

MPC

User Guide English



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Introduction

Thanks for choosing the MPC! Fusing Akai Professional's legendary MPC layout and workflow with the power of your computer, MPC software is an unrivaled instrument for music production.

MPC Renaissance is a fully integrated hardware-software system, allowing 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 the MPC family.

The Akai Professional Team

System Requirements and Product Support

For complete system requirements, compatibility information, and product registration, visit the Akai Professional website: **akaipro.com**.

For additional support, visit akaipro.com/support.



About This User Guide

This manual was written to help you get familiar with the MPC hardware and software.

For consistency and to help prevent confusion, the terminology throughout is based on the MPC parameter names. You will find the various terms explained in the *Appendix* > *Glossary* chapter at the end of this manual.

We also used a uniform set of symbols to show topics of particular interest or significance:

Information: Important or helpful information on a given topic.

Hardware: How to use a software feature with your MPC hardware's controls. Note that these paragraphs are not the only parts of the manual that mention the MPC hardware!

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

Examples: Press the **Prog Edit** button.

Turn the **Level** dial. Click the **Trig** menu.

Specific settings or values are indicated in *italic* characters.

Examples: The **Velocity** ranges from 0 to 127.

Set your **Sample Play** to *One-Shot* or *Note-On*.

Click the Pad Audio Route menu, and select Out 1,2.

Some parts of this manual refer to other relevant chapters or sections, which are cited in **bold**, **italic**, **blue** characters. Click the text to skip immediately to that section.

Examples: Read the *Important Notes* section before proceeding.

For more information about installing the necessary drivers and software, please see

the *Installation* section.

To learn more about using send effects, please see the Effects > Send Effects

chapter.



Important Notes

- Read the included Akai Professional Safety & Warranty Manual before using the MPC hardware.
- 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, install the drivers and software. Visit
 akaipro.com to download the latest versions (recommended), or insert the included DVD. Refer to
 the *Installation* section for more information.

Installation

Before installing the MPC software, make sure your computer meets the system requirements described at **akaipro.com**. This applies whether you'll use MPC software as your host software or as a plugin.

Windows®

From a DVD:

- Power on your computer and operating system, and insert the DVD into your DVD 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 the icon for the drive that holds the DVD.
- 4. Double-click the MPC installer icon. This launches a special installation program.
- 5. Follow the on-screen instructions.

Important: After installing the MPC software, you need to unlock the program on your computer. Please refer to *Unlocking the MPC Software*.



From a downloaded installer file:

- 1. Open the folder where the downloaded .zip file is located.
- Double-click the file to extract it.
- 3. Double-click the **MPC** installer icon. This launches a special installation program.
- Follow the on-screen instructions.

Important: After installing the MPC software, you need to unlock the program on your computer. Please refer to *Unlocking the MPC Software*.

Mac® OS X®

From a DVD:

- 1. Power on your computer and operating system, and disable any system activity monitoring software or extension. Then, insert the DVD into your computer's DVD drive.
- 2. If required, double-click the MPC icon to view the DVD's contents.
- 3. Double-click the **MPC** installer icon. This launches a special installation program.
- 4. Follow the on-screen instructions.

Important: After installing the MPC software, you need to unlock the program on your computer. Please refer to *Unlocking the MPC Software*.

From a downloaded installer file:

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

Important: After installing the MPC software, you need to unlock the program on your computer. Please refer to *Unlocking the MPC Software*.



Unlocking the MPC Software

Follow these steps to unlock the MPC software before using it.

- Connect your MPC hardware to a USB port on your computer. If you are using MPC Renaissance, connect it to a power source, too.
- Power on the MPC hardware.
- 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.
- On a computer connected to the Internet, go to 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!

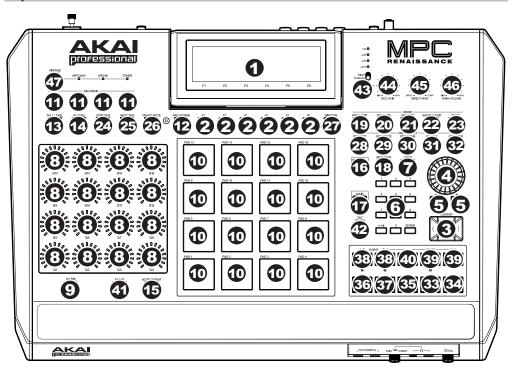


MPC Hardware Overview

This chapter explains the features and functions of your MPC hardware: the **MPC Renaissance** or the **MPC Studio**.

MPC Renaissance

Top Panel





Navigation and 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.

Note: 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. Hold down **Shift** and press this button to redo the last action you undid.

Pad and 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.
- 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 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 4 x 4 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).
 - You can use this button to copy the samples and parameters from one pad to another. While holding **Shift**, press this button, press the "source" pad, press the "destination" pad, and then release **Shift**—the samples and parameters will be copied automatically from the source pad to the destination pad. Alternatively, use the **Cursor Buttons** to select the From Pad ("source") or To Pads ("destination") field and press 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 press them.
 - Hold down **Shift** and press this button to activate/deactivate Half Level. When activated, the pads always play back at half-velocity (63).
- 14. 16 Level: Press this button to activate/deactivate 16 Level. When activated, the last pad that was pressed 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 a specific value (ascending in value from the lowest to highest pad), regardless of how hard you press each pad. In the software, in the window that appears, click the Type menu to select the parameter: Velocity, Tune, Filter, Layer, Attack, or Decay.
 - You can change the pad by clicking the **Pad** drop-down menu in the window that appears. Alternatively, you can press and hold the **16 Level** button, press the desired pad, and then release both.
- 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. Alternatively, press the Note Repeat button twice in succession. 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). You can also double-press it to "latch" it for a few seconds. To unlatch it, press it once more or wait a few seconds for it to unlatch automatically.
- 17. **Main / Track:** Press this button to enter Main Mode in the display and software. Hold down **Shift** and press this button to enter Track View Mode in the display and software.
- 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 enter Program Edit Mode 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 enter Program Mixer Mode in the display and software. Hold down **Shift** and press this button to enter Track Mixer Mode 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 the Effects page on the hardware, where you can select and route effects as well as edit effects' parameters.
- 22. Sample Edit / Sample Rec: Press this button to enter Sample Edit Mode in the display and software. Hold down Shift and press this button to enter Sample Record Mode in the display and software.
- 23. **Song / Other:** Press this button to enter Song Mode in the display and software. Hold down **Shift** and press this button to enter MIDI Control Mode, which lets you edit various MIDI parameters for the pads, Q-Link Knobs, and certain buttons on your hardware while in this mode.
- 24. **Step Seq:** Press this button to enter Step Sequence Mode in the display and software.
- 25. **Next Seq:** Press this button to enter Next Sequence Mode in the display and software.
- 26. Track Mute / Pad Mute: Press this button to enter Track Mute Mode in the display and software. Hold Shift and press this button to enter Pad Mute Mode in the display and software.



- 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 the software. In Full Screen Mode, the workspace occupies the whole window. 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 File 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 File 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 File 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 File 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 File Browser's Folder 5 shortcut.

Transport and 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 software.

I/O and Level Controls

- 43. **Mic In / Phono In 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 In / Phono In 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.



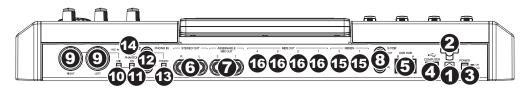
Front Panel

- Footswitch Inputs: Connect optional 1/4" TS footswitches to these inputs.
- 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.

Rear Panel



- 1. **Power Input:** Connect a 12V DC, 2A power adapter (center pin positive) to this jack then into an electrical outlet.
- 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.
- 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.

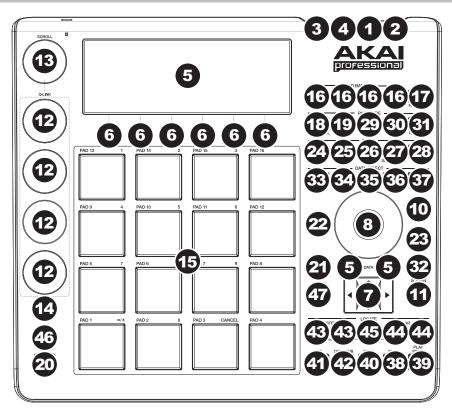


- 6. **Stereo Out:** Connect these 1/4" TRS outputs to your speaker system (not included). The signal sent out of these outputs is the main mix. In the MPC software, you can set what is routed to these outputs in the Program Mixer tab, by selecting 1,2 as the **Out** for one pad or multiple pads.
- 7. 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 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.
- 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 Phono In jacks. 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.
- 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.



MPC Studio

Top Panel





Power and I/O

- 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 Studio to send/receive MIDI and audio data to/from the MPC software.
- 2. Power Switch: Turns MPC Studio's power on/off.
- 3. **MIDI In:** Use the included 1/8"-MIDI adapter and a five-pin MIDI cable to connect the MIDI Out of an optional external MIDI device to the **MIDI In** of MPC Studio.
- MIDI Out: Use the included 1/8"-MIDI adapter and a five-pin MIDI cable to connect the MIDI Out of MPC Studio to the MIDI In of an optional external device.

Important: Do NOT connect audio devices (e.g., headphones, monitors, etc.) to the 1/8" MIDI In or MIDI Out jacks. Use the included 1/8"-MIDI adapters to connect MIDI devices only.

Navigation and Data Entry Controls

- 5. Display: This LCD shows all the information relevant to MPC Studio'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.
 - Press and hold Shift and turn the Data Dial to adjust the contrast of the display.
- 6. **F-Buttons:** Press one of these buttons to select its corresponding tab, shown above the button in the display.
- Cursor Buttons: Use these buttons to navigate through the fields of menus and options shown in the DISPLAY.
- 8. **Data Dial:** Use this dial to scroll through the available menu options or adjust the parameter values of the selected field in the display.
- 9. -/+: Press these buttons to increase/decrease the value of the selected field in the display.
- 10. Numeric: If the selected field in the display is a number, you can press Numeric and use the pads as a standard numeric keypad to enter a value. The numbers are printed in green above the pads.
- 11. **Undo / Redo:** Press this button to undo your last action. Hold down **Shift** and press this button to redo the last action you undid.



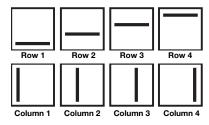
Pad and Q-Link Knob Controls

12. Q-Link Knobs: Use these touch-sensitive knobs to adjust various parameters and settings. The knobs can control one column of parameters at a time. Use the Scroll Knob above them to change which column or row of parameters they currently control.

In modes where the display shows a "4 x 4" array of parameters, you will see an additional indicator on the top or left side of the array, indicating the currently controlled row/column.

The Q-Link Knobs control **columns** of parameters in Main Mode, Program Edit Mode, Track View Mode, Sample Edit Mode, and Step Sequence Mode.

The Q-Link Knobs control **rows** of parameters in Program Mixer Mode and Track Mixer Mode.



- Scroll Knob: Use this knob to change which column of parameters the Q-Link Knobs currently control.
- 14. 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 software).
- 15. 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).

If the selected field in the display is a number, you can press **Numeric** and use the pads as a standard numeric keypad to enter a value. The numbers are printed in green above the pads.

16. **Pad Bank Buttons:** These 4 buttons switch among Pad Banks A–H (press and hold **Shift** to access Banks E–H). Between these 8 banks with 16 pads per bank, you can access up to 128 MIDI events using the pads.



- 17. Pad Assign / Pad Copy: Press this button to assign a sample to a pad. In the display, the 4 x 4 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).
 - You can use this button to copy the samples and parameters from one pad to another. While holding **Shift**, press this button, press the "source" pad, press the "destination" pad, and then release **Shift**—the samples and parameters will be copied automatically from the source pad to the destination pad. Alternatively, use the **Cursor Buttons** to select the **From Pad** ("source") or **To Pads** ("destination") field and press a pad to select it (you can copy to multiple pads). Use the **F-Buttons** to confirm or cancel the operation.
- 18. 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 press them. Hold down Shift and press this button to activate/deactivate Half Level. When activated, the pads always play back at half-velocity (63).
- 19. **16 Level:** Press this button to activate/deactivate 16 Level. When activated, the last pad that was pressed 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 press them. In the software, in the window that appears, click the **Type** menu to select the parameter: *Velocity*, *Tune*, *Filter*, *Layer*, *Attack*, or *Decay*.
 - You can change the pad by clicking the **Pad** drop-down menu in the window that appears. Alternatively, you can press and hold the **16 Level** button, press the desired pad, and then release both.
- 20. 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. Alternatively, press the Note Repeat button twice in succession. 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 and View Controls

- 21. Shift: Hold this button down to access some buttons' secondary functions (indicated by orange writing). You can also double-press it to "latch" it for a few seconds. To unlatch it, press it once more or wait a few seconds for it to unlatch automatically.
- 22. **Main / Track:** Press this button to enter Main Mode in the display and software. Hold down **Shift** and press this button to enter Track View Mode in the display and software.



- 23. 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).
- 24. Prog Edit / Q-Link: Press this button to enter Program Edit Mode 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.
- 25. **Prog Mix / Track Mix:** Press this button to enter Program Mixer Mode in the display and software. Hold down **Shift** and press this button to enter Track Mixer Mode in the display and software.
- 26. Seq Edit / Effects: Press this button to enter Sequence Edit Mode. Hold down Shift and press this button to enter the Effects page in the display, where you can select and route effects as well as edit effects' parameters.
- 27. Sample Edit / Sample Rec: Press this button to enter Sample Edit Mode in the display and software. Hold down Shift and press this button to enter Sample Record Mode in the display and software.
- 28. **Song / Other:** Press this button to enter Song Mode in the display and software. Hold down **Shift** and press this button to enter MIDI Control Mode, which lets you edit various MIDI parameters for the pads, Q-Link Knobs, and certain buttons on your hardware while in this mode.
- 29. Step Seq: Press this button to enter Step Sequence Mode in the display and software.
- 30. Next Seq: Press this button to enter Next Sequence Mode in the display and software.
- 31. **Track Mute / Pad Mute:** Press this button to enter Track Mute Mode in the display and software. Hold **Shift** and press this button to enter Pad Mute Mode in the display and software.
- 32. **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 the software. In Full Screen Mode, the workspace occupies the whole window. In Half Screen Mode, the parameter controls (Q-Link Knobs, pads, Sequence and Track information, Project Information, etc.) are shown underneath the workspace.
- 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 File Browser's Folder 1 shortcut.



- 34. **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 File Browser's Folder 2 shortcut.
- 35. **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 File Browser's Folder 3 shortcut.
- 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 File Browser's Folder 4 shortcut.
- 37. **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 File Browser's Folder 5 shortcut.

Transport and Recording Controls

- 38. Play: Press this button to play the Sequence from the audio pointer's current position.
- 39. Play Start: Press this button to play the Sequence from its start point.
- 40. **Stop:** Press this button to stop playback.
- 41. **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.
- 42. **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.
- 43. < / > (|< / >|): 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.
- 44. <</></ > (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.
- 45. **Go To:** Hold this button down to activate the secondary functions of the < / > and << / >> buttons (i.e., |< / >| and **Start / End**, respectively).
- 46. **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.
- 47. **Tap Tempo:** Press this button in time with the desired tempo to enter a new tempo (in BPM) in the software.



Quick Start / Tutorial

This chapter should help you to familiarize yourself with some basic MPC features. To get the most out of this tutorial, we recommend reproducing each of the described steps.

The MPC hardware's display reflects what it is 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.).

Hardware:

- 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 MPC hardware display shows a series of parameters that cannot be selected with the Cursor Buttons, that means it is showing you what the Q-Link Knobs are controlling. When you touch a Q-Link Knob, 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).

MPC Studio users: MPC Studio's **Q-Link Knobs** control one column of parameters at a time. Whenever this manual instructs you to use the **Q-Link Knobs** to adjust parameters, you can use the **Scroll Knob** (above the **Q-Link Knobs**) to move through the different columns.

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!

Starting Up

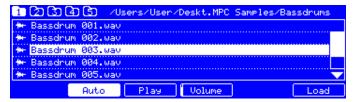
- Power on your computer, and make sure the MPC hardware driver and software are both properly installed on your computer.
- Connect your MPC hardware to your computer with a standard USB cable and power it on. After that, open the MPC software.

Now, you're ready to go!



Creating a Drum Kit

Let's start by making a simple drum kit.



The Browser display of the MPC hardware.

Hardware:

 Press the Browser button and use Cursor Buttons to navigate to where your drum sounds are located:

Use the Up or Down Cursor Buttons to move through a list

Use the Right Cursor Button to enter a selected folder,

Use the **Left Cursor Button** to go to the previous folder.

- To preview a selected sound, press the F3 button (Play). You can also activate the Auto Preview option with the F2 button (Auto).
- 3. First, let's load a bass drum. Press **Pad 1** to select it. The pad will be lit in green. Navigate to a bass drum sample you like and press **F6** (**Open**) to assign it to the selected pad. Now, you can press Pad 1 to play the bass drum sample.
- 4. To create a simple drum set, repeat the above steps for other pads. We recommend loading a snare drum, a closed hi-hat, and an open hi-hat. Feel free to add a crash cymbal, too.

Now that your drum kit is set up, you can record a drum Sequence!



Recording a Drum Sequence

Let's record a drum Sequence.

Hardware:

- Press the **Rec** button to activate Record Mode.
- To start the actual recording, press the Play button. The pre-count will count one measure before the software starts to record. We recommend recording only one sound (pad) at a time, especially if you are not familiar with playing on the pads.
- 3. Play a simple bass drum pattern. The note events you just recorded will automatically be placed in the grid (in this case, on 16th notes). The initial measure length is two bars. After the two bars, the recording will enter Overdub Mode automatically; the Sequence plays again from the beginning and keeps looping, allowing you to record further notes. Don't stop the recording!
- 4. Play the snare drum part, then a hi-hat part.
- 5. When you're done recording, press the **Stop** button.
- 6. 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 start again from Step 1 but press the **Overdub** button instead of the Rec button; Overdub lets you record additional note events over the existing Sequence.
- 7. The Undo button functions 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 Play or Play Start was pressed).
- 8. Want to add a crash cymbal? In this case, it is easier to create it directly in the software by clicking the desired position in the grid, in the same row as the crash sample.

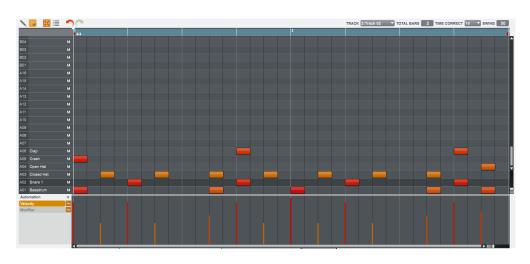


Organizing Samples and Editing Note Events

We recommend naming and editing your files before recording any further. Let's use the software, which is easier for editing.

The collection of drum samples you loaded earlier (and their respective pad assignments) are arranged in a **Program**. Let's rename the exisiting Program as we'll want to create more Programs later on. Rightclick **Program 001** in the **Project Information** panel, and select **Rename**. Name the Program (e.g., *Drums*), and click **OK**.

Right-click the name of a sample (e.g., *Bassdrum-01*), and select **Rename**. Enter a suitable name for the sample (e.g., *Bass Drum 1* or *Kick 1*). Repeat this for the other samples in the Program. This will help keep your Program organized as you add more samples to it.





In the grid, you can see your recorded note events. Click and drag a note to move it to a different position. By default, you can position notes only by quantization values, defined by the **Time Correct** value. You can change the value by clicking the **Time Correct** drop-down menu. We recommend working with 8 or 16 values. Hold down your keyboard's **Shift** key and use the arrow keys to nudge events without restricting ("snapping") them to the grid.

Hold down your keyboard's **Control** key (Windows) or **%** key (Mac OS X) and click and drag a note to copy it. Double-click a note to delete it.

Velocity data can be easily edited in the velocity lane below the grid. Click a note event or place the mouse over a velocity bar in the lane. A small round handle will appear at the top of the velocity bar. Move the mouse vertically to change its value.



Making Basic Sound Edits

Let's make sure the samples are properly tuned and have good levels.

Hardware:

- 1. Press the **Prog Mix** button to enter Program Mixer Mode.
- Press the F1 button (Level) to control the volume for each pad. You can use the hardware's Q-Link Knobs as well as the corresponding faders in the software. Adjust the levels of each pad to suit your taste.
- 3. Press **F2** (**Pan**) to control the stereo panning for each pad. You can use the hardware's **Q-Link Knobs** as well as the corresponding **Pan** knob in the software. We recommend spreading the panning of the bright sounds (e.g., cymbals, snare drum) a little.
- 4. The snare drum needs a small amount of reverb to give it a more spatial sound. Press F5 (Insert) to view the Insert Effect tab. Use the Cursor Buttons to navigate to the snare sample's pad (here, A02). Using the Data Dial, select the desired effect, and press F4 (Select) to load it. Let's try Reverb Medium.
- 5. Could the bass drum use some tuning? Press the Prog Edit button and press Pad 1 to select the bass drum. Press 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 Laver section of the software.





Recording a Bass Track

Let's try recording a bass line. Unlike a drum kit, it's important to be able to play and record a bass sound chromatically, so this will be slightly different than setting up the drum kit.

Adding a bass line over the drum part means we need to add a new Track. A **Track** is simply a layer of a Sequence; you can have multiple Tracks in a single Sequence (e.g., a drum Track, a bass Track, a piano Track, etc.), and they all play simultaneously when you play the Sequence.

First, select a new Track. Go back to Main Mode and select **Track 2 (unused)** in the **Track** drop-down menu above the grid.

Hardware: Press the Main button and then press the F4 button (Track+) to move to the next Track.

Let's create a new Program to assign to this empty Track:

- In the Track Section in the lower half of the window, click the + button next to the Program dropdown menu.
- 2. In the **Project Information** on the right, right-click the new Program (**Program 001**) and enter a name (e.g., *Bass*).
- 3. Back in the **Track** Section, click the **Type** drop-down menu and select *Keygroup*. This is necessary because we want to play the bass sound chromatically with the pads.

Now, let's load a bass sound:

 Click the File Browser's drop-down menu for an overview of your hard disk structure and select a location. Double-click any displayed folder in the File Browser to open it.

iamples/Drum Samples/Akai MPC-60 ▼

Locate and select a bass sample. Click the **Preview** button to preview any selected audio sample.



Double-click a sample to add it to the Project. (Keep in mind that the sample is not yet assigned to a pad.)



Let's continue to set up the Keygroup Program:

1. Click the **Program Edit** tab to enter Program Edit Mode.

Hardware: Press the Prog Edit button to enter Program Edit Mode.

 In the Layer section, click the Layer 1 drop-down menu and select the bass sample you just loaded (you'll see your drum samples in this list, as well). Because you're working with a Keygroup Program instead of a Drum Program, this sample is now playable across all pads.



Tip: On your MPC hardware, press the **Pad Bank D** button to switch to Pad Bank D and press **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.

Let's add a second layer and set the Layers' velocity ranges so our bass sounds different when played at a higher velocity (as a real bass would):

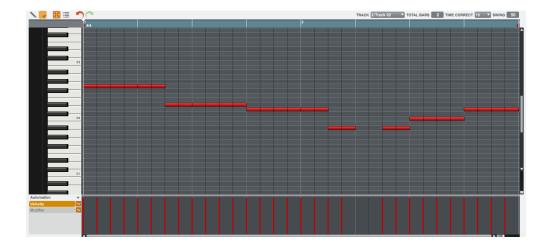
- Go back to the File Browser and select a different bass sample that sounds similar but a little bit brighter.
- 2. Double-click a sample to add it to the Project.
- 3. Back in the **Layer** section, click the **Layer 2** drop-down menu and select the new bass sample. Press a pad—both samples will sound at once. Maybe this new sound is interesting as it is, but let's make some quick edits to get as close as we can to a real-life bass sound.
- Set Layer 1's Velocity slider to cover the velocity range from 0 to 80, and set Layer 2's Velocity slider to cover the range from 81 to 127.

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





Let's record that bass line now. Prepare your recording as described earlier, and record some bass notes. You can edit your recording just like we've done earlier.





Once you've recorded it, let's tweak it a bit in the **Filter** section of the **Program Edit** menu. For this, let's use the MPC hardware.

Hardware:

- Press Prog Edit to enter Program Edit Mode, and press F4 (Fit Env) to enter the Filter page.
- Turn Q-Link Knob 13 to select a filter for the Filter Type field. We recommend working with the Low 4 type, to start.
- Turn the Cutoff and Reso (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 Amp Atk (Amplifier Envelope Attack) and Amp Rel (Amp Envelope Release). These control the overall level characteristics of the sound.
- 5. Do you want to add an effect (e.g., *Chorus*)? Press **F6** (**Effects**) and select the desired effect type for your bassline. (Remember to turn the **Inserts** parameter in the upper-right corner of the display to *On*.)



So far, we've created a simple drum Sequence and a bass line to go with it. Repeat this process to create a second Sequence.



Creating a Song

This section explains how to make a Song out of your Sequences. Before starting, make sure that you have recorded some Sequences (which we described earlier in this chapter)!

Click the **Song** tab to open Song Mode. Each of the Sequences you've created in this Project is assigned to a pad.

Click and drag a pad with the desired Sequence onto the **Sequence Playlist** to the left of the pads. Alternatively, if you prefer viewing a horizontal timeline, you can click and drag it onto the workspace above the pads.



As a Song plays, it moves through the each **Step**, which has a **Sequence** you assigned. Each Sequence may (or may not) be repeated, determined by the value in the Repeats (**Rpts**) column (a Rpt value of *1* means the Sequence will play through only once).

Each step can be set to play its Sequence at an independent tempo, determined by the value in the **BPM** column. The **Bars** column indicates the length of the Sequence for that step.

Click any drop-down menu in the **Sequence** column to select a new Sequence for that step. Click and drag up or down on a **Rpts** value to change it.

Exporting the Song

Want to share your new Song with your friends? All you need to do is export it.

While in Song Mode, click the File menu, select Export, and select As Audio Mixdown.

In the Audio Mixdown window, select your mixdown settings.

- Set the **Start** field to 1, and set the **End** field to the last bar of your Song.
- As the Song will likely be uploaded to the Internet, select the mp3 file format option.
- Choose a save location.

Click **Export** to start exporting the Song.

To learn more about the Audio Mixdown options, please see **General Features > Software Menus > File Menu**.



Other Features Explained

This chapter describes various advanced features. These sections explain how to perform these operations by using mostly the MPC hardware, but all of them are also possible in the software. For a fuller explanation of these features, please refer to their corresponding sections in the *Operation* (*Software*) chapter.

Step Sequencer

You've already learned how to record note events on a Track, but you can quickly enter note events in Step Sequence Mode by using the pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine.

Hardware:

- 1. Press Step Seq to enter Step Sequence Mode.
- Start a new Track by using the Cursor Buttons to select the Trk field and use the Data Dial or -/+ buttons to select an unused Track. Let's use Track 04.
- Use the F2 (Bar-) and the F3 (Bar+) buttons to select the bar whose steps you want to create or edit.
- 4. Use F5 (Pad-) and F6 (Pad+) to select the pad whose steps want to create or edit. The pad number and its sample name will appear in the upper-right corner of the display. Alternatively, you can use the Cursor Buttons to select the Pad field in the upper-right corner and use the Data Dial or -/+ buttons to select a pad.
- 5. Press the **Play** button to start your Sequence.
 - Each pad represents a step in the bar. If the pad already has note events on the selected Track, the corresponding pads (steps) will be lit with colors corresponding to their velocities.
 - Press an unlit pad to enter a note event at that step. The pad will light up with a color corresponding to its velocity.
 - Click a lit pad to delete the note event from that step. The pad will be unlit.

See the **Step Sequence Mode** chapter to learn more about this feature.



Drum Loops and Chop Mode

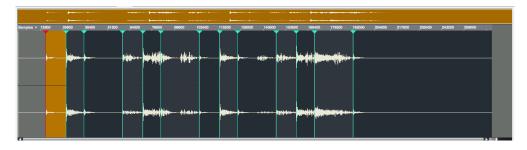
Modern music producers often use drum loops to add grit and nuance to programmed beats. This section explains how to use Sample Edit Mode to work with drum loops.

Use the File Browser to locate a drum loop on your hard disk (the loop does not have to match the tempo of anything in the Project). Double-click the desired drum loop to add it to the current Program.

Hardware:

- 1. Press the **Sample Edit** button to enter Sample Edit Mode.
- 2. 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.
- 3. Press F1 (Chop) to enter the Chop Mode where the drum loop will be cut into slices.
- 4. Use the **Cursor Buttons** to select the **Threshold** parameter, and use the **Data Dial** or -/+ buttons select a value. The higher the value, the more slices will be created. Be sure to select a value so that every transient peak of the drum loop has a corresponding a slice marker.

Tip: Press F4 (Audition) to play the created slices with the pads. Each slice will be automatically assigned to a pad: Pad A01 plays Slice 1, Pad A02 plays Slice 2, etc.

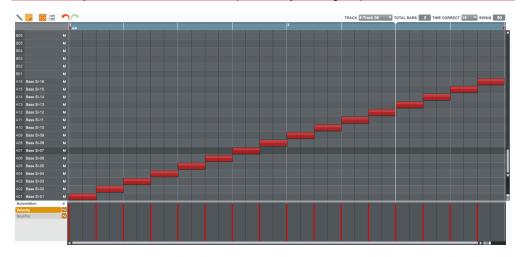




Hardware:

Now, let's create a new Program containing all of these slices as individual samples. It will also automatically create corresponding note events to play back these slices sequentially.

- 1. Press **F5** (**Convert**) to enter the **Convert Slices** page.
- Use the Cursor Buttons to select the following parameters and use the Data Dial or -/+ buttons select the value indicated as follows: Convert to Sliced Samples, Crop Samples to On, Create New Program to On, Create Events to On, and Program to the same Program the original drum loop was from.
- 3. Press **F6** (**Do It**) to proceed. Each slice will be assigned to a pad, and each pad will have a recorded note event in the Track. When you play that Track, it will play each pad (each slice) in the original order.
- 4. Press Play and listen to how the drum loop matches your Song tempo now.





You can also edit the note events of the drum loop slices—enter Main Mode to do this. A new Track with the note events playing their corresponding slices has been automatically created. Click the **T Correct** drop-down menu to use Time Correct to quantize the note events so they fall on exact, even time intervals. You can also rearrange the note events, thus creating a new playback order for the slices. You can also edit each slice or sample in 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.

See **Sample Edit Mode > Chop Mode** to learn more about this feature.



Pad Muting and Track Muting

Pad Mute Mode and Track Mute Mode let you silence different pads and Tracks to see what the Sequence sounds like without those samples or parts.



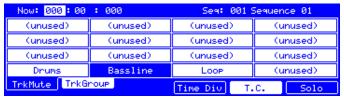
The Pad Mute display of the MPC hardware.

Hardware:

- 1. Select your basic drum Track.
- Press and hold the Shift button and press the Track Mute / Pad Mute button to enter Pad Mute Mode.
- 3. Press **Play** to play the Sequence.
- 4. Mute a pad by pressing it once. The muted pad will be lit red. You can mute multiple pads at the same time.
- To mute pads on another Track, press Shift + Main / Track and press 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 similar Track Mute function.



The Track Mute display of the MPC hardware.

Hardware:

- 1. Press the **Track Mute** button to enter Track Mute Mode.
- 2. Press **Play** to play the Sequence.
- 3. Mute a Track by pressing the corresponding pad once. The muted pad will be lit red. You can mute multiple pads at the same time.
- 4. To mute a Track only at precise note intervals ("quantizing" your mutes, essentially), you can set a musical timing value by pressing the F4 button (Time Div). Use the Data Dial or -/+ buttons to set a musical value (e.g., 1 bar). Press F4 (Close) to close the page. Now, when you press a pad 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.



Sample Recording

This section describes recording new samples of your own, which you can use in your Projects.

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

MPC Studio users: This section describes recording using MPC Renaissance as your sound card. MPC Studio cannot be used in this way, but you can use a separate audio interface connected to your computer to record audio.



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

Hardware:

- Press and hold the Shift button and press the Sample Edit / Sample Rec button to enter Sample Record Mode.
- Connect a suitable microphone to a **Mic In** jack of your MPC Renaissance. Make sure to set the input switch to *Mic*.
- 3. Set the **Mic In / Phono In** switch on the top panel to *Mic In* and turn up the **Rec Gain** dial. In the 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).
- 4. Use the **Cursor Buttons** to select the **Threshold** parameter and use the **Data Dial** or **-/+** buttons to set it to a fairly low level (e.g., -70 dB).
- 5. Press **F6** (**Record**) and sing/say/shout something into the microphone. Recording starts immediately when the input signal level reaches the threshold value.
- 6. Press **F6** (**Stop**) again, to stop recording.

