

AKAI[®]
PROFESSIONAL

MPC

User Guide

English

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Introduction

Thank you for purchasing your MPC. At Akai Professional, we know how serious music is to you. That's why we design our equipment with only one thing in mind—to make your performance the best it can be.

This user guide explains how to create music within the MPC software application. There is similar documentation available for MPC products that use a touchscreen and for those that use an LCD. To view these user guides, click the **Help** menu, select **MPC Help**, and select an option.

Welcome to the MPC family.

Akai Professional

System Requirements & Product Support

For the latest information about this product (system requirements, compatibility information, etc.) and product registration, visit akaipro.com.

For additional support, visit akaipro.com/support.

About This User Guide

This manual describes features in the MPC 2.1 software application. For consistency, the terminology throughout is based on the MPC parameter names. We also used specific formatting to indicate particular topics of significance:

Important/Note/Tip: Important or helpful information on a given topic.

Names of buttons, controls, parameters, settings, and other options are written in **bold** characters throughout the manual.

Examples: Click the **Play Start** button.

Turn **Q-Link Knob 4**.

Click the **Mute** button.

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

Set the **Sample Play** selector to **One Shot**.

Click **BPM**, and then use the numeric keypad to enter **120** as the tempo.

Some parts of this manual refer to other relevant chapters or sections, which are cited in **bold, italic blue** characters.

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

For more information about installing the drivers and software, please see the ***Setup > 2. Installation***.

To learn more about using effects, see ***Operation > General Features > Effects***.

Important Notes

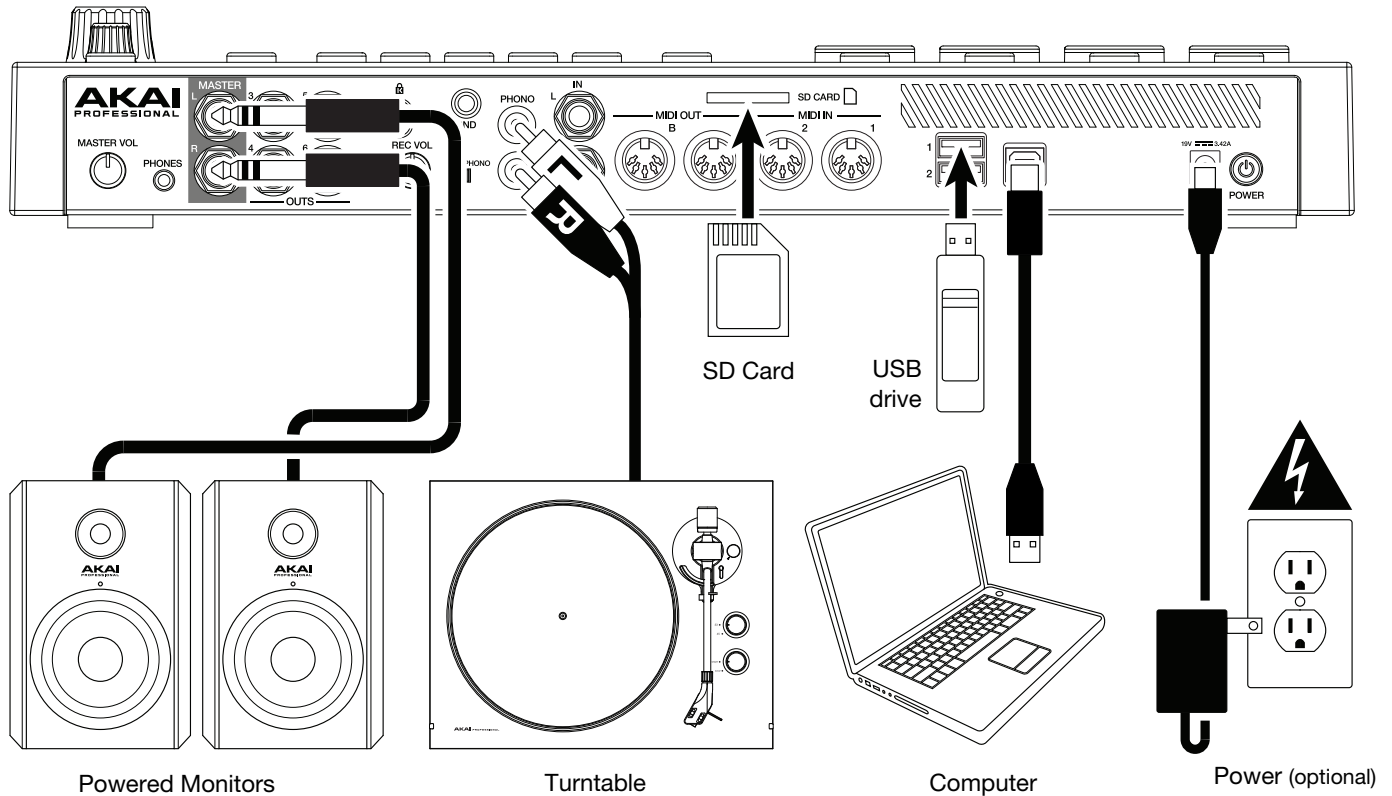
Before installing the MPC software, make sure your computer meets the system requirements described at **akaipro.com**. This applies whether you'll use MPC software as your host software or as a plugin in another digital audio workstation (DAW).

Before connecting your MPC hardware to your computer, make sure you have installed the latest drivers and software. Visit **akaipro.com** to download the latest versions. Refer to ***Setup > 2. Installation*** for more information.

Setup

1. Connection

Here is just an example of how to use MPC hardware in your setup (MPC Live, in this case). Items not listed in your included quickstart guide are sold separately.



2. Installation

1. Go to akaipro.com and register your product. If you don't have an Akai Professional account yet, you will be prompted to create one.
2. In your Akai Professional account, download the MPC software package.
3. Open the file and double-click the installer application.
4. Follow the on-screen instructions to complete the installation.

Note: By default, the MPC software will be installed in [your hard drive]\Program Files\Akai Pro\MPC (Windows®) or Applications (macOS®). You can also create a shortcut on your Desktop.

3. Getting Started

1. Power on your MPC hardware.
2. On your computer, open the **MPC** software.
3. Follow the on-screen instructions to authorize your version of MPC.
4. You will need an iLok account to complete this. You can create an account at [ilok.com](https://www.ilok.com).

Make a note of the PACE code in your account, and enter it when asked for it during the authorization/unlock process.

5. **MPC X & MPC Live users:** Check the upper-right corner of the window:

- If you see a **monitor/cable icon**, then your MPC hardware is already in Controller Mode. Continue to **Step 6**.
- If you see a **chip icon**, then your MPC hardware is in Standalone Mode. Follow these steps:
 - i. Press **Menu** to enter the Menu.
 - ii. Tap the **MPC chip icon** in the upper-right corner.
 - iii. In the **Enter Controller Mode** window that appears, tap **Controller Mode. Looking for computer** may appear briefly in the window before your MPC hardware recognizes the USB connection as a controller.



6. In the MPC software, open the **Preferences**:

Windows: Click the **menu icon** (≡), select **Edit**, and click **Preferences**.

macOS: Click the **MPC** menu, and click **Preferences**.

7. In the **Preferences** window, click the **Audio** tab and select the sound card you want to use. Click **OK** when you are done.

Important: We highly recommend using your MPC hardware's sound card (**Akai Pro [your MPC model] ASIO**).

Windows users only: If you need to use your computer's internal sound card, we recommend downloading the latest ASIO4ALL driver at asio4all.com.

Basic Concepts

This chapter should help explain some fundamental aspects of the MPC software.

The MPC workflow is quite different from traditional digital audio workstations (DAWs). In most typical DAWs, each track uses an instance of each instrument, and all tracks are always playing even if they don't contain any audio or MIDI information. Furthermore, your entire project needs to be arranged just as the resulting song would be.

This isn't the case with the MPC software, which offers much more flexibility within your project. It's important to understand some basic terms, though:

A **sequence** is a “building block” of a song. It contains multiple tracks that play at the same time like a normal DAW. In a project, you might create one sequence for your verse and another sequence for your chorus, alternating and/or repeating each one in a specific order to create the song. (A project can contain **128** sequences.)

A **track** is a layer in a sequence. There are two types of tracks:

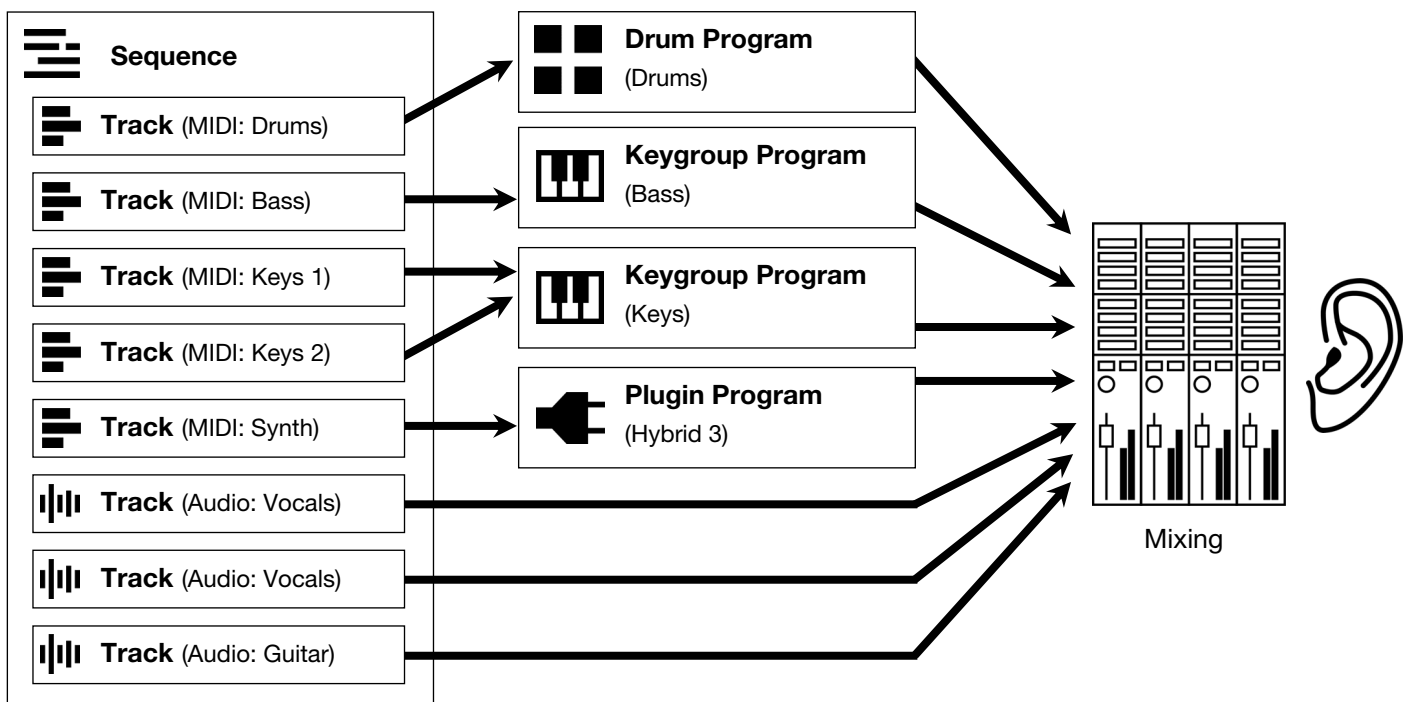
MIDI tracks consist of MIDI data only, no audio data. These tracks produce sound by using **programs**, described below. Unlike a normal DAW, each MIDI track exists only in its sequence. The advantage of this is not having to manage empty or unwanted tracks across all of your sequences—each sequence contains only the tracks you want to use in it. If you want to use the same track across multiple sequences, you can copy the track from one sequence into another. (A sequence can contain **128** MIDI tracks.)

Audio tracks consist of a recorded audio signal, like a traditional DAW. These tracks do **not** use programs because the audio is already contained in the track. Also, unlike MIDI tracks, audio tracks are present in every sequence in the project, even if the tracks themselves are empty. (A sequence can contain **128** audio tracks.)

A **program** is a preset through which MIDI tracks are routed. Programs may contain audio samples that are triggered when tracks play through them, producing the sound you want on that track. Programs are independent of tracks and sequences, so you can set multiple tracks to use the same program (unlike normal DAWs where each track requires its own set of samples or plugin). Furthermore, you can use the same program/programs across multiple sequences. (A project can contain **128** programs.)

Each program can be played using the 16 **pads** (across eight pad banks, which gives you access to 128 pads in each program). Each pad plays a MIDI note when you press it, but that MIDI note will trigger something different for each program. For instance, in drum programs, the pads are assigned to samples—one pad could trigger a kick drum sound and another could trigger a snare drum sound—whereas in plugin programs, each pad triggers a MIDI note that plays the corresponding pitch of its assigned instrument plugin.

Here's a diagram to illustrate an example of how these pieces could work together:



Please take a look at the following [Tutorial](#) chapter, as well. It will walk you through the creation of a short song to show you some of the MPC software's most important features.

Tutorial

This chapter is a walkthrough of the creation of a song in the MPC software. To get the most out of this chapter, we recommend reproducing each of the described steps. The previous [Basic Concepts](#) chapter may also help you understand what we're asking you to do in this tutorial.

On the following pages we will create a short song to show you some of the MPC software's most important features.

Make sure you have completed all of the steps described in [Introduction > Setup](#). This includes:

- Installing the most current drivers and software.
- Connecting your MPC hardware to a power outlet using the included power adapter and powering it on.
- Opening and authorizing your MPC software.

Creating a Drum Kit

Let's start by making a simple drum kit.

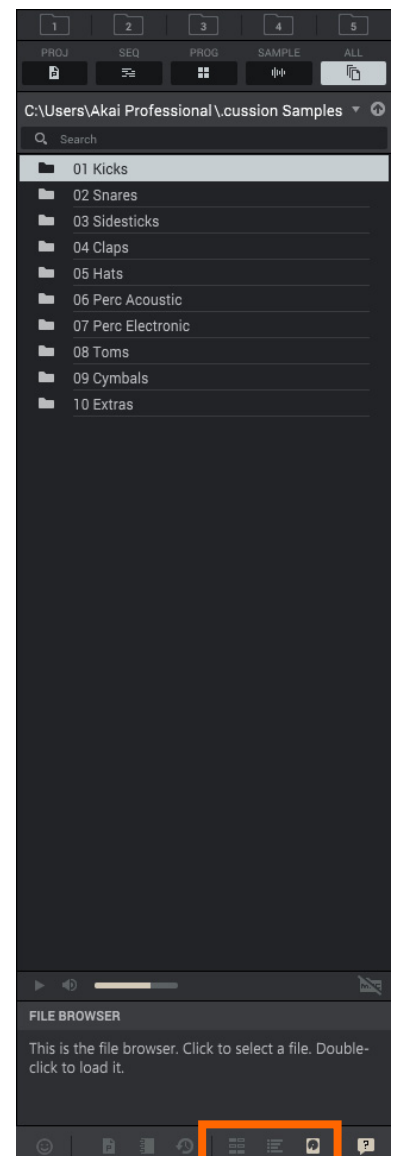
By default, the Browser is shown on the right side of the window.

To show or hide the Browser, do one of the following:

- In the lower-right corner of the window, click the **six-rectangles icon**, **list icon**, or **hard-drive icon**.
- In the upper-left corner of the window, click the **menu icon** (≡), and go to **View > Browser** and click: **Hidden** (to hide the Browser), **File Browser** (to show files in the Browser), **Expansion Browser** (to show your Expansions in the Browser), or **Media Browser** (to show your media in the Browser).

Use the Browser controls to navigate to where your drum sounds are located:

- **To browse your files by location**, select the **File Browser**.
- **To move up one folder level**, click the **up arrow** (↑) next to the file path.
- **To select a file or folder**, click it once.
- **To enter a folder**, double-click it.
- **To load a sample directly to a pad**, click and drag the sample onto a pad in the lower half of the window.
- **To load a selected file to the project's sample pool**, double-click it. If the file is a sample, it will be loaded to the project's sample pool. If the file is a project, it will be loaded in its entirety (you will be asked if you want to close your current project).
- **To load all files in a selected folder**, click and drag the folder onto anywhere in the window outside of the Browser.
- **To preview a selected sound**, click and hold **Play** (▶) in the lower-left corner of the Browser.
- **To enable or disable the audition function and set its volume level**, click the **volume icon** in the lower-left corner of the Browser. Click and drag the **level slider** left or right to set the volume level.



If you loaded samples into the sample pool rather than directly to the pads, then let's start assigning them now:

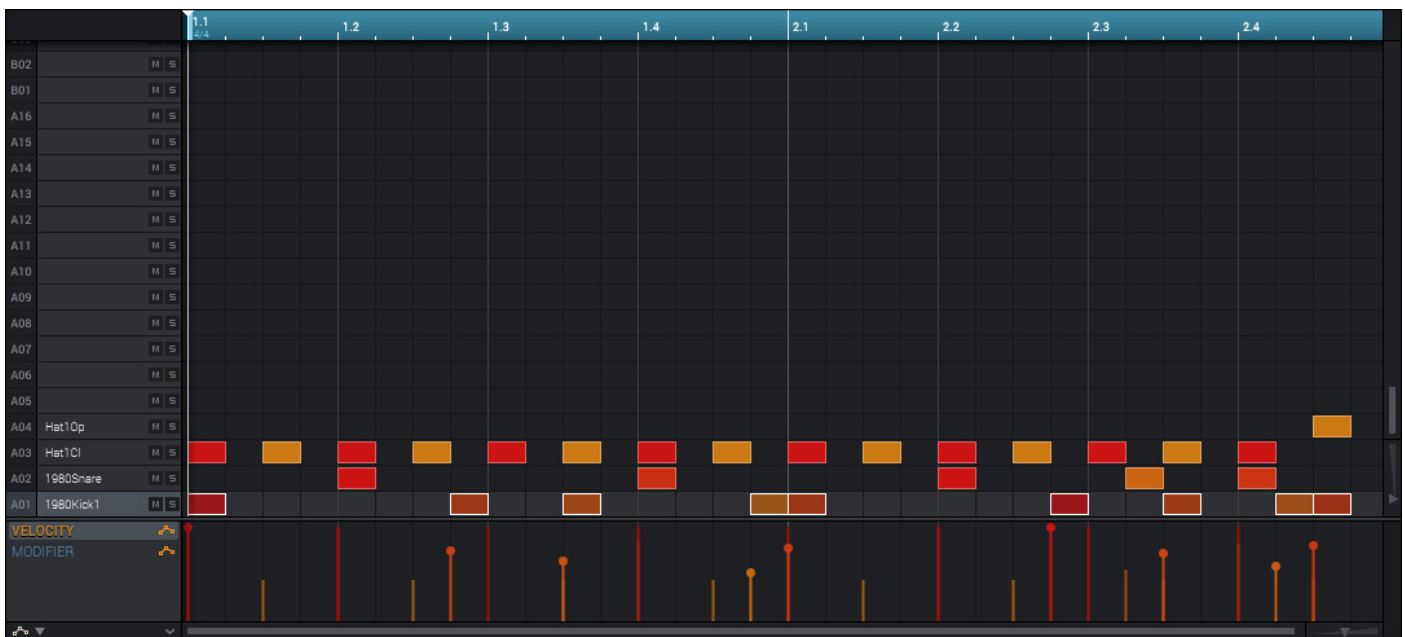
To load a sample directly to a pad, click and drag it from **Project** panel (in the **Samples** column) in the lower half of the window onto a pad.

To create a simple drum kit, repeat the above steps for other pads. We recommend loading a kick/bass drum, snare drum, a closed hi-hat, and an open hi-hat.

Creating a Drum Sequence

Now that your drum kit is set up, let's record a drum sequence using your MPC hardware.

1. In the MPC software, click the **house icon** in the upper-left corner to make sure you're in Main Mode.
2. On your MPC hardware, press **Tap Tempo** repeatedly at the speed you want to record your sequence. The software will detect the rate and adjust itself automatically.
3. Press the **Rec** (●) button to activate Record Mode.
4. Press the **Play** (▶) button to start the actual recording. The pre-count will count one measure before the sequence starts to record. We recommend recording only one sound (pad) at a time, especially if you are not familiar with playing drums on the pads.
5. Play a simple kick/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!
6. Play the snare drum part, then a hi-hat part.
7. When you're done recording, press **Stop** (■). The Grid Editor in the software will show what you recorded.



If you start recording again on this sequence, keep in mind that the pads you play in your new recording will automatically replace existing notes. To prevent this, you can start again from Step 1 but press **Overdub** (⊕) instead of **Rec** (●). Overdub lets you record additional note events over the existing sequence.

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 clicked).

Renaming & Saving

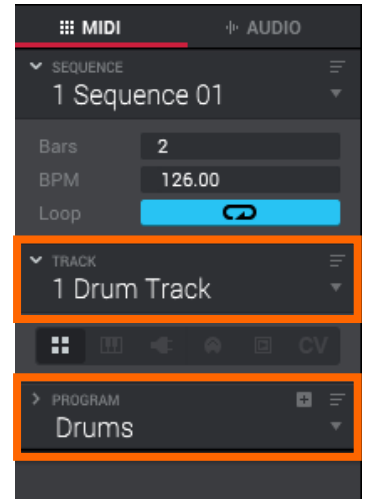
We recommend renaming your programs and samples before going further.

The collection of drum samples you loaded earlier (and their respective pad assignments) are arranged into a program. When you load this program in the future, you will be able to use all of the samples that belong to it.

Let's rename the existing program as we'll want to create more programs later on.

To rename a program or track, do one of the following:

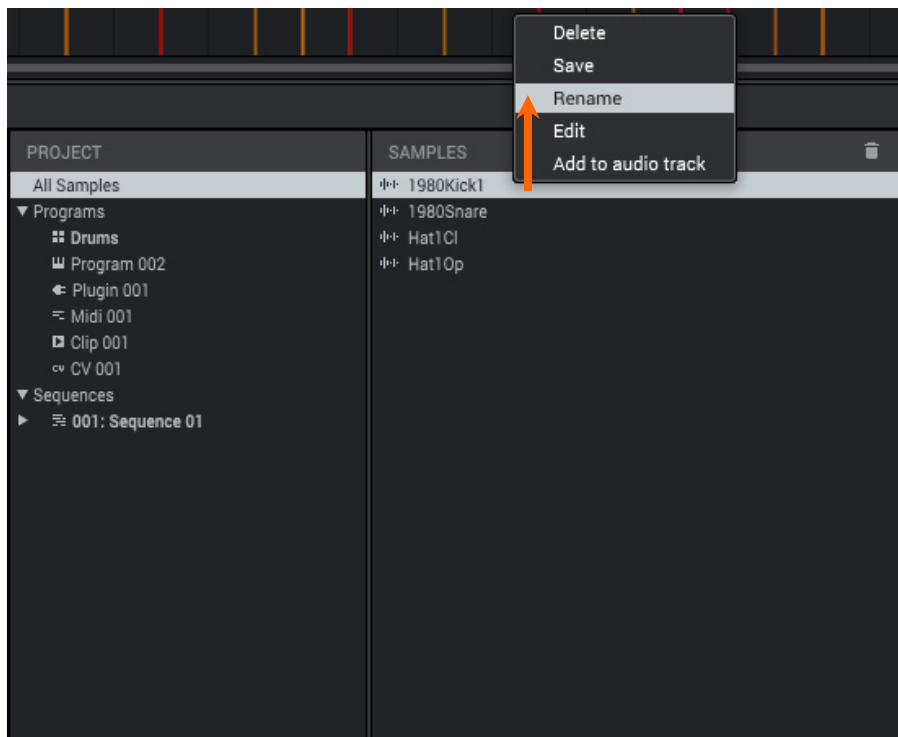
- In the “Inspector” on the left edge of the window, double-click the program name or the track name (in the **Program** or **Track** field), type a name, and press **Enter**.
- In the **Project** panel, under the **Programs** list, right-click the program, and click **Rename**. Type a name. Click **OK** or press **Enter** to confirm the name, or click **Cancel** or press **Esc** to keep the original name.



To rename your samples:

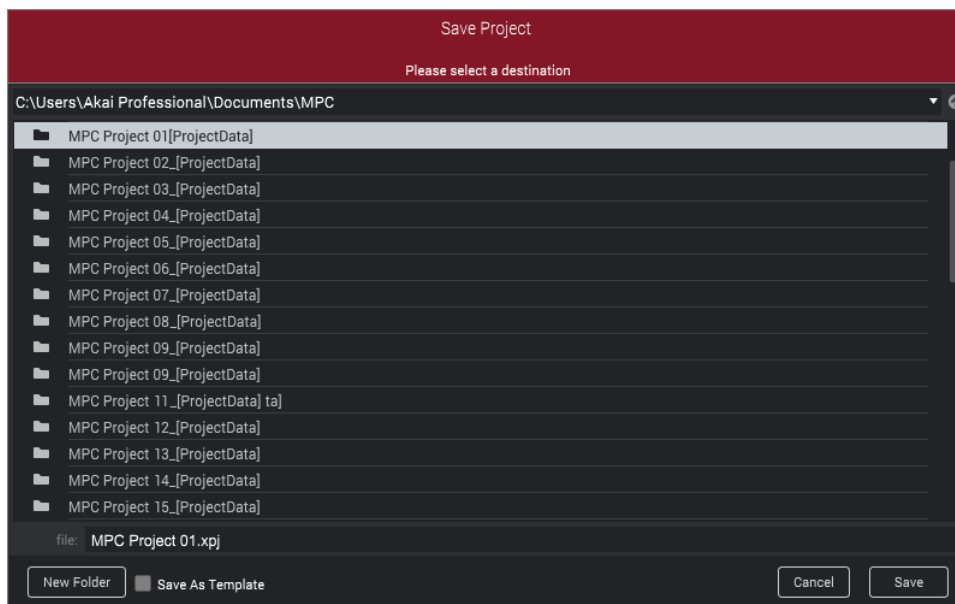
1. In the **Project** panel, do one of the following:
 - Click **All Samples**.
 - Click a program in the **Programs** list.
 - Click a sequence in the **Sequence** list or a program under one of those sequences.
2. In the **Samples** list on the right side of the **Project** panel, right-click the sample, and click **Rename**.
3. Type a name (e.g., **Kick**, **Snare**, etc.). Click **OK** or press **Enter** to confirm the name, or click **Cancel** or press **Esc** to keep the original name and press **Enter**.

