK KNOBS to make that knob's parameter's value jump to its minimum or maximum (depending on the **Trig** parameter in the MPC software).
10. **PADS** – Use these pads to trigger drum hits or other samples in your software. The pads are velocity-sensitive and pressure-sensitive, which makes them very responsive and intuitive to play. The pads will light up different colors, depending on how hard you play them (ranging from yellow at a low velocity to red at the highest velocity). To disable (or re-enable) these lights, press PAD ASSIGN then F6 (**Velo Col**).
11. **PAD BANK BUTTONS** – These 4 buttons switch among Pad Banks A – H. Between these 8 banks with 16 pads per bank, you can access up to 128 MIDI events using the pads.
12. **PAD ASSIGN / PAD COPY** – Press this button to assign a sample to a pad. In the display, the 4x4 grid that appears represents the 16 pads. Use the CURSOR BUTTONS to navigate through the grid, and use the DATA DIAL or -/+ buttons to select a Program (when the Program field is highlighted) or a sample (when a pad is highlighted). Hold down SHIFT and press this button to copy the samples and parameters from one pad to another. Use the CURSOR BUTTONS to select the **From Pad** ("source") or **To Pads** ("destination") field and hit a pad to select it (you can copy to multiple pads). Use the F-BUTTONS to confirm or cancel the operation.
13. **FULL LEVEL / HALF LEVEL** – Press this button to activate/deactivate Full Level. When activated, the pads always play back at a maximum velocity (127), no matter how hard or soft you hit them. Hold down SHIFT and press this button activate/deactivate Half Level. When activated, the pads always play back at a half velocity (63).
14. **16 LEVEL** – Press this button to activate/deactivate 16 Level. When activated, the last pad that was hit will be temporarily copied to all 16 pads. The pads will now output the same note number as the initial pad, but a selectable parameter will be fixed at the values shown in the diagram on the right, regardless of how hard you hit them. The available parameters are velocity, tuning, filter, layer, attack or decay.
15. **NOTE REPEAT / LATCH** – Hold this button down and press a pad to retrigger that pad's sample at a rate based on the current Tempo and Time Correct settings (the available Time Correct settings will appear in the display, which you can select with the F-BUTTONS). Hold down SHIFT and press this button to latch the Note Repeat feature. When latched, the button does not need to be held down for Note Repeat to be activated. Press NOTE REPEAT once more to unlatch it.

MODE / VIEW CONTROLS

16. **SHIFT** – Hold this button down to access some buttons' secondary functions (indicated by orange writing).

17. **MAIN / TRACK** – Press this button to view the Main screen in the display and software. Hold down SHIFT and press this button to view the Track View screen in the display and software.
18. **BROWSER / SAVE** – Press this button to view the file browser in the display. Hold down SHIFT and press this button to save the current Project (including its samples, Programs, Sequences, and Songs).
19. **PROG EDIT / Q-LINK** – Press this button to view the Program Edit screen in the display and software. Hold down SHIFT and press this button to assign a parameter to a Q-LINK KNOB: use the CURSOR BUTTONS to select the desired Q-LINK KNOB, then use the DATA DIAL or -/+ buttons to select the desired parameter.
20. **PROG MIX / TRACK MIX** – Press this button to view the Program Mixer screen in the display and software. Hold down SHIFT and press this button to view the Track Mixer screen in the display and software.
21. **SEQ EDIT / EFFECTS** – Press this button to enter Sequence Edit mode. Hold down SHIFT and press this button to enter Effects mode, where you can select effects as well as edit effects' parameters.
22. **SAMPLE EDIT / SAMPLE REC** – Press this button to view the Sample Edit screen in the display and software. Hold down SHIFT and press this button to view the Sample Record screen in the display and MPC software.
23. **SONG / OTHER** – Press this button to view the Song screen in the display and software. Hold down SHIFT and press this button to enter Other mode, which allows you to set: the minimum number of taps for the TAP TEMPO button; pad threshold, sensitivity, and curve; the footswitches' messages; and the Program Change target.
24. **STEP SEQ** – Press this button to view the Step Sequence screen in the display and software.
25. **NEXT SEQ** – Press this button to view the Next Sequence screen in the display and software.
26. **TRACK MUTE / PAD MUTE** – Press this button to view the Track Mute screen in the display and software. Hold SHIFT and press this button to view the Pad Mute screen.
27. **WINDOW / FULL SCREEN** – When this button is lit, it means the selected field in the display contains additional functions; press this button to access them. Use the F-BUTTONS, CURSOR BUTTONS, and DATA DIAL or -/+ buttons to execute (or cancel) these additional functions. Hold SHIFT and press this button to switch between Full Screen and Half Screen modes. In Full Screen mode, the workspace occupies the whole screen. In Half Screen mode, the parameter controls (Q-Link knobs, pads, Sequence and Track information, Project Information, etc.) are shown underneath the workspace.
28. **PROJECT / FOLDER 1** – Press this button to view only Project files in the File Browser. Hold down SHIFT and press this button to select the Browser's Folder 1 shortcut.
29. **SEQUENCE / FOLDER 2** – Press this button to view only Sequence files in the File Browser. Hold down SHIFT and press this button to select the Browser's Folder 2 shortcut.
30. **PROGRAM / FOLDER 3** – Press this button to view only Program files in the File Browser. Hold down SHIFT and press this button to select the Browser's Folder 3 shortcut.
31. **SAMPLE / FOLDER 4** – Press this button to view only Sample files in the File Browser. Hold down SHIFT and press this button to select the Browser's Folder 4 shortcut.
32. **NO FILTER / FOLDER 5** – Press this button to view all files in the File Browser. Hold down SHIFT and press this button to select the Browser's Folder 5 shortcut.

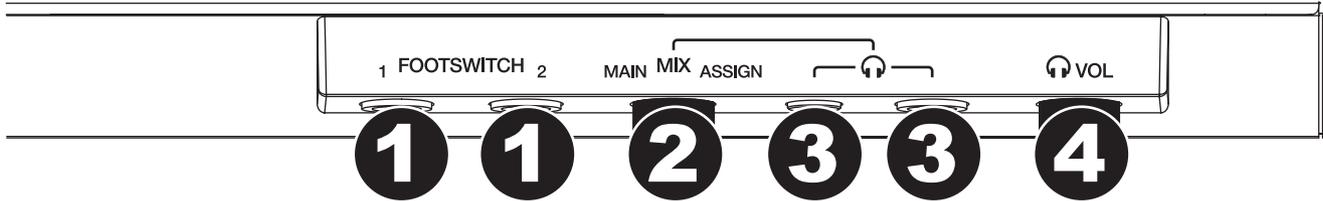
TRANSPORT / RECORDING CONTROLS

33. **PLAY** – Press this button to play the Sequence from the audio pointer's current position.
34. **PLAY START** – Press this button to play the Sequence from its start point.
35. **STOP** – Press this button to stop playback.
36. **REC** – Press this button to record-arm the Sequence. Press PLAY or PLAY START to start recording. Recording in this way (rather than using OVERDUB) erases the events of the current Sequence. After the Sequence plays through once while recording, Overdub will be enabled.
37. **OVERDUB** – Press this button to enable Overdub, which allows you to record note events in a Sequence without overwriting any previously recorded note events. You can enable Overdub either before or during recording.
38. **< / > (| < / > |)** – Use these buttons to move the audio pointer left/right, one step at a time. Hold LOCATE and press one of these buttons to move the audio pointer to the previous/next event in the Sequence Grid.
39. **<< / >> (START/END)** – Use these buttons to move the audio pointer left/right, one bar at a time. Hold LOCATE and press one of these buttons to move the audio pointer to the start or end of the Sequence Grid.
40. **LOCATE** – Hold this button down to activate the secondary functions of the < / > and << / >> buttons (i.e., | < / > | and START/END, respectively).
41. **ERASE** – As a Sequence is playing, hold this button down and press a pad to delete the note event for that pad at the current playback position. This is a quick way to delete note events from your Sequence without having to stop playback.
42. **TAP TEMPO** – Press this button in time with the desired tempo to enter a new tempo (in BPM) in the MPC software.

I/O & LEVEL CONTROLS

43. **MIC/LINE / PHONO SWITCH** – Use this switch to select the MIC IN or PHONO IN jacks on the rear panel. If you are using a mic or other line-level audio source connected to the MIC IN jacks, select MIC IN. If you are using a phono-level device like a turntable connected to the PHONO IN jacks, select PHONO IN.
44. **REC GAIN** – Use this knob to adjust the gain of the incoming signal from the MIC IN or PHONO IN jacks on the rear panel. Monitor the recording level by viewing the level meter (LEDs) above the MIC/LINE / PHONO SWITCH. *Be careful when setting this knob at higher levels, which can cause the signal to distort.*
45. **DIRECT MON** – Use this knob to adjust the balance between the INPUT and COMP signals in the headphones. The INPUT signal consists of the MIC IN or PHONO IN jacks – turn the knob all the way to INPUT for zero-latency direct monitoring. The COMP signal is the normal software playback. *When not recording, we recommend turning this knob all the way to the COMP position.*
46. **MAIN VOLUME** – Use this knob to adjust the volume level of the STEREO OUT jacks.
47. **VINTAGE MODE** – Press this to toggle through the available Vintage Modes. The MPC3000 and MPC60 settings emulate the sounds of those classic MPCs, while the OTHER setting emulates the sound of vintage sampling drum machines. When none of the LEDs are lit, Vintage Mode is off.

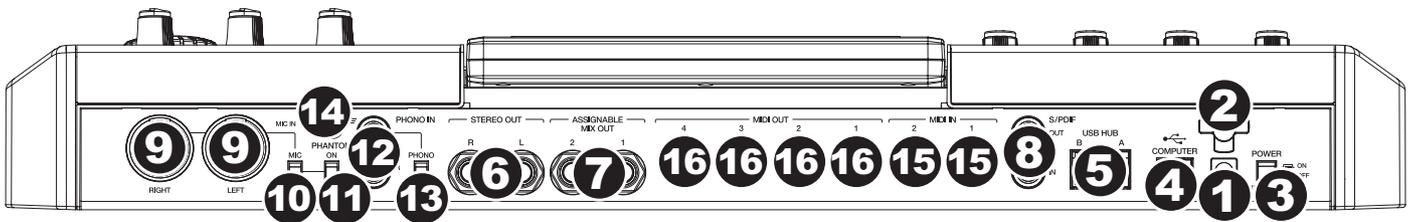
2.2 THE FRONT PANEL



The front panel of the MPC Renaissance

1. **FOOTSWITCH INPUTS** – Connect optional 1/4" TS footswitches to these inputs.
2. **MIX KNOB** – Use this knob to adjust the balance between the MAIN and ASSIGN signals in your headphones. The MAIN signal is the STEREO OUTS. The ASSIGN signal is the ASSIGNABLE MIX OUTS 1 and 2.
3. **HEADPHONES** – Connect your headphones (not included) to one of these standard TRS outputs (1/8" or 1/4"). Use the MIX KNOB to determine what signal is heard in the headphones.
4. **HEADPHONES VOLUME** – Use this knob to adjust the headphone volume.

2.3 THE REAR PANEL



The rear panel of the MPC Renaissance

1. **POWER INPUT** – Connect the 12V DC – 2A power adapter (center pin positive) to this jack then into an electrical outlet.
2. **POWER ADAPTER RESTRAINT** – You can secure a power adapter cable to this restraint to prevent it from accidentally unplugging.
3. **POWER SWITCH** – Turns MPC Renaissance's power on/off.
4. **COMPUTER USB PORT**– Use the included USB cable to connect this high-retention-force USB port to an available USB port on your computer. This connection allows MPC Renaissance to send/receive MIDI and audio data to/from the MPC software.
5. **USB HUB OUTPUTS** – You can connect additional USB devices (controllers, hard drives, etc.) to these powered, high-speed USB 2.0 ports. In addition to being an audio interface, these ports allow MPC Renaissance to function as a powered USB hub when it is powered on.
6. **STEREO OUT** – Connect these 1/4" TRS outputs to your speaker system (not included). The signal sent out of these outputs is the main mix. In the MPC software, you can set what is routed to these outputs in the Program Mixer tab, by selecting **OUT 1,2** as the **OUT** for one pad or multiple pads.
7. **ASSIGNABLE MIX OUT** – Connect these 1/4" TRS outputs to an external mixer (not included). The signal sent from these outputs is full-volume (0 dB). In the MPC software, you can set what is routed to these outputs in the Program Mixer tab, by selecting **OUT 3,4** as the **OUT** for one pad or multiple pads.

8. **S/PDIF IN/OUT** – Use standard RCA cables to connect these jacks to devices that can send/receive digital audio.
9. **MIC IN** – Connect an external sound source or microphone to these jacks using standard 1/4" TRS or XLR cables. Make sure to set the MIC/LINE SWITCH appropriately.
10. **MIC/LINE SWITCH** – Set this switch appropriately for the device you connected to the MIC IN jacks. If your sound source is a microphone, set it to MIC. If your sound source is a line-level device, like an external mixer or keyboard, set it to LINE.
11. **PHANTOM POWER SWITCH** – This switch activates and deactivates phantom power. When activated, phantom power supplies +48V to both MIC IN inputs. Please note that most dynamic microphones do not require phantom power, while most condenser microphones do. Consult your microphone's documentation to find out whether it needs phantom power.
12. **PHONO IN** – Connect these RCA inputs to an external sound source (e.g., a turntable, CD player, etc.). Make sure to set the PHONO/LINE SWITCH appropriately.
13. **PHONO/LINE SWITCH** – Flip this switch to the appropriate position, depending on the device connected to the AUX INPUTS. If you are using phono-level turntables, set this switch to "PHONO" to provide the additional amplification needed for phono-level signals. If using a line-level device, such as a CD player or sampler, set this switch to "LINE."
14. **GROUND TERMINAL** – If you connected a phono-level turntable to the PHONO IN jacks and are hearing a low hum or buzz, this could mean that the turntable is not grounded. If the turntable has a grounding wire, connect it to this terminal. **Note:** *Some turntables have a grounding wire built into the RCA connection and, therefore, nothing needs to be connected to the grounding terminal.*
15. **MIDI IN** – Use a five-pin MIDI cable to connect the MIDI OUT of an optional external MIDI device to the MIDI IN of MPC Renaissance.
16. **MIDI OUT** – Use a five-pin MIDI cable to connect the MIDI OUT of MPC Renaissance to the MIDI IN of an optional external device.

i For more information about the specifications of the MPC hardware please refer to the corresponding chapter in the Appendix section of this manual.

3. INSTALLING THE MPC SOFTWARE

This chapter explains how to install the MPC software including the plug-in version on your computer. It also guides you through the process of authorization.

3.1 SYSTEM REQUIREMENTS

In order to be able to use the MPC software, you will need at least:

Windows PC:

- Windows 7 (32- or 64-bit)
- 2 GHz Pentium 4 processor or better (multi-core recommended)
- 2 GB RAM (4 GB recommended)
- 14 GB free hard disk space
- Dual Layer DVD-ROM drive

Mac:

- Mac OS X 10.6.8 or above
- 2 GB RAM (4 GB recommended)
- 14 GB free hard disk space
- Dual Layer DVD-ROM drive

i Please also check the system requirements of your host application!

3.2 INSTALLATION UNDER WINDOWS

How to install the MPC software.

Installation from DVD:

1. Start your computer and launch your operating system. Insert the MPC DVD into your DVD-ROM drive. If you have enabled the Autostart function in Windows, the Installer will start automatically and you can proceed with Step 5 below. If not, please proceed as follows:
2. Launch the Explorer or open the window "My Computer".
3. Double-click on the icon for the drive that holds the MPC DVD.
4. Double-click on the MPC Installer icon. This launches a special installation program.
5. Follow the on-screen instructions.

i After installing the MPC software, you need to unlock the program on your computer. Please refer to the chapter "Unlocking the MPC Software".

Installation of a downloaded Installer File:

1. Refer to the folder where the downloaded MPC zip archive is located.
2. Double-click on the archive file to extract it.
3. Double-click on the MPC Installer icon. This launches a special installation program.
4. Follow the on-screen instructions.

i After installing the MPC software, you need to unlock the program on your computer. Please refer to the chapter "Unlocking the MPC Software".

3.3 INSTALLATION UNDER MAC OS X

How to install the MPC software:

Installation from DVD:

1. Disable any system activity monitoring software or extension. Then insert the MPC DVD into your computer's DVD drive.
2. If required, double click on the MPC icon to open the DVD window.
3. Double-click on the MPC Installer icon to load the installation software.
4. Follow the on-screen instructions.

i After installing the MPC software you need to unlock the program on your computer. Please refer to the chapter "Unlocking the MPC Software".

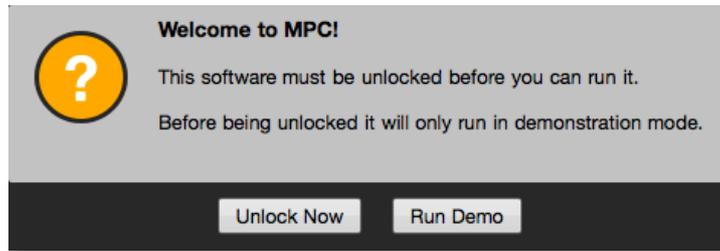
Installation of a downloaded Installer File:

1. Refer to the folder where the downloaded MPC zip archive is located.
2. Double-click on the archive file to extract it.
3. Double-click on the MPC Installer DMG icon. This launches a special installation program.
4. Follow the on-screen instructions.

i After installing the MPC software you need to unlock the program on your computer. Please refer to the chapter "Unlocking of the MPC Software".

3.4 UNLOCKING THE MPC SOFTWARE

You'll need to unlock your MPC software before using it. Follow these steps to unlock it:



1. Connect MPC Renaissance to a power source and to a USB port on your computer.
2. Power on MPC Renaissance.
3. Open the MPC software.
4. In the dialogue box that appears, click **Unlock Now**.
5. Enter your information in the window that appears.
6. If your computer is connected to the Internet, click **Unlock Now**, and enjoy your MPC!

If your computer is *not* connected to the Internet, follow these additional steps:

7. Click **Use Web Form**.
8. The window that appears will have your name, serial number, and software ID number. Click **Save Details** to save this information as a .txt file, or copy the information from each field into another file of your choosing.
9. On a computer connected to the Internet, go to **<http://authorizations.akaipro.com/MPC>**, enter the copied information, and click **Unlock My MPC**.
10. Copy the unlock code from the window that appears.
11. In your MPC software, go to the window from Step 5 and click **Enter Code**.
12. Enter your name and the unlock code generated by the webpage.
13. Click **Unlock**, and enjoy your MPC!

4. QUICK START TUTORIAL

This Quick Start Tutorial was written to help you to familiarize yourself with the MPC. In order to get the most out of this tutorial, we recommend reproducing each of the described steps.

The MPC hardware display reflects what it's controlling in the software, but due to space and character limitations, the hardware display is slightly different (e.g., parameter names may be abbreviated, the layout may be different or spread across multiple tabs, etc.).

- ▶ You can navigate through the MPC hardware display by using the MPC hardware's cursor buttons. When a parameter is selected, you can change it by turning the hardware's data dial or using the +/- buttons.
- ▶ When the screen shows a series of parameters that can't be selected with the cursor buttons, that means the screen is showing you what the Q-Link knobs are controlling. Touch a Q-Link knob, and the parameter's name and setting will appear in the upper right corner of the hardware display. Turn the knob to adjust it (If the Q-Link knob does not control any parameter in the display, this area will show the Q-Link knob number and no text).

On the following pages we will create a short song to show you important aspects of using the MPC software in conjunction with the MPC hardware. Let's get started!

4.1 FIRST START

- Make sure that the MPC hardware driver and software are both properly installed on your computer.
- Connect your MPC hardware to your computer with a suitable USB cable and switch it on. After that, start the MPC software.

Now you are ready to go!

4.2 FEEDING THE MPC SOFTWARE

Let's start with a simple drum set.



The **Browser** display of the MPC hardware

- ▶ Click on the **BROWSER** button of your MPC hardware and use the cursor down button to navigate through your hard disk folders. To enter a selected folder, click on the right cursor button to open it. Navigate to where your drum sounds are located.
- ▶ To preview a selected sound, click on the **F3** button (**Play**). You can also activate the Auto Preview option with the **F2** button (**Auto**).
- ▶ First, let's load a bass drum. Hit **Pad 1** to select it. The pad will be lit in green. Navigate to a bass drum sample you like and click on the **F6** button (**Open**) to assign it to the selected pad. Now the bass drum sample can be played with Pad 1.

- ▶ To create a simple drum set, we repeat the steps described above for other pads. We recommend to load a snare drum on Pad 2, a closed hi-hat on Pad 3 and an open hi-hat on Pad 4. Feel free to add a crash sample to Pad 5.

Now you're ready to record a simple drum pattern!

4.3 RECORDING A DRUM PATTERN

Let's start to record a drum pattern.

- ▶ Press the **REC** button of your MPC hardware to activate the recording mode. To start the actual recording, press the **PLAY** button. The precount starts to count one measure. We recommend recording the drum sounds one after the other, especially if you are not familiar with playing on the pads.
- ▶ Play a simple bass drum pattern. The initial measure length is 2 bars. After the two bars, the pattern plays again from the beginning and keeps looping. Don't stop the recording!
- ▶ Play a snare drum pattern, then a hi-hat pattern.
- ▶ Press the **STOP** button to finish the recording.
- ▶ The note events you just recorded will automatically be placed in the grid, in this case, on 16th notes.
- ▶ If you want to repeat the recording, keep in mind that the pads you play in your new recording will automatically replace existing notes played with the same pads. To prevent this, you can use the **OVERDUB** function, which enables you to record additional note events to an existing pattern. When the sequence loops around, the MPC is automatically placed in **OVERDUB** mode.
- ▶ The MPC hardware's **UNDO** button can be used differently while in Record Mode. Normally, pressing **UNDO** will undo just the last event. When there is an event to undo, the **UNDO** button will be lit solid. While recording, the **UNDO** button will flash. In this case, pressing **UNDO** will erase all events from that recording (i.e., since the **PLAY** or **PLAY START** was pressed).
- ▶ How about a crash cymbal? Let's create it directly in the MPC software by clicking on the desired position in the grid, in the same row as the crash sample.

Does your drum pattern sound OK? If not, keep on reading!

4.4 ORGANIZATION & EDITING

We recommend doing some naming and editing before recording other patterns.

- ▶ Click on the **MAIN** button of your MPC hardware to enter **Main** mode.

Let's use the MPC software, which is much better for editing.

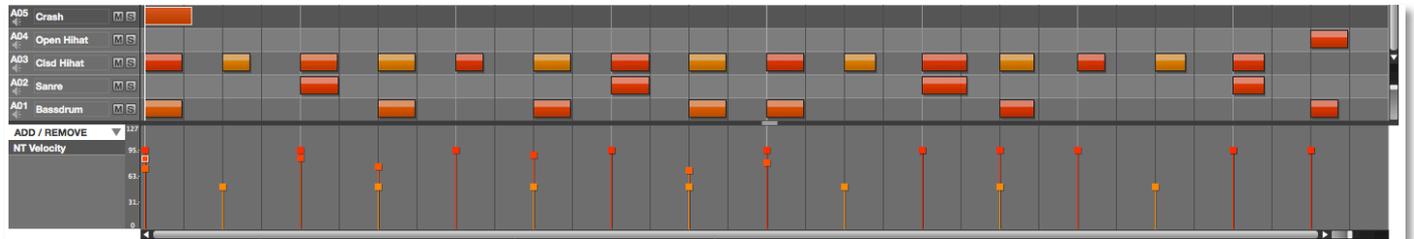
The pad assignment of your drum sounds is arranged in a Program. Let's rename the existing Program as we will want to create more Programs later on. Right-click on the *Program 01* in the **PROJECT INFORMATION** in the right section of the **Main** area and select the **Rename** option. Name the program (e.g. *Drums*) and click OK.

Right-click on the name of a sample (e.g. the bass drum), and select Rename. Enter a suitable name for the sample (e.g., "Bass Drum 1" or "Kick1"). Repeat this for the other samples in the Program. This will help keep your Program organized as you add more and more sounds to it.

In the Grid, you can see your recorded note events. Click and hold on a note to move it to a different position. By default, you can only position notes by quantization values, defined by the previously set **TIME CORRECT** value. You may change the value by clicking on the **TIME CORRECT** pop-up menu. We recommend to work with 8 or 16 values. Hold down SHIFT and using the ARROW keys to nudge events. So you can move events without restricting to the grid.

Hold down the CTRL key (PC) or Command key (Mac) and click-and-drag a note to copy it. Double-click on a note to delete it.

Velocity data can be easily edited in the velocity lane below the Grid. Click on the little square handle at the top of the a velocity bar and move the mouse vertically to change its value.



Satisfied with your work? Let's keep on making some basic sound edits.

4.5 BASIC SOUND EDITS

What about levels and effects? Don't worry, we'll get there in time!



The **Program Mixer** display of the MPC hardware

- ▶ Press the **PROG MIX** button of your MPC hardware to enter the **Program Mixer** mode.
- ▶ Press the **F2** button (**Level**) to control the volume for each pad. You can use the Q-Link knobs of your MPC hardware as well as the corresponding fader in your MPC software. Adjust the levels of each pad to suit your taste.
- ▶ Press the **F3** button (**Pan**) to control the stereo panorama for each pad. You can use the Q-Link knobs of your MPC hardware as well as the corresponding **PAN** knob in your MPC software. We recommend spreading the panning of the bright sounds a little.
- ▶ The snare drum needs a small amount of reverb to give it a more spatial sound. Press the **F6** button (**Insert 1**) to enter the insert effect page. Use the cursor buttons to navigate to the pad (here: A02) where your snare sample is located. With the data dial, you can now select the desired effect. Let's try the Reverb Medium.

► Could the bass drum use some tuning? No big deal: press the **PROG EDIT** button and hit Pad 1 to select the bass drum. Click on **F2 (Samples)** and use the Q14 and Q15 Q-Link knobs to tune the sound. You can also use the corresponding **SEMI** and **FINE** parameter in the Layer section of the MPC software.



We're on the move now... Time to add a new sound!

4.6 THE BASSLINE TRACK

To complete our musical experiment, we need a bassline. In this case, it is important to be able to play a bass sound chromatically. How does that work?

First of all, we need to select a new track. Go back to **Main** mode and select Track 02 in the TRACK pop-up menu above the Grid.

► In the MPC hardware you have to press the **MAIN** button. With **F4 (Track+)** you can switch to the next track.

This new and empty Track should be assigned to a new Program. You can do this in the **Program Edit** mode. Click on the **PROG** pop-up menu above the Grid and select the *Add Program* option. A new window opens. Enter a name, e.g. Bass, and select **KEYGROUP** as the **Program Type**. This is necessary because we want to play the bass sound chromatically with the drum pads.

Now let's load a bass sound. We will use the Browser in the MPC software.

Click on the file browser's pop-up menu for an overview of your hard disk structure. Locate and select a bass sample. You can double-click on any displayed folder to open it. Click on the **Preview** button to preview any selected audio sample. If you found a sample to your liking, double-click it to add it to the MPC software's currently loaded Project. Keep in mind that the sample is not yet assigned to a pad.

► Press the **PROG EDIT** button of your MPC hardware to enter the **Program Edit** mode, if not selected already.

In the **Layer** section click on the **LAYER 1** pop-up menu and select the bass sample you just loaded into the MPC software's currently loaded Project. In this list you will also find your drum samples. Keep in mind that you are working with a **KEYGROUP** program, so the selected sample is playable across all pads.

► Press the **PAD BANK D** button of your MPC hardware to switch to pad bank D and hit **Pad 13**. You should hear the bass sample played back with its original pitch. You can use the other pads to play your sample chromatically.

To step it up even further, we want to add a second layer. The idea is to have a bass sample that sounds different when played at a higher velocity. Go back to the **File Browser** and choose a different bass sample that sounds similar but a little bit brighter to the loaded one. Double-click on it!

Back in the **Layer** section, click on the **LAYER 2** pop-up menu and select the new bass sample. If you hit a pad, both

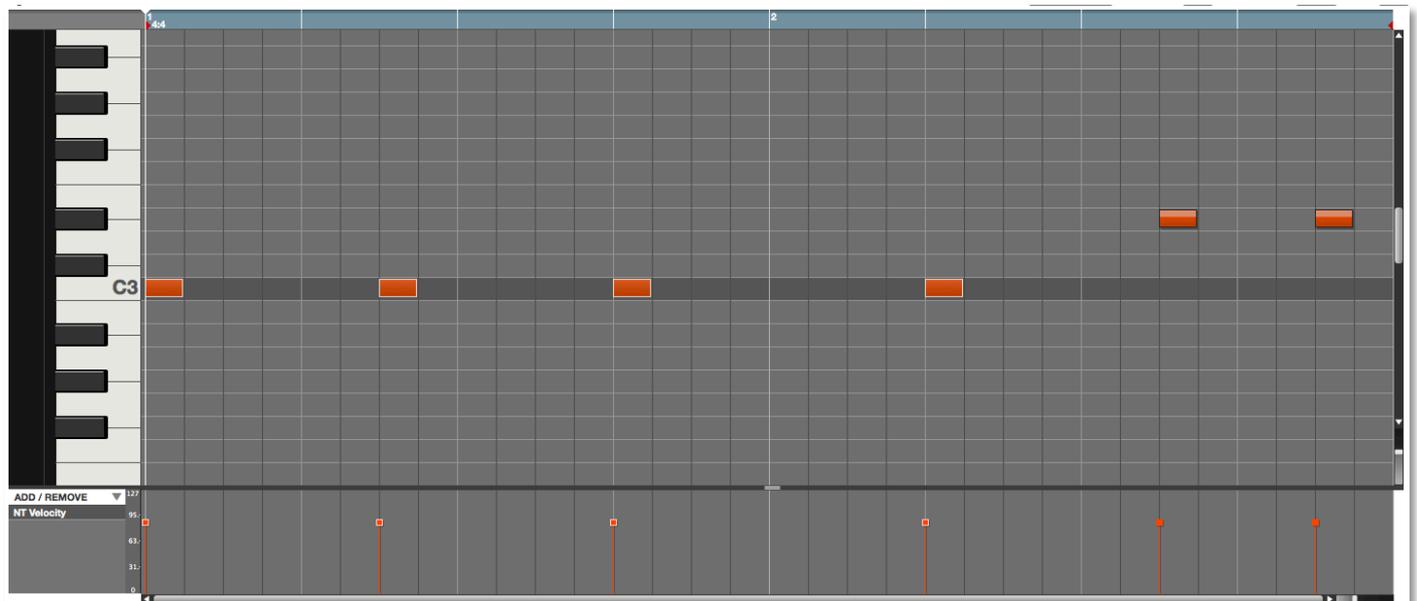


samples will be played at once. Maybe you find that new sound interesting as it is right now, but let's go further!

Use the **VELOCITY** slider of Layer 1 and Layer 2 to create a sound with the velocity range of Layer 1 ranging from 0 to 80 while Layer 2 covers within the range of 81 to 127.

Now when you hit a pad, the lower velocities will trigger Layer 1 only, while higher velocities play Layer 2 only.

Now let's record a bassline. Prepare your recording as described above and record some bass notes. You can edit your recording just like we've done earlier.



Finally, let's tweak the bassline sound. This can be done in the **FILTER** section of the **Program Edit** menu. Back to the MPC hardware!



The **Filter** and **Envelope** display of the MPC hardware

- ▶ Press the **PROG EDIT** button of your MPC hardware to enter the Program Edit mode. Click on the **F4** button (**Flt Env**) to enter the Filter page.
- ▶ Use the **Filter Type** option to select a suitable filter type. We recommend to work with the *Low 4* type for a start.
- ▶ Turn the **Cutoff** and **Resonance** knobs (Q-Link knobs Q14 and Q15) until your bass sample sounds perfect to you.
- ▶ Use the Q-Link knobs Q1 to Q4 to set the amplifier envelope. This controls the overall level characteristics of the sound.



- ▶ Do you want to add some effect, e.g. Chorus? Press **F6 (Effects)** and select the desired effect type for your bassline.

Now we have created a simple drum pattern with a bassline. But there's much more!

4.7 WORKING WITH A DRUM LOOP

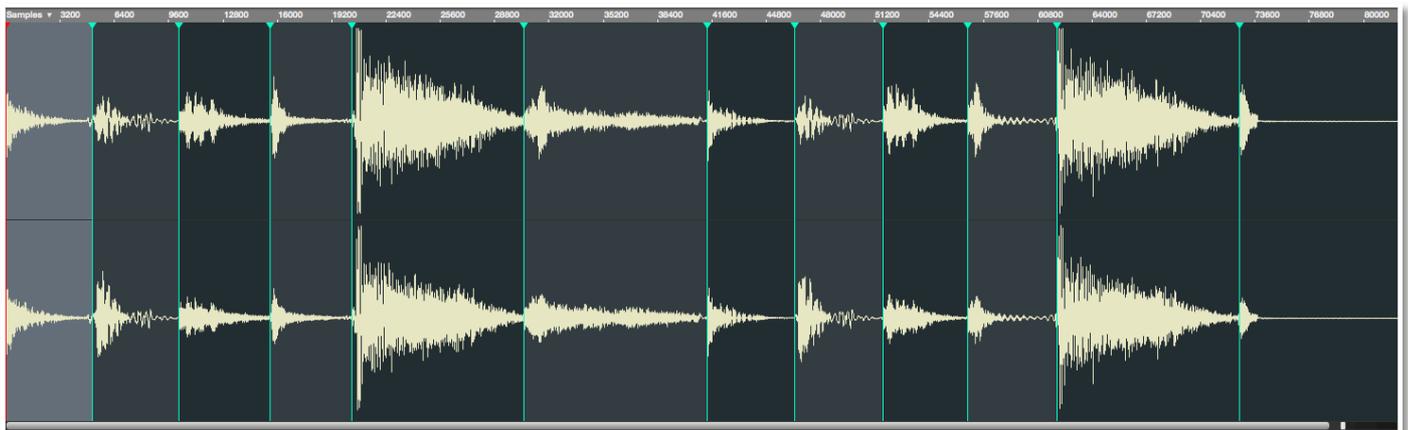
Modern music producers often use drum loops to add grit and dimension to programmed beats. And this is exactly what we want to do now!