If you're happy with your recording, name the new sample in the software in the window that appears when you stop recording. You should also assign the sample to an unused pad. Simply press the pad to assign the sample! After that, click **Keep**.

See the **Sample Record Mode** chapter to learn more about this feature.



Sample Editing

Select the sample in the **Project Information** and right-click it. In the drop-down menu, select **Edit**. Sample Edit Mode will open.

Hardware:

- 1. Press **F2** (**Trim**) to enter Trim Mode.
- 2. Use Q-Link Knobs Q1, Q5, Q9, or Q13 to define a suitable start point for your sample.
- 3. Use Q-Link Knobs Q2, Q6, Q10, or Q14, to define a suitable end point for your sample.
- 4. To hear your edits, press Pad A15 to play the sample from the new start point to the new end point.



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

Let's apply some transformations to the sample.

Hardware:

- 1. Press **F6** (**Process**) to enter the Process Sample window.
- 2. With the **Data Dial** or -/+ buttons you can select the desired option. Let's try *Pitch Shift* to change the overall pitch of your sample.
- 3. Use the **Cursor Buttons** to select the **Pitch** parameter and set it to 5.0. This will transpose the sample by 5 semitones without affecting the sample's length.
- 4. Press F5 (Do It) to finalize the edit process.

See the **Sample Edit Mode** chapter to learn more about this feature.



Recording Automation with the Q-Link Knobs

Automating various parameters is a good way to add some motion and dynamism to your Sequences.

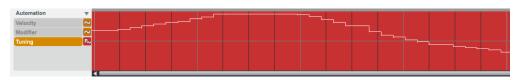
- In the software, click the Main Mode tab to open Main Mode. Press a pad that has a sample assigned to it.
- 2. In the Q-Link section, click the Prg button.
- 3. Turn Q-Link Knob Q1 to activate it for assignment.
- 4. Click the **Pad** menu and select the pad you pressed earlier.
- 5. Click the **Change** menu and select *Real Time*, and then click the **Param** menu and select *Tuning*.
- 6. Repeat Steps 3-5 for **Q-Link Knob 2**. Assign it to the same pad, and select *Real Time* as the **Change**, but select *Pan* for the **Param** menu.
- On the Program Channel strip, click the **Automation** button (curve icon, under the Mute button) until it turns red and has a W.



8. Record the automation using your MPC hardware:

Hardware:

- 1. Press the **Overdub** button to arm your automation recording. Press **Play** to start it.
- 2. Use Q-Link Knobs Q1 and Q2 to record filter movement as desired.
- 3. Press **Stop** to finish the automation recording.



Want to see what you've recorded? In the software, to the left of the velocity lane under the grid, under the **Automation** menu, click **Tuning** or **Pan**. The automation curve will appear in the lane. If part of the curve is still not quite what you want, select the Pencil Tool in the upper-left corner and draw in your own automation curve.

See General Features > Grid View > Recording Automation and Manually Entering and Editing Automation to learn more about this.



Using MPC as a Plugin

If you're working with other audio software, you can use the MPC software as an instrument plugin (VST, AU, RTAS, or AAX format) within your host software. The MPC plugin offers the same features and functionality as the standalone software version but with some notable differences, which are discussed in the *Operation (Plugin)* chapter.

Note: To learn how to load and use an instrument plugin in a host application, please refer to the corresponding chapter of your host application's manual.



Operation (Software)

This chapter explains the complete features and functions of the MPC software.

Important: When using the MPC software as a plugin, its features and functions are very similar to how it is described in this chapter but with some notable differences, discussed in the **Operation (Plugin)** chapter.

Remember:

- In this manual, whenever the MPC hardware can be used to control a parameter or a function, this is explained separately in a light-red box labeled Hardware, MPC Renaissance, or MPC Studio (as below on this page). Note that these paragraphs are not the only parts of the manual that mention the MPC hardware!
- We strongly recommend using the MPC hardware to control the software as its intuitive and fast operation will greatly enhance your workflow.

Hardware:

- The MPC hardware display reflects what it is 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 display shows a series of parameters that cannot be selected with the Cursor Buttons, this means that the display 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).
- When accessing the secondary functions of buttons on your MPC hardware, you can do this one of
 two ways: (1) pressing and holding Shift and then pressing the desired button or (2) doublepressing the desired button. This manual describes these operations using only the first option, but
 both are acceptable.
- When the Window button lights up red, it means the currently selected field in the MPC hardware
 display contains a secondary window. Press the Window button to open that window, and adjust
 any settings or parameters as desired.



General Features

Adjusting the Controls

Tip: If you use a computer mouse with scroll wheel, you can use it to affect some of these controls: place your mouse pointer over the control and use the scroll wheel to change it. If you hold down your keyboard's **Shift** key while doing this, you can increase the resolution.

The MPC software uses the following types of control elements:

Knobs

To set a value, click the knob, hold the mouse button, and drag the knob up and down. Alternatively, you can edit values by using your mouse scroll wheel.



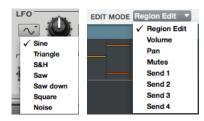
Parameter Values

To set a value, click and hold the mouse button on the field, and drag the mouse up and down.



Drop-Down Menus

Click the downward arrow (∇) to open a drop-down menu where you can select the desired setting or parameter.





Switches

Switches are represented by "LEDs." If a function is active, its LED will be lit red. To activate a function, click it. Any other LEDs in its set will be automatically deactivated.



Buttons

Click a button to activate or deactivate its function. Buttons are red when they are activated.



Envelope Displays

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



Pencil and Select Box Icons

Clicking this icon will switch between Draw Mode (the Pencil Tool) and Select Mode (the Select Box tool).



Draw Mode:

- Click once on an empty square in the grid to place a note event in that square.
- Double-click a note event to erase it.

Select Mode:

- Click and drag the box over note events on the grid to highlight them.
- Double-click an empty square in the grid to add a note event.
- Double-click a note event to erase it.



Program Types

About Programs

A Program is a file that contains (1) a list of all samples used and (2) the settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.) Program Edit Mode lets you edit and assign samples. A single Project can hold a total of 128 Programs.

There are two kinds of Programs that use samples as their sound source: **Drum Programs** (used mostly for creating drum parts and quickly and easily assigning samples to pads) and **Keygroup Programs** (in which you can assign one or more samples to one or more keys and play them

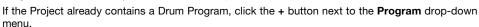


chromatically with a MIDI keyboard or the MPC hardware pads). Two other kinds of Programs use MIDI data only: **Plugin Programs** and **MIDI Programs**. This section covers how to create each Program type. To learn about editing your Programs to your preference, see the **Program Edit Mode** chapter.

Drum Programs

To create a Drum Program in the software:

- 1. Click the Main Mode tab to enter Main Mode.
- 2. In the **Track** Section, click the **Type** drop-down menu and select *Drum*.
- 3. If the Project does not contain a Drum Program yet, a new Drum Program will automatically be added to the Project.



4. Click the name in the **Program** drop-down menu, and enter an appropriate Program name.

Hardware: To create a Drum Program:

- 1. Press Main to enter Main Mode.
- 2. Use the Cursor Buttons to select the Pgm field, and then press the Window button.
- 3. In the **Edit Program** window that appears, press **F3** (**New**) to create a new Program.
- Use the **Data Dial** or -/+ buttons to select *Drum* as the **Type**, and then press **F5** (**Do It**) to confirm or **F4** (**Cancel**) to cancel.





To load samples into a Drum Program, click and drag a sample onto the desired pad (in the pad display or its row in the grid) from one of the following locations:

- the File Browser
- the Project Information
- your computer's **Explorer** (Windows) or **Finder** (Mac OS X)

The sample will be assigned to the corresponding pad.

Tip: By following the same process described earlier, you can also load an entire folder of samples into a Program by dragging the folder onto a pad. Each sample will be assigned to a pad in alphabetical order, starting from the "destination" pad and ascending from there, one sample per pad.

Hardware: Press the **Browser** button. Choose a pad you want to assign a sample to. Locate the desired sample and press **F6** (**Open**) to load it. The sample is now "placed" on that pad.



The Browser display of the MPC hardware.

Hardware: Press the **Prog Edit** button, and then press **F1** (**Master**). With the **Q9**, **Q5**, and **Q1 Q-Link Knobs**, you can assign additional samples to the selected pad. You can assign up to four samples per pad (one for each Layer).

In the software, click the **Program Edit** tab. With the **Sample** drop-down menus of Layer 2 to Layer 4, you can assign additional samples to the selected pad. You can assign up to four samples per pad (one for each Layer).

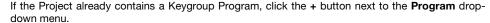
Remember: A Drum Program holds 128 pads: 16 pads across eight banks.



Keygroup Programs

To create a Keygroup Program in the software:

- 1. Click the **Main Mode** tab to enter Main Mode.
- In the Track Section, click the Type drop-down menu and select Keygroup.
- 3. If the Project does not contain a Keygroup Program yet, a new Keygroup Program will automatically be added to the Project.



TRACK

2:Track 02

VELOCITY 100

PROGRAM Bass

TYPE Keygroup

VH.

4. Click the name in the **Program** drop-down menu, and enter an appropriate Program name.

Hardware: To create a Keygroup Program:

- Press Main to enter Main Mode.
- 2. Use the Cursor Buttons to select the Pgm field, and then press the Window button.
- 3. In the **Edit Program** window that appears, press **F3** (**New**) to create a new Program.
- Use the Data Dial or -/+ buttons to select Keygroup as the Type, and then press F5 (Do It) to confirm or F4 (Cancel) to cancel.

To load samples into a Keygroup Program:

- In the File Browser, double-click the desired sample. The sample is now loaded in the current Project.
- 2. Click the **Program Edit** tab.
- Click Layer 1's Sample drop-down menu to select and assign a sample to the Keygroup Program.
 The loaded sample can now be played chromatically with the pads or a connected MIDI keyboard.

Hardware:

- Press the Browser button.
- Locate the desired sample and press F6 (Open) to load it. The sample is now loaded into the current Project.
- 3. Press Prog Edit.
- Press the F1 (Master) button and use Q-Link Knob Q13 to assign the sample to the Keygroup Program.



In the software, click the **Program Edit** tab. With the **Sample** drop-down menus for **Layer 2** to **Layer 4**, you can assign up to four samples (loaded into the **Project Information** beforehand) to create velocity layers or make other layer-dependent adjustments.

Hardware: Press the **Prog Edit** button. Press **F2** (**Samples**). With the **Q9**, **Q5**, and **Q1 Q-Link Knobs**, you can load additional samples to your existing one. These samples are placed in up to four 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).

Remember: A Keygroup Program offers up to 128 Keygroups, and each Keygroup can hold up to four samples (Layers 1 to 4). This is a total of 512 samples.



Plugin Programs

A Plugin Program lets you send your Tracks' MIDI data to a loaded plugin. This lets you set multiple Tracks to use the same plugin instead of loading an instance of a plugin on every Track (which can be cumbersome and CPU-intensive).

To create a Plugin Program:

- 1. Click the **Main Mode** tab to enter Main Mode.
- In the Track Section, click the Type drop-down menu and select Plugin.
- If your Project already contains the desired plugin, click the **Program** drop-down menu to select it.
 If your Project does not contain the desired plugin yet:
 - 1) Click the + icon next to the **Program** drop-down menu. A new Program name (*Plugin ###*) will appear, which you can click to edit.
 - 2) Click the **Plugin** drop-down menu. In the window that appears, you can click checkboxes to re-order your list of plugins: **Sort by type** or **Sort by manufacturer**.
 - 3) Select the desired plugin from the list, and click **Select** to select it or **Close** to cancel. Click the **e** button to open the user interface of the loaded plugin.

Remember: You have to specify the disk directory where your plugins are located. This can be done in the software's **Preferences**. See **Software Menus > Edit Menu > Preferences**: **Plugins Tab** for more information.

4. To enter a Program name, click the name in the **Program** drop-down menu, and type a name.

To select the MIDI channel the Program will use, click the **MIDI Ch** drop-down menu and select one (from 1 to 16). Use this setting when you are working with a virtual instrument that supports multi-mode.

To select a preset for your plugin (if any), click the **Preset** drop-down menu.





Hardware: To create a Plugin Program:

- 1. Press **Main** to enter Main Mode.
- 2. Use the Cursor Buttons to select the Pgm field, and then press the Window button.
- 3. In the Edit Program window that appears, press F3 (New) to create a new Program.
- Use the **Data Dial** or -/+ buttons to select *Plugin* as the **Type**, and then press **F5** (**Do It**) to confirm or **F4** (**Cancel**) to cancel.
- 5. Use the Cursor Buttons to select the Plg field.
- Use the **Data Dial** or -/+ buttons to select the desired plugin, and then press **F4** (**Select**) to confirm or **F3** (**Back**) to cancel.
- 7. To select the MIDI channel the Program will use, use the **Cursor Buttons** to select the **Ch** field, and use the **Data Dial** or -/+ buttons to select one (from 1 to 16).

To select a preset for your plugin (if any), use the **Cursor Buttons** to select the **Plg** field, and then press the **Window** button. Use the **Data Dial** or -/+ buttons to select the desired preset, and then press **F5** (**Select**) to confirm or **F4** (**Close**) to cancel. You can also press **F2** (**AutoSel**) to load each preset immediately as you select it.



Selecting the PIg field in the Main Mode of the MPC hardware display.



Preset selection for Plugin Programs in the MPC hardware display.



To adjust the volume and panning of a Track using the Plugin Program, click the **Track Mixer** tab to enter Track Mixer Mode, and adjust that Track's volume slider or pan knob, respectively. (If the Track channel strips are not shown, click the **Show Tracks** icon on the left edge of the window.)

By default, the volume and pan values will initially appear as ?, indicating the Program is not sending any volume or pan changes.

The volume and panning of the Plugin Program itself will appear (and can be adjusted) as normal.

Important:

If you copy a Sequence, the volume and pan values will be copied with that Sequence. If you move to a new Sequence and put the same Plugin Program on a new Track, though, these values will appear as ?, as described above.

By default, some plugins do not support MIDI volume and pan. In this case, adjust volume levels and panning on the Track.

Hardware: To adjust the volume and panning of a Track using the Plugin Program or the Plugin Program itself:

- 1. Press Shift + Prog Mix / Track Mix to enter Track Mixer Mode.
- 2. Use the Cursor Buttons to highlight the Mixer field at the top of the display
- 3. Use the **Data Dial** or **-/+** buttons to switch between *Track* and *Programs*.
 - *Track* will show the information for the Track channel strips.
 - *Programs* will show the information for the Program channel strips.
- 4. Press F1 (Level) or F2 (Pan) to select the desired tab.
- 5. Use the **Q-Link Knobs** to adjust the volume levels or pan settings of your Tracks or Plugin Programs.







Tracks in Track Mixer Mode in the MPC hardware display.



Programs in Track Mixer Mode in the MPC hardware display.



MIDI Programs

To create a MIDI Program:

- 1. Click the Main Mode tab to enter Main Mode.
- 2. In the **Track** Section, click the **Type** drop-down menu and select *Midi*.
- 3. If the Project does not contain a MIDI Program yet, a new MIDI Program will automatically be added to the Project.
 - If the Project already contains a MIDI Program, click the ${\bf +}$ button next to the ${\bf Program}$ drop-down menu.
- 4. Click the name in the **Program** drop-down menu, and enter an appropriate Program name.



Hardware: To create a MIDI Program:

- 1. Press **Main** to enter Main Mode.
- 2. Use the Cursor Buttons to select the Pgm field, and then press the Window button.
- 3. In the **Edit Program** window that appears, press **F3** (**New**) to create a new Program.
- Use the Data Dial or -/+ buttons to select Midi as the Type, and then press F5 (Do It) to confirm or F4 (Cancel) to cancel.

Unlike Drum Programs and Keygroup Programs, which use samples imported into the software, your MIDI Program will send MIDI messages to an external sound module (a connected drum machine, synth, etc.). You will need to set up the MIDI Program to do this properly. See *Main Mode > Track Section* for more information on how to properly configure your MIDI Program.

To adjust the volume and panning of a Track using the MIDI Program, click the **Track Mixer** tab to enter Track Mixer Mode, and adjust that Track's volume slider or pan knob, respectively. (If the Track channel strips are not shown, click the **Show Tracks** icon on the left edge of the window.)

By default, the volume and pan values will initially appear as **?**, indicating the Program is not sending any volume or pan changes.

Important: If you copy a Sequence, the volume and pan values will be copied with that Sequence. If you move to a new Sequence and put the same MIDI Program on a new Track, though, these values will appear as **?**, as described above.





Browsers

File Browser

The File Browser lets you navigate through your computer's internal and external hard disks to load samples, Sequences, Songs, etc. Using filter buttons and user-definable folders, you can easily adapt the File Browser to your preferred workflow. You can also preview (audition) your samples before loading them and set the preview volume.

In the software, the File Browser is in the left area of the window. Show or hide it by clicking the triangle button (◀ or ▶) in the lower-left corner of the window. Alternatively, click the **View** Menu and select **File Browser**, or press **Shift+B** on your computer keyboard.

Hardware: To enter the **File Browser**, press the **Browser** button.

To get the most efficient use of the File Browser, set the file path to your hard disk(s) first. There are five **Folder 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) to give you quick access to your files.

Note: The File Browser does not display irrelevant files (e.g., text documents, spreadsheets, pictures, etc.).

To set the file path:

- Click the File Browser's drop-down menu. You'll see an overview of your hard disk structure, which looks quite similar to the Explorer (Windows) or the Finder (Mac OS X).
- Select the desired location. The folder's content will appear in the File Browser.
- Press and hold your computer's Shift key and click one of the Folder Buttons (1 – 5) at the top of the File Browser.

Now, when you click that Folder Button again, the File Browser will display that folder's content immediately.





You can filter the displayed files with the filter buttons. The selected buttons will light red. Click **No Filt** to switch the filter function off. Click **Proj**. to show only Project files. Click **Seq**. to show only Sequence files. Click **Prog**. to show only Program files. Click **Sample** to show only audio files.

To load a Project, double-click its corresponding .xpj file in the File Browser.

To load a single sample or multiple samples into a Project, click and drag the files onto the **Pad Bank** Section, the grid, or the **Project Information**. You can select a single file or multiple files in the following ways:

- To select a single file in the File Browser, click it.
- To select multiple adjacent files in the File Browser, click the first file, press and hold your keyboard's Shift key, and then click the last file. All files between (and including) those two files will be selected.
- To select multiple files in the File Browser that are not adjacent, click the first file, press and hold your keyboard's Control key (Windows) or \$\mathbf{x}\$ key (Mac OS X), and then click any additional file(s) you want to select. Release the Control key or \$\mathbf{x}\$ key when you have finished selecting the files.

Tip: You can also click and drag files from your computer's **Explorer** (Windows) or **Finder** (Mac OS X) instead of from the File Browser.

Hardware:

- Use the following buttons for the File Browser filter functions: No Filter to deactivate the filter (same
 as the No Filt button in the software), Project for Project filter, Sequence for Sequence filter,
 Program for Program filter and Sample for sample filter.
- Use the Shift button and the five Folder buttons to select the desired location on your hard disk.
- Once a location is selected, you can select any file with the Data Dial, the -/+ buttons or the Cursor Buttons.
- Use the left and right Cursor Buttons to enter or exit a folder.
- Press the F6 button (Load) to load a sample on the selected pad.



The Browser display of the MPC hardware.



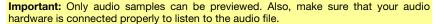
With the **Parent Directory** arrow button (**1**, in the software, to the right of the file path) vou can exit the current folder.



Hardware: Use the left and right Cursor Buttons to enter or exit a folder.

In the software, the **Preview** button (horn icon) is located below the File Browser.

Hardware: Press the **F3** (**Play**) button to preview any selected audio sample.





Click and drag the meter below it to set the preview volume. Press and hold **Alt** (Windows) or **Option** (Mac OS X) on your computer keyboard and click the meter to return it to its default position.

Hardware: Press and hold the F4 (Volume) button to show the current preview volume. Use the left or right Cursor Buttons to select the value before the decimal place (for coarser volume adjustment) or the value after the decimal place (for finer volume adjustment). Use the Data Dial or -/+ buttons to adjust the value. You can also use the numeric buttons to enter a desired value and confirm it by pressing Enter.



Adjusting the Audition Volume in the MPC hardware display.

In the software, click the **Auto Preview** button to activate or deactivate the automatic preview function. When Auto Preview is active, each time an audio file is selected, it will play automatically. This is useful when scrolling through a list of samples (i.e., comparing different snare drum sounds without having to load or manually preview them).

Hardware: Press the **F2** (Auto) button to activate or deactivate Auto Preview. When Auto Preview is active, each time an audio file is selected, it will play automatically.



Expansion Browser

In the software, the **Expansion** browser contains any available MPC Expansions you have installed.

To view the Expansion Browser, click the **Expansion** button, click the **Expansion** button located below the File Browser. To return to to the traditional File Browser, click it again.

To select an Expansion plugin in the Expansion Browser, click its title.

To view the available patches/presets of that Expansion plugin, click **Patches** below the Expansion title.

To load a patch/preset immediately in the current Plugin Program (or in a new Plugin Program, if you are currently using a different Program type), simply double-click the name of a patch/preset.

Hardware: To view the available patches of an Expansion and load a patch to a new or existing Plugin Program:

- 1. Press **Main** to enter Main Mode.
- 2. Use the **Cursor Buttons** to select the **Pgm** field.

To select an existing Plugin Program, use the **Data Dial** or -/+ buttons to select it.

To create a new Plugin Program, press the **Window** button, press **F3** (**New**), use the **Data Dial** or -/+ buttons to select *Plugin*, and then press **F5** (**Do It**).

- Back on the Main Mode screen, use the Cursor Buttons to select the Plq field.
- If the PIg field already contains the desired plugin name, skip to the next step.

If the **PIg** field does not already contain the desired Plugin name, use the **Data Dial** or -/+ buttons to select it, and then press **F4** (**Select**) to confirm.



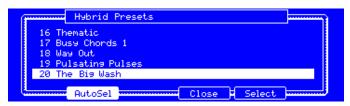




- 5. With the **Plg** field still selected, press the **Window** button.
- Use the Data Dial or -/+ buttons to select the desired preset, and then press F5 (Select) to confirm
 or F4 (Close) to cancel. You can also press F2 (AutoSel) to load each preset immediately as you
 select it.



Selecting the PIg field in the Main Mode of the MPC hardware display.



Preset selection for Plugin Programs in the MPC hardware display.



Mode Tab Section

The Mode Tab Section contains tabs that let you switch between the software modes 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.

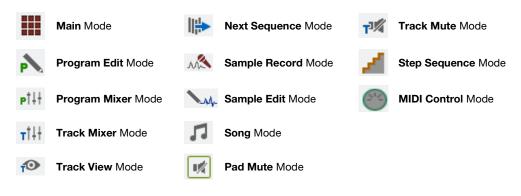
The different modes are described in detail in the following sections of this chapter.



To select a mode within the software, click the corresponding tab.

Hardware: To select a mode, press the corresponding button.

Tip: On your computer keyboard, press and hold **Ctrl** (Windows) or **%** (Mac OS X) and then press **1-10**, - (minus sign), or = (equal sign) to select a mode.





Depending on the selected mode, some Mode Tab Section menus and functions can change:

Click the **Program** drop-down menu to select one of your Programs in the currently loaded Project. A Project can hold up to 128 Programs. The **Program** drop-down menu is available only when **Program Edit** or **Program Mixer** tab is selected.

PROG Program 001 ▼

Hardware: Press the **Prog Edit** button 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** window.

Cilck the **Seq** (**Sequence**) drop-down menu to select one of your Sequences in the currently loaded Project. A Project can hold up to 128 Sequences. The **Sequence** drop-down menu is available only when **Main**, **Program Mixer**, **Track Mixer**, **Track View**, or **Step Sequence** tab is selected.

SEQ 1:Sequence 01 ▼

Hardware: Press the **Step Seq** button and use the **Cursor Buttons** to select the **Seq** field. Use the **Data Dial** or the -/+ buttons to select the desired Sequence.

Click the **Track** drop-down menu to select one of your Tracks in the currently loaded Sequence. Alternatively, press **Ctrl+**[or **Ctrl+**] (Windows) or **%+**[or **%+**] (Mac OS X) to move to the previous or next track, respectively. A Sequence can hold up to 128 Tracks. The **Track** drop-down menu is only available when **Main**, **Program Mixer**, **Track Mixer**, **Track View**, or **Step Seq** tab is selected.

TRACK 1:Track 01

Hardware: Press the Main button and use the Cursor Buttons to select the Trk field. Use the Data Dial or the -/+ buttons to select the desired Track. You can also use the F3 (Track-) or F4 (Track+) buttons on the Main Mode page.

Click the **Song** drop-down menu to select one of your Songs in the currently loaded Project. A Project can hold up to 32 Songs. The **Song** drop-down menu is only available when the **Song** tab is selected. See the **Song Mode** chapter for more information about Songs.

SONG 1: Song 1

Hardware: Press the **Song** button and use the **Cursor Buttons** to select the **Song** field. Use the **Data Dial** or the -/+ buttons to select the desired Song.



Click the **Global Automation** button to switch Automation for all Programs between *Off. Read (R)*, and *Write (W)*.







- Set this to Off to set all Programs to ignore automation data. If you have already recorded or entered automation, clicking the button will switch between Read (R) and Write (W) only, but you can override this and set it to Off by pressing and holding Shift on your computer keyboard while clicking the button.
- Set this to Read (R) to set all Programs to read automation data but not record any additional automation over it, though you can still manually edit and enter automation. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)
- Set this to Write (W) to set all Programs to record automation. (If you have any Q-Link Knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording!)

Note: To set the automation for individual Programs, click the **Automation** button (curve icon) of that Program's channel strip—under the **Mute** button—in Main Mode, Program Mixer Mode, Track Mixer Mode, or Step Sequence Mode. Alternatively, click the **Automation** button (curve icon) in the upper-right corner of the **Master** section of Program Edit Mode when the desired Program is selected.

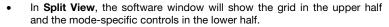
Hardware: To set the **Q-Link Trigger** button to cycle through the automation states for just the Program or globally, do the following:

- 1. Press **Shift + Song/Other**.
- 2. Press F1 (Prefs).
- 3. Use the Cursor Buttons to select the Auto button field
- 4. Use the **Data Dial** or **-/+** buttons to set the field to *Program* or *Global*.

To learn more about automation, please see **General Features > Grid View > Recording Automation** and **Manually Entering and Editing Automation**.



Click the View button to switch between Split View and Full-Screen View.





In Full-Screen View, the software window will show the grid only. This
view is useful if you are working with a lot of pads or Tracks and need to
view all of them simultaneously.

Hardware: Press the **Shift + Window / Full Screen** buttons to switch between Split View and Full-Screen View.

The top LED next to the MPC logo is the **MIDI In LED**. It will light up to indicate the software is receiving MIDI messages from your connected MPC hardware.



The bottom LED next to the MPC logo is the **MIDI Out LED**. It will light up to indicate the software is sending MIDI messages out.



Transport Section

The Transport Section contains various transport controls (for playback and recording) as well as bar and tempo displays, the master level, and a CPU meter. This section is always visible.



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.



Tip: If the CPU meter is very high, software response may slow down. Triple-clicking the **Stop** button (in this Transport Section or on your MPC hardware) will send a "MIDI panic" message. This will halt all messages the software is currently sending, and you can resume normal operation.

With the **Metronome** dial, you can set the volume of your metronome click. Press and hold **Alt** (Windows) or **Option** (Mac OS X) on your computer keyboard and click the knob to return it to its default position.



In the software, next to the $\bf Metronome$ dial, click $\bf On$ to activate or deactivate the metronome. It will light up red when active.

Hardware: Press the **Main** button and press **F2** to enter the **Click** menu. Use the **Cursor Buttons** to select 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*.

Please see **Software Menus > Metronome Menu** to learn more about the metronome functions.



The bar and tempo display shows the actual position in bars, beats, and ticks.

Hardware: To navigate to a particular position in a Sequence, you can use the < / > buttons to move one step at a time within a bar, or use the << / >> buttons to move one bar at a time. You can also press the **Main** button and use the **Cursor Buttons** to move between the bars, beats, and ticks values in the **Now** field (at the top of the display) and use the **Data Dial** or the -/+ buttons to change the value. You can also use the numeric buttons to enter a desired value and confirm it by pressing **Enter**.



You can change the Sequence's tempo by double-clicking the **BPM** value and entering a value with your computer keyboard. You can also click and drag the BPM value up or down to increase or decrease it.

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Hardware: Use the **Tap Tempo** button to tap in the beats per minute of your desired tempo. An amber LED will blink, indicating the current beats. You can also press the **Main** button and use the **Cursor Buttons** to move to the **Bpm** parameter. Select the desired value by using the **Data Dial** or the -/+ buttons. You can also use the numeric buttons to enter a value and confirm by pressing **Enter**.



Note: The transport controls can be found on the MPC hardware as well as in the software, so the descriptions below apply to both.

Click the **Rec** button to put the software in Record Mode. The button's LED will light up red indicate the Record process 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 operates just like the **Rec** button, except that the recording will be in Overdub Mode from the moment you press **Play** or **Play Start**.



Stop will stop playback or recording. Quickly pressing **Stop** three times will act as a "MIDI panic" and shut off all voices and stop all audio processing. **Stop** will also cancel loading any files that are being loaded—if you select a Project or Program by accident, press **Stop** to abort 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.



Hardware: The **Undo** button can be used differently during recording. Normally, pressing **Undo** will undo the last event only (the button will be lit solid when there is an action that can be undone). While recording, pressing **Undo** will erase *all* events since **Play** or **Play Start** was pressed (the **Undo** button will flash in this case).

Tip: When using the MPC software as a plugin in host software, you can use your MPC hardware to control your host software's transport. For instructions on how to set this up, click the **Edit** menu and select **Set Up MMC Control**, which will open a separate PDF. This is available for certain host software applications only.



Level controls the software's master output level.

MPC Renaissance users: The software's Level knob controls the volume level of the audio *before* the MPC Renaissance's **Main Volume** dial. The audio will then be sent out of the **Stereo Outs** on the rear panel.



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

MPC Renaissance: Press the **Vintage Mode** button to switch 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 select to emulate the particular sonic qualities of the *MPC3000*, the *MPC60*, *Other* and of course no emulation (no LED will be lit).





Grid View

The grid is where you record, program, and edit your Sequences and arrange your Songs. The grid is visible in Main Mode, Program Edit Mode, Program Mixer Mode, Pad Mute Mode, and Step Sequencer Mode. Furthermore, the grid has two different appearances, depending on the selected Program type; Drum Programs appear one way while Keygroup Programs, MIDI Programs, and Plugin Programs appear another way.

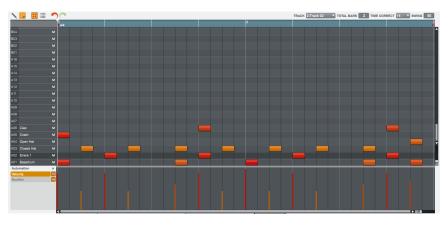
If you are not already in Grid View, enter it by doing any of the following:

- Clicking the View Menu and selecting Grid Editor.
- Clicking the List View button just below the Mode Tab.
- Pressing Shift+G on your computer keyboard.

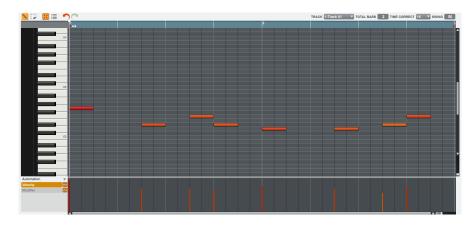
Note: The alternative to the Grid View is List View, explained in the following *List View* section. Click the **Show/Hide List** button to switch between the two views.

Tip: Click the **View** button in the upper-right corner to switch between Split View and Full-Screen View. This is ideal for working on Sequences in detail.

Hardware: Press the **Shift + Window / Full Screen** buttons to to switch between Split View and Full-Screen View. This is ideal for working on Sequences in detail.







For Drum Programs, the left column shows you all available pads in a vertical view with their corresponding data.

For Keygroup Programs, Plugin Programs, and MIDI Programs, the left column shows a vertical "piano roll" keyboard.

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.

Hardware: To zoom vertically, press and hold the **Shift** button and use the up and down **Cursor Buttons**. To zoom horizontally, press and hold the **Shift** button and use the left and right **Cursor Buttons**.

For Drum Programs, click a pad name to hear it in the Program. For Keygroup Programs, Plugin Programs, and MIDI Programs, click a key to hear that note in the Program.

Mute a pad by clicking its mute (M) button in the left column.