Repeat the above steps to rename other samples.



Now would also be a good time to save your project.

To save your project, click the **menu icon** (≡), click **File**, and click **Save Project**.



In the **Save Project** window, do any of the following:

To select the storage device you want to view, click the **down arrow** (▼) next to the file path. If you have storage devices connected to your MPC hardware, they will appear in this column, as well.

To enter a folder, double-click it or press **Enter**.

To create a new folder, click **New Folder**, type a name for the new folder, and then click **OK** or press **Enter** to confirm the name, or click **Cancel** or press **Esc** to keep the original name. You will immediately enter the new folder.

To move up one folder level, click the **up arrow** (↑).

To name the file, click the **File** field at the bottom of the window, and type a name.

To save the file, click **Save** or press **Enter**.

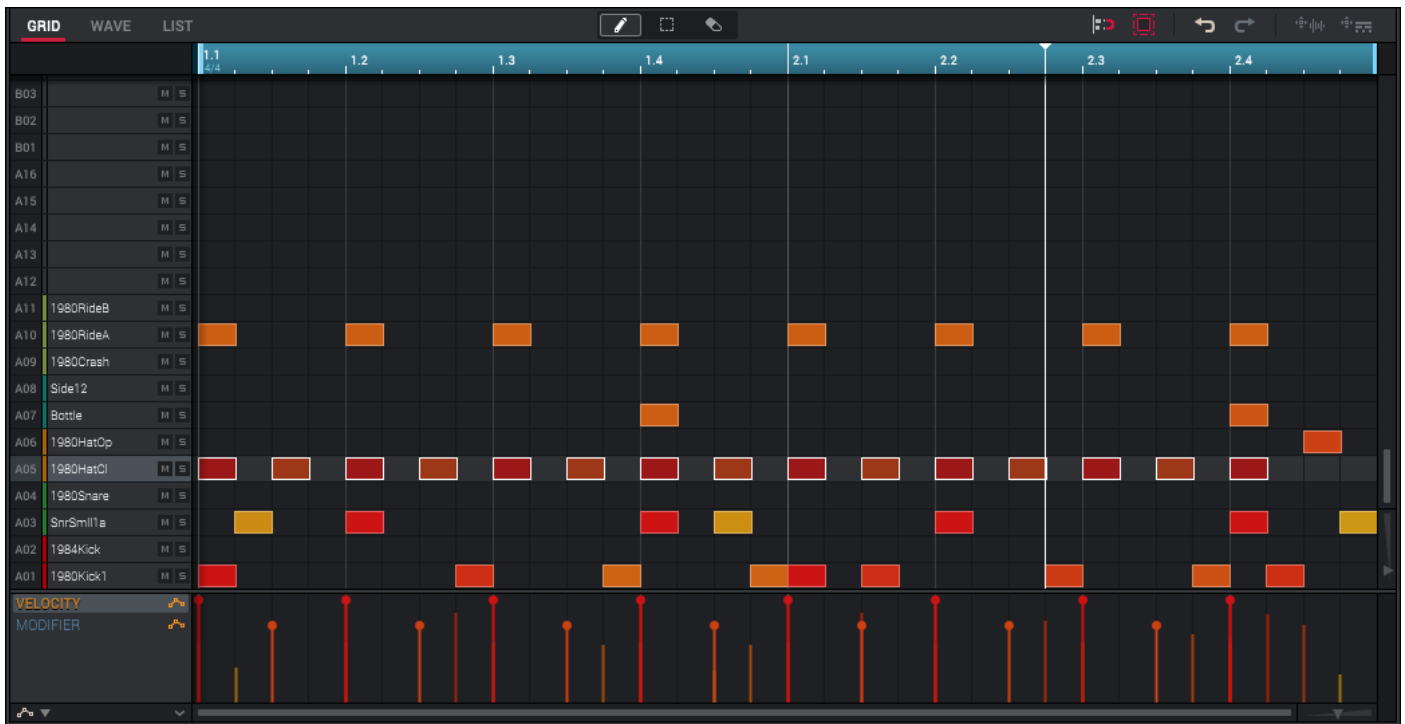
To save the file as a project template file, click the **Save as Template** checkbox to select it before clicking **Save**. This project will then load when you create a new project from a template. (To do this, click the **menu icon** (≡) in the upper-left corner of the window, select **File**, and then click **New From Template**.)

To cancel, click **Cancel** or press **Esc**.

Editing Note Events

In the grid, you can see your recorded notes (or note events) as a sequence.

To enter the **Grid Editor**, click **Grid** under the mode icons in the upper-left corner of the window.



In the Grid Editor, you can do any one of the following:

- **To zoom in or out**, use the sliders in the lower-right corner of the Grid Editor (along each axis), or click the blue timeline and drag down or up.
- **To undo your last action**, do one of the following:
 - Click the **undo/back-arrow icon** in the upper-right corner of the Grid Editor.
 - Click the **menu icon** (≡), click **Edit**, and click **Undo**.
- **To redo the last action you undid** do any one of the following:
 - Click the **redo/forward-arrow icon** in the upper-right corner of the Grid Editor.
 - Click the **menu icon** (≡), click **Edit**, and click **Redo**.
- **To enter a note**, click the **pencil icon** above the grid. Then, in the grid, click an empty square. Alternatively, double-click an empty grid square when using the **marquee** tool.
- **To delete a note**, click the **eraser icon** above the grid. Then, in the grid, click a note. Alternatively, double-click a note when using the **marquee** tool.
- **To select a single note**, click the **pencil icon** or **marquee icon** above the grid. Then, in the grid, click a note.

To select all notes for a pad, click the desired **pad** in the **Pads** area below the grid, or on the left edge of the Grid Editor.
- **To move the selected notes**, click the **pencil icon** or **marquee icon** above the Grid Editor. Then, in the grid, click and drag the note to the desired location. By default, you can position notes only by quantization values defined by the **Time Correct** value (learn about this feature in [Operation > General Features > Time Correct](#)).
- **To move the selected notes without restricting** (“snapping”) **them to the quantization grid**, click and drag the note while holding **Shift**.

- To adjust the start point or end point of the selected notes (without changing their position), click the **pencil icon** or **marquee icon** above the Grid Editor. Then, in the grid, hover the cursor over the left or right edge of the note. When the cursor changes into a bracket with arrows (◀|▶ or ▶|▶), click and drag the edge of the note to the desired length.
- To transpose the selected notes up or down, click and drag the notes up or down.
- To switch to another track, do one of the following:
 - In the **Inspector**, click the **Track** field, and click the desired track in the menu that appears.
 - Click the **menu icon** (≡), go to **Edit > Track**, and click **Next Track** or **Previous Track**.
 - Click and drag the **Current Track Q-Link knob** (in the **Q-Links** panel below the Grid Editor) up or down.
- To mute or solo the track, click the **three-bars icon** in the lower-left corner of the window to show the track channel strip (on the left), and then click **M** or **S** (respectively) on the track channel strip.
- To open the **Time Correct** window, click the **menu icon** (≡), go to **Edit > Time Correct**, and click **Settings**.

This feature is described in [Operation > General Features > Time Correct](#).

Tips:

To adjust the time division only, click the **TC** field at the top of the window, and click one.

To adjust the amount swing only, click and drag the **Swing** field at the top of the window up or down (or click it, type a value, and press **Enter**).

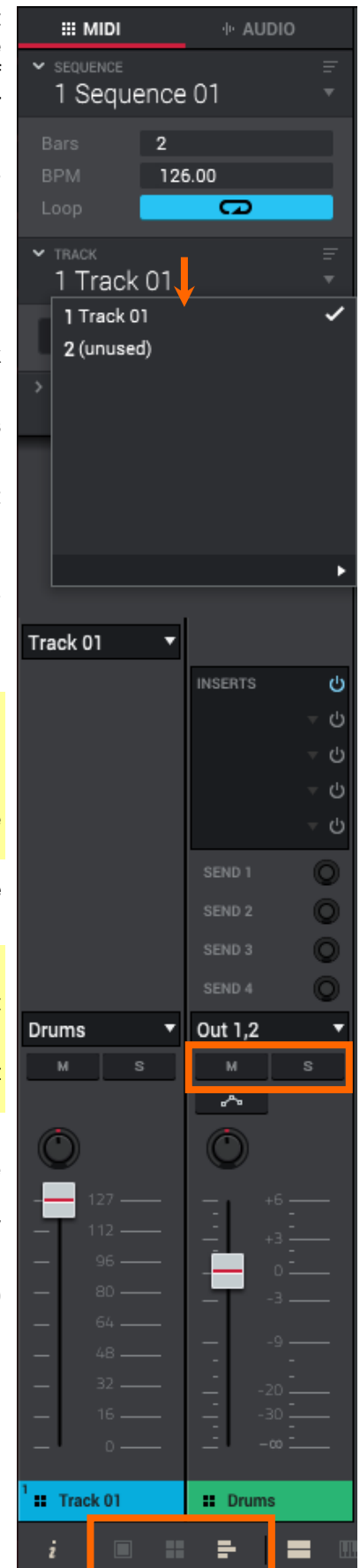
- To adjust the metronome settings, go to **Tools > Metronome**. This feature is described in [Operation > General Features > Metronome](#).

Tips:

To activate or deactivate the metronome, click the **metronome icon** at the top of the window.

To adjust the metronome volume only, click and drag the **Metro** meter at the top of the window up or down.

- To adjust the velocity of the selected notes (manually), click **Velocity** in the automation lane below the grid to select it, and then click and drag the handle/handles below the note/notes. Each note's velocity is represented by a vertical bar. The higher and more red the bar is, the higher the velocity is. The current velocity value will appear next to the cursor.
- To show or hide the velocity lane, click the **up** or **down arrow** (∧ or ∨) button next to the horizontal scroll bar under the grid.



Making Basic Sound Edits

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

Click the **four-pads icon** in the toolbar to enter Program Edit Mode.

Click a **pad** to show its parameters in the window.

To adjust its volume, click and drag the **Level** knob in the **Pad** section up or down.

To adjust its stereo panning, click and drag the **Pan** knob in the **Pad** section up or down.

Adjust the level of each pad to suit your taste. We recommend spreading the panning of the bright sounds (e.g., cymbals, snare drum) a little. Additionally, you can tune the bass drum sound—in the **Sample Layers** section, adjust the **Semi** and **Fine** knobs next to the sample name.



The snare drum may need some reverb to give it a more spatial sound.

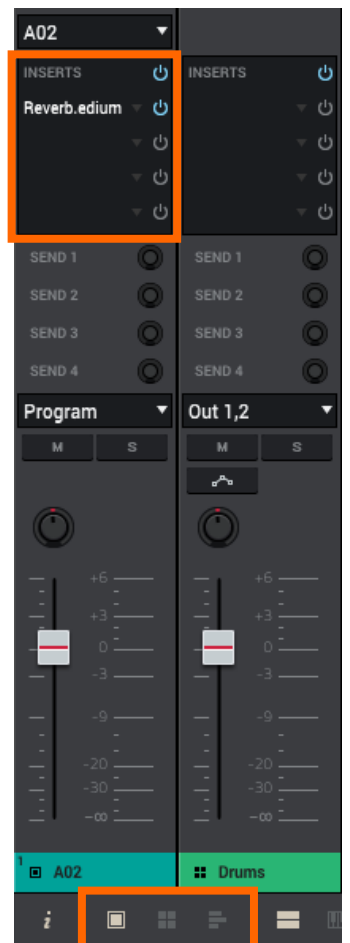
Click the **pad icon** in the lower-left corner of the window to show the pad channel strip in the Inspector above it. Press the **pad** with your snare drum sound to select it.

To add an effect:

1. In the **Inspector**, click the arrow (▼) in the desired effect slot. A list of effects will appear.
2. Click the + or – icon to expand or collapse each category of effect.
3. **To load an effect**, double-click it. Alternatively, click it to select it and then click **Select**. Let's try **Reverb Medium**.

To adjust the effect's parameters, double-click the effect name in the slot.

To empty the effect slot, load an effect but select **<none>** instead. Switch the effect on or off by clicking the **On/Off** button for the slot.



Creating 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 work on a new track. A **track** is simply a layer of a sequence. Each track uses a program within your project. You can work with multiple tracks in a single sequence (e.g., a drum track, a bass track, a piano track, etc.). When you play the sequence, all of them will play simultaneously.

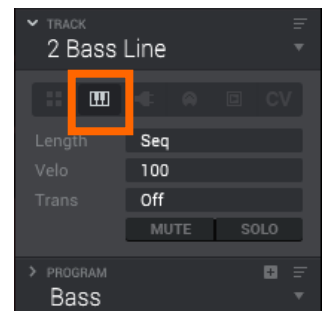
Let's select an empty track, create a program to go with that track, and load a bass sample into that program.

To select a new track, click the **Track** field in the Inspector, and click **Track 2 (unused)** in the list of tracks that appears.

Rename the track so we know what it is (e.g., **Bass Line**).

To create a new program:

1. In the Inspector, click the **piano-keys icon** under the **Track** field. This icon indicates a **keygroup** program, which is necessary to play the bass sound chromatically with the pads. A name for the new keygroup program will appear in the **Program** field below.
2. Double-click the new program name, type a name, and press **Enter**.



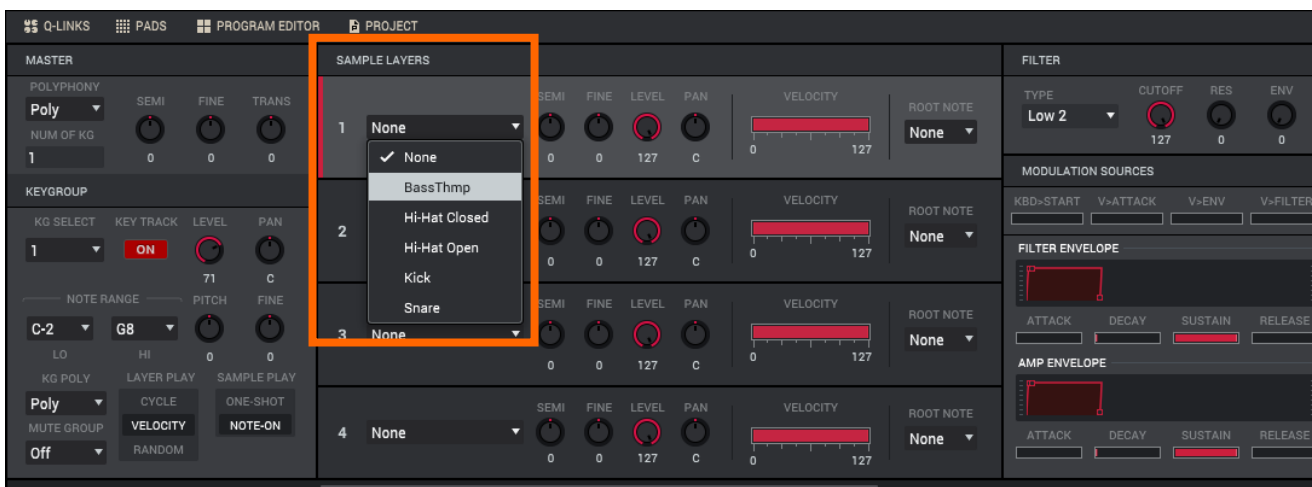
To load and edit a bass sound:

1. Use the **File Browser** on the right edge of the window to navigate to where your bass sounds are located, and load one to the project's sample pool.
2. After loading a bass sample to the sample pool, **don't** click and drag the sample onto a pad like you did when creating a drum program; keygroup programs are different.

Instead, make sure you are in Program Edit Mode: click the **four-pads icon** in the toolbar.

3. In Program Edit Mode, click the first menu (Layer 1) in the **Sample Layers** section, and then click your bass sample in the list that appears. Because you're working with a keygroup program instead of a drum program, this sample is now playable across **all** pads.

Tip: If you click Pad Bank **D** in the **Pads** panel and click **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.



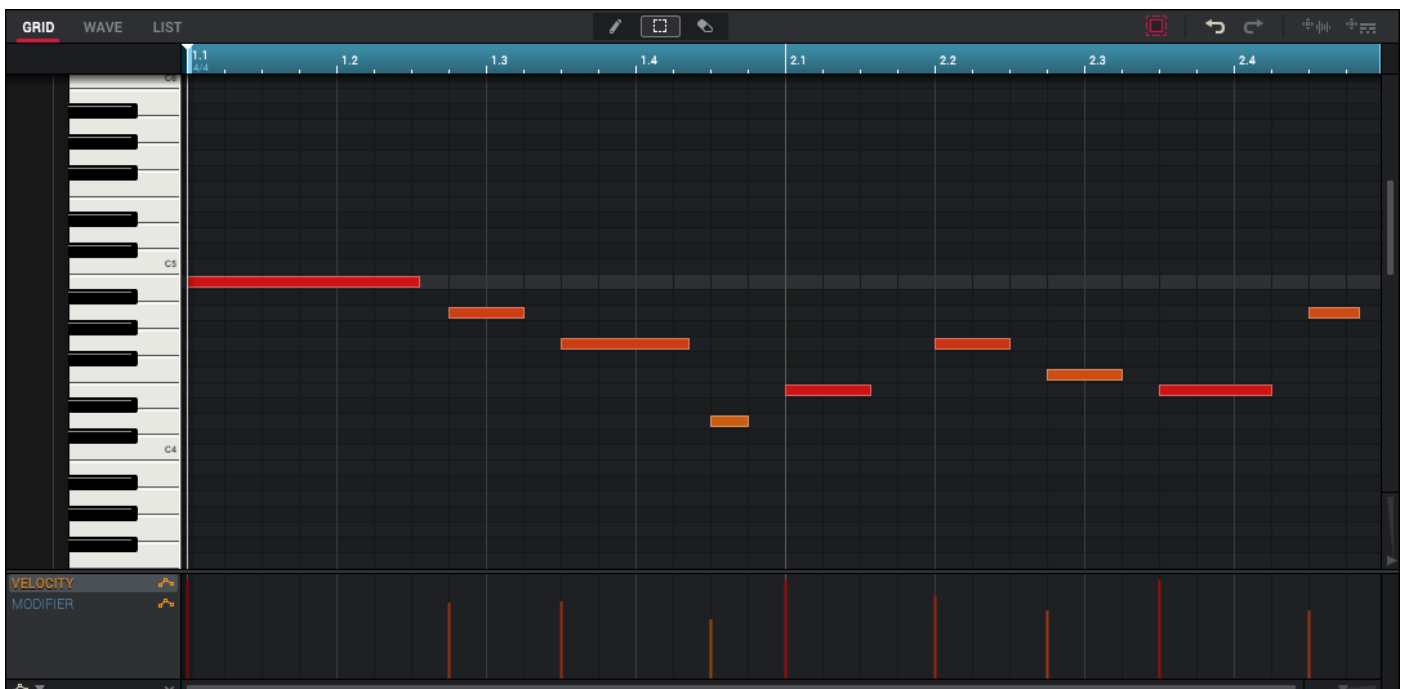
Let's add a second layer and set the layers' velocity ranges so the bass will sound different when played at a higher velocity (as a real bass would):

1. Use the **File Browser** to select a different bass sample that sounds similar but a little bit brighter, and load it to the project's sample pool.
2. Return to Program Edit Mode, click the Layer 2 menu in the **Sample Layers** section, and then select the new bass sample. Click a **pad** to hear 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.
3. Click and drag the right edge of the **Velocity** slider for Layer 1 to **80**.
4. Click and drag the left edge of the **Velocity** slider for Layer 2 to **81**.

Now when you press a pad, the lower velocities (**0-80**) will trigger the Layer 1 sample only, while higher velocities (**81-127**) 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.

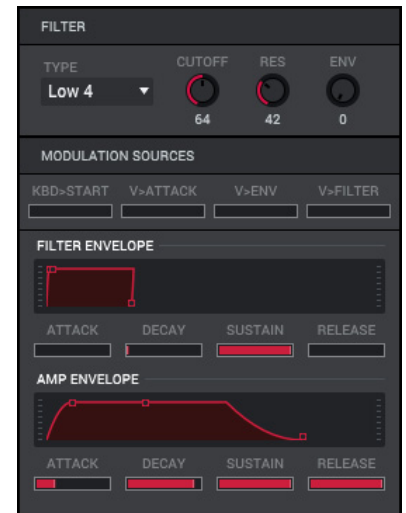


Once you've recorded it, let's tweak the sound a bit in the **Filter** section:

1. In Program Edit Mode, click the **Type** menu in the **Filter** section, and select a filter. Let's try working with **Lowpass 4 Pole**.
2. Click and drag the **Cutoff** or **Res** (resonance) knobs to adjust their settings until your bass sample sounds good to you.
3. Under the **Amp Envelope** section, click and drag the **Attack** or **Release** knobs to adjust their settings. These control the overall level characteristics of the sound.

Let's add an effect or two to this keygroup program—do this in the same way as you did for a drum program.

So far, we've created a simple drum sequence and a bass line to go with it.



Recording an Audio Track

We've already created some MIDI tracks, so let's record some actual audio for our next track:

1. Click the **house icon** in the toolbar to enter Main Mode.
2. Click the **Audio** tab at the top of the Inspector. **Audio 001** will appear in the **Track** field.
3. Connect a synthesizer or other line-level audio source to the 1/4" (6.35 mm) **input/inputs** on your MPC hardware, and set its **Line/Phono** selector to **Line**.
Alternatively, connect it to your external audio interface.

4. In the audio track channel strip:
 - i. Click the input menu (**Input** __) above, and select **Mono > Input 1** or **Stereo > Input 1,2** (depending on your audio source) as the input source.
 - ii. If the output menu (**Out** __) is not set to **Out 1,2**, click it and select **Output > Out 1,2** as the output.
 - iii. Click the **Monitor (speaker)** button to cycle through its three states until it reads **Auto** (you will hear incoming audio while the track is record-enabled only).
5. On your MPC hardware or external audio interface, turn the **Rec Vol** knob to set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be "peaking" constantly).
6. In the audio track channel strip, click the **Record Arm** (⊙) button next to the **pan knob** to record-enable the track.
7. In the toolbar at the top of the window, click **Rec** (●) or **Overdub** (⊕) to record-arm it. Alternatively, click **Rec** or **Overdub** on your MPC hardware.
8. **To start recording**, click the **Play** (▶) or **Play Start** (▶|) button in the toolbar (or press **Play** or **Play Start** on your MPC hardware)—then play your audio source! You should hear your existing sequence playing in the background.
To stop recording, click the **Stop** (■) button in the toolbar (or press **Stop** on your MPC hardware).

Before creating a song, it would be good to have at least two different sequences, so record another audio track:

1. In the **Inspector**, click the **Sequence** field, and click **Sequence 2 (unused)** in the list of sequences that appears.
2. Click the **+** icon next to the **Track** field to add another audio track (**Audio 002**) to go with that 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.

To enter Song Mode, make sure playback is stopped, click the **down arrow** (▼) next to the other mode icons in the toolbar, and click **Song**.

In Song Mode, each of the sequences you've created in this project assigned to a pad in the **Pads** panel. The **Sequence List** panel is to the left of the pads, showing the song's structure. The upper half of the window will show "blocks" representing each sequence of the song's structure.

As a song plays, it moves through each step shown in the **Sequence List** panel. Each step contains a sequence you assign in its **Sequence** menu. Each step can be repeated, determined by the value in the **Rpts** column (a value of **1** means the sequence will play through only once). The **Bars** column on the right indicates the length of that sequence.

Each step can be set to play its sequence at an independent tempo, determined by the value in the **BPM** column.

Important: Each sequence has its own tempo, while the project itself may use a different master tempo. The BPM value for each sequence may be different from the master tempo. As long as playback is set to follow the master tempo, each sequence's individual tempo will be ignored. By default, each project is set to use the sequence tempo, which you set back in the [Creating a Drum Sequence](#) chapter. We recommend clicking the **Seq/Mst** button at the top of the window (so the button displays **Mst**) and entering a master tempo to ensure all sequences use the same tempo.

STEP	SEQUENCE	RPTS	BPM	BARS
1	1: Sequence 01	4	126.00	2
2	2: Sequence 02	2	126.00	2
3	1: Sequence 01	2	126.00	2
4	2: Sequence 02	4	126.00	2

(end of song)

SONG PARAMETERS

1:(unnamed)

CONVERT > SEQ CLEAR

EDIT STEP

INSERT STEP DELETE STEP

STEP

2: Sequence 02

FIRST BAR 17 REPEATS 4

LAST BAR 24 TIME SIG 4 / 4

TOTAL BARS 2 BPM 126.00

To insert a step at the current position, click **Insert Step** in the **Song Parameters** panel. Alternatively, click and drag the pad that corresponds to that sequence into the editor above it.