Use the **FILE BROWSER** to locate a drum loop on your hard disk. It is not necessary that it does match the tempo of your recorded tracks. Double-click the desired drum loop so that it is added to the currently selected Program.



The **Chop** mode of the MPC hardware's **Sample Edit** page

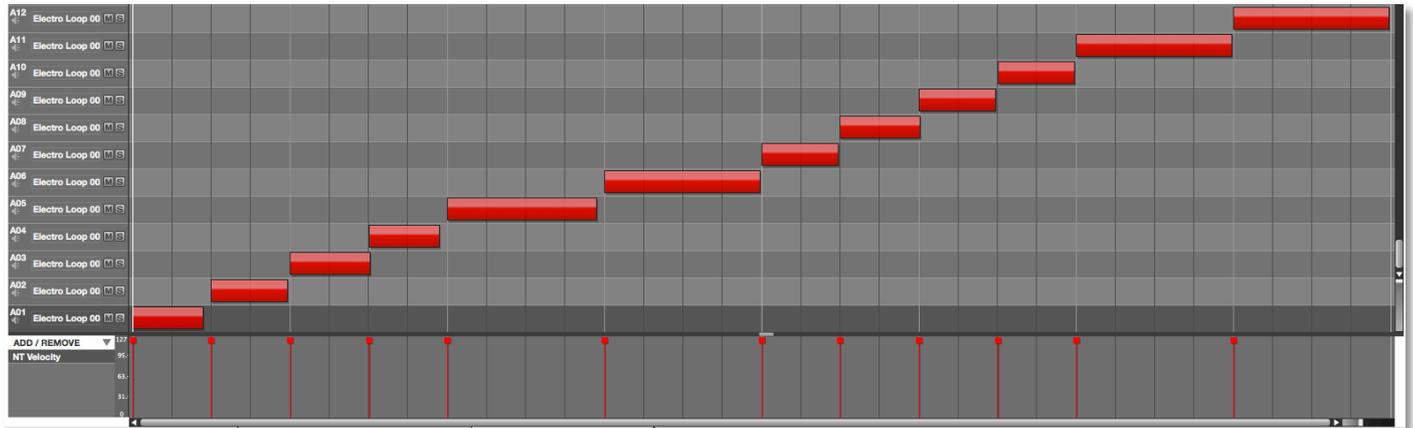
- ▶ Press the **SAMPLE EDIT** button of your MPC hardware to enter the **Sample Edit** mode.
- ▶ Use the data dial to select the loaded drum loop. You can scroll through all loaded samples seen the top of your MPC hardware display.
- ▶ Press **F1 (Chop)** to enter the Chop mode. We are going to cut the drum loop into slices.
- ▶ Use the cursor to navigate to the **Threshold** parameter and select a desired value. The higher the selected value, the more slices will be created. Make sure to choose a threshold value so that every transient peak of the drum loop is shown with a slice line.



- ▶ Hint: Click on **F4 (Audition)** to play the created slices via the pads. Each slice is automatically assigned to a pad, starting from Pad A01 with Slice 1 and so on.
- ▶ Now we'll create a new Program containing all created slices as single samples as well as the corresponding note events to playback these slices in a row. This is very easy!

▶ Press **F5 (Convert)** to enter the Convert Slices page. Use the cursor to navigate to the following parameters and select the value indicated as follows: **Convert to Sliced Samples**, **Crop Samples** to *On*, **Create New Program** to *On*, **Create Events** to *On* and finally the **Number Of Bars** to the bar length of your recorded track, in our example that is 2. Press **F6 (Do It)** to proceed!

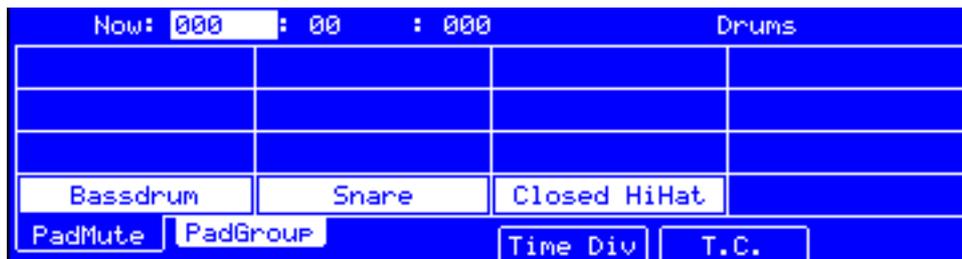
▶ Start the playback and listen how the drum loop matches your song tempo now.



You can also edit the note events of the drum loop slices. Enter the **Main** mode to do this. A new Track with the note events playing their corresponding slices has been automatically created. Use the Time Correct function (i.e., in the Time Correct menu) to quantize the note events to an exact timing. You can also rearrange the note events, thus creating a new playback order for the slices. It is also possible to edit each slice / sample in the Program Edit mode. You can add effects for slices or use the filter function to change the frequency range of a selected slice. There are almost no limits to what you can do.

4.8 PAD AND TRACK MUTE

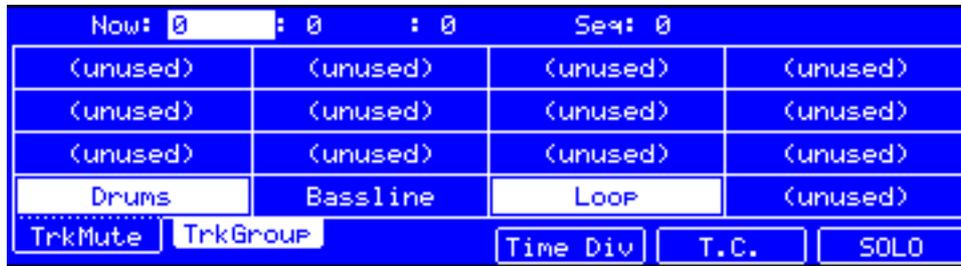
In this section, we will mute different pads and tracks to see what the sequence sounds like without some of these parts.



The **Pad Mute** display of the MPC hardware

- ▶ First go back to the basic Drum track from the beginning.
- ▶ Press and hold the **SHIFT** button on your MPC hardware and click on the **TRACK MUTE/ PAD MUTE** button to enter the **Pad Mute** mode.
- ▶ You can now mute a pad by pressing it once. The muted pad will be lit red. This is useful for listening to a sequence without the muted sample.
- ▶ To mute pads on another track, press **SHIFT + MAIN/ TRACK** and click on **F3 (Track-)** or **F4 (Track+)** to switch between the recorded tracks. Press **SHIFT + TRACK MUTE/ PAD MUTE** again to perform the desired mutes.

You can also mute entire tracks by using the Track mute function.



The **Track Mute** display of the MPC hardware

- ▶ Press the **TRACK MUTE** button on your MPC hardware to enter the **Track Mute** mode.
- ▶ You can now mute a Track by hitting the corresponding pad once. The muted pad is lit red.
- ▶ If you want to mute a track only at precise note intervals ("quantizing" your mutes, essentially), you can set a musical timing value by clicking on the **F4** button (**Time Div.**). Use the data dial to set a musical value, for example *1 bar*. Click on **F4 (Close)** to close the page. When you now hit a pad while in Track Mute mode, the mute will occur precisely at the beginning of the following bar. This lets you test musical combinations of patterns – the stage preliminary to building a song structure.

Now we want to add some human feeling to our song.

4.9 RECORD AND EDIT A SAMPLE

Let's record some vocals with a connected microphone.

- ❗ Recording through the MPC hardware is only possible with the MPC Renaissance, not with the MPC Studio.



The **Sample Record** display of the MPC hardware

- ▶ Press and hold the **SHIFT** button on your MPC hardware and click on the **SAMPLE EDIT/SAMPLE REC** button to enter **Sample Record** mode.
- ▶ Connect a suitable microphone to the **MIC IN Right** jack of your MPC Renaissance. Make sure to set the input switch to **MIC**.
- ▶ Set the **MIC IN/PHONO IN** switch on the top panel of the MPC hardware to **MIC/LINE** and turn up the **REC GAIN** dial. In the MPC software you should now see the input signal. Make sure that the signal gain does not exceed the maximum level (the top input level display segment should be hardly lit).
- ▶ Use the cursor buttons to navigate to the **Threshold** parameter and set it to a fairly low level, e.g. *-70 dB*.

- ▶ Now press **F6 (Record)** and shout something like "Uhhh" or "Yeah!" into the microphone. The recording procedure starts immediately when the input signal level reaches the threshold value.
- ▶ Now press **F6 (Stop)** again, to stop recording.

If you're happy with your recording, please name the new sample in the MPC software in the small window, which will pop up automatically after finishing the recording procedure. Let's call it "Vocal" for now. You should also assign the sample to an unused pad, e.g. Pad 13. Hit it to assign the sample! After that, click on **Keep**.

Now we can edit our newly recorded sample. Select the sample in the **PROJECT INFORMATION** section and right-click on it. In the pop-up menu, choose the option **Edit**. The **Sample Edit** mode will open!

- ▶ Press **F2 (Trim)** on your MPC hardware to enter the trim mode for editing.
- ▶ Use the Q-Link knobs Q1, Q5, Q9 or Q13 to define a suitable start point of your sample. With Q3, Q7, Q11 or Q15 you can define a suitable end point.
- ▶ To hear your edits, press the **Pad A15** to play the sample from the new start point to the new end point.

Finally, let's apply some transformations to the sample. The MPC software offers some great options.



*The **Process Sample** display of the MPC hardware*

- ▶ Press **F6 (Edit)** on your MPC hardware to enter the **Process Sample** page.
- ▶ With the data dial you can select the desired option. Let's try some **Pitch Shift** to change the overall pitch of your sample.
- ▶ Use the cursor to navigate to the **Pitch** parameter and set it to **5.0**. This will transpose the sample by 5 semitones but will not affect the length of the sample.
- ▶ Press **F5 (Do It)** to finalize the edit process.

Sounds cool, so why not include the new sample in your track? In the next chapter, we'll show you a very easy procedure to record note events.

4.10 STEP-BY-STEP WITH STEP RECORDING

You've already learned how to record note events on a track. But there's another easy way to do it.



The **Step Seq** mode display of the MPC hardware

- ▶ It makes sense to use a new track, so please use the cursor buttons to navigate to the **Trk** parameter to select an unused track. Let's say *Track 04*. Navigate to the **Bars** parameter and set it to *Bars: 1*.
- ▶ Press the **STEP SEQ** button on your MPC hardware to enter the **Step Seq** mode.
- ▶ Press the **PLAY** button to start your sequence.
- ▶ Hit one of the 16 pads to insert a note event in the new track. You can instantly hear and see new events. The green cursor is indicating the current time and the pads represent steps of the timing correct. For example, hit pads 1, 5, 9 and 13 to create a four-on-the-floor kick.

That's pretty easy and intuitive, isn't it?

4.11 AUTOMATION

Now we want to add some spice to our sequence. First of all, let's add an effect to our new recorded sample, e.g., a reverb.

In the MPC software, click on the **Program Mixer** tab to open the **Program Mixer** mode.

Please locate the mixer channel that shows the name "Vocal", indicating that our sample has been assigned to it. Right above the channel fader, you will see the four available insert effect slots. Click the button next to "Inserts" so it says "On," then click on Slot 1 to open a pop-up menu and select the effect type *HP Filter*. This will add a high-pass filter to your sound. Click again on the loaded effect name to open a control panel. Try the **Frequency** and **Resonance** parameters to modify your sound.

Click on the **Main** tab to open the **Main** mode.

In the Q-Link section, click on the **FX** button. Turn Q-Link knob Q1 to activate it for assignment. Now click on the **EFFECT** field to select the HP Filter effect. In the **PARAM** field you can now select *Freq* as parameter. Do the same for Q-Link knob 2, but select *Res* for **PARAM**.

- ▶ Press the **OVER DUB** button on your MPC hardware to arm your automation recording. Press **PLAY** to start it.
- ▶ Use Q-Link knobs Q1 and Q2 to record filter movement as desired. After that, press **STOP** to finish the automation recording.

Want to see what you've recorded?

In the MPC software, to the left of the velocity lane under the Grid, click on the newly added parameter to have the automation data curve displayed. By clicking on an automation anchor you can edit the curve.

4.12 CREATING A SONG

In the last few chapters, we have learned how to record tracks. But how can we create a song from our track recordings? The next steps will guide you!

Make sure that you have recorded some tracks. All of your tracks combined are called a Sequence. You can create a new Sequence by clicking on the Main tab button and use the SEQ pop-up menu above the Grid to select a new, empty sequence.

Within a Sequence, you can record notes and automation data. In addition, you can use the copy and paste functions from the Edit menu to copy existing tracks to new ones.

Click on the Song tab to open the Song mode. Each Sequence is assigned to a pad. Click and hold a pad with the desired Sequence, then drag and drop it onto the Sequence Playlist to the left of the pads. You can also drop it onto the workspace above the pads, if you prefer working in a horizontal arrangement. You can easily enter repeats (**RPTS**) or drag and drop sequences in the playlist to exchange them.

BAR	SEQUENCE	LEN	BPM	RPTS
1	1: Sequence 01	2	120.0	1
3	3: Sequence 03	2	120.0	2
7	1: Sequence 01	2	120.0	1
9	3: Sequence 03	2	120.0	2
13	2: Sequence 02	2	120.0	3
(end of song)				

4.13 EXPORTING THE WHOLE SONG

Want to share your new song with your friends?

All you need to do is to export the complete song. Open the **File** menu and navigate to **Export**. Here you need to select **As Audio Mixdown**.

In the **Audio Mixdown** window, you can select your mixdown settings. Set the length of your song from **Start** to **End**. As the song will most probably be uploaded to the internet, select the **mp3** file format option. Choose a path for saving the file and click **OK** to start exporting the song.

4.14 WORKING WITH THE MPC AS AN INSTRUMENT PLUG-IN

Are you working with an audio sequencer? Then you can integrate the MPC software as an instrument plugin in addition to your production tools.

i If you want to know how to load an virtual instrument in your sequencer, please refer to your sequencer's manual.

Once the MPC software plug-in is loaded, it automatically synchronizes with your host sequencer software. When you start your sequencer, the MPC software starts to play back at the same time.

The MPC plug-in offers the same features and functionality as the standalone software version.

IMPORTANT HINT

i For more information about all the features and functionality of the MPC software, we recommend reading the rest of this manual.

5. THE MPC SOFTWARE IN DETAIL

The following chapters explain the MPC software in detail.

- ❶ Whenever the MPC hardware can be used to control a parameter or a function, this is explained separately in a light-grey box marked by an arrow on its left side.
- ❶ We strongly recommend using the MPC hardware to control the software as its intuitive and fast operation will greatly enhance your creative workflow.

The MPC hardware display reflects what it's controlling in the software, but due to space and character limitations, the hardware display is slightly different (e.g., parameter names may be abbreviated, the layout may be different or spread across multiple tabs, etc.).

- ▶ You can navigate through the MPC hardware display by using the MPC hardware's cursor buttons. When a parameter is selected, you can change it by turning the hardware's data dial or using the -/+ buttons.
- ▶ When the screen shows a series of parameters that can't be selected with the cursor buttons, that means the screen is showing you what the Q-Link knobs are controlling. Touch a Q-Link knob, and the parameter's name and setting will appear in the upper right corner of the hardware display. Turn the knob to adjust it (If the Q-Link knob does not control any parameter in the display, this area will show the Q-Link knob number and no text).

Hints for editing the MPC software with your computer mouse

If you use a computer mouse with scroll wheel, you can use it to change parameters. Move your mouse pointer over the desired value and use the scroll wheel to change it. If you hold down the [SHIFT] key, you can increase the resolution.

The MPC software is simple and straightforward. It uses the following types of control elements:

Knobs

To set a value, click on the knob, hold down the mouse button and drag around the knob in a circle or move the mouse up and down. This depends on the setting of your host application. Alternatively, you can edit values by using your mouse scroll wheel.



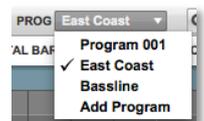
Parameter Values

Click and hold the mouse button on the value and drag the mouse up/down or left/right.



Pop-up Menus

Click on the corresponding menu display to open a pop-up menu where you can choose the desired parameter.



Switches

Switches are represented by "LEDs". If a function is active, its LED will be lit red. To activate/deactivate a function, click on its LED.



Buttons

A mouse click on a button activates a function. Buttons light up in red when they are activated.



Envelope Displays

Click on the respective "handle" of an envelope and drag into the desired direction to change an envelope parameter.



Pencil/ Select Box Icon

Clicking this icon will switch between Draw Mode (Pencil icon) and Select Mode (Select box icon).



Draw Mode:

- Clicking once on an empty square in the grid will place a note in that square.
- Double-clicking a note will erase it.

Select Mode:

- Clicking and dragging the box over notes on the grid will highlight them.
- Double-clicking an empty grid square will add a note.
- Double-clicking an existing note will erase it.

Using the MPC Software as VST or AU Plug-in

The MPC software can be used as a standalone application as well as an instrument plug-in in your host application.

i For more information about loading and using an instrument plug-in in a host application (e.g., in Cubase, Logic etc.), please refer to the corresponding chapter of your host application's manual.

The MPC plug-in differs in the following ways from the standalone version:

- The MPC plugin doesn't offer a top menu like in the standalone application. The corresponding menu button is located to the left of the **Main** tab.
- The MPC plugin is automatically synchronized to the tempo of your host application.
- The start and stop commands are always synchronized to the host application. When the playback of the host application is started, the MPC plugin playback starts simultaneously.

i Important! Make sure to save your work in the MPC Software as well as saving all of your work in your host application. For ease of use, we recommend saving your host application projects and your associated MPC projects in the same folder.

5.0 DRUM PROGRAM VS. KEYGROUP PROGRAM

A Program in the MPC is a file, which contains a list of all samples used, and settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.) The MPC's PROGRAM EDIT mode lets you edit and assign samples. The MPC software can hold a total of 128 programs in a Project.

There are two kinds of programs that use samples as their sound source: DRUM Programs, mostly used for creating drum parts and easy and quick assigning of samples to a pad, and KEYGROUP Programs. With Keygroup Programs, you can assign one or more samples to one or more keys and play them chromatically via a MIDI keyboard or the MPC hardware pads. That way, you don't have to sample every note of a keyboard instrument, e.g. a piano.

How to set up a DRUM Program

Click on the **Program Edit** tab in the MPC software. Click on the PROG field in the Upper section to open a pop-up menu. Choose *Add Program*. Type a desired program name and choose DRUM as Program Type. This is the default setting. Click on **OK** to create the DRUM program. To load samples into a DRUM program, proceed as follows:

- ▶ Press the **BROWSER** button on your MPC hardware. Choose a pad, you want to assign a sample to, e.g. Pad A1. Locate the desired sample and click on **F6 (Open)** to load it. The sample is now "placed" on the corresponding pad.



The **Browser** display of the MPC hardware

In the MPC software, click on the **Main** tab. Locate the desired sample in the **File Browser** and drag it onto the desired pad. The sample is now "placed" on the corresponding pad. Hold SHIFT to select up to four samples and drag them on a pad simultaneously.

- ▶ Press the **PROG EDIT** button on your MPC hardware. Click on **F1 (Master)**. With the Q9, Q5 and Q1 Q-Link knobs on your MPC hardware you can assign additional samples to the selected pad. These samples are placed in up to four Layers per pad.



The **Master** section in the **PROG EDIT** display of the MPC hardware for a Drum Program

In the MPC software, click on the **Program Edit** tab. With the pop-up menus of Layer 2 to Layer 4 you can load additional samples to the selected pad. Each pad can hold up to four layers.

❗ Keep in mind: A DRUM Program holds 128 pads. Each pad can hold up to four samples (Layer 1 to 4).

How to set up a KEYGROUP Program

Click on the **Program Edit** tab in the MPC software. Click on the PROG field to open a pop-up menu and choose *Add Program*. Type a desired program name and choose KEYGROUP as Program Type. Click on **OK** to create a KEYGROUP program. To load samples into a KEYGROUP program, proceed as follows:

▶ Press the **BROWSER** button on your MPC hardware. Locate the desired sample and click on **F6 (Open)** to load it. The sample is now loaded into the current Project. Now press PROG EDIT. Click on the **F1 (Master)** button and use the Q13 Q-Link knob on your MPC hardware to assign the sample from the Project Information to the KEYGROUP program.



The **Master** section in the **PROG EDIT** display of the MPC hardware for a Keygroup Program

In the MPC software, locate the desired sample in the **File Browser** and double click it. The sample is now loaded in the current Project. Now click on the **Program Edit** tab. Click on the Layer 1 SAMPLE pop-up display to choose and assign a sample from the Project Information to the KEYGROUP program.

The loaded sample can now be played chromatically with the pads or a connected MIDI keyboard.

▶ Press the **PROG EDIT** button on your MPC hardware. Click on **F1 (Master)**. With the Q9, Q5 and Q1 Q-Link knobs on your MPC hardware you can load additional samples to your existing one. These samples are placed in Layers.

In the MPC software, click on the **Program Edit** tab. With the pop-up menus of Layer 2 to Layer 4 you can assign up to four samples – that were loaded into the Project Information beforehand - e.g. to create velocity layers.

To create complex KEYGROUP Programs, you can add more KEYGROUPS (up to 128). This is useful when working with multi-samples, e.g. when programming a real piano.

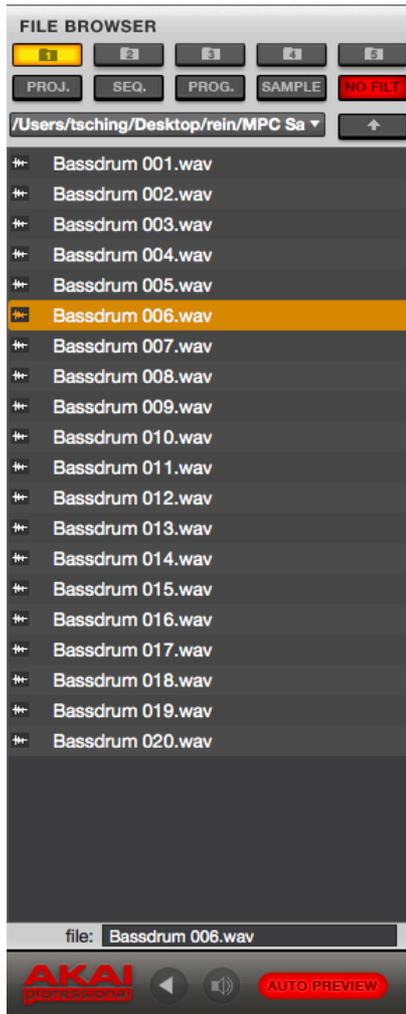
❗ Keep in mind: A KEYGROUP Program offers up to 128 KEYGROUPS. Each KEYGROUP can hold up to four samples (Layer 1 to 4). This is a total of 512 samples.

5.1 THE FILE BROWSER

The File Browser lets you navigate through your computer's internal and external hard disks to load samples, sequences, songs etc. Using the predefined and user-definable folders, you can easily adapt the File Browser to your preferred workflow.

► To enter the **File Browser**, press the **BROWSER** button on your MPC hardware.

Within the MPC software, the **File Browser** can be found in the left area of the application window. The File Browser section can be hidden or revealed by clicking the "triangle" button in the lower-left corner of the window or by pressing "B" on your computer keyboard.



The main concept behind the File Browser is to easily locate and load samples, projects, sequences and programs. Samples can be auditioned before loading.

In order to be able to work with the File Browser, you should define a data path to your hard disk(s) first. There are 5 buttons labeled 1 to 5 at the top of the File Browser. Here you can select up to five locations on your hard disk(s) that will offer you a quick access to the corresponding files.

For example: If your MPC projects are saved within your User's Documents folder, click on the **1** button to select browser path 1. After that, click on the file browser's pop-up menu for an overview of your hard disk structure, which looks quite similar to the Windows Explorer or the Mac Finder. After selecting the desired location, the content of your folder is shown in the target window. To load a project, just double-click on its corresponding xpj file in the target window.

You can filter your search results using the respective filter buttons. The selected buttons will light red. Click on **NO FILT** to switch the filter function off. Click on the **PROJ.** button to show only Project files in the target window. Click on **SEQ.** to show only sequence files. Click on **PROG.** to show Program files only (Keygroup and Drum Programs). Click on **SAMPLE** to show only audio samples.

i Keep in mind that the target window does not display irrelevant files like Word documents, PDF or pictures (e.g. JPEG, TIFF).

► On the MPC hardware, you can use the following buttons for the Browser filter functions: **NO FILTER** to deactivate the filter (same as the **NO FILT** button in the MPC software), **PROJECT** for Project filter, **SEQUENCE** for Sequence filter, **PROGRAM** for Program filter and **SAMPLE** for sample filter.

► Use the **SHIFT** button in conjunction with the five **FOLDER** buttons to select the desired data path location on your hard disk.

► Once a data path is selected, you can choose any file with the data dial, the +/- buttons or the cursor buttons.

- ▶ With the left and right cursor buttons you can go up or down one level to the previous or next directory.
- ▶ Click on the **F6** button (**Load**) to load a sample on the selected pad.



The **Browser** display of the MPC hardware

With the **Parent Directory** arrow button (in the MPC software, to the right of the data path selector) you can go up one level to the parent directory.



FILE directly under the file list window shows the name of the selected file in the list.

file: Bassdrum 003.wav

- ▶ Click on the **F3** (**Play**) button to preview any selected audio sample.



In the MPC software, the **Preview Button** is located below the File Browser.

i Keep in mind that only audio samples can be previewed. Make also sure that your audio hardware is connected properly to listen to the audio file.

- ▶ Click on the **F2** (**Auto**) button on your MPC hardware to activate the **Auto Preview** function. An audio file is played automatically when selected. When active, **Auto** is highlighted.



Within the MPC software, click on the **AUTO PREVIEW** button to activate the automatic preview function. An audio file is played automatically when selected.

This is very useful when scrolling through a list of samples to find (e.g. to compare different snare drum sounds without having to load them).

5.2 THE UPPER SECTION

The Upper section contains the MPC's tabs as well as further control for selecting Programs, Sequences, Songs, etc. depending on the selected mode tab on the left. This section is always visible.

i The different modes are described in detail in the next chapters.



► To select a mode with the MPC hardware, press the corresponding button.

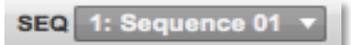
To select a mode within the MPC software, click on the corresponding tab. You can choose from Main, Program Edit, Program Mixer, Track Mixer, Track View, Song, Next Seq, Sample Record, Sample Edit, Pad Mute, Track Mute and Step Seq. Depending on the selected mode some Upper section functions can change.

With the **PROGRAM (PROG)** pop-up menu, you can select one of your created programs in the currently loaded Project.

With the **SEQ (SEQUENCE)** pop-up menu, you can select one of the 128 sequences in the currently loaded Project.

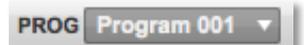
► Click on the **STEP SEQ** button of your MPC hardware and use the cursor to navigate to the **Seq** field. Use the data dial or the +/- buttons to select the desired Sequence.

In the MPC software, click and hold the name display or the small triangle to open a pop-up menu to select the desired sequence. The **SEQUENCE** pop-up menu is only available when Main, Program Mixer, Track Mixer, Track View or Step Seq tab is selected.



► Click on the **PROG EDIT** button of your MPC hardware and use the data dial or the +/- buttons to select the desired Program. This can also be done in the **PGM** field on the **MAIN** page.

In the MPC software, click and hold the name display or the small triangle to open a pop-up menu to select the desired program. The **PROGRAM** pop-up menu is only available when Program Edit or Program Mixer tab is selected.



With the **SONG** pop-up menu, you can select one of the 32 songs in the currently loaded Project.

► Click on the **SONG** button of your MPC hardware and use the cursor to navigate to the **Song** field. Use the data dial or the +/- buttons to select the desired Song.

In the MPC software, click and hold the name display or the small triangle to open a pop-up menu to select the desired song. The **SONG** pop-up menu is only available when the Song tab is selected. Read more about songs on page 61.



The **Screen Scroll** button lets you toggle between Scroll mode and Page mode. Depending on the zoom setting, Scroll mode will make the grid display "turn over" to follow the song position marker, whereas Page mode will make the screen scroll along in the background, keeping the song position marker centered.



► Click on the **SHIFT + WINDOW/FULL SCREEN** buttons of your MPC hardware to toggle between fullscreen for the grid and the divided view with grid and main view.

In the MPC software, click on the **Half View** mode button to toggle between fullscreen for the grid and the divided view with grid and main view.



5.3 THE LOWER SECTION

The Lower section contains the overall controls, such as the measure/tempo display and the transport controls. This section is always visible, independent of the selected mode.



The CPU meter shows the computer CPU usage of the actual project. Keep in mind that an excessive use of synthesis functions such as filter and effects will increase the CPU usage.

i If the CPU meter is very high, software response may slow down. Triple-clicking the **STOP** button (in this lower section or on the MPC hardware) will send a "MIDI panic" message. This will halt all messages being sent to your computer by the MPC software, and you can resume normal operation.

With the Metronome dial, you can set the volume of your metronome click.

▶ Press the **MAIN** button of your MPC hardware and press **F2** to enter the **CLICK** menu. Use the cursor to navigate to the **Metronome** field. Use the data dial or the +/- buttons to select the desired metronome setting. You can switch between *Off*, *Play*, *Record* and *Record + Play* (see also page 90).

To activate the metronome from the MPC software, click **ON**, located right of the Metronome dial. It will light up red when active. Read more about the Metronome on page 90.

The measure/tempo display shows the actual song position in measures and beats and the song tempo in BPM (beats per minute).

▶ To navigate to a particular song position, you can use the < / > buttons on your MPC hardware to move step-by-step within a measure, or advance measure-by-measure with the << / >> buttons. You can also click on the **MAIN** button and use the cursor to dial in the desired value (measures, quarters and clicks) and select it by using the data dial or the + / - buttons. You may also use the numeric buttons to enter a desired value and confirm it by pressing **ENTER**.

▶ Use the **TAP TEMPO** button on your MPC hardware to tap in the Beats per Minute of your desired tempo. An amber LED will blink, indicating the current beats or quarter notes. You can also click on the **MAIN** button and use the cursor to move to the **Bpm** parameter. Select the desired value by using the data dial or the + / - buttons. You may also use the numeric buttons to enter a value and confirm by pressing **ENTER**.

In the MPC software, you can change a value by double-clicking its digits and entering the desired value with your computer keyboard. You can change the BPM value also by clicking it and dragging the mouse up or down.

i The transport controls can be found on the MPC hardware as well as in the software, so the description below applies to both.

Click on the **REC** button to put the MPC software in Record mode.

Pressing it on the MPC hardware or in the software will light up its LED to show that Record is armed. To start recording, press **PLAY** or **PLAY START**. When the sequence starts to loop in Record mode, it will switch to Overdub mode.

OVERDUB allows you to add data to the existing data on the selected track. It is additive and non-destructive. It will operate like **RECORD** which means that it is also an "arm" button. Pressing it

with the MPC stopped will make its light red while the **PLAY** LED flashes. It will go solid when **PLAY** or **PLAY START** is pressed.

STOP will stop the playback. Quickly pressing **STOP** 3 times will act as a "MIDI panic" and shut off all voices and stop all audio processing. **STOP** will also stop loading any files that are being loaded. If you select a Project or Program by accident, pressing **STOP** will cancel loading and clear the loaded files.

PLAY will start playback from the current time position.

PLAY START will start playback from the beginning of the Song or Sequence or from the First Bar setting.

LEVEL controls the MPC software's master output level.

▶ The MPC hardware's **UNDO** button can be used differently while in Record Mode. Normally, pressing **UNDO** will undo just the last event. When there is an event to undo, the **UNDO** button will be lit solid. While recording, the **UNDO** button will flash. In this case, pressing **UNDO** will erase all events from that recording (i.e., since the **PLAY** or **PLAY START** was pressed).

❗ Keep in mind that the audio level coming out of MPC Renaissance's STEREO OUTS is determined by its MAIN VOL knob. The MPC software's **LEVEL** knob controls the level before the hardware's MAIN VOL knob. In other words, the software's **LEVEL** knob and hardware's MAIN VOL knob are separate controls.

▶ Click on the **VINTAGE MODE** button of your MPC Renaissance to toggle between the different audio quality emulations. This works only if the MPC Renaissance is set up as the audio output in the **Preferences**. You can choose to emulate the particular sonic qualities of the *MPC3000*, the *MPC60*, *Other* and of course no emulation (no LED will be lit).

The **Vintage** display directly below the output level meter indicates the selected emulation mode.

❗ If your MPC Renaissance is set up as audio interface you can use the **MAIN VOLUME** dial to adjust the volume level.

5.4 THE GRID

The Grid is the section where you can record, program and edit your sequences as well as arrange your songs.