In the top-left corner of the grid are two buttons to switch between Draw Mode and Select Mode:

By default, **Draw Mode** is active, indicated by the **Pencil Tool** icon. You can draw notes
by clicking the corresponding position in the grid. You can also use it to draw automation
curves in the velocity/automation lane underneath the grid.



 The Select Mode is indicated by the Select Box icon and lets you select one or more notes by drawing a frame around them. Selected notes will have a white border.



Learn more about these modes under **Pencil and Select Box Icons** in the **Adjusting the Controls** part of this chapter.

Duplicate note events by selecting them on the grid and then pressing Ctrl+D (Windows) or $\Re+D$ (Mac OS X). The selected note events will be automatically copied and pasted, starting from the step just after the last selected note event.

When **Hitting Pads Select Events** is selected, you can press a pad on your MPC hardware to select all events on that pad in the currently shown Sequence.



Click **Show/Hide List** to switch between the Grid View and List View. See the following *List View* section for an explanation of this view.



Click **Undo** (the red arrow) to undo your last action.



Click **Redo** (the green arrow) to redo the last action you undid.





In the upper-right corner of the Grid View, there are some menus and parameters you can adjust:

TRACK 1:Track 01	TOTAL BARS	TIME CORRECT 16	▼ SWING 50

- Click the Track drop-down menu to select one of the Tracks to view in the grid.
- Click and drag the Total Bars field up or down to change the selected Track's length. The default setting is 2 bars. The maximum length is 999 bars.
- Click the **Time Correct** drop-down menu to select the note value to quantize to. Default is 1/16 (16th notes).
- Click and drag the **Swing** field up or down to set the amount of swing (from 50% to 75%) so you can "shuffle" your beats—from subtle to extreme.

Hardware:

- Press the Main button and use the Cursor Buttons to select the Trk field. Use the Data Dial or the
 -/+ buttons to select the desired Track. You can also use the F3 (Track-) or F4 (Track+) buttons.
- To change the number of bars, select the **Bars** parameter.
- To adjust the Time Correct and Swing, press the F1 button (T.C.) and use the Cursor Buttons to select the Note field or Swing field. Use the Data Dial or the -/+ buttons to set the desired value. Press F5 (Do It) to confirm the operation or press F4 (Close) to cancel it without making any changes.



Across the top of the grid is a blue strip that indicates where you are in the Sequence:



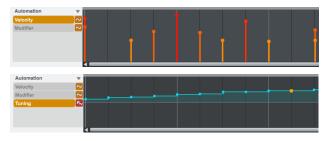
- The number in the upper half is the bar number.
- The number in the lower half (of the first beat of the first bar) is the time signature. To change the time signature, double-click in the measure bar and enter the desired signature in the drop-down window.
- The red arrows (▶) indicate the start and 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 activated (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** section below the grid. The red arrows in the measure bar will be placed accordingly. For more information on this, please see *Main Mode* > *Sequence Section*.

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

Learn more about velocity in **Grid View > Entering and Editing Note Events**

Learn more about automation in *Grid View > Recording Automation* as well as *Grid View > Manually Entering and Editing Automation* parts of this chapter.





Entering and Editing Note Events

You can easily insert note events and data with your computer mouse.

Hardware: Press the **Rec** button to record-arm the software, and press the **Play** or **Play Start** button when you're ready to record. The metronome will pre-count one measure before the recording starts. Press the pads to record note events in the Sequence. Press the **Stop** button when you're finished recording.

Tip: Whenever possible, we recommend recording note events with your MPC hardware's pads, which are velocity- and pressure-sensitive, providing a faster and more intuitive recording process.

In the software, you can create or delete note events with the Pencil Tool (in Draw Mode) or with the Select Box Tool (in Select Mode):

In Draw Mode:

- Click once on an empty square in the grid to place a note event in that square.
- Double-click a note event to erase it.

In Select Mode:

- Click and drag the box over note events on the grid to highlight them.
- Double-click an empty square in the grid to add a note event.
- Double-click a note event to erase it.

Click a note event to hear its corresponding pad.

You can delete a note event if it is selected by pressing **Backspace** or **Delete** on your computer keyboard.

The length of note events depends on the **Time Correct** value (e.g., if set to 16, the note event length will be a 16th note).

To shorten or extend a note event in steps corresponding to the **Time Correct** value, click and drag its start point or or end point left or right.







Click and drag a note event to move it to another position (when multiple note events are selected, you can move them all simultaneously). You can position note events only on quantization values defined by the set **Time Correct** value (indicated by vertical lines in the grid), but if you hold down your keyboard's **Shift** key while moving a note event, you can drag it to any position you like, regardless of the selected **Time Correct** value.

Hold down **Control** (Windows) or **%** (Mac OS X) and move a note to duplicate it. You can also duplicate note events by selecting them on the grid and then pressing **Ctrl+D** (Windows) or **%+D** (Mac OS X). The selected note events will be automatically copied and pasted, starting from the step just after the last selected note event.

Use the copy-and-paste function to copy a note in the clipboard (Ctrl+C [Windows] or **%+C** [Mac OS X]) and paste it automatically where the audio pointer is (Ctrl+V [Windows] or **%+V** [Mac OS X]).

Tip: Press your MPC hardware's **16 Level** button to activate/deactivate 16 Level. When activated, the last pad that was pressed 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 values that increase as the pad numbers increase (e.g., Pad 1 is the minimum, Pad 16 is the maximum), regardless of how hard you press them. In the software, in the window that appears, click the **Type** menu to select the parameter: *Velocity, Tune, Filter, Layer, Attack*, or *Decay*. You can change the pad by clicking the **Pad** drop-down menu in the window that appears. Alternatively, you can press and hold the **16 Level** button, press the desired pad, and then release both.



Use the velocity lane to edit note events' velocities.

Click a note event in the grid or place the mouse over its velocity bar in the lane. A small round handle will appear at the top of the velocity bar. Click and drag the round handle up or down to change the velocity. To increase the resolution, hold **Control** (Windows) or **%** (Mac OS X) on your computer keyboard while dragging.



You can also edit multiple note events' velocities simultaneously. Select multiple note events with the Select Box tool, and then click and drag any one of their velocity bars up or down. To select all note events for a single pad (Drum Program) or key of the virtual keyboard (Keygroup Program), click the desired pad or key.

Tip: List View offers a different way to edit velocities. See the *List View* section of this chapter to learn more.



Recording Automation

Tip: To make automating certain parameters easier, assign certain parameters to the Q-Link Knobs as described in the *next section* rather than adjusting them in their respective modes. We also recommend using your MPC hardware (especially the **Q-Link Knobs**) whenever possible.

- Determine where the parameter you want to automate is—Main Mode, Program Mixer Mode, or Track Mixer Mode—and click the Main Mode, Program Mixer Mode, or Track Mixer Mode tab to enter that mode.
- 2. **If the desired parameter is Program- or pad-related,** click the Program's **Automation** button (curve icon) until it turns red and has a *W*. This means the Program is able to record (write) automation. In Main Mode and Track Mixer Mode, this button is on the Program Channel Strip. In Program Mixer Mode, this is in the Master Section.



Program- or pad-related parameters include: Program Channel Strip controls, Pad/Keygroup insert effects, Program insert effects, send effects, Master Semi Tune, Master Fine Tune, and all pad parameters shown in Program Edit Mode.

If the desired parameter is Track-related, skip to the next step.

Track-related parameters include: Track Channel Strip controls, MIDI CC messages, Track mutes, pad mutes, the 16-Level feature (on the MPC hardware), Aftertouch messages, Pitchbend messages, Channel Pressure messages, Program Change messages, and parameters shown in the Main Mode's Q-Link section's **Param** menu when set to **Prg** and **Change** is set to *Note On*.

- 3. Click the **Overdub** button, and then click **Play** to start automation recording. It is very important to use the Overdub function; otherwise, this new recording will overwrite any data previously recorded to that Track.
- Move the desired control(s) during the recording process. The automation curve will appear as you move the control(s).



5. Click **Stop** you are finished recording.

Tip: After recording, we highly recommend clicking the **Automation** button on the Program Channel strip so it turns green and has an *R*. This means the Program will read automation but will not record any additional automation over it, though you can still manually edit and enter automation.





Hardware: To record automation:

- Determine where the parameter you want to automate is—Main Mode, Program Mixer Mode, or Track Mixer Mode—and press Main, Prog Mix, or Shift + Prog Mix/Track Mix to enter that mode.
- Use the F-Buttons to select the desired tab or window (if available), and/or use the Cursor Buttons to select the parameter you want to automate.
- 3. If the desired parameter is Program- or pad-related, press the Q-Link Trigger button until it flashes (you may need to press it twice).
 - If the desired parameter is Track-related, skip to the next step. (Note that in Track Mixer Mode, when the **Mixer** field is set to *Tracks*, you can record automation for the level and pan for the currently selected Track only, not all 16 Tracks shown.)
- Click the **Overdub** button, and then click **Play** to start automation recording. It is very important to
 use the Overdub function; otherwise, this new recording will overwrite any data previously recorded
 to that Track.
- Move the corresponding MPC hardware control(s) during the recording process (depending on the parameter(s) you are automating, the control(s) may include the **Data Dial**, -/+ buttons, and/or the **Q-Link Knobs**). The automation curve will appear as you move the control(s).
- 6. Press **Stop** when you are finished recording.

Tip: When you are done recording, we highly recommend pressing the **Q-Link Trigger** button until it is lit solid. This means the Program will read automation but will not record any additional automation over it, though you can still manually edit and enter automation.

To assign certain automatable parameters to the Q-Link Knobs:

- 1. Click the Main Mode tab to enter Main Mode.
- Click and move a Q-Link Knob so that its number appears in the QLink field in the Q-Link Section.
- 3. In the Q-Link Section:

Click **FX** if you want to automate an effect parameter. Click the **Effect** drop-down menu to select an effect (which must be already loaded). The available effects will be ordered by pad insert effects, Program insert effects, send effects, and master effects.



- Click **Prg** if you want to automate a real-time parameter. Click the **Pad** drop-down menu to select a pad, and click the **Change** drop-down menu and select the type of change: *Note On* or *Real Time*.
- 4. Click the **Param** drop-down menu and select the parameter you want to automate.
- 5. **Optional:** If you want to record automation for multiple parameters simultaneously, repeat Steps 2-4 for each additional parameter.



Hardware: To assign certain automatable parameters to the Q-Link Knobs:

- 1. Press the Shift + Prog Edit / Q-Link buttons.
- 2. Touch a **Q-Link Knob** so that its field is selected in the display.
- 3. To automate an effect parameter:

Press F2 (FX Q).

Press **F4** (**Edit**), and then use the **Data Dial** or **-/+** buttons to select an effect (which must be already loaded). The available effects will be ordered by pad insert effects, Program insert effects, send effects, and master effects.

Press F4 (Close) when you are done.

To automate a real-time parameter:

Press F1 (Prog Q).

Press F4 (Edit), and then press the desired pad, or use the Cursor Buttons to select the Pad field, and then use the Data Dial or -/+ buttons to select a pad.

Use the **Cursor Buttons** to select the **Change** field, and then use the **Data Dial** or -/+ buttons to select the type of change; *Note On* or *Real Time*.

Press **F4** (**Close**) when you are done.

- With the Q-Link Knob still selected, use the Data Dial or -/+ buttons to select a parameter you
 want to automate.
- 5. **Optional:** If you want to record automation for multiple parameters simultaneously, repeat the instructions in Step 3 for each additional parameter.



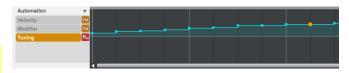
The Program Q-Link Edit window of the MPC hardware display.



Manually Entering and Editing Automation

In the software, follow these steps to manually enter or edit automation in Grid View:

Tip: You can manually enter or edit automation regardless of the setting of the **Automation** button on the Program Channel strip.



- 1. If you want to manually enter or edit automation for a pad in a Drum Program, select the pad whose automation you want to enter or edit. Otherwise, skip to the next step.
- 2. To manually enter automation for a new parameter: To the left of the velocity lane, next to Automation, click the triangle (▼) and select a parameter. Depending on the Program type, you can select parameters that affect the entire Track, the entire Program, or a specific pad. Parameters that are dark blue already have automation, while parameters that are grey do not, though you can still select them.

To edit existing automation: To the left of the velocity lane, under **Automation**, click the desired parameter. Parameters with a **green T** icon affect the entire Track. Parameters with a **blue P** icon affect the entire Program. Parameters with a **red P** icon are specific to the current pad.

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3. In the automation lane, you can enter or edit the automation points that make up the automation curve.

To move an automation point, click and drag it. Dragging it up and down adjusts the parameter amount, while dragging it left or right adjusts its location in time. The automation points will automatically align with the grid set by your **Time Correct** setting, but you can hold the **Shift** key of your computer keyboard while dragging the automation points to ignore this quantization.

To add a new automation point, double-click the desired location in the automation lane.

To delete an automation point, double-click it.

To draw a curve, use the Pencil Tool (Draw Mode) and click and drag it across the lane.

To adjust several adjacent automation points simultaneously, use the Select Box Tool (Select Mode) to select them and then click and drag any one of the automation points as desired.

Tip: List View offers a different way to edit automation. See the *List View* section of this chapter to learn more.



List View

In List View, you can perform the same operations as in Grid View but with a different interface/workflow.

List View is visible in Main Mode, Program Edit Mode, Program Mixer Mode, Pad Mute Mode, and Step Sequencer Mode.

If you are not already in List View, enter it by doing any of the following:

- Click the View Menu and select List Editor.
- Click the List View button just below the Mode Tab.
- Press Shift+L on your computer keyboard.

Hardware: To enter or exit List View, press **Shift + Step Seq**.

LENGTH VELOCITY 1001:01:00 Volume A01(37) Tuning 3 001:01:00 Decay Insert 1 4001:01:00 A01(37) 24 109 5 001:01:00 P A05(40) 24 86 6001:01:00 N A03(42) 24 7 001:01:24 A01(37) Tuning 24 8 001:01:24 A03(42) 51 9 001:01:48 Volume 10 001:01:48 A01(37) Tuning A01(37) 11 001:01:72 Tunina 12 001:01:72 A03(42) 24 51 13 001:01:77 Decay Insert 1 14 001:01:89 Insert 1 Decay 15 001:02:00 R A01(37) Tunina 16 001:02:00 A02(36) A03(42) 24 18 001:02:04 Insert 1 Decay 19 001:02:15 Insert 1 Decay 20 001:02:24 R A01(37) Tuning A03(42) 24 51 22 001:02:26 Insert 1 Decay 23 001:02:37 Insert 1 Decay 24 001:02:48 A01(37) Tuning A03(42) 26 001:02:48 Insert 1 Decay 27 001:02:60 Decay Insert 1 28.001:02:71 Insert 1 Decay 29 001:02:72 A01(37) Tunina

Note: The alternative to List View is Grid View, explaind in the earlier **Grid View** section. Click the **Show/Hide List** button to switch between the two views.

The Sequence for the Track will be shown as a list of note events, with the following parameters:

- #: The number of the note event.
- Time: The position of the note event in bars, beats, and ticks (identical notation to the clock in the
 Transport Section). Hover the mouse over the value to see its equivalent in pulses. If multiple note
 events occur at the same time, additional note events will be listed immediately below, but their
 Time values will be greyed out.
- Pad/Note: The pad and/or corresponding MIDI note number. For Drum Programs, you will see the
 pad number. For Keygroup Programs, Plugin Programs, and MIDI Programs, you will see the note.
- Length: The length of the note event in ticks.



- Velocity: The velocity of the note event with a velocity bar of corresponding color and length below
 it.
- Mod Type: The type of modifier used on the note event via automation. See the Mod description
 on this page in Entering and Editing Events to learn more.
- Value: The value of the modifier automation. See the Value description on this page in Entering
 and Editing Events to learn more.

Hardware: In List View, the Sequence for the Track will be shown as a list of note events, with the parameters listed above except for #. To set whether or not the list will scroll during playback, press **Window** when any List View field is selected and use the **Data Dial** or -/+ buttons to select *Off* or *Scroll*.

Now: 001	: 01 : 00	0 View∶A	11		Bem≎ 1	20.0
Time	Type Pad	/Note	Length	Vel Mod	Type/U	Jalue
001:01:00	Note A03	(42)	24	127 Tuni	ng	24
001:01:24			24	127 Tuni	ne	27
001:01:48				127 Tuni		28
001:01:72 Note A03(42) 24 127 Tunins 3					32	
T.C.	Edit	Track	Nudae	Inser	- €	Play

List View in the MPC hardware display.

To show or hide specific parameter columns, right-click one of the parameter names, and select the parameter column to show or hide. You can also choose to *Auto-size this column* or *Auto-size all columns* to fit the contents.

The red arrow (>) on the left side of the list represents the audio pointer's current position. If your Sequence is playing, the arrow will move accordingly.

Click **Show/Hide List** to switch between the Grid View and List View. See the previous **Grid View** section for an explanation of this view.



Hardware: Press Shift + Step Seq to switch between the Grid View and List View.

Click **Undo** (the red arrow) to undo your last action.

Hardware: Press Undo to undo your last action.



Click Redo (the green arrow) to redo the last action you undid.

Hardware: Press Shift + Undo / Redo to undo your last action.





In the upper-right corner of the List View, there are some menus and parameters you can adjust:

TRACK 1:Track 01 TOTAL BARS 2 TIME CORRECT 16 SWING 50

- Click the Track drop-down menu to select one of the Tracks to view in the grid.
- Click and drag the Total Bars field up or down to change the selected Track's length. The default setting is 2 bars. The maximum length is 999 bars.
- Click the Time Correct drop-down menu to select the note value to quantize to. Default is 1/16
 (16th notes).
- Click and drag the Swing field up or down to set the amount of swing (from 50% to 75%) so you
 can "shuffle" your beats—from subtle to extreme.

Hardware: Press the Main button to enter Main Mode, and use the Cursor Buttons to select a field, and use the Data Dial or the -/+ buttons to set the desired value:

- To change the current Track, select the Trk field. You can also press F3 (Track-) or F4 (Track+).
- To change the number of bars, select the **Bars** parameter.
- To adjust the Time Correct and Swing, press F1 (T.C.) and select the Note field or Swing field.
 Press F5 (Do It) to confirm or F4 (Close) to cancel the operation.

In the lower-right corner of the List View, there are some icons to let you insert, duplicate, or view events:



- Click the + icon and select the type of event to insert it.
- Click the page icon when an event is selected to copy and paste it immediately after it.
- Click the **View** drop-down menu and select the type of event to view it: *All, Notes, Aftertouch, Track Automation, Program Automation, Pitch Bend, Control Change, Program Change, Channel Pressure, Solo/Mute, or Other.*

Hardware: Use the **Cursor Buttons** to select the **View** field, and use the **Data Dial** or the -/+ buttons to set the type of event. To insert or copy an event, please see **Entering and Editing Events** below.

Entering and Editing Events

To insert an event at the audio pointer's current position, click the + icon in the lower-right corner of the List View and select the type.

Hardware: Press F4 (Insert) to open the Insert Event window. Use the Cursor Buttons to select the Time, Type, or Pad(Note) fields, and use the Data Dial or -/+ buttons to set the value. Alternatively, simply press the pad you want to use in the Pad(Note) field. Press F5 (Do It) to confirm or F4 (Close) to cancel the operation.



In the software, the Pencil Tool and Select Box Tool will be greyed out as they are disabled in List View. You can enter notes in List View only by playing the pads, but List View offers a different way to edit your notes than in Grid View.

As in Grid View, you can do the following in List View:

- Click a note event to hear its corresponding pad.
- Delete a event if it is selected by pressing Delete or Backspace on your computer keyboard.
- To shorten or extend a note event (in ticks), click and drag its **Length** value left or right.
- Duplicate events by selecting them in the list and then pressing Ctrl+D (Windows) or X+D (Mac OS X). The selected events will be automatically copied and pasted to the same position (one note event on top of another). Alternatively, click the page icon in the lower-right corner of the List View to duplicate an event to copy and paste it immediately after it.
- Use the copy-and-paste function to copy an event (Ctrl+C [Windows] or %+C [Mac OS X]) and
 paste it automatically where the audio pointer is (Ctrl+V [Windows] or %+V [Mac OS X]).

Hardware: (Use the Cursor Buttons in List View to select the desired note event.)

- To hear a note event's corresponding pad, press **F6** (**Play**).
- To delete a selected event, press F2 (Edit) so it is highlighted, and then press F3 (Delete).
- To shorten or extend a selected note event (in ticks), select the Length field and use the Data Dial
 or -/+ buttons to adjust its length.
- To copy and paste a selected event, press F2 (Edit) so it is highlighted, and then press F4 (Copy).
 Use the Cursor Buttons to each Copy To (time) field, and use the Data Dial or -/+ buttons to set the value. Press F4 (Do It) to confirm or F3 (Close) to cancel the operation.

Now: 00:	1: 01 : 00	00 View:A	11	Br	∍m: 120.0
Time	Type Pad	/Note	Length	Vel Mod T	9pe/Value
001:01:00	Note A03	(42)	24	127 Tunin	9 24
001:01:24			24	127 Tunin	9 27
001:01:48				127 Tunin	
001:01:72	Note A03	(42)	24	127 Tunin	g 32
	Edit	Delete	Сору	Move	

Edit options in List View in the MPC hardware display.

Edit the velocity of a note event by clicking and dragging its **Velocity** value left or right.

Hardware: To adjust a selected note event's velocity, select the **Vel** field and use the **Data Dial** or -/+ buttons to adjust its velocity.





To edit a specific event, double-click it, and a small window will appear with a combination of the following options, depending on the **Type**:

 Time: The position of the event in bars, beats, and ticks (identical notation to the clock in the Transport Section), each in a different field. To change the value, either click and drag a field up or down, or click it and enter a value using your computer keyboard.



Hardware: To adjust the position of a selected event, press F2 (Edit) so it is highlighted, and then press F5 (Move). Use the Cursor Buttons to each Copy To (time) field, and use the Data Dial or -/+ buttons to set the value. Press F4 (Do It) to confirm or F3 (Close) to cancel the operation. Alternatively, press F4 (Nudge) to and use the Data Dial or -/+ buttons to adjust the Time.

- **Type:** The type of event. By default, this is a note event, but you can click the field and select any of the options from the menu that appears:
 - Note: A standard note event.
 - o *Track*: A modifier that affects the Track and can be automated. Dark blue parameters already have automation, while grey parameters do not, though you can still select them.
 - o *Program*: A modifier that affects the Program and can be automated. Dark blue parameters already have automation, while grey parameters do not, though you can still select them.
 - o *Pad*: A modifier that affects the pad and can be automated. Dark blue parameters already have automation, while grey parameters do not, though you can still select them.
- Pad: The pad number. To change the pad, either click and drag the field up or down, or doubleclick it and select the pad from a visual representation of all eight pad banks.
- Vel: The velocity of the note event. To change the value, either click and drag the field up or down, or click it and enter a value using your computer keyboard.
- Len: The length of the note event in ticks. To change the value, either click and drag the field up or down, or click it and enter a value using your computer keyboard.
- Mod: The type of modifier used in the event (through automation). Click the field and select one
 from the menu that appears.
- · Value: The modifier's value (through automation). Click and drag the bar left or right to set it.

Hardware: To set a selected event's pad, velocity, length, modifier, or value, select the **Pad/Note**, **Vel**, **Length**, **Mod Type**, or **Value** field (respectively) and use the **Data Dial** or -/+ buttons to adjust it.



Entering Automation

To manually enter automation in List View, follow the same process described in *Entering and Editing Events* above, but instead of **Note**, select the **Track**, **Program**, or **Pad** parameter you want to automate. You can enter automation regardless of the setting of the **Automation** button on the Program Channel strip.

Hardware: To manually enter automation in List View, follow the same process (for your MPC hardware) described in *Entering and Editing Events* above, but instead of selecting *Note* as the **Type**, select *Program Automation*, *Program Mixer*, or *Track Automation*, and select **Parameter** you want to automate.

Tip: To learn how to record automation in real time, please see *Grid View > Recording Automation*.

Editing Automation

To edit automation in List View:

- 1. If you want to edit automation for a pad in a Drum Program, select the pad whose automation you want to enter or edit. Otherwise, skip to the next step.
- To edit existing automation: Click and drag a Value slider of the desired automation point to the left or right. For parameters with a center position, the center is marked with a 0 and a vertical line.

Parameters with a **green T** icon affect the entire Track. Parameters with a **blue P** icon affect the entire Program. Parameters with a **red P** icon are specific to the current pad. Note events appear as gold note symbols without a **Value** slider.



3. In the list, you can edit the automation points that make up the automation curve.

To move an automation point, double-click it in the list. In the small window that appears, click and drag any of the **Time** fields up or down, or click one and enter a value using your computer keyboard. This kind of adjustment will ignore your **Time Correct** setting (quantization), so it may not be aligned with the grid if the adjustment is too subtle (e.g., only a few ticks).

To delete an automation point, click it, and then press **Delete** or **Backspace** on your computer keyboard.

Hardware: To edit automation in List View, follow the same process (for your MPC hardware) described in *Entering and Editing Events* above. The difference is that automation events will not have **Length** or Velocity (**Vel**) parameters.



Software Menus

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

Important:

- The software menu organization differs between Windows and Mac OS X operating systems.
- When loaded as plugin, the Menu button is the arrow icon located to the left of the Main Mode tab.



File Menu

New Project creates an empty Project. Use this command when you want to start a Project from scratch.

New From Template loads a user-defined Project template. We recommend creating a Project with the basic settings that suit your needs and saving it as a Project template for easy access. See **Software Menus > Edit Menu > Preferences: Auto Load/Save Tab** to learn how to set this template.

Tip: You can "bypass" or ignore the template by opening the MPC software while holding down your computer's **Shift** key. This will open an empty Project instead of your selected Auto Load file.

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 Project. In the window that appears, name your Project and select a save location. The samples in the **Project Information** will be automatically saved with the Project. The Project file (.xpj), and its information (samples, MIDI files, Program files, etc.) will be saved in a folder with the same name on the same folder level.

Save Project As is identical to the Save Project function but lets you save the current Project with a new name.



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.

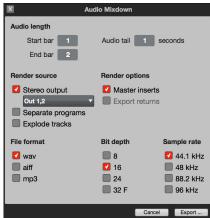
Save MIDI Control Scene saves your control map as set in MIDI Control Mode. See the *MIDI Control Mode* chapter for more information about creating a control map.

Export lets you export your Project or Sequence data in various formats: a single Project Archive file, MPC formats, a standard MIDI file, or as an audio mixdown file. Select the desired option from the submenu.

- As Project Archive exports the entire Project as a Project Archive file (.xpa). In the window that appears, enter a file name and set the save location. This option is useful when you want to transfer a Project between different computers without dealing with its component files.
- As MPC1000/MPC2500 Seq exports the current Sequence so it can be read by an MPC1000 or MPC2500.
- As MPC1000/MPC2500 Prg exports the current Program so it can be read by an MPC1000 or MPC2500.
- As MPC5000 Seq exports the current Sequence so it can be read by an MPC5000.
- As MPC5000 Prg exports the current Program so it can be read by an MPC5000.
- As MIDI File exports the Sequence as a standard MIDI file (.mid). In the window that appears, enter a file name and set the save location. This option is useful when you want to import your Sequences into separate sequencer software or exchange your Sequences with another artist.



- As Audio Mixdown exports the Sequence or Song as an audio file (if you are in Song Mode, this will affect the entire Song; if you are in any other mode, this will affect the current Sequence only). You can also access this command by pressing Ctrl+Shift+E (Windows) or %+Shift+E (Mac OS X) on your computer keyboard. In the window that appears, you can set the audio file's format:
 - Audio Length lets you define the length of your audio file with the Start bar and End bar, allowing you to export a certain number of measures only. You can also set the length of a "bounce tail" (Tail) in seconds, which is useful when working with audio effects like reverb or delay, whose sound may exceed the defined export range.



- o Render source lets you select between Stereo output and Separate programs and Explode tracks. Stereo output will render an audio output, which you can select by clicking the drop-down menu under the checkbox. Separate programs will render an audio mixdown of each Program used in the Sequence or Song. Explode tracks will render an audio mixdown of each Track used in the Sequence (this feature does not work in Song Mode).
- The available Render options depends on your Render source. When Master inserts is checked, the audio mixdown will include master effects. When Export returns is checked, the audio mixdown will also export return buses.
 - When your **Render source** is set to *Separate programs* or *Explode tracks*, **Master inserts** is bypassed, so this option is disabled.
- o **File format** lets you select *wav*, *aiff*, or *mp3* as the exported file format. For WAV and AIFF files, you can select a **Bit depth** of 8-bit, 16-bit, 24-bit, or 32-bit, floating point. For MP3 files, you can select a **Bitrate** of 128 kbps, 160 kbps, 192 kbps, or 320 kbps.
- Sample rate lets you select from 44.1 kHz, 48 kHz, 88.2 kHz, or 96 kHz. In most cases, we recommend selecting 44.1 kHz.
- o Click Export to open a window where you can enter a file name and set the save location.
- Click Cancel to close the window without exporting.



Exit closes the software. If you have not saved any changes made to a currently open project, it will prompt you to do so before quitting.

Mac OS X users: The Exit command is named Quit MPC and located in the MPC menu.

Edit Menu

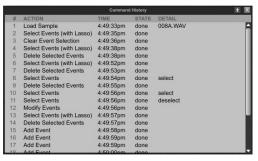
Undo undoes the last action you performed. When there are no actions left to undo, the Undo command will be unavailable and appear greyed out.

Redo undoes the Undo command. You can continue redoing actions until there are no items left to redo, in which case, the Redo command will be unavailable and appear greyed out.

Important: If you perform a new action when the Redo command 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.

History lets you view a list of previously executed commands in the **Command History** window. As you undo and redo commands, you can see your current "position" in the list of commands in the window.

To revert to a previous "state" in your Project, click and drag the point just after the last step. Any "undone" steps will be greyed out. You can do the same to redo all the greyed-out steps, as well.



Cut removes selected events from the grid and copies it to the clipboard. After cutting events, you can paste or insert them at another location in the same or another Sequence.

Copy copies selected events from the grid to the clipboard without removing them. After copying events, you can paste or insert them at another location in the same or another Sequence.



Paste lets you to paste the contents of the clipboard at the position marker's current location.

Select All selects all note events in the current Sequence and Track.

Deselect All deselects all note events in the current Sequence and Track.

Sequence provides options related to editing the current Sequence:

- Clear erases all Tracks and their note events from the current Sequence. After selecting this, click Clear to confirm your choice or Cancel to cancel it. This operation cannot be undone.
- Export lets you export the current Sequence as a standard MIDI (.mid) file.
- Next Sequence selects the next Sequence. You can also press Ctrl+Shift+} (Windows) or #+Shift+} (Mac OS X) on your computer keyboard.

Track provides options related to editing the current Track:

- Clear erases all note events from the current Track. After selecting this, click Clear to confirm your choice or Cancel to cancel it. This operation cannot be undone.
- **Explode** automatically splits the current Track into multiple Tracks—one for each distinct pad or note (pitch, not event). The current Track also remains present and intact, while each Track created from it is labeled with the Track Name and pad name or number.
- Previous Sequence selects the previous Sequence. You can also press Ctrl+Shift+{ (Windows) or %+Shift+{ (Mac OS X) on your computer keyboard.

Hardware: In Main Mode, use the **Cursor Buttons** to select the **Trk** field, and then **Window**. Press **F2** (**Clear**) to erase all note events from the current Track, **F3** (**Explode**) to explode the Track, press **F4** (**Copy**) to copy the Track, or press **F5** (**Close**) to cancel the operation.

If you select **F4** (**Copy**), use the **Cursor Buttons** to move between the **Copy Contents of Track** and **Over Contents of Track** fields, and use the **Data Dial** or -/+ buttons to change the number. Press **F5** (**Do It**) to copy the Track or press **F4** (**Back**) to cancel the operation.



Preferences opens the **Preferences** window, which contains many customizable elements of the software. Click the corresponding tab on the left to select it (e.g., **MIDI** or **Sequencer**). Click the **OK** button to close the **Preferences** window. Preferences will be automatically saved.

Mac OS X users: Preferences is located in the MPC menu.

Preferences: Audio Tab

- Audio Device Type and Device (Windows) or Output and Input (Mac OS X): Click these drop-down menus to select an audio hardware driver in your computer system.
 - Windows users: To use an MPC Renaissance's inputs and outputs to record and play audio (to and from your computer), select ASIO as the Audio Device Type and MPC Renaissance ASIO Driver as the Device, and then check In 1+2. Otherwise, you can select an ASIO hardware driver of your audio interface.