To delete the currently selected step, click **Delete Step** in the **Song Parameters** panel.

To set which sequence plays for a step, click the step's **Sequence** menu in the **Sequence List** panel, and then click the sequence in the menu that appears.

To set how many times a sequence repeats, click and drag the step's **Rpts** field (next to the sequence name) up or down.

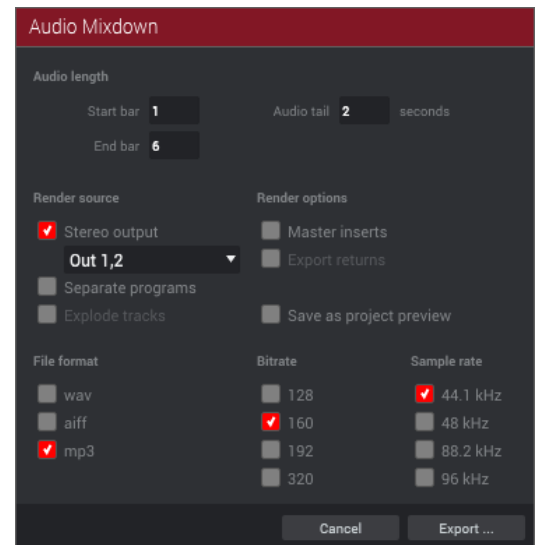
Exporting the Song

Want to share your new song? Just export it first.

To export a song:

1. Click the **menu icon** (\equiv), and go to **File > Export** and click **As Audio Mixdown**.
2. In the **Audio Mixdown** screen that appears, do the following:
 - Make sure the **Start bar** field is set to **1**, and set the **End bar** field to the last bar of your song.
 - Click and drag the **Audio tail** field to set it to **2** seconds.
 - As you'll likely share the song online, click the **mp3** file format option under **File format**.
3. Click **Export** and choose where you want to save the song.

To name the song, click the **File** field, type a name, and then click **Save** or press **Enter** to start exporting.



Other Features Explained

This chapter describes various advanced features. For fuller explanations of these features, please refer to their corresponding sections in the [Operation](#) chapter.

Step Sequencer

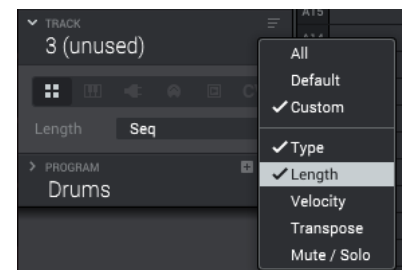
You've already learned how to record note events on a track, but you can quickly enter note events in the Step Sequencer by using the pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine.

To enter the Step Sequencer, do one of the following:

- Click the **step-bars icon** in the toolbar. If it is not shown, click the **down arrow (▼)**, and click **Step Sequencer**.
- Click the **menu icon (≡)**, select **View > Mode**, and click **Step Sequencer**.

Let's create a sequence on a new track:

1. In the **Inspector** on the left edge of the window, click the **Track** field, and then select an **(unused)** track.
2. If the left-most **four-pads icon** in the **Track** section is not selected, click it. This indicates that the track is using a drum program.
3. Click the **list icon** in the **Track** section in the Inspector, and click **Length** so it is selected.
4. Click and drag the **Length** field in the **Track** section up or down to set a length for the track. If you select the minimum value, **Sequence**, the track will be however long your sequence is.

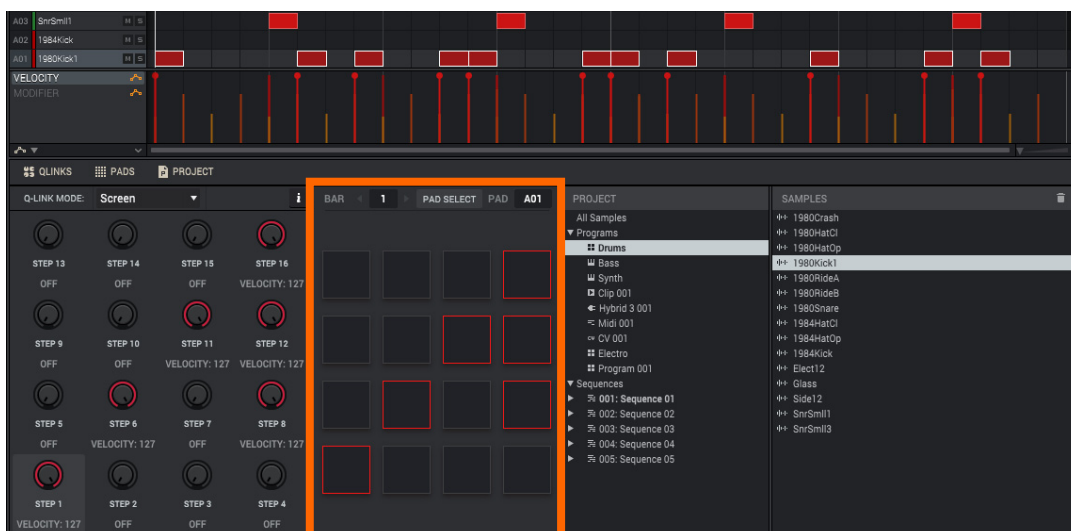


Tip: This lets you maintain tracks of different lengths. For instance, you could play a 1-bar drum sequence repeatedly under a 4-bar bass line.

5. Click the **Bar ◀ / ▶** buttons at the top of the **Pads** panel to select the bar whose steps you want to create or edit. The bar number will appear in the field.
6. Click the **pad** or sample name in the grid to select the pad whose steps want to create or edit. Alternatively, click and drag the **Pad** field in the **Pads** panel up or down; or click **Pad Select**, click a **pad**, and then click **Pad Select** again.
7. Click **Play (▶)** to start your sequence.
8. 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.

To enter a note at a step, click an **unlit pad**. The pad will light up with a color corresponding to its velocity.

To delete the note from a step, click a **lit pad**. The pad will become unlit.



See [Operation > Modes > Step Sequencer](#) to learn more about this feature.

Drum Loops & 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.

To enter **Sample Edit Mode**, do one of the following:

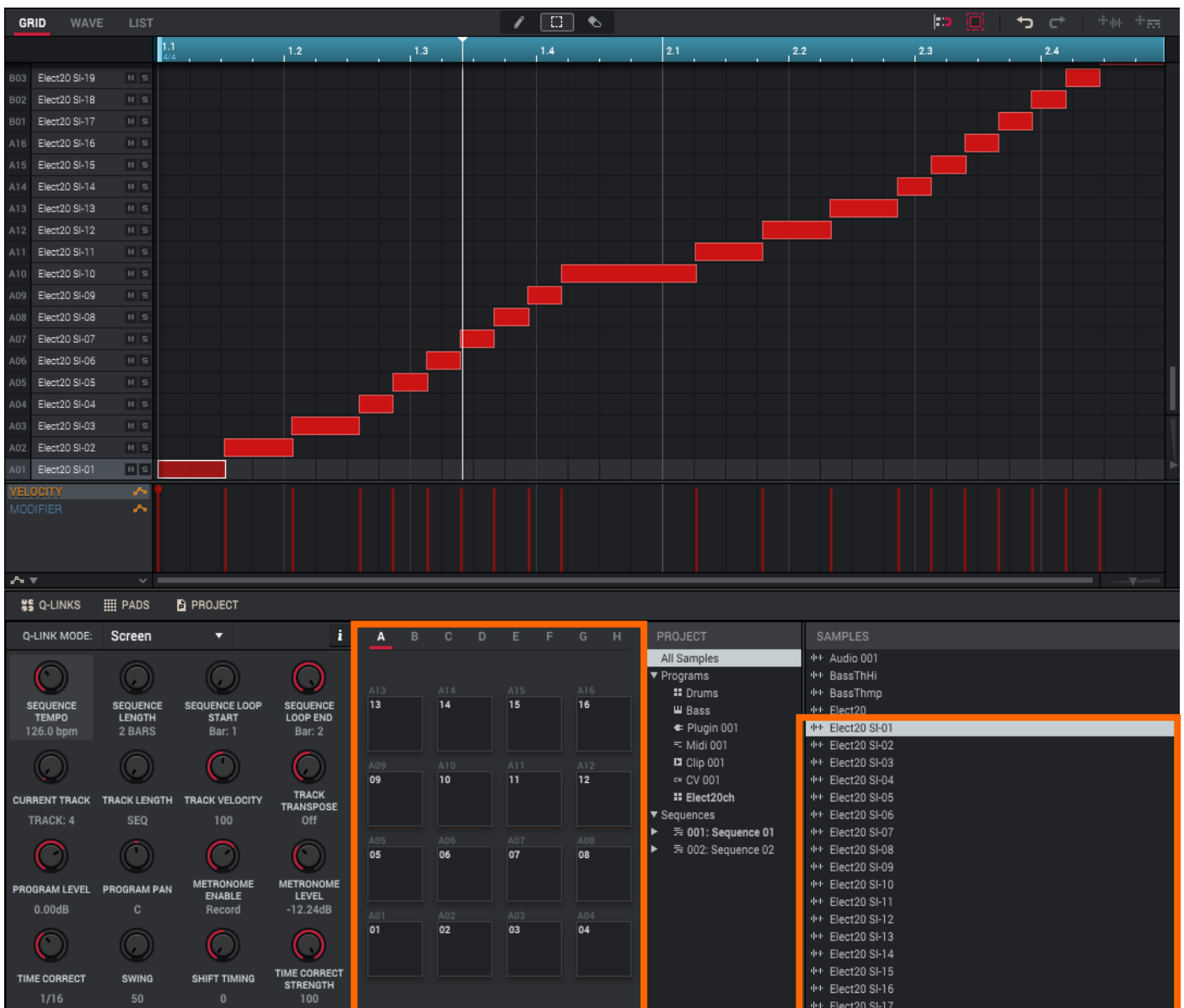
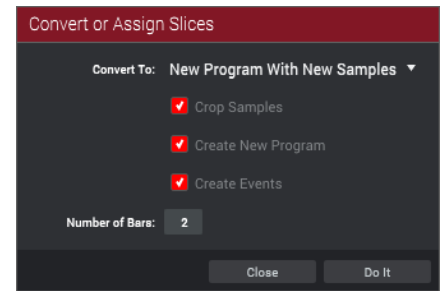
- Click the **waveform-and-flags icon** in the toolbar. If it is not shown, click the **down arrow (▼)**, and click **Sample Edit**.
 - Click the **menu icon (≡)**, select **View > Mode**, and click **Sample Edit**.
1. Use the **Browser** to locate a drum loop, and then double-click it to add it to the project's sample pool. The loop does not have to match the tempo of anything in the project.
 2. In the **Project** panel, click the drum loop you just loaded in the **Samples** column. If you do not see it, click **All Samples** in the **Project** column.
 3. In the **Q-Links** panel, click **Chop** to enter Chop Mode, which will let us cut the drum loop into slices.
 4. Click the **Chop To** menu, and then click **Threshold**.
 5. Below that, click the **Threshold** field and drag it up or down to set a value. The lower the threshold, 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: Each slice will be automatically assigned to a pad: **Pad A01** plays Slice 1, **Pad A02** plays Slice 2, etc. Press each pad to play the slice with the same number.

The screenshot illustrates the MPC software interface in Chop Mode. The top portion shows a waveform with vertical green slice markers. Below the waveform, the 'CHOP' control panel is visible, featuring a 'Threshold' slider set to 63, a 'Slices' display showing 4 slices, and a 'SAMPLES' browser on the right. The 'SAMPLES' browser lists various drum loops, including 'Loop Bass Sq Ab', 'Loop Bass Tech Ab', 'Loop Drum Deep', 'Loop Drum Minimal', 'Loop Drum Pulse', 'Loop Keys Bliss Seq Ab', 'Loop Keys Crystal Ab', 'Loop Keys Mellow', 'Loop Keys Motor', 'Loop Keys NuElec Ab', 'Loop Keys OldSch Org B', 'Loop Keys OldSch Synth D', 'Loop Keys Pad Chill', and 'Loop Keys RevProg Eb'. The 'CHOP' control panel also includes options for 'LINK SLICES', 'ZERO SNAP', 'Start x1000', 'End x1000', 'Cue 0', 'Select Slice 4', 'Start x100', 'End x100', 'Threshold 63', 'Start x10', 'End x10', 'Scroll 0%', 'Start x1', 'End x1', and 'Zoom 0%'.

Let's use this chopped sample to create a new program in which each of these slices is an individual sample. We can also automatically create corresponding note events to play back these slices sequentially.

1. In the **Extract New Samples** section, click **New Program**.
2. Make sure the **Convert To** menu is set to **New Program with New Samples** is selected. If it is not, click it, and select that option.
3. Make sure **Crop Samples** is selected. If it is not, click it.
4. Make sure **Create New Program** is selected. If it is not, click it.
5. Make sure **Create Events** is selected. If it is not, click it.
6. Click and drag the **Bars** field up or down to select how many bars the entire sample should use in your program.
7. Click **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. Enter **Main Mode** to see how the sample appears in your sequence.
8. Click **Play** and listen to how the drum loop matches your sequence's tempo.



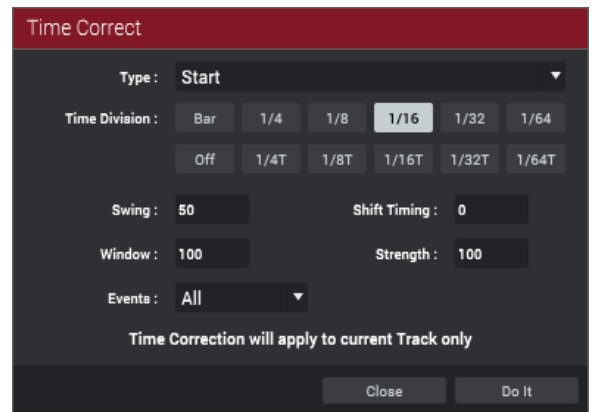
You can also edit the note events of the drum loop slices—stay in Main Mode to do this. A new track with the note events playing their corresponding slices has been automatically created.

Use the **Time Correct** window to quantize the note events so they fall on exact, even time intervals.

To show the **Time Correct** window, click the **menu icon** (≡), and go to **Edit > Time Correct** and click **Settings**.

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 limitless possibilities!

See [Operation > Modes > Sample Edit Mode > Chop Mode](#) to learn more about this feature.



Pad Muting & Track Muting

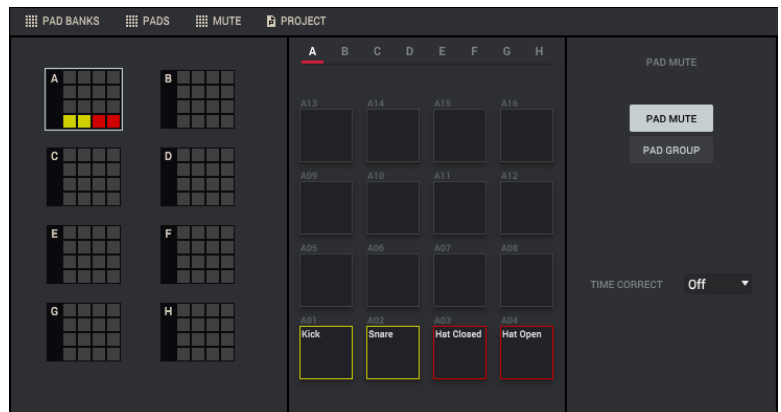
Pad Mute Mode and Track Mute Mode let you silence different pads and tracks to see what the sequence sounds like without those samples or parts.

To enter **Pad Mute Mode**, do one of the following:

- Click the **X-in-square icon** in the toolbar. If it is not shown, click the **down arrow (▼)**, and click **Pad Mute**.
- Click the **menu icon (≡)**, select **View > Mode**, and click **Pad Mute**.

1. Press **Play** to play the sequence.
2. In the **Inspector** on the left edge of the window, click the **Track** field, and select a track that uses a drum program.
3. Mute a pad by clicking it. The muted pad will be lit **red**. You can mute multiple pads at the same time.

See [Operation > Modes > Pad Mute Mode](#) to learn more about pad mutes.



You can also mute entire tracks by using the similar Track Mute Mode.

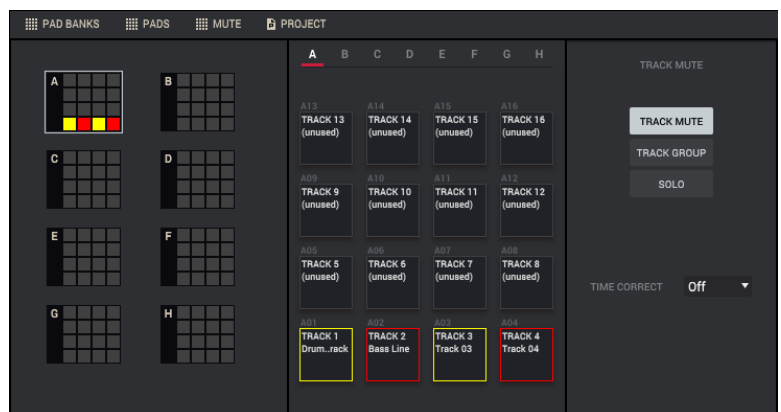
To enter **Track Mute Mode**, do one of the following:

- Click the **bars-and-X icon** in the toolbar. If it is not shown, click the **▼ icon**, and click **Track Mute**.
- Click the **menu icon (≡)**, select **View > Mode**, and click **Track Mute**.

1. Press **Play** to play the sequence.
2. In the **Inspector** on the left edge of the window, click the **Sequence** field, and select the desired sequence.
3. Each pad is assigned to a track. Mute a track by clicking it. The pad will be lit **red**. You can mute multiple tracks at the same time.

Tip: To mute a track only at precise note intervals (“quantizing” your mutes, essentially), click the **Time Correct** menu, and click the desired musical value (e.g., **1 bar**). Now, when you click a pad in Track Mute Mode, the mute will occur precisely at the beginning of the following time division (in this example, one bar). This lets you test musical combinations of patterns—the preliminary stage to building a song structure.

See [Operation > Modes > Track Mute Mode](#) to learn more about track mutes.



Sampling (Recording)

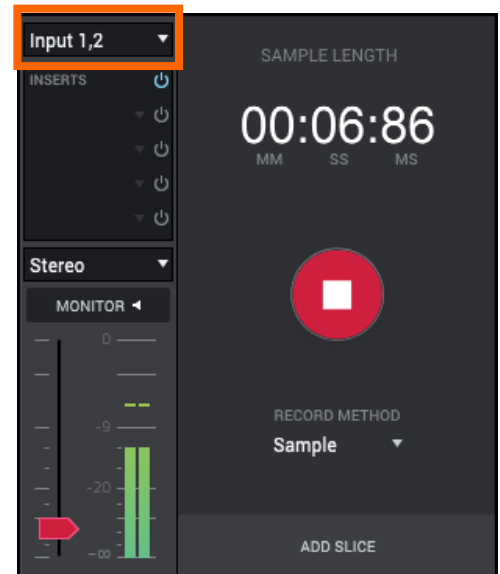
This section describes recording new samples of your own, which you can use in your projects.

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

To enter the **Sampler**, do one of the following:

- Click the **vinyl-and-tonearm icon** in the toolbar. If it is not shown, click the **down arrow (▼)**, and click **Sampler**.
- Click the **menu icon (≡)**, select **View > Mode**, and click **Sampler**.

1. Connect an audio source to the input/inputs of your MPC hardware or computer's audio interface.
2. In the **channel strip** in the **Sampler** panel, click the input menu (**Input** ___), and select the input channels for your audio source.
3. On your MPC hardware or computer's audio interface, set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be "peaking" constantly).
4. Click and drag **threshold slider** to set the threshold. Set it to a fairly low level (e.g., **-50 dB**).
5. Click **Arm** to record-arm the Sampler.
6. Play your audio source. The Sampler will start recording immediately when the input level reaches the threshold value. Alternatively, click the round **Record** button or press **Enter** to manually start recording.
7. **To stop recording**, click the round **Stop** button or press **Enter**. The **Keep or Discard Sample** window will appear.



In the **Keep or Discard Sample** window:

To name the new sample, click the **New Name** field, type a name, and press **Enter**.

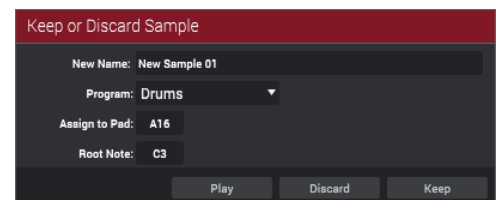
To assign the new sample to a program, click the **Program** menu and select the desired program.

To assign the sample to a pad in the program, click and drag the **Assign to Pad** field up or down, or press the desired pad on your MPC hardware.

To confirm your selections, click **Keep**.

To discard the recording and close the window, click **Discard**.

To play the recording, click **Play**.



See [Operation > Modes > Sampler](#) to learn more about this feature.

Sample Editing

You may need to edit your newly recorded samples using Sample Edit Mode.

To enter Sample Edit Mode, do one of the following:

- Click the **waveform-and-flags icon** in the toolbar. If it is not shown, click the **down arrow (▼)**, and click **Sample Edit**.
- Click the **menu icon (≡)**, select **View > Mode**, and click **Sample Edit**.

In Sample Edit Mode:

To switch between **Trim Mode** and **Chop Mode**, click the **Trim**, **Chop**, or **Program** tab in the **Q-Links** panel. In this example, use **Trim Mode**.

To set the **sample's start point**, click and drag the **green** start point marker left or right. You can also use the **Q-Link knobs** to adjust the start point with varying degrees of resolution. Alternatively, click the value in the **Start** field in the **Parameters** panel (in the lower half of the window), type a new value, and press **Enter**.

To set the **sample's end point**, click and drag the **red** end point marker left or right. You can also use the **Q-Link knobs** to adjust the start point with varying degrees of resolution. Alternatively, click the value in the **End** field in the **Parameters** panel (in the lower half of the window), type a new value, and press **Enter**.

To hear your edits, click **Pad 10** while in Trim Mode to play the sample from the start point to the end point.

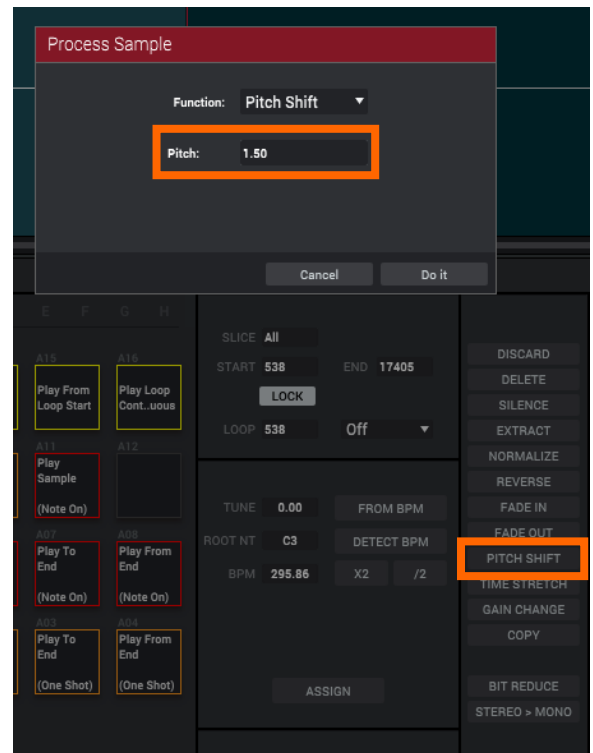
The screenshot displays the MPC software interface in Sample Edit Mode. The top portion shows a waveform with a green start point marker and a red end point marker, both highlighted with orange boxes and arrows. The bottom portion shows the Q-Links panel with the TRIM tab selected, and the Parameters panel showing the Start and End fields. The Parameters panel also shows the Loop, Tune, and BPM settings.

Let's apply some processing to the sample.

To show or hide the **Parameters** panel, click **Parameters** below the sample waveform.

1. In the **Parameters** panel, click **Pitch Shift** to change the overall pitch of your sample. This will transpose the sample without affecting its length.
2. To set the pitch shift amount, click and drag the **Pitch** field up or down. Alternatively, click the **Pitch** field, type a value, and press **Enter**. To close the window, click **Cancel** or press **Esc**.
3. To confirm your selections, click **Do It**.
To cancel the process, click **Cancel** or press **Esc**.

See [Operation > Modes > Sample Edit Mode](#) to learn more.



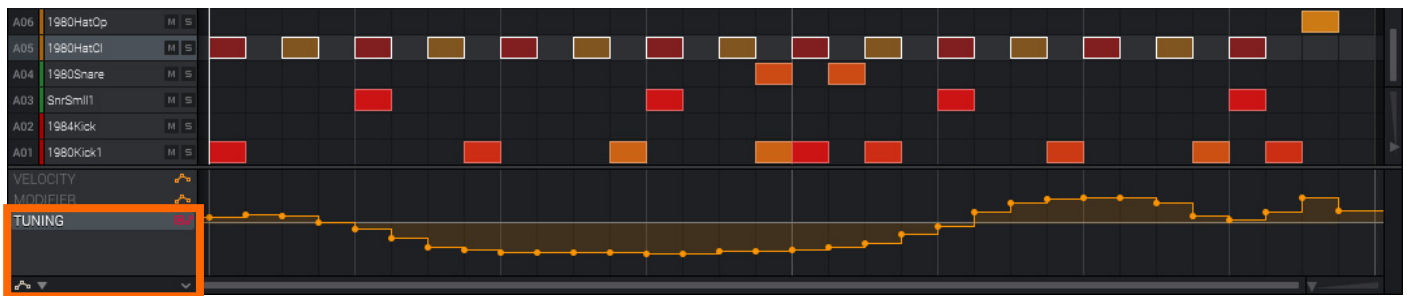
Recording Automation with Q-Link Knobs

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

1. In Main Mode, click a **pad** that has a sample assigned to it—ideally one that is played multiple times throughout the sequence, so you can hear the automated changes across several notes.
2. In the **Q-Links** panel, click the **Q-Link Mode** menu and select **Pad Scene**. This enables the Q-Link knobs to control various automatable parameters for that pad.
3. On the program channel strip, click the **automation button** under the Mute (**M**) button until it shows the **red Write (W)** option. This ensures your track will record the automation.
4. Record the automation using your MPC hardware:
 - i. Press **Play** to start it.
 - ii. Turn any of these **Q-Link knobs** (for example) to record their movement: **Q1 (Level)**, **Q2 (Pan)**, **Q12 (Tuning)**.
 - iii. Press **Stop** to finish the automation recording.
5. On the program channel strip, click the **automation button** under the Mute (**M**) button until it shows the **green Read (R)** option. This ensures your track uses the automation you just recorded when you play it back.