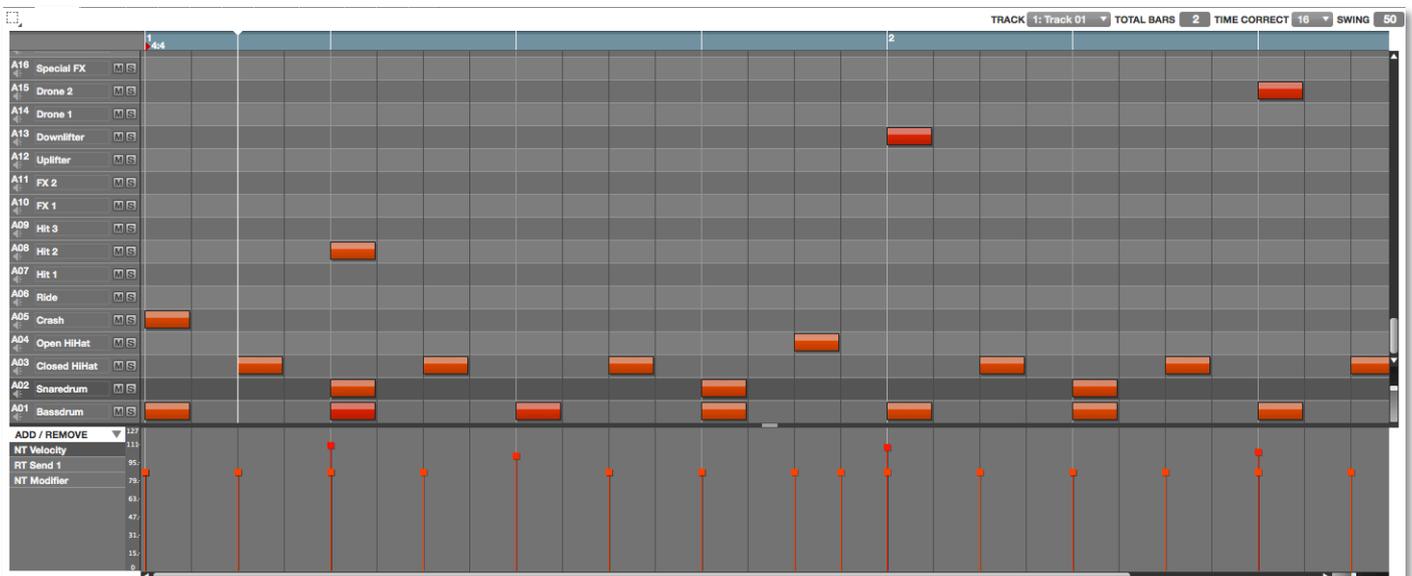
The Grid is always visible, independently from the mode selected (except the Sample Record mode and Sample Edit mode).

▶ Click on the **SHIFT + WINDOW/FULL SCREEN** buttons of the MPC hardware to enlarge the grid. This is ideal for working on tracks and sequences in detail.

❗ Depending on which type of Program (**DRUM** or **KEYGROUP**) is selected, the grid can look different.

The Grid View for DRUM Programs

When a **DRUM** Program is selected, the grid looks as in the following picture.



The left section shows you all available pads (A01 to H16) in a vertical view with their corresponding data. Use the vertical window scroll bar right of the grid windows to move up and down. Under the scroll bar is a slider that can adjust the "vertical zoom". Below the grid is a similar scroll bar and slider for horizontal scrolling and zooming. Click on the loudspeaker icon under a desired pad number to hear the sample(s) assigned to that pad. Each track also offers a mute (M) and solo (S) button.



In the top-left corner of the grid, you will find a mode button to toggle between **Select** and **Draw** mode. The **Select** mode is indicated by a small rectangular marquee tool and lets you select one or more notes by drawing a frame around them. Selected notes will have a white border. When the **Draw** mode is active – indicated by a small pencil - you can draw notes by clicking on the corresponding position in the grid. You can also use it to draw automation curves in the velocity/automation lane underneath the grid. The default setting is the **Draw** mode.

In the top-right corner there are several displays that let you edit the following

functions: Click on the **TRACK** pop-up display to select one of the 128 tracks. Click and vertically slide the **TOTAL BARS** field to change the length for the selected track. The default setting is 2 bars. The maximum length is 999 bars. In the **TIME CORRECT** pop-up menu you can set the note



value to quantize to. Default is 1/16 (16th note). **SWING** sets the amount of swing with values ranging from 50% to 75% so you can shuffle your beats – from subtle to extreme.

► On your MPC hardware, press the **MAIN** button to edit the described parameters. For selecting a track, use the cursors to navigate to the **Trk** parameter. You can select the track by using the data dial as well as the +/- buttons. To change the number of bars, navigate to the **Bars** parameter. Time Correct and Swing can be edited after pressing the **F1** button (**T.C.**) and setting corresponding Note value and the **Swing** parameter. To confirm your changes and return to the **Main** menu, press **F5 (Do It)**. **F4 (Close)** closes the window without making any changes.



The **Main** section in the display of the MPC hardware

Across the top of the grid is a blue measure bar that indicates where you are in the sequence. The number in the upper half is the bar number, and the number in the lower half (of the first beat of the first bar) is the time signature. To change the latter, double-click in the measure bar and enter the desired signature in the pop-up window.

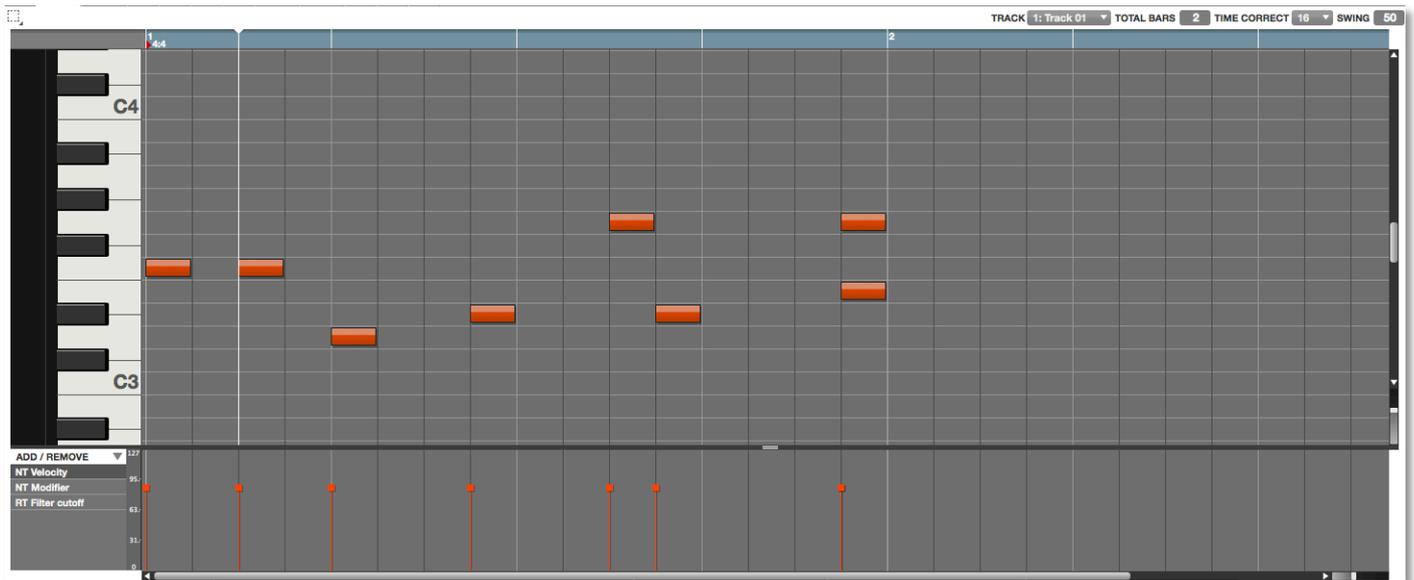
The red arrows (triangles) in the measure bar indicate the start and the end of a sequence. When a sequence is played back using **PLAY START**, the audio pointer will start playing from the first beat of the first bar. If the loop function is (in the Sequence panel underneath the grid), the sequence will loop between the beginning of the first bar and the end of the last bar. When creating a new sequence, the first bar will default to "Bar 1".

You can change the start-point and end-point of a sequence by adjusting the **First Bar** and **Last Bar** parameters in the Sequence panel below the grid. The red arrows in the measure bar will be placed accordingly. For more information on this, please view also the chapter SEQUENCE Settings.

The section under the grid is the velocity/automation lane. Here, you can edit MIDI velocity data of your recorded notes and/or create and edit complex automation data for various parameters. The default parameter visible in the automation lane is **NT Velocity**.

The Grid View for KEYGROUP Programs

When a KEYGROUP Program is selected, the grid looks as in the following picture.



The only difference to the DRUM Program view is the vertical miniature keyboard in the left grid window section. Click on a key to select the corresponding track. You will also hear the note assigned to that key.

Everything else works exactly as in the DRUM Programs.

How to enter notes and automation data

You can easily insert notes and data with your computer mouse.

i A much more intuitive way to record notes, though, is using the recording function of your MPC hardware. Playing notes with the pads and recording automation data with the Q-Link knobs give you much faster results.

▶ Press the **REC** button on your MPC hardware to activate the recording mode. Now press the **PLAY** button. The metronome will precount one measure before the recording starts. Play on the pads to record a sequence. Press the **STOP** button to finish your recording.

In the MPC software, you can use the **Select** tool as well as the **Draw** tool to create notes:

- Double-click (Select mode) or click (Draw mode) the desired location in the grid to create a note. The note length depends on the **TIME CORRECT** value. If set to 16, the note length will be a 16th note.
- Click and drag the start or end of a note to shorten or extend a note event in steps corresponding to the **TIME CORRECT** value.
- Double-click a note to delete it. You can also press the Backspace or Delete of your computer keyboard to delete a selected note.
- You can hear the corresponding sample by clicking on a note.
- Click and drag a note to move it to another position. Keep in mind that you can only position notes on quantization values defined by the set **TIME CORRECT** value (indicated by vertical lines in the grid). However, if you hold down the SHIFT key while moving a note, you can drag it to any position you like, regardless of the selected **TIME CORRECT** value.

In **Select** mode you can draw a frame around multiple notes to select them for moving or copying them as a group.

- Hold down CTRL (PC) or Command (Mac) and move a note to copy it.
- Use the copy & paste function to copy a note in the clipboard (CTRL + C (PC) or Command + C (Mac)) and paste it automatically where the audio pointer is with CTRL + V (PC) or Command + V (Mac).

Velocity data can be easily edited in the velocity lane (Select and Draw mode):

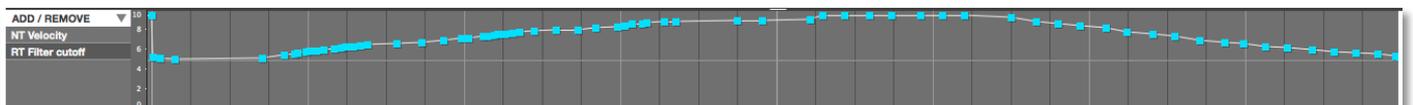


- Click and vertically drag the little square handle at the top of the velocity bar to change its value.
- Holding CTRL (PC) or Command (Mac) while editing the velocity bar increases the resolution for the displayed values.
- When you have selected multiple notes, you can edit the corresponding velocity values simultaneously. Click on the pad track (DRUM Program) or on a key of the virtual keyboard (KEYGROUP Program) to select all corresponding notes or use the Select tool as described above.

In the MPC software, proceed as follows to record automation data:

1. Click on the **Main** tab to enter the Main mode.
2. Choose the pad or its respective track that you want to automate.
3. Click and move the corresponding Q-Link knob (e.g. for pad A02 use Q-Link knob Q2), so that it is shown in the **QLINK** display.
4. Select the parameter you want to automate, as well as its settings. For example: To automate Filter Cutoff, make sure that the **PARAM** is set to *Filter Cutoff*. **CHANGE** should display *Real Time* (the MPC hardware display will show "*Continuous*").
5. Click the **OVERDUB** button and start automation recording by pressing **PLAY**. It is very important to use the **OVERDUB** function, otherwise you will delete any data previously recorded to that track for the duration of your recording.
6. Move the corresponding parameter dial during the recording process. Stop the recording when finished.

To edit the recorded automation data, proceed as follows:



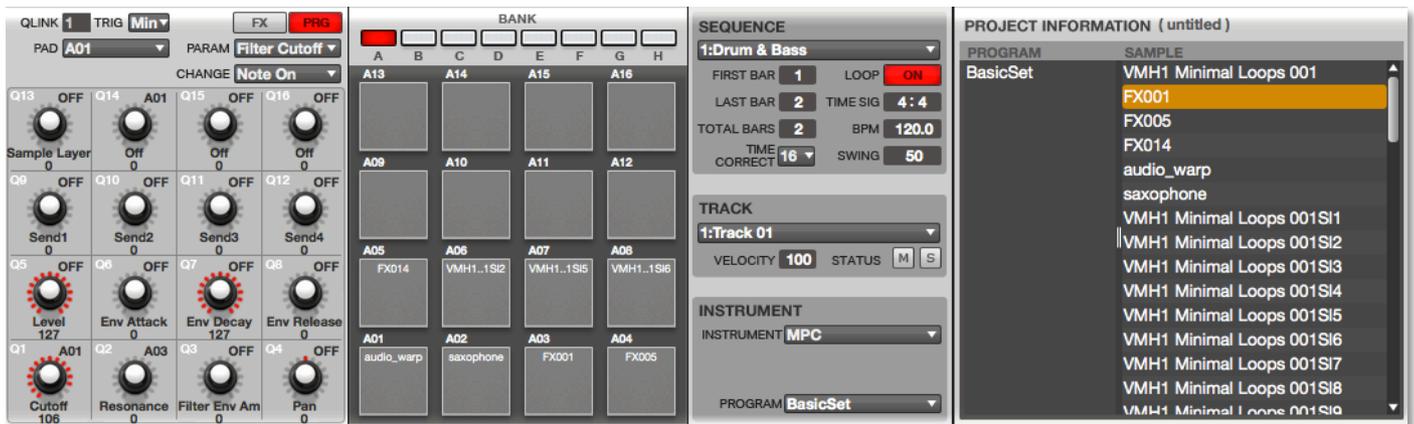
1. Under Automation to the left of the velocity lane, select the recorded Real Time parameter, e.g. RT Filter Cutoff.
 2. The automation data is displayed in the lane.
 3. Click on an anchor point to move a value vertically or horizontally to edit amount and timing. Anchor positions can be moved within the chosen musical grid set by the **TIME CORRECT** value. By holding the SHIFT key of your computer keyboard, you can move the anchor points independently from the chosen quantization.
- Double-click anywhere in the automation lane to add a new anchor point.

- Double-click on an anchor point to remove it.
- Use the Draw mode tool to draw an automation curve.
- In Select mode, you can draw a around several adjacent anchor points to select them for simultaneous editing.
- You can add a variety automation parameters using this procedure.

5.5 THE MAIN MODE

The Main mode gives you an overview of the most used functions.

To enter Main mode, press the **MAIN/ TRACK** button on your MPC hardware or click on the **Main** Tab in the Upper section of your MPC software window.



! Keep in mind that the MPC hardware cannot display as many parameters at the same time as the MPC software. Some of the MPC hardware functions are located in different screens than in the MPC software.

Q-LINK Settings

Here you can set the functionality of the Q-Link knobs.

! Keep in mind that the MPC Renaissance offers 16 Q-Link knobs with direct access while the MPC Studio is equipped with 4 Q-Link knobs which need to be assigned to the corresponding Q-Link knob column with the **SCROLL** dial above the Q-Link knobs.

The Q-Link section can work in two modes: The **PRG** (Program) mode and the **FX** mode. In Program mode, the 16 Q-Link knobs can be used to control specific Program parameters of the selected Program. In FX mode, the 16 Q-Link knobs can be assigned to the parameters of used effects. By switching between these two modes, you are able to define two parameters for each knob. This offers maximum flexibility when controlling parameters in realtime.

- ▶ On the hardware, you can access the Q-Link section by pressing SHIFT + PROG EDIT/Q-LINK.
- ▶ You can touch the top of a Q-Link knob to select it.
- ▶ Press **F1 (Prog Q)** to switch to Program mode. Press **F2 (FX Q)** to switch to FX mode.
- ▶ Press **F4 (Edit)** to change further parameters, which are described below.
- ▶ You can also use **F5 (Params)** to see what parameter each of the 16 Q-Link knobs controls. Pressing **F6 (Values)** displays the parameter value of each Q-Link knob.

Click on the **PRG** button to activate the Program mode for the Q-Link knobs. The next steps describes how to assign a parameter to a Q-Link knob in the MPC software:



- First, click on the Q-Link knob and move the mouse to select it for assigning. The **QLINK** field will show the number of the selected knob.

- Click on the **TRIG** (MPC hardware = **Touch To**) field to open a pop-up menu for selecting *Min* or *Max*. When you hold down the **Q-Link Trigger** button on your MPC hardware and touch the top of one of the Q-Link knobs, the corresponding parameters will jump to either its minimum (*Min*) or maximum (*Max*) value.
- In the **PAD** pop-up menu, you can select the desired Pad / sample you'd like to control. We recommend using Q1 for Pad A01, Q2 for Pad A02 etc., so your controller mapping is easier to remember.
- In the **PARAM** (Parameter) field, you can open a pop-up menu with the parameter you want to assign to the Q-Link knob. The following parameters are available:
 - *Sample Layer* allows you to switch between sample layer 1 to 4. Keep in mind that to use this function, you need to have different samples assigned to the layers.
 - *Tuning* controls the sample's pitch.
 - *Filter Cutoff* controls the cutoff frequency of the Filter. The filter type for a given pad is chosen in **PROGRAM EDIT** mode.
 - *Filter Resonance* controls the resonance value of the Filter.
 - *Filter Env Amount* controls the filter envelope amount.
 - *Qlink Pan* controls the sample's panning position in the stereo field.
 - *Level* controls the sample's volume level.
 - *Env Attack* controls the attack time of the Amp Envelope.
 - *Env Decay* controls the decay time of the Amp Envelope.
 - *Env Release* controls the release time of the Amp Envelope
 - *SEND 1 to 4* controls the corresponding FX send levels for the selected pad.
- In the **CHANGE** field, you can open a pop-up menu to select the condition for changing a parameter. In most cases, you will work with *Continuous*, which changes the sound immediately by changing the Q-Link knob. If *Note On* is selected, the sound will be affected by the position of the Q-Link knob at the time its corresponding pad is hit. But the sound will not be affected by changing the Q-Link knob after hitting the pad.

If *Midi* is selected in the **INSTRUMENT** section, the Program mode will look slightly different. To control a desired parameter of an external sound generator by MIDI, you can define a **MIDI CC** (MIDI Control Change). This can be any MIDI Control Change from 1 to 128 for every Q-Link knob. Make sure that your external MIDI device is able and set to recognize MIDI control change data.



Click on the **FX** button to activate the FX mode for the Q-Link knobs. The next steps describe how to assign an effect parameter to a Q-Link knob in the MPC software:



! Keep in mind that you have to load an effect before its parameters can be assigned to the Q-Link knobs. All effects loaded to the pads or to the track, independent from their routing, can be used for parameter assigning.

- ▶ On the MPC hardware you can touch the top of a Q-Link knob to select it.
 - First, click on the Q-Link knob and move the mouse to select it for assigning. The **QLINK** field will show the number of the selected knob.

- Click on the **TRIG** field to open a pop-up menu for selecting *Min* or *Max*. When you hold down the **Q-Link Trigger** button on your MPC hardware and touch the top of one of the Q-Link knobs, the corresponding parameters will jump to either its minimum (*Min*) or maximum (*Max*) value.
- In the **EFFECT** pop-up menu, you can select one of the effects, which have previously been loaded.
- In the **PARAM** (Parameter) field, you can open a pop-up menu with all parameters of the selected effect. The available parameters depend on the chosen effect type.

BANK & PAD Selection

In the Bank & Pad section, you can easily select a pad to edit.

- ▶ On the MPC hardware, simply press a pad to select it. To choose a different bank, use the **PAD BANK** buttons to specify a bank from A to H.

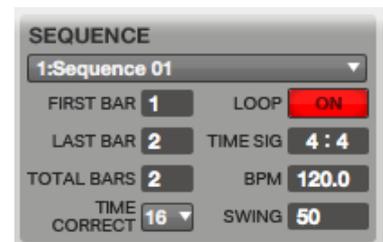
In the MPC software, simply click on a desired pad to select it. To choose a different bank, use the **BANK** buttons above the pads to specify a bank from A to H.

SEQUENCE Settings

The Sequence section gives you an overview of various parameters relevant to the selected sequence.

- ▶ On the MPC hardware, move the cursor to **Seq** and use the data dial or the +/- buttons to select the desired Sequence.

In the MPC software, click on the **SEQUENCE** pop-up menu and select a sequence.



With the **FIRST BAR** and **LAST BAR** you can set the corresponding bar position pointer, e.g. to create a cycle for a loop. Keep in mind that the LAST BAR value depends on the total length of the sequence.

- ▶ On the MPC hardware, move the cursor to **Bars** and use the data dial or the +/- buttons to set the desired bar length of your sequence. You can set up to 999 bars.

In the MPC software, click on the **TOTAL BARS** field to set the total number of bars.

- ▶ On the MPC hardware, click on the **F1** button (**T.C.**) to edit the TIME CORRECT value.

In the MPC software, click on the **TIME CORRECT** field to set the note quantization value.

Click on the **LOOP** button to switch the loop on or off. The loop points are defined by the **FIRST** and **LAST BAR** values.

Click on the **TIME SIG** field to change the time signature for your sequence.

- ▶ On the MPC hardware, move the cursor to **Bpm** and use the data dial or the +/- buttons to set the desired tempo in BPM (beats per minute).

In the MPC software, click on the **BPM** field to set the desired tempo in beats per minute.

Click on the **SWING** field to change the groove of your sequence. Values range from 50% to 75% and let you shuffle your beats – from subtle to extreme.

- ▶ On the MPC hardware, press F1 (T.C) to locate the Swing parameter. It can be changed by using the data dial or the +/- buttons to set the desired value.

TRACK Settings

The Track section gives you an overview of various parameters regarding the selected track.



- ▶ On the MPC hardware, move the cursor to **Trk** and use the data dial or the +/- buttons to select the desired track. You can also click on **F3 (Track-)** or **F4 (Track+)** to switch to the desired track or type in the number with the number keys.

In the MPC software, click on the **TRACK** pop-up menu and select the desired track.

- ▶ On the MPC hardware, move the cursor to **V%** and use the data dial or the +/- buttons to edit the overall velocity of the selected track in percent.

In the MPC software, click on the **VELOCITY** display to change the overall velocity of the selected track. Velocity % determines, how loud or soft a track plays relative to how it was recorded. When set to 50%, the track will be played with half the velocity it was originally played. When set to 200%, the track will play twice as loud, up to a full velocity level of 127.

- ▶ On the MPC hardware, click on **F5 (MUTE)**, to mute the selected track. Click on **F6 (SOLO)** to set the selected track to solo. You can toggle between **MUTE/SOLO** active and inactive.

In the MPC software, click on the **M** button to mute the selected track. Click on the **S** button to solo the selected track. When a SOLO is activated from the MAIN page, the SOLO function follows the current track. In other words, if you have soloed Track 1, and turn to Track 2, now Track 2 will be soloed.

INSTRUMENT Settings

Here, you can select whether the MPC software uses the internal sound generation (MPC) for playing tracks and sequences, an optional external sound module (Midi) connected via MIDI or an optional virtual instrument (Plugin) in VST or AU format.

Depending on the selected instrument, the **INSTRUMENT** section will look different.

- ▶ On the MPC hardware, move the cursor to **Inst** and use the +/- buttons to select the desired instrument.

In the MPC software, click on the **INSTRUMENT** pop-up menu and select the desired instrument.

When **MPC** is selected as the **INSTRUMENT**:

- ▶ On the MPC hardware, move the cursor to **Pgm** and use the data dial or the +/- buttons to select the desired Program.

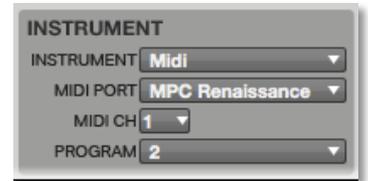
In the MPC software, click on the **PROGRAM** pop-up menu and select the desired Program. You can also select the **Add Program** option to create a new Program.



When **Midi** is selected as the **INSTRUMENT**:

- ▶ On the MPC hardware, you can select the MIDI port by moving the cursor to **Pgm** and use the data dial or the +/- buttons to select the desired port. Move the cursor to **Midi Ch** and use the data dial or the +/- buttons to select the desired MIDI channel on which the track sequence data is sending MIDI data to an external MIDI device.

In the MPC software, click on the **MIDI PORT** pop-up menu and select the desired MIDI port, where the sequence data should be sent to. The pop-up list shows you every MIDI port available on your computer system.



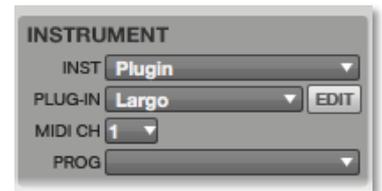
Click on the **MIDI CH** pop-up menu to select the MIDI channel (from 1 to 16) you want to send data on.

With the **PROGRAM** pop-up menu, you are able to send a MIDI Program Change (from 1 to 128) for selecting a particular preset in your MIDI sound generator.

When **Plugin** is selected as the **INSTRUMENT**:

▶ On the MPC hardware, move the cursor to **Pgm** and use the data dial or the +/- buttons to load the desired plugin. Move the cursor to **Midi Ch** and use the data dial or the +/- buttons to select the desired MIDI channel on which the track sequence data is sent to the loaded virtual instrument plug-in.

In the MPC software, click on the **PLUG-IN** pop-up menu and select the virtual instrument plug-in you want the sequence data should be sent to. The pop-up list shows you every plug-in installed to your computer that is recognized by the MPC software. Keep in mind that you have to specify the disk directory where your plug-ins are located. This can be done in the MPC **Preferences**.



Click on the **EDIT** button to open the user interface of the loaded plug-in.

Click on the **MIDI CH** pop-up menu to select a MIDI channel (from 1 to 16) on which to send data to the virtual instrument. Keep in mind that most of the virtual instruments are capable of recognizing data on all incoming MIDI channels. Use this setting when you are working with a virtual instrument that supports multimode.

With the **PROG** pop-up menu you are able to select a preset for the loaded virtual instrument.

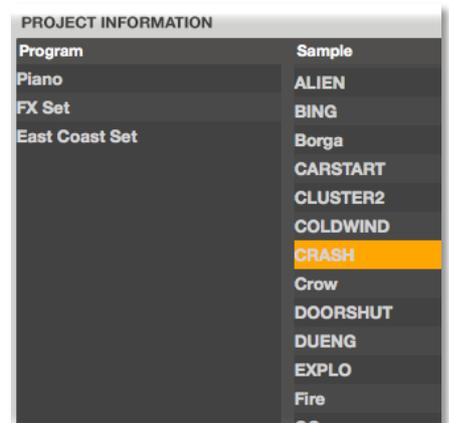
PROJECT INFORMATION

The **Project Information** section shows all Programs and samples loaded into the MPC software's current project.

You can simply drag & drop a sample from the **PROJECT INFORMATION** section onto any pad to assign it. How a sample can be played and edited depends on the Program. Please refer also to the chapter "Drum Program vs. Keygroup Program".

Double-click on a sample in the Sample column to load it into the **Sample Edit** section. The **Sample Edit** section will open automatically.

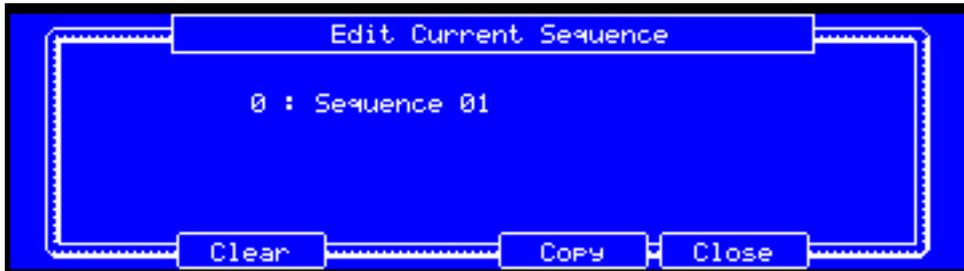
Right-click on a Program to open a context menu containing the following options:



- **Duplicate** makes a copy of the selected Program and adds a "-1" to the Program name.
- **Delete** deletes the selected Program. To avoid accidental deletion, a query window opens for confirmation.
- **Save** saves the current Program to your hard disk. A dialog window opens automatically where you can choose a data path for saving. Samples will automatically be saved with a program.

- **Rename** opens a window where you can rename your Program.

▶ On the MPC hardware, click on the **WINDOW** button to open the *Edit Current Program* display page. Press **F2 (Delete)** to delete the selected Program. To avoid accidental deletion, a query display opens for confirmation. Press **F4 (Copy)** to make a copy of the selected Program. This also adds a "-1" to the new Program name. Press **F5 (Close)** to close the *Edit Current Program* display page. This can also be done for Sequences (**Seq**) as well as Tracks (**Trk**).



The Edit Current Sequence section in the display of the MPC hardware

Right-click on a Sample to open a context menu with the following options:

- **Delete** deletes the selected sample. To avoid accidental deletion, a query window opens for confirmation.
- **Save** saves the current sample to your hard disk. A dialog window opens automatically where you can choose a data path for saving.
- **Rename** opens a window where you can rename the selected sample. This doesn't affect the original file's name.
- **Edit** opens the **Sample Edit** mode for the selected sample. For more information on that, please refer to the chapter "The Sample Edit Mode".

5.6 THE PROGRAM EDIT MODE

The Program Edit mode contains all parameters for editing each layer of a sound program as well as all synthesis parameters and the insert effect settings. If a virtual instrument (PlugIn) or a MIDI instrument is selected, the Program Edit mode will look different.

- ❶ When working with the MPC Renaissance, you will recognize that all parameters of the Program Edit mode are arranged in a grid with up to 16 parameters. These parameters correspond to the 16 Q-Link knobs of the MPC Renaissance and are fast and intuitive to use.
- ❷ The MPC Studio is equipped with 4 Q-Link knobs which can be assigned to the corresponding Q-Link knob column with the **SCROLL** dial above the Q-Link knobs.

▶ To enter Program Edit, press the **PROG EDIT** button on your MPC hardware.

In the MPC software, click on the **Program Edit** tab in the Upper section.

The appearance of the Program Edit mode may vary, depending on the selected program. If you have created a DRUM program, there are fewer parameters than for a KEYGROUP program. To familiarize yourself with DRUM and KEYGROUP Programs, please refer to Chapter 5.0.

▶ To edit the play and sound parameters of a particular pad in a DRUM program, you can simply select it by striking the corresponding pad of your MPC hardware. Use the PAD BANK buttons to select a desired bank. The program settings will change automatically in the display of your MPC hardware. This procedure is not possible for KEYGROUP programs.

To select a DRUM program for editing in the MPC software, you have to select the desired pad first in Main mode.

MASTER SECTION

▶ To edit the Master section, press the **F1** button on your MPC hardware. Use the Q13, Q14, and Q15 Q-Link knobs for direct access of all Master section parameters. Keep in mind that a DRUM program offers fewer parameters than a KEYGROUP program.



In the Master section, you can select **MONO** or **POLY** mode. In MONO mode, only one pad will sound at a time. If a pad sounds while another or the same one is still sounding, the new sample(s) will immediately cut the sample(s) that are playing. In POLY mode, several sounds can be triggered at the same time (limited only by the total number of voices available).

SEMI lets you transpose the selected program 12 semitones up or down, while **FINE** provides fine-tuning of the Program by fractions of a semitone up or down. **TRANS** (only available for Keygroup Programs) transposes incoming notes; it does not change the pitch of a sample.

SIMULTANEOUS PLAY (Drum Programs only)



This function allows you to define up to four pads that are triggered by hitting one pad only.

- ▶ To select the pads for **SIMULTANEOUS PLAY**, press the **F1** button (**Master**) on your MPC hardware. Use the third row of the MPC Renaissance Q-Link knobs (Q5 – Q8) to select the corresponding pads. Keep in mind that this function is only available in DRUM programs.

Use this function to trigger a stack of sounds (e.g., layered bass drums).

MUTE TARGET (Drum Program only)



The **MUTE TARGET** function works similarly to the **MUTE GROUP** function, which is explained below. The main difference is that Mute Target can be set to work only in one direction.

- ▶ To select the **MUTE TARGET** pads, press the **F1** button (**Master**) on your MPC hardware. Use the last row of the MPC Renaissance Q-Link knobs (Q1 – Q4) for selecting the corresponding pads. Keep in mind that this function is only available in DRUM programs.

For example, you can use Mute Target to have Pad A02 muted by Pad A01. The advantage of this is that when Pad A01 is played, Pad A02 will be muted. You can set a maximum of four mute targets per pad.

KEYGROUP PLAY MODES (Keygroup Programs only)

Here you can set the behavior for keygroup samples for each pad.

- ▶ To edit the **KEYGROUP PLAY MODES** parameters, press the **F1** button (**Master**) on your MPC hardware. Use the second row of the MPC Renaissance Q-Link knobs (Q9 – Q11) for direct access of all 3 parameters. Keep in mind that these parameters are available only in KEYGROUP programs.