Tip: If you are using your computer's internal soundcard, we recommend downloading the latest ASIO4ALL driver at asio4all.com.

 Mac OS X users: To use an MPC Renaissance's inputs and outputs to record and play audio (to and from your computer), select MPC Renaissance as the Output and Input, and then check Input 1+2.





- Test: Click this button to play a test tone. This is for checking your audio output. Careful! You should lower the volume on your audio system beforehand.
- Sample Rate: Click this to drop-down menu to select the desired sample rate for your Project.
 This should depend on your audio interface's available sample rates (i.e., select 96000 Hz only if your interface allows a 96 kHz sample rate).



- Audio Buffer Size: Click this drop-down meny to set your audio system's latency. Lower values result in a more immediate playing response but also more CPU consumption. If you are working with larger Projects, this may cause audible clicks and pops. Higher values are more CPU-friendly but can produce more delay between pressing a pad and hearing the corresponding sound. The ideal audio buffer size also depends on your computer's CPU performance. Experiment with this to find the best setting for your system.
- Latency Adjust: If there is a delay in your audio system even after experimenting with the Audio Buffer Size, click and drag this field up or down to set an offset (in milliseconds).

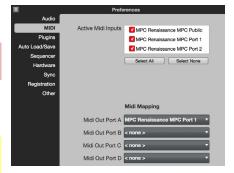
Preferences: MIDI Tab

 Active Midi Inputs: These checkboxes represent the active installed MIDI inputs on your computer system.

Hardware: When the MPC hardware is connected and powered on, the available ports as well as the MPC public port are displayed.

 Midi Mapping: Click each drop-down menu to define the Midi Out Port A to D. Here, you can select the MIDI output your Sequencer data is routed to.

Note: When using the MPC software as a plugin, the only option you can select for your **Midi Out Port** is your host software (*DAW*).



Preferences: Plugins Tab

Here, you can select up to four locations on your hard disk where the software will look for installed VST or AU plugins that you can use as insert or send effects in the MPC software.

Click the ... button to the right of the field to select a desired location. After selecting a new location, we recommend using the **Scan New** function. When you make settings for the first



time, you should click **Rescan All** to perform a complete scan of all selected plugin locations.

Mac OS X users: We recommend checking the **Use AudioUnits** option, enabling you to use also the AudioUnit plugin format.



Preferences: Auto Load/Save Tab

 Auto Load File: Click the ... button to select a Project (.xpj) or Program (.xpm) on your hard disk to load automatically anytime the software opens.

Tip: You can "bypass" or ignore the template by opening the MPC software while holding down your computer's **Shift** key. This will open an empty Project instead of your selected Auto Load file.



- Template File: Click the ... button to select a Sequence template to load automatically anytime you create a new Sequence.
- Auto Save: Click the Enabled box to turn Auto-Save on or off. Auto-Save sets the software to save your Project at regular intervals. Click the Timeout drop-down menu to select the interval.

Preferences: Sequencer Tab

Here, you can activate or deactivate options related to the software's sequencer.

Instant Track Mute: If this option is disabled, Note On messages will be ignored. This is how legacy MPCs' track-muting worked. This allows samples and notes that are playing to finish playing their entire length. This is useful if you are using loops and want a loop to play to the end of a bar but not play the next time the Sequence loops.



If this option is enabled, MIDI track volume is sent. This is useful when you want to have the Track muted immediately. The loop will continue to play but at zero volume, allowing the loop to continue playing when the Track is unmuted.

- Record Track Mute Events: If this option is enabled, Track Mute events are recorded only
 when you are in Track Mute Mode. Timing Correct settings will affect the recorded position of
 Track Mute events.
- Play Track Mute Events: If this option is enabled, Track Mute events are played back only when you are in Track Mute Mode.



- Record Pad Aftertouch Events: If this option is enabled, pad aftertouch data (from MPC hardware's pressure-sensitive pads) can be recorded.
- Place Events recorded during Count-In at start-point: If this option is enabled, pressing a
 pad during the recording's pre-count will record that note event at the start of the recording.
 (This is how the MPC3000 worked.)
- Pulse Resolution: Click this drop-down menu to select the display resolution (in PPQN—pulses per quarter note) of pulse values in certain areas of the software. Please note that this setting affects the display resolution, not the software's timing

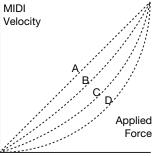
Preferences: Hardware Tab

Here, you can set additional parameters affecting the behavior of your MPC hardware.

Hardware: Press Shift + Song and then press F1 (Prefs). Use the Cursor Buttons to select the corresponding option, and use the Data Dial or -/+ buttons to change it. Not all options in the software's Hardware tab are available in the MPC hardware display, and some options are shown that are available in other tabs in the software.



- Pad Threshold: Click this drop-down menu to select a threshold that must be exceeded to trigger the pad.
- Pad Sensitivity: Click this drop-down menu to set how sensitively your MPC hardware's pads respond to your touch. At lower values, you need to use more force to generate a high-velocity note. At higher values, it is easier to generate high-velocity notes, even if you do not use much force while pressing a pad.
- Pad Curve: Click this drop-down menu to set how your playing is translated into velocity values, starting from A to D. An A pad curve is essentially linear, while the B, C, and D pad curves are exponential. (See diagram to the right.)





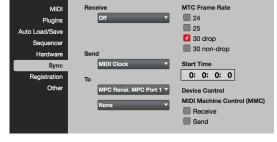
- Footswitch 1 and Footswitch 2: Click these drop-down menus to select the functionality of connected footswitches to your MPC hardware. You can select either transport commands (e.g., Play or Stop) or trigger commands for pads and the F(unction)-Buttons.
- Pad Response: View the Velocity and Aftertouch meters when pressing the pads to help gauge the force and pressure you are applying to them. These meters are useful when adjusting the Pad Threshold and Pad Sensitivity parameters (above).
- Show Hardware Info: Click this button to open a window with information about your connected MPC hardware (firmware version, driver version, etc.).

Audio

Preferences: Sync Tab

Here, you can set various parameters related to the software's synchronization:

- Receive: Click this drop-down menu to select whether or not the software receives MIDI Clock or MIDI Time Code (MTC) from the host software (when MPC is used as a plugin) or from an external device (connected to the MIDI In port of the MPC hardware).
- Send: Click this drop-down menu to select whether or not the software



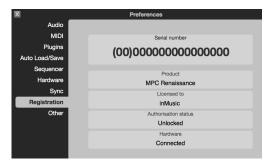
Preferences

- 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 in each **To** drop-down menu below it.
- MTC Frame Rate: Check one of these boxes to set the frame rate for MIDI Time Code (MTC) synchronization in FPS (frames per second). In most cases, you should select 25. The correct frame rate is important, especially when working on film scoring projects.
- Device Control: Check either or both of these boxes to send or receive MIDI Machine Control (MMC) to or from your MPC hardware's transport buttons. MMC sends only transport commands; it does not include track-arming or more advanced features.



· Preferences: Registration Tab

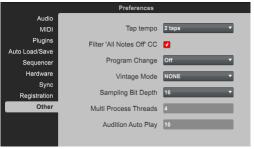
Here, you can view your hardware registration information (or unlock your MPC software by clicking **Unlock Now**, if you have not already done so).



Preferences: Other Tab

Here, you can set various other MIDI and audio parameters.

Hardware: Press Shift + Song and then press F1 (Prefs). Use the Cursor Buttons to select the corresponding option, and use the Data Dial or -/+ buttons to change it. Not all options in the software's Other tab are available in the MPC hardware display, and some options are shown that are available in other tabs in the software.



- Tap Tempo: Click this drop-down menu to set how many times you have to press your MPC hardware's Tap Tempo button until the new tempo is recognized.
- Filter 'All Notes Off' CC: Check this box to filter out All Notes Off data. If you have connected another device to your MPC hardware's MIDI In, checking this box will cause the software to ignore "All Notes Off" ("MIDI panic") messages. That is, if a MIDI device sending MIDI messages into the MPC hardware sends a MIDI panic message, the software will not stop all notes and will continue as before (recording, for instance).
- Program Change: Click this drop-down menu to select what an incoming MIDI Program Change message will change: a *Program*, *Sequence*, or *Track*.



- Vintage Mode: Click this drop-down menu to select an audio quality emulation for the software's audio output. The software can emulate the particular sonic qualities of, for example, the MPC3000 or MPC60, or of course no emulation (None).
- Sampling Bit Depth: Click this drop-down menu to set the bit depth of the audio recorded from a sample.
- Multi Process Threads: Click and drag the number in this field up or down to set how many cores of your computer's processor will be used to render audio. The available range depends on your processor.
- Audition Auto Play: Click and drag the number in this field up or down to set how long a sample will sound when auto-previewing it.

Metronome 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.
- Record + Play enables pre-count in both Record 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 Record and Playback Modes.

Rate lets you to select the metronome click's time division: 1/4, 1/4T, 1/8, 1/8T, 1/16, 1/16T, 1/32 or 1/32T ("T" stands for "triplet").

Sound lets you to select the sound that you want to hear for the metronome: *Sidestick1*, *Sidestick2*, *Clap*, *Metroclick*, *Shake*, *Tambourine*, or *MpcClick*.



Time Correct Menu

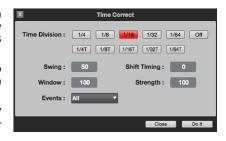
Here, you can select Quantization settings.

Apply quantizes the currently selected note events. If no note events are selected, nothing will be quantized.

Settings: Click this to open the Time Correct window with the following functions. You can also open this window by pressing Ctrl+Shift+K (Windows) or **%+Shift+K** (Mac OS X) on your computer keyboard.

• **Time Division:** Click a box to select the note value to quantize to. Default is 1/16. You can select from different quantizations, including triplet (*T*) values.

You can also do this with your computer keyboard by pressing any number key (1-0) in the top row or the – key to turn quantization off.



- **Swing:** Click and drag this field up or down to set the amount of swing from 50% to 75%. Swing lets you "shuffle" your beats—from subtle to extreme.
- Shift Timing: Click and drag this field up or down to shift all note events by clock ticks.
- **Window:** Click and drag this field up or down to set how many notes around a quantize value will be quantized. Any notes outside this range will not be quantized; notes inside will.
- Strength: Click and drag this field up or down to set how strictly notes will be quantized (i.e., shifted toward the quantize value). Lower values move notes a little bit towards the closest quantize value, resulting in a less mechanical feel than a strict quantization (a higher value).
- Events: Click this drop-down menu select the target range for the time correction. You can apply
 the time correction to All note events or to just the Selected ones. When Range is selected, you can
 define the bars as well as the pads or keys that will be quantized. The selection is done on the MPC
 hardware.

Hardware: When *Range* is selected, you can define the pads or keys to be quantized by pressing their corresponding pads. Selected pads are shown in the **Time Correct** window. Use the **Cursor Buttons** to select the **Events Range** parameter to select the range of bars for quantization.

Click **Do It** to apply the settings you made, or click **Close** to cancel without making any changes.

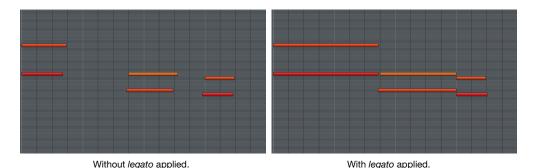


Lengths: Click this to open the **Time Correct Note Lengths** window. Its fields are identical to the Time Correct Settings windows described above but with the addition of a **Type** drop-down menu.

Click the **Type** drop-down menu and select one of the following options:

- End: The end points of note events will be extended or cropped so they align with the closest Time
 Division marker in the grid. The start points will remain untouched.
- Length: The end points of note events will be extended or cropped so the note event's length is a
 multiple of the Time Division, regardless of where it is in the grid. The start points will remain
 untouched.
- Legato: The end points of note events will be extended or cropped to create a long, unbroken
 phrase from the first note event's start point to the last note event's end point. Each note event will
 sustain until another note event starts. If multiple note events start at the same time (and are not the
 last note events), their lengths will become identical. Selecting Legato disables all other options in
 this window.

Click **Do It** to apply the settings you made, or click **Close** to cancel without making any changes.



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Tools Menu

Delete Unused Samples deletes any samples not assigned to a pad from the Project.

Important: The samples will be deleted *immediately* from the project. The software will not ask for confirmation or allow you to cancel, but you can undo this action (i.e., with the **Undo** command or hardware button), if needed.

Tip: You can delete unused samples by clicking the trash can icon in the upper-right corner of the **Project Information**, as well.

Show MIDI Keyboard shows or hides a piano keyboard at the bottom of the window, above the Transport Section. You can also do this by pressing **Ctrl+Shift+W** (Windows) or **%+Shift+W** (Mac OS X) on your computer keyboard. You can use these keys to play or enter notes.

MIDI Keys enables or disables the use of your computer keyboard to enter or play a range of 17 MIDI notes, starting from a C. You can also do this by pressing **Ctrl+ W** (Windows) or **%+ W** (Mac OS X) on your computer keyboard. Press the [or] key on your computer keyboard to shift the range of playable notes up or down (respectively) by one octave.

On standard US/American computer keyboard, use the A, S, D, F, G, H, J, K, L, and; keys to play the white keyboard keys, and use the W, E, R, T, Y, U, I, O, and P keys to play the black keyboard keys.

If the MIDI Keyboard is shown, the corresponding computer keyboard character will be shown above each key (though you can still use MIDI keys even if it is hidden).



View Menu

Mode lets you select any of the 12 modes as an alternative to the mode tabs above it.

Tip: On your computer keyboard, press and hold Ctrl (Windows) or **%** (Mac OS X) and then press 1-10, -, or = to select a mode.

Editor Full Screen lets you switch between Split View and Full-Screen View. This is the same as clicking the **View** button in the upper-right corner o fthe window.

File Browser lets you show or hide the File Browser. You can also do this by clicking the triangle button (◀ or ▶) in the lower-left corner of the window or by pressing **Shift+B** on your computer keyboard.

Expansion Browser lets you show or hide the Expansion Browser when the File Browser is shown. You can also do this by clicking the "arrows-in-an-X" button in the lower-left corner of the window or by pressing **Shift+E** on your computer keyboard.

Grid Editor enters Grid View (described in the earlier *Grid View* section). You can also do this by clicking the **List View** button just below the Mode Tab (if you are currently in List View) or by pressing **Shift+G** on your computer keyboard.

List Editor enters List View (described in the earlier *List View* section). You can also do this by clicking the **List View** button just below the Mode Tab (if you are currently in Grid View) or by pressing **Shift+L** on your computer keyboard.

Minimize minimizes the MPC software window.

Full Screen maximizes the MPC software window.



Help Menu

MPC Help opens this PDF manual.

Mac OS X users: About MPC and Check for updates... are located in the MPC menu.

MPC Release Notes opens the documentation for changes and improvements in the current release.

Set Up MMC Control opens a PDF with instructions on how to allow your MPC hardware's transport buttons to send MMC (MIDI Machine Control) messages from the MPC plugin to your host software. This allows you to use your MPC hardware to control your host software's transport. This is available for certain host software applications only.

Hybrid Instrument Help opens the Hybrid 3 User Guide PDF.

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

Unlock MPC opens a window where you can enter information to unlock your MPC software (if you have not already done so).

About MPC shows information about the software version.



Main Mode



Main Mode gives you an overview of the most-used functions.

To enter Main Mode in the software, do one of the following:

- Click the Main Mode tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Main.
- On your computer keyboard, press Ctrl+1 (Windows) or #+1 (Mac OS X).

Hardware: Press the Main / Track button.

Important: The MPC hardware cannot display as many parameters at the same time as the software. Some of the MPC hardware functions are located on different pages than in the software.





Q-Link Section

Here, you can set the functionality of the Q-Link Knobs.

The **Q-Link** section can work in two modes: Program Mode (**Prg**) and **FX** Mode.

- **Program Mode:** The 16 Q-Link Knobs control specific Program parameters of the selected Program.
- 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 real time.

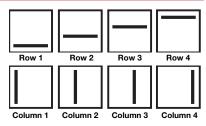


Hardware:

- Access the Q-Link Section by pressing Shift + Prog Edit / Q-Link.
- 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, described later in this section.
- 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.

Important: The MPC Renaissance has 16 Q-Link Knobs, allowing direct access to all 16 parameters, whereas the MPC Studio is equipped with 4 Q-Link Knobs which need to be assigned to the corresponding Q-Link Knob column or row with the **Scroll Knob** above the Q-Link Knobs.

In modes where the display shows a "4 x 4" array of parameters, you will see an additional indicator on the top or left side of the array, indicating the currently controlled row/column:



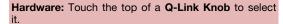
- The Q-Link Knobs control columns of parameters in Main Mode, Program Edit Mode, Track View Mode, Sample Edit Mode, and Step Sequence Mode.
- The Q-Link Knobs control **rows** of parameters in Program Mixer Mode and Track Mixer Mode.



Program Mode

Click the **Prg** button to activate the Q-Link Knobs' Program Mode. To assign a parameter to a Q-Link Knob in the software:

 Click a Q-Link Knob and move the mouse to select it for assigning. The Qlink field will show the number of the selected knob.





2. Click the **Trig** drop-down menu and select *Min* or *Max*. When you hold down the **Q-Link Trigger** button on your MPC hardware and touch the top of one the Q-Link Knobs, the corresponding parameters will jump to either its minimum (*Min*) or maximum (*Max*) value.

Hardware: Use the Cursor Buttons to select the Touch To field, and then use the Data Dial or -/+ buttons to select *Min* or *Max*.

- 3. Click the **Pad** drop-down menu and select the desired pad you want to control. We recommend using **Q1** for Pad *A01*, **Q2** for Pad *A02* etc., so your controller mapping is easy to remember.
- 4. Click the **Change** drop-down menu to select the condition for changing a parameter. In most cases, you should select *Real Time*, which changes the sound immediately when the Q-Link Knob is moved. If *Note On* is selected, the Q-Link Knob's position will affect the sound only when its corresponding pad is pressed.
- Click the **Param** (Parameter) drop-down menu and select the parameter you want to assign to the O-Link Knob:
 - Sample Layer allows you to switch between Sample Layers 1 to 4. To use this function, each
 layer must have an assigned sample with distinct (non-overlapping) velocities. See *Program Edit Mode > Edit Layers Section* to learn how to set sample layer velocities.
 - o Tuning controls the sample's pitch.
 - Filter Cutoff controls the cutoff frequency of the filter. (Select a pad's filter type in Program Edit Mode.)
 - o Filter Resonance controls the resonance value of the filter.
 - o Filter Env Amount controls the envelope amount of the filter.



- o Qlink Pan controls the sample's panning position in the stereo field.
- o Level controls the sample's volume level.
- o Env Attack controls the attack time of the Amp Envelope.
- o Env Decay controls the decay time of the Amp Envelope.
- o Env Release controls the release time of the Amp Envelope
- o Send 1 to 4 controls the corresponding FX send levels for the selected pad.

If *Midi* is selected in the **Instrument** Section, The Q-Link Knobs' 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.





FX Mode

Click the **FX** button to activate the Q-Link Knobs' FX Mode. To assign a parameter to a Q-Link Knob in the software:



 Click a Q-Link Knob and move the mouse to select it for assigning. The Qlink field will show the number of the selected knob.

Hardware: Touch the top of a Q-Link Knob to select it.

2. Click the **Trig** drop-down menu and select *Min* or *Max*. When you hold down the **Q-Link Trigger** button on your MPC hardware and touch the top of one the Q-Link Knobs, the corresponding parameters will jump to either its minimum (*Min*) or maximum (*Max*) value.

Hardware: Use the **Cursor Buttons** to select the **Touch To** field, and then use the **Data Dial** or -/+ buttons to select *Min* or *Max*.

- 3. Click the Effect drop-down menu and select one of the effects, which have previously been loaded.
 - **Note:** 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 have their parameter assigned. See the *Effects* chapter for more information about loading effects.
- 4. Click the **Param** (Parameter) drop-down menu and select the parameter you want to assign to the Q-Link Knob. The available parameters depend on the selected effect.



Pad Bank Section

The **Pad Bank** section lets you select a pad to edit (16 pads across eight banks).

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

Hardware: Press a pad to select it. To select a different bank, use the **Pad Bank** buttons to specify a bank from *A* to *H*.





Sequence Section

The **Sequence** section gives you an overview of parameters relevant to the current Sequence.

In the software, click the **Sequence** drop-down menu and select a Sequence or click the ▶ icon in the lower-right corner of the drop-down menu and select an unused Sequence from the list that appears.

Hardware: Move the cursor to **Seq** and use the **Data Dial** or the **-/+** buttons to select the desired Sequence.



Click the **Loop** button to switch the Sequence's loop function *On* or *Off*.

The loop points are defined by the **First** and **Last Bar** values. 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.

Hardware: Use the **Cursor Buttons** to select the **Loop** field and use the **Data Dial** or the -/+ buttons to turn the loop *On* or *Off.* With the **Loop** field still selected, press the **Window** button. Then, use the **Cursor Buttons** to select the field for **First Bar, Last Bar,** or **Number of Bars**, and then use the **Data Dial** or the -/+ buttons to select the desired numbers.

Click the **Total Bars** field to set the total number of bars.

Hardware: Use the Cursor Buttons to select the Bars field, and then use the Data Dial or the -/+ buttons to set the desired bar length of your Sequence. You can set up to 999 bars.

Click the **T Correct** (Time Correct) drop-down menu and select the note quantization value.

Hardware: Press the F1 button (T.C.) to edit the Time Correct value.

Click the **Time Sig** field to change the time signature for your Sequence.



Click the **BPM** field to set the desired tempo in beats per minute.

Hardware: Use the **Cursor Buttons** to select the **Bpm** field, and use the **Data Dial** or the -/+ buttons to set the desired tempo in BPM (beats per minute).

Click 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.

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 Section

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

In the software, click the **Track** drop-down menu and select the desired Track.

Hardware: Use the **Cursor Buttons** to select the **Trk** field, and use the **Data Dial** or the -/+ buttons to select the desired Track. You can also press **F3** (**Track**-) or **F4** (**Track**+) to switch to the desired Track or type in the number with the number keys.



In the upper-right corner of the **Track** section, an icon will indicate whether the Track is using a Drum Program, Keygroup Program, MIDI Program, or Plugin Program.



Click the **Velocity** display to change the overall velocity of the selected Track. This determines how loudly or quietly a Track plays relative its recorded levels. 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.

Hardware: Use the **Cursor Buttons** to select the **Vel**% field, and use the **Data Dial** or the -/+ buttons to edit the overall velocity of the selected Track in percent.

Click the **M** button to mute the selected Track. Click 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.

Hardware: Press **F5** (**Mute**), to mute or unmute the selected Track. Press **F6** (**Solo**) to solo or unsolo the selected Track.

Click the **Type** drop-down menu to select what kind of Program the Track will use: a *Drum* Program, *Keygroup* Program, *Midi* Program or a *Plugin* Program.



Drum Programs and Keygroup Programs

Click the **Program** drop-down menu to select which Program you want to use. To create a new Program, click the + icon next to the drop-down menu.

MIDI Programs

When the Track's Program **Type** is set to *Midi*, the Track Section will look slightly different from other Programs:

Click the **Port** drop-down menu and select the desired MIDI port. This is where the Sequence data will be sent. The drop-down menu shows you the available MIDI ports as set in the **MIDI** tab of the **Preferences** window. For more information, see **Software Menus > Edit Menu > Preferences: MIDI Tab**.



Click the **MIDI** Ch drop-down menu to select the MIDI channel (from 1 to 16) you want to send MIDI messages over.

Click the **Prog Ch** drop-down menu to select a MIDI Program Change message (from 1 to 127 or Off). This is useful for selecting a particular preset in your MIDI sound module.

Click the **Bank** drop-down menu to select a Bank Select or Bank MSB (Most Significant Byte) message (from 0 to 127 or Off).

Click the **LSB** drop-down menu to select a Bank LSB (Least Significant Byte) message (from 0 to 127).



Hardware:

- Use the Cursor Buttons to select Port and then use the Data Dial or -/+ buttons to select the desired MIDI port. This is where the Sequence data will be sent.
- 2. Use the **Cursor Buttons** to select **Ch** and then use the **Data Dial** or -/+ buttons to select the MIDI channel (from 1 to 16) you want to send MIDI messages over.
- 3. Use the **Cursor Buttons** to select **PC** and then press the **Window** button.
- 4. In the **Program Change** window that appears, use the **Cursor Buttons** to select the field and use the **Data Dial** or -/+ buttons to select the setting(s) of the following:

Set the **Program Change** message from 0 to 127 or to Off.

Set Bank Enable to On.

Set the **Bank MSB** (Most Significant Byte) and **Bank LSB** (Least Significant Byte) message from 0 to 127 or to Off.

5. Press **F4** (**Close**) to close the window.



The **Program Change** window in the display of the MPC hardware.



Plugin Programs

When the Track's Program **Type** is set to *Plugin*, the Track Section will look slightly different from other Programs:

If your Project already contains the desired plugin, click the **Program** drop-down menu to select it. In the window that appears, you can click checkboxes to re-order your list of plugins: **Sort by type** or **Sort by manufacturer**. Click **Select** to load the selected plugin or **Close** to cancel the operation.



If you want to add a new plugin to the Project, click the + icon next to the **Program** drop-down menu. A new Program name (*Plugin ###*) will appear in the Program drop-down menu (you can click it to enter a new name for it). Then, click the **Plugin** drop-down menu, select the desired plugin from the list, and click **Select** to select it or **Close** to cancel. Click the **e** button to open the user interface of the loaded plugin.

Click the **MIDI Ch** drop-down menu to select a MIDI channel (from 1 to 16) the Plugin Program will use. Use this setting when you are working with a virtual instrument that supports multi-mode.

Click the **Preset** drop-down menu to select a preset for your plugin.



Program Channel Strip

The channel strip for the Program lets you use mixer controls directly from Main Mode. This is the same as the Program Channel strip shown on the right-most side of the window in Program Mixer Mode.

Tip: See *Effects > Overview* to learn more about how insert and send effects work in the software.

- Insert: Click this to view the insert effect slots for the Program.
- Send: Click this to view the levels for the send effects for the Program. Click and drag a knob up or down to set the effect level for that Return slot.

Important: To use a send effect, you have to load an effect into the corresponding send effect slot on the right side of the window in Track Mixer Mode. See the *Track Mixer Mode* chapter to learn more.

- Inserts On/Off: Click this button to enable or disable the Program's insert effects.
- Insert Slots: Click the downward arrow (▼) of the slot you want to assign an effect to. Select an effect from the window that appears.

Tip: Move an effect from one slot to another by clicking and dragging it. Copy an effect from one slot to another by holding **Ctrl** (Windows) or **%** (Mac OS X) while clicking and dragging it.

Double-click a loaded effect name to open its graphic user interface for more detailed editing.

- Routing: Select the desired output (e.g., Out 1,2) to route the audio signal directly to this output.
- Pan: Click this knob and drag it up or down to set the position.
- Solo: Click this button (S) to solo it, muting all other channels.
- Mute: Click this button (M) to mute it.





- Automation: Click the Automation button on Program Channel strip to switch its Automation between Off, Read (R), and Write (W).
 - When set to Off, the Program will ignore automation data. If you have already recorded or entered automation, clicking the button will switch between Read (R) and Write (W) only, but you can override this and set it to Off by pressing and holding Shift on your computer keyboard while clicking the button.



 When set to Read, the Program will read automation data but will not record any additional automation over it, though you can still manually edit and enter automation. (Think of this as a protective feature to prevent accidental changes to your automation while recording.)



 When set to Write, the Program can record automation. (If you have any Q-Link Knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording!)



Hardware:

Press the **Q-Link Trigger** button to switch the Automation between *Off* (the button will be unlit), *Read* (the button will be lit solid), and *Write* (the button will flash).

If you have already recorded or entered automation, pressing the **Q-Link Trigger** button will switch between *Read* and *Write* only, but you can override this and set it to *Off* by pressing and holding the **Shift** button while pressing the **Q-Link Trigger** button.

To set the **Q-Link Trigger** button to cycle through the automation states for just the Program or globally, do the following:

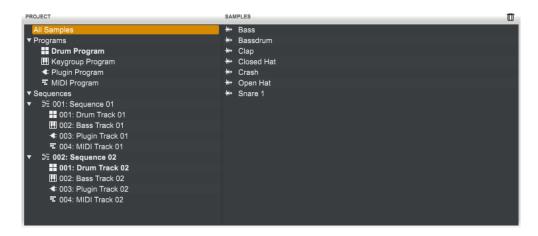
- 1. Press Shift + Song/Other.
- 2. Press F1 (Prefs).
- 3. Use the Cursor Buttons to select the Auto button field
- 4. Use the **Data Dial** or **-/+** buttons to set the field to *Program* or *Global*.

Tip: Set all Programs to the same Automation setting by clicking the **Global Automation** button in the upper-right corner of the software window.

• Level: Click the channel fader and drag it up or down to set the level. The level meter to the right of the fader provides a visual indication of the level. Press and hold Alt (Windows) or Option (Mac OS X) on your computer keyboard and click a fader to return it to its default position.



Project Information



The **Project Information** shows the Project name as well as all Programs and samples loaded into the software's current project.

You can simply drag and drop a sample from the **Project Information** onto any pad to assign it. How a sample can be played and edited depends on the Program. Refer to **General Features > Program Types** for more information.



The **Programs** list displays all available Programs in the Project. Click the arrow next to it to expand or collapse the list.

Next to each Program in the list, an icon will indicate whether it is a Drum Program, Keygroup Program, MIDI Program, or Plugin Program (for Plugin Programs, the plugin name is in grey on the right side of the column).

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

- Duplicate makes a copy of the selected Program and adds a -1 to the Program name.
- Duplicate to New Track makes a copy of the selected Program onto a new Track and adds a -1 to the Program name.
- Delete deletes the selected Program. To avoid accidental deletion, a window opens for you to confirm or cancel the operation.
- Save saves the current Program to your hard disk. A dialog window opens automatically where you can select a save location. Samples will automatically be saved with a Program.
- Rename opens a window where you can rename your Program.

III Drum Program III Keygroup Program **≮** Plugin Program

■ MIDI Program

▼ Programs

Hardware: Press the Window button to open the Edit Current Program display page:

- Press F2 (Delete) to delete the selected Program. To avoid accidental deletion, a window opens for you to confirm or cancel the operation.
- Press F3 (New) to create a new Program. Use the Data Dial or -/+ buttons to select the type of Program you want to create, and then press F5 (Do It) to confirm or F4 (Cancel) to cancel.
- 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.

The above operations can also be done for Sequences (Seq) and Tracks (Trk).



The **Sequences** list displays all available Sequences in the Project. Click the arrow next to it to expand or collapse the list.

Under each Sequence is a list of Tracks used in that Sequence. Next to each Track, an icon will indicate whether it uses a Drum Program, Keygroup Program, MIDI Program, or Plugin Program (for Plugin Programs, the plugin name is in grey on the right side of the column).

```
▼ Sequences

▼ 

□ 001: Sequence 01

□ 001: Drum Track 01

□ 002: Bass Track 01

■ 003: Plugin Track 01

□ 004: MIDI Track 01
```

The **Sample** column displays the available samples. Select **All Samples** to view all samples in the Project, or select a Program or Sequence below to view the samples in that Program or Sequence only. Double-click a sample in the **Sample** column to load it in Sample Edit Mode.

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

- Delete deletes the selected sample. To avoid accidental deletion, a window opens for you to confirm or cancel the operation.
- Save saves the current sample to your hard disk. A dialog window opens automatically where you can select a save location.
- Rename opens a window where you can rename the selected sample.
 This does not affect the original file's name.
- Edit opens Sample Edit Mode for the selected sample. For more information, please refer to the Sample Edit Mode chapter.

Bass
Bassdrum
Clap
Closed Hat
Crash
Open Hat
Snare 1

Click the trash can icon in the upper-right corner of the **Project Information** to delete samples from the Project. In the window that appears, you can select **Purge Unused Samples**, which deletes any samples not assigned to a pad from the Project, or **Delete All Samples**, which deletes all samples within the Project. Click **Do It** to proceed or **Close** to cancel without deleting anything.



Important: You can undo this deletion (i.e., with the **Undo** command or hardware button), if needed.



Program Edit Mode



Program Edit Mode contains all parameters for editing your Programs.

For Drum Programs and Keygroup Programs, this mode includes the parameters of each Layer as well as all synthesis parameters and insert effect settings. These two Program types will have different parameters due to how they are set up (Drum Programs have fewer parameters than Keygroup Programs).

For MIDI Programs or Plugin Programs, skip to **Program Edit Mode for MIDI Programs and Plugin Programs** for more information.

For more general information on the differences between these four kinds of Programs, please see **General Features > Program Types**.