Want to see what you've recorded? In the software, to the left of the velocity lane under the grid, click the name of the parameter you automated (**Level**, **Pan**, or **Tuning**). The automation curve will appear in the lane. If part of the curve is still not quite what you want, select the **pencil tool** above the grid and draw in your own automation curve.



See [Operation > General Features > 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, or AAX format) within your host software.

Important: Some of the MPC software's keyboard shortcuts may not work if you are using the MPC software as a plugin (due to those shortcuts being used by your host DAW instead). Go to **Help > Software Information** and select **Keyboard Shortcuts** to view a complete list of shortcuts within the MPC software.

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

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

General Features

Programs

About Programs

Each track you create within a sequence uses a **program**. There are six types of programs, each of which determines how the track sounds or what it is used for. A single project can hold up to 128 programs.

This chapter covers how to create each program type.

To learn about editing your programs to your preference, see the [Modes > Program Edit Mode](#) chapter.



A **drum program** uses one or more samples as its sound source. It contains (1) a list of samples and (2) the settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.). Drum programs are used mostly for creating drum parts and quickly and easily assigning samples to pads. See [Drum Programs](#) for more information.



A **keygroup program** uses one or more samples as its sound source. It contains (1) a list of samples and (2) the settings for each sample (i.e., pitch tuning, effects, etc.). Keygroup programs are used to play samples chromatically with a MIDI keyboard or the MPC pads. See [Keygroup Programs](#) for more information.



A **plugin program** contains an instance of a plugin through which you can send your track's MIDI data. See [Plugin Programs](#) for more information.



A **MIDI program** lets you send your track's MIDI data to an external MIDI device like a synth or drum machine. See [MIDI Programs](#) for more information.



A **clip program** uses several samples that can be looped (clips). Each clip can be assigned to a pad, which you can press to trigger the clip according to a quantization setting. This lets you create intriguing, layered performances by launching different combinations of clips together. See [Clip Programs](#) for more information.



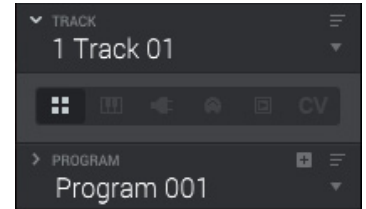
A **CV program** lets you send your track's MIDI data to an external MIDI device that uses control voltage (CV), like a synth. Although this option is selectable, it is usable only with MPC hardware that has CV outputs (e.g., **MPC X**). See [CV Programs](#) for more information.

Drum Programs

A drum program uses one or more samples as its sound source. It contains (1) a list of samples and (2) the settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.). Drum programs are used mostly for creating drum parts and quickly and easily assigning samples to pads.

To create a drum program:

1. In the **Inspector**, click the **four-squares icon** below the **Track** field, which indicates a drum program. (Click the **i** icon to show or hide the Inspector. See [Inspector](#) to learn more.)
2. If the project does not contain a drum program yet, a new drum program (named **Program**, appended with a number) will be added automatically to the project and appear in the **Program** field below.



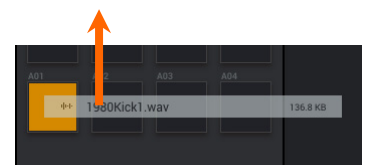
If the project already contains a drum program, the first one will be selected automatically and appear in the **Program** field below.

To create another drum program, click the **+** icon above the **Program** field. A new drum program will be created and appended with a number (e.g., **Program 002**).

To rename the program, double-click the **Program** field, type a name, and press **Enter**.

To load a sample into a drum program:

1. In the **File Browser**, find a sample you want to use. (Click the **hard-drive icon** in the lower-right corner to show or hide the File Browser. See [Browser](#) to learn more.)
2. Click and drag the sample from the Browser onto the desired pad. Alternatively, double-click the sample to load it to the sample pool without loading it to a specific pad.



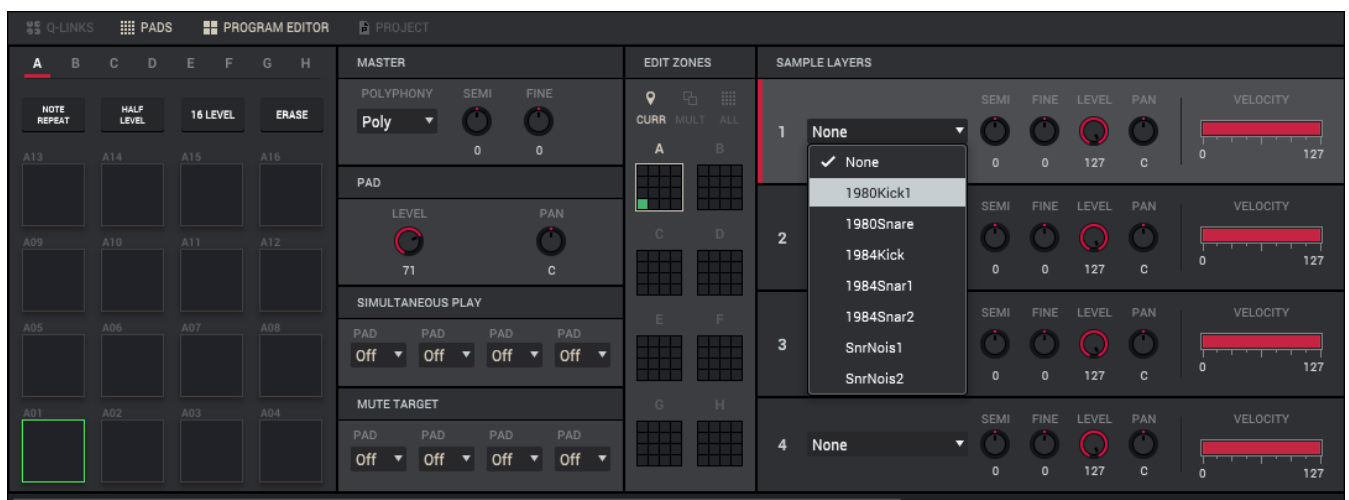
To assign samples to additional pads, repeat Steps 1–2.

Tip: Remember that a drum program has 128 pads total—16 pads across eight banks.

Alternatively, assign samples in a drum program this way:

1. Click the **four-pads icon** in the toolbar to enter Program Edit Mode.
2. In the bottom half of the window, scroll to the right to find the **Sample Layers** section. This lets you view the samples assigned to all four layers of the drum program as well as tuning and level parameters for each layer.
3. Click a pad to select it (and play its assigned samples, if any). The pad will be lit green.
4. Click the menu for a layer, and select a sample.

Tip: Remember that a drum program has 128 pads total—16 pads across eight banks.

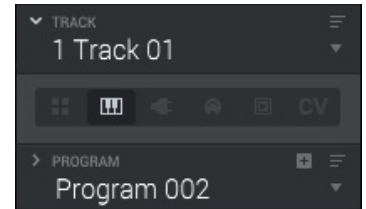


Keygroup Programs

A keygroup program uses one or more samples as its sound source. It contains (1) a list of samples and (2) the settings for each sample (i.e., pitch tuning, effects, etc.). Keygroup programs are used to play samples chromatically with a MIDI keyboard or the MPC pads.

To create a keygroup program:

1. In the **Inspector** on the left edge of the window, click the **piano-keys icon** below the **Track** field, which indicates a keygroup program. (Click the *i* icon to show or hide the Inspector. See [Inspector](#) to learn more.)
2. If the project does not contain a keygroup program yet, a new keygroup program (named **Program**, appended with a number) will be added automatically to the project and appear in the **Program** field below.



If the project already contains a keygroup program, the first one will be selected automatically and appear in the **Program** field below.

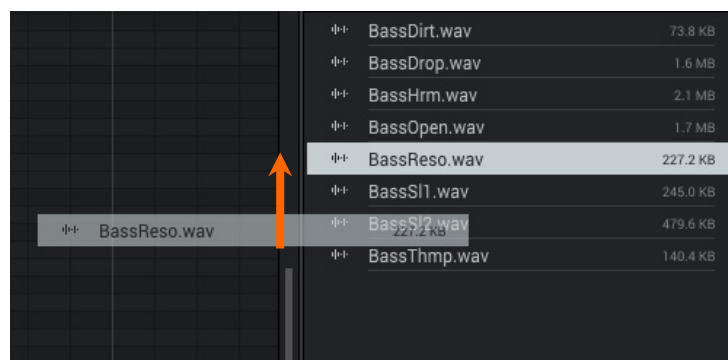
To create another keygroup program, click the **+ icon** above the **Program** field. A new keygroup program will be created and appended with a number (e.g., **Program 002**).

To rename the program, double-click the **Program** field, type a name, and press **Enter**.

To load a sample for your keygroup program into the project:

1. In the **File Browser**, find a sample you want to use. (Click the **hard-drive icon** in the lower-right corner to show or hide the File Browser. See [Browser](#) to learn more.)
2. Click and drag the sample from the Browser onto any space outside of the Browser. Alternatively, double-click the sample to load it to the sample pool.

To load additional samples, repeat Steps 1–2.

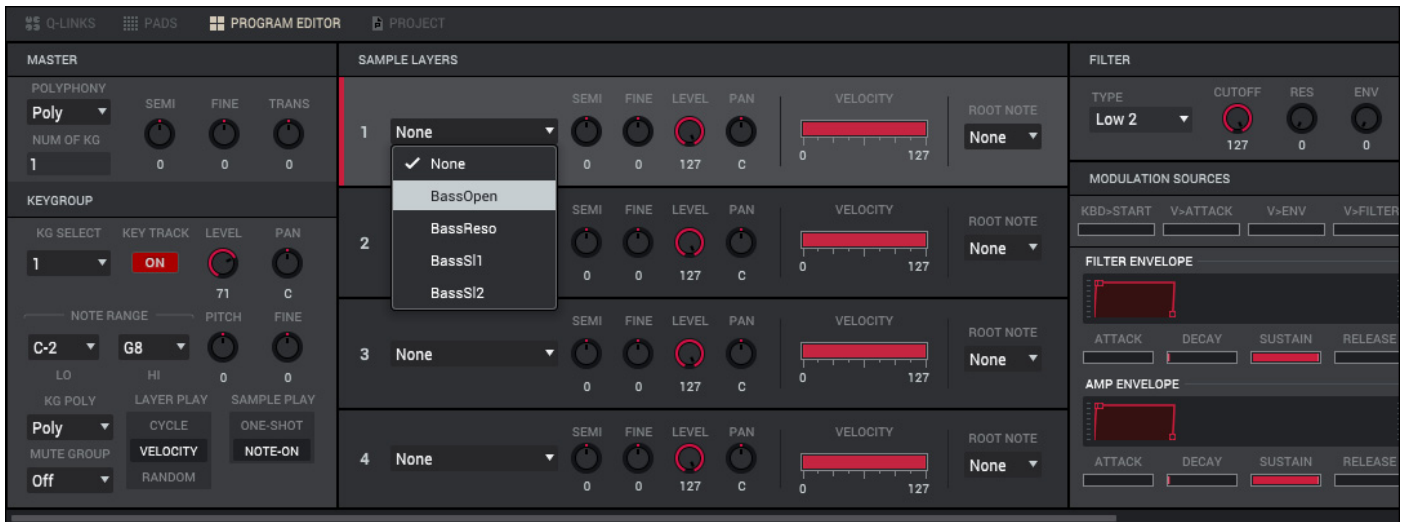


To assign samples in a keygroup program:

1. Click the **four-pads icon** in the toolbar to enter Program Edit Mode.
2. In the bottom half of the window, scroll to the right to find the **Sample Layers** section. This lets you view the samples assigned to all four layers of the current keygroup as well as tuning and level parameters for each layer.
3. Click a pad to select it (and play its assigned samples, if any). The pad will be lit green.

Tip: In the **Pads** panel, click the **Pad Bank D** button to and click **Pad 13**. You should hear the sample played back with its original pitch. You can use the other pads to play your sample chromatically.

4. Click the menu for a layer, and select a sample.



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).

Tip: Remember that a keygroup program offers up to 128 keygroups, and each keygroup can hold up to four samples (Layers 1–4). This is a total of 512 samples.

Plugin Programs

A plugin program contains an instance of a plugin through which you can send your track's MIDI data. This lets you use the same instance of a plugin with multiple tracks (rather than load an instance of a plugin on every track, which can be cumbersome and CPU-intensive). See the [Plugins](#) chapter to learn about scanning and selecting plugins.

To create a plugin program:

1. In the **Inspector** on the left edge of the window, click the **plug icon** below the **Track** field, which indicates a plugin program. (Click the *i* icon to show or hide the Inspector. See [Inspector](#) to learn more.)
2. If the project does not contain a plugin program yet, a new plugin program (named **Plugin**, appended with a number) will be added automatically to the project and appear in the **Program** field below.

If the project already contains a plugin program, the first one will be selected automatically and appear in the **Program** field below.

To create another plugin program, click the **+ icon** above the **Program** field. A new plugin program will be created and appended with a number (e.g., **Plugin 002**).

3. Click the **Plugin** menu. In the list that appears, click the desired plugin.

To sort your plugins by type or maker, click **Sort by type** or **Sort by manufacturer**.

4. Click **Select** to select the plugin, or click **Close** to cancel.

Note: You have to specify the disk directory where your plugins are located. This can be done in the software's **Preferences**. See [Preferences](#) to learn more.

5. Next to the **Program** field, click the **menu icon** (≡) and click **All** so it is selected. This will show all three settings.

To select the MIDI channel the program will use, click the **Midi Ch** menu, and click the desired channel. Use this setting when you are working with a virtual instrument plugin that supports multi-mode.

To select a preset in your plugin (if any), click the **Preset** menu, and click the desired preset.

To rename the program, double-click the **Program** field, type a name, and press **Enter**.

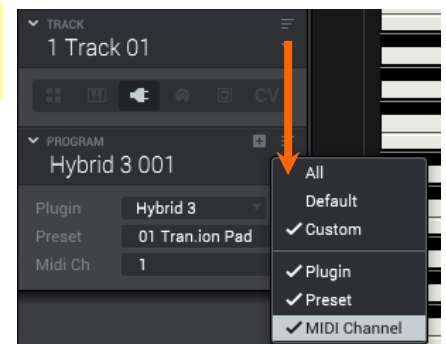
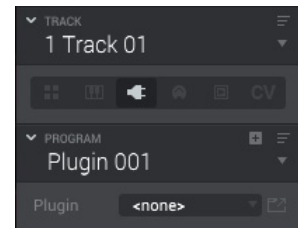
To adjust the volume and panning of a track using the plugin program:

1. Click the **three-sliders icon** in the toolbar to enter the Channel Mixer.
2. In the bottom half of the window, click the channel strip that represents the track with the plugin program to select it. (If you do not see it, make sure the **MIDI Tracks** button between the grid and channel strips is **on**.)
3. Click and drag the **volume slider** or **pan knob** up or down to adjust it.

Important:

If you copy a sequence, the volume and pan values will be copied with that sequence. This is also true if you move to a new sequence and put the same plugin program on a new track.

By default, some plugins do not support MIDI volume and pan. In this case, adjust volume levels and panning on the plugin program channel strip instead of the track channel strip.



MIDI Programs

A MIDI program lets you send your track's MIDI data to an external MIDI device like a synth or drum machine.

To create a MIDI program:

1. In the **Inspector** on the left edge of the window, click the **MIDI-jack icon** below the **Track** field, which indicates a MIDI program. (Click the *i* icon to show or hide the Inspector. See [Inspector](#) to learn more.)
2. If the project does not contain a MIDI program yet, a new MIDI program (named **Midi**, appended with a number) will be added automatically to the project and appear in the **Program** field below.

If the project already contains a MIDI program, the first one will be selected automatically and appear in the **Program** field below.

To create another MIDI program, click the **+ icon** above the **Program** field. A new MIDI program will be created and appended with a number (e.g., **Midi 002**).

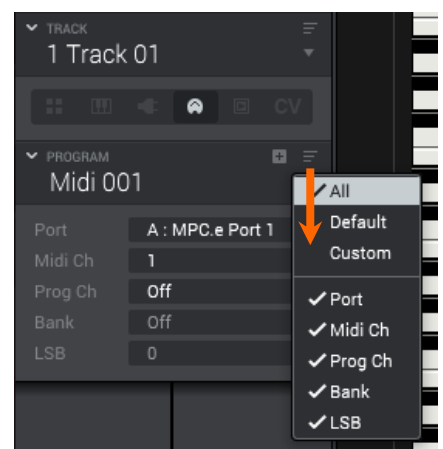
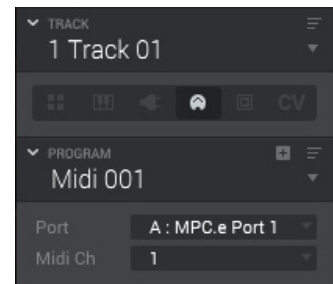
3. There are five additional settings to configure for a MIDI program: the MIDI **Port**, program change message (**Prog Ch**), MIDI channel (**Midi Ch**), Most Significant Byte (**Bank**), and Least Significant Byte (**Bank LSB**). See [Modes > Main Mode](#) to learn more.

Next to the **Program** field, click the **menu icon** (≡) and click **All** so it is selected. This will show all five settings.

To configure each setting, click its menu, and click the desired option.

Note: You also have to configure the MIDI ports in the software's **Preferences**. See [Preferences](#) to learn more.

To rename the program, double-click the **Program** field, type a name, and press **Enter**.



To adjust the volume and panning of a track using the MIDI program:

1. Click the **three-sliders icon** in the toolbar to enter the Channel Mixer.
2. In the bottom half of the window, click the channel strip that represents the track with the MIDI program to select it. (If you do not see it, make sure the **MIDI Tracks** button between the grid and channel strips is **on**.)
3. Click and drag the **volume slider** or **pan knob** up or down to adjust it.

Important: If you copy a sequence, the volume and pan values will be copied with that sequence. This is also true if you move to a new sequence and put the same MIDI program on a new track.



Clip Programs

A **clip program** uses several samples that can be looped (clips). Each clip can be assigned to a pad, which you can click or press to trigger the clip according to a quantization setting. This lets you create intriguing, layered performances by launching different combinations of clips together.

By default, the 16 pads are divided into four columns of four pads. Each column represents a mute group; when a pad is playing a clip, all other pads in that same mute group are turned off. This enables you to launch a clip without having to manually stop other clips that are similar. For instance, pressing Pad 2 may launch a bass clip. You could then press Pad 6, which launches another bass clip and stops the clip on Pad 2. This way, you'll never be playing two bass clips simultaneously.

The four-columns pad configuration described above is just a default to make things easy (e.g., you could use the first column for drum clips, the second for bass clips, the third for keyboard clips, and the fourth for vocal clips.). You can use Program Edit Mode to assign pads to any combination of mute groups you want.

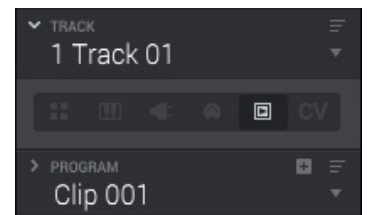
To create a clip program:

1. In the **Inspector** on the left edge of the window, click the **play-button icon** below the **Track** field, which indicates a clip program. (Click the *i* icon to show or hide the Inspector. See [Inspector](#) to learn more.)
2. If the project does not contain a clip program yet, a new clip program (named **Clip**, appended with a number) will be added automatically to the project and appear in the **Program** field below.

If the project already contains a clip program, it will be selected automatically and appear in the **Program** field below.

To create another clip program, click the **+ icon** above the **Program** field. A new clip program will be created and appended with a number (e.g., **Clip 002**).

To rename the program, double-click the **Program** field, type a name, and press **Enter**.



To load a clip into a clip program:

1. Click the **house icon** in the toolbar to enter Main Mode.
2. In the **File Browser**, find a loop you want to use. (Click the **hard-drive icon** in the lower-right corner to show or hide the File Browser. See [Browser](#) to learn more.)
3. Click and drag the loop from the File Browser onto the desired pad. Alternatively, double-click the loop to load it to the sample pool without loading it to a specific pad.

To assign clips to additional pads, repeat Steps 2–3.



Alternatively, assign clips in a clip program this way:

1. Click the **four-pads icon** in the toolbar to enter Program Edit Mode.
2. In the bottom half of the window, find the **Program** section. This lets you configure the settings for each pad in the clip program.
3. Click a **pad** to select it (and play its assigned samples, if any).
4. Click the **Pad** menu above the **Start** and **End** times, and select a clip.

To assign clips to additional pads, repeat Steps 3–4.

To clear the assigned clip from a selected pad, repeat Step 5 but select **None**.



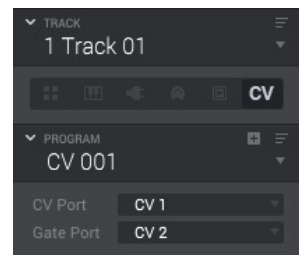
CV Programs

A CV program lets you send your control voltage (CV) signals to an external MIDI device like a synth or drum machine that uses CV.

Important: CV programs are available only while using an MPC model with CV outputs (e.g., **MPC X**).

To create a CV program:

1. In the **Inspector** on the left edge of the window, click the **CV icon** below the **Track** field, which indicates a CV program. (Click the *i* icon to show or hide the Inspector. See [Inspector](#) to learn more.)
2. If the project does not contain a CV program yet, a new CV program (named **CV**, appended with a number) will be added automatically to the project and appear in the **Program** field below.



If the project already contains a CV program, it will be selected automatically and appear in the **Program** field below.

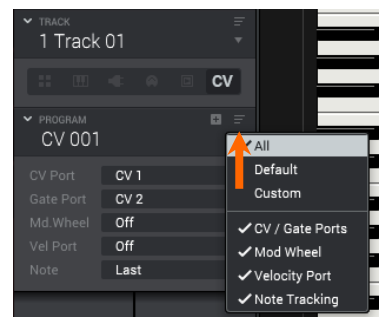
To create another CV program, tap the **+** icon above the **Program** field. A new CV program will be created and appended with a number (e.g., **CV 002**).

3. There are five additional settings to configure for a CV program: the **CV Port**, **Gate Port**, modulation wheel port (**Md.Wheel**), velocity port (**Vel Port**), and note tracking (**Note**). See [Modes > Main Mode](#) to learn more.

Next to the **Program** field, click the **menu icon** (≡) and click **All** so it is selected. This will show all five settings.

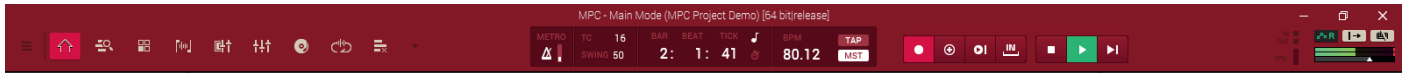
To configure each setting, click its menu, and click the desired option.

To rename the program, double-click the **Program** field, type a name, and press **Enter**.



Toolbar

This chapter describes the available options in the toolbar at the top of the software window.



Not all elements of toolbar are shown by default. For instance, some mode icons and transport controls are hidden. Furthermore, you can choose to hide parts of the toolbar that are shown.

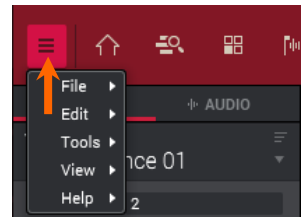
To select or deselect the items you want to see in the toolbar, click the **menu icon** (≡) in the upper-left corner and select **View**. See [View > Toolbar](#) for more information.

Menu

To access the software's menu, click the **menu icon** (≡) in the upper-left corner of the window.

macOS Users: Five items in this section appear differently on macOS than listed below: **Exit/Quit MPC**, **Preferences**, **Check for Updates**, **Expansion Store**, and **About MPC** are located in the **MPC** menu next to the **apple icon** (rather than the menus listed below).

Tip: Several selections in the menu can be made by using computer keyboard shortcuts. You can see these keyboard shortcuts next to these selections in the menu. Go to **Help > Software Information** and select **Keyboard Shortcuts** to view a complete list of shortcuts within the MPC software. Some of these shortcuts may not work if you are using the MPC software as a plugin (due to those shortcuts being used by your host DAW instead).