You can assign the selected pad to one of the 32 available **MUTE GROUPS**. When pads assigned to the same mute group receive MIDI notes, the last note played will mute any other sounding instrument of that mute group.

With **LAYER PLAY**, you can determine how multiple samples assigned to the same pad are played. Activate the Cycle (**CYC**) function to play the next layer's sample each time that pad is played. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4... etc. Use Velocity (**VEL**) to switch between samples depending on how hard you hit a pad. Finally, the Random (**RAN**) function will allow all the samples assigned to the pad to be selected randomly. This way, every time you hit a pad, one of the assigned samples will be randomly chosen to play.

With the **SAMPLE PLAY** function, you can determine whether the pad is played as **ONE-SHOT** (from start to end) or defined by **NOTE-ON** (only as long as the note is held). Select **ONE-SHOT** when you want to play short sounds. However, if you are using a long sample, it is sometimes better to set it to **NOTE-ON** so you can control a sound's duration by pressing and holding its corresponding pad.

KEY GROUP (Keygroup Program only)

Here you can set additional parameters for KEYGROUP programs.

- ▶ To edit the **KEY GROUP** parameters, press the **F1** button (**Master**) on your MPC hardware. Use the two lower rows of the MPC Renaissance Q-Link knobs (Q1 – Q8) for direct access of all parameters. Keep in mind that these parameters are available only in KEYGROUP programs.



In a KEYGROUP program, you can also use the pads on your MPC hardware to play samples assigned to keygroups. The 128 pads (A01 to H16) correspond to MIDI notes from from note number 0 to 127, allowing you to easily play a melody with a single sample over a wide range. How to setup a KEYGROUP program is described in Chapter 5.0 on page 28.

- ❗ Keep in mind that the root key of a loaded sample will determine where the original pitch is located. If the root key, for example, is C3, the original sample is located at pad D13.

With **KG SELECT** (Keygroup Select), you can select a particular Keygroup for editing. This parameter works in conjunction with the **NO. KG** (Numbers of Keygroups) parameter in the **EDIT LAYERS** section, that lets you create up to 128 keygroups within one Keygroup program. A default Keygroup program contains only one single Keygroup. When you have created more than one Keygroup with **NO. KG**, you can use **KG SELECT** to select any Keygroup for editing. **ALL** selects all available Keygroups of a Keygroup program for simultaneous editing.

KEYTRACK allows you to switch the automatic transposition of a sample on or off. If inactive, you will always hear the same pitch of the sample, no matter which note is triggered by pads or a connected MIDI keyboard.

LEVEL controls the overall volume level of the loaded sample(s).

PAN sets the overall stereo placement of the loaded sample(s).

With **NOTE RANGE**, you can restrict the key range used for a sample's playback. Only notes with a key number higher or equal (**LO**) or lower and equal (**HI**) to the selected value will trigger a sound. Set the **LO** parameter to C-2 and the **HI** parameter to G8 if you want to use the full keyboard range. The settings for **LO** and **HI** are also shown in the virtual keyboard in the **EDIT LAYERS** section.

SEMI lets you transpose the sample 12 semitones up or down, while **FINE** provides fine-tuning of each layer by fractions of a semitone up or down.

- ❗ In the **EDIT LAYER** section you will find some parameters similar to those in **KEY GROUP** (**LEVEL**, **PAN**, **SEMI**, **FINE**, **NOTE RANGE**). Keep in mind, that **KEY GROUP** parameters control the overall settings for the sample while the **EDIT LAYER** parameters controls the settings for each layer (up to 4).

EDIT LAYERS SECTION



Each pad can trigger up to four samples, which are assigned in four individual layers. Each layer has separate parameters for **SAMPLE**, **SEMI**, **FINE**, **LEVEL**, **PAN** and **VELOCITY** and **ROOT NOTE** (available in Keygroup Programs only).

i For easier recognition, Drum Program controls are colored in blue while Keygroup Programs are colored in red.

▶ To edit the first 16 LAYER parameters located on the left of the vertical separation lines in the **LAYERS** section, press the **F2** button (**Samples**) on your MPC hardware. Use the MPC hardware Q-Link knobs for direct access of their respective Edit LAYERS parameters. Keep in mind that a DRUM program offers fewer parameters than a KEYGROUP program.

To select a **SAMPLE** to be played in one of the layers, or click and hold the pop-up menu button in the MPC software. Please read the chapter "The File Browser" on how to load samples.

SEMI lets you transpose the selected layer 12 semitones up or down, while **FINE** provides fine-tuning of each layer by fractions of a semitone.

LEVEL lets you adjust the volume of each layer to give you complete control over the balance of the samples assigned to one pad.

▶ To edit the second 16 LAYER parameters located on the right of the vertical separation lines in the **LAYERS** section, press the **F3** button (**Layer 2**) on your MPC hardware. Use the MPC hardware Q-Link knobs for direct access of their respective Edit LAYERS parameters. Keep in mind that a DRUM program offers less parameters than a KEYGROUP program.

PAN adjusts the stereo placement of the respective layer.

VELOCITY defines the velocity range of each layer. The values are set either by pressing the **F3** button on your MPC hardware and changing the displayed values or by clicking in the segment chain on the right side of the LAYER area in your MPC software window and dragging its left and right ends to the desired value. A range from 0 to 127 lets the layer respond to the entire velocity range which is input from the respective pad while, for example, a range from 100 to 127 lets the layer respond only to high velocity levels. By assigning several samples of one instrument (e.g., a drum that was hit at different levels) you can create a convincing velocity-layer multisample by adjusting the velocity ranges of each layer accordingly.

With **ROOT NOTE**, you can change the root key of each loaded sample.

The virtual keyboard (only available for KEYGROUP programs) shows the NOTE RANGE which can be set in the KEY GROUP section. In the MPC software, you can also drag the left or right range with your computer mouse.

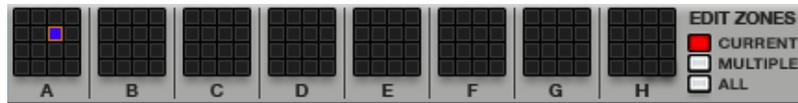


Click on the red bar above the virtual keyboard to set the overall key range for the selected keygroups.

With the Number of Keygroups (**NO. KG**), you can create up to 128 keygroups within a KEYGROUP Program. This is very useful when working with multisamples. For example, if you want to create a realistic sample piano, you can use different keygroups (e.g. 88 for a grand piano) with every Keygroup containing its own sampled note (with up to 4 possible velocity layers). A single keygroup can be edited by using the **KG SELECT** parameter in the **KEY GROUP** section. Alternatively, you can select *ALL* Keygroups for simultaneous editing.



In **EDIT ZONES** (only available in DRUM programs), the small squares give you an overview of any selected pad(s).



If **CURRENT** is selected, only the currently active pad can be edited. Tap on the desired pad on your MPC hardware to select a pad (you may also select a PAD BANK). The current pad is shown as a purple square. In the MPC software you have to select the desired pad in the **Main** mode.

If **MULTIPLE** is selected, all selected pads can be edited at the same time. All selected pads are shown with an orange border; the current active pad is also shown also in purple. In the MPC software you can select pads directly in **Program Edit** mode by clicking with your computer mouse.

If **ALL** is selected, all pads can be edited simultaneously.

FILTER & ENVELOPES SECTION



Select the pad you wish to filter by hitting it on your MPC hardware or by selecting it in the **Main** mode of the MPC software.

► To edit the **FILTER**, **FILTER ENVELOPE** & **AMP ENVELOPE** parameters press the **F4** button (**Fit Env**) on your MPC hardware. Use the MPC Renaissance Q-Link knobs for direct access of all 16 parameters.

The **Filter Type** pop-up menu lets you choose a filter type. A complete list of all filter types can be found in the Appendix of this manual.

CUTOFF controls the cutoff frequency for the chosen filter types, the center frequency for the band-pass and band-stop filter types.

RESO controls the resonance/emphasis of the frequencies around the cutoff point. Use lower values in the range of 0-80 to give more brilliance to the sound. At higher values than 80, the sound will result in a strong audible boost around the cutoff frequency.

ENV determines the amount of influence the filter envelope has on the cutoff frequency. Higher settings will increase the modulation of the Filter by the envelope; lower settings will result in only subtle changes of the Filter Cutoff over time. To give a sound a more distinctive attack, you may try to increase the envelope amount value and set low ATK and DECAY values as well as a medium-to-low SUST value of the Filter Envelope. This setting will start a sound with the Filter opened and close it shortly afterward, giving it a bright start followed by a darker sustain. String sounds, on the other hand, can sound much more "alive" with low ENV settings and a high ATK value of the Filter Envelope, resulting in a slight fade-in of the higher frequencies.

The **MODULATION SOURCES** set the amount for different modulation. The following modulation sources are available:

- V>START (for Drum Programs only) sets the amount of a pad or key velocity to modulate the sample startpoint. KBD>FLT (for Keygroup Programs only) sets the amount of aftertouch data from a pad or a MIDI-keyboard to modulate the cutoff frequency.
- V>ATK (Velocity>Attack) sets the amount of pad or key velocity to modulate the Attack phase for the Amp envelope.
- V>ENV (Velocity>Envelope) enables velocity information to control the the amount of the filter envelope's effect on the cutoff frequency.
- V>FLT (Velocity>Filter) finally uses the velocity of a pad or key to modulate the cutoff frequency directly.

FILTER ENVELOPE Section

This Envelope is used to control the filter frequency. The four knobs control the Envelope shape or time-variant modulation output. The influence of the Envelope on the filter frequency can be adjusted with the ENV parameter.

AMP ENVELOPE Section

This Envelope is used to control level change over time. The four knobs control the Envelope shape or time-variant modulation of a sound's level.



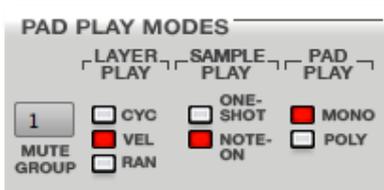
The Filter Envelope Edit section in the display of the MPC hardware

How does an envelope work?

An Envelope creates a variable control signal. It can be used, for instance, to modulate the filter settings of a sound over a given period of time. The classic Envelope comprises four separately controllable parameters: Attack, Decay, Sustain and Release, which is why it is also called ADSR Envelope. Everytime you hit a pad on the MPC, an Envelope is started. Within the period of time you have defined with the **ATTACK (ATK)** parameter, it rises to its maximum value. After that it will enter the decay phase with its duration defined by the **DECAY** value until it reaches the sustain level, set by **SUSTAIN (SUST)** parameter. This level is retained until the pad or key is released. It is followed by - you've guessed it – the release phase, which is set with the **RELEASE (REL)** dial and determines the the time span, the envelope needs to reach its minimum or neutral level.

PAD PLAY MODES SECTION (Drum Programs only)

Here you can set the behavior for (drum) samples for each pad.



► To edit the Pad Play Modes parameters press the **F5** button (**Lfo Mod**) on your MPC hardware. Use the top row of the MPC Renaissance Q-Link knobs (Q13 – Q16) for direct access of all 4 parameters. Keep in mind that these parameters are available only in DRUM programs.

You can assign the selected pad to one of the 32 available **MUTE GROUPS**. When pads assigned to the same mute group receive MIDI notes, the last note played will mute any other sounding

instrument of that mute group. Use this function to program realistic hi-hats, especially if only the open or closed hat should be heard.

With **LAYER PLAY**, you can determine how multiple samples assigned to the same pad are played. Activate the Cycle (**CYC**) function to play the next layer's sample each time that pad is played. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4... etc. Use Velocity (**VEL**) to switch between samples depending on how hard you hit a pad. Finally, the Random (**RAN**) function will allow all the samples assigned to the pad to be selected randomly. This way, every time you hit a pad, one of the assigned samples will be randomly chosen to play.

With the **SAMPLE PLAY** function, you can determine whether the pad is played as **ONE-SHOT** (from start to end) or defined by **NOTE-ON** (only as long as the note is held). Select **ONE-SHOT** when you want to play short drum sounds. However, if you are using a long sample, it is sometimes better to set it to **NOTE-ON** so you can control a sound's duration by pressing and holding its corresponding pad.

PAD PLAY lets you choose between two options: In **MONO** mode you can play only one pad at a time. If you hit a pad while another or the same one is still playing, the new sample(s) will immediately mute the sample(s) that are playing. In **POLY** mode you can play several pads at the same time.

VELOCITY SENSITIVITY SECTION

In this section, you set how much velocity effects various sound parameters.

► To edit the Velocity Sensitivity parameters press the **F5** button (**Lfo Mod**) on your MPC hardware. Use the second row of the MPC Renaissance Q-Link knobs (Q9 – Q12) for direct access of all 4 parameters. Keep in mind that a DRUM program uses different dials for controlling than a KEYGROUP program.



The parameters of this section determine how much influence the velocity has on **PITCH**, Filter Envelope Attack (**ATK**), Amplifier (**AMP**) and Panning (**PAN**). When you hit a pad softly, only minimal modulation is applied. When you hit it harder, the modulation amount also gets stronger depending on the setting of the

corresponding dial.

LFO SECTION

An LFO (Low Frequency Oscillator) generates a periodic waveform with adjustable frequency and shape which can be used for modulation purposes.



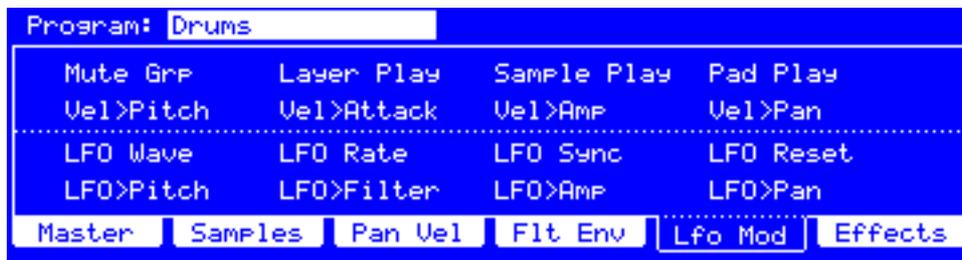
► To edit the **LFO** parameters press the **F5** button (**Lfo Mod**) on your MPC hardware. Use the two lower rows of the MPC Renaissance Q-Link knobs (Q1 – Q8) for direct access to all 8 parameters. Keep in mind that a DRUM program uses different controls than a KEYGROUP program.

The **WAVE** parameter sets the LFO waveform. The following waveforms are available:

- *Triangle* (suited for smooth modulations)
- *Sine* (suited for smooth modulations)
- *Square* (interesting for hard pan modulations)

- *Saw* (can generate interesting filter or volume changes)
- *Saw Down* (can generate interesting filter or volume changes)
- *Noise* (generates random values and glides)
- *S&H* (samples a random value and holds it until the next value is generated)

RATE determines the frequency of the LFO. At low values, it might take some time for the LFO to complete a cycle, while higher values will come close to audible range. When **SYNC** is activated, the LFO is synced to the tempo, based on the rate selected in the pop-up menu (when "None" is selected, **SYNC** is off). The **RATE** setting controls the speed of the LFO and lets you dial in musically useful values. When **RESET** is deactivated, the LFO runs independently. If activated, the LFO resets at the beginning of each note. The LFO modulation destinations determine the amount of effect of the LFO has on **PITCH**, Filter Cutoff frequency (**FILTER**), Volume (**AMP**) and Panning (**PAN**).



The LFO Mod section in the display of the MPC hardware

CONTROLLER MOD SECTION (Keygroup Program only)

In this section, you set the influence of additional play controllers on various sound parameters.

- ▶ To edit the **CONTROLLER MOD** parameters, press the **F5** button (**Lfo Mod**) on your MPC hardware. Use the bottom row of the MPC Renaissance Q-Link knobs (Q2 – Q4) for direct access of all 3 parameters. Keep in mind that these parameters are available only in **KEYGROUP** programs.



PITCH BEND determines the range of the pitchbend in semitones via a connected MIDI keyboard. **WHL>LFO** (Wheel to LFO) determines the effect of the modulation wheel on the LFO intensity via a connected MIDI keyboard. And finally, **AFT>FILT** (Aftertouch to Filter Cutoff) determines the effect of aftertouch on the filter cutoff via a connected MIDI keyboard

- ❗ To use these parameters, make sure that a connected MIDI device is able to send Pitch Bend messages as well as Aftertouch and Modulation Wheel data.

PAD/PROGRAM INSERT EFFECTS SECTION

Here you can select up to four audio insert effects for each pad. You can use various effects included in your MPC software as well as optional VST/AU plug-ins installed on your computer.

- ❗ A list of all available MPC effects including their parameters can be found in the manual appendix on Page 92.

- ▶ To load and edit the effects, press the **F6** button (**Effects**) on your MPC hardware. Use the cursor buttons to move to the desired insert slot of the Send level. With the data dial or the +/- buttons you can open an additional display page to select the desired effect type as well as change the effect send level. Click **F3** (**Back**) to close the *Select Effect* display page. Click on **F4** (**Select**) to load the selected effect.
- ▶ The Q-Link knobs can adjust the parameters, but you first need to assign them to the Q-Link knobs in the software's Q-Link section. For more information on that please refer to page 40.
- ▶ Or, you can open all effects parameters by pressing **SHIFT + SEQ EDIT / EFFECTS** on the hardware. Here, you can add effects and edit their parameters with **F6** (**Edit**). The effects can be applied to individual pads, entire tracks, or the master mix. Note that effects assigned to the master mix cannot have their parameters assigned to the Q-Link knobs, though.



The **Effects** section in the display of the MPC hardware



In the MPC software you can load an insert effect by clicking the button at the top of the panel so it reads "On," then clicking on the small triangle on the right of the corresponding insert slot. Select the desired effect from the pop-up menu. To edit the parameters of a loaded effect, click on the effect name to open a window. The effect's user interface depends on the loaded effect type. Optional VST/AU effects mostly offer a graphical user interface.

i The insert as well as the send effects can also be loaded and edited in the Program Mixer mode. For more information on that please refer to the chapter "The Program Mixer Mode".

i For more information about effects and its parameters please refer to the Appendix of this manual.

ALTERNATE VIEW OF PROGRAM EDIT MODE

If you have selected a virtual instrument (for example, a VST synthesizer) or an external MIDI instrument (for example, a hardware sound generator), the Program Edit mode looks different.

You will be presented an overview of all available parameters of your loaded virtual instrument, including a corresponding rotary knob for editing. We recommend editing a virtual instrument by using its own graphical user interface, though.

- ▶ To edit virtual instrument parameters, press the corresponding **F** button (Page1 to Page6) on your MPC Renaissance. Use the MPC hardware Q-Link knobs for direct access of all 16 parameters that are displayed. You can use the cursor buttons to navigate to a desired parameter location in the display and change the parameter with the +/- buttons or the data dial.

You can use the Program Edit mode to directly edit a set of parameters in a section with your MPC Renaissance hardware. MPC Renaissance's 4x4 Q-Link knob matrix corresponds to the MPC software's controls as well as virtual instrument parameters.

To assign a parameter to one of the controls, click on the pop-up menu above the corresponding controller and select it from the pop-up menu. In this way, you can easily set up arrangements of 16 knobs which can be controlled by your MPC Renaissance.



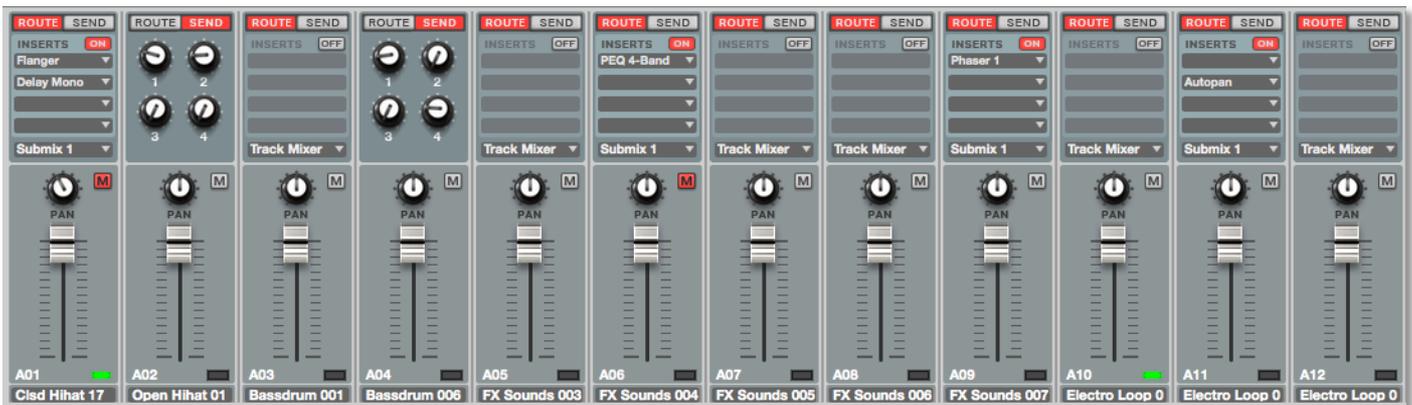
5.7 THE PROGRAM MIXER MODE

In the Program Mixer mode, you can set the levels, stereo panning and effects for of each individual pad of a program. If a virtual instrument (PlugIn) is selected, this mode will look different.

▶ To enter the Program Mixer mode, press the **PROG MIX** button on your MPC hardware.

In the MPC software, click on the **Program Mixer** tab in the Upper section.

❶ The Program Mixer offers 128 track channels when using a DRUM program (each for every pad). If a KEYGROUP program is selected or MIDI or PlugIn is chosen for the instrument, the Program Mixer offers one channel only.



The Program Mixer works like a regular audio mixer and offers various settings per channel. All channels' functionality is identical. If a sample has been assigned to a pad, its name is displayed right below the channel fader.



The Program Mixer section in the display of the MPC hardware

▶ To set the routing for a desired channel, click on the **F1** button (**Route**) and use the cursor buttons to select a desired pad. Use the data dial or -/+ buttons to select the desired output. With the **PAD BANK** buttons you can also select different pad banks to select different sets of 16 channels.

In the MPC software, click on **ROUTE** tab of the desired channel first, then on the pop-up menu at the bottom the **ROUTE** tab. Select the desired output (e.g. 3,4) to route the audio signal directly to this output. Keep in mind that to be able to use this function, you will need an audio interface that is equipped with more than two outputs.

❶ When working with the MPC Renaissance, the OUT 1,2 are routed to the STEREO OUT jacks. OUT 3,4 are routed to the ASSIGNABLE MIX OUT jacks.

▶ To set the level for a desired channel, click on the **F2** button (**Level**) and use the corresponding Q-Link dial for editing. With the **PAD BANK** buttons you can also select different pad banks to select different sets of 16 channels.

In the MPC software, click on the desired channel fader and move your computer mouse up and down. Alternatively, you can use your mouse scroll wheel. To view more mixer channels, use the scroll bar below the channel view.

▶ To set the panning for a desired channel, click on the **F3** button (**Pan**) and use the corresponding Q-Link knob for editing. With the **PAD BANK** buttons you can also select different pad banks to select different sets of 16 channels.

In the MPC software, click on the desired channel panning dial and move your computer mouse up and down. Alternatively, you can use your mouse scroll wheel. To view more mixer channels, use the scroll bar below the channel view.

▶ To mute a channel, click on the **F4** button (**Mute**) and touch the the top of the corresponding Q-Link knob to toggle between "mute" and "mute off". With the **PAD BANK** buttons you can also select different pad banks to select different sets of 16 channels

In the MPC software, click on the Mute button (M) of the desired channel. To view more mixer channels, use the scroll bar below the channel view.

If you want to solo a channel, click on the corresponding Solo button (S) to mute all other channels. You can solo as many channels as you like. To deselect solo, click on an active solo button.

▶ To set the send effect level for a desired channel, click on the **F5** button (**Send**), use the cursor buttons to select a channel, and use the data dial or +/- buttons to select the desired effect. By repeatedly pressing the **F5** button, you can cycle through the send effects 1, 2, 3 and 4. The small squares below the Send 1 field indicate the currently chosen send effect. With the **PAD BANK** buttons you can also select different pad banks to select different sets of 16 channels.

In the MPC software, click on the SEND button of the desired channel. Click on one of the SEND dials and edit its value with your computer mouse. Alternatively, you can use your mouse scroll wheel.

❗ To use a send effect, you have to load an effect into the corresponding send effect slot to the right of the Track Mixer. See the Track Mixer Mode section for more information.

▶ To load an insert effect into a channel, click on the **F6** button (**Insert**) and use the corresponding Q-Link knob to load the desired effect. By repeatedly pressing the **F6** button, you can cycle through the insert effects 1, 2, 3 and 4. The small squares below the Insert field indicate the currently chosen insert effect. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels.

▶ Essentially, when you select an insert effect, it will automatically be routed to Submix 1. If you want, you can change where it is routed to any one of the following outputs: *Submix 1 to 8, Out 1,2 to Out 15,16.*

In the MPC software, first click on **ROUTE** and after that on the **ON** button of the desired channel. Click on the arrow of the slot you want to assign an effect to. A pop-up menu lets you choose from a palette of various effects, which can be loaded directly. Click on a loaded effect name to open its graphic user interface for more detailed editing.

Essentially, when you activate the insert effects by clicking on the **ON** button, it will automatically be routed to *Submix 1*. If you want, you can change where it is routed to any one of the following outputs: *Submix 1 to 8, Out 1,2 to Out 15*. This can be done by clicking on the arrow below the last insert effect slot.

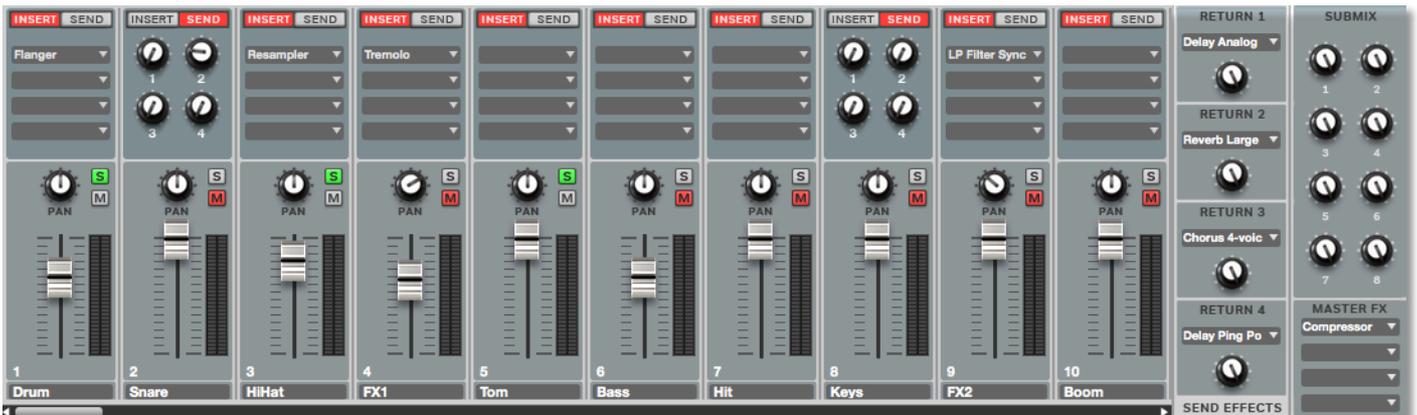
5.8 THE TRACK MIXER MODE

In the Track Mixer mode, you can set the levels, stereo panning and effects for each track.

▶ To enter the Track Mixer mode, press **SHIFT + PROG MIX/ TRACK MIX** on your MPC hardware.

In the MPC software, click on the **Track Mixer** tab in the Upper section.

While the Program Mixer gives you control over the individual pads and its sounds within a program, the Track Mixer is the tool to mix your tracks within a sequence (up to 64 tracks are available).



The Track Mixer works like a regular audio mixer and offers various settings per channel. All channels are identical in functionality. By default used tracks are named "Track 01", "Track 02", etc.

▶ To set the level for a desired channel, click on the **F2** button (**Level**) and use the corresponding Q-Link knob for editing. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels.



The Track Mixer section in the display of the MPC hardware

In the MPC software, click on the desired channel fader and move your computer mouse up and down. Alternatively you can use your mouse scroll wheel. To view more mixer channels, use the scroll bar below the channel view.

▶ To set the panning for a desired channel, click on the **F3** button (**Pan**) and use the corresponding Q-Link knob for editing. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels.

In the MPC software, click on the desired channel panning dial and move your computer mouse up and down. Alternatively, you can use your mouse scroll wheel. To view more mixer channels, use the scroll bar below the channel view.

► To mute a channel, click on the **F4** button (**Mute**) and press the top of the corresponding Q-Link knob to toggle between mute and mute off. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels.

In the MPC software, click on the Mute button (M) of the desired channel. To view more mixer channels, use the scroll bar below the channel view.

If you want to solo a channel, click on the corresponding Solo button (S) to mute all other channels. You can solo as many channels as you like. To deselect solo, click on an active solo button.

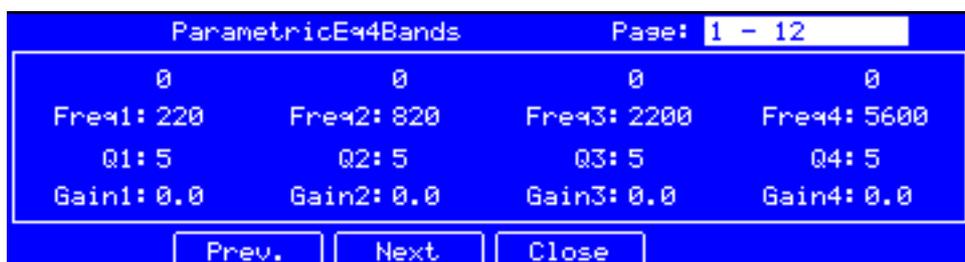
► To set the send effect level for a desired channel, click on the **F5** button (**Insert**), use the cursor buttons to select a channel, and use the data dial or -/+ buttons to select the desired effect. By repeatedly pressing the **F5** button, you can cycle through the send effects 1, 2, 3 and 4. The small squares below the Send field indicate the currently chosen send effect. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels.

In the MPC software, click on the **SEND** button of the desired channel. Click on one of the SEND knobs of the desired channel and edit its value with your computer mouse. Alternatively, you can use your mouse scroll wheel.

❗ To use a send effect, you have to load an effect into the corresponding send effect slot to the right of the Track Mixer.

► To load an insert effect into a channel, click on the **F6** button (**Insert**) and use the corresponding Q-Link knob for loading a desired effect. By repeatedly pressing the **F6** button, you can cycle through the insert effects 1, 2, 3 and 4. The small squares below the Insert field indicate the currently chosen insert effect. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels.

In the MPC software, click on the **INSERT** button of the desired channel. Click on the arrow of the slot you want to assign an effect to. A pop-up menu lets you choose from a palette of various effects, which can be loaded directly. Click on a loaded effect name to open its graphic user interface for more detailed editing.



The Effect Edit page in the display of the MPC hardware

To select the audio output of a channel, click on the output pop-up menu at the bottom of the channel insert slots. Select the desired output (e.g. 3,4) to route the audio signal directly to this output. Keep in mind that to be able to use this function, you will need an audio interface that is equipped with more than two outputs.

► When working with the MPC Renaissance, the OUT 1,2 are routed to the STEREO OUT jacks. OUT 3,4 are routed to the ASSIGNABLE MIX OUT jacks.

On the right end of the track mixer, you have access to four send effects. Click on the arrow of the slot you want to assign an effect to. A pop-up menu lets you choose from a palette of various effects, which can be loaded directly. Click on a loaded effect name to open its graphic user interface for more detailed editing. Use the **RETURN** dials to set the effect return levels. This is useful when the overall volume of a send effect is too high.



Next to the send effects, you have access to 8 submix dials which control the volume of the corresponding submix channel. In the **Program Mixer**, you can route the audio signal to the desired submix bus. Please read more on this on page 56.

Below the Submix section you can find additional master insert effects. These can be used to apply effects such as Compressor Master or Transient Shaper to finalize your entire mix. Click on the arrow of the slot you want to assign an effect to. A pop-up menu lets you choose from a palette of various effects, which can be loaded directly. Click on a loaded effect name to open its graphic user interface for more detailed editing.

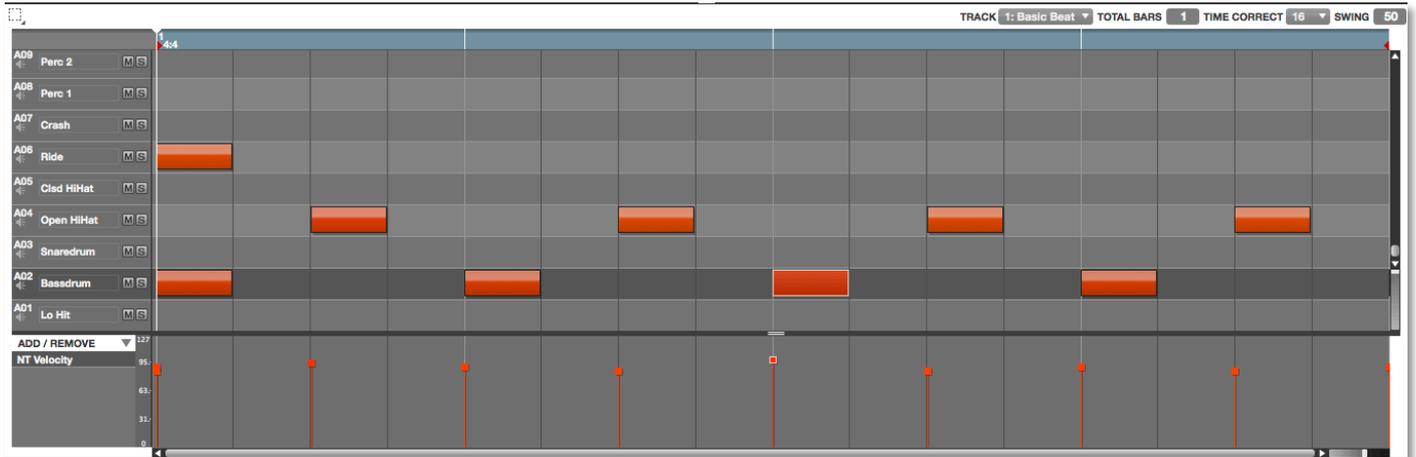
5.9 THE TRACK VIEW MODE

The Track View mode gives you an overview of the tracks of each sequence. Use this mode to edit tracks and sequences simultaneously.