MPC Renaissance users: All parameters of Program Edit Mode are arranged in a grid of up to 16 parameters. These parameters correspond to the 16 **Q-Link Knobs** of the MPC Renaissance. The "4 x 4" grid lets you adjust the parameters shown in MPC Renaissance's display, quickly and intuitively.

MPC Studio users: MPC Studio has four **Q-Link Knobs** which can be assigned to the corresponding **Q-Link Knob** column with the **Scroll Knob** above the **Q-Link Knobs**.



To enter Program Edit Mode in the software, do one of the following:

- Click the **Program Edit Mode** tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Program Edit.
- On your computer keyboard, press Ctrl+2 (Windows) or ##+2 (Mac OS X).

Hardware: To enter Program Edit, press the Prog Edit button.

Drum Programs: To select a Drum Program for editing, select the desired pad first. Do one of the following:

- In the software, click the desired pad in Main Mode.
- In the software, click the pad row in the grid in **Program Edit** Mode.
- In the software, click the pad in the Edit Zones area, under the Edit Layers section.
- On your MPC hardware, press the desired pad.



Master Section

In the Master Section, you can set the playback mode and tuning for the overall Program.

Mode sets the playback mode for the Program's pads. In *Mono* Mode, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample(s), the new pad will immediately mute all other currently playing pads in that Program. In *Poly* Mode, several pads can be triggered at the same time (limited only by the total number of voices available).

Semi lets you transpose the selected Program up to 12 semitones up or down.

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.

Hardware: To edit the Master Section, press the **F1** button. Use the **Q13**, **Q14**, and **Q15 Q-Link Knobs** for direct access to the parameters. Remember that Drum Programs offer fewer parameters than Keygroup Programs.





Click the Automation button to switch the Program's Automation between Off, Read (R), and Write (W).

When set to Off, the Program will ignore automation data. If you have already recorded or
entered automation, clicking the button will switch between Read (R) and Write (W) only,
but you can override this and set it to Off by pressing and holding Shift on your computer
keyboard while clicking the button.



When set to Read (R), the Program will read automation data but will not record any
additional automation over it, though you can still manually edit and enter automation.
(Think of this as a protective feature to prevent accidental changes to your automation
while recording.)



 When set to Write (W), the Program can record automation. (If you have any Q-Link Knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording!)



Hardware:

Press the **Q-Link Trigger** button to switch the Program's Automation between *Off* (the button will be unlit), *Read* (the button will be lit solid), and *Write* (the button will flash).

If you have already recorded or entered automation, pressing the **Q-Link Trigger** button will switch between *Read* and *Write* only, but you can override this and set it to *Off* by pressing and holding the **Shift** button while pressing the **Q-Link Trigger** button.

To set the **Q-Link Trigger** button to cycle through the automation states for just the Program or globally, do the following:

- 1. Press Shift + Song/Other.
- 2. Press F1 (Prefs).
- 3. Use the Cursor Buttons to select the Auto button field
- 4. Use the **Data Dial** or **-/+** buttons to set the field to *Program* or *Global*.

Tip: Set all Programs to the same Automation setting by clicking the **Global Automation** button in the upper-right corner of the software window.



Simultaneous Play Section (Drum Programs Only)

The **Simultaneous Play** section lets you set up to four pads that can be triggered by pressing one pad only. Use this function to trigger a stack of sounds (e.g., layered bass drums).

Hardware: To select the pads for **Simultaneous Play**, press the **F1** button (**Master**). Use **Q-Link Knobs Q5–Q8** to select the corresponding pads. This function is available only in Drum Programs.



Mute Target Section (Drum Programs Only)

For the currently selected pad, you can select up to four pads as **Mute Targets**. When the pad is played, it will immediately silence its Mute Targets. Click each **Pad** drop-down menu to select the desired Mute Target.



MUTE TARGET

Hardware: To select the Mute Target pads, press the **F1** button (**Master**). Use **Q-Link Knobs Q1 – Q4** for selecting the corresponding pads. This function is only available in Drum Programs.

Tips:

- This feature is useful for programming realistic hi-hats, especially if only the open or closed hat should be heard.
- This feature is similar to the Mute Group feature, available for both Drum Programs and Keygroup Programs. For more information about Mute Groups, see Keygroup Play Modes Section (for Keygroup Programs) and Pad Play Modes Section (for Drum Programs) in this chapter.



Keygroup Play Modes Section (Keygroup Programs Only)

Here, you can set the behavior for each pad's samples in a Keygroup Program.

Mute Groups let you assign the selected pad to one of the 32 available groups. When pads assigned to the same Mute Group receive MIDI notes, the last pad played will silence all other pads in that Mute Group.

Layer Play determines how multiple samples assigned to the same pad are played:

- Cycle (Cyc): Each time the pad is played, it will play the next layer's sample. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4... etc.
- Velocity (Vel): The pad will switch between layers depending on how hard you press a pad.
- Random (Ran): Each time the pad is played, it will play one its layer's samples at random.

Sample Play determines how much of the sample is played:

- One-Shot: The entire sample will play from start to end. Use this when you want to play short sounds.
- Note-On: The sample will play only as long as the pad is held. This is better for longer samples so you can control a sound's duration by pressing and holding its corresponding pad.

Hardware: To edit the **Keygroup Play Modes** parameters, press the **F1** button (**Master**). Use **Q-Link Knobs Q9 – Q11** for direct access of all three parameters. These parameters are available only in Keygroup Programs.



Key Group Section (Keygroup Program Only)

Here, you can set additional Keygroup Program parameters.

Tips:

- The loaded sample's root key will determine where the original pitch is located. For example, if the root key is C3, the original sample is located at Pad D13.
- 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.



KG Select (Keygroup Select) lets you select a specific Keygroup for editing. This parameter works in conjunction with the No. KG (Numbers of Keygroups) parameter in the Edit Layers section, which 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, 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 a sample's automatic transposition on or off. If this is off, 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 controls the overall panning of the loaded sample(s) in the stereo field.



Note Range lets you 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. The settings for **Lo** and **Hi** are also shown in the virtual keyboard in the **Edit Layers** section.

Tip: Set the **Lo** parameter to *A0* and the **Hi** parameter to *C8* to emulate the range of a standard 88-key piano.

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.

Tip: The **Edit Layers** section has some parameters similar to those in this section (**Level**, **Pan**, **Semi**, **Fine**, **Note Range**). Remember that **Key Group** parameters control the overall settings for the sample, while **Edit Layer** parameters control the settings for each layer (up to 4).

Hardware: To edit the **Key Group** parameters, press the **F1** button (**Master**). Use **Q-Link Knobs Q1** – **Q8** for direct access of all parameters. These parameters are available only for Keygroup Programs.



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. Keygroup Programs also have a Root Note parameter.

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

Click the **Sample** drop-down menu to select the sample file for that layer. Remember that the sample has to be loaded into the Project Information beforehand. For information on how to load samples into a Project, please see *General Features > Browsers > File Browser* and *General Features > Program Types* earlier in this manual.

Tip: For Drum Programs, you can click and drag a sample from the **File Browser**, your computer's **Desktop**, or your computer's **Explorer** (Windows) or **Finder** (Mac OS X) directly onto a pad to load it to Layer 1.





Semi lets you transpose the selected layer 12 up to semitones up or down.

Fine provides fine-tuning of each layer by fractions of a semitone.

Level lets you adjust the each layer's volume, letting you control the "balance" of the samples assigned to the pad.

Hardware: 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**). Use the **Q-Link Knobs** for direct access of their respective **Edit Layers** parameters. Remember that Drum Programs have fewer parameters than Keygroup Programs.

Pan adjusts the stereo placement of the respective layer.

Velocity defines the velocity range of each layer. Set the values by doing one of the following:

- In the software, click in the segment chain on the right side of the Layer area and drag its left and right ends to the desired values.
- On your MPC hardware, press the F3 button and changed the displayed values with the Data Dial or -/+ buttons.

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 higher velocity levels. By assigning several samples of one instrument, you can create a realistic-sounding "multi-sample" by adjusting the velocity ranges of each layer accordingly. (For example, you may have three samples of a drum hit with low force, medium force, and high force. You can set each sample to a layer and set the Velocity ranges so only low velocities trigger the low-force sample, only mid-range velocities trigger the medium-force sample, and only high velocities trigger the high-force sample.)

Root Note (available for Keygroup Programs only), you can set the root key of each loaded sample.

Hardware: 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**). Use the **Q-Link Knobs** for direct access of their respective **Edit Layers** parameters. Remember that Drum Programs have fewer parameters than Keygroup Programs.



The virtual keyboard (available for Keygroup Programs only) shows the **Note Range**, which can be set in the **Key Group** section. You can also drag the left or right range with your computer mouse.



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

No. KG (Number of Keygroups) lets you create up to 128 Keygroups within a Keygroup Program. This is very useful when working with multi-samples. For example, if you want to create a realistic 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.





Edit Zones (only available in Drum Programs) displays an overview of any selected pad(s). Click one of the checkboxes on the right to select how the selected pads will be edited. In the software, you can select pads directly in **Program Edit** Mode by clicking with your computer mouse. On your MPC hardware, you can select pads by striking them.

- Current: Only the currently active pad (the purple square with an orange border) can be edited.
- Multiple: All selected pads (squares with an orange border; the purple square is the active one) can be edited simultaneously.
- All: All pads can be edited simultaneously.



Hardware: To select the Edit Zones setting:

- 1. Enter Program Edit Mode by pressing the Prog Edit button.
- On any of the tabs (selectable with the F-Buttons), use the Cursor Buttons to select any field except: Fit Atk, Fit Hid, Fit Dec, Fit Sust, Amp Atk, Amp Hid, Amp Dec, Amp Sust, Dec Type, or a loaded effect name.
- 3. Press the Window button.
- In the window that appears, use the Data Dial or -/+ buttons to set the Edit Mode field to Current, Multiple, or All.
 - If you select *Multiple*, press the pads you want to select. Use the **Pad Bank** button to view other pad banks.
- 5. Press **F4** (**Close**) when you are done.

Tip: You can immediately select multiple pads while on any tab in Program Edit Mode (regardless of the current Edit Zones setting) by pressing and holding the **Shift** button and pressing each desired pad. The Edit Zones setting will automatically change to *Multiple*.



Filter Section

The **Filter Type** drop-down menu lets you select a filter for the selected pad. See **Appendix** > **Glossary** > **Filter** for an explanation of the available filter types.

Cutoff controls the cutoff frequency for low-pass and high-pass filter types or the center frequency for band-pass and band-stop filter types.

Reso controls the resonance/emphasis of the frequencies around the cutoff point.

Tip: Use values lower than 80 to give more brilliance to the sound. At values higher 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.

Tip: To give a sound a more distinctive attack, increase the **Env** setting and set low **Atk** and **Decay** values as well as a medium-low **Sust** value of the **Filter Envelope**. This 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, 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 (Velocity > Start, for Drum Programs only) sets how much velocity is needed (for a triggered pad or key) to modulate the sample startpoint.
- Kbd>FIt (Keyboard → Filter, for Keygroup Programs only) sets how much aftertouch data (from a pad or a MIDI-keyboard) is needed to modulate the cutoff frequency.



- V>Atk (Velocity > Attack) sets how much velocity is needed (for a triggered pad or key) to
 modulate the Attack phase for the Amp envelope.
- V>Env (Velocity → Envelope) enables velocity information to control the amount of the filter envelope's effect on the cutoff frequency.
- V>Fit (Velocity → Filter) uses the velocity of a pad or key to modulate the cutoff frequency directly.

The **Filter Envelope** controls affect the filter frequency. The knobs control the envelope shape or timevariant modulation output. Adjust envelope's influence on the filter frequency with the **Env** knob. See the following **Anatomy of an Envelope** below to learn about the envelope parameters.

The **Amp Envelope** controls affect level changes over time. The knobs control the envelope shape or time-variant modulation of a sound's level. See the following **Anatomy of an Envelope** below to learn about the envelope parameters.

Hardware:

To edit the **Filter**, **Filter Envelope**, and **Amp Envelope** parameters, press the **F4** button (**FIt Env**). Use the **Q-Link Knobs** for direct access of all 16 parameters.

To set the Filter Envelope type or Amp Envelope type, press the **Window** button while on the **Fit Env** tab. Use the **Cursor Buttons** to select the **Filter Envelope** or **Amp Envelope**, and use the **Data Dial** or -/+ buttons to select *AD* or *AHDS*. See the following *Anatomy of an Envelope* below to learn more about the envelope parameters.



Anatomy of an Envelope

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.

For Drum Programs, the software offers two envelope types comprised of separately controllable parameters. Click the **AD** box to check or uncheck it, letting you switch between two envelope types: *AD* (checked) or *AHDS* (unchecked).

For Keygroup Programs, the software offers only AHDS envelopes.

With AHDS envelopes, the following happens when you trigger a sample:

- Within the period of time you have defined with the Attack (Atk)
 parameter, the sample volume rises to its maximum value.
- The sample's maximum volume will be maintained during the Hold phase.
- 3. During the **Decay** phase, the sample's volume will gradually drop to the sustain level.
- The sample's volume will stay at the sustain level (Sust) until the pad or key is released.

With **AD** envelopes, the following happens when you trigger a sample:

- Within the period of time you have defined with the Attack (Atk)
 parameter, the sample volume rises to its maximum value.
- 2. The sample's maximum volume will be maintained until its **Decay** phase, when the sample's volume will gradually drop to zero over the set duration. Click the **Type** drop-down menu to select *Decay From Start* (the volume will start decreasing immediately after reaching its maximum level) or *Decay From End* (the maximum volume will be maintained for a hold phase until it reaches the decay phase).



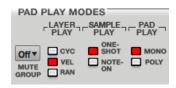




Pad Play Modes Section (Drum Programs Only)

Here, you can set the behavior for each pad's samples in a Drum Program.

Mute Groups let you assign the selected pad to one of the 32 available groups. When pads assigned to the same Mute Group receive MIDI notes, the last pad played will silence all other pads in that Mute Group.



Tip: This feature is useful for programming realistic hi-hats, especially if only the open or closed hat should be heard.

Layer Play determines how multiple samples assigned to the same pad are played:

- Cycle (*Cyc*): Each time the pad is played, it will play the next layer's sample. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4... etc.
- Velocity (Vel): The pad will switch between layers depending on how hard you press a pad.
- Random (Ran): Each time the pad is played, it will play one its layer's samples at random.

Sample Play determines how much of the sample is played. Note-On (only as long as the note is held).

- One-Shot: The entire sample will play from start to end. Use this when you want to play short soundas.
- Note-On: The sample will play only as long as the pad is held. This is better for longer samples so you can control a sound's duration by pressing and holding its corresponding pad.

Pad Play lets you select between two options: In *Mono* Mode, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample(s), the new pad will immediately mute all other currently playing pads in that Program. In *Poly* Mode, several pads can be triggered at the same time (limited only by the total number of voices available).

Hardware: To edit the **Pad Play Modes** parameters, press the **F5** button (**Lfo Mod**). Use **Q-Link Knobs Q13 – Q16** for direct access of all 4 parameters. These parameters are available only in Drum Programs.



Velocity Sensitivity Section

Here, you can set how much velocity affects various sound parameters: **Pitch**, Filter Envelope Attack (**Atk**), Amplifier (**Amp**) and Panning (**Pan**).

When you press a pad softly, only minimal modulation is applied. When you press it harder, the modulation amount also gets stronger depending on the setting of the corresponding dial.

Hardware: To edit the **Velocity Sensitivity** parameters, press the **F5** button (**Lfo Mod**). Use **Q-Link Knobs Q13** – **Q16** for direct access of all 4 parameters. Remember that a Drum Program uses different Q-Link Knobs than a Keygroup Program.

VELOCITY SENSITIVITY





LFO Section

A low-frequency oscillator (LFO) generates a periodic waveform with an adjustable frequency and shape which can be used for modulation purposes.

Wave sets the LFO waveform. Click the drop-down menu and select one of the following:

- Triangle (best suited for smooth modulations)
- Sine (best suited for smooth modulations)
- Square (interesting results with hard-panning 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 LFO frequency when Sync is on. At lower values, it might take some time for the LFO to complete a cycle, while higher values will come closer to audible range.

Sync will synchronize the LFO to the tempo, based on the rate selected in the drop-down menu. When *None* is selected, Sync is off.

The LFO modulation **Destinations** determine the amount of effect of the LFO has on **Pitch**, Filter Cutoff frequency (**Filter**), Volume (**Amp**) and Panning (**Pan**).

Hardware: To edit the LFO parameters, press the **F5** button (**Lfo Mod**). For Drum Programs, use **Q-Link Knobs Q1 – Q7** for direct access to all seven parameters. For Keygroup Programs, use **Q-Link Knobs Q5 – Q12** for direct access to all seven parameters. (Remember that a Drum Program uses different controls than a Keygroup Program.)





Controller Mod Section (Keygroup Program Only)

The **Controller Mod** section determines the influence of additional play controllers on various sound parameters.

Important: To use these parameters, make sure that a connected MIDI device can send pitch bend messages as well as aftertouch and modulation wheel data.



Pitch Bend sets the range (in semitones) of a connected MIDI keyboard's pitch-bend wheel.

WhI>LFO (Wheel to LFO) determines how much a connected MIDI keyboard's modulation wheel affects the LFO intensity.

Aft>Filt (Aftertouch to Filter Cutoff) determines how much a connected MIDI keyboard's aftertouch data affects the filter cutoff.

Hardware: To edit the **Controller Mod** parameters, press the **F5** button (**Lfo Mod**). Use **Q-Link Knobs Q2** – **Q4** for direct access of all three parameters. Remember that these parameters are available only in Keygroup Programs.



Insert Effects Section

You can select up to **four insert effects** for each pad or keygroup or for the entire Program. You can use various effects included in your MPC software as well as other VST and AU plugins installed on your computer.

To learn how to use insert effects in the MPC software, please see **Effects > Insert Effects**.

Tip: For a list of all available MPC software effects and their parameters, please see **Appendix** > **Effects and Parameters**.

Important:

When using keygroup insert effects, they will be applied to *the entire Keygroup Program*. This is because a Keygroup Program uses the same sound across all pads, as opposed to Drum Programs where each pad can have its own insert effect.

If a pad's or keygroup's **Pad Audio Route** menu is set to anything other than *Program*, then Program insert effect will *not* be applied to that pad or keygroup.





INSERT 4



Pad/Keygroup Audio Route Section

This menu lets you select where the audio for currently selected pad or keygroup will be routed.

Click the drop-down menu, and select any one of the following outputs: *Program, Submix 1* to 8, or *Out 1,2* to *Out 31,32*.

MPC Renaissance users: *Out 1,2* are routed to the **Stereo Out** jacks. *Out 3,4* are routed to the **Assignable Mix Out** jacks.

When using a Drum Program, this lets you send each pad's audio to separate outputs, if desired. When using a Keygroup Program, this will determine where the audio of *the entire Program* is sent. This is because a Keygroup Program uses the same sound across all pads, as opposed to Drum Programs where each pad can have its own insert effect.

Important: If the a pad's **Pad Audio Route** menu is set to anything other than *Program*, then Program insert effect will not be applied to that pad.



Program Edit Mode for MIDI Programs and Plugin Programs

For MIDI Programs and Plugin Programs, Program Edit Mode looks a bit different. You will see 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 assign a parameter to one of the controls, click the drop-down menu above the corresponding controller and select it from the drop-down menu. In this way, you can easily set up arrangements of 16 knobs to be controlled by your MPC hardware.

You can use Program Edit Mode to directly edit a set of parameters in a section with your MPC hardware.

Hardware: To edit virtual instrument parameters, press the corresponding **F** button (**Page1** to **Page6**). Use the MPC hardware **Q-Link Knobs** for direct access of all 16 parameters that are displayed. You can use the **Cursor Buttons** to select a desired parameter location in the display and change the parameter with the -/+ buttons or the **Data Dial**.





Program Mixer Mode



In Program Mixer Mode, you can set a Program's levels, stereo panning, routing, and effects.

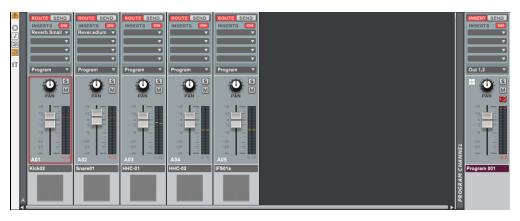
For Drum Programs, this mode has a channel strip for each individual pad (of 128). For Keygroup Programs, this mode has a channel strip for one channel only. For MIDI Programs and Plugin Programs, this mode has no channel strips.

For more information on how these Programs differ, please see **General Features > Program Types**.

To enter Program Mixer Mode in the software, do one of the following:

- Click the Program Mixer Mode tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Program Mixer.
- On your computer keyboard, press Ctrl+3 (Windows) or ##+3 (Mac OS X).

Hardware: To enter Program Mixer Mode, press the Prog Mix button.





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

The channel strip on the right-most side of this area is the Program Channel strip (if visible). It works the same way as described in *Main Mode > Program Channel Strip*. Any other channel strips whose routing is set to *Program* will be routed to the Program Channel.

To view more mixer channels, use the scroll bar under the channel faders at the bottom of the window.

Show/Hide Buttons

In the software, the Channel View buttons on the left side of the pad channel strip area determine which channel strips are visible.

 Click the first (top-most) button to show or hide the Program Channel strip, which is on the right-most side of the channel strip area.



 Click the second button (Show all pads) to show all channel strips, whether or not their pads have samples or events.



 Click the third button (Show pads with samples) to show channel strips whose pads contain samples.



 Click the fourth button (Show pads with events) to show channel strips whose pads contain events.



 Click the fifth button (Show pads with samples or events) to show channel strips whose pads contain samples or events.



When **Show pads with events** or **Show pads with samples or events** is selected, you can click the sixth (lower-most) button (**Filter events in track/sequence**) to show channel strips for all events in the Track (*T*) or all events in the Sequence (*S*).







Routing

In the software, to set the routing for a channel:

- Click Route button of the channel.
- 2. Click the drop-down menu just above the **Pan** knob.
- Select the desired output (e.g., Out 1,2) to route the audio signal directly to this
 output. (You need an audio interface that is equipped with more than two
 outputs.)



Selecting *Program* will route the audio signal to the Program Channel, whose corresponding channel strip is on the right-most side of this area (if visible).

Hardware: To set the routing for a channel:

- 1. Press **F6** (Route).
- Use the Cursor Buttons to select a pad. You can use the Pad Bank buttons to select different sets of 16 channels.
- 3. Use the **Data Dial** or -/+ buttons to select the desired output. (**MPC Renaissance users:** *Out 1,2* are routed to the **Stereo Out** jacks. *Out 3,4* are routed to the **Assignable Mix Out** jacks.)

Levels

In the software, click the channel fader and drag it up or down to set the level. The level meter to the right of the fader provides a visual indication of the level. Press and hold **Alt** (Windows) or **Option** (Mac OS X) on your computer keyboard and click a fader to return it to its default position.

Hardware: To set the level for a channel, press **F2** (**Level**) and use the corresponding **Q-Link Knob** for editing. You can use the **Pad Bank** buttons to select different sets of 16 channels.





Pad (Drum Programs only)

In the software, click a pad below the channel fader to trigger the corresponding pad.

Hardware: To trigger a pad's sample(s), press the corresponding pad.

Tip: You can load a sample onto a pad by dragging the file onto it.



Panning

In the software, click the channel's Pan knob and drag it up or down to set the position.





Mute and Solo

In the software, click the channel's Mute button (M) to mute it.

Hardware: To mute a channel, press F4 (Mute) and touch the top of the corresponding Q-Link Knob to toggle between "mute" and "mute off." You can use the Pad Bank buttons to select different sets of 16 channels.





Alternatively, you can click the **Mute** button (**M**) for the pad in the grid above to mute it.

To solo a channel, click its Solo button (**S**), which will mute all other channels. You can solo as many channels as you like. To deselect solo, click the active solo button.



Automation (Program Channel strip only)

You can click the **Automation** button on Program Channel strip to switch its Automation between *Off*, *Read (R)*, and *Write (W)*. (If the Program Channel strip is not shown, click the downward arrow icon to the left of the pad channel strips.)

When set to Off, the Program will ignore automation data. If you have already recorded or
entered automation, clicking the button will switch between Read (R) and Write (W) only,
but you can override this and set it to Off by pressing and holding Shift on your computer
keyboard while clicking the button.



When set to Read (R), the Program will read automation data but will not record any
additional automation over it, though you can still manually edit and enter automation.
(Think of this as a protective feature to prevent accidental changes to your automation
while recording.)



 When set to Write (W), the Program can record automation. (If you have any Q-Link Knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording!)



Hardware:

Press the **Q-Link Trigger** button to switch the Program's Automation between *Off* (the button will be unlit), *Read* (the button will be lit solid), and *Write* (the button will flash).

If you have already recorded or entered automation, pressing the **Q-Link Trigger** button will switch between *Read* and *Write* only, but you can override this and set it to *Off* by pressing and holding the **Shift** button while pressing the **Q-Link Trigger** button.

To set the **Q-Link Trigger** button to cycle through the automation states for just the Program or globally, do the following:

- 1. Press Shift + Song/Other.
- 2. Press F1 (Prefs).
- 3. Use the Cursor Buttons to select the Auto button field
- 4. Use the **Data Dial** or **-/+** buttons to set the field to *Program* or *Global*.

Tip: Set all Programs to the same Automation setting by clicking the **Global Automation** button in the upper-right corner of the software window.



Effects

Insert Effects

You can select up to **four insert effects** for each pad or keygroup or for the entire Program. You can use various effects included in your MPC software as well as other VST and AU plugins installed on your computer.



To learn how to use insert effects in the MPC software, please see *Effects > Insert Effects*.

Important:

When using keygroup insert effects, they will be applied to the entire Keygroup Program. This is because a Keygroup Program uses the same sound across all pads, as opposed to Drum Programs where each pad can have its own insert effect.

If a pad's or keygroup's routing is set to anything other than *Program*, then Program insert effect will *not* be applied to that pad or keygroup.

Tip: For a list of all available MPC software effects and their parameters, please see *Appendix* > *Effects* and *Parameters*.

Send Effects

You can select up to **four send effects** for each pad or keygroup or for the entire Program. You can use various effects included in your MPC software as well as other VST and AU plugins installed on your computer.

To learn how to use send effects in the MPC software, please see *Effects* > *Send Effects*.

Important: To use a send effect, you have to load an effect into the corresponding send effect slot in Track Mixer Mode.

Tip: For a list of all available MPC software effects and their parameters, please see **Appendix** > **Effects and Parameters**.









Track Mixer Mode



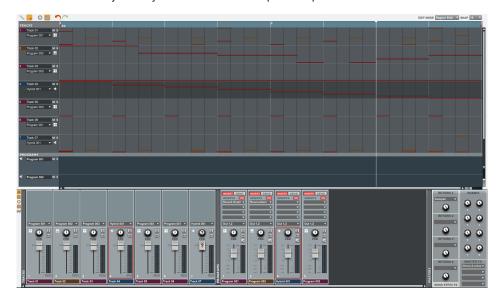
In Track Mixer Mode, you can set the levels, stereo panning, and effects for each Track.

To enter Track Mixer Mode in the software, do one of the following:

- Click the Track Mixer Mode tab in the Mode Tab Section of the software window.
- Click the **View** Menu, select **Mode**, and then select *Track Mixer*.
- On your computer keyboard, press Ctrl+4 (Windows) or ##+4 (Mac OS X).

Hardware: To enter Track Mixer Mode, press Shift + Prog Mix / Track Mix.

While Program Mixer Mode lets you control the mix of individual pads and sounds within a Program, Track Mixer Mode lets you mix your Tracks within a Sequence. Up to 64 Tracks are available.





The upper half of the window shows narrow versions of the Tracks in that Sequence. They are for visual reference only and are not editable.

The lower half of the window can contain two kinds of channel faders:

- Tracks, to the right of the grey Tracks separator (if Tracks are shown). Their functions are
 described in the following sections of this chapter. By default used Tracks are named Track 01,
 Track 02, etc.
- Programs, to the right of the grey Programs separator (if Programs are shown). These work the same way as described in Main Mode > Program Channel Strip.

This section works like a regular mixer with various settings for each channel strip. You can use the Tracks' channel strips and Program Channel strips together to create a good mix of the Sequences in your Project.

The controls on the right-most side of this area are the **Send Effects**, **Submix**, and **Master FX** panels (if visible).

To view more mixer channels, use the scroll bar under the channel faders at the bottom of the window.

Show/Hide Buttons

You can show or hide unused Tracks' channel strips (i.e., those with no note events) and/or plugins through which your Tracks are routed:

- To show or hide the **Send Effects**, **Submix**, and **Master FX** panels, click the downward arrow icon to the left of the channel strips.
- To show or hide all Tracks' channel strips, click the channel strip icon to the left of the channel strips.



 To show or hide unused Tracks' channel strips, click the + icon to the left of the channel strips or in the upper-left corner of the grid.



To show or hide the Programs' channel strips for the Tracks, click the plug icon to the left
of the channel strips or in the upper-left corner of the grid.



 To show or hide unused Programs' channel strips for the Tracks, click the plug icon to the left of the channel strips or in the upper-left corner of the grid.





Program Assignment

To select a Track's Program:

- Click the downward arrow (▼) of the drop-down menu above the Track's Pan knob.
- 2. Select the Program you want this Track to use. The software will use this Program to play the events in this Track.





Levels

In the software, click the Track fader and drag it up or down to set the MIDI volume level (0-127). The level meter to the right of the fader provides a visual indication of the level. Press and hold **Alt** (Windows) or **Option** (Mac OS X) on your computer keyboard and click a fader to return it to its default position.

You can also set the levels of each Program within Track Mixer Mode by clicking and dragging a fader for a Program Channel strip. (If the Program Channel strips are not shown, click the plug icon to the left of the Track channel strips or in the upper-left corner of the grid.)



Hardware:

To set the level for a Track:

- Use the Cursor Buttons to select the Mixer field, and then use the Data Dial or -/+ buttons to set it to Tracks.
- Press the F1 button (Level) and use the corresponding Q-Link Knobs for editing. You can use the Pad Bank buttons to select different sets of 16 Tracks.

To set the level for a Program:

- Use the Cursor Buttons to select the Mixer field, and then use the Data Dial or -/+ buttons to set it to Programs.
- Press the F1 button (Level) and use the corresponding Q-Link Knobs for editing. You can use the Pad Bank buttons to select different sets of 16 Programs.

Mixer: Tracks			Track: 1-16		
13: 127	14:	127	15: 127	16:	100
9: 127	10:	127	11: 127	12:	127
5: 127	6:	127	7: 127	8:	127
1: 127	2:	127	3: 127	4:	127
Level	Pan	Mute	Send	Insert	Route

The **Level** tab's **Tracks** view in the Track Mixer Mode in the display of the MPC hardware.





The Level tab's Programs view in the Track Mixer Mode in the display of the MPC hardware.

Important: When the **Mixer** field is set to *Tracks* while recording automation, you can record automation for the level and pan for the currently selected Track only, not all 16 Tracks shown.

Important: By default, some plugins do not support MIDI volume. In this case, adjust this at the plugin Track.

Note: MIDI Programs' and Plugin Programs' levels will initially appear as **?**. This indicates that the Program is not sending any volume changes, which allows certain plugins to load with their optimal default settings. If you copy a Sequence, the level values will be copied with that Sequence. If you move to a new Sequence and put the same MIDI Program or Plugin Program on a new Track, though, these values will appear as **?**.





Panning

In the software, click the Track's Pan knob and drag it up or down to set the position.

You can also set the panning of each Program within Track Mixer Mode by clicking and dragging a **Pan** knob for a Program Channel strip. (If the Program Channel strips are not shown, click the plug icon to the left of the Track channel strips or in the upper-left corner of the grid.)



Hardware:

To set the panning for a Track:

- Use the Cursor Buttons to select the Mixer field, and then use the Data Dial or -/+ buttons to set it to Tracks.
- Press the F2 (Pan) and use the corresponding Q-Link Knobs for editing. You can use the Pad Bank buttons to select different sets of 16 Tracks.

To set the panning for a Program:

- Use the Cursor Buttons to select the Mixer field, and then use the Data Dial or -/+ buttons to set it to Programs.
- Press the F1 (Pan) and use the corresponding Q-Link Knobs for editing. You can use the Pad Bank buttons to select different sets of 16 Programs.

Important: By default, some plugins do not support MIDI panning by default. In this case, adjust this at the plugin Track.

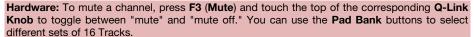
Note: MIDI Programs' and Plugin Programs' pan values will initially appear as **?**. This indicates that the Program is not sending any pan changes, which allows certain plugins to load with their optimal default settings. If you copy a Sequence, the pan values will be copied with that Sequence. If you move to a new Sequence and put the same MIDI Program or Plugin Program on a new Track, though, these values will appear as **?**.