File

- **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 [Preferences > Project Load/Save](#) to learn how to set this template.
- **Load Recent** provides shortcuts to the last 10 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** panel will be automatically saved with the project. The project file (**.xproj**), 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 (**.xpm**).
- **Save Current Sequence** saves only the current sequence (**.sxq**).
- **Save MIDI Control Scene** saves your control map as set in MIDI Control Mode (**.mcn**). See [Modes > 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 sub-menu.
 - **As Project Archive** exports the entire project as a project archive file (**.xpa**). In the window that appears, type 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 Pattern** exports the track (for the current sequence only) as a pattern (**.mpcpattern**).
 - **As MPC1000/MPC2500 Sequence** exports the current sequence so it can be read by an MPC1000 or MPC2500 (**.seq**).
 - **As MPC1000/MPC2500 Program** exports the current program so it can be read by an MPC1000 or MPC2500 (**.pgm**).

- **As MPC5000 Sequence** exports the current sequence so it can be read by an MPC5000 (.mid).
- **As MPC5000 Program** exports the current program so it can be read by an MPC5000 (.50s).
- **As MIDI Sequence File** exports the sequence as a standard MIDI file (.mid). In the window that appears, type 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 them with another artist.
- **As MIDI Track File** exports the track as a standard MIDI file (.mid). In the window that appears, type a file name and set the save location. This option is useful when you want to import your tracks into separate software or exchange them with another artist.
- **As Audio Mixdown** exports the sequence or song as an audio file. See the [Audio Mixdown](#) chapter for more information about this process. If you are in Song Mode, it will affect the entire song. If you are in any other mode, it will affect the current sequence only.
- **Exit** closes the software. (On macOS, this is named **Quit MPC** and is located in the **MPC** menu next to the **apple icon**.) If you have not saved any changes made to a currently open project, it will prompt you to do so before quitting.

Edit

- **Undo** undoes the last action you performed. When there are no actions left to undo, this command will be unavailable and appear grayed 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 grayed 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.
- **Undo History** lets you view a list of previously executed commands in the **Undo History** panel. As you undo and redo commands, you can see your current “position” in the list of commands in the window.
Tip: To revert to a previous “state” in your project, click and drag the point just after the last step. Any “undone” steps will be grayed out. You can do the same to redo grayed-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 events or audio track regions in the current sequence and track.
- **Deselect** deselects all events or audio track regions in the current sequence and track.
- **Nudge Event Left/Right by TC** shifts the selected event/events left or right (respectively) by the time division set in the Time Correct settings.
- **Nudge Event Left/Right by Tick** shifts the selected event/events left or right (respectively) by one tick.
- **Time Correct** displays options for using time correct (quantization):
 - **Apply** quantizes the currently selected note events. If no note events are selected, nothing will be quantized.
 - **Settings** opens the Time Correct window where you can configure its settings. See the [Time Correct](#) chapter for more information about this.
- **Humanize** applies randomization to the timing, length, and/or velocity of MIDI events. See [Addenda > Updates in MPC 2.2 > New Features > Humanize](#) for more information about this.
- **Pitch Quantize** forces the pitches of note events on a MIDI track into a specific scale. See [Addenda > Updates in MPC 2.1 > New Features > Pitch Quantization](#) for more information about this.
- **Audio Region** provides options related to editing the current audio track region:
 - **Duplicate** copies and pastes the track region immediately after the original one.
 - **Mute** silences the track region.
 - **Reverse** reverses the track region.
 - **Warp** lengthens or shortens the track region without changing its pitch.
Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function.

- **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.
 - **Half Length** will **immediately** halve the length of the sequence (without deleting any note events).
 - **Double Length** will **immediately** double the sequence and copy all events from the first half to the second half.
 - **Insert Blank Bars** adds empty bars to a sequence at a specified point. See [Editing Processes > Sequence](#) for more information.
 - **Delete Bars** removes a range of bars from a sequence. See [Editing Processes > Sequence](#) for more information.
 - **Copy Bars** copies a range of bars from a sequence and adds them to another at a specified point. See [Editing Processes > Sequence](#) for more information.
 - **Copy Events** copies a range of events from a sequence and add them to another at a specified point. See [Editing Processes > Sequence](#) for more information.
 - **Copy Sequence** copies the contents of one sequence to another. See [Editing Processes > Sequence](#) for more information.
 - **Copy Track** copies the contents of one track to another. See [Editing Processes > Sequence](#) for more information.
 - **Transpose** transposes a range of events on a track in a sequence. See [Editing Processes > Sequence](#) for more information.
 - **Erase** erases all or part of a track in a specific sequence. See [Editing Processes > Sequence](#) for more information.
 - **Events Double Speed** immediately halves the lengths of all note events on all tracks in the sequence as well as the distance between them. In other words, all tracks' notes are pressed closer together so the sequence sounds like it is playing at twice the previous speed. This does not actually affect the pitches of notes or the tempo.
 - **Events Half Speed** immediately doubles the lengths of all note events on all tracks in the sequence as well as the distance between them. In other words, all tracks' notes are spread further apart so the sequence sounds like it is playing at half of the previous speed. This does not actually affect the pitches of notes or the tempo.
 - **Next Sequence** selects the next sequence. If you select this during playback, the next sequence will be selected when the current one is done playing.
 - **Previous Sequence** selects the previous sequence. If you select this during playback, the previous sequence will be selected when the current one is done playing.
 - **Next Sequence Now** selects the next sequence immediately.
 - **Previous Sequence Now** selects the previous sequence immediately.
 - **Export as MIDI** lets you export the current sequence as a standard MIDI (.mid) file. See [Editing Processes > Sequence](#) for more information.
 - **Bounce to Sample** immediately renders the sequence (all of its tracks) as an audio sample (.wav) and places it in the project's sample pool. By default, it will be named **Bounce** - and appended with the sequence name. If you have already used this function on this sequence, then it will create another audio sample appended with the next-highest number.
 - **Bounce to New Audio Track** immediately renders the sequence (all of its tracks) as an audio track (.wav) in the project. The **Audio** tab will be automatically selected. By default, the sample will be named **Bounce** - and appended with a number. This function does not work for tracks that use MIDI programs or CV programs.

- **Track** provides options related to editing the current track:
 - **Select All** selects all events or audio track regions in the entire track.
 - **Deselect** deselects all events or audio track regions in the entire track.
 - **Delete** erases the entire audio track. This cannot be used on MIDI tracks.
 - **Clear** erases all note events from the current track.
 - **Explode** immediately 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.
 - **Events Double Speed** immediately halves the lengths of all note events on the track as well as the distance between them. In other words, the track's notes are pressed closer together so the track sounds like it is playing at twice the previous speed. This does not actually affect the pitches of notes or the tempo.
 - **Events Half Speed** immediately doubles the lengths of all note events on the track as well as the distance between them. In other words, the track's notes are spread further apart so the track sounds like it is playing at half of the previous speed. This does not actually affect the pitches of notes or the tempo.
 - **Next Track** selects the next track.
 - **Previous Track** selects the previous track.
 - **Export as MIDI** lets you export the current track as a standard MIDI (.mid) file. See [Editing Processes > Sequence](#) for more information. This cannot be used on audio tracks.
 - **Bounce to Sample** immediately renders the track as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the sequence name. If you have already used this function on this sequence, then it will create another audio sample appended with the next-highest number.
 - **Bounce to New Audio Track** immediately renders the track (for the current sequence only) as an audio track in the project. The Main Mode will automatically switch to the **Audio** tab, and the original track will be muted. By default, it will be named **Audio** and appended with a number (e.g., **Audio 002**). This function does not work for tracks that use MIDI programs or CV programs. This cannot be used on audio tracks.
- **Program** provides options related to editing the current program:
 - **Pad Color** opens the **Pad Color** window where you can assign specific colors to your pads in each program. See [Pad Color](#) for more information.
 - **Note Mapping** opens the **Note Mapping** window where you can assign a MIDI note to each pad in a program.
 - **Flatten Pad** renders all samples on a pad as an audio sample and places it on the first layer of that pad. See [Editing Processes > Program](#) for more information.
 - **Duplicate** immediately creates an identical program. The duplicate program will use the same name but appended with a number (e.g., **Program 002**).
 - **Duplicate to New Track** immediately creates an identical program on a new track. The duplicate program will use the same name but appended with a number (e.g., **Program 002**). The new track will be named **Track** and appended with a number (e.g., **Track 06**).
 - **Merge** lets you copy the pads (and their parameters) from one program into another, essentially consolidating two programs into one. See [Editing Processes > Sequence](#) for more information.
 - **Delete** erases the program from the project. The samples used in that program will remain in the project's sample pool and any other programs that use them.
 - **Rename** lets you enter a new name for the program. Type a name and click **OK** to continue or **Cancel** to return to the previous screen.
 - **Bounce to Sample** immediately renders all tracks that use that program (for the current sequence only) as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the program name. This function does not work for MIDI programs or CV programs.
 - **Bounce to New Audio Track** immediately renders that program (for the current sequence only) as an audio track in the project. The Main Mode will automatically switch to the **Audio** tab. By default, it will be named **Audio** and appended with a number (e.g., **Audio 002**). This function does not work for MIDI programs or CV programs.
- **Preferences** opens the **Preferences** window, which contains many customizable elements of the software. (On macOS, **Preferences** is located in the **MPC** menu next to the **apple icon**.) Click the corresponding tab on the left to select it (e.g., **MIDI**, **Sequencer**, etc.). Click the **OK** button to close the Preferences window. Preferences are automatically saved. See the [Preferences](#) chapter for more information about this.

Tools

- **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.
- **Enable** 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 indicates a triplet-based time division).
- **Sound** lets you to select the sound that you want to hear for the metronome: **Sidestick 1**, **Sidestick 2**, **Clap**, **Metroclick**, **Shake**, **Tambourine**, or **MPC Click**.
- **Output** lets you set where the metronome signal will be heard: a pair of master outputs (**Out 1,2-31,32**) or a single master output (**Out 1-32**).

- **16 Level** opens the **16 Levels** window. See [16 Level](#) for more information.

- **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. This is the same as using the **Keyboard** button in the **toolbar**.

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. Press [**]** or [**]** to shift the range of playable notes up or down (respectively) by one octave.

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).

Enabling MIDI Keys disables Pad Keys.

Tip: Show the MIDI keyboard to visualize the keys in a traditional piano keyboard. See [Panels > MIDI Keyboard](#) to learn about this.

- **Pad Keys** enables or disables use of your computer keyboard to play the 16 pads of the current pad bank. This is the same as using the **Keyboard** button in the **toolbar**.

On a standard US/American computer keyboard, use the keys as follows:

the **Z**, **X**, **C**, and **V** keys plays **Pads 01, 02, 03, and 04**

the **A**, **S**, **D**, and **F** keys plays **Pads 05, 06, 07, and 08**

the **Q**, **W**, **E**, and **R** keys plays **Pads 09, 10, 11, and 12**

the **1**, **2**, **3**, and **4** keys plays **Pads 13, 14, 15, and 16**

1	2	3	4
Q	W	E	R
A	S	D	F
Z	X	C	V

Enabling Pad Keys disables MIDI Keys.

- **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** panel, as well.

- **Tidy Keygroup Sample Names** automatically renames all samples belonging to a keygroup based on their keygroup, layer, and other information. This option is available only for keygroup programs.
- **Generate Random Events** lets you create random melodic or drum patterns on the current MIDI track. See [Addenda > Updates in MPC 2.2 > New Features > Generate Random Events](#) for more information about this.

- **Convert To Progression** opens the **Convert Track to Progression** window that automatically detects the chords that are played on the currently selected track, which you can save as a chord progression.

Use the **Name** field to enter a name for the progression.

The **Saved To** field indicates where the file is saved. The file will be saved as a **.progression** file in the **Progressions** folder in **[your hard drive]\Program Files\Akai Pro\MPC** (Windows) or **[your hard drive]\Users\[your user name]\Library\Akai\MPC\Progressions** (macOS).

Use the **Root Note** field to set the root note of the progression. This defines the starting note of the scale of the progression.

The **Chords Detected** field indicates how many chords were automatically detected in the track.

Use the **Scale Type** menu to select the scale or mode of the progression based on the **Root Note**.

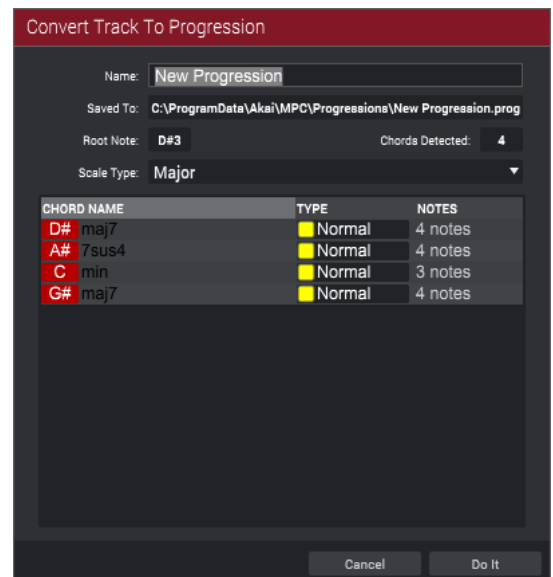
The panel below lists the chords in the order they are played.

Click the **red** root note of a chord to play it. Click the text next to it to rename the chord.

Click and drag the **Type** field up or down to select whether the chord is played at its root note (**Root**), in the octave range as it appears in the track (**Normal**), above its root note (**AboveRoot**), or below its root note (**BelowRoot**).

The **Notes** column indicates how many notes were detected in the chord.

Click **Do It** to convert the track or **Cancel** to close the window without converting.



- **Rebuild Media Browser Database** resets and rescans your Media Browser. See [Browsers > Media Browser](#) to learn more about the Media Browser.
- **Stop All Sounds** immediately stops all sounds within the software.
- **Plugin Manager** opens the **Plugins** window which contains a list of all available plugins, based on your selected plugin folders. This is the same as clicking the **gear icon** in the lower-left corner of the effect selection menu. See the [Plugins](#) chapter to learn about this.
- **Expansion Manager** opens the **Expansions** window which contains a list of your MPC expansions. See the [Expansions](#) chapter to learn about this.
- **LCD Window** opens the **LCD** window, an emulation of the monochromatic display used on the MPC Renaissance or MPC Studio. Click the **down arrow** (↓) in the upper-right corner so it becomes an **up arrow** (↑) to keep the window on top at all times. Click it again to allow the window to be hidden under others. Click the **X** in the upper-right corner to close the window.

View

- **Mode** lets you select from any of the available software modes. See [Modes](#) to learn about these.
- **Q-Link Mode** lets you select from any of the five edit modes for the Q-Link knobs. See [Panels > Q-Links](#) to learn about these.
- **Toggle Audio/MIDI Mode** lets you switch between viewing MIDI tracks and audio tracks. This is the same as clicking the **MIDI** or **Audio** tab at the top of the Inspector.
- **Toolbar** lets you select or deselect the items you want to see in the toolbar at the top of the window. This includes the [Mode Icons](#), the [Timing Controls](#), the [Transport Controls](#), and overall [Status](#) indicators.

The **Toolbar Modes** submenu lets you select or deselect each mode icon. Selected ones will be shown in the toolbar. You can also select **All** to show all of them or **Default** to show the default ones (which we find are the most often used).
- **Inspector** lets you select or deselect the items you want to see in the Inspector on the left edge of the window. This includes the Inspector itself (**Show Inspector**), send effect knobs on the channel strips (**Sends**), and insert effect slots on the channel strips (**Inserts**). You can also select which channel strip you want to display: the pad channel strip (**Pad Channel**), the program channel strip (**Program Channel**), or the MIDI track channel strip (**MIDI Channel**). See [Inspector](#) to learn more about this.

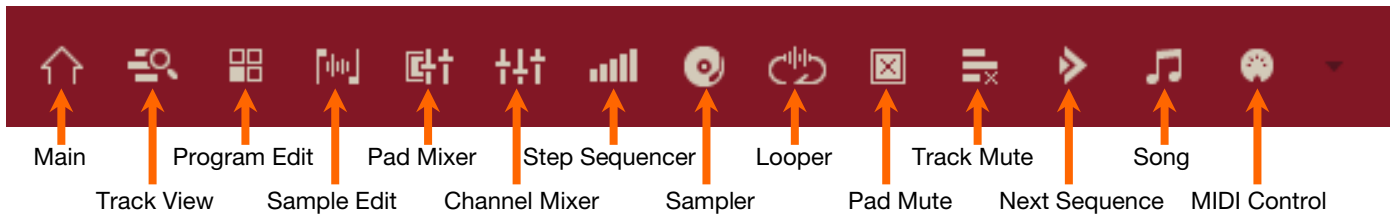
- **Browser** lets you select or deselect options that determine how the Browser is shown on the right edge of the window. You can hide or unhide the Browser (**Hidden**); show the **File Browser**, **Expansion Browser**, **Media Browser**, **Project Information Browser**, **Project Notes Browser**, or **Undo History Browser**; show the **Quick Help** panel; or allow the Media Browser to show all tags. See [Browser](#) to learn more about this.
- **Editor** lets you select or deselect options that determine how the editor is shown in the top half of the window. You can switch between the standard half-screen view or a full-screen view; show pad colors in the Grid Editor; show or hide the automation lane under the Grid Editor; or switch between the Grid Editor, Wave Editor, or List Editor (when each option is available, depending on the mode).
- **Show Mixer Window** lets you show the mixer window. This is the same as clicking the **two-sliders icon** in the lower-left corner of the main software window. See [Mixer Window](#) to learn more about this feature.
- **Show MIDI Keyboard** shows or hides a piano keyboard at the bottom of the window. You can use these keys to play or enter notes. See [Panels > MIDI Keyboard](#) to learn about this.
- **Zoom In At Playhead** and **Zoom Out At Playhead** zoom into or out of the Grid Editor or Wave Editor (respectively) while keeping the audio playhead or last-moved marker at the center.
- **Zoom In Vertically** and **Zoom Out Vertically** zoom into or out of the Grid Editor or Wave Editor (respectively).
- **Minimize** minimizes the MPC software window.
- **Full Screen** expands the MPC software window into a full-screen mode.

Help

- **Search** (macOS only) allows you to find results for specific search terms, which you can enter in this field.
 - **Quick Help** shows or hides the **Quick Help** panel in the lower-right corner of the window under the Browser. This is the same as going to **View > Browser > Quick Help** or clicking the **? icon** in the lower-right corner of the window. This panel is visible only when one of the Browsers is shown.
 - **Keyboard Shortcuts** opens a window with a list of all available keyboard shortcuts to execute various actions in the MPC software.
 - **MPC Help** lets you open the user manual PDFs for the MPC software as well as the different types of MPC hardware that can control the MPC software.
 - **Software Information** lets you open various items specific to this MPC software: the release notes PDF for this version of the MPC software (**MPC Release Notes**); the user manual PDF for Hybrid 3 (**Hybrid Instrument**).
- Important:** Some of the MPC software's keyboard shortcuts may not work if you are using the MPC software as a plugin (due to those shortcuts being used by your host DAW instead).
- **Set Up Guides** lets you open a PDF with instructions on how to set up MMC control in this software (**MMC Control**).
 - **Check for Updates** checks online for any available updates to the MPC software. (On macOS, **Check for Updates** is located in the **MPC** menu next to the **apple icon**.) You must have an internet connection to use this feature.
 - **Expansion Store** opens an online store of available MPC Expansions on the Akai Professional website. (On macOS, **Expansion Store** is located in the **MPC** menu next to the **apple icon**.) You must have an internet connection to use this feature.
 - **About MPC** opens a window with information about this MPC software. (On macOS, **About MPC** is located in the **MPC** menu next to the **apple icon**.)

Mode Icons

The mode icons let you select the current software mode.



Click a **mode icon** to enter its corresponding mode.

Click the **down arrow** (▼) to show a menu of all modes, and click a mode to enter it.

Timing Controls

Click the **metronome icon** at the top of the window to enable or disable the metronome.

Click and drag the **Metro** meter at the top of the window to set the volume of your metronome click.



The **Metronome** menu contains all settings regarding the metronome (click track).

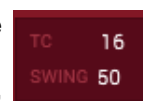
To view the metronome settings, click the **menu icon** (≡), select **Tools**, and click **Metronome**. See [Metronome](#) for more information about this.

Click the **Sync** field to determine whether the MPC software receives MIDI Clock information (**MIDI Clock**), MIDI Time Code information (**MTC**), communication from **Ableton Link**, or none of these (**Off**). This is the same setting as the **Receive** menu in **Sync** tab of your **Preferences**. See [Preferences](#) for more information.



Note: Ableton Link is a new technology that synchronises beat, phase and tempo of Ableton Live and Ableton Link-enabled applications over a wireless or wired network.

Click the **TC** field to set the quantization value. Note events will “snap” to these time divisions on the grid. The **T** indicates a triplet-based value.



Click the **Swing** field to set the amount of swing from **50%** to **75%**. Swing lets you “shuffle” your beats—from subtle to extreme.

The **Time Correct** window contains all settings to help quantize events in your sequence.

To open the Time Correct settings, click the **menu icon** (≡), select **Edit**, and click **Time Correct**. See [Time Correct](#) for more information about this.

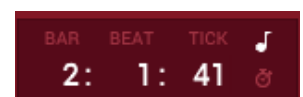
The time counter indicates the current playhead position.

To adjust the position, click and drag each field up or down

To switch the time increments, click the **note icon** or **stopwatch icon**.

When set to **Beats** (**note icon**), the time is shown in **Bars**, **Beats**, and **Ticks**.

When set to **Time** (**stopwatch icon**), the time is shown in hours (**HH**), minutes (**MM**), seconds (**SS**), and frames (**FF**).



The MIDI monitor indicates incoming MIDI events.

Use the **BPM** field to adjust the tempo of the sequence. Click and drag it up or down, or double-click it, type a value, and press **Enter**. Alternatively, click **Tap** at the desired rate; the software will automatically detect the tempo.



Click the **Seq/Mst** button to set whether each sequence follows its own tempo (**Seq**) or a master tempo (**Mst**).

Transport Controls

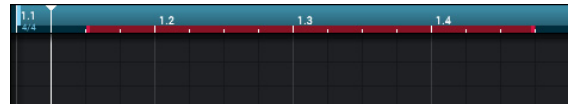
Click **Record** (●) to record-arm the sequence. Click **Play** (▶) or **Play Start** (▶|) to start recording. Recording in this way (as opposed to using **Overdub**) erases the events of the current sequence. After the sequence plays through once while recording, **Overdub** (⊕) will be enabled.



Click **Overdub** (⊕) to enable **Overdub**. When enabled, you can record events in a sequence without overwriting any previously recorded events. You can enable **Overdub** before or during recording.

After you record-arm the track and start playback, click **Record from Sequence Start** to start recording once the sequence loops back to its start. This is essentially a punch-in feature for the entire track, enabling you to start playing a record-armed track while allowing more time than the usual count-in to prepare for the actual recording to start.

Click **Punch In** to enable or disable the **Punch In** feature, which enables you to record over a specified length of time in the track. While recording, the entire sequence will play, but you will record over only the area between the Punch In and Punch Out markers, indicated by a **red** line below the blue timeline. Any part of the sequence before the Punch In marker or after the Punch Out marker will remain untouched, even if you perform over it during recording.



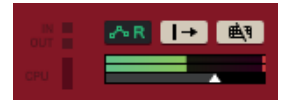
Click **Stop** (■) to stop playback. Alternatively, press the **space bar**. You can double-click this button to silence audio that is still sounding once a note stops playing. Quickly clicking this button three times will act as a “MIDI panic” and shut off all voices and stop all audio processing.

Click **Play** (▶) to play the sequence from the playhead’s current position.

Click **Play Start** (▶|) play the sequence from its start point.

Status

The **In** and **Out** boxes indicate the MPC software is receiving or sending (respectively) MIDI messages from or to your MPC hardware.



The **CPU** meter shows the software's current usage of your computer's CPU.

The **automation button** indicates the global automation state. See [Automation](#) to learn about this.

Use the **Auto-Scroll** selector to set how the editor behaves relative to the audio playhead.

Follow: Depending on the zoom setting, the editor will scroll along in the background while keeping the audio playhead centered.

Page: The editor will move to the "next page" to follow the audio playhead.

Off: The editor will not move at all.

Click the **Keyboard** button to cycle through three options:

Off: Pad Keys and MIDI Keys are off. Your computer keyboard will work normally.

Pad Keys: Pad Keys is on, enabling your computer keyboard to play the 16 pads of the current pad bank. See [Menu > Tools > Pad Keys](#) to learn about this.

MIDI Keys: MIDI Keys is on, enabling your computer keyboard to enter or play a range of 17 MIDI notes, starting from a C. See [Menu > Tools > MIDI Keys](#) to learn about this.

The **volume meter** shows the software's master output level. Click and drag the **volume slider** to adjust it.

Inspector

The “**Inspector**” is a panel on the left edge of the window shows information about the current sequence, track, and program as well as two “dynamic” channel strips for convenient monitoring and mixing.

To show or hide the **Inspector**, do one of the following:

- Click the *i* icon in the lower-left corner of the window.
- Click the **menu icon** (≡), go to **View > Inspector**, and select **Show Inspector**.

The **MIDI** and **Audio** tabs at the top of the Inspector determine whether it will show information about the project’s MIDI tracks or audio tracks. Click one to select it.

Sequence

Click the > or v next to the **Sequence** field to collapse or expand this section.

Click the **Sequence** field or **down arrow** (▼) to select a sequence.

Double-click the **Sequence** field to rename the sequence.

Click the small **menu icon** (≡) to select or deselect which items are shown in this section:

- Bars:** the number of bars in the sequence
- BPM:** the sequence tempo (as opposed to the master tempo)
- Trans/Transpose:** the transposition of the sequence in semitones
- Loop:** determines whether or not sequence playback will loop
- Start:** the first bar of the sequence loop
- End:** the last bar of the sequence loop
- Time Sig/Time Signature:** the time signature of the sequence

Right-click the **Sequence** field to show a menu of some editing processes. See [Editing Processes > Sequence](#) for more information.