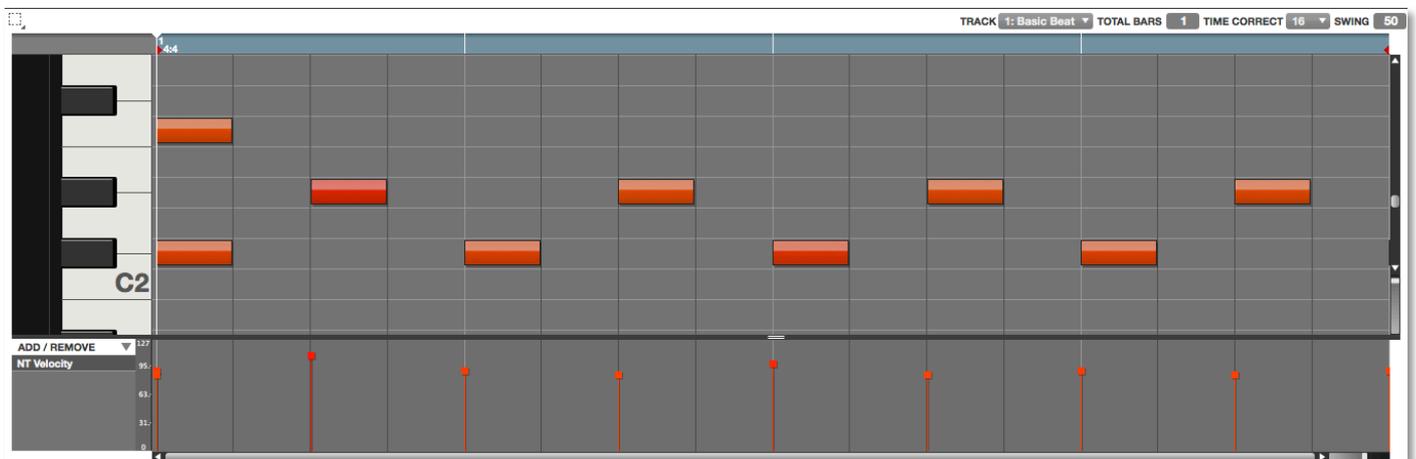
▶ To enter the Track View mode, press **SHIFT + MAIN/ TRACK** on your MPC hardware.

In the MPC software, click on the **Track View** tab in the Upper section.

Depending on what kind of Program is selected, the **Track View** mode will look different. When a DRUM Program is selected, the **Track View** displays the drum grid. When a KEYGROUP Program is selected, the Track View displays the piano roll editor.



Track View: DRUM Program



Track View: KEYGROUP Program

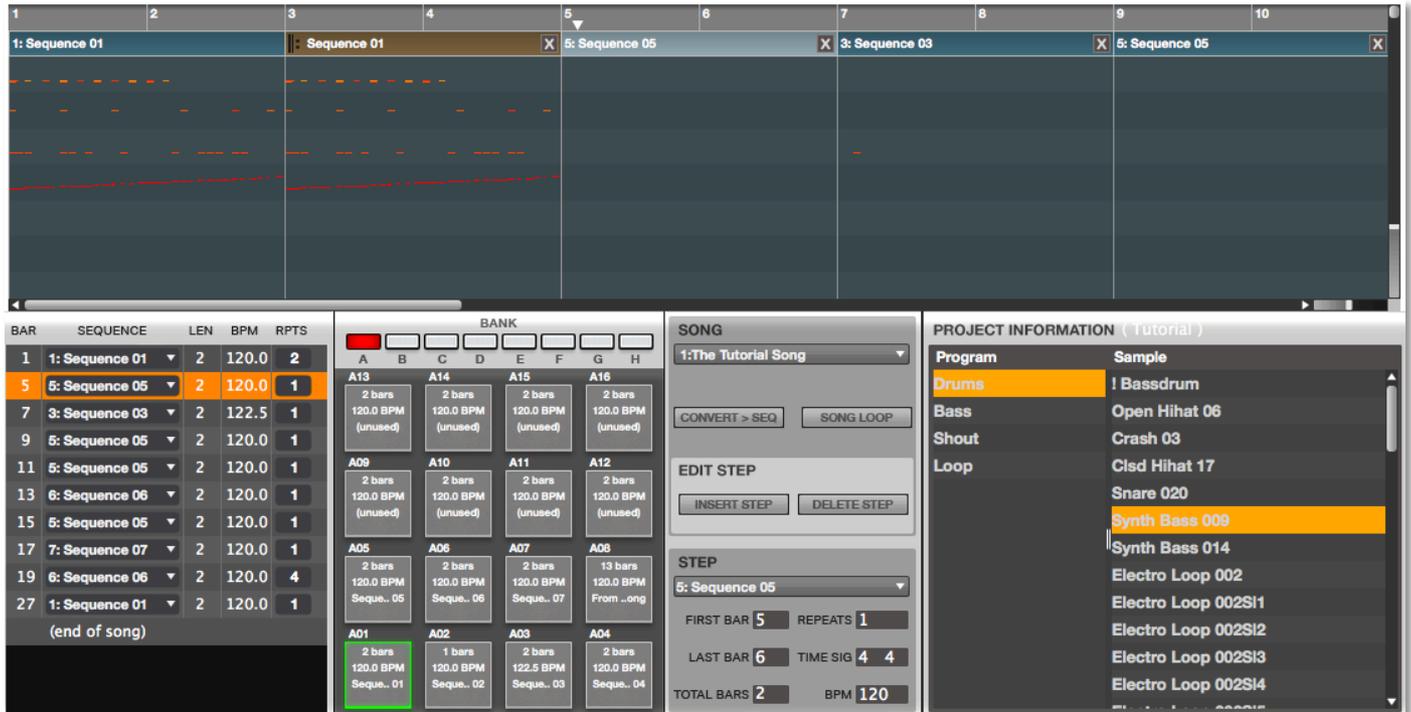
- ❶ Working in the **Track View** is similar as working in the basic grid. For more information about the parameters and functionality of the Track View please refer to the chapter "The Grid mode".
- ❶ We recommend using the **Track View** when you want to switch quickly between Tracks for a faster editing process.

5.10 THE SONG MODE

In the Song mode, you can arrange sequences to create songs.

► To enter the Song mode, press the **SONG** button on your MPC hardware

In the MPC software, click on the **Song** tab in the Upper section.



In Song mode, you can set an order of sequences and play them subsequently. The Song mode is useful when you are creating a song by combining short sequences. You can edit the structure of a song during playback for easy composing.



The Song Mode section in the display of the MPC hardware

A Project can handle up to 32 songs, each consisting of up to 999 steps. You can create a song by assigning a sequence to each step in the list and also set the number of times the MPC software will repeat the sequence.

- Using the cursor buttons as well as the data dial or the +/- buttons to navigate the Sequence playlist.
- Press **F6 (Insert)** to insert a Sequence under the selected one, press **F5 (Delete)** to delete the selected Sequence.
- Press **F4 (Convert)** to convert a Song into a Sequence.
- Press **F1 (Clear)** to delete all Sequences of a Song.

The Sequence playlist in the MPC software (on the left of the pads, under the Grid) gives you an overview of the arranged sequences. As sequences are assigned to the pads, you can add a sequence to the playlist by dragging and dropping it from a pad onto the list. You can also drag and drop from the pads onto the workspace above them, if you prefer working in a horizontal arrangement. Sequences can be inserted between existing sequences, and by dragging a sequence directly over another, the existing one will be replaced. The Sequence playlist shows the following information:

- The **BAR** column shows the start measure of a sequence. This depends on the length of the preceding sequences. For example, if a sequence with a length of 4 bars is dragged on Position 1 of the playlist, the next sequence will start at Bar 5.
- The **SEQUENCE** column shows the name of the played sequences. You can click on a sequence to open a pop-up menu where you can exchange the sequence with another one.
- The **LEN** (Length) column shows the bar length of a sequence.
- The **BPM** column shows the tempo of a sequence in beats per minute.
- The **RPTS** (Repeats) column lets you define how often a sequence is going to be repeated. Normally, a sequence is played only once, but you can expand it to four repeats, for example. Up to 999 repeats are possible. The **BAR** column will automatically be updated once you make changes for a sequence in the **RPTS** column. If set to **HLD** (Hold), a sequence will go on playing until you activate on the **STOP** button.

In the **PAD/ BANK** section, all sequences are assigned to a pad. Unused empty sequences are marked (*unused*). The pads can be used to easily drag and drop sequences into the sequence playlist. You can also drag and drop from the pads onto the workspace above them, if you prefer working in a horizontal arrangement.

In the **SONG** section, a song can be named by clicking on the song name. Clicking on the small arrow to the right of the song name opens a pop-up menu to select one of the 32 songs the Project can hold. You can also convert a song to a sequence, using the (**CONVERT > SEQ**) function. Click on **SONG LOOP** to loop your song, so it will play continuously.

In the **EDIT STEP** section, you can manually insert a selected pad/ sequence behind a selected sequence in the playlist (**INSERT STEP**). You can also delete a selected sequence from the playlist (**DELETE STEP**).

In the **STEP** section, you can exchange the selected sequence in the playlist. The various fields give you an overview of the play parameter of the chosen sequence.

▶ The following buttons are available in the MPC hardware's display, when a song is playing. **SUDDEN** switches to the next sequence before the MPC software has finished playing back the current sequence. This is useful in live performances, if you need to switch to the next sequence at a certain cue. **NEXT** jumps to the next sequence at the end of the current sequence. These buttons can be also used in conjunction with **HOLD** to get the MPC out of a HOLD sequence.

❗ If you want to learn more about how to create a song, please refer to the Quick Start Tutorial chapter on Page 14.

The PROJECT INFORMATION

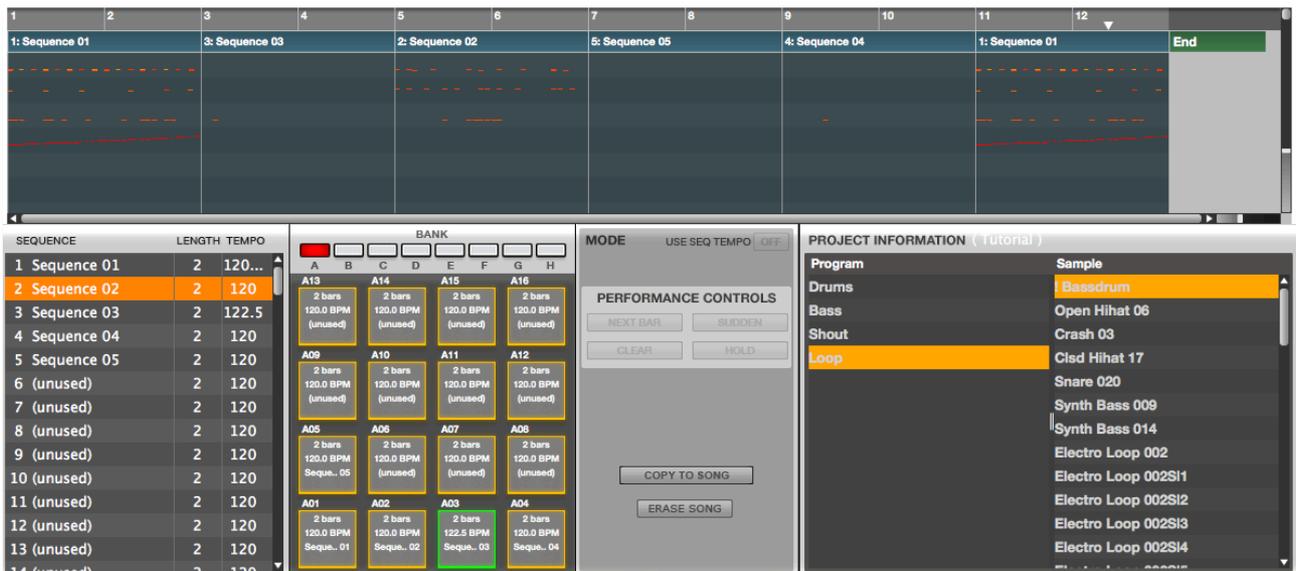
This section is identical to the Project Information in **Main** mode. For further information please read the chapter "The Main Mode".

5.11 THE NEXT SEQUENCE MODE

In the Next Sequence mode, you can select sequences to launch them with the pads.

► To enter Next Sequence, press the **NEXT SEQ** button on your MPC hardware

In the MPC software, click on the **Next Seq** tab in the Upper section.

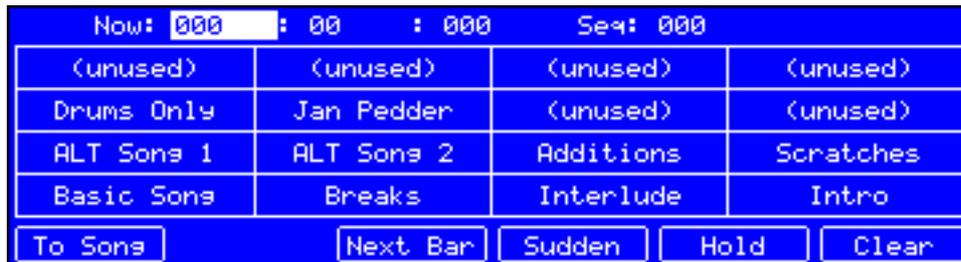


How to add Sequences to the Sequence Playlist

You can select the Sequence that you wish to play next by hitting the corresponding pad. This is useful for live performances, as it lets you change a song structure in real time. The number and name of the selected sequence will be displayed in the upper part of the Next Step mode window.

- On the MPC hardware, start playback by pressing the **PLAY** button. Use the 16 pads to select the desired sequence. The currently playing pad will be lit solid green. Used sequences are shown in the MPC hardware display with their names; unused sequences are shown as (unused).
- You can change the next sequence by hitting the pads until the current sequence ends. The pad that will play next will flash green. When no other sequence is selected, the MPC software will continue to play the current sequence over and over.
- You can also switch to the next sequence before the MPC software finishes playing back the current sequence by pressing the **F4** button (**Sudden**). This is useful for live performances, if you need to switch to the next phrase at a certain cue.
- If you press the **F5** button (**Hold**), the MPC software will keep playing back the current sequence until you press **F5** again. This is useful for live performances if you need to repeat the phrase according to the response of the audience.
- Press the **F6** button (**Clear**) to delete a selected sequence from the sequence playlist.
- Press **F3** (**NextBar**) to change sequences at the beginning of the next bar.

► Press **F1 (To Song)** to copy your changes directly into a Song. The **Copy to Song** windows opens automatically after pressing **F1**. In the **To Song** popup menu, you can select a desired song number where your data is copied to.



The Next Sequence section in the display of the MPC hardware

In the MPC software, you will find all parameters to create a sequence playlist in the lower section of the Next Seq mode window.

The Playlist window gives you an overview of all used Sequences in your MPC project as well as the number of bars and the tempo of each sequence.

In the Pad section, every pad is assigned to a Sequence, starting from Pad A01 with Sequence 1. The selected pad will be green. Used sequences are shown with their names; unused sequences are shown as (unused). During playback, you can change the next sequence by clicking and holding the corresponding pad until the current sequence ends. If no other sequence is selected, the MPC software will continue to playback the current sequence over and over.

During the playback of a sequence, the **MODE** section gives you the following options:

- **NEXT BAR** changes the sequence at the beginning of the next bar. This enables you to change sequences in a musical grid without having to hit a button in perfect timing.
- **SUDDEN** switches to the next sequence before the MPC software has finished playing back the current sequence. This is useful in live performances, if you need to switch to the next sequence at a certain cue.
- **CLEAR** deletes the selected sequence from the sequence playlist.
- **HOLD** keeps playing back the current sequence until you press **F5** again. This is useful for live performances to prolong the playing of a sequence, for example, to respond to the audience.

When playback is stopped, the **MODE** section gives you the following options:

- **COPY TO SONG** opens a pop-up menu to select a song the sequence playlist is copied to. To read more about the Song mode, please refer to the "The Song Mode" chapter.
- **ERASE SONG** erases the active playlist.

The PROJECT INFORMATION

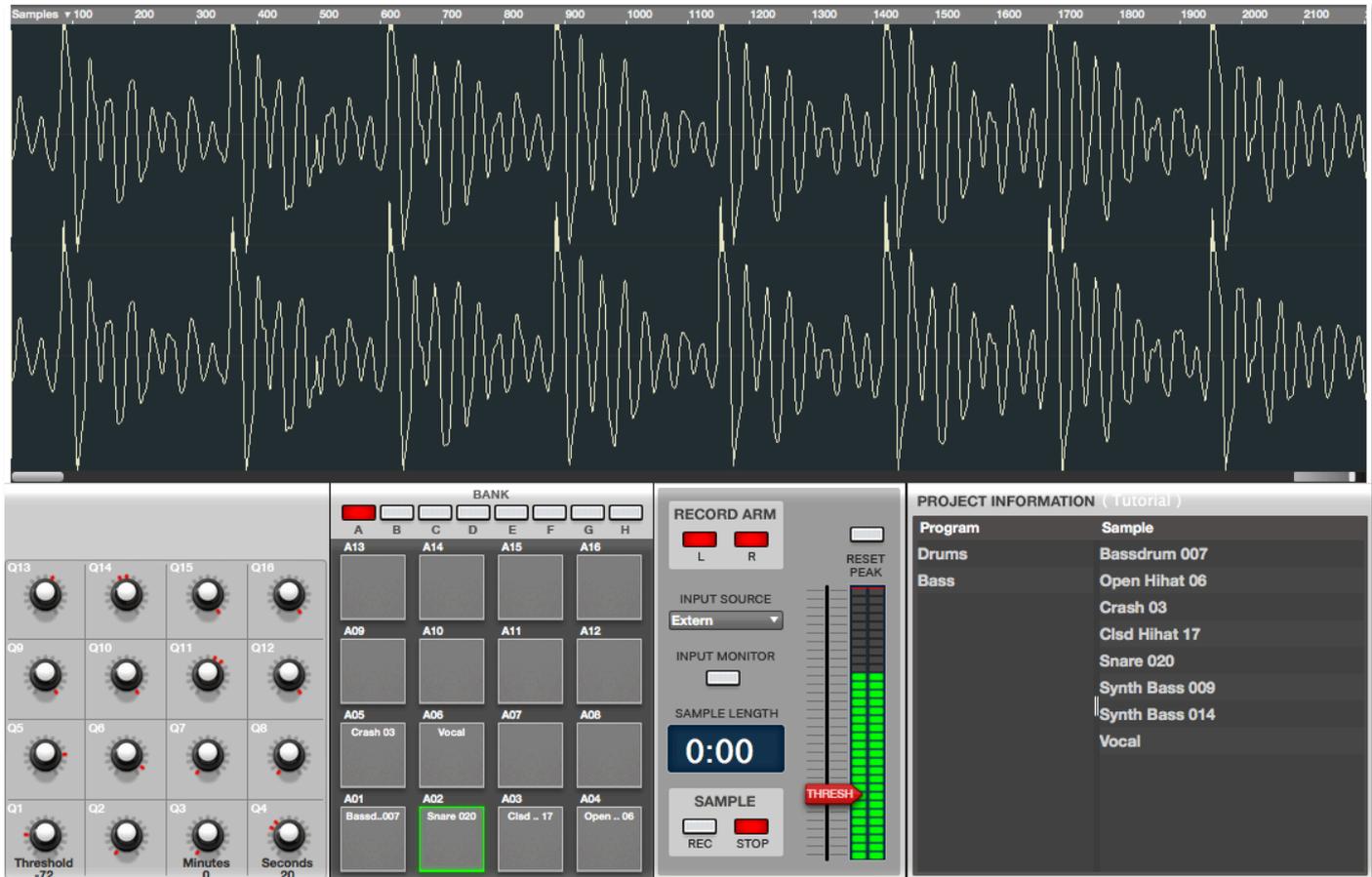
This section is identical to the Project Information in **Main** mode. For further information please read the chapter "The Main Mode".

5.12 THE SAMPLE RECORD MODE

In the Sample Record mode, you can record audio samples to use them in your tracks and sequences.

▶ To enter the Sample Record mode, press **SHIFT + SAMPLE EDIT/ SAMPLE REC** on your MPC hardware.

In the MPC software, click on the **Sample Record** tab in the Upper section.



i To record any audio, you need to connect an audio source to your MPC Renaissance or to your computer's audio interface.

The following example describes the the sample recording procedure using the MPC Renaissance hardware.

- ▶ To record a signal, you need to connect a suitable microphone, instrument or sound generator to the MIC IN jacks of your MPC Renaissance. You can also connect a turntable or CD player by using the PHONO IN jacks. If a connected microphone requires phantom power, make sure the PHANTOM POWER switch is set to "on". Turn phantom power off when you are not recording.
- ▶ Make sure to set the MIC / LINE switch on the rear panel as well as the MIC IN / PHONO IN switch on the top panel to match your source. Incorrect settings can produce unwanted distortion.
- ▶ Make sure to also reduce the level of your audio system before you make any connections to avoid peaks or feedback that may damage your speakers.

- ▶ Use the REC GAIN knob to set the input level. This is located next to the MPC's display.
- ▶ Use the cursor buttons to navigate to the record control parameters, described in detail below.

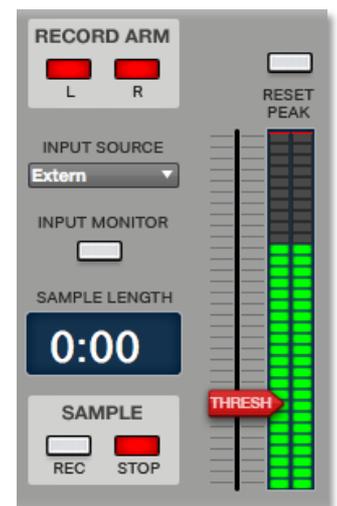


The Sample Record section in the display of the MPC hardware

In the MPC software, the Sample Record section is divided in two main parts. The waveform display shows the waveform of a sample after the recording process. Below is the Record Control section, which offers the controls.

In the Q-Link section you can predefine a recording threshold, using Q-link knob Q1. In record-enable mode, the MPC software automatically starts the recording when the level of the incoming source exceeds the threshold. If you set the threshold too high, the MPC software may not start the recording when you play the input source, or the start of the material you wanted to record may be missing. If you set the threshold too low, the MPC software may start the recording before you play the external source. Set this parameter to an appropriate level using the level meter.

With the Q-Link knobs Q3 and Q4, you can define the maximum sampling time. You can record up to 59 minutes and 59 seconds. We recommend setting the recording time to values that matches roughly with your estimated recording duration.



- ▶ To adjust the **Threshold**, use Q-Link knob Q1 on your MPC hardware. With Q3 and Q4 you can set the record time in **Minutes** and **Seconds**.

The Record Control section offers all the relevant controls for recording.

Use the **RECORD ARM** buttons to define which side of the incoming audio signal is going to be recorded. You can select **L** for the left channel, **R** for the right channel or both buttons for stereo recording.

i Keep in mind that you don't need to record both channels when a microphone is connected to the left **MIC IN** jack only.

- ▶ To select the input channel(s) on your MPC hardware, navigate to **Mode** and choose between **STEREO**, **LEFT** or **RIGHT**.

With the INPUT SOURCE parameter, you can define whether you are going to record an external audio signal (Extern) an internal signal from the MPC software (Resample). A resample recording does not need any audio connection because the source signal created by the MPC software is recorded directly without any signal and quality loss. You can, for example, use the Resample function to record two or more samples by hitting the corresponding pads simultaneously.

- ▶ To select the sample input on your MPC hardware, navigate to **Input** and choose between **EXTERNAL** or **RESAMPLE**.

Click on the **INPUT MONITOR** button to control the incoming audio source through your audio system.

i Make sure to reduce the level of the audio sources to avoid clicks or feedback which can occur by using the **INPUT MONITOR** function.

▶ To activate the monitor function on your MPC hardware, navigate to **Monitor** and switch it to **ON**.

The **SAMPLE LENGTH** display shows you the length of your sample during the recording procedure. This is for control purposes only.

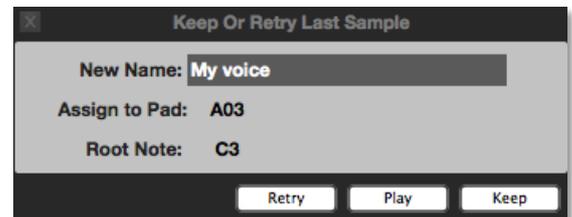
Click on the **RESET PEAK** button to reset the "peak hold", which shows the highest level of your input signal as a red bar within the level meter.

▶ To reset the peak hold on your MPC hardware, press the **F1** or **F2** button (**Reset Peak**). The peak hold is shown as a vertical bar within the Level Meter.

With the **SAMPLE REC** and **STOP** buttons, you can start and stop the recording procedure. Keep in mind that when the **Threshold** parameter is set to a higher value, the recording will not start after clicking the **REC** button. The level of audio input signal needs to reach the threshold for recording to start. If you do not click on **STOP**, recording will continue to the end of the previously set sample length.

▶ To start recording on your MPC hardware, press the **F6** button (**Record**). After that, you can cancel the procedure by clicking on **F5** (**Cancel**) or start the recording independently from the threshold setting by pressing **F6** (**Start**). Press the **F6** button again while recording to stop recording.

When the recording is finished, a small window opens automatically with further options. Click on **Retry** to abort the recorded sample. It will be deleted. Click and hold **Play** to listen to your sample before storing it.



If you want to keep your recorded sample, we recommend entering a **New Name**. You should also define a pad to assign the sample to (**Assign to Pad**). You can also set a **Root Note**, which defines the original pitch of a sample. Click **Keep** to save your sample.

▶ When the recording procedure is finished, the MPC hardware's display changes to a new page. Here you can navigate to the **Assign to Pad** option and choose a pad for assigning. Alternatively, you can hit the pad directly. **Root Note** sets the root note for the recorded sample. Press **F4** (**Play**) to playback the recorded sample. If you want to abort the recorded sample, press **F2** (**Retry**). If you want to save the recorded sample, press **F5** (**Keep**).

i We recommend editing your recorded sample in the **Sample Edit** mode.

The PROJECT INFORMATION

This section is identical to the Project Information in **Main** mode. For further information, please read the chapter "The Main Mode".

Newly recorded samples will be shown in the Sample area of the PROJECT INFORMATION. To use them in your production, you must load them into Programs first.

5.13 THE SAMPLE EDIT MODE

In the Sample Edit mode, you can edit samples using various sample editing functions.

▶ To enter the Sample Edit mode, press the **SAMPLE EDIT** button on your MPC hardware. Use the data dial or the +/- buttons to select a sample for editing. The selected sample is displayed at the top of your MPC display.

In the MPC software, click on the **Sample Edit** tab in the Upper section. To select a sample for editing, click on the EDIT SAMPLE pop-up menu in the left section below the waveform display and select the desired sample from the Project.

Alternatively, you can simply click and drag a sample from the **PROJECT INFORMATION** section onto the Waveform display. You can also right-click a sample in the **PROJECT INFORMATION** section and choose the **Edit** option. You can select a sample this way in any mode that shows the **PROJECT INFORMATION** section. When selecting a sample for editing, the mode will change automatically to Sample Edit mode.

The Sample Edit window is divided in two parts. The Waveform is displayed in the top section, the lower section shows the editing controls.

Depending on the loaded sample, the displayed waveform will look different.



The Sample Edit window

The Waveform Display

The Waveform display shows the entire waveform of a sample, with a start and end point marked as a green line. If either of these lines is moved, the most recently moved one will be red instead of green. The start/end points define the portion of the sample data which will be played. A recorded sample may have a portion of silence at the beginning, which makes it rather difficult to time it correctly when playing it in a musical context. You can fix this by adjusting the start point. You can also adjust end point to play only the middle section of the sample. If the sample has extra silence or unwanted audio at the end, you can delete it by adjusting the end point and using the edit feature.

- ▶ Use the Q-Link knobs Q13, Q9, Q5 or Q1 of the MPC hardware to adjust the start point of the sample. The smaller the Q-Link knob number, the more precise the adjustment of the start point.
 - ▶ Use the Q-Link knobs Q15, Q11, Q7 or Q3 of the MPC hardware to adjust the end point of the sample. The smaller the Q-Link knob number, the more precise the adjustment of the end point.
 - ▶ Use the Q-Link knobs Q14, Q10, Q6 or Q2 of the MPC hardware to adjust the loop start point of the sample. The smaller the Q-Link knob number, the more precise the adjustment of the loop start point.
- In the MPC software, you can use the Q-Link knobs Q13, Q9, Q5 or Q1 to adjust the start point of the sample. The smaller the Q-Link knob number, the more precise the adjustment of the start point.
 - Use Q-Link knobs Q15, Q11, Q7 or Q3 to adjust the end point of the sample. The smaller the Q-knob number, the more precise the adjustment of the end point.
 - Use Q-Link knobs Q14, Q10, Q6 or Q2 to adjust the loop start point of the sample. The smaller the Q-Link knob number, the more precise the adjustment of the loop start point.
 - Alternatively, you can adjust the start / loop / end points by clicking on the corresponding small arrows right below the sample timeline and moving them with your mouse to the desired position.

ⓘ Keep in mind that the loop start point cannot be placed before the start point of a sample.

ⓘ Click on the waveform and hold the mouse button to play the edited sample.

Right-click in the sample timeline to switch between Time (in seconds and milliseconds) and Samples.

Below the waveform you will find a scroll bar and a slider for horizontal scrolling and zooming.

The Sample Edit Controls

The lower section offer various controls for editing a selected sample.

The EDIT Section

This section offers control elements for editing a sample as well as selecting the edit mode (**CHOP** or **TRIM**). To read more about the **CHOP** mode please refer to the end of this chapter. The description below refers to the **TRIM** mode only.

► Use the data dial or the +/- buttons on your MPC hardware to select a sample for editing. The selected sample name is shown at the top of your display.

In the MPC software, click on the **EDIT SAMPLE** pop-up menu and select the desired sample.

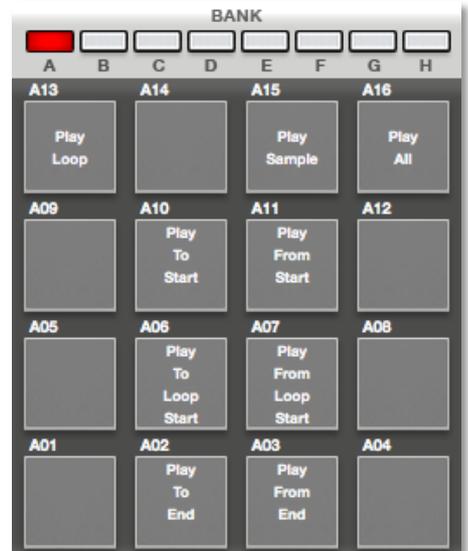
The Q-Link knobs can be used to edit the start point, the loop start point as well as the end point of the selected sample. The procedure for MPC hardware and software is described previously, in the Waveform Display section.



The PAD Section

In **Sample Edit** mode, you can use the pads for playing certain parts of the selected sample, regardless of the selected Pad Bank. The following playback options can be triggered by hitting the corresponding pad:

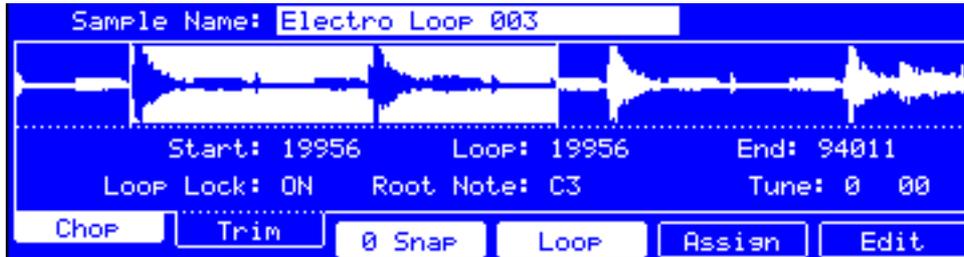
- **Play Loop (Pad 13)** plays the sample repeatedly from the loop point to the end point.
- **Play Sample (Pad 15)** will play the whole sample as it has been edited. You can also click in the waveform display to activate the **Play Sample** function.
- **Play All (Pad 16)** plays the whole sample regardless of any edits.
- **Play to Start (Pad 10)** plays the sample portion before the start point. If the start point is set to 0, nothing will be played.
- **Play From Start (Pad 11)** plays the sample from the start point to the very end of the sample (regardless of a set end point). If the start point is identical to the end point, nothing will be played.
- **Play To Loop Start (Pad 06)** plays the sample portion before the loop point.
- **Play From Loop Start (Pad 07)** plays the sample part from the loop start point to the end of the sample (regardless of a set end point). If the loop start point is identical to the end point, nothing will be played.
- **Play To End (Pad 02)** plays the sample portion from the start point to the end point.
- **Play From End (Pad 03)** plays the sample part from the end point to the end of the sample. If the end point is identical to the end of the sample, nothing will be played.