Mute and Solo

In the software, click the Track's Mute button (M) to mute it.





To solo a Track, click its Solo button (**S**), which will mute all other Tracks. You can solo as many Tracks as you like. To deselect solo, click the active solo button.

Alternatively, you can click the **Mute** button (**M**) or **Solo** button (**S**) for the horizontal track above to mute or solo it.

You can also mute or solo each Program within Track Mixer Mode by clicking the **M** or **S** button for a Program Channel strip. (If the Program Channel strips are not shown, click the plug icon to the left of the Track channel strips or in the upper-left corner of the grid.)

Hardware:

To mute a Track:

- Use the Cursor Buttons to select the Mixer field, and then use the Data Dial or -/+ buttons to set it to Tracks.
- Press the F3 (Mute) and use the corresponding Q-Link Knobs for editing. You can use the Pad Bank buttons to select different sets of 16 Tracks.

To mute a Program:

- Use the Cursor Buttons to select the Mixer field, and then use the Data Dial or -/+ buttons to set it to Programs.
- Press the F3 (Mute) and use the corresponding Q-Link Knobs for editing. You can use the Pad Bank buttons to select different sets of 16 Programs.



Automation (Program Channel strips only)

You can click the **Automation** button on a Program Channel strip to switch its Automation between *Off*, *Read (R)*, and *Write (W)*. (If the Program Channel strips are not shown, click the plug icon to the left of the Track channel strips or in the upper-left corner of the grid.)

When set to Off, the Program will ignore automation data. If you have already recorded or
entered automation, clicking the button will switch between Read (R) and Write (W) only,
but you can override this and set it to Off by pressing and holding Shift on your computer
keyboard while clicking the button.



When set to Read (R), the Program will read automation data but will not record any
additional automation over it, though you can still manually edit and enter automation.
(Think of this as a protective feature to prevent accidental changes to your automation
while recording.)



 When set to Write (W), the Program can record automation. (If you have any Q-Link Knobs assigned to automatable parameters, make sure not to touch any accidentally while you are recording!)



Hardware:

Press the **Q-Link Trigger** button to switch a Program's Automation between *Off* (the button will be unlit), *Read* (the button will be lit solid), and *Write* (the button will flash).

If you have already recorded or entered automation, pressing the **Q-Link Trigger** button will switch between *Read* and *Write* only, but you can override this and set it to *Off* by pressing and holding the **Shift** button while pressing the **Q-Link Trigger** button.

To set the **Q-Link Trigger** button to cycle through the automation states for just the Program or globally, do the following:

- 1. Press Shift + Song/Other.
- 2. Press F1 (Prefs).
- 3. Use the Cursor Buttons to select the Auto button field
- 4. Use the **Data Dial** or **-/+** buttons to set the field to *Program* or *Global*.

Tip: Set all Programs to the same Automation setting by clicking the **Global Automation** button in the upper-right corner of the software window.



Effects

Insert Effects

Because you can view Program Channel strips in Track Mixer Mode, you can select up to **four insert effects** for each Program, just as you could in Program Mixer Mode. You can use various effects included in your MPC software as well as other VST and AU plugins installed on your computer.



To learn how to use insert effects in the MPC software, please see **Effects > Insert Effects**.

Tip: For a list of all available MPC software effects and their parameters, please see **Appendix > Effects** and **Parameters**.

Send Effects

Because you can view Program Channel strips in Track Mixer Mode, you can select up to **four send effects** for each Program, just as you could in Program Mixer Mode. You can use various effects included in your MPC software as well as other VST and AU plugins installed on your computer.

To learn how to use send effects in the MPC software, please see **Effects > Send Effects**.

Important: To use a send effect, you have to load an effect into the corresponding send effect slot in Track Mixer Mode.

Tip: For a list of all available MPC software effects and their parameters, please see *Appendix* > *Effects and Parameters*.







Master Effects

You can load, edit, or remove up to **four Master effects**, which will be applied to the entire Master mix. (If the Master Effects section is not shown, click the downward arrow icon to the left of the Track channel strips.)

Tip: For a list of all available MPC software effects and their parameters, please see **Appendix > Effects and Parameters**.



To load a Master effect:

- In one of the four slots of the Master FX column, click the downward arrow (▼).
- 2. Select an effect from the menu that appears.

Hardware: To load and edit a Master effect:

- Press Shift + Seq Edit / Effects.
- 2. Press F5 (Insert).
- 3. Use the Cursor Buttons to select the desired Insert effect slot.
- 4. Use the **Data Dial** or the -/+ buttons to open another page to select an effect. Click **F4** (**Select**) to load it, or click **F3** (**Back**) to close the page.



Master Effects in the MPC hardware display.



Track View Mode



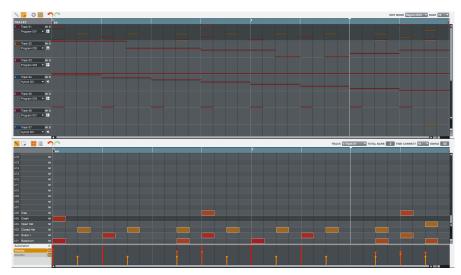
Track View Mode gives you an overview of the Tracks of each Sequence. Use this mode to edit Tracks and Sequences simultaneously.

Tip: Use Track View Mode to switch quickly between Tracks in a Sequence. This allows for a faster editing workflow.

To enter Track View Mode in the software, do one of the following:

- Click the Track View Mode tab in the Mode Tab Section of the software window.
- Click the **View** Menu, select **Mode**, and then select *Track View*.
- On your computer keyboard, press Ctrl+5 (Windows) or **%+5** (Mac OS X).

Hardware: To enter the Track View mode, press Shift + Main / Track.



Track View Mode: Drum Program.



The upper half of the window shows narrow versions of the Tracks in that Sequence. They are for visual reference only and are not editable.

The lower half of the window shows either the standard Grid View (as described in **General Features** > **Grid View**) or the list view (as described in **General Features** > **List View**).

Select a Sequence by clicking the **Seq** drop-down menu in the upper-right corner of the window. The Sequence's Tracks will appear in the upper half of the window. Select a Track to edit by clicking it. The Track's grid and automation lane will appear in the grid in the lower half of the window.



Next Sequence Mode



Next Sequence Mode lets you trigger different Sequences simply by playing the pads. This is useful for live performances, letting you change a Song's structure in real time.

To enter Next Sequence Mode in the software, do one of the following:

- Click the Next Sequence Mode tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Next Sequence.
- On your computer keyboard, press Ctrl+6 (Windows) or ##+6 (Mac OS X).

Hardware: To enter Next Sequence Mode, press the Next Seq button.





Triggering Sequences

During playback, select a Sequence to play next simply by pressing the corresponding pad. The number and name of the selected Sequence will be displayed in the timeline in the upper half of the window. Use the controls in the **Pad Bank** Section and **Next Sequence** Section to change or repeat Sequences in real time.

Sequence Playlist

The Sequence Playlist window in Next Sequence Mode shows a list-style overview of *all* used Sequences in your Project:

- The Sequence column shows the name of the Song's Sequences.
- The **Length** column shows the bar length of a Sequence.
- The **Tempo** column shows the tempo of a Sequence in beats per minute.





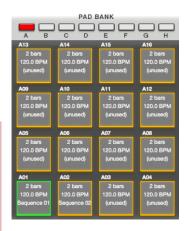
Pad Bank Section

In the **Pad Bank** section, every pad is assigned to a Sequence, starting from *Pad A01* with *Sequence 1* and ascending from there. Used Sequences are shown with their names; unused Sequences are shown as **(unused)**. The selected pad will be green.

During playback, change the next Sequence by clicking and holding the corresponding pad until the current Sequence ends. If no other Sequence is selected, the software will repeat the current Sequence indefinitely.

Hardware: Every pad is assigned to a Sequence, starting from *Pad A01* with *Sequence 1* and ascending from there. Used Sequences are shown with their names; unused Sequences are shown as **(unused).** The selected pad will be lit green.

- 1. Start playback by pressing the Play button.
- During playback, change the next Sequence by pressing the corresponding pad until the current Sequence ends. The pad that will play next will flash green.
- If no other Sequence is selected, the software will repeat the current Sequence indefinitely.



Now: 000	: 000 : 000	Seq: 000		
(unused)	(unused)	(unused)	(unused)	
Drums Only	Jan Pedder	(unused)	(unused)	
ALT Sons 1	ALT Sons 2	Additions	Scratches	
Basic Song	Breaks	Interlude	Intro	
To Sona	Next Bar	Sudden Ho	old Clear	

The **Next Sequence** section in the display of the MPC hardware.



Next Sequence Section

During the playback of a Sequence, the **Next Sequence** section gives you the following options:

- Click Next Bar to change the Sequence at the beginning of the next bar. This lets you select the next Sequence without having to press a pad or button in perfect time.
- Click Sudden to switch to the next Sequence immediately—before
 the software has finished playing the current Sequence. This is
 useful in live performances if you need to switch to the next
 Sequence instantly at a certain cue.



- Click Clear to delete the selected Sequence from the Sequence Playlist.
- Click Hold to repeat playback of the current Sequence until you click it again. This is useful for live
 performances to prolong the playing of a Sequence, for example, to respond to the audience.

Hardware:

- Press F4 (Sudden) to switch to the next Sequence immediately—before the software has finished
 playing the current Sequence. This is useful in live performances if you need to switch to the next
 Sequence instantly at a certain cue.
- Press F5 (Hold) to repeat playback of the current Sequence until you click it again. This is useful for live performances to prolong the playing of a Sequence, for example, to respond to the audience.
- Press F6 (Clear) to delete the selected Sequence from the Sequence playlist.
- Press F3 (Next Bar) to change the Sequence at the beginning of the next bar. This lets you select
 the next Sequence without having to press a pad or button in perfect time.

Now: 000	: 000 : 000	Seq: 000		
(unused)	(unused)	(unused)	(unused)	
Drums Only	Jan Pedder	(unused)	(unused)	
ALT Sons 1	ALT Sons 2	Additions	Scratches	
Basic Song	Breaks	Interlude	Intro	
To Sons	Next Bar	Sudden Ho	ld Clear	

The **Next Sequence** section in the display of the MPC hardware.



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

 Copy to Song opens a drop-down menu to select a Song the Sequence playlist is copied to. To read more about Song Mode, please see the Song Mode chapter.



• Erase Song erases the active Sequence Playlist.

Hardware: Press **F1** (**To Song**) to copy your changes directly into a Song. In the **Copy to Song** window that appears, use the **Data Dial** or **-/+** buttons to select the Song number where you want to copy your changes.

Project Information

This is identical to the Project Information in Main Mode. For more information, please see *Main Mode* > *Project Information*.



Sample Record Mode



Sample Record Mode lets you record audio samples to use in your Tracks and Sequences. This mode is divided in two main parts: the **Waveform Display** (which shows the waveform of a sample after the recording process) and the **Record Controls**.

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

MPC Studio users: This section describes recording using MPC Renaissance as your sound card. MPC Studio cannot be used in this way, but you can use a separate audio interface connected to your computer to record audio.

To enter Sample Record Mode in the software, do one of the following:

- Click the Sample Record Mode tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Sample Record.
- On your computer keyboard, press Ctrl+7 (Windows) or **%**+7 (Mac OS X).

Hardware: To enter Sample Record Mode, press Shift + Sample Edit / Sample Rec.





Setting Up to Record with MPC Renaissance

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

Hardware:

- 1. Make sure to reduce the volume levels of your audio source and speakers/headphones/monitors before you make any connections to avoid "pops" or feedback.
- 2. Connect your audio source (e.g., a microphone, instrument, etc.) to the **Mic In** jacks of your MPC Renaissance. 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. Alternatively, connect a turntable or CD player to the **Phono In** jacks.
- 3. 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.
- 4. Set the **Rec Gain** knob to an appropriate input level.
- 5. Use the **Cursor Buttons** to select the record control parameters, described in detail below.

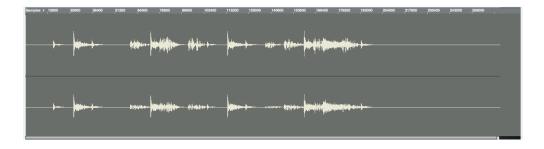


The **Sample Record** section in the display of the MPC hardware.



Waveform Display

The Waveform Display shows the entire waveform of your recorded sample with a timeline at the top. While this is just for reference during in Sample Record Mode, it is the focus of Sample Edit Mode. Please see the **Sample Edit Mode** chapter to learn about editing your recorded samples.





Record Controls

The **Record Controls** offer all the relevant controls for recording.

Threshold

In Record Mode, the software automatically starts recording when the level of the incoming source exceeds the Threshold (**Thresh**). If you set the threshold too high, the recording may not start 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 recording may start too early, before you play the external source. Set this parameter to an appropriate level using the level meter.

Use **Q-Link Knobs Q3** and **Q4** to define the maximum sampling time. You can record up to 20 minutes and 59 seconds. We recommend setting these to values that roughly match your estimated recording duration.

Hardware: To adjust the Threshold, use Q-Link Knob Q1. Use Q-Link Knobs Q3 and Q4 to set the record time in Minutes and Seconds.

RESET PEAK

Click 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.

Hardware: To reset the peak hold, press **F1** or **F2** (**Reset Peak**). The peak hold is shown as a vertical bar within the **Level Meter**.

Record Arm

Use the **Record Arm** buttons to define which side of the incoming audio signal is going to be recorded. You can select ${\bf L}$ for the left channel, ${\bf R}$ for the right channel or both buttons for stereo recording.



Hardware: To select the input channel(s), use the **Cursor Buttons** to select the **Mode** field and use the **Data Dial** or -/+ buttons to select *Stereo*, *Left*, or *Right*.

Tip: Deselect the right channel when you are recording to one channel only.



Input Source

The **Input Source** parameter defines whether you are going to record an external audio signal (*External*) an internal signal from the software (*Resample*). A Resample recording does not require an audio connection because the source is within the software and is therefore recorded without any loss in audio quality. You can, for example, use Resample to record two or more samples by pressing the corresponding pads simultaneously.



Hardware: To select the sample input, use the **Cursor Buttons** to select the **Input** field and use the **Data Dial** or -/+ buttons to select *External* or *Resample*.

Input Monitor

When input monitoring is on, the audio you hear in your headphones will be taken *before* it reaches the software, ensuring zero latency. When input monitoring is off, the audio you hear in your headphones will be taken *after* it is processed in the software, so there may be some latency, but you will hear the audio source as it sounds in the recording.



Click the **Input Monitor** button to control the incoming audio source through your audio system.

Hardware: To activate the Input Monitor function, use the **Cursor Buttons** to select the **Monitor** field and use the **Data Dial** or -/+ buttons to switch it to *On*.

Important: Make sure the Direct Monitoring, Input Monitoring, etc. control of your audio interface or MPC Renaissance is set appropriately so you can hear the incoming signal rather than just the signal from your computer.

Tip: To avoid possible clicks or feedback while input monitoring, reduce the level of the audio sources.

Sample Length

For reference, the **Sample Length** display shows you the length of your sample during the recording procedure.





Sample Rec and Sample Stop

Important: To use the Assign to Pad function to assign the new sample directly to a pad after recording, select the desired Track and Program before starting to record.

Click **Sample Rec** to record-arm the software, or click **Sample Stop** to stop the recording process. If you do not click **Stop**, recording will continue to the end of the previously set sample length.



After clicking **Sample Rec**, the recording will start once the incoming audio level exceeds the **Threshold** parameter.

Hardware:

- To start recording, press F6 (Record).
- 2. After that, the recording will start once the incoming audio level exceeds the **Threshold** parameter.
- 3. If recording has not begun yet, you can cancel the procedure by pressing **F5** (**Cancel**) or start the recording immediately by pressing **F6** (**Start**).
- 4. To stop recording, press **F6**.

When the recording is finished, the **Keep or Retry Last Sample** window appears:

- If you want to keep the recorded sample, enter a name in the New Name field.
- Click the Track menu to select a Track to assign the sample to.
- Click and drag the Assign to Pad field to select a pad to assign the sample to.

Important: You need to have already selected the Track to which you want to assign the pad. If the Track is not the one you wanted, either move the sample to the desired Track or Program later, or select **Retry** to start over.

- Click and drag the Root Note field to set where the sample's original pitch will be on the keyboard.
- To save the sample, click Keep. To delete the recording and start over, click Retry. To listen to the sample before deciding, click Play.



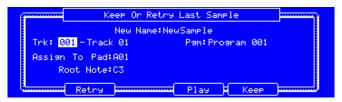


Hardware: When the recording is finished, the MPC hardware's display will show new options. Use the **Cursor Buttons** to select a field, and use the **Data Dial** or -/+ buttons to change the setting:

- Track: Select a Track to assign the sample to.
- Assign to Pad: Select a pad to assign the sample to. Alternatively, simply press the pad.
- Root Note: Sets where the sample's original pitch will be on the keyboard.

To save the sample, press **F5** (**Keep**). To delete the recording and try again, press **F2** (**Retry**). To listen to the sample before deciding, press **F4** (**Play**).

Tip: We recommend editing your recorded sample in Sample Edit Mode.



Keep or Retry Last Sample window in the MPC hardware display.

Direct Record

You can also record a sample as a Sequence is playing and automatically place the newly recorded sample directly into the Sequence. This process is called Direct Record. This is helpful when you want to record a sample that is at the same tempo as a specific Sequence.

To use Direct Record:

- During playback of a Sequence, record a sample as you normally would (described above in Sample Rec and Sample Stop).
- 2. When the Keep or Retry Last Sample window appears, click any of the following:
 - Click and drag the **Assign to Pad** field to select a pad to assign the sample to.
 - To automatically add the sample to the currently playing Sequence, check Add Event. (This
 option is available only when using Direct Record.)



- To automatically place the sample as a note event at the start of the currently playing Sequence, check **At Start**. (This option is available only when **Add Event** is checked.)
- To automatically place the sample as a note event where you began recording it in the currently playing Sequence, leave At Start unchecked. (This option is available only when Add Event is checked.)
- To delete the recording and start over, click Retry. To listen to the sample before deciding, click Play. To save the sample, click Keep.

Hardware: When the recording is finished, the MPC hardware's display will show new options. Use the **Cursor Buttons** to select a field, and use the **Data Dial** or -/+ buttons to change the setting:

- Track: Select a Track to assign the sample to.
- Assign to Pad: Select a pad to assign the sample to. Alternatively, simply press the pad.
- Add Event: Set this to Yes to automatically add the sample to the currently playing Sequence. (This
 option is available only when using Direct Record.)
- At: Set this to Start to automatically place the sample as a note event at the start of the currently
 playing Sequence. Set this to Trigger to automatically place the sample as a note event where you
 began recording it in the currently playing Sequence (This field is available only when Add Event is
 set to Yes.)
- Root Note: Sets where the sample's original pitch will be on the keyboard.

To save the sample, press **F5** (**Keep**). To delete the recording and try again, press **F2** (**Retry**). To listen to the sample before deciding, press **F4** (**Play**).

Project Information

This is identical to the Project Information in Main Mode. For more information, please see *Main Mode* > *Project Information*.

Important: Newly recorded samples will be shown in the **Sample** area of the **Project Information**. To use them in your Project, load them into Programs first.



Sample Edit Mode

M

Sample Edit Mode lets you edit samples using various functions.

To enter Sample Edit Mode in the software, do one of the following:

- Click the Sample Edit Mode tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Sample Edit.
- On your computer keyboard, press Ctrl+8 (Windows) or ##+8 (Mac OS X).

To select a sample to edit, click the **Edit Sample** drop-down menu in the left section below the waveform display and select a sample from the Project.

Alternatively, you can click and drag a sample from the **Project Information** onto the Waveform Display. You can also right-click a sample in the **Project Information** and select *Edit*. (You can select a sample this way in any mode that shows the **Project Information**. When selecting a sample for editing, the mode will change automatically to Sample Edit Mode.)

Hardware: To enter Sample Edit Mode, press the **Sample Edit** button. Use the **Data Dial** or the -/+ buttons to select a sample for editing. The selected sample is displayed at the top of the display.

The upper half of the window is the Waveform Display. The lower half contains the editing controls.

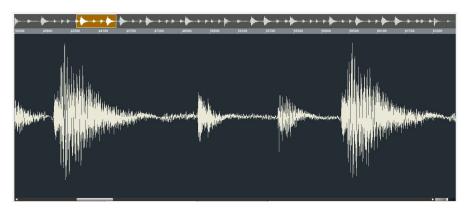
Sample Edit Mode can work in one of two ways: **Trim Mode** or **Chop Mode**. The options for each mode are slightly different. Please refer to the **Trim Mode** or **Chop Mode** parts of the chapter to see how each works.







Waveform Display



The Waveform Display is divided into two sections:

- The top of the display shows an overview of the entire sample waveform. A shaded rectangle
 outlines the currently shown part of the sample.
- The main part of the display shows the "active" section of the sample waveform. Use the scroll bar under the waveform to move through it.

To move the view, click and drag the shaded rectangle in the overview.

To zoom in, double-click the shaded rectangle in the overview. Alternatively, you can use the slider in the lower-right corner of the Waveform Display.

To zoom out, press and hold **Control** (Windows) or **%** (Mac OS X) and double-click the shaded rectangle in the overview. Alternatively, you can use the slider in the lower-right corner of the Waveform Display.

Hardware

To zoom in and out of the waveform, do one of the following:

- Press and hold Shift and use the left and right Cursor Buttons.
- Use Q-Link Knob Q4.

Use Q-Link Knob Q8 to scroll the Waveform Display.



In the main Waveform Display, a start point and end point are marked by green lines. These two points define the portion of the sample data which will be played.

Click and drag either of these lines to move it. The most recently moved line will be red instead of green.

Click the sample timeline to switch between Time (in seconds and milliseconds) and Samples.

Tip: A recorded sample may have some silence at the beginning or end, which makes it difficult to time it correctly in a musical context. Fix this by adjusting the start point. You can also adjust end point to remove any extra silence or unwanted audio at the end. In addition to making your workflow easier, having a "tight," well-edited sample can enhance your production or performance.



Trim Mode

Edit Section

The **Edit** section contains controls to edit samples and to select between **Chop Mode** or **Trim Mode**.

Hardware: Use the **Data Dial** or the **-/+** buttons to select a sample for editing. The selected sample name is shown at the top of your display.

In the software, click the **Edit Sample** drop-down menu and select the desired sample.

The **Q-Link Knobs** can be used for various editing and viewing functions:

- To zoom in or out of the sample, use Q-Link Knob Q4.
- To scroll the Waveform Display, use Q-Link Knob Q8.
- To adjust the start point of the sample, use Q-Link Knobs Q13, Q9, Q5, or Q1. The smaller the Q-Link Knob number, the more precise the adjustment of the start point.
- To adjust the end point of the sample, use Q-Link Knobs Q14, Q10, Q6, or Q2. The smaller the Q-Link Knob number, the more precise the adjustment of the end point.
- To adjust the loop point of the sample, use Q-Link Knobs Q15, Q11, Q7, or Q3. The smaller the Q-Link Knob number, the more precise the adjustment of the loop point.
- Alternatively, you can adjust the start point, loop point, or end point by clicking the corresponding small arrows below the sample timeline and moving them with your mouse.





Hardware:

- To zoom in and out of the waveform, do one of the following:
 - Press and hold **Shift** and use the left and right **Cursor Buttons**.
 - Use Q-Link Knob Q4.
- Use Q-Link Knob Q8 to scroll the Waveform Display.
- To adjust the start point of the sample, use Q-Link Knobs Q13, Q9, Q5, or Q1. The smaller the Q-Link Knob number, the more precise the adjustment of the start point.
- To adjust the end point of the sample, use Q-Link Knobs Q14, Q10, Q6, or Q2. The smaller the Q-Link Knob number, the more precise the adjustment of the end point.
- To adjust the loop point of the sample, use Q-Link Knobs Q15, Q11, Q7, or Q3. The smaller the Q-Link Knob number, the more precise the adjustment of the loop point.

Tips:

- Remember that the loop start point cannot be placed before the start point of a sample.
- Click the waveform and hold the mouse button to play the edited sample.
- Click the sample timeline to switch between Time (in seconds and milliseconds) and Samples.



Pad Section

You can use the pads to play certain parts of the selected sample, regardless of the selected Pad Bank.

Trigger the following playback options by pressing the corresponding pad:

- Play Loop (Pad 13) plays the sample repeatedly from the loop point to the end point.
- Play Sample (Pad 11) will play the whole sample as it has been edited. You can also click the Waveform Display to activate this function.
- Play All (Pad 16) plays the whole sample regardless of any edits.
- Play To Loop Start (Pad 14) plays the sample portion before the loop point.
- Play From Loop Start (Pad 15) plays the sample from the loop start point to the end of the sample regardless of the end point. If the loop start point is identical to the end point, nothing will be played.



Pads 01-04 have the same respective functions as Pads 05-08, but Pads 01-04 play the sample part as "One Shots" (pressing the pad once will play the entire part) while Pads 05-08 play the sample part as "Note Ons" (pressing the pad and holding it will play the part; releasing it will stop playback):

- Play From Start (Pad 01 and Pad 05) plays the sample from the start point to the end of the sample regardless of the end point. If the start point is identical to the end point, nothing will be played.
- Play To Start (Pad 02 and Pad 06) plays the sample portion before the start point. If the start point is set to 0, nothing will be played.
- Play To End (Pad 03 and Pad 07) plays the sample portion from the start point to the end point.
- Play From End (Pad 04 and Pad 08) 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.



Settings Section

The **Settings** section lets you edit various parameters affecting playback and loop functions.

In the software, edit the start point (**Start**), end point (**End**), or loop point (**Loop Start**) by double-clicking the number in the field, and use your computer keyboard to enter a value.



Hardware: Edit the start point (**Start**), end point (**End**), or loop point (**Loop**) by using the **Cursor Buttons** to select the field and then using the **Data Dial** or the -/+ buttons to select a value. Alternatively, you can enter a value by using the number buttons and confirming by pressing **Enter**.



The **Sample Edit** section in the display of the MPC hardware.

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

- Loop activates the loop function, which will repeat the part of the sample between the loop point and the end point.
- Snap to Zero activates the snap-to-zero function. For easier sample editing, the software will "force" you to place a start point or end point only at "zero-crossings." This can help to avoid clicks and glitches when playing a sample.
- Tune lets you transpose the sample based on its original pitch. The value range is two octaves, up
 or down, 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 start point can be linked, allowing simultaneous adjustments (e.g., when you need to find a loop with a defined length).



Hardware:

- Press F4 (Loop) to activate the loop function, which will repeat the part of the sample between the loop point and the end point.
- Press F3 (0 Snap) to activate the snap-to-zero function. For easier sample editing, the software will
 "force" you to place a start point or end point only at "zero-crossings." This can help to avoid clicks
 and glitches when playing a sample.
- Use the Cursor Buttons to select any of the following fields and use the Data Dial or the -/+
 buttons to change the setting:

Tune lets you transpose the sample based on its original pitch. The value range is two octaves, up or down, 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 start point can be linked, allowing simultaneous adjustments (e.g., when you need to find a loop with a defined length).



Process Section

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

In the software, click the desired sample editing option (described below). A new window will open (which may have some additional parameters). To execute a selected option, click **Do It**, or cancel your changes by clicking **Cancel**.

Tips:

- When the new window is open, you can click the Function menu to select another edit option, if desired.
- All Start/End processes will only affect the part of the sample between the start point and the end point. Bit Reduce and Stereo > Mono will affect the entire sample regardless of its start point or end point.



Hardware:

- 1. Press **F6** (**Process**) to open the **Process Sample** page.
- 2. Use the **Data Dial** or the -/+ buttons to select the desired editing option (described below) in the **Function** field. Some options have some additional parameters—use the **Cursor Buttons** to select them and the **Data Dial** or -/+ buttons to adjust them.
- 3. To execute a selected option, press F5 (Do It), or cancel your changes by pressing F4 (Cancel).



The Process Sample display for Pitch Shift of the MPC hardware.



The following sample editing options are available:

- **Discard** deletes parts of the sample before the start point and after the end point.
- Delete deletes the part of the sample between the start point and end point and closes the gap between them.
- Silence replaces the part of the sample between the start point and end point with silence.
- Extract deletes parts of the sample before the start point and after the end point and saves it as a new sample (with a name you enter) in your current Project.

Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the Project.

- **Normalize** increases a sample's level to the highest level possible without distortion. This is essentially a kind of digital gain optimization, so you do not have to worry about excessive level settings when working with Projects whose samples have a wide range of amplitudes.
- Reverse reverses the part of the sample between the start point and end point.
- Fade In sets a fade-in between the start point and end point of the sample. The following types are available:
 - o Linear fades the audio in with a linear curve—a straight line between the start and end.
 - Log fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.
 - Exp fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.
- Fade Out sets a fade-out between the start point and end point of the sample. The following types
 are available:
 - o Linear fades the audio out with a linear curve—a straight line between the start and end.
 - Log fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.
 - Exp fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.



- Pitch Shift changes the pitch of the sample without changing its length. This lets you set the
 sample's pitch to your Sequence without affecting the sample's tempo or duration. You can adjust
 it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more
 extreme settings.
- **Time Stretch** lengthens or shortens the sample without changing its pitch. This is useful when you want to match the durations of two samples with different pitches. You can enter the original tempo of the sample and the desired tempo after processing.

Tip: To change the sample length in percent, set the original tempo to 100, and then set the new tempo to the desired percentage (e.g., to lengthen the sample by 20%, set the original tempo to 100 and set the new tempo to 80).

- Gain Change raises or lowers the volume of the sample. You can adjust it up to 18dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!
- Copy saves a copy of the sample and adds a consecutive number after the sample name.
- **Bit Reduce** lowers the bit resolution of a sample, effectively reducing its degree of faithful reproduction. You can reduce the bit rate down to 1 bit. (The sound is similar to the Resampler effect, but Bit Reduce will permanently alter the sample.)

Tip: Use this on drum loops to get a dirty, "old-school" sizzle but with a digital "edge."

- Stereo > Mono converts a stereo sample to a new mono sample and saves it as a new sample (with a name you enter) in your current Project. The following options are available:
 - o Left will convert the left channel only.
 - o Right will convert the right channel only.
 - o Sum will combine the left and right audio channels to a single mono channel.

Project Information

This is identical to the Project Information in Main Mode. For more information, please see *Main Mode* > *Project Information*.

Important: Newly recorded samples will be shown in the **Sample** area of the **Project Information**. To use them in your Project, load them into Programs first.



Chop Mode

The **Chop** section describes several functions unique to Chop Mode, in contrast to Trim Mode.

In Chop Mode, the sample will be divided into multiple regions called **slices**. There are 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 tempo (beats per minute).
- Threshold uses an adjustable detection algorithm that derives the number of regions created from the volume levels present in the sample.

You can also manually insert a slice by clicking near the top of the Waveform Display, just under the light grey sample timeline.





Edit Section

The **Edit** section contains controls to edit samples and to select between **Chop Mode** or **Trim Mode**.

Hardware: Use the **Data Dial** or the -/+ buttons to select a sample for editing. The selected sample name is shown at the top of your display.

In the software, click the **Edit Sample** drop-down menu and select the desired sample.

The **Q-Link Knobs** can be used for various editing and viewing functions:

- Use 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 Q14, Q10, Q6, or Q2 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 Q15 to select a slice for editing.
- Use Q-Link Knob Q11 to set the threshold for slice detection (in Threshold Mode), the number of regions (in Region Mode), or the numbers of bars (in BPM Mode).
- Use Q-Link Knob Q8 to scroll through the waveform.
- Use Q-Link Knob Q7 to set the number of beats in BPM Mode. (This Q-Link Knob has no function in Threshold Mode or Region Mode.)
- Use Q-Link Knob Q4 to zoom in and out of the waveform.
- Use Q-Link Knob Q3 to set the Time Division in BPM Mode. (This Q-Link Knob has no function in Threshold Mode or Region Mode.)





Hardware: Press F1 (Chop) to enter Chop Mode.

- Use **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 Q14, Q10, Q6, or Q2 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 Q15 to select a slice for editing.
- Use Q-Link Knob Q11 to set the threshold for slice detection (in Threshold Mode), the number of regions (in Region Mode), or the number of bars (in BPM Mode).
- Use Q-Link Knob Q8 to scroll through the waveform
- Use Q-Link Knob Q7 to set the numbers of beats in BPM Mode. (This Q-Link Knob has no function in Threshold Mode or Region Mode.)
- Use Q-Link Knob Q4 to zoom in and out of the waveform
- Use Q-Link Knob Q3 to set the Time Division in BPM Mode. (This Q-Link Knob has no function in Threshold Mode or Region Mode.)