Track

If the **MIDI** tab is selected, click the > or v next to the **Track** field to collapse or expand this section. If the **Audio** tab is selected, this section cannot be expanded.

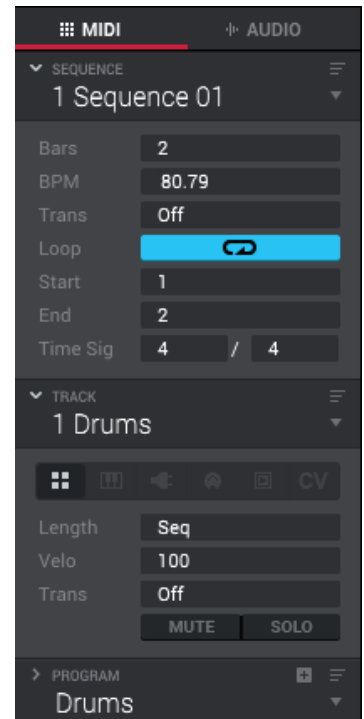
Click the **Track** field or **down arrow** (▼) to select a track.

Double-click the **Track** field to rename the track.

Click the small **menu icon** (≡) to select or deselect which items are shown in this section:

- Type:** the type of program the track is using
- Length:** the length of the track in beats. When set to **Seq**, the track will use the length of the sequence.
- Velo/Velocity:** the velocity of the track
- Trans/Transpose:** the transposition of the track in semitones
- Mute/Solo:** **Mute** or **Solo** buttons for the track

Right-click the **Track** field to show a menu of some editing processes. See [Editing Processes > Track](#) for more information.



Program

The **Program** section is shown only when the **MIDI** tab at the top of the Inspector is selected.

Click the > or v next to the **Program** field to collapse or expand this section (when a plugin program, MIDI program, or CV program is selected).

Click the **Program** field or **down arrow** (▼) to select a program.

Double-click the **Program** field to rename the program.

Click the + next to the **Program** field to create a new program of the same type.

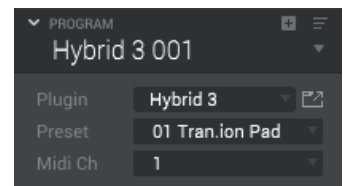
Click the small **menu icon** (≡) to select or deselect which items are shown in this section (when a plugin program, MIDI program, or CV program is selected):

Plugin Program:

Plugin: the plugin that the program is using. See the [Plugins](#) chapter to learn about scanning and selecting plugins. Click the window icon next to the menu to show the plugin's graphical user interface in a separate window.

Preset: the preset/patch (if any) within the plugin.

MIDI Ch/MIDI Channel: the MIDI channel the program is using.



MIDI Program:

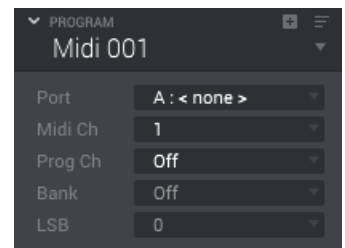
Port: the port over which the program sends its MIDI data.

MIDI Ch/MIDI Channel: the MIDI channel over which the program sends its MIDI data.

Prog Ch/Program Change: the program change message the program sends out.

Bank: the Bank message (Most Significant Byte or MSB) that the program sends out.

LSB: the Least Significant Byte (LSB) message that the program sends out.



CV Program:

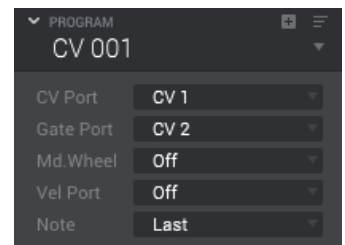
CV Port: the CV port the program is using.

Gate Port: the Gate port the program is using.

Md.Wheel/Mod Wheel: the CV port the modulation wheel is using.

Vel Port/Velocity Port: the CV velocity port.

Note/Note Tracking: the CV program's note track: lowest, highest or last.



Right-click the **Program** field to show a menu of some editing processes. See [Editing Processes > Track](#) for more information.

Channel Strips

The Inspector can display two “dynamic” channel strips, which vary slightly in appearance.

When the **MIDI** tab at the top of the Inspector is selected, you can select the **pad channel strip**, **program channel strip**, or **MIDI/track channel strip**.

When the **Audio** tab at the top of the Inspector is selected, you can show or hide the **audio track channel strip** only.

Pad & Keygroup Channel Strips

While using a drum program, keygroup program, or clip program, click the **pad icon** at the bottom of the Inspector. The **pad** or **keygroup channel strip** will be shown on the left side, and the corresponding program channel strip for that pad or keygroup will be shown on the right side.

The number of the pad or keygroup is at the bottom of the channel strip.

The first menu shows the current pad or keygroup number. Press a pad or click the field to select a different pad or keygroup.

Tip: This is useful for mixing your pads or keygroups without having to enter the Pad Mixer.

The **Inserts** slots show any enabled or disabled effects for that pad or keygroup. See [Effects > Insert Effects](#) to learn more about pad or keygroup insert effects.

Click and drag the **Send** knobs, which control the send levels for the pad or keygroup. A **return channel strip** will automatically be shown on the right side. Click anywhere in the lower half of the **pad/keygroup channel strip** to show the program channel strip again. See [Effects > Send/Return Effects](#) to learn more about pad or keygroup send/return effects.

The menu below the **Send** knobs shows where the pad or keygroup is routed, which you can set to the current program (**Program**), a submix (**Submix > Sub 1–8**), a pair of master outputs (**Stereo Output > Out 1,2–31,32**), or a single master output (**Mono Output > Out 1–32**). Usually, this is set to **Program**.

Click **M** or **S** to mute or solo the pad or keygroup (respectively).

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the pad or keygroup. The **green** level meter next to the slider shows the pad’s current volume level in **dB**.

See [below](#) for descriptions of the adjacent program channel strip.



Program Channel Strip

While using a drum program, keygroup program, clip program, or plugin program, click the **four-pads icon** at the bottom of the Inspector. The **program channel strip** will be shown on the left side, and its corresponding master or submix channel strip will be shown on the right side.

The name of the program is at the bottom of the channel strip.

The first menu shows the current program (which you can change).

The **Inserts** slots show any enabled or disabled effects for that program. See [Effects > Insert Effects](#) to learn more about program insert effects.

Click and drag the **Send** knobs, which control the send levels for the program. A **return channel strip** will automatically be shown on the right side. Click anywhere in the lower half of the **program channel strip** to show the master or submix channel strip again. See [Effects > Send/Return Effects](#) to learn more about program send/return effects.

The menu below the **Send** knobs shows where the program is routed, which you can set to a submix (**Submix > Sub 1–8**), a pair of master outputs (**Stereo Output > Out 1,2–31,32**), or a single master output (**Mono Output > Out 1–32**).

Click **M** or **S** to mute or solo the program (respectively).

Click the **program automation button** to cycle through the three possible states of program automation:

When **off**, the program will ignore automation data. If you have already recorded or entered automation, clicking this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while clicking the button.

Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the program will read automation data but will not record any additional automation over it. 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.)

See [Automation](#) to learn about recording and editing automation.

Tip: You can quickly set all programs and audio tracks to the same automation by clicking the global automation button in the upper-right corner of the window.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the program. The **green** level meter next to the slider shows the program's current volume level in **dB**.

See [below](#) for descriptions of the adjacent master channel strip.



MIDI Track Channel Strip

While using a drum program, keygroup program, plugin program, or clip program, click the **three-bars icon** at the bottom of the Inspector. The **MIDI track channel strip** will be shown on the left side, and its corresponding program channel strip will be shown on the right side.

The first menu shows the current track (which you can change) and its name.

The second menu shows the name of the program the track is using (which you can change).

Click **M** or **S** to mute or solo the track (respectively).

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the track. The **green** level meter next to the slider shows the track's current velocity level (**0–127**).

Note: If the track is using a plugin program, then the slider will send **CC #7 (Volume)** and the knob will send **CC #10 (Pan)** to your instrument plugin. The plugin will then handle these messages as it normally would.

See [above](#) for descriptions of the adjacent program channel strip.



Audio Track Channel Strip

While using an audio track, the **audio track channel strip** will be shown on the left side, and its corresponding master or submix channel strip will be shown on the right side.

The name of the track is at the bottom of the channel strip.

The first menu defines the input source of the external audio signal, which you can set to a pair of inputs (**Stereo > Input 1,2-31,32**) or a single input (**Mono > Input 1-32**).

The **Inserts** slots show any enabled or disabled effects for that track. See [Effects > Insert Effects](#) to learn more about audio track insert effects.

Click and drag the **Send** knobs, which control the send levels for the track. A **return channel strip** will automatically be shown on the right side. Click anywhere in the lower half of the **audio track channel strip** to show the master or submix channel strip again. See [Effects > Send/Return Effects](#) to learn more about audio track send/return effects.

The menu below the **Send** knobs shows where the track is routed, which you can set to a submix (**Submix > Sub 1-8**), a pair of master outputs (**Stereo Output > Out 1,2-31,32**), or a single master output (**Mono Output > Out 1-32**).

Click **M** or **S** to mute or solo the track (respectively).

Click the **audio track automation button** to cycle through the three possible states of audio track automation:

When **off**, the audio track will ignore automation data. If you have already recorded or entered automation, clicking this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while clicking the button.

Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the audio track will read automation data but will not record any additional automation over it. 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 audio track 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.)

See [Automation](#) to learn about recording and editing automation.

Tip: You can quickly set all programs and audio tracks to the same automation by clicking the global automation button in the upper-right corner of the window.

Click the **Monitor** button to set how your audio track will be monitored. Clicking it will cycle through its three states:

When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When **on**, you will hear incoming audio whether or not the track is record-enabled.

When **off**, you will never hear any incoming audio.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the track. The **green** level meter next to the slider shows the track's current volume level in **dB**.

Click the **Record Arm** (Ⓞ) button to record-enable the track. When you begin audio recording, the audio signal will be recorded to this track.

Tip: You can record-enable multiple tracks in Track View Mode or in the Channel Mixer by pressing and holding **Ctrl** (Windows) or **⌘** (macOS) while clicking the **Arm** button to each track.

See [below](#) for descriptions of the adjacent master channel strip.



Master & Submix Channel Strips

When viewing the **master** or **submix channel strip**:

The number of the pair of master outputs or submix are the bottom of the channel strip.

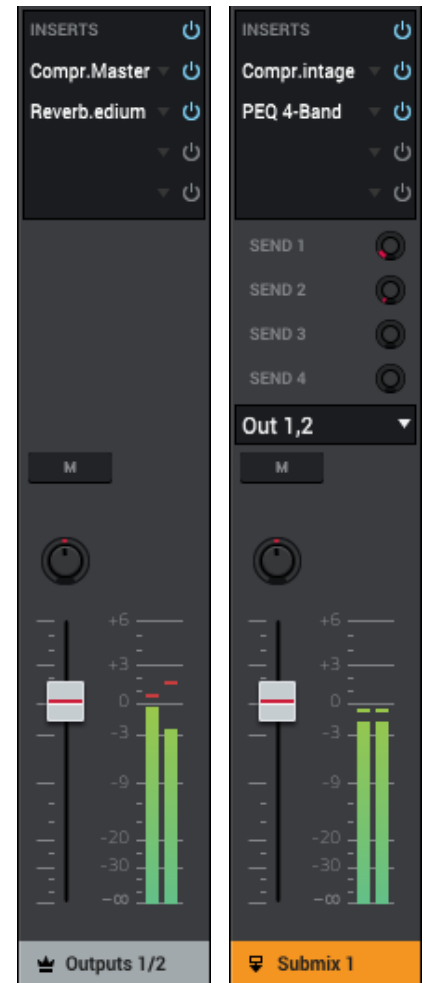
The **Inserts** slots show any enabled or disabled effects for those outputs or that submix. See [Effects > Insert Effects](#) to learn more about submix insert effects.

For submix channel strips, click and drag the **Send** knobs, which control the send levels for the track. See [Effects > Send/Return Effects](#) to learn more about submix send/return effects.

For submix channel strips, the menu below the **Send** knobs shows where the submix is routed, which you can set to a pair of master outputs (**Stereo Output > Out 1,2-31,32**) or a single master output (**Mono Output > Out 1-32**).

Click **M** to mute the master output or submix.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the outputs or submix. The **green** level meter next to the slider shows the outputs' or submix's current volume level in **dB**.



Browser

You can use the [File Browser](#), [Expansion Browser](#), and [Media Browser](#) to navigate your hard disks and other storage devices to load samples, sequences, projects, MPC Expansions/instruments, and other media. Using filter buttons and user-definable folders, you can easily adapt it to your preferred workflow. You can also audition (preview) samples before loading them.

You can also use the [Project Info Browser](#), [Project Notes Browser](#), and [Undo History Browser](#) to access and edit additional information about your project overall.

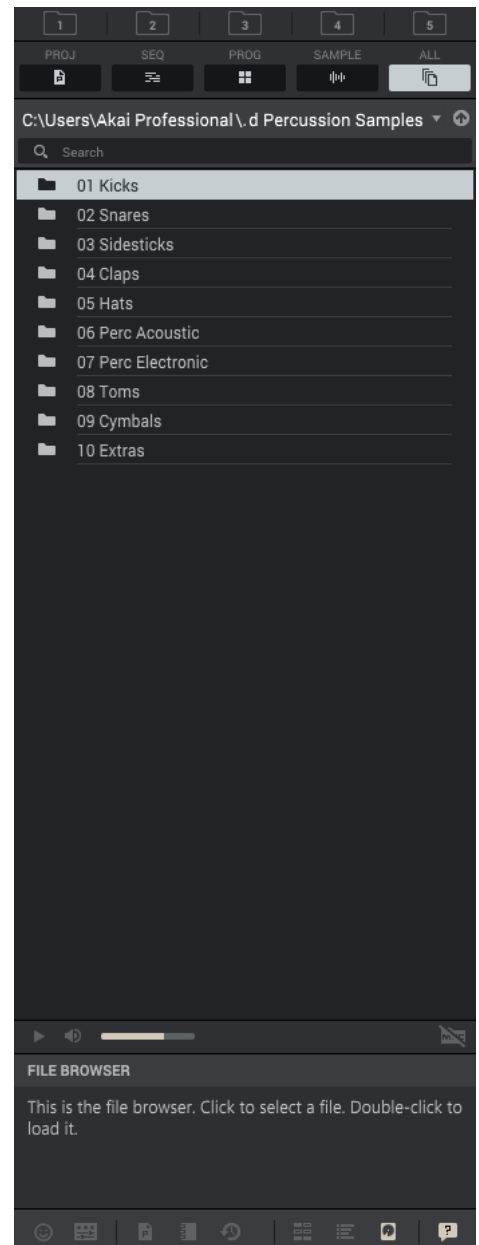
The **MIDI Learn Browser** lets you assign areas of the MPC software to external MIDI controllers. Global MIDI mappings are helpful if you use certain MIDI controllers across multiple projects. Project MIDI mappings are saved within a project, which can be helpful if your MIDI controller usage is particular to each one. See [Addenda > Updates in MPC 2.2 > New Features > MIDI Learn](#) for more information about this.

The Browser also includes the **Quick Help** panel. This panel is visible only when one of the Browsers is shown. Click the **menu icon** (≡), select **Help**, and then click **Quick Help** to show or hide this panel. Alternatively, click the **?** icon in the lower-right corner.

You can also click the feedback button (☺) to suggest a feature or report a bug. We always try to take your feedback into account as we continually improve the MPC experience!

To show or hide the Browsers, do one of the following:

- Click the **menu icon** (≡), select **View > Browser**, and then click the desired option: **File Browser**, **Expansion Browser**, **Media Browser**, **Project Info**, **Project Notes**, or **Undo History**.
- In the lower-right corner, click the corresponding icon (as shown from right to left):
 - File Browser: **hard-drive icon**
 - Expansion Browser: **list icon**
 - Media Browser: **six-rectangles icon**
 - Undo History Browser: **clock-and-arrow icon**
 - Project Notes Browser: **notebook icon**
 - Project Info Browser: **P/page icon**
 - MIDI Assignment Browser: **MIDI-controller icon**



File Browser

When the **File Browser** is selected, you can do any of the following:

To move up one folder level, click the **up arrow** (↑) next to the file path.

To select a file or folder, click it once.

To enter a folder, double-click it.

To load a sample directly to a pad, click and drag the sample onto a pad in the lower half of the window.

To load a sample directly to an audio track, click and drag the sample onto the **Grid Editor** when the **Audio** tab is selected or onto an audio track when one is shown in the upper half of the window.

To load a selected file to the project's sample pool, double-click it or click and drag it anywhere in the window outside of the File Browser. If the file is a sample, it will be loaded to the project's sample pool. If the file is a project, it will be loaded in its entirety (you will be asked if you want to close your current project).

To load all files in a selected folder, click and drag the folder onto anywhere in the window outside of the File Browser.

To preview a selected sound, click and hold **Play** (▶) in the lower-left corner of the Browser.

To enable or disable the audition function and set its volume level, click the **volume icon** in the lower-left corner of the Browser. Click and drag the **level slider** left or right to set the volume level.

To browse your files by search term, click the **Search** field and type a search term.

To get the most efficient use of the File Browser, set the file paths to your favorite drive locations first. There are five **folder buttons** labeled **1–5** at the top. You can set these to be shortcuts to five locations on your computer's hard drive or any connected storage devices, giving you quick access to your files.

To assign the current location to a folder button, press and hold **Shift**, and then click one of the **folder buttons** (1–5). Now, when you click that folder button again, the File Browser will show that folder's content immediately.

Use the five filter buttons to show only specific types of files in the list below. Folders will still be shown in the list.

To show project files only, tap the **Proj/page** button.

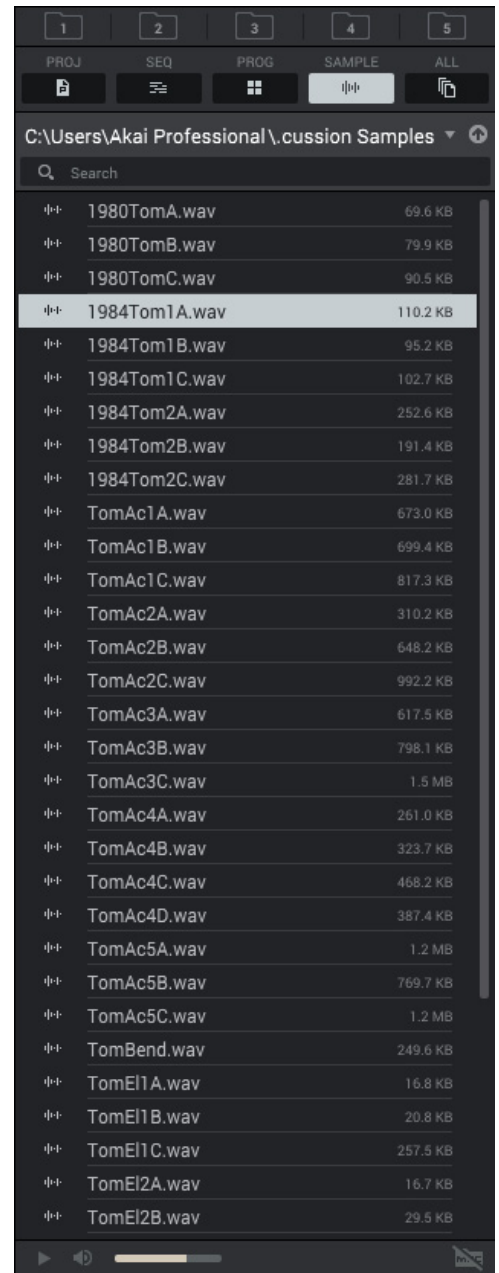
To show sequence files only, tap the **Seq/bars** button.

To show program files only, tap the **Prog/four-squares** button.

To show sample files only, tap the **Sample/waveform** button.

To show all file types, tap the **All** button.

To show or hide MPC project folders, tap the **MPC folder icon** in the lower-right corner.



Expansion Browser

When the **Expansion Browser** is selected:

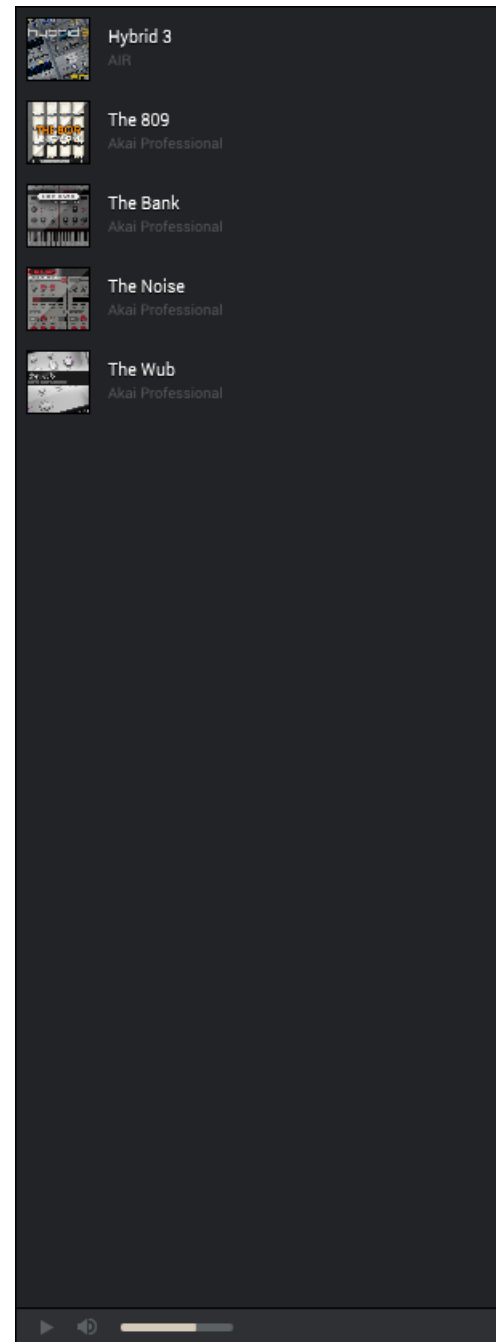
Your available MPC Expansions will appear in the Browser, which you can expand or collapse.

MPC Expansions may have lists of patches that you can expand or collapse, as well.

To preview a selected sound, click and hold **Play (▶)** in the lower-left corner of the Browser.

To enable or disable the audition function and set its volume level, click the **volume icon** in the lower-left corner of the Browser. Click and drag the **level slider** left or right to set the volume level.

See [Expansions](#) to learn more about MPC Expansions.



Media Browser

When the **Media Browser** is selected:

Your MPC Expansions will appear under the **Expansions** panel, which you can expand or collapse.

You can filter through your media library in the **Filter** panel, which you can expand or collapse.

Use the **Search** field to browse your media by search term.

To preview a selected sound, click and hold **Play** (▶) in the lower-left corner of the Browser.

To enable or disable the audition function and set its volume level, click the **volume icon** in the lower-left corner of the Browser. Click and drag the **level slider** left or right to set the volume level.

Use the four filter buttons to show only specific types of files in the list below. Folders will still be shown in the list.

To show program files only, tap the **Program/four-squares** button.

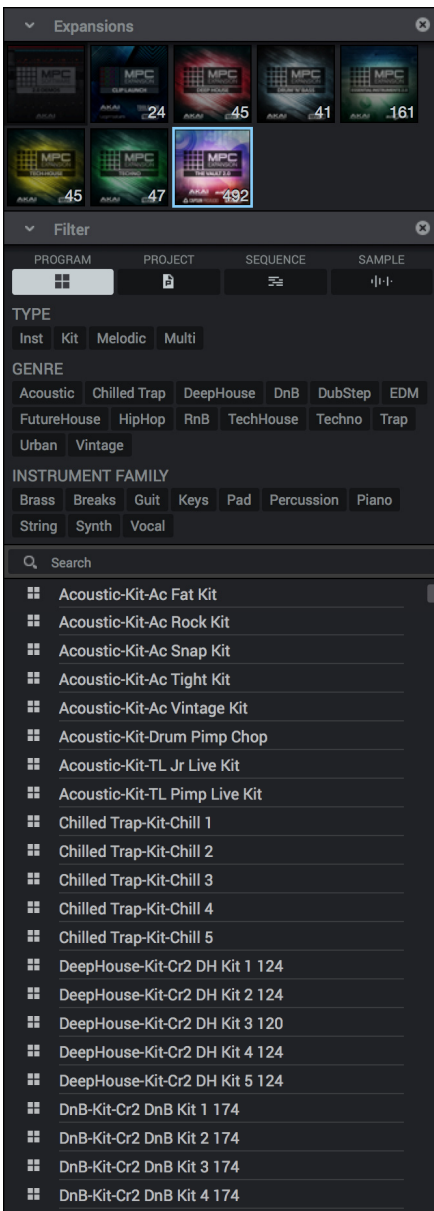
To show project files only, tap the **Project/page** button.

To show sequence files only, tap the **Sequence/bars** button.