The SETTINGS

Here you can directly edit various parameters affecting playback and loop functions.

- ▶ On the MPC hardware, you can edit the sample start, the end and the loop start by navigating with the cursor to the corresponding option (**Start**, **Loop**, **End**). Use the data dial or the +/- buttons for precise editing. Alternatively, you can enter a value by using the number buttons. Confirm your entry by pressing **ENTER**.



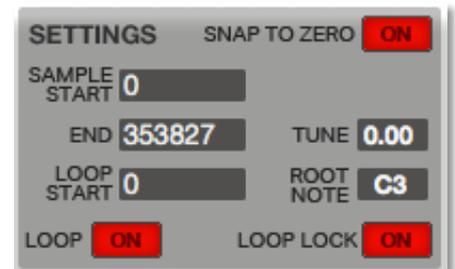
The Sample Edit section in the display of the MPC hardware

In the MPC software, you can edit the **SAMPLE START**, the **END** or the **LOOP START** by double-clicking on the corresponding value. Use your computer keyboard to enter the desired values.

- ▶ On the MPC hardware, you can activate the loop function by pressing **F4 (Loop)**. You can also snap to zero by pressing the **F3 (0 Snap)** button. You can edit the loop options by navigating with the cursor to the corresponding option (**Loop Lock**). Use the data dial or the +/- buttons to change the setting.

In the MPC software, you can activate the loop and samples options by clicking on the corresponding button:

- **LOOP** activates the loop function to repeat the sample portion between the loop start point and the end point.
- **SNAP TO ZERO** activates the snap-to-zero function. For easier sample editing, the MPC software can snap the start or end point of a sample to the next zero crossing. This can help to avoid clicks and glitches when playing a sample both looped or as one-shot.
- **TUNE** lets you transpose the sample based on its original pitch. The value range is up/down two octaves in semitone steps.
- **ROOT NOTE** lets you select a Root note for the sample. The Root note defines which note will play the sample at its original pitch when in a KEYGROUP Program.
- **LOOP LOCK** activates the Loop Lock option. The adjusting of the sample start point and the loop start point can be linked. This will allow simultaneous adjustments, e.g. when you need to find a loop with a defined length.



The PROCESS Section

The PROCESS section gives you various editing options for the selected sample.

- ▶ Press the **F6** button (**Edit**) to open a new page where the editing options are located. Use the data dial or the + / - buttons to select the desired editing option. Some options offer additional parameters which can be accessed by using the cursor buttons. To execute a selected editing process, click on **F5 (Do It)**. Otherwise, you can cancel your changes by pressing **F4 (Cancel)**. The editing options are described below.



The Process Sample display for Pitch Shift of the MPC hardware

In the MPC software, click on the desired sample editing option. A new window will open. Some options offer additional parameters. To execute a selected option, click on **Do It**. Otherwise, you can cancel your changes by clicking the **Cancel** button.

- ❶ When the sample edit option window is open, you can click on the Function field to choose another edit option, if desired.
- ❷ Keep in mind that all START/END processes will only affect the part of the sample between the start and the end point, except BIT REDUCE and STEREO>MONO which will be affected the whole sample regardless of its start and end points.

The following sample editing options are available:

- **DISCARD** automatically deletes unwanted parts from a sample before the start point and after the end point. This option does not offer further parameters.
- **DELETE** automatically deletes the sample portion between start and end point and closes the created gap. This option does not offer further parameters.
- **SILENCE** automatically inserts silence to the sample portion between start and end point. This option does not offer further parameters.
- **EXTRACT** automatically crops the sample portion between start and end point and saves it as a new sample. For example, you can extract the snare sounds from a recorded drum loop and save it as a new sample to use it separately. You can also enter a name for the new sample. The new sample will be added to the current Project.
- **NORMALIZE** digitally increases a sample's level to the highest level obtainable without distortion. You can use Normalize as a digital gain optimization, so you don't have to worry about excessive level settings when working with Programs containing samples that have a wide range of volume amplitudes. This option does not offer further parameters.
- **REVERSE** reverses the selected sample. This option does not offer further parameters.
- **FADE IN** sets an automatic fade-in between the start and end point of the sample. The following fade types are available: *Linear* fades the audio in with a linear curve. A linear curve will go from start to end in a straight line. *Log* fades the audio in with a logarithmic curve. A logarithmic curve will quickly rise at the beginning, and then flatten out towards the end. *Exp* fades the audio in with an exponential curve. An exponential curve will slowly rise in the beginning, and then grow steeper as it reaches the end.
- **FADE OUT** sets an automatic fade-out between the start and end point of the sample. The following fade types are available: *Linear* fades the audio out with a linear curve. A linear curve will go from start to end in a straight line. *Log* fades the audio out with a logarithmic curve. A logarithmic curve will fall gradually at the beginning and more steeply at the end.



Exp fades the audio out with an exponential curve. An exponential curve will fall quickly in the beginning, and then flatten out as it reaches the end.

- **PITCH SHIFT** changes the pitch of the sample without changing its length. This is useful when you want to change the pitch of the phrase sample in the sequence without changing the tempo. The pitch can be set in a range from + / - 12 semitones. Keep in mind that the audio quality will decrease with more extreme settings.
- **TIME STRETCH** can lengthen or shorten the sample without changing its pitch. This is useful when you want to match one sample to another which has different tempo. You can enter the original tempo of the sample and the desired tempo after processing. If you want to change the sample length in percent, you can use the following method: For example, if you wish to lengthen the sample by 20%, you set the original tempo to 100, then set the new tempo to 80. This way you will obtain a sample that is 20% longer.
- **GAIN CHANGE** allows the volume of a sample to be raised or lowered by up to 18dB. Note that this function is different than **Normalize** because it will allow volumes beyond clipping level. This may be a desired effect, but please make sure to watch your output level.
- **COPY** makes a copy of the selected sample and adds a consecutive number after the sample name.
- **BIT REDUCE** diminishes the bit resolution of a sample, effectively lowering its degree of faithful reproduction. A common application is achieving a dirty "old school" sizzle on drum loops, but with a digital "edge". The sound is similar to the Resampler effect, but it will permanently alter the sample. You can reduce the bit rate down to 1 bit.
- **STEREO > MONO** converts a stereo sample to a new mono sample. The following options are available: *Left* will only use the left channel for conversion; *Right* will only use the right channel for conversion; *Sum* will combine the left and right audio channels to a single mono channel. You can also enter a name for the new mono sample. The new sample will be added to the current Project.

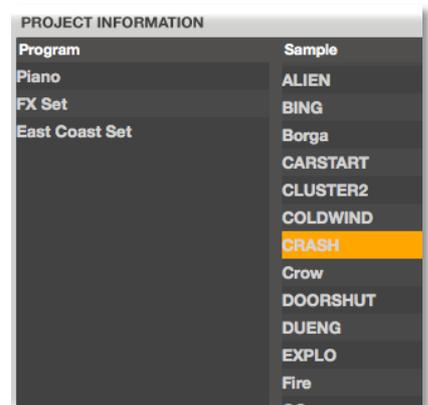
The PROJECT INFORMATION

The **Project Information** section shows all available Programs and all available samples in the current Project.

Double-click on a sample in the Sample column to load it into the **Sample Edit** window.

Right-click on a Program to open a context menu with the following options:

- **Duplicate** makes a copy of the selected Program and adds a "-1" to the Program name.
- **Delete** deletes the selected Program. To avoid accidental deletion, a query window opens for confirmation.
- **Save** saves the current Program to your hard disk. A dialog window opens automatically where you can choose a data path for saving. You can also name your Program file.
- **Rename** opens a window where you can rename your Program.



Right-click on a Sample to open a context menu with the following options:

- **Delete** deletes the selected sample. To avoid accidental deletion, a query window opens for confirmation.

- **Save** saves the current sample on your hard disk. A dialog window opens automatically letting you choose a data path for saving.
- **Rename** opens a window to let you rename the selected sample. This doesn't affect the original sample name.
- **Edit** opens the sample in the waveform display for further editing.

The CHOP Mode

The Chop function will divide a sample into multiple regions. The MPC software offers three different ways to use this function. **REGION** divides a sample into several regions of equal length, **BPM** divides a sample into several regions based on the beats per minute, and finally **THRESHOLD** uses an adjustable detection algorithm that derives the number of regions created from the volume levels present in the sample.

The EDIT Section in CHOP Mode

- ▶ Click on the **F1** button (**Chop**) to activate the Chop mode.
- ▶ Use the Q-Link knobs Q13, Q9, Q5 or Q1 of the MPC hardware to adjust the start point of the sample. The smaller the Q-Link knob number, the more precise the adjustment of the start point.
- ▶ Use the Q-Link knobs Q15, Q11, Q7 or Q3 of the MPC hardware to adjust the end point of the sample. The smaller the Q-Link knob number, the more precise the adjustment of the end point.
- ▶ Use Q-Link knob Q16 to select a slice for editing.
- ▶ Use Q-Link knob Q12 to set the threshold for slice detection (in Threshold mode), or the number of regions (in Regions mode), or the number of bars in BPM mode.
- ▶ Use Q-Link knob Q8 to define the numbers of beats in BPM mode. This dial has no function in Threshold and Regions modes.
- ▶ Use Q-Link knob Q4 to set the Time Signature in BPM mode. This dial has no function in Threshold and Regions modes.

In the MPC software, you can use the Q-Link knobs Q13, Q9, Q5 or Q1 to adjust the start point of the sample. The smaller the Q-Link knob number, the more precise the adjusting of the start point. Use Q-Link knobs Q15, Q11, Q7 or Q3 to adjust the end point of the sample. The smaller the Q-Link knob number, the more precise the adjustment of the end point.

Use the Q-Link knob Q16 to select a slice for editing.

i Depending on the Chop mode (Threshold, Regions, BPM), the Q-Link knob section offers different parameters for editing for the Q-Link knobs Q12, Q8 and Q4.



Use the Q-Link knob Q12 to set the threshold for slice detection (in Threshold mode), or the number of regions (in Regions mode), or the numbers of bars in BPM mode.

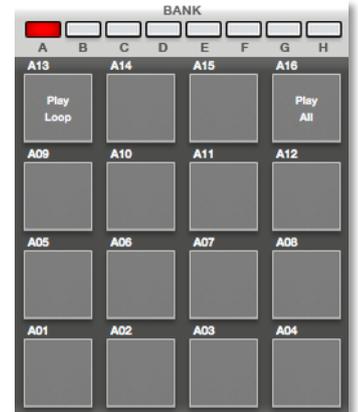
Use the Q-Link knob Q8 to set the number of beats in BPM mode. This dial has no function in Threshold and Regions modes.

Use the Q-Link knob Q4 to set the Time Signature in BPM mode. This knob has no function in Threshold and Regions modes.

The PAD Section in CHOP Mode

In **Chop** mode you can use the pads for playing back certain portions of the selected sample. The following playback options can be obtained by hitting the corresponding pad:

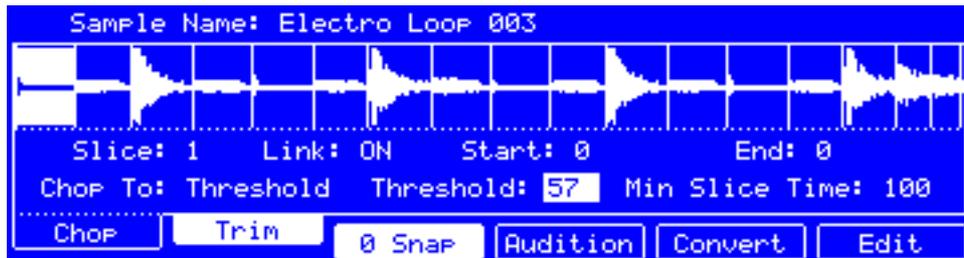
- **Play Loop (Pad 13)** plays the sample from the loop point to the end point repeatedly.
- **Play All (Pad 16)** plays the whole sample regardless of any editings.
- When **AUDITION** in the SETTINGS section is activated, the pads can be used to play the created slices. Read more about this below.



The SETTINGS in CHOP Mode

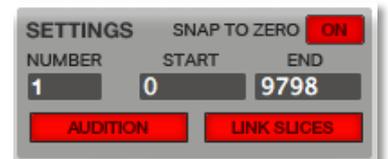
Here you can edit various parameters regarding the **Chop** mode.

► On the MPC hardware you can select the desired option by navigating with the cursor to the corresponding option (**Slice Select**, **Snap To Zero**, **Link**, **Start** and **End**). Use the data wheel or the +/- buttons for changing the value. **Audition** can be activated by pressing the **F4** button (**Audition**).



The Chop mode display of the Sample edit section in the MPC hardware

- **SNAP TO ZERO** activates the snap-to-zero function. For easier slice editing, the MPC software can snap the start or end point of a slice to the next zero crossing of the waveform. This can help to avoid clicks and glitches when playing a slice.
- **NUMBER** shows you the number of the selected slice. Keep in mind that you have to create slices before a slice can be chosen.
- **START** defines the start point of the selected slice. You can move the start point of a slice by using the position pointer in the waveform display. Alternatively, double-click on the display to enter a desired start point. Keep in mind that the start point of a slice is also the end point of the previous slice.
- **END** defines the end point of the selected slice. You can move the start point of a slice by using the position pointer in the waveform display. Alternatively, double-click on the display to enter a desired start point. Keep in mind that the end point of a slice is also the start point of the next slice.
- When **AUDITION** is activated, the pads can be used to play the created slices. Each slice is assigned to a pad automatically, starting from pad A01 with slice 1 and so on. If your sample contains more than 16 slices, you need to use the **BANK** buttons to switch through



the pad banks for showing all playable slices. When you hit a pad in Audition mode, the corresponding slice will be selected.

- With **LINK SLICES** active, editing the start or end point of a slice will alter the start and end points of its adjacent slices respectively. For example, editing the end point of a slice automatically changes the start point of the following slice. Turn **LINK SLICES** off when, for example, you want slice 1 to be the entire sample and slice 2, 3 and 4 be just portions of that sample.

The CHOP To Section in CHOP Mode

This section determines the slicing process.

► On the MPC hardware, you can select the desired processing option by navigating to the **Chop to** option with the cursor. Use the data dial or the +/- buttons for selecting the various **Chop to** options. Each option offers further parameters, which can also be edited using the data dial as well as with the +/- buttons.

You can choose between three slicing processes:

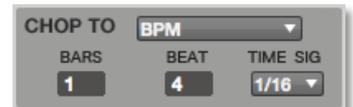
The **Threshold** process uses an adjustable detection algorithm that derives the number of regions created from the volume levels present in the sample. You can set a threshold level by using the **THRESHOLD** parameter. The higher the selected value, the more slices will be created. With the **MIN TIME** (Min Slice Time) parameter, you can define the minimum length of a slice in milliseconds.



The **Regions** process divides a sample into several regions of equal length. With the **NUM REGIONS** (Regions) parameter you can define the the number of regions you wish to divide the sample into. Usually, sixteen is a good start for a single-measure loop.



The **BPM** process is very similar to the Region process. The sample is divided in several regions of equal length, based on the loop length. First of all, you should set the **BARS**. If your sample loop length is two bars, you need to enter 2 here. You can also set the **BEAT**, which means the number of beats in a bar. In most cases this will be 4 beats per bar. Finally, **TIME DIV** lets you select a note division for the slicing. You can select 1/4, 1/8, 1/16 or 1/32. In most cases, you will set this parameter to 1/16.

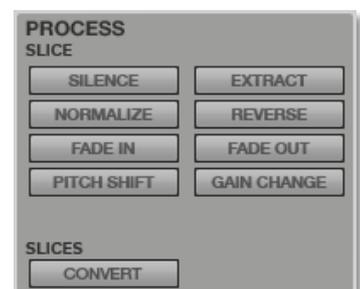


The PROCESS Section in CHOP Mode

The **PROCESS** section gives you various editing options for the selected sample. It is nearly identical to the **PROCESS** section in **TRIM** mode.

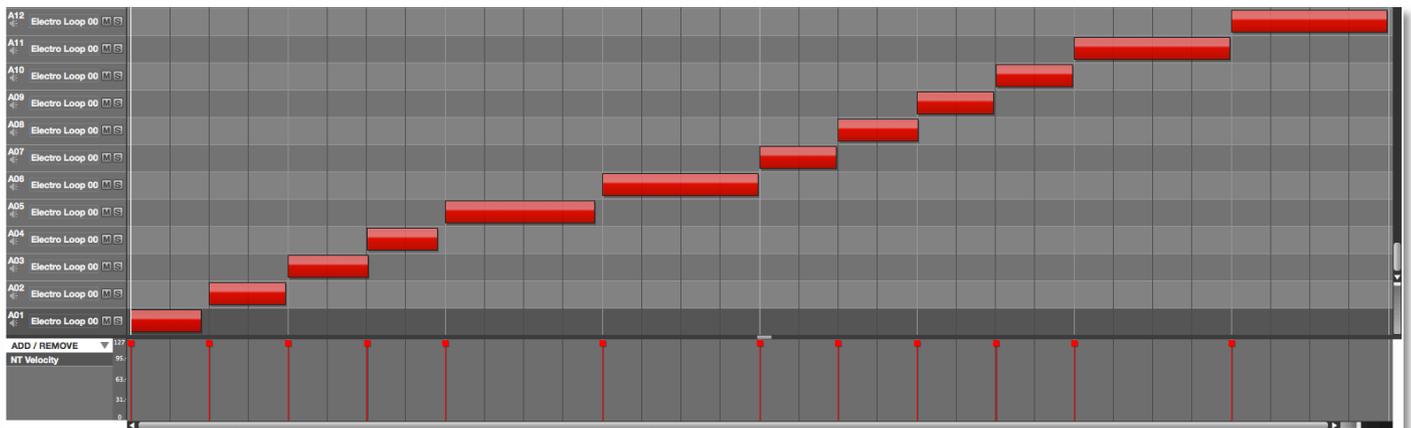
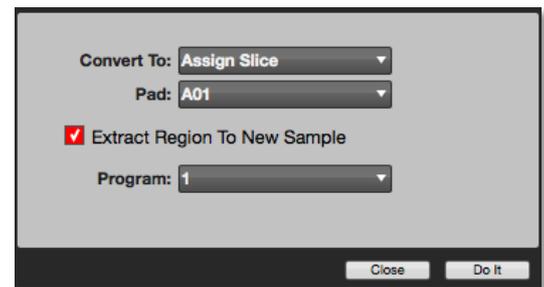
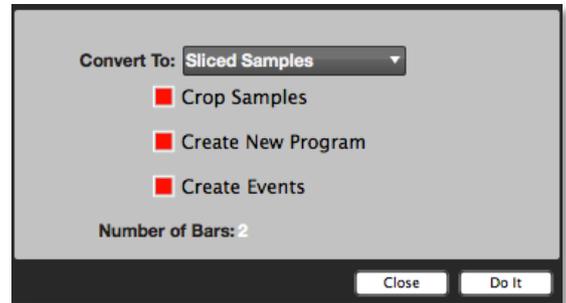
► Press the **F6** button (**Edit**) to open a new page where the editing options are located. Use the data dial or the + / - buttons to select the desired editing option. Some options offer additional parameters which can be accessed by using the cursor buttons. To execute a selected editing process, click on **F5** (**Do It**). Otherwise, you can cancel your changes by pressing **F4** (**Cancel**). The editing options are described below.

The following editing processes can be executed on a selected slice: **SILENCE**, **EXTRACT**, **NORMALIZE**, **REVERSE**, **FADE IN**, **FADE OUT**, **PITCH SHIFT** and **GAIN CHANGE**. For a detailed description, please read the corresponding explanations earlier in this chapter.



The **PROCESS** section in CHOP mode offers an additional option which affects the whole sample regardless of the selected slice.

- **CONVERT** offers three ways of exporting the sliced sample.
 - **Patched Phrase** creates a new sample based on your edits done in the Chop mode and places it in the current Project.
 - **Sliced Samples** creates single samples of the sliced sample. If *Crop Samples* is activated, a new sample for each slice is created. You can also activate *Create New Program* to create a program where each slice is automatically assigned to a pad. If *Create New Program* is chosen, you also get the option to *Create Events*. If *Create Events* is activated, a new sample for each slice will be created automatically and loaded to the pads in the new Program. It will also automatically create a new Track in which each pad plays its corresponding slice. The samples will be named with "sl" and a consecutive number attached to their original name.
 - **Assign Slice** assigns a single slice to a chosen Pad. With *Pad* you can choose the corresponding Pad, where the sample is assigned to. If *Extract Region To New Sample* is activated, the slice is also extracted as a new sample. With *Program* you can choose a Program, where the assigned slice is added to. The sample will be named with "pp" attached to its original name.



Track with events after using the **Sliced Sample/ Create Events** function

The PROJECT INFORMATION in CHOP Mode

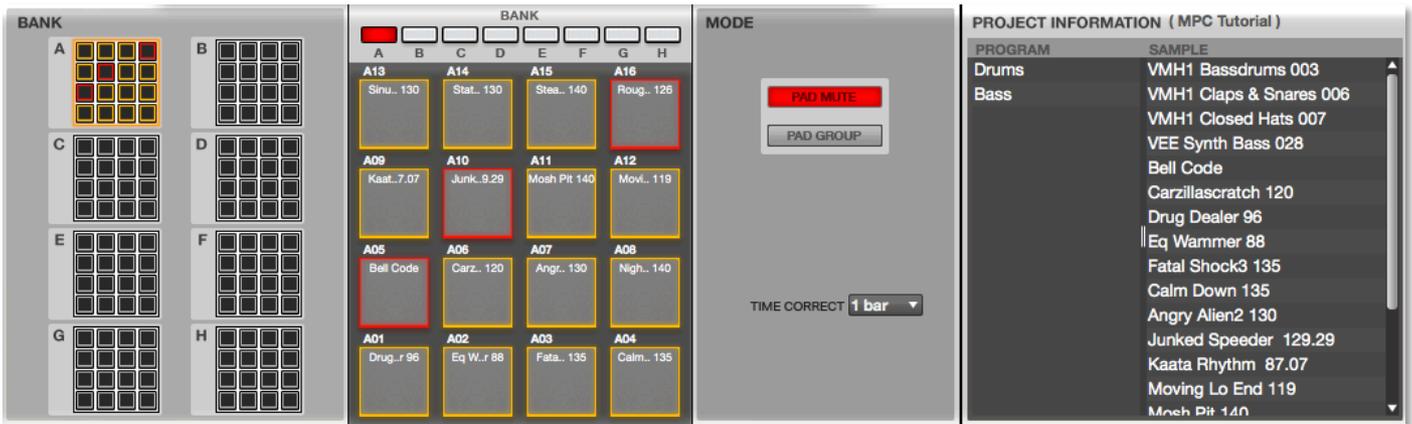
This section is identical to the Project Information in TRIM mode.

5.14 THE PAD MUTE MODE

In the Pad Mute mode, you can define pad mutes and mute groups for each pad.

► To enter Pad Mute, press **SHIFT + TRACK MUTE/ PAD MUTE** on your MPC hardware.

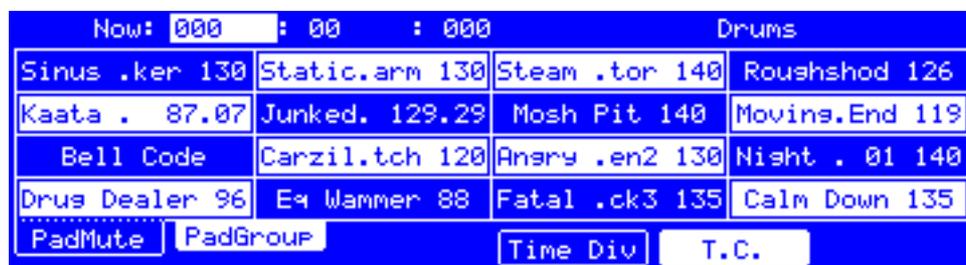
In the MPC software, click on the **Pad Mute** tab in the Upper section.



The PAD MUTE Mode

You can mute/unmute individual sounds in a particular program on a particular track in real time by hitting the pads. This is useful when you have several samples assigned to different pads and you wish to remove a particular sound, or isolate specific drum hits.

► In the MPC hardware, the 16 blocks displayed represent the 16 pads. Click on the **F1** button (**PadMute**) to activate the **Pad Mute** mode. Hit the corresponding pad to mute or unmute the desired sound that is assigned to this pad. Muted pads are lit in red, unmuted in yellow. Unused pads do not show a sample name. Use the **PAD BANK** buttons to switch between the 16 banks, if necessary.



The Pad Mute section in the display of the MPC hardware

In the MPC software, select the desired **BANK** first. Make sure to activate the **PAD MUTE** mode in the **MODE** section. Click the corresponding pad to mute/unmute the sound that is assigned to it. Muted pads are lit in red, unmuted in yellow. You can also click on the the miniature pads in **BANK** section to mute or unmute the desired samples. This section gives you an overview of all 128 pads at the same time. Unused pads are greyed out.

The PAD GROUP Mode

You can set up pad mute groups to mute or unmute multiple pads simultaneously. This is useful when you have several samples assigned to different pads and you wish to mute a group of sounds, or simultaneously isolate a group of specific drum hits. Up to 16 different mute groups can be created.

► In the MPC hardware, click on the **F2** button (**PadGroup**) to activate the **Pad Group** mode. Hit a pad to select it, and use the data dial or +/- buttons to select the desired group. Pads assigned to a mute group will blink yellow when one of the pads in the group is selected. Use the **PAD BANK** buttons to switch between the 16 banks, if necessary.

In the MPC software, select the desired **BANK** first. Make sure to activate the **PAD GROUP** mode in the **MODE** section. Select a desired pad which should be assigned to a mute group and select the desired mute group in the **MODE** section by clicking and dragging the group number (next to the pad number) up or down. Pads that are related to a mute group will be blinking yellow when one of the pads in the group is selected. You can also click on the the miniature pads in **BANK** section to select a pad for assigning to a mute group. This section gives you an overview of all 128 pads at the same time. Unused pads are greyed out.

The **MODE** Section

Besides the **PAD MUTE** and **PAD GROUP** mode options that are explained above, the **MODE** section offers another parameter:

- **TIME CORRECT** allows you to quantize pad mutes. This is useful when a mute process should be placed exactly on a musical event. You can define a quantization to the pressed mute pad from $1/16$ up to 2 bars. A value of 1 bar, for example, will mute the corresponding samples exactly at the beginning of the measure that follows the pressing of the pad.

► On the MPC hardware, click on the **F4** button (**Time Div**) to edit the **TIME CORRECT** value. Press the **F5** button (**T.C.**) to activate or deactivate Time Correct.

The **PROJECT INFORMATION**

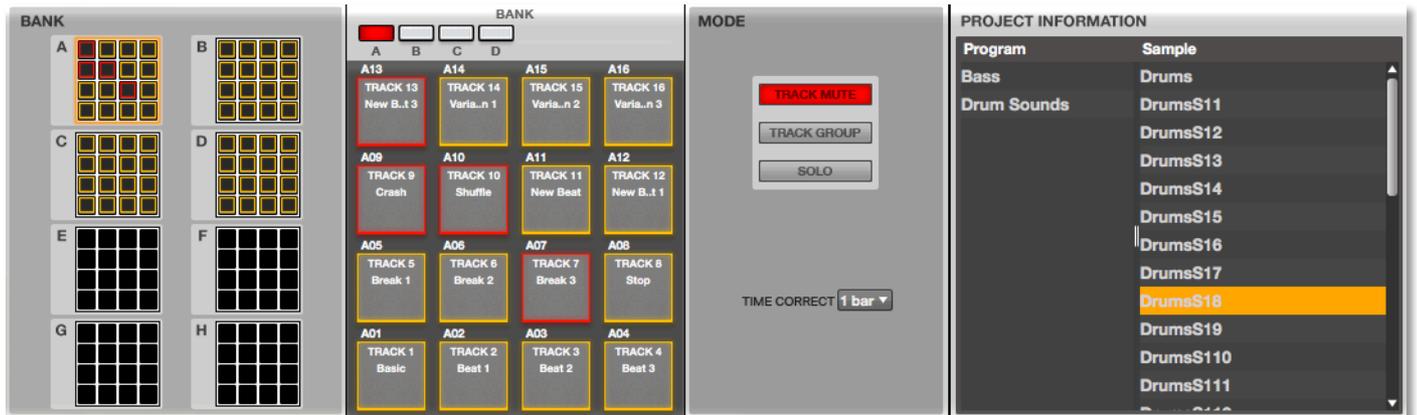
This section is identical to the Project Information in **Main** mode. For further information please read the chapter "The Main Mode".

5.15 THE TRACK MUTE MODE

In the Track Mute mode, you can define track mutes and track mute groups to use with the pads.

► To enter Track Mute, press the **TRACK MUTE** button on your MPC hardware

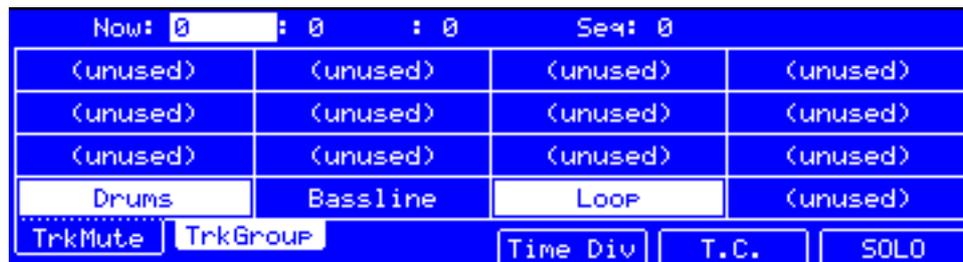
In the MPC software, click on the **Track Mute** tab in the Upper section.



The TRACK MUTE Mode

You can mute/unmute individual tracks in a particular program in real time by hitting the pads. This is useful when you have several instruments assigned to different tracks, and you wish to use the pads to switch tracks on/off while playing a song.

► In the MPC hardware, the displayed 16 blocks represent the 16 tracks. Press the **F1** button (**TrkMute**) to activate the **Track Mute** mode. Hit the pad to mute or unmute the track that assigned to it. Muted pads are lit in red, unmuted in yellow. Use the **PAD BANK** buttons to switch between the 8 banks, if necessary.



The Track Mute section in the display of the MPC hardware

In the MPC software, select the desired **BANK** first. Make sure to activate the **TRACK MUTE** mode in the **MODE** section. Click the corresponding pad to mute / unmute the desired track that is assigned to it. Muted pads are lit red, unmuted yellow. You can also click on the miniature pads in **BANK** section to mute or unmute them. This section gives you an overview of all 128 pads at once. Unused pads are greyed out.

The TRACK GROUP Mode

You can set up track mute groups to mute or unmute multiple tracks simultaneously. This is useful when you wish to mute a group of tracks, or simultaneously isolate a group of specific tracks. Up to 16 different mute groups can be created.

► In the MPC hardware, click on the **F2** button (**TrkGroup**) to activate the **Track Group** mode. Hit a pad to select its corresponding track, and use the data dial or +/- buttons to select the desired group. Pads assigned to a track group will blink yellow. Use the **PAD BANK** buttons to switch between the 16 banks, if necessary.

In the MPC software, select the desired **BANK** first. Make sure to activate the **TRACK GROUP** mode in the **MODE** section. Select a desired pad which should be assigned to a mute group and select the desired mute group in the **MODE** section by clicking and dragging the group number (next to the track number) up or down. Pads that are related to a mute group will be blinking yellow when one of the pads in the group is selected. You can also click on the the miniature pads in **BANK** section to select a pad for assigning to a track group. This section gives you an overview of all 128 pads at the same time. Unused pads are greyed out.

The **MODE** Section

Besides the **TRACK MUTE** and **TRACK GROUP** mode options that are explained above, the **MODE** section offers two more parameters:

- The **SOLO** button switches the selected pad to solo and mutes all other pads and their corresponding tracks.
- **TIME CORRECT** allows you to quantize track mutes. This is useful when a mute process should be placed exactly on a musical event. You can define a quantization to the pressed mute pad from *1/16* up to *2 bars*. A value of 1 bar, for example, will mute the corresponding tracks exactly at the beginning of the measure that follows the pressing of the pad.

► On the MPC hardware, click on the **F4** button (**Time Div.**) to edit the **TIME CORRECT** value. Press the **F5** button (**T.C.**) to activate or deactivate Time Correct. Press the **F6** button (**Solo**) to solo the selected pad.

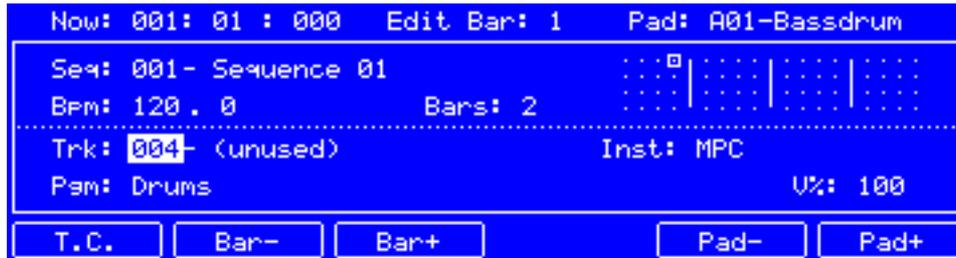
The **PROJECT INFORMATION**

This section is identical to the Project Information in **Main** mode. For further information please read the chapter "The Main Mode".