Pad Section

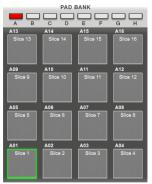
When **Audition** in the **Settings** section is deactivated, trigger the following playback options by pressing the corresponding pad:

- 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, you can use the pads can to play the different slices. Each slice is assigned to a pad automatically, starting from *Pad A01* with *Slice 1* and ascending from there.

If your sample contains more than 16 slices, use the **Bank** buttons to switch through the pad banks to view all playable slices. Playing a slice will also select it.





Settings Section

In the software, the **Settings** section lets you edit various parameters affecting the start point and end point of your sample's slices:

 Snap to Zero activates the snap-to-zero function. For easier sample editing, the software will "force" you to place a start point or end point only at "zero-crossings." This can help to avoid clicks and glitches when playing a sample.



- Slice is the number of the currently selected slice. To select a slice, either click it in the Waveform Display or click and drag the Slice field up or down. (Remember that you have to create slices before one can be selected.)
- Start and End define the start point and end point (respectively) of the current slice. Change these
 values by doing any of the following:
 - o Click and drag a slice marker in the Waveform Display left or right.
 - Click near the top of the Waveform Display to create a new slice marker there. Remember that the start point of a slice is also the end point of the previous slice.
 - o Double-click the value in the field and type in a new one using your computer keyboard.
- When Audition is activated, you can use the pads can to play the different slices. Each slice is
 assigned to a pad automatically, starting from Pad A01 with Slice 1 and ascending from there. If
 your sample contains more than 16 slices, use the Bank buttons to switch through the pad banks
 to view all playable slices. Playing a slice will also select it.
- With Link Slices activated, changing the start point of a slice will also change the end points of the
 previous slice. Similarly, changing the end point of a slice will also change the start point of the next
 slice. Turn Link Slices off if you are trying to create slices that use non-contiguous parts of the
 sample.
- One Shot / Note On determines whether the pads play their respective slices as One Shots
 (pressing the pad once will play the entire part) or as Note Ons (pressing the pad and holding it will
 play the part; releasing it will stop playback).



Hardware: To adjust the settings in Chop Mode:

- Press F3 (0 Snap) to activate or deactivate to activate the snap-to-zero function. For easier sample
 editing, the software will "force" you to place a start point or end point only at "zero-crossings."
 This can help to avoid clicks and glitches when playing a sample.
- Press a pad to select its slice. Each slice is assigned to a pad automatically, starting from Pad A01 with Slice 1 and ascending from there. If your sample contains more than 16 slices, use the Pad Bank buttons to switch through the pad banks to view all playable slices.
- Use the Cursor Buttons to select the Start field or End field, and then use the Data Dial or the -/+
 buttons to set the value. Alternatively, you can enter a value by using the number buttons and
 confirming by pressing Enter. Remember that the start point of a slice is also the end point of the
 previous slice.
- Press F4 (Audition) to activate or deactivate Audition.
- Use the Cursor Buttons to select the Link field, and then use the Data Dial or the -/+ buttons to turn Link Slices on or off.
- Use the Cursor Buttons to select the One Shot / Note On field, and then use the Data Dial or the
 -/+ buttons to set it to One Shot or Note On.



The Sample Edit section in the display of the MPC hardware.



Chop To Section

The **Chop To** section determines the slicing process. You can select between three slicing modes:

 Threshold uses an adjustable detection algorithm that derives the number of regions created from the volume levels present in the sample.

Click and drag the **Threshold** field up or down to set the threshold level. The higher the selected value, the more slices will be created.

Click and drag the **Min Time** (Min Slice Time) field up or down to set the minimum length of a slice in milliseconds.

- Regions divides a sample into several regions of equal length.
 Click and drag the Num Regions field up or down to set the
 number of regions you wish to divide the sample into. Usually, 16
 is a good start for a single-measure loop.
- BPM divides a sample into several regions of equal length based on its length and the current tempo (beats per minute).

Click and drag the **Bars** field up or down to set how many bars are in the sample.

Click and drag the **Beat** field up or down to set how many beats are in each bar.

Click and drag the **Time Div** field up or down to set a note division; the slice markers will be placed according to this setting. You can select 1/4, 1/8, 1/16, or 1/32. (In most cases, you should set this parameter to 1/16.)







Hardware:

- 1. Use the **Cursor Buttons** to select the **Chop To** field.
- 2. Use the **Data Dial** or the -/+ buttons to set the mode (*Threshold*, *Region*, or *BPM*).
- Use the Cursor Buttons to select the parameters for that mode, and use the Data Dial or the -/+ buttons to change the value.



Process Section

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

In the software, click the desired sample editing option (described below). A new window will open (which may have some additional parameters). To execute a selected option, click **Do It**, or cancel your changes by clicking **Cancel**.

Tip: When the new window is open, you can click the **Function** menu to select another edit option, if desired.



The following sample editing options are available:

- Silence replaces the part of the sample between the start point and end point with silence.
- Extract deletes parts of the sample before the start point and after the end point and saves it as a new sample (with a name you enter) in your current Project.

Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the Project.

- Normalize increases a sample's level to the highest level possible without distortion. This is
 essentially a kind of digital gain optimization, so you do not have to worry about excessive level
 settings when working with Projects whose samples have a wide range of amplitudes.
- Reverse reverses the part of the sample between the start point and end point.
- Fade In sets a fade-in between the start point and end point of the sample. The following types are available:
 - o Linear fades the audio in with a linear curve a straight line between the start and end.
 - Log fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.
 - Exp fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.



- Fade Out sets a fade-out between the start point and end point of the sample. The following types
 are available:
 - o Linear fades the audio out with a linear curve—a straight line between the start and end.
 - Log fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.
 - Exp fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.
- Pitch Shift changes the pitch of the sample without changing its length. This lets you set the
 sample's pitch to your Sequence without affecting the sample's tempo or duration. You can adjust
 it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more
 extreme settings.
- Gain Change raises or lowers the volume of the sample. You can adjust it up to 18dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!
- Convert offers three ways of exporting the sliced sample:
 - Patched Phrase creates a new sample based on your edits and places it in the current Project.
 - Sliced Samples creates individual samples from the slices of the current sample.

If **Crop Samples** is activated, each slice results in a new sample.

If Create New Program is activated, you will create a new Program in which each slice results in a sample and is automatically assigned to a pad. (If Create New Program is selected, you also get the option to Create Events.)

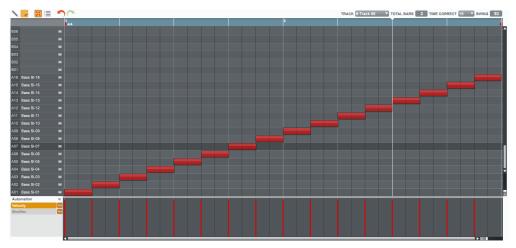
If Create Events is activated (available only when Create New Program is activated), you will create a new Program in which each slice results in a sample and is automatically assigned to a pad. Furthermore, it will automatically create a new Track in which each pad plays its corresponding slice in ascending sequence by pad number. The samples will be named with SI and a consecutive number attached to their original name.





 Assign Slice assigns a single slice to a selected pad. Click Pad and select the desired pad. If Crop Samples is activated, each slice results in a new sample. Click Program to specify a Program to which you want to add the assigned slice. The sample will be named with pp attached to its original name.



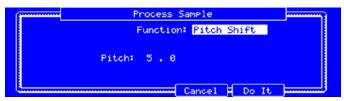


Track with events after using the Sliced Samples > Create Events function.



Hardware:

- 1. Press **F6** (**Process**) to open the **Process Sample** page.
- 2. Use the **Data Dial** or the -/+ buttons to select the desired editing option (described below) in the **Function** field. Some options have some additional parameters—use the **Cursor Buttons** to select them and the **Data Dial** or -/+ buttons to adjust them.
- 3. To execute a selected option, press F5 (Do It), or cancel your changes by pressing F4 (Cancel).



The Process Sample display for Pitch Shift of the MPC hardware.

Project Information

This is identical to the Project Information in Main Mode. For more information, please see *Main Mode* > *Project Information*.

Important: Newly recorded samples will be shown in the **Sample** area of the **Project Information**. To use them in your Project, load them into Programs first.



Song Mode



Song Mode lets you arrange Sequences in a specific order and/or repetition to create songs. You can edit the structure of a Song during playback for easy, on-the-fly composing.

A Project can contain up to 32 Songs, each consisting of up to 999 "steps," each of which can have an assigned Sequence as well as the number of times that Sequence will repeat.



To enter Song Mode in the software, do one of the following:

- Click the **Song Mode** tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Song.
- On your computer keyboard, press Ctrl+9 (Windows) or ##+9 (Mac OS X).

Hardware: To enter Song Mode, press the Song button.



Sequence Playlist

The Sequence Playlist Section (to the left of the pads in the software) is the list of the steps of a Sequence.

Each step in a Song has:

- an assigned Sequence
- the tempo of the Sequence
- the number of bars in the Sequence
- how many times the Sequence plays



You can add a Sequence to the Sequence Playlist by clicking and dragging from a pad and dropping it onto the list. You can also click and drag Sequences from the pads and drop them onto the workspace in the upper half of the window, if you prefer working in a horizontal arrangement.

You can insert Sequences between existing Sequences, or you can replace Sequences by dragging a Sequence directly over another.

The information for each step of a Sequence is shown in five columns:

- Step: Which "step" of the Song it is. Each Song can contain up to 999 steps.
- Sequence: The name of the Song's Sequences. Click a Sequence to open a drop-down menu where you can select which Sequence should be in that step.
- Rpts (Repeats): How many times a Sequence will be played. Normally, a Sequence is played only
 once, but you make it replay up to 999 times. Click the field and drag it up or down to change the
 number. If you set it to HId (Hold, the lowest/"minimum" value), the Sequence keep playing until
 you stop playback.
- BPM: The tempo of a Sequence in beats per minute.
- Bars: The bar length of a Sequence.



Hardware: To manage the Sequence Playlist in Song Mode.

- Use the Cursor Buttons to select the Song field, and use the Data Dial or the -/+ buttons to select
 the Song shown in the Sequence Playlist.
- Use the Cursor Buttons to select a Sequence in the Sequence column, and use the Data Dial or the -/+ buttons to select which Sequence should be in that step.
- Use the Cursor Buttons to select the Rpts (Repeats) column, and use the Data Dial or the -/+
 buttons to set how many times a Sequence will be played. Normally, a Sequence is played only
 once, but you make it replay up to 999 times. If you set it to Hold (the lowest/"minimum" value), the
 Sequence keep playing until you stop playback.
- Use the **Cursor Buttons** to select the **Now** field, and use the **Data Dial** or the -/+ buttons to change the current position of the audio pointer in the Song. The arrow (>) in the **Step** column indicates the current step in the Song.



Song Mode in the MPC hardware display.

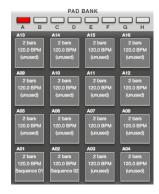


Pad Bank Section

In the **Pad Bank** section, all Sequences are assigned to a pad. Unused empty Sequences are marked **(unused)**. You can use the Pad Bank buttons to show the Sequences assigned to pads in other banks.

You can easily click and drag Sequences from this section and drop them onto the Sequence playlist. You can also click and drag Sequences from the pads and drop them onto the workspace in the upper half of the window, if you prefer working in a horizontal arrangement.

You can insert Sequences between existing Sequences, or you can replace Sequences by dragging a Sequence directly over another.



Song Section

The **Song** section lets you name or select a Song or execute other operations that affect the Song.

Click the **Song** drop-down menu to name the Song.

You can also click the downward arrow (▼) to the right of the Song name to open a drop-down menu where you can select another of the 32 Songs in the Project.

Click **Convert > Seq** to convert the current Song to a single Sequence.

Hardware: Press **F4** (**Convert**) to convert the current Song into a single Sequence.

Click Clear to delete all Sequences of the Song.

Hardware: Press F1 (Clear) to delete all Sequences of the Song.





Edit Step Section

The **Edit Step** section contains controls to add or delete steps from the Song.



Click **Insert Step** to insert the selected Sequence (indicated by the lit pad in the **Pad Bank** section) in the Sequence Playlist.

Hardware: Press **F6** (**Insert**) to insert a Sequence *under* the selected one.

Click **Delete Step** to delete the selected step from the Sequence Playlist.

Hardware: Press F5 (Delete) to delete the selected Sequence.



Step Section

The **Step** section contains information about the current step in the Sequence Playlist. Click and drag each field up or down to change its setting.

- First Bar indicates where in the Song the step begins.
- Last Bar indicates where in the Song the step ends before moving onto the next step.
- Total Bars indicates how many bars the step occupies in the Song (this accounts for how many times the step's Sequence repeats).
- Repeats indicates how many times the step's Sequence plays.
- **Time Sig** indicates the Sequence's time signature.
- BPM indicates the Sequence's tempo in beats per minute.

Hardware: When a Song is playing, the following buttons are available in the MPC hardware's display:

- Press F2 (Sudden) to switch to the next Sequence before the 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.
- Press F3 (Next) to jump 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.

Tip: To learn more about creating Songs, please see **Quick Start / Tutorial > Creating a Song**.

Project Information

This is identical to the Project Information in Main Mode. For more information, please see *Main Mode* > *Project Information*.





Pad Mute Mode

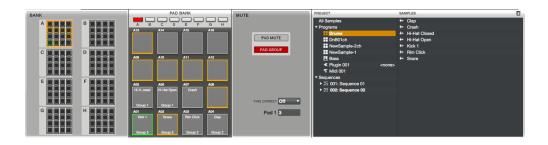


Pad Mute Mode lets you easily mute pads within a Program or set Mute Groups for each pad.

To enter Pad Mute Mode in the software, do one of the following:

- Click the Pad Mute Mode tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Pad Mute.
- On your computer keyboard, press Ctrl+0 (Windows) or ##+0 (Mac OS X).

Hardware: To enter Pad Mute Mode, press Shift + Track Mute / Pad Mute.





Pad Mute

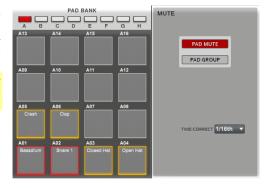
You can mute or unmute individual sounds (on a single Track) in real time by pressing the pads. This is useful if you want to hear a Track without a particular sound or if you want to isolate specific sounds or combinations of sounds.

Tip: This function is similar to, but probably more convenient than, muting pads one at a time in the arid.

In the software, do the following to use Pad Mute:

- Click the Pad Mute button in the Mute Section to activate it.
- Click the desired bank (A H) in the Bank section or Pad Bank section.
- Click a pad in the **Pad Bank** section to mute or unmute its assigned sound. Muted pads are lit red; unmuted pads are lit yellow.

Alternatively, you can click the the miniature pads in **Bank** section. This section gives you an overview of all 128 pads at the same time. Unused pads are greyed out.



Time Correct lets you quantize Pad Mutes. This is useful when you want your mutes to line up with a specific time division. Click the **Time Correct** drop-down menu and select a value from 1/16th (sixteenth notes) to 2 bar (2 bars). For example, with **Time Correct** set to 1 bar, your mutes will always align with the beginning of the measure immediately after you press the pad.

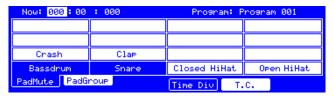


Hardware:

- 1. Press F1 (PadMute) to activate Pad Mute.
- The 16 blocks in the display represent the 16 pads of the current bank. Press a pad to mute or unmute its assigned sound. Use the **Pad Bank** buttons to switch between the 16 banks, if necessary.

Muted pads are lit red; unmuted pads are lit yellow. Unused pads do not show a sample name.

Press **F4** (**Time Div**) and use the **Data Dial** or **-/+** buttons to edit the **Time Correct** value. Press **F5** (**T.C.**) to activate or deactivate Time Correct.



The Pad Mute section in the display of the MPC hardware.



Pad Group

The Pad Group feature extends the concept of Pad Mutes: you can mute or unmute multiple pads (on a single Track) by pressing one pad that you have assigned to a Mute Group. This is useful if you want to hear a Track without a particular group of sounds or if you want to isolate specific sounds in various combinations. You can create up to 16 different Pad Groups.

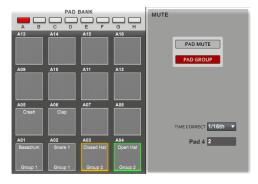
In the software, do the following to use Pad Groups:

- Click the Pad Group button in the Mute Section to activate it.
- Click the desired bank (A H) in the Bank section or Pad Bank section.
- Click a pad in the **Pad Bank** section that you want to assign to a Mute Group.

Alternatively, you can click the the miniature pads in **Bank** section. This section gives you an overview of all 128 pads at the same time. Unused pads are greyed out.

 Click and drag the Pad field in the Mute Section up or down to select the desired Mute Group number.

When a pad in a Mute Group is selected, the other pads in that same Mute Group will blink yellow.



Time Correct lets you quantize Pad Mutes. This is useful when you want your mutes to line up with a specific time division. Click the **Time Correct** drop-down menu and select a value from 1/16th (sixteenth notes) to 2 bar (2 bars). For example, with **Time Correct** set to 1 bar, your mutes will always align with the beginning of the measure immediately after you press the pad.



Hardware:

- 1. Press F2 (PadGroup) to activate Pad Group.
- 2. Press a pad to select it. Use the Pad Bank buttons to switch between the 16 banks, if necessary.
- 3. Use the Data Dial or -/+ buttons to select the desired Mute Group number.
 When a pad in a Mute Group is selected, the other pads in that same Mute Group will blink yellow.
 Press F4 (Time Div) and use the Data Dial or -/+ buttons to edit the Time Correct value. Press F5 (T.C.) to activate or deactivate Time Correct.

Now: <mark>000</mark> :00 : 000		Program: Program 001	
off	off	off	off
off	off	off	off
off	off	off	off
Group 1	Group 1	Group 2	Group 2
PadMute PadGroup Time Div T.C.			

The **Pad Group** section in the display of the MPC hardware.

Project Information

This is identical to the Project Information in Main Mode. For more information, please see *Main Mode* > *Project Information*.



Track Mute Mode

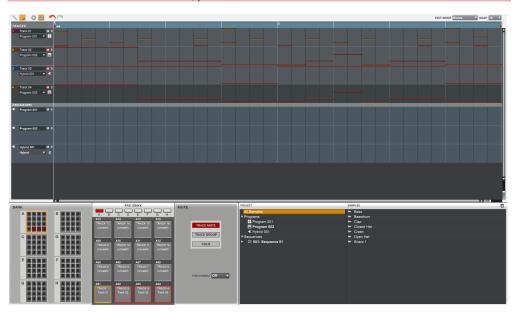


Track Mute Mode lets you easily mute Tracks within a Sequence or set Track Mute Groups to use with the pads.

To enter Track Mute Mode in the software, do one of the following:

- Click the Track Mute Mode tab in the Mode Tab Section of the software window.
- Click the View Menu, select Mode, and then select Track Mute.
- On your computer keyboard, press Ctrl+- (Windows) or #+- (Mac OS X).

Hardware: To enter Track Mute Mode, press the Track Mute button.





Track Mute

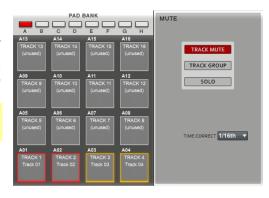
You can mute or unmute individual Tracks in real time by pressing the pads. This is useful if you want to hear a Sequence without a particular Track (e.g., muting your keyboard Track to focus on the bass) or if you want to isolate specific sounds or combinations of sounds that are separated by Track.

Tip: This function is similar to, but more convenient than, muting Tracks one at a time in Track Mixer Mode.

In the software, do the following to use Track Mute:

- Click the Track Mute button in the Mute Section to activate it.
- Click the desired bank (A H) in the Bank section or Pad Bank section.
- Click a pad in the **Pad Bank** section to mute or unmute its corresponding Track. Muted pads are lit red; unmuted pads are lit yellow.

Alternatively, you can click the the miniature pads in **Bank** section. This section gives you an overview of all 128 pads at the same time. Unused pads are greved out.



Click the **Solo** button to solo the selected Track only, muting all other Tracks.

Time Correct lets you quantize Track Mutes. This is useful when you want your mutes to line up with a specific time division. Click the **Time Correct** drop-down menu and select a value from 1/16th (sixteenth notes) to 2 bar (2 bars). For example, with **Time Correct** set to 1 bar, your mutes will always align with the beginning of the measure immediately after you press the pad.



Hardware:

- 1. Press **F1** (**TrkMute**) to activate Track Mute.
- The 16 blocks in the display represent the 16 pads of the current bank. Press a pad to mute or unmute its corresponding Track. Use the **Pad Bank** buttons to switch between the 16 banks, if necessary.

Muted pads are lit red; unmuted pads are lit yellow. Unused pads do not show a sample name.

Press F6 (Solo) to solo the selected pad.

Press **F4** (**Time Div**) and use the **Data Dial** or **-/+** buttons to edit the **Time Correct** value. Press **F5** (**T.C.**) to activate or deactivate Time Correct.



The Track Mute section in the display of the MPC hardware.



Track Group

The Track Group feature extends the concept of Track Mutes: you can mute or unmute multiple Tracks simultaneously by pressing one pad that you have assigned to a Track Group. This is useful if you want to hear a Sequence without a particular group of Tracks or if you want to isolate specific Tracks in various combinations. You can create up to 16 different Track Groups.

In the software, do the following to use Track Groups:

- Click the Track Group button in the Mute Section to activate it.
- Click the desired bank (A H) in the Bank section or Pad Bank section.
- Click a pad in the Pad Bank section that you want to assign to a Mute Group.

Alternatively, you can click the the miniature pads in **Bank** section. This section gives you an overview of all 128 pads at the same time. Unused pads are greyed out.

 Click and drag the Track __ field in the Mute Section up or down to select the desired Mute Group number.

When a Track in a Mute Group is selected, the other Tracks in that same Mute Group will blink yellow.

PAD BANK

A B C D E G H

A13 A14 A15 A16

TRACK 13 TRACK 14 TRACK 15 (unused) (unused)

TRACK 14 (unused)

TRACK 17 (unused)

TRACK 18 (unused)

TRACK 19 (unused)

TRACK 19 (unused)

TRACK 11 (unused)

TRACK 10 (unused)

TRACK 10 (unused)

TRACK 10 (unused)

TRACK 10 (unused)

TRACK 11 (unused)

TRACK 11 (unused)

TRACK 12 (unused)

TRACK 12 (unused)

TRACK 2 TRACK 2 (unused)

TRACK 3 TRACK 4 Track 01

TRACK 4 2

TRACK 4 2

Click the **Solo** button to solo the selected Track only, muting all other Tracks.

Time Correct lets you quantize Track Group Mutes. This is useful when you want your mutes to line up with a specific time division. Click the **Time Correct** drop-down menu and select a value from 1/16th (sixteenth notes) to 2 bar (2 bars). For example, with **Time Correct** set to 1 bar, your mutes will always align with the beginning of the measure immediately after you press the pad.



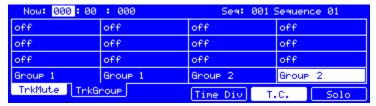
Hardware:

- 1. Press F2 (TrkGroup) to activate Track Group.
- 2. Press a pad to select it. Use the **Pad Bank** buttons to switch between the 16 banks, if necessary.
- 3. Use the **Data Dial** or **-/+** buttons to select the desired Mute Group number.

When a pad in a Mute Group is selected, the other pads in that same Mute Group will blink yellow.

Press **F6** (**Solo**) to solo the selected pad.

Press **F4** (**Time Div**) and use the **Data Dial** or **-/+** buttons to edit the **Time Correct** value. Press **F5** (**T.C.**) to activate or deactivate Time Correct.



The **Track Group** section in the display of the MPC hardware.

Project Information

This is identical to the Project Information in Main Mode. For more information, please see *Main Mode* > *Project Information*.



Step Sequence Mode

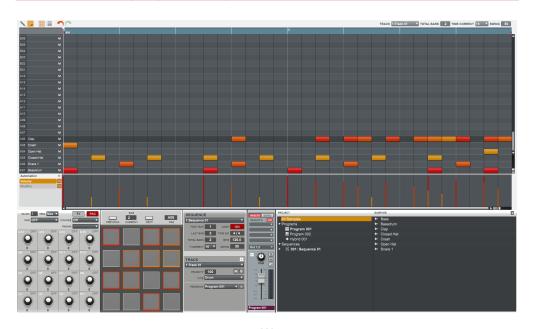


Step Sequence Mode lets you create or edit Sequences by using the pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine.

To enter Step Sequence Mode in the software, do one of the following:

- Click the Step Sequence Mode tab in the Mode Tab Section of the software window.
- Click the **View** Menu, select **Mode**, and then select *Step Sequence*.
- On your computer keyboard, press **Ctrl+=** (Windows) or **X+=** (Mac OS X).

Hardware: To enter Step Sequence Mode, press the Step Seq button.





The upper half of the window contains the grid, showing the note events of the current Sequence.

The lower half of the window has various controls that are also available in other modes, like Main Mode. Please see the *Main Mode* chapter to learn more about the *Q-Link Section*, the *Sequence Section*, the *Track Section*, the *Program Channel Strip*, or the *Project Information*.

The only difference is the Pad Section, which you use to enter note events as you would with a traditional step sequencer. (This can be done when a Sequence is playing or stopped.) Please see the following *Pad Section* part of this chapter to learn how to do this.

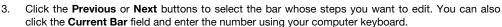
Pad Section

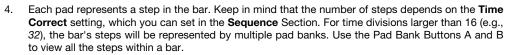
The **pad** section lets you quickly create and delete note events as "steps" by using the pads of your MPC hardware or MPC software.

Tip: Step Sequence Mode is useful for programming drums, emulating the step recording of drums with drum machines in the 1980s.

In the software, enter or erase note events by doing the following:

- First, click the **Track** drop-down menu above the grid or in the **Track** section to select a Track.
- 2. Select the pad whose steps you want create or edit by doing on the following:
 - In the Pad Section, click the Pad field and drag it up or down to select the pad number.
 - Click the pad's row in the grid.

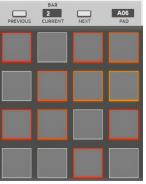




If the pad already has note events on the selected Track, the corresponding pads (steps) will be lit with colors corresponding to their velocities.

Click an unlit pad to enter a note event at that step. The pad will light up with a color corresponding to its velocity.

Click a lit pad to delete the note event from that step. The pad will be unlit.





Hardware: Create or delete steps by doing the following:

- Use the Cursor Buttons to select the Trk field, and use the Data Dial or -/+ buttons to select a Track.
- Use F5 (Pad-) and F6 (Pad+) to select the pad whose steps you want to create or edit. The pad number and its sample name will appear in the upper-right corner of the display. Alternatively, you can use the Cursor Buttons to select the Pad field in the upper-right corner and use the Data Dial or -/+ buttons to select a pad.
- 3. Use F2 (Bar-) and F3 (Bar+) to select the bar whose steps want to create or edit.
- 4. Each pad represents a step in the bar. Keep in mind that the number of steps depends on your Time Correct settings, which you can set by pressing F1 (T.C.). For time divisions larger than 16 (e.g., 32), the bar's steps will be represented by multiple pad banks. Use the Pad Bank Buttons A and B to view all the steps within a bar. You can press and hold the Note Repeat button to change the time division of the Sequence grid and use the F-buttons to select the desired value.

If the pad already has note events on the selected Track, the corresponding pads (steps) will be lit with colors corresponding to their velocities.

Press an unlit pad to enter a note event at that step. The pad will light up with a color corresponding to its velocity.

Click a lit pad to delete the note event from that step. The pad will be unlit.



Working with Step Sequence Mode in the MPC hardware display.



MIDI Control Mode



In MIDI Control Mode, you can customize what MIDI messages are sent from certain controls on your hardware. This custom "control map" will then work whenever you are in MIDI Control Mode. This is useful when using MPC as a plugin: you can use MIDI Control Mode to use your MPC hardware to control your host software, and then switch back to any other mode to control the MPC plugin.

Important:

- In your host software, make sure your MPC hardware is selected as a MIDI controller device.
- The edits you make in MIDI Control Mode will be retained with the current MPC Project. If you want
 to use the same control map for all of your Projects, we recommend saving your control map in
 your template file. See Software Menus > Edit Menu > Preferences: Auto Load/Save Tab for
 more information about template files.

To enter MIDI Control Mode in the software, click the **MIDI Control Mode** tab in the Mode Tab Section of the software window.

Hardware: To enter MIDI Control Mode, press Shift + Song / Other.



The software window will display a graphical interface resembling your connected hardware controller. Editable controls display their current MIDI message. Controls outlined in red are identical across all eight pad banks. The pads are all editable, as well, and can be set to behave identically across all banks or differently in each bank.



To edit a control:

- 1. Select it by doing one of the following:
 - · clicking it in the software
 - pressing or moving it on your hardware
- 2. In the **Edit** panel on the left side of the software window, set that controls' parameters to your preference. The available parameters depend on whether it is a Q-Link Knob, pad, or the type of button.
 - Control (all controls): This determines what message the control sends to the software (e.g., acting as a specific Q-Link Knob, acting as a specific pad, entering a specific mode, revealing or hiding the File Browser, Undo, Tap Tempo, etc.).
 - **Light LED** (all controls): This determines how the control's LED (or multiple LEDs) on the hardware will behave.
 - When set to Never, the LED will always be off.
 - When set to MIDI Input, the LED will light up when the software receives a MIDI message that matches that control.
 - When set to Local, the LED will light up when you use that control and/or MIDI input is received.
 - MIDI Channel (all controls): This deteremines over which MIDI channel (from 1 to 16) the control will send MIDI messages to the software.
 - CC Number (buttons and Q-Link Knobs only): This determines what Control Change the control will send to the software.
 - Mode (Q-Link Knobs only): This determines how the Q-Link Knob will control its parameter.
 - When set to Absolute, the Q-Link Knob's current position is what determines its parameter's value; moving the Q-Link Knob may cause its parameter to "snap" to a new position when using the Q-Link Knob to control different parameters between different modes.
 - When set to Relative, moving the Q-Link Knob will adjust its parameter upward or downward regardless of its position.









- Low Range (Q-Link Knobs only): This is the Q-Link Knob's lowest possible value (0 to 127).
- High Range (Q-Link Knobs only): This is the Q-Link Knob's highest possible value (0 to 127).
- Touch Sense (Q-Link Knobs only): This activates or deactivates the Q-Link Knob's touchcapacitive circuitry.
 - When set to On, you can touch the Q-Link Knob to send a Note On message to the software (this is how your MPC hardware normally works).
 - When set to Off, the Q-Link Knob will not send any Note On messages; it will only send CC messages when you turn it.
- Touch Note (Q-Link Knobs only): This is the MIDI note number the Q-Link Knob will send to
 the software when you touch it (0 127 or C-2 to G8). Touch Sense must be set to On for this
 to work.
- **Type** (buttons only): This determines whether the button will behave as a *Momentary* switch or *Toggle* (latching) switch.
- Note (pads only): This is the MIDI note number the pad will send to the software when you
 press it (0 127 or C-2 to G8).
- Bank (pads only): This is the pad bank the pad belongs to. If you check the Set All box, the pad's messages and parameters will be identical across all eight banks.
- **Velocity** (pads only): This determines whether the pad will be velocity-sensitive (*On*) or not (*Off*). When set to *Off*, pressing the pad will send a note at full-level (127) always.
- Aftertouch (pads only): This determines how the pad's aftertouch (pressure applied to the pad after the initial press) behaves.
 - o When set to Off, the pad will not send any aftertouch messages.
 - When set to Channel, if you press multiple pads that have this setting, the aftertouch messages they send will be identical.
 - When set to Poly, if you press multiple pads, the aftertouch message each pads sends will be independent from the others'.
- 3. When you have set all of the parameters as desired, select another control or enter another mode.

Hardware: To edit a control:

- 1. Select a control by pressing it (pads, buttons) or moving it (Q-Link Knobs).
- Use the Cursor Buttons to select the desired field, and use the Data Dial or -/+ buttons to set the
 desired value or option. The available parameters (described above) depend on whether it is a QLink Knob, pad, or the type of button.
- 3. When you have set all of the parameters as desired, select another control or enter another mode.



Effects

The MPC software offers various effects that you can apply to the **pads**, **Programs**, and **Master mix**, using both **insert** and **send** effects. This chapter can help you get a good overall understanding of how the software's effects work.

Tips:

To open an effect's graphic user interface and edit its parameters, double-click the name of the loaded effect.

Move an effect from one slot to another by clicking and dragging it.