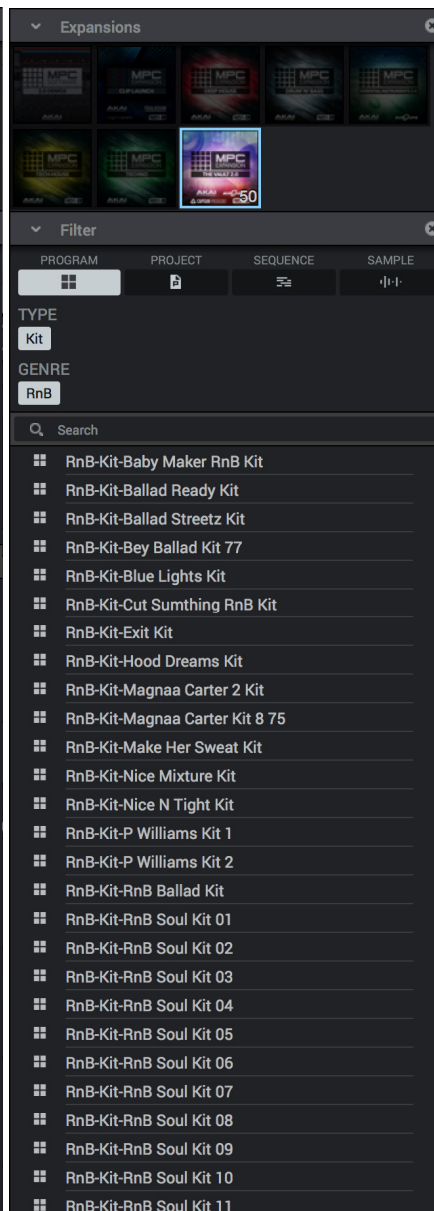
To show sample files only, tap the **Sample/waveform** button.

To enable or disable tags in the Media Browser, click the menu icon (≡), go to **View > Browser**, and select **Media Browser Shows All Tags**.

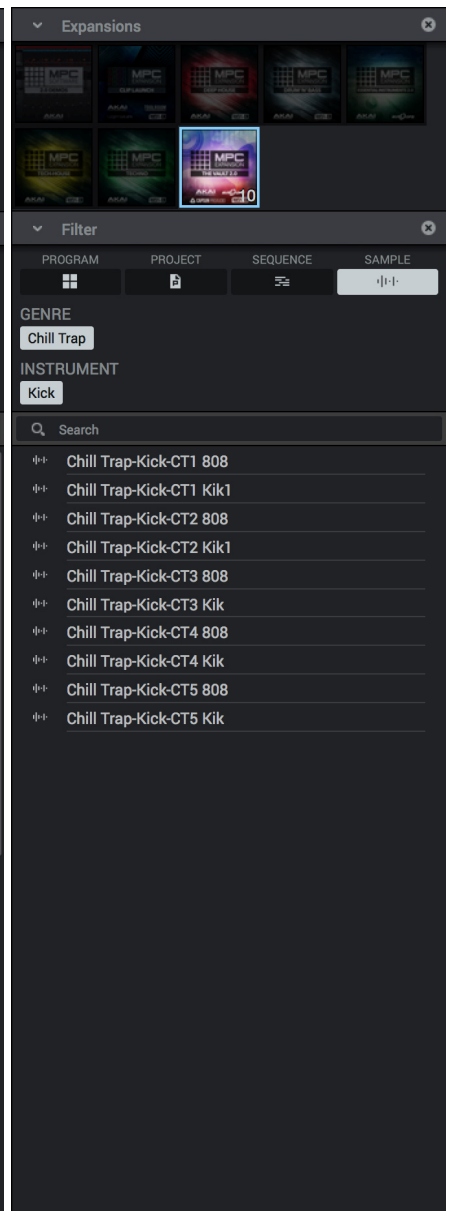
Program filter + no tags selected.



Program filter + Kit and RnB tags.



Sample filter + Chill Trap and Kick tags.



Project Info Browser

When the **Project Info Browser** is selected:

All available programs and sequences in the project will appear in the upper half of the Browser under **Projects**. A list of samples will appear in the lower half under **Samples** (the samples that are listed are part of the selected program or sequence under the **Project** list).

To duplicate a program in the project, right-click it and click **Duplicate**. An identical program will be created immediately. The duplicate program will use the same name but appended with a number (e.g., **Program 002**).

To duplicate a program in the project and use it on a new track, right-click it and click **Duplicate to New Track**. An identical program and new track that uses it will be created immediately. The duplicate program will use the same name but appended with a number (e.g., **Program 002**). The new track will be named **Track** and appended with a number (e.g., **Track 06**).

To copy pads (and their parameters) from one program into another, right-click the program and click **Merge**. This essentially consolidates two programs into one. See [Editing Processes > Sequence](#) for more information.

To delete samples from the project, click the **trash can icon**. In the screen that appears, select **Purge Unused Samples** to delete all unused samples from the project (from all programs, sequences, and audio or MIDI tracks), or select **Delete All Samples** to delete all samples from the project.

To delete a program or sample, right-click it and click **Delete**. Click **Delete** or **Delete Sample** to confirm your choice or **Cancel** to cancel the deletion.

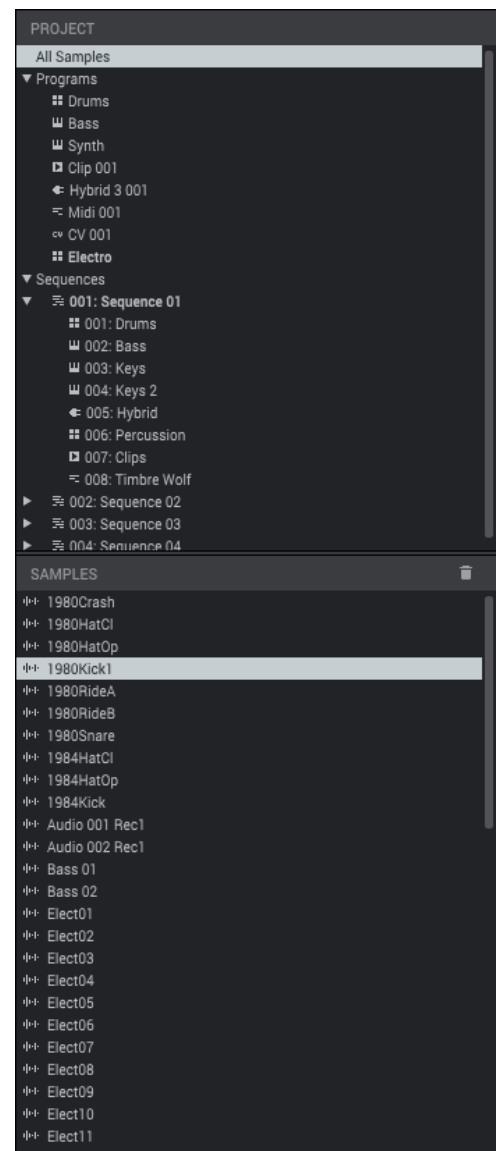
To save a program or sample, right-click it and click **Save**. Use the window that appears to enter a name for the program file (**.xpm**) or sample file (**.wav**) and select a location. Click **Save** to confirm your choice or **Cancel** to cancel saving.

To rename a program or sample, right-click it and click **Rename**. Enter a name in the window that appears, and then click **OK** to confirm your choice or **Cancel** to cancel saving.

To view a sample in Sample Edit Mode, right-click it and click **Edit**. Alternatively, double-click the sample. You will immediately enter Sample Edit Mode and show the sample's waveform in the Wave Editor.

To add the sample as an audio track, right-click it and click **Add to Audio Track**. This will immediately create a new audio track named **Audio** and appended with a number (e.g., **Audio 002**), and the sample will be loaded on it.

This Browser is identical to the **Project** panel (see [Panels > Project](#)) but in a vertical layout rather than horizontal.



Project Notes Browser

When the **Project Notes Browser** is selected:

Information about the project will be shown in several fields: **Title**, **Artist**, **Original Artist**, **Album**, **Year**, **Genre**, and **Copyright**. Note that these are not ID3 tags.

You can also write notes in the lower panel.

To enter text into a field, click it and type.

PROJECT NOTES	
Title	MPC Project 01
Artist	Akai Professional
Original Artist	
Album	The Project
Year	2017
Genre	Electronic
Copyright	
Write notes here.	

Undo History Browser

When the **Undo History Browser** is selected:

All undoable (and redoable) actions you have performed within the software will appear in this list in sequence. Each step is numbered in the **#** column. Each action is named in the **Action** column with additional information in the **Detail** column.

The magenta **action marker** indicates the current “undo state” location—the last-performed action.

To undo or redo multiple actions at once, click and drag the **action marker** to the desired location in the list. The project will immediately revert to that state. Actions that can be redone (below the action marker) are grayed out.

#	ACTION	DETAIL
477	Set Track Parameter	
478	Set Track Parameter	
479	Set Track Parameter	
480	Solo Track	Electro
481	Set Program Parameter	Vocals 1
482	Set Program Parameter	Vocals 2
483	Set Program Parameter	Vocals 3
484	Set Program Parameter	Guitar
485	Set Program Parameter	Harmonies
486	Set Program Parameter	Guitar Ambient
487	Delete Audio Track	
488	Solo Program	Drums
489	Solo Program	Electro
490	Switch Track Solo	Caused by track change
491	Select Events	on pad A07
492	Switch Track Solo	Caused by track change
493	Switch Track Solo	Caused by track change
494	Change Event Selection	14 events
495	Set Program Parameter	Drums
496	Set Program Parameter	Drums
497	Set Program Parameter	Drums
498	Select Events	on pad A08
499	Set Program Parameter	Drums
500	Set Program Parameter	Drums
501	Solo Track	Electro
502	Set Program Parameter	Bass
503	Set Program Parameter	Bass
504	Set Program Parameter	Synth
505	Set Slice End	
506	Set Slice End	
507	Set Slice Start	
508	Set Track Parameter	
509	Set Program Parameter	Electro
510	Set Program Parameter	Electro
511	Set Program Parameter	Outputs 1/2
512	Set Program Parameter	Outputs 1/2

MIDI Learn Browser

The **MIDI Learn Browser** lets you assign areas of the MPC software to external MIDI controllers. Global MIDI mappings are helpful if you use certain MIDI controllers across multiple projects. Project MIDI mappings are saved within a project, which can be helpful if your MIDI controller usage is particular to each one. See [Addenda > Updates in MPC 2.2 > New Features > MIDI Learn](#) for more information about this.

GLOBAL		PROJECT			
LEARN		ENABLE			
New MIDI Mapping					
VIEW Transport					
TARGET	TYPE	CH	DATA	FLIP	
Play	Fixed Button	1	115	<input type="checkbox"/>	
Stop	Fixed Button	1	114	<input type="checkbox"/>	
Play Start				<input type="checkbox"/>	
Step Back	Fixed Button	1	118	<input type="checkbox"/>	
Step Forward	Fixed Button	1	117	<input type="checkbox"/>	
Event Back				<input type="checkbox"/>	
Event Forward				<input type="checkbox"/>	
Record				<input type="checkbox"/>	
Record From Sequence Sta				<input type="checkbox"/>	
Overdub	Toggl.Button	1	116	<input type="checkbox"/>	
Punch In				<input type="checkbox"/>	
Tap Tempo				<input type="checkbox"/>	
Global Automation	Fixed Button	1	119	<input type="checkbox"/>	
Tempo Source				<input type="checkbox"/>	
Master Volume	Abs CC	1	14	<input type="checkbox"/>	
Metronome Enable				<input type="checkbox"/>	
Time Correct				<input type="checkbox"/>	
Swing				<input type="checkbox"/>	

GLOBAL		PROJECT			
LEARN		ENABLE			
TARGET	TYPE	CH	DATA	FLIP	
Drum.: A01	Mixe. Level	Abs CC	1	14	<input type="checkbox"/>
Drum.: A03	Mixe. Level	Abs CC	1	15	<input type="checkbox"/>
Drum.: A08	Mixe. Level	Abs CC	1	16	<input type="checkbox"/>
Drum.: A13	Mixe. Level	Abs CC	1	17	<input type="checkbox"/>
Drum.: A14	Mixe. Level	Abs CC	1	18	<input type="checkbox"/>
Bass	Edit.: Tune	Abs CC	1	19	<input type="checkbox"/>
Bass	Mixe.olume	Abs CC	1	20	<input type="checkbox"/>
Synth	Mixe.olume	Abs CC	1	1	<input type="checkbox"/>
Synth	Edit.: Tune	Abs CC	1	0	<input type="checkbox"/>
Synth	Inser. Drive	Abs CC	1	48	<input type="checkbox"/>
Outp.ts 1/2	Inser.: Mix	Abs CC	1	22	<input type="checkbox"/>
Return 1	Mixe. Mute	Note	1	48	<input type="checkbox"/>
Return 2	Mixe. Mute	Note	1	49	<input type="checkbox"/>
None	Off				<input type="checkbox"/>

Editors

You can switch the editor between the [Grid Editor](#), [Wave Editor](#), and [List Editor](#), depending on what mode you are in.

To enter each editor, click **Grid**, **Wave**, or **List** below the mode icons. You can do this only when editing MIDI tracks; audio tracks have only the Grid Editor that display the audio track waveform.



In all three editors, these buttons are available in the upper-right corner:

Click the magnet icon to switch between the two different modes of “snapping” note events to the grid: Absolute or Relative.

Absolute: Events will “snap” to the nearest time division on the grid (as determined by the **TC** field or **Time Correct** window). This is the typical and traditional method of using the snap/quantization feature.



Relative: Events will “snap” to the nearest time division on the grid (as determined by the **TC** field or **Time Correct** window) **plus** the original time position of the event (e.g., an event that is originally three ticks past a time division on the grid will snap only to positions that are three ticks past every time division).



Click the **Hitting Pad Selects All Events** icon to turn the feature on (**red**) or off (**gray**). When on, pressing a pad will automatically select all note events for that pad in the sequence on that track. When off, pressing a pad will simply play its sound without selecting any note events.

Click the **left-arrow icon** to undo your last action.

Click the **right-arrow icon** to redo the last action you undid.

Click the **Export Audio icon (star-and-waveform)** to export the track as an audio file (**.wav**). Once this is done, the icon will be **red**. You can then click and drag the icon onto your computer desktop or external storage device to copy it to that location. Press and hold **Shift** and click the icon to reset it to **gray**.



Click the **Export MIDI icon (star-and-bars)** to export the track as a MIDI sequence. Once this is done, the icon will be **red**. You can then click and drag the icon onto your computer desktop or external storage device to copy it to that location. Press and hold **Shift** and click the icon to reset it to **gray**.

You can use the **Drag & Drop** tab in the **Preferences** to determine precisely what is exported with each of these features. See [Preferences](#) to learn about this.

Note: Audio tracks can be exported as 16-bit or 24-bit, 44.1 kHz **.wav** files, and MIDI tracks are exported as **.mid** files. These files placed in the **[Exports]** folder in **[your hard drive]\Documents\MPC**.

Grid Editor

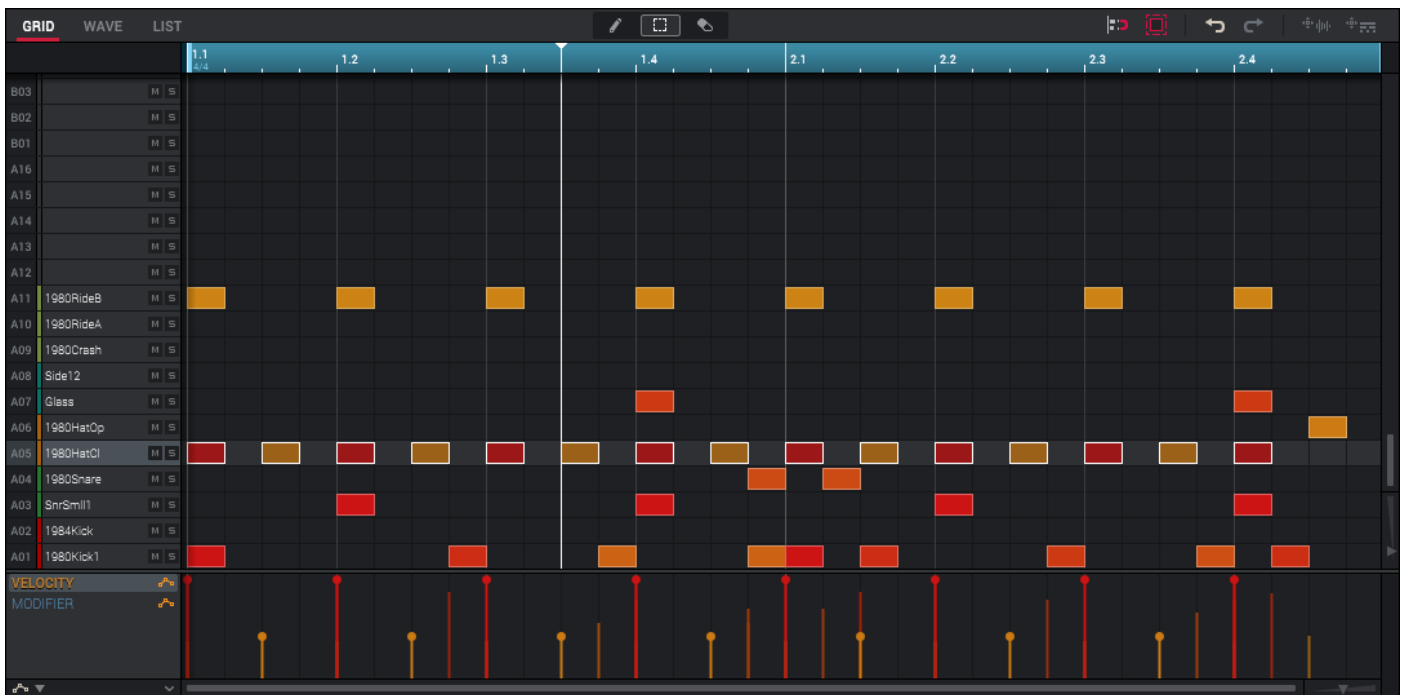
The Grid Editor has three different appearances: one for drum and clip programs; one for keygroup, plugin, MIDI, and CV programs; and one for audio tracks.

MIDI

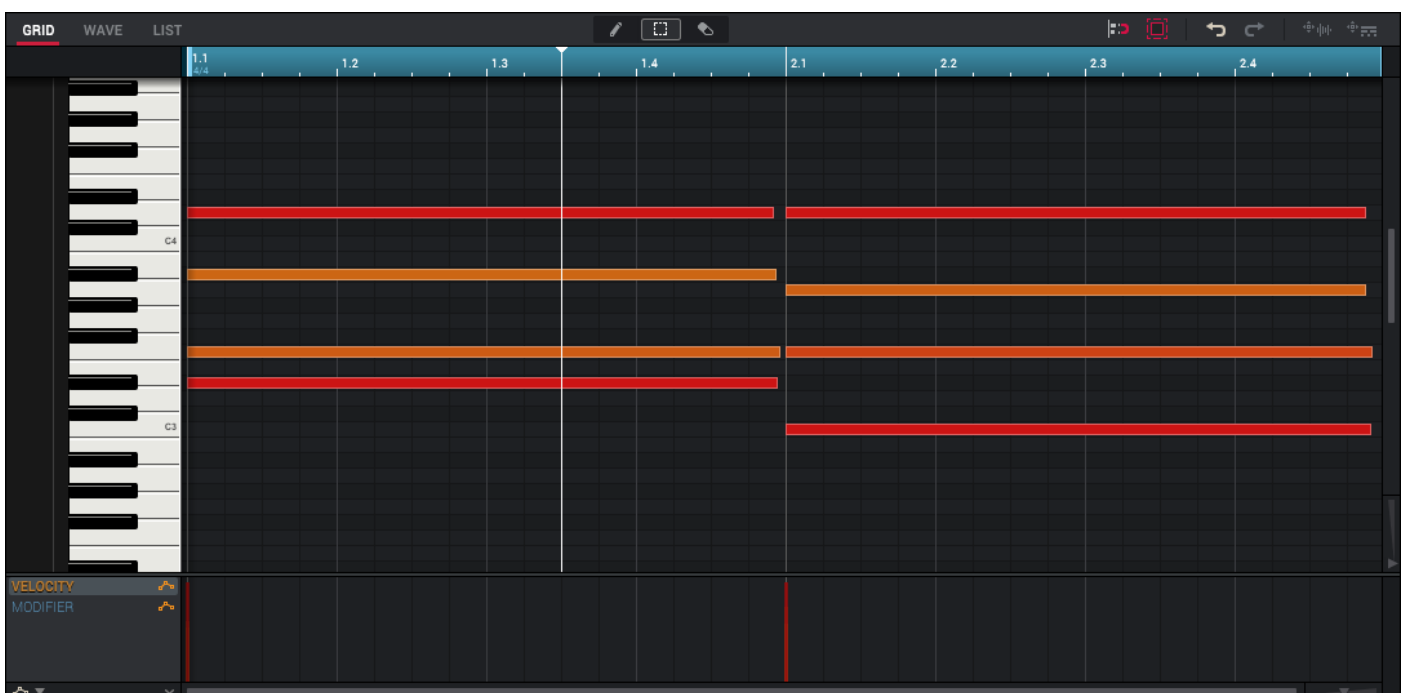
When the **MIDI** tab in the **Inspector** is selected, the Grid Editor lets you view and edit the note events of each MIDI track of a sequence and their velocities.

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

For keygroup, plugin, MIDI, and CV programs, the left column shows a vertical “piano roll” keyboard.



Grid Editor of a drum program.



Grid Editor of a keygroup program or MIDI program.



In the Grid Editor for MIDI tracks, these three icons enable you to use different functions in the grid. Click one to select its mode:



Pencil: Draw Mode:

To enter a note in an empty grid square, click the square.

To select a note, click it.

To move a note, click and drag it to another grid square. Press and hold **Shift** while doing this to move it without restricting (“snapping”) it to the quantization grid.

To erase a note, double-click it.

To adjust the start or end point of a note, click and drag its left or right edge. Press and hold **Shift** while doing this to adjust the start or end point without restricting (“snapping”) it to the quantization grid.



Marquee: Marquee Mode:

To select a note, click it.

To select multiple notes, click and drag across the grid to create a box around them.

To move a note, click and drag it to another grid square. Press and hold **Shift** while doing this to adjust the start or end point without restricting (“snapping”) it to the quantization grid.

To move multiple notes, select them as described above, and then click and drag them. Press and hold **Shift** while doing this to move them without restricting (“snapping”) them to the quantization grid.

To adjust the start or end point of a note, click and drag its left or right edge. Press and hold **Shift** while doing this to adjust the start or end point without restricting (“snapping”) it to the quantization grid.



Eraser: Erase Mode:

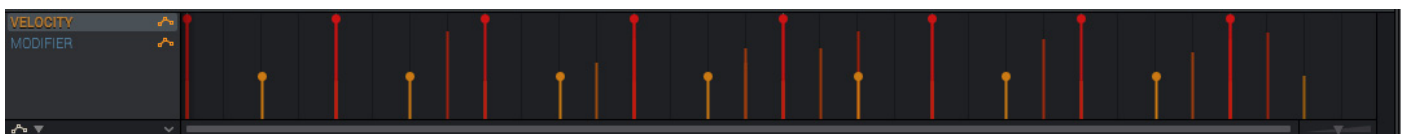
To erase a note, click it.

To zoom in or out, use the sliders in the lower-right corner of the Grid Editor (along each axis) or click the blue timeline and drag down or up.

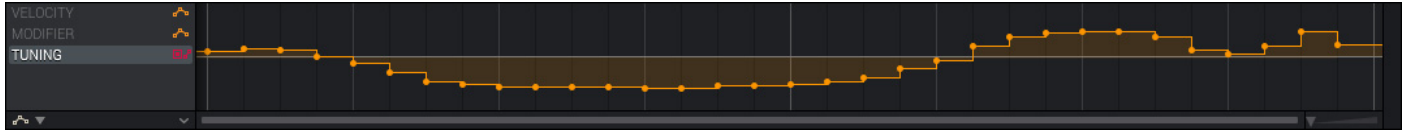
To show or hide the automation lane, click the **up** or **down arrow** (∧ or ∨) button next to the horizontal scroll bar under the grid.

To adjust the velocity of the selected notes (manually), click **Velocity** in the automation lane below the grid to select it, and then click and drag the handle/handles below the note/notes. Each note’s velocity is represented by a vertical bar. The higher and more red the bar is, the higher the velocity is. The current velocity value will appear next to the cursor.

Alternatively, select the **pencil tool** and click the desired height for each handle. You can also draw an automation curve across the entire automation lane.



The automation curve can contain points at the current Time Correct intervals. Press and hold **Shift** while creating and editing the automation curve to adjust it without restricting (“snapping”) it to the quantization grid.



To show the automation of an automatable parameter, click the **down arrow (▼)** in the lower-left corner of the Grid Editor. You can select a track, program, or pad parameter—the parameter name will appear below **Modifier**. You can then use any of the **tools** to create and edit automation for this parameter in the automation lane.

To create a point in the automation curve, click the desired location with the **pencil tool**, or double-click the desired location with **any other tool**. Press and hold **Shift** while clicking to create it without restricting (“snapping”) it to the quantization grid.

To draw part or all of an automation curve, click and drag the desired curve with the **pencil tool**. Press and hold **Shift** while clicking to draw it without restricting (“snapping”) it to the quantization grid.

To erase a point in the automation curve, click and drag over it with the **eraser tool**, or double-click it with **any other tool**.

To erase part or all of an automation curve, click and drag over the desired section of the curve with the **eraser tool**.

To select a point in the automation curve, click it.

To move a point in the automation curve, click and drag it to another location in the automation lane. Press and hold **Shift** while clicking to move it without restricting (“snapping”) it to the quantization grid.