5.16 THE STEP SEQUENCE MODE

In the Step Sequence mode you can create sequences from scratch as well as edit an existing sequence. It also includes further information about your sequence and track settings.

► To enter the Step Sequence mode, press the **STEP SEQ** button on your MPC hardware.



Working with the Step Sequence mode in the MPC hardware display

In your MPC software, click on the **Step Seq** tab in the Upper section.

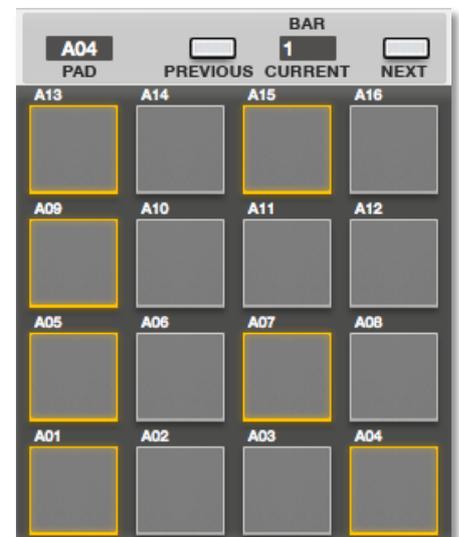
In the lower section of the **Step Sequence** mode you will find various controls that are also available in other modes, like the Main mode. Please refer to this chapter if you want to know more about the **Q-Link Knob** section, the **SEQUENCE**, **TRACK** and **INSTRUMENT** sections as well as the **PROJECT INFORMATION**.

The only difference is the Pad section, which is used to enter note events just like in a step sequencer. This can be done when the sequence is playing or stopped.

How to use the Step Input

If a track contains events you have recorded with the pads, the Step Input function allows you to edit each event separately by using the pads of your MPC hardware or MPC software. This is how it works in detail:

- On the MPC hardware, navigate to the **Trk** parameter and select the Track you want to work with. The track does not have to contain any note events.
- Use the **F5 (Pad-)** and the **F6 (Pad+)** buttons to select the pad corresponding to note events you want to edit / create. The pad number and its sample name will appear in the upper right corner of the hardware display. In a DRUM program, A01 to H16 are available; in a KEYGROUP program, the notes from C-2 to G8 can be chosen.
- Use the **F2 (Bar-)** and the **F3 (Bar+)** buttons to navigate to the bar you want to edit / create note events in. Keep in mind that the number of steps depends on your Time Correct settings, which you can adjust by pressing the **F1 (T.C.)** button. For example: If the set *Time Division* is $1/16$, a bar will consist of 16 steps, represented by the 16 pads. If the set *Time Division* is smaller, such as $1/32$, a bar will consist of 32 steps, and therefore be represented by two banks of the 16 pads. In this case, use the Pad Bank Buttons A and B to view all the steps within a bar.
- If a note event already exists in a selected track, its corresponding pad is lit. If you assign a new note by hitting on the corresponding pad, it will also be lit.



- ▶ To delete a note event, press on its corresponding pad, which will become unlit.
- ▶ Press and hold the **NOTE REPEAT** button to change the time division of the sequence grid. The **F**-buttons allows you to select the desired value, e.g., with **F1** you can select 1/4, with **F2** 1/8 etc.

In the MPC software, you can use the Pad section for step input.

Use the **TRACK** field at the top of the Grid or the **TRACK** pop-up menu in the **TRACK** section to select the desired Track first.

Click on the **PAD** field in the Pad section and move the mouse up or down to select the desired Pad you want to edit. With the **PREVIOUS** and **NEXT** buttons you can select the desired bar you want to edit/ create note events in. You can also use the **CURRENT BAR** field to enter the number of a bar directly.

If there are note events already present in a selected track, the corresponding pads will be lit with colors corresponding to their velocities. If you set a new note by clicking on its corresponding pad, it will also be lit with colors corresponding to its velocity. Keep in mind that in Step Sequence mode a bar consists of 16 note events, which correspond to the pads 1 to 16.

To delete a note event, press on its corresponding pad, which will become unlit.

i Programming drums with Step Input is also very useful when you want to emulate the step recording of drums, the way it was done with those famous drum machines back in the 1980s.

5.17 THE SOFTWARE MENUS

Some of the MPC software's menu items let you access features that cannot be accessed with the MPC hardware.

- ❶ Keep in mind that the menu structure of the MPC software differs between a Windows PC and a Mac computer.
- ❶ When loaded as plugin, the **Menu** button is located to the left of the **Main** tab.

File Menu

New Project creates a new empty project. Use this command when you want to start with a new song from scratch.

New From Template loads a predefined template project. The idea is to create a project with basic settings that suit your needs and save it as a preset for easy access. After saving your customized default project, please open the **Preferences** in the **Edit** menu and select the **Auto Load** tab, then choose the path for your template project. In the Mac MPC software, **Preferences** is located in the **MPC** menu.

Load Recent provides shortcuts to the last five files you have been recently working with. The list is chronological with the most recent file at the top.

Save Project saves the current MPC project. Within the Save Project dialog window you can choose a data path for saving. You can also name your Project. The samples in the Project Information list will be automatically saved with the Project. The Project file itself has an .xproj extension, and its accompanying information (samples, MIDI files, Program file, etc.) are in a folder with the same name on the same directory level.

Save Project as allows you to save the current project under a new name. The Save dialog is similar to the "Save Project" dialog.

Save All Programs saves all Programs of your Project.

Save Current Program saves only the current Program.

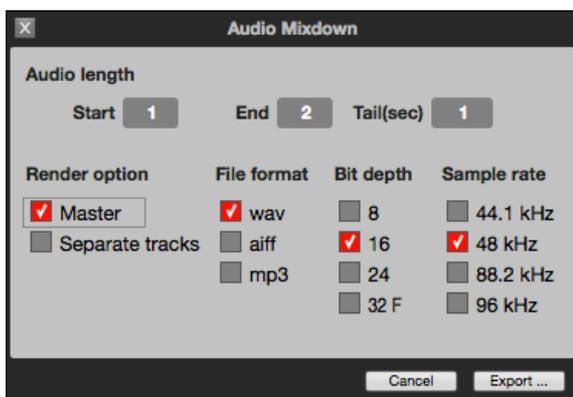
Save Current Sequence saves only the current Sequence.

With the **Export** function, you can export your project or sequence data in various MPC formats and as standard MIDI file as well as an audio mixdown file. Select the desired option from the submenu. **As MPC1000/MPC2500 Seq** exports the current Sequence in MPC1000/2500 format so that it can be read with the respective MPC hardware. **As MPC1000/MPC2500 Prg** exports the current Program in MPC1000/2500 format. The same applies to **As MPC5000 Seq/ Prg**.

If you choose **Midi Export**, a separate window will open to let you export the actual Sequence as a standard MIDI file. This is useful when you want to import your sequences into a sequencer software or exchange your sequences with another musician. In the Export Midi dialog window you can choose a data path for saving. You can also name your MIDI file. MIDI files are always saved with the file extension ".mid".

If you choose **As Audio Mixdown**, a separate window opens which offers you the following options:

- You can define the length of your audio file by



choosing measure **Start** and **End** point. This way you can also bounce a certain number of measures only. In addition you can define a the length of a "bounce tail" (**Tail**) in seconds. This is useful when working with audio effects like reverb or delay which will sound longer than the defined export range.

- For the render option, you can choose between **Master** and **Separate tracks**. **Master** will render an output that will be the same as the final output from the MPC software. **Separate tracks** will render at the Track Mixer. The rendered audio will not include Track Sends but will include the Track insert effects.
- You can also select your desired export **File format**: wav, aiff or mp3. For WAV and AIFF files the **Bit depth** can be selected from: 8 Bit, 16 Bit, 24 Bit or 32 Bit floating point. If you select mp3, the display automatically changes from **Bit depth** to **Bitrate** offering useful MP3 rates from 128 kbps and 320 kbps.
- The **Sample rate** can be set to: 44.1 kHz, 48 kHz, 88.2 kHz or 96 kHz. In most cases you will use the 44.1 kHz option.
- After you select your mixdown options, click on the **Export** button to open an additional window. Here you can set a data path on your computer's hard disk to where the export file will be saved. Cancel closes the Audio Mixdown window without starting the exporting process.

Exit closes the MPC application. If you haven't saved any changes made to a currently open project, it will prompt you to do so before quitting.

i In the Mac MPC software, the **Exit** command is named **Quit MPC** and located in the menu **MPC**.

Edit Menu

This menu contains all the standard commands for undo/redo as well as also cutting, copying, and pasting.

The **Undo** command undoes the last action you performed up to 200 actions. When there are no actions left to undo, the Undo command will be unavailable and appear grayed out.

The **Redo** command "undoes" the **Undo** command. If you wish, you can continue redoing actions until there are no items left to redo. In this case, the Redo command will be unavailable and appear grayed out. The only limitation in using the Redo command is that if you perform a new action when a redo action is available, you will no longer be able to redo. In other words, as soon as you perform an editing action other than Undo, Redo is no longer available.

The **Cut** command removes selected events from the grid and copies it to the MPC's clipboard. Once you have cut events, you can paste or insert them at another location in the same or any other sequence.

The **Copy** command copies selected events within the grid to the MPC's clipboard without removing them from the copying source. Once you have copied, you can paste it or insert it at another location in the same sequence or another sequence.

The **Paste** command allows you to paste the contents of the clipboard by placing the position marker on a grid location of your choice and perform **Paste**.

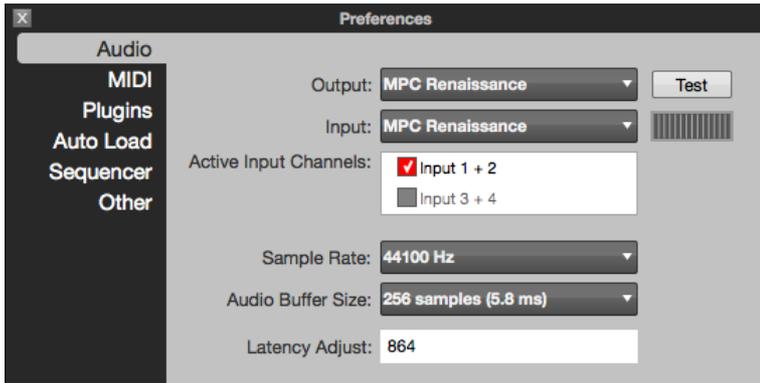
The **Clear** command allows you to delete the content of the clipboard if you no longer need it.

Preferences opens the MPC's Preferences dialog window, which contains many adjustable elements of this application. Click on the corresponding tab in the left windows area to select that

page (e.g. Auto Load). Click on the **OK** button to close the Preferences window. Preferences will be automatically saved.

i In the Mac MPC software, **Preferences** is located in the **MPC** menu.

Parameters of the Audio Tab



With the **Audio Device Type**, **Input**, and **Output** parameters, you can select an audio hardware driver that is installed in your computer system. If you work with the MPC Renaissance hardware, select **ASIO** as the **Audio Device Type** and **MPC Renaissance ASIO Driver** as the **Device**. Otherwise you can select an ASIO hardware driver of your audio interface (for Windows users: If you are using the internal soundcard of your

computer, we recommend downloading the latest ASIO4ALL driver at www.asio4all.com). Click on the **Test** button to start a test tone. This is for checking your audio output. Careful! You should lower the volume on your audio system beforehand.

The **Active Input Channels** displays the active installed inputs on your computer system. When the MPC Renaissance is connected and powered on, the two available ports are displayed. By checking the corresponding input, you can select the audio input you want to use.

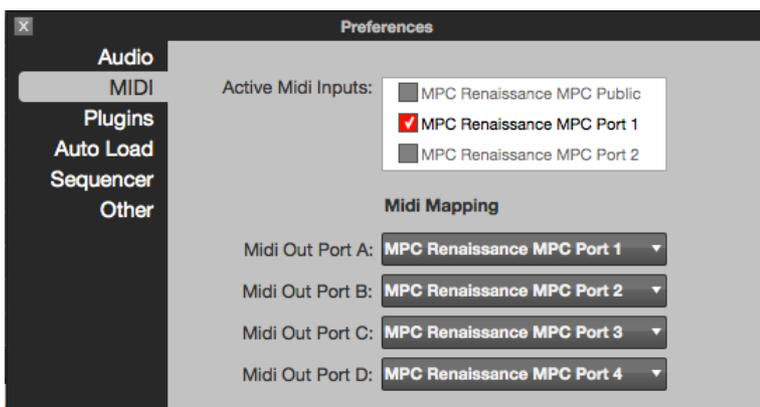
You can also select your desired **Sample Rate**. What you should select depends on the sample rates provided by your audio interface, for example, 44100 Hz up to 96000 Hz.

With the **Audio Buffer Size** you can set the latency of your audio system. Lower values result in a more immediate playing response but also result in more CPU consumption. If you are working with larger projects, audible clicks and pops may occur with lower latency settings. Higher values are much more CPU-friendly but produce a larger latency which results in a delay between hitting a pad and hearing the corresponding sound. The perfect setting of this parameter depends also on the performance of the CPU in your computer. You should experiment with some settings to find the perfect value for your needs.

The **Latency Adjust** parameter is for setting an offset in milliseconds in case there is a delay in your audio system.

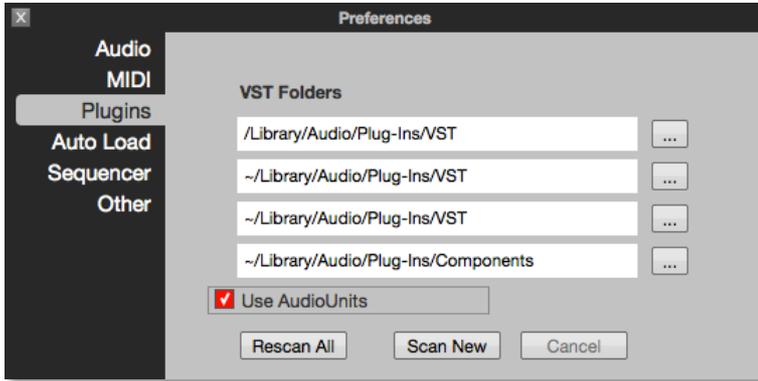
i If you are hearing any latency, we recommend experimenting with this setting after you set your Audio Buffer Size.

Parameters of the MIDI Tab



The **Active Midi Inputs** displays the active installed MIDI inputs on your computer system. When the MPC Renaissance is connected and powered on, the two available ports as well as the MPC Public port are displayed. The **Midi Mapping** lets you define the four **Midi Out Port A** to **D**. Here you can select the MIDI output your sequencer data is routed to.

Parameters of the Plugins Tab

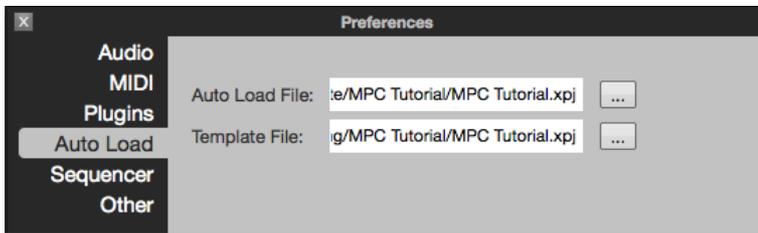


Here you can choose up to four data paths on your hard disk where the MPC software will look for installed VST or AU (Mac only) effect plugins. These plugins can be used as insert or send effects within your MPC software.

Click on the button to the right of the data path field to select a desired data path. After setting up a new data path, we recommend using the **Scan New**

function. When you make settings for the first time, you should click on the **Rescan All** button to perform a complete scan of all selected plugin data paths. If you are working on a Mac computer, we recommend checking the **Use AudioUnits** option. This enables you to use also the AudioUnit plug-in format.

Parameters of the Auto Load Tab

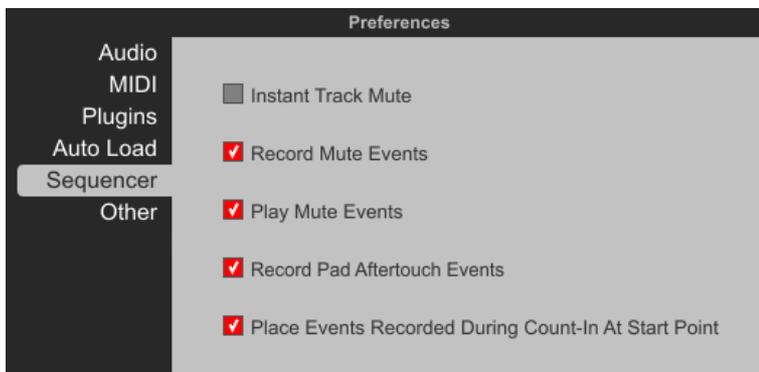


The **Auto Load File** function allows you to choose an autoload file on your hard disk so the MPC software automatically loads your desired settings on start-up. This file can be a Project (.xproj) as well as a Program (.xpm).

You can also select a **Template File** which allows you to choose a Sequence template to start from when you create a new Sequence.

Parameters of the Sequencer Tab

Here you can activate the following options:



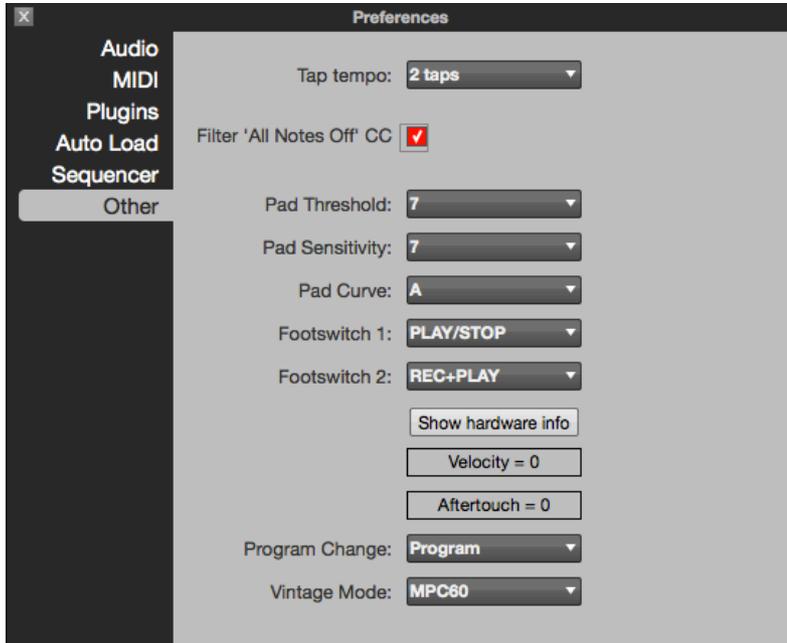
- **Instant Track Mute** - The MPC software has the ability to mute tracks using two different methods. If this option is deactivated, Note On messages will be ignored. This is how legacy MPCs' machines track muting worked. This method allows samples and notes that are playing to finish playing through

their entire length. This is useful when using loops, and you want to have a loop finish playing to the end of a measure, then not play the next time the sequence loops. If **Instant Track Muting** is activated, MIDI track volume is sent. This is useful when you want to have the track muted immediately. The advantage of this method is that the loop will continue to play, but at zero volume, allowing the loop to continue playing when the track is unmuted. Using this method, stuttering, beat juggling between two loops, and other DJ style techniques can be employed.

- **Record Track Mute Events** lets you record track mute events. Track mute events are only recorded when you are in **Track Mute** mode. Timing Correct settings will affect the recorded position of track mute events.

- **Play Track Mute Events** lets you playback track mute events. Track mute events are only played back when you are in **Track Mute** mode.
- **Record Pad Aftertouch Events** enables the recording of Pad aftertouch data.
- If **Place Events recorded during Count-In at start-point** is enabled, if you hit a pad during recording count-in, this pad will be placed at the start of the recording. This is the way, the MPC 3000 used to do this.

Parameters of the Other Tab



Here you can set up additional parameters regarding the behavior of your MPC hardware.

► Press **SHIFT + SONG** on your MPC hardware to open the **Other** tab. With the cursor buttons, you can navigate to the corresponding option. Use the data wheel or the +/- buttons for changing the value/option. Not all options in the MPC software's **Other** tab are available through the MPC hardware display.

With **Tap Tempo**, you can define how often you have to press the **TAP TEMPO** button on your MPC hardware

until the tempo is recognized.

If checked, **Filter All Notes OFF CC** can filter all note off data. If you have connected another device to MPC Renaissance's MIDI IN, checking this box will cause the MPC software to ignore an "All Notes Off" ("MIDI panic") message. That is, if a MIDI device sending MIDI messages into MPC Renaissance sends a MIDI panic message, the software will not stop all notes and will continue as before (recording, for instance).

With **Pad Threshold**, you can define a threshold that must be exceeded to start a trigger.

With **Pad Sensitivity**, you can select how sensitive the pads of your MPC hardware respond to your touch.



The Other section in the display of the MPC hardware

Pad Curve determines how your playing is translated into velocity values, for example, starting from value A (a soft touch is enough to create a big velocity value) up to D (you have to hit the pad really hard for a high velocity value).

With **Footswitch 1** and **2**, you can select the functionality of a connected footswitch to your MPC hardware. You can either select transport commands (e.g. PLAY; REC+PLAY) or trigger commands for pads and the **F**(unction) buttons.

Click on the **Show Hardware Info** button to open a window with information (firmware version, driver, etc.) about your connected MPC hardware.

With **Program Change**, you can define what an incoming MIDI Program Change will change. You can choose between switching a *Program*, *Sequence*, or *Track*.

In **Vintage Mode** pop-up menu you can toggle between the different audio quality emulations. You can choose to emulate the particular sonic qualities of, for example, the *MPC3000* or *MPC60*, or of course no emulation (*None*).

Click/Metro Menu

This menu contains all settings regarding the Metronome.

Count-In enables or disables the metronome pre-count before recording. **Off** disables the metronome pre-count. **Record** enables the pre-count during recording only while **Record + Play** enables pre-count in both recording and playback modes.

Metronome offers the settings for the metronome. **Off** disables the metronome. **Play** enables the metronome sound during playback only. **Record** enables the metronome sound during recording only. **Record + Play** enables the metronome to happen in both recording and playback modes.

The **Rate** allows you to choose the time division for the metronome to play at. You can select between 1/4, 1/4T, 1/8, 1/8T, 1/16, 1/16T, 1/32 and 1/32T (T stands for triplet).

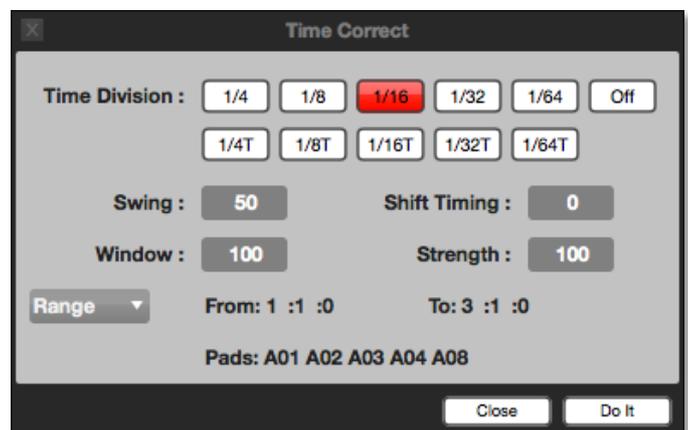
Sound allows you to choose the sound that you want to hear for the metronome. You can select between *Sidestick1*, *Sidestick2*, *Clap*, *Metroclick*, *Shake*, *Tambourine*, and *MpcClick*.

Time Correct Menu

Here you can select the Quantization settings.

Click on **Apply** to quantize the notes that are currently selected. If no notes are selected, nothing will be quantized. You can also press CTRL + K (Windows) or Command + K (Mac) on your computer keyboard to apply quantization.

Click on **Settings** to open an additional window with the following functions:



- **Time Division** sets the note value to quantize to. Default is 1/16. You can choose from different quantizations, including triplet values.
- **Swing** sets the amount of swing. Values range from 50% to 75% and let you shuffle your beats – from subtle to extreme.
- **Shift Timing** will shift the notes by clock ticks.
- **Window** sets the range of notes around a quantize value that will be quantized. Any notes outside that range would not be quantized, whereas notes inside would.
- **Strength** determines how hard notes will be quantized, (i.e., shifted toward the quantize value). Lower values only move notes to an certain extent towards the closest quantize value, resulting in a less mechanical feel than a strict quantization.
- The **Range** pop-up menu lets you select the target range for the time correction. You can apply the time correction on **All** note events as well as on the **Selected** only. When **Range**

is chosen, you can define the bars as well as the instrument lanes (pads) of a track that will be quantized. The selection is done on the MPC hardware.

▶ When **Range** is selected, you can define the instrument lanes (pads) to be quantized by pressing their corresponding pads on the MPC hardware. Selected pads are shown in the **Time Correct** window. Use the cursor keys to navigate to the **Events Range** parameter to select the range of bars for quantization.

You can apply the settings you made in the Time Correct windows by pressing the **Do It** button.

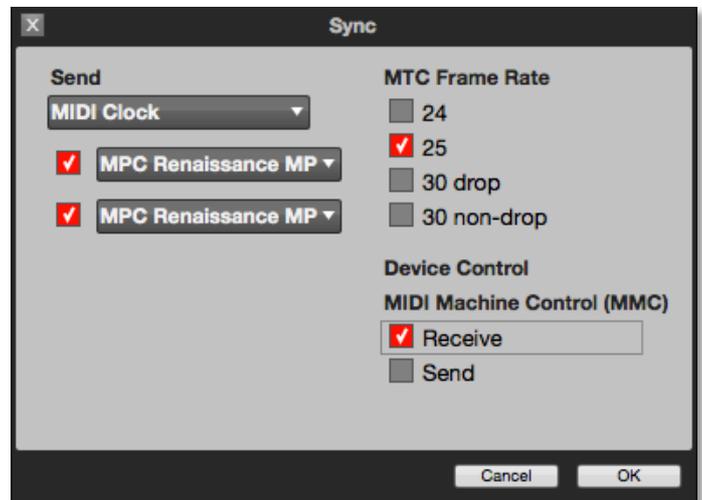
Sync Menu

In the **Settings** window, you will find a lot of parameters regarding the synchronization of your MPC:

Send lets you to choose whether or not the MPC software sends MIDI Clock or MIDI Time Code (MTC) to the individual ports of the MPC hardware or any connected MIDI interface. Make sure to check the port(s) over which you want to send this information. You can select two MIDI devices connected to your computer to send MIDI Clock or MTC data to. Select your device from the pop-up menu and make sure the box next to it is checked.

The **MTC Frame Rate** sets the frame rate for MTC sync. In most cases you will choose the 25 FPS (frames per second) option. The correct frame rate is important, especially when working on film scoring projects.

The **Device Control** allows you to send MIDI Machine Control (MMC) from the transport buttons on the MPC. MMC only sends transport commands; it does not include track-arming and more advanced features.



Help Menu

About MPC shows information about the particular version of the MPC software you are using.

Check for Updates... checks online if a newer version of the MPC software is available. You need an active internet connection to use this function.

MPC Help opens this PDF manual.

📌 In the Mac MPC software, **About MPC** and **Check for updates** are located in the MPC menu.

6. APPENDIX

In this section, you will find some additional tips and useful information regarding the MPC software.

6.1 EFFECTS & PARAMETERS

The MPC software offers various effects for processing samples and sound programs. In the following section, you will find a detailed descriptions how to use effects as well as a list of all available effects and their corresponding parameters with a short explanation of each effect.

Here are the different ways you can load effects:

Track effects:

The following paragraph explains how to load and edit Track effects.

- ▶ Enter the Track Mixer mode by pressing **SHIFT + PROG MIX/ TRACK MIX** on your MPC hardware.
- ▶ To load an insert effect into a channel, click on the **F6 (Insert)** and use the cursor buttons to move to the desired insert slot. With the data dial or the +/- buttons you can open an additional display page to select the desired effect type. Click **F4 (Select)** to load the selected effect, or click **F3 (Back)** to close the *Select Effect* display page. By repeatedly pressing the **F6** button, you can cycle through the insert effects 1, 2, 3 and 4. The small squares below the Insert field indicate the currently chosen insert effect. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels.
- ▶ Another way to load Track insert effects: Press **SHIFT + SEQ EDIT/EFFECTS** on your MPC hardware. First press the **F2 (Track)** button, after that the **F4 (Insert)** button. Use the cursor to navigate to the desired slot. With the data dial or the +/- buttons you can open an additional display page to select the desired effect type. Click **F3 (Back)** to close the *Select Effect* display page. Click on **F4 (Select)** to load the selected effect.
- ▶ To load a Send effect that can be used on Track, you need to load it before into the corresponding Send effect slot. Press **SHIFT + SEQ EDIT/EFFECTS** on your MPC hardware. First press the **F2 (Track)** button, after that the **F5 (Send)** button. Use the cursor to navigate to the desired slot. With the data dial or the +/- buttons you can open an additional display page to select the desired effect type. Click **F4 (Select)** to load the selected effect, or click **F3 (Back)** to close the *Select Effect* display page.
- ▶ To set the send effect level for a desired channel, click on the **F5 (Send)** button and use the cursor buttons to move to the desired Send Level parameter. Use the data dial or -/+ buttons to change the Send Level.
- ▶ Another way to change the Track Send effect Level: Enter the Track Mixer mode by pressing **SHIFT + PROG MIX/ TRACK MIX** on your MPC hardware. By repeatedly pressing the **F5** button, you can cycle through the send effects 1, 2, 3 and 4. The small squares below the Send field indicate the currently chosen send effect. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels. Use the Q-Link knobs to adjust the Send Levels of the corresponding pads. You can also use the cursor buttons to move to the desired Send Level parameter and use the data dial or -/+ buttons to change it.

In the MPC software, click on the **Track Mixer** tab in the Upper section.

Click on the **INSERT** button of the desired channel. Click on the arrow of the slot you want to assign an effect to. A pop-up menu lets you choose from a palette of various effects, which can be loaded directly. Click on a loaded effect name to open its graphic user interface for more detailed editing.

Click on the **SEND** button of the desired channel. Click on one of the SEND knobs of the desired channel and edit its value with your computer mouse. Alternatively, you can use your mouse scroll wheel.

i To use a send effect, you have to load an effect into the corresponding send effect slot to the right of the Track Mixer.

Pad effects:

The following paragraph explains how to load and edit Pad / Channel effects.

- ▶ Enter the Program Mixer mode by pressing the **PROG MIX** button on your MPC hardware.
- ▶ To load an insert effect into a channel, click on the **F6** button (**Insert**) and use the corresponding Q-Link knob to load the desired effect. By repeatedly pressing the **F6** button, you can cycle through the insert effects 1, 2, 3 and 4. The small squares below the Insert field indicate the currently chosen insert effect. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels.
- ▶ Essentially, when you select a pad insert effect, it will automatically be routed to the Track Mixer. If you want, you can change where it is routed to any one of the following outputs: the *Track Mixer*, *Submix 1 to 8*, paired *Out 1,2 to Out 15,16*. Keep in mind, that the MPC Renaissance offers the following physical outputs: *1,2 (main out)* and *3,4 (assignable)*. This can be done in Program Mixer mode.
- ▶ Another way to load Pad insert effects: Press **SHIFT + SEQ EDIT/EFFECTS** on your MPC hardware. First press the **F3 (Pad)** button, after that the **F4 (Insert)** button. Use the cursor to navigate to the desired slot. With the data dial or the +/- buttons you can open an additional display page to select the desired effect type. Click **F4 (Select)** to load the selected effect, or click **F3 (Back)** to close the *Select Effect* display page.
- ▶ To load a Send effect that can be used on Pad, you need to load it before into the corresponding Send effect slot. Press **SHIFT + SEQ EDIT/EFFECTS** on your MPC hardware. First press the **F3 (Pad)** button, after that the **F5 (Send)** button. Use the cursor to navigate to the desired slot. With the data dial or the +/- buttons you can open an additional display page to select the desired effect type. Click **F4 (Select)** to load the selected effect, or click **F3 (Back)** to close the *Select Effect* display page.
- ▶ To set the send effect level for a desired channel, click on the **F5 (Send)** button and use the cursor buttons to move to the desired Send Level parameter. Use the data dial or +/- buttons to change the Send Level.
- ▶ Another way to change the Pad Send effect Level: Enter the Program Mixer mode by pressing **PROG MIX** on your MPC hardware. By repeatedly pressing the **F4** button, you can cycle through the send effects 1, 2, 3 and 4. The small squares below the Send field indicate the currently chosen send effect. With the **PAD BANK** buttons, you can also select different pad banks to select different sets of 16 channels. Use the Q-Link knobs to adjust the Send Levels of the corresponding pads. You can also use the cursor buttons to move to the desired Send Level parameter and use the data dial or +/- buttons to change it.

In the MPC software, click on the **Program Mixer** tab in the Upper section.

Click on the **INSERT** button of the desired channel. Click on the arrow of the slot you want to assign an effect to. A pop-up menu lets you choose from a palette of various effects, which can be loaded directly. Click on a loaded effect name to open its graphic user interface for more detailed editing.

Essentially, when you select a pad insert effect, it will automatically be routed to the Track Mixer. If you want, you can change where it is routed to any one of the following outputs: The *Track Mixer*, *Submix 1 to 8*, *Out 1,2 to Out 15,16*. The outputs that are not available in your audio hardware will show up as greyed out. If a loaded project has outputs routed that don't exist on your audio hardware, these will shown in red.