Copy an effect from one slot to another by holding Ctrl (Windows) or **%** (Mac OS X) while clicking and dragging it.

Hardware: Whenever an effect's name is selected in the display, you can press the **Window** button to view and edit the effect's parameters. Use the **Cursor Buttons** to select the desired parameter, and use the **Data Dial** or -/+ buttons to adjust it.

See *Appendix* > *Effects and Parameters* for a list of all available effects (with a brief description of each) and their editable parameters.

Overview

In a Program, each pad can have up to **four insert effects** applied to it. See **Pad/Keygroup Insert Effects** to learn more about this.

An overall Program can also have up to **four insert effects** applied to it, as well. See **Program Insert Effects** to learn more about this.

Additionally, pads and Programs can each be sent to up to **four send effects**. The audio of the pads and Programs will be routed to the send effects at their designate send levels, and the send effects will return the audio at the designated return levels. See **Send Effects** to learn more about this.

Finally, you can apply up to **four insert effects** to the entire Master mix. See *Master Effects* to learn more about this.



Insert Effects

Pad/Keygroup Insert Effects

You can apply, edit, or remove up to four pad/keygroup insert effects. The instructions for doing this depend on which mode you are in: **Program Edit Mode** or **Program Mixer Mode**.

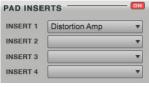
Important: When using keygroup insert effects, they will be applied to *the entire Keygroup Program*. This is because a Keygroup Program uses the same sound across all pads, as opposed to Drum Programs where each pad can have its own insert effect.

To load a pad/keygroup insert effect in Program Edit Mode:

- In the software, click the **Program Edit** tab in the Mode Tab Section.
- 2. Click the desired pad to select it.
- 3. If the **Pad Inserts** button is set to *Off*, click it so it changes to *On*.
- In one of the four Pad Inserts slots, click the downward arrow
 (▼).
- 5. Select an effect from the menu that appears.

Hardware: To load a pad/keygroup insert effect in Program Edit Mode:

- 1. Enter Program Edit Mode by pressing the **Prog Edit** button.
- 2. Press the desired pad. (To show another set of 16 pads, use the **Pad Bank** buttons to select another bank.)
- 3. Press **F6** (Effects) to view the pad's effect slots.
- If the Inserts field in the upper-right corner is set to Off, use the Cursor Buttons to select it, and use the Data Dial or -/+ buttons to change it to On.
- 5. Use the **Cursor Buttons** to select one of the four **Insert** slots.
- Use the Data Dial or the -/+ buttons to select an effect. Click F4 (Select) to load it, or click F3 (Back) to close the page.







To load a pad/keygroup insert effect in Program Mixer Mode:

- 1. In the software, click the **Program Mixer** tab in the Mode Tab Section.
- 2. If the **Route** button above the desired pad is not already selected, click it. Also, if the **Inserts** button is set to *Off*, click it so it changes to *On*.
- 3. In one of the four **Inserts** slots of the channel strip, click the downward arrow (▼).
- 4. Select an effect from the menu that appears.

Hardware: To load a pad/keygroup insert effect in Program Mixer Mode:

- 1. Enter Program Mixer Mode by pressing the **Prog Mix** button.
- Press F5 (Insert) to view the pads' insert effect slots. (You can repeatedly press F5 (Insert) to cycle through the four available insert effect slots. The small squares below the tab indicate the current slot.)
- Press the desired pad, or use the Cursor Buttons to select the desired pad. (To show another set of 16 pads, use the Pad Bank buttons to select another bank.)
- 4. Use the **Data Dial** or the -/+ buttons to select an effect. Click **F4** (**Select**) to load it, or click **F3** (**Back**) to close the page.





Program Insert Effects

You can apply, edit, or remove up to four Program insert effects. The instructions for doing this depend on which mode you are in: *Main Mode*, *Program Edit Mode*, *Program Mixer Mode*, *Track Mixer Mode*, or *Step Sequence Mode*.

To load a Program insert effect in Main Mode or Step Sequence Mode:

- In the software, click the Main Mode tab or Step Sequence tab in the Mode Tab Section.
- If the Insert button above the Program Channel strip (in the center of the lower section) is not already selected, click it. Also, if the Inserts button is set to Off, click it so it changes to On.
- In one of the four Inserts slots of the Program Channel strip, click the downward arrow (▼).
- 4. Select an effect from the menu that appears.

Hardware: To load a Program insert effect in Main Mode or Step Sequence Mode:

- Enter Main Mode by pressing the Main button, or enter Step Sequence Mode by pressing the Step Seq button.
- 2. Use the **Cursor Buttons** to select the **Vel**% field (the lower-right-most field), and then press the **Window** button.
- 3. Use the **Cursor Buttons** to select one of the four **Insert** slots.
- Use the Data Dial or the -/+ buttons to select an effect. Click F4 (Select) to load it, or click F3 (Back) to close the page.
- 5. Press **F4** (**Close**) when you are done.





To load a Program insert effect in Program Edit Mode:

- 1. In the software, click the **Program Edit** tab in the Mode Tab Section.
- If the Program Inserts button is set to Off, click it so it changes to On.
- In one of the four **Program Inserts** slots, click the downward arrow (▼).
- 4. Select an effect from the menu that appears.

Note: If the a pad's **Pad Audio Route** menu is set to anything other than *Program*, then Program insert effect will *not* be applied to that pad.



To load a Program insert effect in Program Mixer Mode:

- 1. In the software, click the **Program Mixer** tab in the Mode Tab Section.
- 2. If the Program Channel strip (on the right edge of the window) is not shown, click the downward arrow icon (on the left edge of the window) to show it.
- 3. If the **Insert** button above the Program Channel strip is not already selected, click it. Also, if the **Inserts** button is set to *Off*, click it so it changes to *On*.
- In one of the four Inserts slots of the Program Channel strip, click the downward arrow (▼).
- 5. Select an effect from the menu that appears.





To load a Program insert effect in Track Mixer Mode:

- 1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
- 2. If the Program Channel strips (in the lower section) are not shown, click the plug icon (on the left edge or at the top of the window) to show them.
- If the Insert button above the desired Program Channel strip is not already selected, click it. Also, if the Inserts button is set to Off, click it so it changes to On.
- In one of the four **Inserts** slots of the Program Channel strip, click the downward arrow (▼).
- 5. Select an effect from the menu that appears.

Hardware: To load a Program insert effect in Track Mixer Mode:

- 1. Enter Track Mixer Mode by pressing **Shift + Prog Mix / Track Mix**.
- Use the Cursor Buttons to select the Mixer field, and then use the Data Dial or -/+ buttons to set it to Programs.
- Press F5 (Insert) to view the Programs' insert effect slots. (You can repeatedly press F5 (Insert) to cycle through the four available insert effect slots. The small squares below the tab indicate the current slot.)
- 4. Use the Cursor Buttons to select the desired Program. (To show another set of 16 Programs, use the Cursor Buttons to select the Program field in the upperright corner, and then use the Data Dial or -/+ buttons to select a new set of 16 Programs to view.)
- 5. Use the **Data Dial** or the -/+ buttons to select an effect. Click **F4** (**Select**) to load it, or click **F3** (**Back**) to close the page.





Send Effects

You can send pads and Programs through up to **four send effects**. You must load the send effects in Track Mixer Mode first. After that, do either or both of the following:

- set the pad's send level in Program Mixer Mode.
- set the Program's send level in Main Mode, Program Mixer Mode, Track Mixer Mode, or Step Sequence Mode.

The instructions for doing this depend on which mode you are in.

You can set the effect's return level in Track Mixer Mode.

To load a send effect and set its return level:

- 1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
- 2. If the Master section (on the right edge of the window) is not shown, click the downward arrow icon (on the left edge of the window) to show it.
- In one of the four Return slots of the Send Effects column, click the downward arrow (▼).
- 4. Select an effect from the menu that appears.
- 5. Click and drag a knob up or down to set the return level of the send effect.

Important: See the rest of this section to learn how to send a pad or Program to that send effect.

Hardware: To load and edit a send effect and its return level:

- 1. Press Shift + Seq Edit / Effects.
- 2. Press F4 (Send), if it is not already selected.
- 3. Use the Cursor Buttons to select the desired Send effect slot.
- Use the Data Dial or the -/+ buttons to open another page to select an effect. Click F4 (Select) to load it, or click F3 (Back) to close the page.
- 5. Use the **Cursor Buttons** to select the desired **Level** effect slot.
- 6. Use the **Data Dial** or the -/+ buttons to set the level.





To set the send effect level for a pad:

- In the software, click the **Program Mixer** tab in the Mode Tab Section. 1.
- 2. If the **Send** button above the desired pad's channel strip is not already selected, click it.
- Click and drag the knob that corresponds to the send effect up or down to set the 3. send level.

Hardware:

To set the send effect level for a pad in Program Mix Mode:

- 1. Enter Program Mixer Mode by pressing the **Prog Mix** button.
- Press F4 (Send) to view the pads' send effect slots. (You can repeatedly press F4 2. (Send) to cycle through the four available send effect slots. The small squares below the tab indicate the current slot.)
- Do one of the following: 3.

Turn the **Q-Link Knob** that corresponds to the desired pad.

Use the Cursor Buttons to select the desired pad, and then use the Data Dial or the -/+ buttons to set the send level.

To show another set of 16 pads, use the **Pad Bank** buttons to select another bank.

To set the send effect level for a pad in Program Edit Mode:

- 1. Enter Program Edit Mode by pressing the **Prog Edit** button.
- 2. Press the desired pad. (To show another set of 16 pads, use the Pad Bank buttons to select another bank.)
- Use the Cursor Buttons to select one of the four Send slots, and then use the Data 3. Dial or the -/+ buttons to set the send level.









To set the send effect level for a Program in Main Mode or Step Sequence Mode:

- In the software, click the Main Mode tab or Step Sequence tab in the Mode Tab Section.
- If the Send button above the Program Channel strip (in the center of the lower section) is not already selected, click it.
- Click and drag the knob that corresponds to the send effect up or down to set the send level.

Hardware: To set the send effect level for a Program in Main Mode or Step Sequence Mode:

- Enter Main Mode by pressing the Main button, or enter Step Sequence Mode by pressing the Step Seq button.
- Use the Cursor Buttons to select the Vel% field (the lower-right-most field), and then press the Window button.
- 3. Use the Cursor Buttons to select one of the four Send slots (under Program).
- 4. Use the **Data Dial** or the **-/+** buttons to set the level.
- 5. Press **F4** (**Close**) when you are done.

To set the send effect level for a Program in Program Mixer Mode:

- 1. In the software, click the **Program Mixer** tab in the Mode Tab Section.
- 2. If the Program Channel strip (on the right edge of the window) is not shown, click the downward arrow icon (on the left edge of the window) to show it.
- 3. If the **Send** button above the Program Channel strip is not already selected, click it.
- 4. Click and drag the knob that corresponds to the send effect up or down to set the send level.







To set the send effect level for a Program in Track Mixer Mode:

- 1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
- 2. If the Program Channel strips (in the lower section) are not shown, click the plug icon (on the left edge or at the top of the window) to show them.
- If the Send button above the desired Program Channel strip is not already selected, click it.
- Click and drag the knob that corresponds to the send effect up or down to set the send level.

Hardware: To set the send effect level for a Program in Track Mixer Mode:

- 1. Enter Track Mixer Mode by pressing Shift + Prog Mix / Track Mix.
- Use the Cursor Buttons to select the Mixer field, and then use the Data Dial or -/+ buttons to set it to Programs.
- Press F4 (Send) to view the Programs' send effect slots. (You can repeatedly press F4 (Send) to cycle through the four available send effect slots. The small squares below the tab indicate the current slot.)
- 4. Use the **Cursor Buttons** to select the **Program** field, and then use the **Data Dial** or -/+ buttons to select the desired set of 16 Programs to display below.
- 5. Do one of the following:

Turn the **Q-Link Knob** that corresponds to the desired Program.

Use the **Cursor Buttons** to select the desired Program, and then use the **Data Dial** or the **-/+** buttons to set the send level.





Master Effects

You can load, edit, or remove up to four Master effects.

To load a Master effect:

- 1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
- 2. In one of the four slots of the **Master FX** column, click the downward arrow (▼).
- 3. Select an effect from the menu that appears.

Hardware: To load and edit a Master effect:

- 1. Press Shift + Seq Edit / Effects.
- 2. Press F5 (Insert).
- 3. Use the Cursor Buttons to select the desired Insert effect slot.
- 4. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4** (**Select**) to load it, or click **F3** (**Back**) to close the page.





Operation (Plugin)

When using the MPC software as a VST, AU, RTAS, or AAX plugin, its features and functions are very similar to its operation as your host software but with some notable differences discussed in this chapter.

Important: For information about using the MPC software as a standalone software program, please see the *Operation (Software)* chapter.

Note: To learn how to load and use an instrument plugin in a host application, please refer to the corresponding chapter of your host application's manual.

Differences Between Plugin and Standalone Usage

Saving: Make sure to save your work in the MPC software plugin as well as saving all of your work in your host application. For ease of use, we recommend saving your host application projects and their associated MPC projects in the same folder.

Software Menus: The MPC plugin doesn't offer a top menu like in the standalone application. The menu button is located to the left of the **Main Mode** tab.



Audio Input and Output: Your audio input and output are set in your host application rather than in MPC. MPC's **Preferences** will not have the **Audio** tab.

MIDI Ports: All MIDI Out ports will be assigned to your digital audio workstation (DAW). In MPC's **Preferences**, the **MIDI** tab will display *DAW* as the only available MIDI Out port assignment.

DAW Projects Folder: In MPC's **Preferences**, the **Plugin** tab will let you select a **DAW Projects Folder** location.

Tempo and Sync: The MPC plugin is automatically synchronized to the tempo of your host application. MPC's **Preferences** will not have the **Sync** tab, and the **BPM** in the Transport Section will be greyed out.

Playback Controls: The **Stop**, **Play**, and **Play Start** buttons will be greyed out. You must start and stop playback using your host application's playback controls.

Playback Start and Stop: 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.



Appendix

Keyboard Shortcuts

You can use the following computer keyboard shortcuts for the MPC software.

Steinberg Cubase users: When running MPC as a plugin in Cubase, all keyboard shortcuts need to be combined with Alt.

Function	Control (Windows) # (Mac OS X)	Alt	Shift	Alt+Control (Windows) Alt+% (Mac OS X)
Main Grid, Select Box Tool	Click and drag to copy selected events.	Click background to switch to Eraser Tool.	Click and drag to add events to current selection.	
Track View, Region Mode	Click and drag to copy selected events.			
Main Grid, Pencil Tool	Click and drag to copy selected events.	Click background to switch to Eraser Tool.	Click and drag selected events without snapping to grid. Click events to add to current selection.	Click events to "send to back."
Real-time and Track Automation, Pencil Tool	Fine-edit value of selected events.	Click background to switch to Eraser Tool. Click and drag selected events with no time constraints.*	Click and drag selected events without snapping to grid.	
NT Automation, Pencil Tool	Fine-edit value of selected events.			
Select Box Tool			Click and drag to add events to current selection.	
Nudge grid events (using keyboard cursors)			Fine-edit nudge without snapping to grid (T.C.).	

^{*} Normally, real-time automation event cannot move beyond the selected event group's previous or next event.



File Menu

Function Command Keys (Windows)		Command Keys (Mac OS X)
New Project	Ctrl+N	₩+N
New From Template	Ctrl+Shift+N	₩+Shift+N
Save Project	Ctrl+S	 ₩+S
Save Project As	Ctrl+Shift+S	₩+Shift+S

Edit Menu

Function	Command Keys (Windows)	Command Keys (Mac OS X)
Undo	Ctrl+Z	 ₩+Z
Redo	Ctrl+Y	₩+Shift+Z
History	Ctrl+Shift+H	₩+Shift+H
Cut	Ctrl+X	₩+X
Сору	Ctrl+C	₩+C
Paste	Ctrl+V	 ₩+V
Select	Ctrl+A	 ₩+A
Select All	Ctrl+Shift+A	₩+Shift+A
Next Sequence	Ctrl+Shift+}	₩+Shift+}
Previous Sequence	Ctrl+Shift+{	₩+Shift+{
Next Track	Ctrl+]	₩+]
Previous Track	Ctrl+[₩+[
Preferences	Ctrl+,	₩+,



Time Correct Menu

Function	Command Keys (Windows)	Command Keys (Mac OS X)
Apply Time Correction	Ctrl+K	 ₩+K
Open Time Correct	Ctrl+Shift+K	₩+Shift+K
Time Division: 1/4	1	1
Time Division: 1/4T	2	2
Time Division: 1/8	3	3
Time Division: 1/8T	4	4
Time Division: 1/16	5	5
Time Division: 1/16T	6	6
Time Division: 1/32	7	7
Time Division: 1/32T	8	8
Time Division: 1/64	9	9
Time Division: 1/64T	0	0

Tools Menu

Function	Command Keys (Windows)	Command Keys (Mac OS X)
Show/Hide MIDI Keyboard	Ctrl+W	 ₩+W
Enable/Disable MIDI Keys	Ctrl+Shift+W	₩+Shift+W



View Menu

Function	Command Keys (Windows)	Command Keys (Mac OS X)
Main Mode	Ctrl+1	₩+1
Program Edit Mode	Ctrl+2	 ₩+2
Program Mixer Mode	Ctrl+3	 #+3
Track Mixer Mode	Ctrl+4	 ₩+4
Track View Mode	Ctrl+5	 ₩+5
Next Sequence Mode	Ctrl+6	% +6
Sample Record Mode	Ctrl+7	 ₩+7
Sample Edit Mode	Ctrl+8	 #+8
Song Mode	Ctrl+9	ж +9
Pad Mute Mode	Ctrl+0	% +0
Track Mute Mode	Ctrl+-	% +-
Step Sequence Mode	Ctrl+=	% +=
Show/Hide Browser	Shift+B	Shift+B
Show/Hide Expansion Browser	Shift+E	Shift+E
Grid Editor	Shift+G	Shift+G
List Editor	Shift+L	Shift+L

Transport Controls

Function	Command Keys (Windows)	Command Keys (Mac OS X)
Play	Space+Shift	Space+Shift
Play from Start	Space	Space

Miscellaneous

Function	Command Keys (Windows)	Command Keys (Mac OS X)
Duplicate Note Event(s)	Ctrl+D	 ₩+D
Erase	M	M
Note Repeat	N	N



Effects and Parameters

This chapter lists the available effects in the software. To learn more about how effects work in the software, please see the *Effects* chapter.

Note: Some of these effects have a "sync" version (e.g., *Flanger Sync*, *Autopan Sync*, etc.) whose rates will be affected by the current tempo. In the graphic user interface for these effects, a . next to the time division indicates a triplet-based rate.

Tip: Move an effect from one slot to another by clicking and dragging it. Copy an effect from one slot to another by holding **Ctrl** (Windows) or **%** (Mac OS X) while clicking and dragging it.

Reverbs

Options: Reverb Small, Reverb Medium, Reverb Large, Reverb Large 2, Reverb In Gate, and Reverb Out Gate.

Reverb Small

This is a spatial effect, designed to emulate a small room.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	50	Q10
Lo-Cut	0 – 100	15	Q6
Hi-Cut	0 – 100	10	Q2



Reverb Medium

This is a spatial effect, designed to emulate a medium room.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	50	Q10
Lo-Cut	0 – 100	15	Q6
Hi-Cut	0 – 100	10	Q2

Reverb Large

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	75	Q10
Lo-Cut	0 – 100	10	Q6
Hi-Cut	0 – 100	10	Q2



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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	75	Q10
Lo-Cut	0 – 100	10	Q6
Hi-Cut	0 – 100	10	Q2



Reverb In Gate

This is a hall reverb with 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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	75	Q10
Lo-Cut	0 – 100	15	Q6
Hi-Cut	0 – 100	10	Q2
Gate In	0 – 100	0	Q15



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 **Gate Out** parameter.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	75	Q10
Lo-Cut	0 – 100	10	Q6
Hi-Cut	0 – 100	10	Q2
Gate Out	0 – 100	0	Q15



Delays

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

Options: Delay Mono, Delay Mono Sync, Delay Stereo, Delay Sync (Stereo), Delay LP, Delay HP, Delay Analog, Delay Analog Sync, Delay Tape Sync, Delay Ping Pong, and Delay Multi-Tap.

Delay Mono

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	100	Q9
Feedback	0 – 100	25	Q5
Damping	0 – 100	100	Q1

Delay Mono Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	1 bar - 1/16 triplets	1/4	Q9
Feedback	0 – 100	25	Q5
Damping	0 – 100	100	Q1



Delay Stereo

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	100	Q9
Feedback	0 – 100	25	Q5
Damping	0 – 100	100	Q1

Delay Sync (Stereo)

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	1 bar - 1/16 triplets	1/4	Q9
Feedback	0 – 100	25	Q5
Damping	0 – 100	100	Q1



Delay LP

LP Delay is identical to the Mono Delay, but it uses a resonant low-pass filter in the delay line.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	500	Q9
Feedback	0 – 100	50	Q5
Cutoff	0 – 100	50	Q1
Resonance	0 – 100	20	Q14

Delay HP

HP Delay is identical to the Mono Delay, but it uses a resonant high-pass filter in the delay line.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) - 100 (wet)	50	Q13
Time	2 – 2000 ms	100	Q9
Feedback	0 – 100	50	Q5
Cutoff	0 – 100	33	Q1
Resonance	0 – 100	33	Q14



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 sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	100	Q9
Feedback	0 – 100	25	Q5

Delay Analog Sync

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 sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	1 bar - 1/16 triplets	1/4	Q9
Feedback	0 – 100	50	Q5
Ramp	0 – 100	50	Q1



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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	1 bar - 1/16 triplets	1/4	Q9
Feedback	0 – 100	50	Q5
Ramp	0 – 100	50	Q1
Head 1	0 – 100	100	Q14
Head 2	0 – 100	0	Q10
Head 3	0 – 100	0	Q6
Head 4	0 – 100	0	Q2
Tone	0 – 100	50	Q15
Spread	0 – 100	50	Q11
Wow & Flutter	0 – 100	50	Q7

Delay Ping Pong

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time, Left	2 – 2000 ms	100	Q9
Time, Right	2 – 2000 ms	100	Q5
Feedback	0 – 100	25	Q1
Damping	0 – 100	100	Q14



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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time 1	2 – 2000 ms	100	Q9
Time 2	2 – 2000 ms	100	Q5
Time 3	2 – 2000 ms	100	Q1
Feedback	0 – 100	25	Q14
Pan 1	0 – 100	50	Q10
Pan 2	0 – 100	50	Q6
Pan 3	0 – 100	50	Q2
Damping	0 – 100	100	Q15
Gain 1	0 – 100	25	Q11
Gain 2	0 – 100	25	Q7
Gain 3	0 – 100	25	Q3



Flangers

A flanger is a modulated delay to emulate the sound created when running two analog tape machines in parallel with a slight time disalignment. Slow **Rate** settings can produce a "whooshing" jet engine sound, while faster rates result in more of a "warble."

Options: Flanger and Flanger Sync.

Flanger

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9
Feedback	-100 – 100	0	Q5
Delay	0 – 100	20	Q1
Width	0 – 100	80	Q14

Flanger Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	8 bars - 1/16 triplets	1/4	Q9
Feedback	-100 – 100	0	Q5
Delay	0 – 100	20	Q1
Width	0 – 100	80	Q14



Chorus

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

Options: Chorus 2-Voice and Chorus 4-Voice.

Chorus 2-Voice

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Delay	0 – 100	20	Q9
Amount	0 – 100	80	Q5
Width	0 – 100	80	Q1
Feedback	0 – 100	50	Q14
Rate	0 – 100	10	Q10

Chorus 4-Voice

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Delay	0 – 100	20	Q9
Amount	0 – 100	80	Q5
Width	0 – 100	80	Q1
Feedback	0 – 100	50	Q14
Rate	0 – 100	10	Q10



Autopans

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

Options: Autopan and Autopan Sync.

Autopan

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9

Autopan Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	8 bars - 1/32	1/4	Q9



Tremolos

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).

Options: Tremolo and Tremolo Sync.

Tremolo

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9
Sine to Square	0 (sine) - 100 (square)	0	Q5

Tremolo Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	1 bar - 1/16 triplets	1/4	Q9
Sine to Square	0 (sine) - 100 (square)	0	Q5



Phasers

The phaser is a classic effect, created by multiple ganged 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.

Options: Phaser 1, Phaser 2, and Phaser Sync.

Phaser 1

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9

Phaser 2

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9

Phaser Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	1 bar - 1/16 triplets	1/4	Q9



HP (High-Pass) Filters

Options: HP Filter, HP Filter Sweep, HP Filter Sync, and HP Shelving Filter.

HP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value	Q-Link Knob Number
Frequency	10 – 19999 Hz	1500	Q13
Resonance	0 – 100	0	Q9

HP Filter Sweep

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	80	Q13
Low Frequency	0 – 100	50	Q9
High Frequency	0 – 100	100	Q5
Resonance	0 – 100	33	Q1
Rate	0 – 100	10	Q14



HP Filter Sync

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Low Frequency	0 – 100	0	Q9
High Frequency	0 – 100	100	Q5
Resonance	0 – 100	50	Q1
Rate	8 bars - 1/32	1/4	Q14

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 Knob Number
Frequency	10 – 19999 Hz	1500	Q13
Resonance	0 – 100	0	Q9
Gain	-18.0 – 18.0 dB	0.0	Q5



LP (Low-Pass) Filters

Options: LP Filter, LP Filter Sweep, LP Filter Sync, and LP Shelving Filter.

LP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value	Q-Link Knob Number
Frequency	10 – 19999 Hz	1500	Q13
Resonance	0 – 100	0	Q9

LP Filter Sweep

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	80	Q13
Low Frequency	0 – 100	0	Q9
High Frequency	0 – 100	100	Q5
Resonance	0 – 100	33	Q1
Rate	0 – 100	10	Q14



LP Filter Sync

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Low Frequency	0 – 100	0	Q9
High Frequency	0 – 100	100	Q5
Resonance	0 – 100	50	Q1
Rate	8 bars - 1/32	1/4	Q14

LP 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 Knob Number
Frequency	10 – 19999 Hz	1500	Q13
Resonance	0 – 100	0	Q9
Gain	-18.0 – 18.0 dB	0.0	Q5



Parametric EQs

Options: PEQ 2-Band, 2-Shelf and PEQ 4-Band.

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 Knob Number
Low Frequency	22 – 1000 Hz	220	Q13
Frequency 1	82 – 3900 Hz	820	Q9
Frequency 2	220 – 10000 Hz	2200	Q5
High Frequency	560 – 19999 Hz	5600	Q1
Q1	0 – 100	0	Q14
Q2	0 – 100	0	Q10
Low Gain	-18.0 – 18.0 dB	0.0	Q15
Gain 1	-18.0 – 18.0 dB	0.0	Q11
Gain 2	-18.0 – 18.0 dB	0.0	Q7
High Gain	-18.0 – 18.0 dB	0.0	Q3



PEQ 4-Band

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Low Frequency	22 – 1000 Hz	220	Q13
Frequency 1	82 – 3900 Hz	820	Q9
Frequency 2	220 – 10000 Hz	2200	Q5
High Frequency	560 – 19999 Hz	5600	Q1
Q1	0 – 100	5	Q14
Q2	0 – 100	5	Q10
Q3	0 – 100	5	Q6
Q4	0 – 100	5	Q2
Gain 1	-18.0 – 18.0 dB	0.0	Q15
Gain 1	-18.0 – 18.0 dB	0.0	Q11
Gain 2	-18.0 – 18.0 dB	0.0	Q7
Gain 4	-18.0 – 18.0 dB	0.0	Q3



Distortions

Options: Distortion Amp, Distortion Fuzz, Distortion Grimey, Distortion Overdrive, and Distortion Custom.

Distortion Amp

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
Tone	0 – 100	50	Q5
Dynamics	0 – 100	50	Q1
Output	0 – 100	50	Q14

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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
Output	0 – 100	50	Q5
Low	0 – 100	50	Q14
Low-Mid	0 – 100	50	Q10
High-Mid	0 – 100	50	Q6
High	0 – 100	50	Q2



Distortion Grimey

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
Grime	0 – 100	50	Q5
Center	0 – 100	50	Q1
Width	0 – 100	50	Q14
Resonance	0 – 100	50	Q10
Output	0 – 100	50	Q6

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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
Tone	0 – 100	50	Q5
Output	0 – 100	50	Q1



Distortion Custom

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
+Soft	5 – 75	2	Q14
+Clip	5 – 50	25	Q10
-Soft	5 – 75	2	Q6
-Clip	5 – 50	25	Q2
Low	-18.0 – 18.0 dB	0.0	Q15
Mid	-18.0 – 18.0 dB	0.0	Q11
High	-18.0 – 18.0 dB	0.0	Q7
Output	-18.0 – 18.0 dB	50	Q3



Compressors

A compressor is an effect that changes the dynamic range of a signal by automatically reducing its gain.

Options: Compressor Master, Compressor Opto, Compressor VCA, and Compressor Vintage.

Compressor Master

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Attack	0 – 100	50	Q9
Release	0 – 100	50	Q5
Threshold	-50 – 0 dB	0	Q1
Ratio	1 – 20	1	Q14
Oldskool	Off, On	Off	Q10
Output	-6 – 24 dB	0	Q6



Compressor Opto

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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Input	-6 – 18 dB	0	Q9
Attack	0 – 100	50	Q5
Release	0 – 100	50	Q1
Threshold	-50 – 0 dB	0	Q14
Ratio	1 – 20	1	Q10
Knee	1 – 100	1	Q6
Output	-6 – 24 dB	0	Q2



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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Input	-6 – 18 dB	0	Q9
Attack	0 – 100	50	Q5
Release	0 – 100	50	Q1
Threshold	-50 – 0 dB	0	Q14
Ratio	1 – 20	1	Q10
Knee	1 – 100	1	Q6
Output	-6 – 24 dB	0	Q2



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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Input	-6 – 18 dB	0	Q9
Attack	0 – 100	50	Q5
Release	0 – 100	50	Q1
Threshold	-50 – 0 dB	0	Q14
Ratio	1 – 20	1	Q10
Knee	1 – 100	1	Q6
Output	-6 – 24 dB	0	Q2



Bit Reducers

Options: Decimator and Resampler.

Decimator

Decimator down-samples the incoming signal by removing bits from the digital signal. The difference between decimation and resampling is that 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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Decimate	0 – 100	0	Q9
Bit Reducer	4 – 32	32	Q5

Resampler

Resampler is similar to Decimator in that it removes bits from an incoming signal. The difference is that 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. Resampler can be used to achieve a "dirty" sound on drum loops, without the harshness of distortion.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	0	Q9
Decimate	0 – 100	0	Q5

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Other

Options: Auto Wah, Frequency Shifter, and Transient Shaper.

Auto Wah

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Resonance	0 – 100	75	Q9
Attack	0 – 100	30	Q5
Release	0 – 100	30	Q1
Center	0 – 100	50	Q14
Sensitivity	0 – 100	50	Q10



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 Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Frequency	-1000 – 1000	0	Q9
Asynchrony	0 – 1000	0	Q5
A Pan	0 – 100	0	Q14
B Pan	0 – 100	100	Q10
A Gain	0 – 100	75	Q6
B Gain	0 – 100	75	Q2

Transient Shaper

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

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Attack	0 – 100	50	Q9
Release	0 – 100	50	Q5
Output	0 – 100	50	Q14



Glossary

A lot of the terms in this manual are based on the MPC parameter names. This glossary briefly explains many of the technical terms used throughout.

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. This term describes the ascent rate of a 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 (e.g., 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 dynamics' resolution). Normal audio CDs use 16-bit. 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.



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 ADSR envelope consists of four individually variable phases: Attack, Decay, Sustain, and Release. 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; 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

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 and 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

Normalization 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 (e.g., pad assignments, loop points, pitch tuning, effects, etc.) MPC's Program Edit Mode is where you can edit and assign samples. The 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. This term 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 amplifing them with a narrow bandwidth. This is one of the most popular methods of manipulating sounds. If you increase the emphasis 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 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 hardware, 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 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 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 siginal digitally. For normal CD audio recordings, 44100 samples per second are used, also written as **44.1 kHz**. The software offers sampling rates up to 96 kHz.

Sequence

A Sequence is the most basic building-block of music you can compose on the software. MIDI information from your MPC hardware's pads, buttons, and Q-Link Knobs (or an external keyboard) are recorded to the Tracks of a Sequence. Each Sequence has 64 Tracks. The 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 software has a dedicated Song Mode that lets you chain Sequences together to create a Song.



Song

The 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 software can hold 20 Songs in its memory.

Sustain

This term 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.



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