This can be done in **Program Mixer** mode by clicking on the arrow above the first insert effect slot.

Click on the **SEND** button of the desired channel. Click on one of the SEND knobs of the desired channel and edit its value with your computer mouse. Alternatively, you can use your mouse scroll wheel.

i To use a Pad send effect, you have to load an effect into the corresponding send effect slot to the right of the Track Mixer.

Master effects:

The following paragraph explains how to load and edit Master effects.

▶ To load a master insert effect, press **SHIFT + SEQ EDIT/EFFECTS** on your MPC hardware. First press the **F1 (Master)** button and after that click on the **F4 (Insert)** button. Use the cursor to navigate to the desired insert effect slot. With the +/- buttons you can open an additional display page to select the desired effect type. Click **F4 (Select)** to load the selected effect, or click **F3 (Back)** to close the *Select Effect* display page.

▶ To load an send effect for the Master chain, click on the **F5 button (Send)**. Use the cursor to navigate to the desired send effect slot. With the +/- buttons you can open an additional display page to select the desired effect type. Click **F4 (Select)** to load the selected effect, or click **F3 (Back)** to close the *Select Effect* display page. Use the cursor to navigate to the desired send level. Use the data dial or -/+ buttons to change the Send Level.

In the MPC software, click on the **Track Mixer** tab in the Upper section. The Master effect section is located on the right end of the Track Mixer.

Click on the arrow of the master insert effect slot you want to assign an effect to. A pop-up menu lets you choose from a palette of various effects, which can be loaded directly. Click on a loaded effect name to open its graphic user interface for more detailed editing. These can be used to apply effects such as Compressor Master or Transient Shaper to finalize your entire mix.

The Effect Types:

❶ Some effects offer a "sync version", e.g. Flanger Sync, which enables the effect to synchronize to the tempo.

Flanger

A Flanger is an effect that uses a modulated delay line to emulate a classic effect, formerly produced by running two analog tape machines in parallel with a slight time disalignment. Slow rates can produce a jet engine "whoosh" effect, faster rates add a "warble" to the sound.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Rate	0 - 100	10	Q10
Feedback	-100 - 100	0	Q11
Delay	0 - 100	20	Q12
Width	0 - 100	80	Q5

Flanger Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Rate	8 bars - 1/16tr	1/4	Q10
Feedback	-100 - 100	0	Q11
Delay	0 - 100	20	Q12
Width	0 - 100	80	Q5

Chorus 4-voice

A Chorus effect uses an LFO to modulate the pitch and a time delay of the input signal, which is then added to the dry signal. In small amounts, this will create the illusion of multiple voices playing at once. Turn up the Feedback and Depth for more pronounced "shimmering" and "watery" sounds.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Delay	0 - 100	20	Q10
Amount	0 - 100	80	Q11
Width	0 - 100	80	Q12
Feedback	0 - 100	50	Q5
Rate	0 - 100	10	Q6

Chorus 2-voice

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Delay	0 - 100	20	Q10
Amount	0 - 100	80	Q11
Width	0 - 100	80	Q12
Feedback	0 - 100	50	Q5
Rate	0 - 100	10	Q6

Autopan

This effect uses an LFO to move the incoming signal back and forth across the stereo field, creating a somewhat rotary effect.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q10
Rate	0 - 100	10	Q11

Autopan Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q10
Rate	8 bars - 1/32	1/4	Q11

Tremolo

This effect uses an LFO to increase and decrease the volume of the signal. Depending on the LFO shape, this can produce a smooth wave effect (sine wave) or a stuttering "ON / OFF" effect (square wave).

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Rate	0 - 100	10	Q10
Sine to Square	0 (Sine) - 100 (Square)	0	Q11

Tremolo Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Rate	1 bar - 1/16tr	1/4	Q10
Sine to Square	0 (Sine) - 100 (Square)	0	Q11

Phaser 1

The Phaser is a classic effect, created by ganged multiple all-pass filters to create "notches", or sharp spikes in the frequency spectrum. The frequencies of these all-pass filters are usually modulated by an LFO to create a sweeping sound.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q10
Rate	0 - 100	10	Q11

Phaser 2

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q10
Rate	0 - 100	10	Q11

Phaser Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q10
Rate	1 bar - 1/16 triplets	1/4	Q11

LP Filter Sweep

This effect is a filter with its cutoff frequency modulated by an LFO. Both high-pass and low-pass filters are available.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	80	Q9
Low Frequency	0 - 100	0	Q10
High Frequency	0 - 100	100	Q11
Resonance	0 - 100	33	Q12
Rate	0 - 100	10	Q5

LP Filter Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Low Frequency	0 - 100	0	Q10
High Frequency	0 - 100	100	Q11
Resonance	0 - 100	50	Q12
Rate	8 bars - 1/32	1/4	Q5

HP Filter Sweep

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	80	Q9
Low Frequency	0 - 100	50	Q10
High Frequency	0 - 100	100	Q11
Resonance	0 - 100	33	Q12
Rate	0 - 100	10	Q5

HP Filter Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Low Freq	0 - 100	0	Q10
High Freq	0 - 100	100	Q11
Resonance	0 - 100	50	Q12
Rate	8 bars - 1/32	1/4	Q5

Auto Wah

This effect is a low-pass filter modulated by an envelope. The envelope is triggered by the incoming audio signal's amplitude. The amount of the envelope on the cutoff frequency is user-definable. This yields a classic funky "wah wah"- like sound.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 - 100	100	Q9
Resonance	0 - 100	75	Q10
Attack	0 - 100	30	Q11
Release	0 - 100	30	Q12
Center	0 - 100	50	Q5
Sensitivity	0 - 100	50	Q6

HP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value	Q-Link No.
Frequency	10 - 19999	1500	Q10
Resonance	0 - 100	0	Q11

LP Filter

Parameter	Value Range	Default Value	Q-Link No.
Frequency	10 - 19999	1500	Q10
Resonance	0 - 100	0	Q11

HP Shelving Filter

This filter differs from the standard filter type, as it attenuates all frequencies after the cutoff point equally.

Parameter	Value Range	Default Value	Q-Link No.
Frequency	10 – 19999 Hz	1500 Hz	Q9
Resonance	0 - 100	0	Q10
Gain	-18.0 - 18.0 dB	0.0 dB	Q11

LP Shelving Filter

Parameter	Value Range	Default Value	Q-Link No.
Frequency	10 – 19999 Hz	1500 Hz	Q9
Resonance	0 - 100	0	Q10
Gain	-18.0 - 18.0 dB	0.0 dB	Q11

PEQ 2-Band, 2-Shelf

This effect is a combination of one two-band parametric equalizer and two shelving filters.

Parameter	Value Range	Default Value	Q-Link No.
Low Frequency	22 – 1000 Hz	220 Hz	Q9
Frequency 1	82 – 3900 Hz	820 Hz	Q10
Frequency 2	220 – 10000 Hz	2200 Hz	Q11
High Frequency	560 – 19999 Hz	5600 Hz	Q12
Q1	0 - 100	0	Q6
Q2	0 - 100	0	Q7
Low Gain	-18.0 - 18.0 dB	0.0 dB	Q1
Gain 1	-18.0 - 18.0 dB	0.0 dB	Q2
Gain 2	-18.0 - 18.0 dB	0.0 dB	Q3
High Gain	-18.0 - 18.0 dB	0.0 dB	Q4

PEQ 4-Band

This effect is a powerful four-band parametric equalizer, with four independent EQ ranges.

Parameter	Value Range	Default Value	Q-Link No.
Low Frequency	22 – 1000 Hz	220 Hz	Q9
Frequency 1	82 – 3900 Hz	820 Hz	Q10
Frequency 2	220 – 10000 Hz	2200 Hz	Q11
High Frequency	560 – 19999 Hz	5600 Hz	Q12
Q1	0 - 100	5	Q5
Q2	0 - 100	5	Q6

Q3	0 - 100	5	Q7
Q4	0 - 100	5	Q8
Gain 1	-18.0 - 18.0 dB	0.0 dB	Q1
Gain 1	-18.0 - 18.0 dB	0.0 dB	Q2
Gain 2	-18.0 - 18.0 dB	0.0 dB	Q3
Gain 4	-18.0 - 18.0 dB	0.0 dB	Q4

Delay Mono

Delays the original signal for a specified period of time and plays it back over an adjustable period of time.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	2 - 2000 ms	100	Q10
Feedback	0 - 100	25	Q11
Damping	0 - 100	100	Q12

Delay Mono Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	1 bar - 1/16 triplets	1/4	Q10
Feedback	0 - 100	25	Q11
Damping	0 - 100	100	Q12

Delay Stereo

Stereo delay operates similarly to Mono delay but in true stereo.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	2 - 2000 ms	100	Q10
Feedback	0 - 100	25	Q11
Damping	0 - 100	100	Q12

Delay (Stereo) Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	1 bar - 1/16 triplets	1/4	Q10
Feedback	0 - 100	25	Q11
Damping	0 - 100	100	Q12

Delay LP

The LP and HP Delay is identical to the Mono Delay, but they use a resonant filter in the delay line.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	2 - 2000 ms	500	Q10
Feedback	0 - 100	50	Q11
Cutoff	0 - 100	50	Q12
Resonance	0 - 100	20	Q5

Delay HP

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	2 - 2000 ms	100	Q10
Feedback	0 - 100	50	Q11
Cutoff	0 - 100	33	Q12
Resonance	0 - 100	33	Q5

Delay Analog

Analog Delay is similar to Mono Delay, except that it's designed to sound like an analog "Bucket Brigade"-style delay. This delay has a unique character to it that gives a warmer the sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	2 - 2000 ms	100	Q10
Feedback	0 - 100	25	Q11
Ramp	Off, Pulse, DC, AC	AC	Q12

Delay Analog Sync

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	1 bar - 1/16tr	1/4	Q10
Feedback	0 - 100	25	Q11
Ramp	Off, Pulse, DC, AC	AC	Q12

Delay Tape Sync

Tape Delay emulates a delay system using an analog tape loop and a series of tape heads to produce an echo effect. This delay type yields a very distinct echo sound, often heard in reggae and dub-style music.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time	1 bar - 1/16 triplets	1/4	Q10
Feedback	0 - 100	50	Q11
Ramp	Off, Pulse, DC, AC	AC	Q12
Head 1	0 - 100	100	Q5
Head 2	0 - 100	0	Q6
Head 3	0 - 100	0	Q7
Head 4	0 - 100	0	Q8
Tone	0 - 100	50	Q1
Spread	0 - 100	50	Q2
Wow & Flutter	0 - 100	50	Q3

Delay Ping Pong

This delay is a stereo delay that allows you to set different delay times for its left and right repeats.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time, Left	2 - 2000 ms	100	Q10
Time, Right	2 - 2000 ms	100	Q11
Feedback	0 - 100	25	Q12
Damping	0 - 100	100	Q5

Delay Multi-Tap

This delay is a mono delay which has three delay generators with independently adjustable delay times and stereo position.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Time 1	2 - 2000 ms	100	Q10
Time 2	2 - 2000 ms	100	Q11
Time 3	2 - 2000 ms	100	Q12
Feedback	0 - 100	25	Q5
Pan 1	0 - 100	50	Q6
Pan 2	0 - 100	50	Q7

Pan 3	0 - 100	50	Q8
Damping	0 - 100	100	Q1
Gain 1	0 - 100	25	Q2
Gain 2	0 - 100	25	Q3
Gain 3	0 - 100	25	Q4

Distortion Fuzz

This popular effect uses hard clipping of the audio signal, which, at extreme settings, can turn a standard waveform into a square wave, producing a "razor" effect.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Drive	0 - 100	50	Q10
Output	0 - 100	50	Q11
Low	0 - 100	50	Q5
Lo-Mid	0 - 100	50	Q6
Hi-Mid	0 - 100	50	Q7
High	0 - 100	50	Q8

Distortion Amp

This effect is designed to reproduce the sound of a tube amplifier at high volumes.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Drive	0 - 100	50	Q10
Tone	0 - 100	50	Q11
Dynamics	0 - 100	50	Q12
Output	0 - 100	50	Q5

Distortion Overdrive

This distortion is designed to sound like a mildly distorting amplifier at medium volumes. It is the smoothest distortion type available.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Drive	0 - 100	50	Q10
Tone	0 - 100	50	Q11
Output	0 - 100	50	Q12

Distortion Custom

This effect is a highly customized distortion, capable of a wide range of useable sounds.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Drive	0 - 100	50	Q10
+Soft	5 - 75	5	Q5
+Clip	5 - 50	5	Q6
-Soft	5 - 75	5	Q7
-Clip	5 - 50	5	Q8
Low	-18.0 - 18.0 dB	0.0 dB	Q1
Mid	-18.0 - 18.0 dB	0.0 dB	Q2
High	-18.0 - 18.0 dB	0.0 dB	Q3
Output	-18.0 - 18.0 dB	0.0 dB	Q4

Distortion Grimey

This is a unique distortion effect that distorts a frequency range in a selectable band.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Drive	0 - 100	50	Q10
Grime	0 - 100	50	Q11
Center	0 - 100	50	Q12
Width	0 - 100	50	Q5
Resonance	0 - 100	50	Q6
Output	0 - 100	50	Q7

Transient Shaper

A transient shaper can be used to enhance or soften the Attack and Release phase of audio material.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Attack	0 - 100	50	Q10
Release	0 - 100	50	Q11
Output	0 - 100	50	Q12

Compressor Opto

A compressor is an effect that changes the dynamic range of a signal by automatically reducing its gain. The Opto Compressor is modeled after a vintage compressor type using an optical circuit to control the volume reduction of the input signal. These compressors are usually associated with soft and unobtrusive attack and release characteristics.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Input	-6 - 18 dB	0 dB	Q10
Attack	0 - 100	50	Q11
Release	0 - 100	50	Q12
Threshold	-50 – 0 dB	0 dB	Q5
Ratio	1 - 20	1	Q6
Knee	1 - 100	1	Q7
Output	-6 - 24 dB	0 dB	Q8

Compressor VCA

This compressor is more modern-sounding, with a slightly more transparent sound. A VCA Compressor tends to have quicker attack and release times than an Opto Compressor.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Input	-6 - 18 dB	0 dB	Q10
Attack	0 - 100	50	Q11
Release	0 - 100	50	Q12
Threshold	-50 – 0 dB	0 dB	Q5
Ratio	1 - 20	1	Q6
Knee	1 - 100	1	Q7
Output	-6 - 24 dB	0 dB	Q8

Compressor Vintage

This compressor has a sound similar to classic tube compressors, with their gentle yet pumping response and a dash of tube saturation.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Input	-6 - 18 dB	0 dB	Q10
Attack	0 - 100	50	Q11
Release	0 - 100	50	Q12
Threshold	-50 – 0 dB	0 dB	Q5

Ratio	1 - 20	1	Q6
Knee	1 - 100	1	Q7
Output	-6 - 24 dB	0 dB	Q8

Compressor Master

This is the most transparent compressor, able to perform substantial volume adjustments without artifacts.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100	Q9
Attack	0 - 100	50	Q10
Release	0 - 100	50	Q11
Threshold	-50 – 0 dB	0 dB	Q12
Ratio	1 - 20	1	Q5
Oldskool	Off / On	Off	Q6
Output	-6 - 24 dB	0 dB	Q7

Reverb Large

This is a spatial effect, designed to emulate the sound of a large hall.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Pre-Delay	1 - 100	50	Q10
Early Reflection	0 - 100	50	Q11
Density	0 - 100	50	Q12
Diffuse	0 - 100	50	Q5
Decay	0 - 100	75	Q6
Lo-Cut	0 - 100	10	Q7
Hi-Cut	0 - 100	10	Q8

Reverb Large 2

This is a less CPU-intensive spatial effect, emulating the sound of a large hall.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Pre-Delay	1 - 100	50	Q10
Early Reflection	0 - 100	50	Q11
Density	0 - 100	50	Q12
Diffuse	0 - 100	50	Q5
Decay	0 - 100	75	Q6

Lo-Cut	0 - 100	10	Q7
Hi-Cut	0 - 100	10	Q8

Reverb Medium

This is a spatial effect, designed to emulate a medium room.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Pre-Delay	1 - 100	50	Q10
Early Reflection	0 - 100	50	Q11
Density	0 - 100	50	Q12
Diffuse	0 - 100	50	Q5
Decay	0 - 100	50	Q6
Lo-Cut	0 - 100	15	Q7
Hi-Cut	0 - 100	10	Q8

Reverb Small

This is a spatial effect, designed to emulate a small room.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	50	Q9
Pre-Delay	1 - 100	50	Q10
Early Reflection	0 - 100	50	Q11
Density	0 - 100	50	Q12
Diffuse	0 - 100	50	Q5
Decay	0 - 100	50	Q6
Lo-Cut	0 - 100	15	Q7
Hi-Cut	0 - 100	10	Q8

Reverb In Gate

This is a hall reverb that has an additional control. The reverb effect is cut off when the input drops below the level set in the Gate In parameter.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) – 100 (WET)	50	Q9
Pre-Delay	1 – 100	50	Q10
Early Reflection	0 – 100	50	Q11
Density	0 – 100	50	Q12
Diffuse	0 – 100	50	Q5
Decay	0 – 100	75	Q6

Lo-Cut	0 – 100	10	Q7
Hi-Cut	0 – 100	10	Q8
Gate In	0 – 100	0	Q1

Reverb Out Gate

This is a hall reverb that has an additional control. The reverb effect is cut off when the output drops below the level set in the OutGate parameter.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) – 100 (WET)	50	Q9
Pre-Delay	1 – 100	50	Q10
Early Reflection	0 – 100	50	Q11
Density	0 – 100	50	Q12
Diffuse	0 – 100	50	Q5
Decay	0 – 100	75	Q6
Lo-Cut	0 – 100	10	Q7
Hi-Cut	0 – 100	10	Q8
Gate Out	0 – 100	0	Q1

Decimator

A Decimator downsamples the incoming signal by removing bits from the digital signal. The difference between decimation and resampling is that the decimator does not use any filtering to mask or correct digital artifacts. The result is an effect ranging from mild to almost completely pure digital distortion, depending on the setting and the source material.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Decimate	0 - 100	0	Q10
Bit Reducer	4 - 32	32	Q11

Resampler

The Resampler is similar to the decimator in that it removes bits from an incoming signal. The difference is that the Resampler applies a complex suite of filters and anti-aliasing to attempt to retain the original sound quality. This is a method used by popular vintage samplers and sampling drum machines from the 1980s. The Resampler effect can be used to achieve a "dirty" sound on drum loops, without the harshness of distortion.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Rate	0 - 100	0	Q10
Decimate	0 - 100	0	Q11

Frequency Shifter

A frequency shifter changes the frequencies of an input signal by a fixed amount and alters the relationship of the original harmonics. This can produce a chorus-like effect as well as very crazy artificial timbres.

Parameter	Value Range	Default Value	Q-Link No.
Wet/Dry	0 (DRY) - 100 (WET)	100 (WET)	Q9
Frequency	-1000 - 1000	0	Q10
Asynchrony	0 - 1000	0	Q11
A Pan	0 - 100	0	Q5
B Pan	0 - 100	100	Q6
A Gain	0 - 100	75	Q7
B Gain	0 - 100	75	Q8

6.2 KEYBOARD SHORTCUTS

Here you will find all computer keyboard shortcuts for the MPC software.

Keyboard modifiers

Function	Command (CTRL)	ALT	SHIFT	ALT + CMD (CTRL)
Main Grid – Lasso tool	Click and drag to copy selected events	Clicking on background: switches to eraser tool	Drag Lasso events to add to selection	
Track View – region mode	Click and drag to copy selected events			
Main grid – Pen tool	Click and drag to copy selected events	Clicking on background: switches to eraser tool	Drag selected events without snap Click events to add to selection	Click events to “send to back”
RealTime and Track Automation – Pen tool	Final value edit selected events	Clicking on background: switches to eraser tool Clicking on an event: Drag selected events with no time constrains *1	Drag selected events without snap	
NT Automation – Pen tool	Final value edit selected events			
Lasso			Drag adds events to selection	
Grid events nudge (using keyboard cursors)			Fine time nudge – without shift events are nudged according to current TC	

*1 – in normal dragging RT automation events are not allowed to move beyond the selected event groups previous and next event.

File Menu

Function	Command (PC)	Command (Mac)
New Project	CTRL + N	COMMAND + N
New From Template	CTRL + SHIFT + N	COMMAND + SHIFT + N
Save Project	CTRL + S	COMMAND + S
Open Preferences	CTRL + ,	COMMAND + ,

Edit Menu

Function	Command (PC)	Command (Mac)
Undo	CTRL + Z	COMMAND + Z
Redo	CTRL + Y	SHIFT + Z
Cut	CTRL + X	COMMAND + Z
Copy	CTRL + C	COMMAND + C
Paste	CTRL + V	COMMAND + V
Duplicate	CTRL + D	COMMAND + D

Misc

Function	Command (PC)	Command (Mac)
Select All	CTRL + A	COMMAND + A
Play	SPACE + SHIFT	SPACE + SHIFT
Play from Start	SPACE	SPACE

i When running as a plugin in Cubase all keypresses need to be combined with 'ALT'.

6.3 SPECIFICATIONS

Technical overview and specifications of the MPC hardware and software.

MPC Renaissance

- Display: 360 x 96 dot graphic LCD with back light
- Dimensions: Width 19.75", Depth 12.9" Height 2.75" (4.9" at max display angle), 502 mm x 328 mm x 70 mm (124 mm at max display angle)
- Weight: 10.5 lbs / 4.8 kg
- Power Supply: External, 12V DC, 2A, center pin positive
- Power Requirement: 24 W Max
- USB: USB 2.0 to computer x 1, plus 2-port, powered USB hub
- MIDI I/O Interface: 2 IN / 4 OUT
- Sample Rates up to 24 bit / 96 kHz
- Record input (L and R): XLR 1/4-inch Combo x 2 balanced -40dBu, input impedance 11k ohms; RCA with PHONO preamp
- Max. Input level: +10dBu
- Digital Input: 24-bit RCA-pin x 1 S/PDIF
- 4 Audio Outputs: 1/4-inch phone x 4 balanced +11dBu, output impedance 1k Ohms
- Max. output level: +18dBu
- Phones output: 1/4-inch stereo phone x 1, 200mW / 100 ohms; 1/8-inch stereo phone x 1, 200mW / 100 ohms
- Digital output: 24-bit RCA-pin x 1 S/PDIF
- Footswitches: 1/4-inch x 2

MPC Studio

- Display: 360 x 96 dot graphic LCD with back light
- Dimensions: Width 11.2", Depth 10.1" Height 0.73" (0.89" at max display angle)
- Weight: 1.96 lbs
- Power Supply: USB powered or external power supply with 6V DC, 1A
- MIDI I/O Interface: 1 IN / 1 OUT via TRS to MIDI breakout cables (included)

MPC Software

- Maximum events: unlimited (based on computer's CPU)
- Resolution: 960 pulses per 1/4-note
- Sequences: 128
- Tracks per sequence: 128
- Drum pads: 16 (velocity and pressure sensitive)
- Drum pad banks: 8
- Sync mode: MIDI clock, MIDI Time Code

- Transport Controls: MIDI Machine Control
- Polyphony: 64
- Dynamic filtering: 1 State Variable Filter per voice (up to 8 pole, depending on type)
- Filter types: Low Pass, Band Pass, High Pass, Band Boost, Band Stop, Analog Modeling, Vocal Formant
- Number of programs: 128
- Memory capacity: System dependent
- Plugin Supported as Host: VST (Mac / PC), AU (Mac)
- Plugin Formats available to other DAWs: VST, AU (Mac Only)

Data Compatibility

- MPC1000
- MPC2000/2000XL
- MPC3000
- MPC4000
- MPC5000
- Z4/Z8
- S1000/3000
- S5000/6000

6.4 SUPPORT & UPDATES

For additional information, technical support, and the most current versions of software, firmware, or drivers, please visit:

www.akaipro.com/mpcrenaissance

6.5 GLOSSARY

To avoid confusion, the terminology in this manual is based on the MPC parameter names. In this glossary you will find the various terms explained.

Aftertouch

The majority of contemporary keyboards are capable of generating aftertouch messages. On this type of keyboard, when you press harder on a key you are already holding down, a MIDI Aftertouch message is generated. This feature makes sounds even more expressive (e.g., through vibrato).

Aliasing

Aliasing is an audible side effect arising in digital systems as soon as a signal contains harmonics higher than half the sampling frequency.

Amount

Describes to which extent a modulation source influences a given parameter.

Amplifier

An amplifier is a component that influences the volume level of a sound via a control signal. It can be modulated by a control signal, e.g., generated by an envelope or an LFO.

Attack

An envelope parameter. "Attack" is a term that describes the ascent rate of time-relevant process, e.g. an envelope from its starting point to the point where it reaches its highest value. The Attack phase is initiated immediately after a trigger signal is received, i.e., after you play a note on a trigger pad or a keyboard.

Bit Rate

Bit rate, also known as "Word Length", is the number of bits used to store the level information of each single sample slice within a whole sample. The higher the bit rate, the more precise the information about a sample, i.e., its dynamic's resolution. Normal audio CDs use 16-bit. The MPC supports full 24-bit resolution.

Clipping

Clipping is a sort of distortion that occurs when a signal exceeds the maximum value that can be handled by a signal processing system it is fed into. The curve of a clipped signal is dependent on the system where the clipping occurs. In the analog domain, clipping effectively limits the signal to a given maximum level. In the digital domain, clipping is similar to a numerical overflow, resulting in negative polarity of the signal's portions exceeding the maximum level.

Control Change (Controllers)

MIDI messages enable you to manipulate the behavior of a sound generator to a significant degree.

This message essentially consists of two components:

- The Controller number, which defines the parameter to be influenced. It can range from 0 to 127.

- The Controller value, which determines the extent of the modification.

Controllers can be used for effects such as slowly swelling vibrato, changing the stereo panning position and influencing filter frequency.

Cutoff

The cutoff frequency is a significant factor for filters. A low-pass filter for example dampens the portion of the signal that lies above this frequency. Frequencies below this value are allowed to pass through without being processed.

Decay

Decay describes the descent rate of an envelope once the Attack phase has reached its maximum and the envelope drops to the level defined by the Sustain value.

Envelope

An envelope is used to modulate a sound-shaping component within a given time. For instance, an envelope that modulates the cutoff frequency of a filter opens and closes this filter over a period of time. An envelope is started via a trigger, usually a MIDI Note. The classic envelope consists of four individually variable phases: Attack, Decay, Sustain and Release. Hence called an ADSR envelope. Attack, Decay and Release are time or slope values, while Sustain is an adjustable level. Once an incoming trigger is received, the envelope runs through the Attack and Decay phases until it reaches the programmed Sustain level. This level remains constant until the trigger is terminated. The envelope then initiates the Release phase until it reaches the minimum value.

Filter

A filter is a component that allows some of a signal's frequencies to pass through it and dampens other frequencies. The most important aspect of a filter is the filter cutoff frequency. Filters generally come in four categories: low-pass, high-pass, band-pass, and band-stop. A low-pass filter dampens all frequencies above the cutoff frequency. A high-pass filter in turn dampens the frequencies below the cutoff. The band-pass filter allows only those frequencies around the cutoff frequency to pass; all others are dampened. A band-stop filter does just the opposite, i.e., it dampens only the frequencies around the cutoff frequency. The most common type is the low-pass filter.

LFO

LFO is an acronym for low-frequency oscillator. The LFO generates a periodic oscillation at a low frequency and features variable waveshapes. Similar to an envelope, an LFO can be used to modulate a sound-shaping component.

MIDI

The acronym MIDI stands for "musical instrument digital interface". Developed in the early 1980s, MIDI enables interaction between various types of electronic music instruments from different manufacturers. At the time a communications standard for heterogeneous devices did not exist, so MIDI was a significant advance. It made it possible to link various devices with one another through simple, standardized connectors.

Essentially, this is how MIDI works: One sender is connected to one or several receivers. For instance, if you want to use a computer to play a MIDI synthesizer, the computer is the sender and the synthesizer acts as the receiver. With a few exceptions, the majority of MIDI devices are equipped with two or three ports for this purpose: MIDI In, MIDI Out and in some cases MIDI Thru.

The sender transfers data to the receiver via the MIDI Out jack. Data are sent via a cable to the receiver's MIDI In jack.

MIDI Thru has a special function. It allows the sender to transmit to several receivers. It routes the incoming signal to the next device without modifying it. Another device is simply connected to this jack, thus creating a chain through which the sender can address a number of receivers. Of course it is desirable for the sender to be able to address each device individually. To achieve this, a MIDI channel message is sent with each MIDI event.

MIDI Channel

This is a very important element of most messages. A receiver can only respond to incoming messages if its receive channel is set to the same channel as the one the sender is using to transmit data. Subsequently, the sender can address specific receivers individually. MIDI Channels 1 through 16 are available for this purpose.

MIDI Clock

The MIDI Clock message transmits real-time tempo information to synchronize processes among several connected devices, e.g., a sound generator's delay time to a MIDI sequencer.

Modulation

A modulation influences or changes a sound-shaping component via a modulation source. Modulation sources include envelopes, LFOs or MIDI messages. The modulation destination is a sound-shaping component such as a filter or a VCA.

Note On / Note Off

This is the most important MIDI message. It determines the pitch and velocity of a generated note. A Note On message will start a note. Its pitch is derived from the note number, which can range from 0 to 127. The velocity lies between 1 and 127. A velocity value of 0 is equivalent to a "Note Off" message.

Normalize

Normalize is a function to raise the level of a sample to its maximum (0 dB) without causing distortion. This function automatically searches a sample for its maximum level and consequently raises the entire sample's level until the previously determined maximum level reaches 0 dB. In general this results in a higher overall volume of the sample.

Panning

The process or the result of changing a signal's position within the stereo panorama.

Pitchbend

Pitchbend is a MIDI message. Although pitchbend messages are similar in function to control change messages, they are a distinct type of message. The resolution of a pitchbend message is substantially higher than that of a conventional Controller message. The human ear is exceptionally sensitive to deviations in pitch, so the higher resolution is used because it relays pitchbend information more accurately.

Program

A Program is a file that contains a list of all samples to be used, and settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.) The MPC's PROGRAM EDIT mode is where you can edit and assign samples. The MPC software can have a total of 128 programs in a Project.

There are two kinds of programs that use samples for their sound source: Drum Programs, mostly used for creating drum programs and easy and quick assigning of samples to a pad, and Keygroups Programs. With Keygroup Programs, you can use one sample (or more) and spread it across two or more keys and play the sample chromatically over a keyboard. That way, there is no need to sample every key of, for instance, a piano.

Program Change

These are MIDI messages that select sound programs. Program numbers 1 through 128 can be changed via program change messages.

Release

An envelope parameter. The term "Release" describes the descent rate of an envelope to its minimum value after a trigger is terminated. The Release phase begins immediately after the trigger is terminated, regardless of the envelope's current status. For instance, the Release phase may be initiated during the Attack phase.

Resonance

Resonance or emphasis is an important filter parameter. It emphasizes the frequencies around the filter cutoff frequency by amplifying them with a narrow bandwidth. This is one of the most popular methods of manipulating sounds. If you increase the emphasis, i.e., to a level where the filter enters a state of self-oscillation, it will generate a relatively pure sine waveform.

Root Key

The root key defines the original pitch of a recorded instrument or of a sample. Samples in the MPC software contain the dedicated root key information. This information will be created automatically during recording or importing.

Sample

When you tap the pads on your MPC, you can trigger sounds that we call 'samples'. Samples are digitized snippets of audio that can either be recorded using the recording function of your MPC software or loaded from the File Browser.

Once a sample is present in the MPC software, it can be manipulated in different ways. For example, a sample can be trimmed, looped, pitch-shifted or processed, using various effects offered by the MPC software. When you have finished editing your sample, you can assign it to one or more drum pads to play it. Samples can be either mono or stereo.

Sample Rate

This is the frequency representing the amount of individual digital sample scans per second that are taken to capture an analog signal digitally. For normal CD audio recordings, 44100 samples per second are used, also written as 44.1 kHz. The MPC offers sampling rates up to 96 kHz.

Sequence

A sequence is the most basic 'building block' of music you can compose on the MPC software. MIDI information from the MPC's pads, buttons, and data from your MPC hardware's Q-Link knobs controls (or an external keyboard) are recorded to the tracks of a sequence. Each sequence has 64 tracks and the MPC software can hold up to 128 separate sequences at the same time.

The length of a sequence can be set from 1 to 999 bars, which would be enough to create an entire song using only one sequence. However, the MPC software has a dedicated SONG mode that lets you chain sequences together to create a song.

Song

The MPC software has a special song mode that allows you to arrange different sections (verse, chorus, hook, etc.) in order to build a song. Each song can have up to 250 parts and the MPC software can hold 20 songs in its memory.

Sustain

The term "Sustain" describes the level of an envelope remaining constant after it has passed the Attack and Decay phases. Once reached, the Sustain level is kept until the trigger is terminated.

Track

A sequence offers 64 tracks and each track can record notes and controller data. For example, you can record the verses of a song on Track 1, while recording the choruses on Track 2. Alternatively, you can record different instruments on each track.

Note that your performances are recorded as MIDI events and the actual digital audio is not recorded onto a track. That way, you can edit your performance in many different ways once the performance has been captured.

Trigger

A trigger is a signal that initiates events. Trigger signals are very diverse. For instance, a MIDI note or an audio signal can be used as a trigger. The events a trigger can initiate are also very diverse. A common application for a trigger is its use to start an envelope.

AKAI[®]
professional

WWW.AKAIPRO.COM