Each parameter in the automation lane has an icon next to it that indicates the type of parameter it is:



Note



Track Mixer Automation (**Volume, Pan, Mute, Solo**)



Track MIDI CC Automation (**0–127**)



Track Parameter Automation (**Aftertouch, Pitchbend, Channel Pressure, or Program Change**)



Program Mixer Automation (**Volume, Pan, Mute, Solo, or Send 1–4**)



Program Parameter Automation (options vary based on the type of program)



Program Insert Effect Automation (options vary based on the effect)



Pad/Keygroup Mixer Automation (**Level, Pan, Pad Mute, Pad Solo, or Send 1–4**)



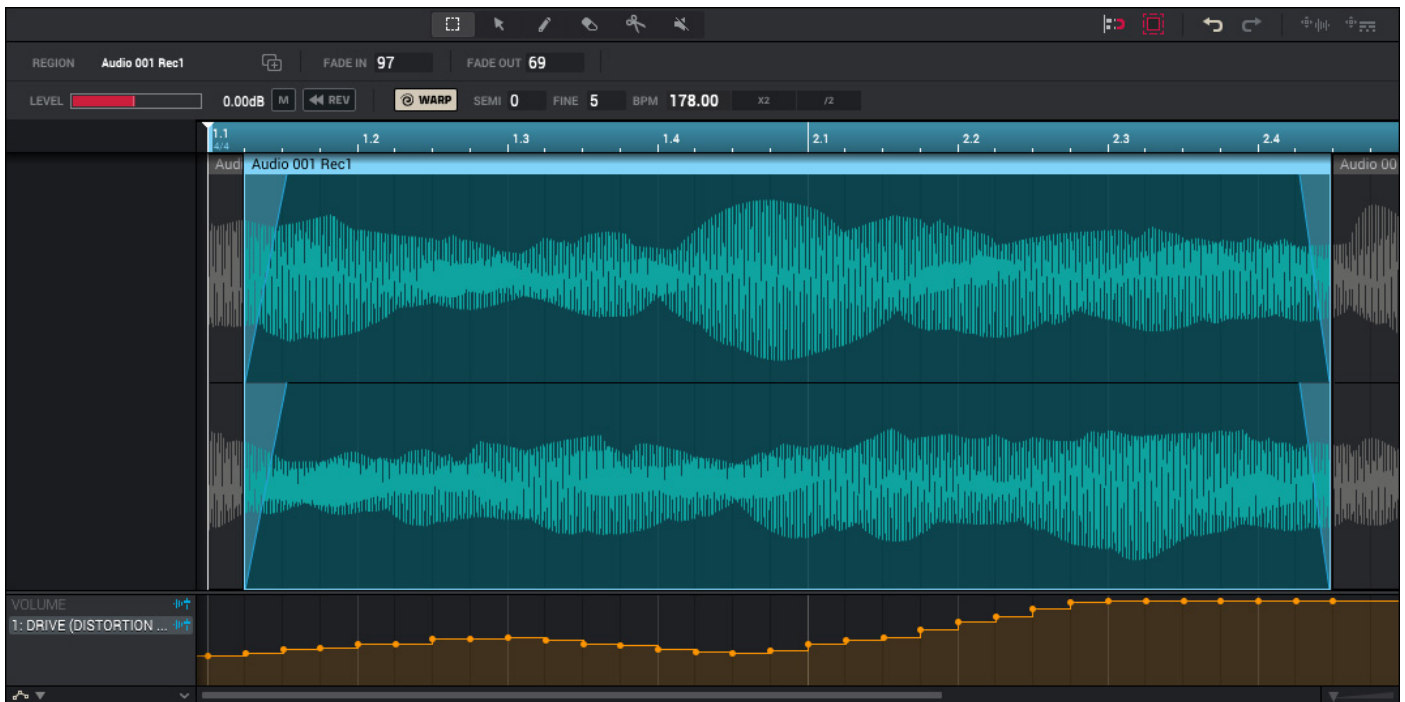
Pad/Keygroup Parameter Automation (options vary based on the type of program)



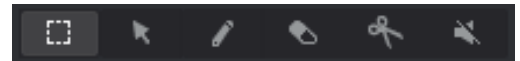
Pad/Keygroup Insert Effect Automation (options vary based on the effect)

Audio

When the **Audio** tab in the **Inspector** is selected, the Grid Editor lets you view and edit the audio waveform of each audio track of a sequence.



In the Grid Editor for audio tracks, these six icons enable you to use different functions in the grid. Click one to select its mode:



Marquee: Marquee Mode:

To select a region of the audio track, click the light-blue strip at the top of it.

To select or deselect multiple track regions, press and hold **Shift** and click the light-blue strip at the top of each one.

To move a track region (or multiple selected track regions), click the light-blue strip at the top of a track region and drag it to the desired location. Press and hold **Shift** after clicking it to move it without restricting (“snapping”) it to the quantization grid. You can move multiple regions as well.

To duplicate a track region (or multiple selected track regions), press and hold **Alt** (Windows) or **Option** (macOS), click the light-blue strip at the top of a track region, and drag it to the desired location. Press and hold **Shift** after clicking it to move it without restricting (“snapping”) it to the quantization grid. You can duplicate multiple regions as well.

To split a track region at two specific points (creating track regions on either side and between them), click and drag across anywhere in the upper two thirds of it to create a translucent white box, and then click the light-blue strip at the top of it. You can do this to multiple track regions as well.

To shorten or lengthen a track region (or multiple selected track regions), click and drag the lower third of its left or right edge. Press and hold **Shift** while dragging it to adjust the length without restricting (“snapping”) it to the quantization grid.

**Arrow:** Selection Mode:

To select a region of the audio track, click anywhere in the upper two thirds of it.

To select or deselect multiple track regions, press and hold **Shift** and click anywhere in the upper two thirds of it of each one.

To move a track region, click and drag anywhere in the upper two thirds of it. Press and hold **Shift** after clicking it to move it without restricting (“snapping”) it to the quantization grid.

To duplicate a track region (or multiple selected track regions), press and hold **Alt** (Windows) or **Option** (macOS), click the light-blue strip at the top of a track region, and drag it to the desired location. Press and hold **Shift** after clicking it to move it without restricting (“snapping”) it to the quantization grid. You can duplicate multiple regions as well.

To adjust the start or end point of a track region, click and drag anywhere in the lower third of its left or right edge. Press and hold **Shift** while doing this to adjust the start or end point without restricting (“snapping”) it to the quantization grid.

**Pencil:** Draw Mode:

To create a point in the automation curve, click the desired location in the automation lane. Press and hold **Shift** while clicking to create it without restricting (“snapping”) it to the quantization grid.

To draw part or all of an automation curve, click and drag the desired curve in the automation lane. Press and hold **Shift** while clicking to draw it without restricting (“snapping”) it to the quantization grid.

To select a point in the automation curve, click it.

To move a point in the automation curve, click and drag it to another location in the automation lane. Press and hold **Shift** while clicking to move it without restricting (“snapping”) it to the quantization grid.

To erase a point in the automation curve, double-click it.

**Eraser:** Erase Mode:

To select multiple track regions, click and drag from an empty location on a track to create a translucent white box. Click an empty location on the grid to deselect them.

To erase a track region (or multiple selected track regions), click it. You may need to click it twice if the track itself is not already selected.

To copy a track region, press and hold **Alt** (Windows) or **Option** (macOS) and then click and drag it.

To erase part or all of an automation curve, click and drag over the desired section of the curve in the automation lane.

**Scissors:** Split Mode:

To select a track region, click its left edge.

To select multiple track regions, click and drag from an empty location on a track to create a translucent white box. Click an empty location on the grid to deselect them.

To split the track at a specific point (creating a track region on either side), click that point in the track.

To copy a track region, press and hold **Alt** (Windows) or **Option** (macOS) and then click and drag it.

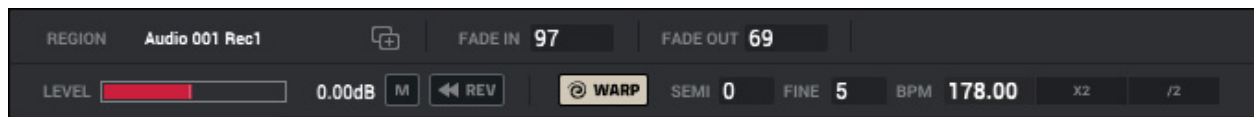
**Mute:** Mute Mode:

To select multiple track regions, click and drag from an empty location on a track to create a translucent white box. Click an empty location on the grid to deselect them.

To mute or unmute a track region (or multiple selected track regions), click it.

To copy a track region, press and hold **Alt** (Windows) or **Option** (macOS) and then click and drag it.

To **zoom in or out**, use the slider in the lower-right corner of the Grid Editor or click the blue timeline and drag down or up.



The **Region** field shows the name of the currently selected region of the audio track. Double-click it to rename the region.

Click the **two-pages-and-+ icon** to duplicate the currently selected region of the audio track. The duplicate region will appear immediately after the original one.

Use the **Fade In** or **Fade Out** fields to create a fade-in or fade out for the currently selected region of the audio track. The fades will be shown as a sloped line at the start or end of the region.

Use the **Level** slider to set the level of the currently selected region of the audio track. The waveform amplitude will change accordingly. Alternatively, click the **dB** value next to the slider and enter the desired level.

Click **M** to mute or unmute currently selected region of the audio track.

Click **◀ Rev** to reverse the currently selected region of the audio track.

To **lengthen or shorten the currently selected region of the audio track without changing its pitch**, click **Warp**, which will enable the **Semi**, **Fine**, and **BPM** fields next to it. Use the **BPM** field to change the tempo, which will change the length of the region accordingly. You can also click **X2** to double the value or **/2** to halve it. Use the **Semi** and **Fine** fields if you want to change the pitch (this is useful for matching the durations of two samples with different pitches).

Tip: You can configure audio track recording to ensure the resulting track region is warped automatically. You can then adjust the sequence tempo while track region remains in time. See [Preferences > General](#) to learn about this.

Note: When you record an audio file, the current sequence tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio track region, the warping algorithm uses this sequence tempo and the current value in the BPM field to generate the “stretch factor.”

Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by doing any/all of the following:

- Minimize the amount of pitch adjustment (e.g., the **Semi** and **Fine** parameters) of warped audio.

- Avoid warping very small track regions.

- Warp as few tracks or track regions as possible (i.e., reduce the number of total number of voices of the polyphonic limit that use the Warp algorithm at a given time), especially instances where the warped regions start at the same time.

- Avoid rapidly triggering samples that are warped.

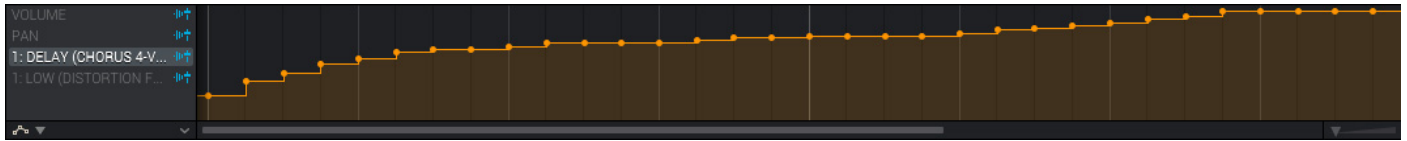
- If you have warped samples used in a drum program, consider using the **Flatten Pad** function to consolidate the affected pad’s layers into one audio sample (see [here](#) to learn about this). After you flatten the pad, its sample/samples no longer need to be warped.

- Use a Warp algorithm other than Elastique Pro, which is very CPU-intensive. See [Preferences > General](#) to learn how to change this.

- Using a higher buffer size (usually above **256**) can reduce the possibility of CPU issues. See [Preferences > Audio](#) to learn how to do this.

To show or hide the automation lane, click the **up** or **down arrow** (▲ or ▼) button next to the horizontal scroll bar under the grid.

The automation curve can contain points at the current Time Correct intervals. Press and hold **Shift** while creating and editing the automation curve to adjust it without restricting (“snapping”) it to the quantization grid.



To show the automation of an automatable parameter, click the **down arrow** (▼) in the lower-left corner of the Grid Editor. You can select a track parameters only (for the mixer or insert effects)—the parameter name will appear below **Modifier**. You can then use any of the **tools** to create and edit automation for this parameter in the automation lane.

To create a point in the automation curve, click the desired location with the **pencil tool**, or double-click the desired location with **any other tool**. Press and hold **Shift** while clicking to create it without restricting (“snapping”) it to the quantization grid.

To draw part or all of an automation curve, click and drag the desired curve with the **pencil tool**. Press and hold **Shift** while clicking to draw it without restricting (“snapping”) it to the quantization grid.

To erase a point in the automation curve, click and drag over it with the **eraser tool**, or double-click it with **any other tool**.

To erase part or all of an automation curve, click and drag over the desired section of the curve with the **eraser tool**.

To select a point in the automation curve, click it.

To move a point in the automation curve, click and drag it to another location in the automation lane. Press and hold **Shift** while clicking to move it without restricting (“snapping”) it to the quantization grid.

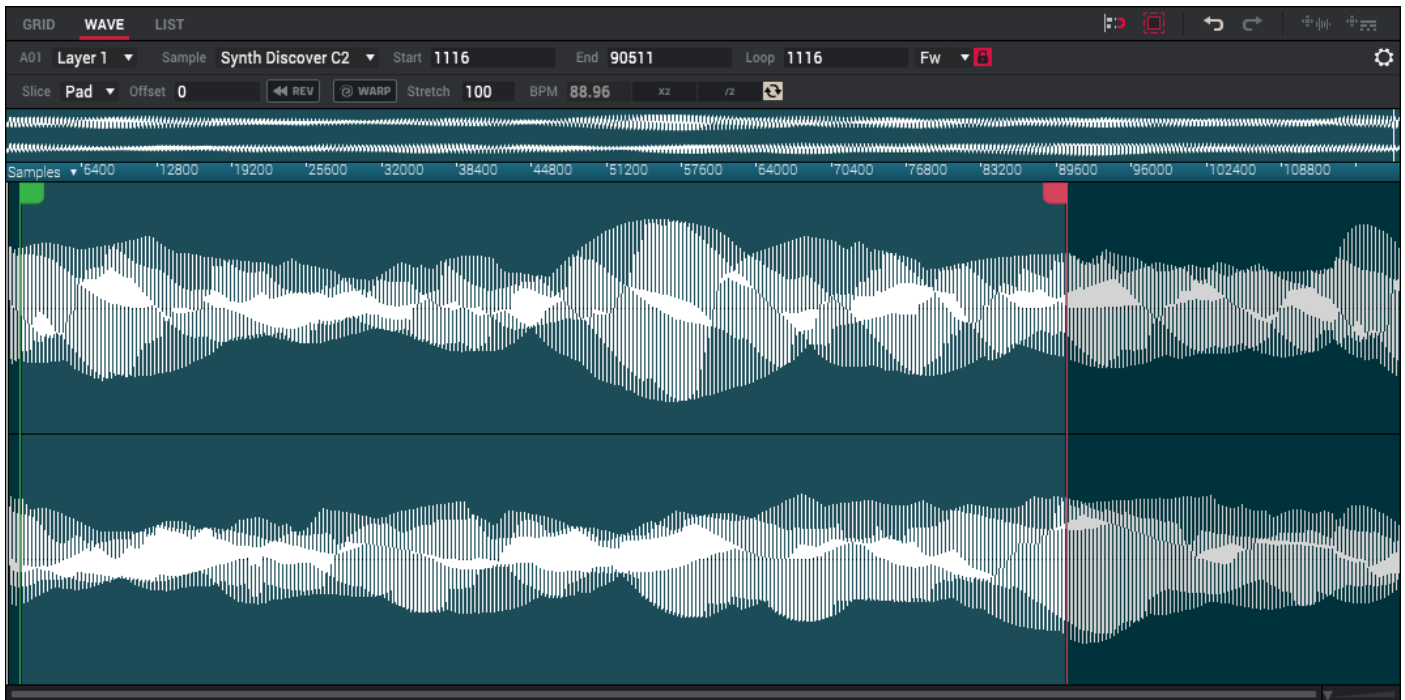
Each parameter in the automation lane has an icon next to it that indicates the type of parameter it is:



Audio Track Mixer Automation (**Volume**, **Pan**, **Mute**, **Solo**) or Insert Effect Automation (options vary based on the effect)

Wave Editor

The Wave Editor lets you view and edit the samples in a project.



The selected pad (e.g, **A01**, **B16**, etc.) is shown just below the **Grid Editor** tab. Click a pad in the **Pads** panel or press a **pad** to select it.

Use the **Layer** menu to select the layer (of the current pad) with the sample you want to view.

Use the **Sample** menu to change the sample assigned to the current pad.

Important: The following parameters work in conjunction with Chop Mode (in Sample Edit Mode). Here's how it works: When working in Sample Edit Mode and using Chop Mode to divide a sample into slices for your pads, you can convert a slice using **Non-Destructive Slice** or **Pad Parameters**.

A **Non-Destructive Slice** will let its pad to refer to that slice when you press it; the original sample remains intact and each slice marker is like a "bookmark" for a pad. In Program Edit Mode, you'll see that the pad/layer to which it's assigned has its **Slice** drop-down menu set to the corresponding **slice number** in the original sample. Playing that pad will cause it to refer to that slice marker like a "bookmark" instead of creating an entirely new sample of that slice. This means that you no longer have to clutter your Project with a new sample for every slice (though you can still use this earlier method, if you prefer).

A slice converted using **Pad Parameters** is very similar to a non-destructive slice described above. The difference is that in Program Edit Mode, the pads/layers they're assigned to have their **Slice** drop-down menus set to **Pad** (instead of the slice number), and the **Pad Start** and **Pad End** points will correspond to the slice markers in the original sample.

See [Modes > Sample Edit Mode > Chop Mode](#) to learn more about this.

Use the **Start** field to determine the position (in samples) where the pad's playback will start. The minimum value is **0**, and the maximum value is the **End** value.

Note: When **Loop Lock** is on, the loop position (as determined in the **Loop** field) is the same as the pad start. When off, the loop position is independent from the pad start.

Use the **End** field to determine the position (in samples) where the pad's playback will stop. The minimum value is the **Start** value, and the maximum value is the sample's total length (in samples).

Use the **Loop** menu to select the Pad Loop mode.

Important: For Pad Loop to work, you must (1) set the **Sample Play** field to **Note On** in the **Pad Play Modes** section of Program Edit Mode (see [Modes > Program Edit Mode](#)) and (2) set the **Slice** field to **Pad**.

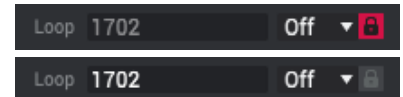
Off: The sample will not loop.

Fwd: You can hold down the pad to cause that sample to repeat from the **Loop** position to the end of the sample. Release the pad to stop the repeating playback.

Rev: You can hold down the pad to cause that sample to play in reverse, repeating from the end of the sample to the **Loop** position. Release the pad to stop the repeating playback.

Alt: You can hold down the pad to cause that sample to play from the **Loop** position to the end of the sample and then play in reverse until it reaches the **Loop** position again. This will repeat as long as you are holding the pad down. Release the pad to stop the repeating playback.

Click the **lock icon** to turn Loop Lock on or off. When on, the lock icon will be red and the Loop field will be disabled.



Use the **Slice** field to select what part/parts of the sample will play:

All: The entire sample will play.

Pad: The sample will play from the **Start** position to the **End** position. This also lets you activate Pad Loop.

Slice 1, 2, 3, etc.: If you have sliced the sample in Chop Mode, you can select which slice will play when you trigger the pad.

Use the **Offset** field to determine a time offset for the sample's playback.

Positive values: When the pad is played, playback will start immediately but at a later point in the sample specified by the offset value.

Negative values: When the pad is played, playback will be delayed by the amount specified by the offset value.

Click **Rev** to reverse the sample's playback.

Click **Warp** to lengthen or shorten the sample (based on the BPM) without changing its pitch.

Use the **Stretch** field to set the "stretch factor," which affects how the sample is warped (if Warp is on).

Use the **BPM** field to enter a tempo, which affects how the sample is warped (if Warp is on). You can also click **X2** to double the value or **/2** to halve it.

Click the **circular-arrows icon** to enable or disable BPM Sync. When BPM Sync and Warp are both enabled, the sample's BPM will be "locked" to the tempo of the sequence. When BPM Sync is disabled but Warp is enabled, the sample will be independent of the tempo of your sequence—use the **Stretch** field to lengthen or shorten a sample.

Tip: You can configure audio track recording to ensure the resulting track region is warped automatically. You can then adjust the sequence tempo while track region remains in time. See [Preferences > General](#) to learn about this.

Note: When you record an audio file, the current sequence tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio track region, the warping algorithm uses this sequence tempo and the current value in the BPM field to generate the "stretch factor."

Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by doing any/all of the following:

Avoid using extreme **Stretch** values, especially anything below **100**.

Minimize the amount of pitch adjustment (e.g., the **Semi** and **Fine** parameters) of warped audio.

Avoid warping very small track regions.

Warp as few tracks or track regions as possible (i.e., reduce the number of total number of voices of the polyphonic limit that use the Warp algorithm at a given time), especially instances where the warped regions start at the same time.

Avoid rapidly triggering samples that are warped.

If you have warped samples used in a drum program, consider using the **Flatten Pad** function to consolidate the affected pad's layers into one audio sample (see [here](#) to learn about this). After you flatten the pad, its sample/samples no longer need to be warped.

Use a Warp algorithm other than Elastique Pro, which is very CPU-intensive. See [Preferences > General](#) to learn how to change this.

Using a higher buffer size (usually above **256**) can reduce the possibility of CPU issues. See [Preferences > Audio](#) to learn how to do this.

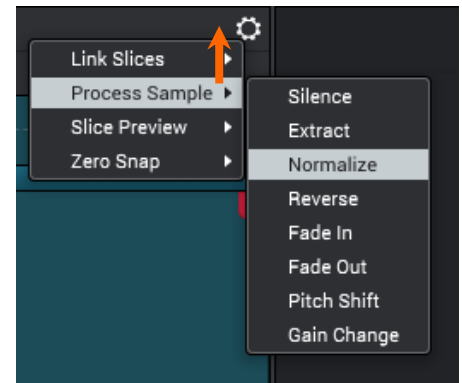
Click the **gear icon** to enable or disable **Link Slices** and **Zero Snap**, to select an editing process (**Process Sample**), to set the **Slice Preview** behavior:

Link Slices: When **Link Slices** is set to **On**, changing the start point of a slice (after you have created slices of a sample in Chop Mode) will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. When set to **Off**, you can create slices that are nonsequential, noncontiguous, or overlapping. This is the same as clicking the **Link Slices** button in the **Q-Links** panel in Sample Edit Mode.

Process Sample: Select an editing process to apply to the sample. These are the same processes available in Sample Edit Mode while in Program Mode (see [Modes > Sample Edit Mode > Program Mode](#) to learn more).

Slice Preview: This determines if/how audio is played as you move a slice marker. As you move the slice marker through a sample waveform, you can set it to play the small part of the sample before the slice marker (**Before**), play the small part of the sample after the slice marker (**After**), or not play at all (**Off**). You can also configure this setting in the Preferences (see [Preferences > General](#)).

Zero Snap: Enable Zero Snap to force start points, end points, and loop points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample. This is the same as clicking the **Zero Snap** button in the **Q-Links** panel in Sample Edit Mode.



The large waveform display shows the "active" section of the sample waveform. The strip above the large display shows an overview of the entire sample waveform. If the waveform display is showing only part of the entire sample waveform, a white box in the overview will indicate the current position.

The timeline provides a reference for the length of the sample. Click the **down arrow** (▼) or right-click anywhere on the timeline to select the increments it will use: **Time (secs:ms)**, **Samples**, or **Beats**.

Scroll left or right on the waveform to move through it. Use the sliders in the lower-right corner or click the timeline and drag down or up to zoom in or out.

The green marker and red marker are the start point and end point (respectively). These two points define the region of the sample that will be played.

List Editor

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

GRID	WAVE	LIST					
#	TIME	PAD/NOTE	LENGTH	VELOCITY	MOD TYPE	VALUE	
1	001:01:00	A05 (38)			Aftertouch	0	
2	001:01:00	A05 (40)			Filter Resonance	41	
3	001:01:00	A03 (42)			Aftertouch	0	
4	001:01:00	A07 (46)			Aftertouch	0	
5	001:01:00	A01 (37)	23	127	-		
6	001:01:00	A05 (40)	23	127	-		
7	001:01:00	A11 (45)	23	42	-		
8	001:01:24	A05 (40)			Filter Resonance	41	
9	001:01:48	A05 (40)			Filter Resonance	42	
10	001:01:48	A05 (40)	23	48	-		
11	001:01:72	A05 (40)			Filter Resonance	50	
12	001:02:00	A05 (40)			Filter Resonance	52	
13	001:02:00	A05 (40)	23	127	-		
14	001:02:00	A03 (42)	23	127	-		
15	001:02:00	A11 (45)	23	42	-		
16	001:02:24	A05 (40)			Filter Resonance	55	
17	001:02:48	A05 (40)			Filter Resonance	60	
18	001:02:48	A05 (40)	23	48	-		
19	001:02:53	A03 (42)			Aftertouch	1	
20	001:02:72	A05 (40)			Filter Resonance	67	
21	001:02:72	A01 (37)	23	108	-		
22	001:03:00	A05 (40)			Filter Resonance	74	
23	001:03:00	A05 (40)	23	127	-		

The sequence for the track will be shown as a list of events, with the following parameters:

#: This is number of the note event.

Time: This is the position of the note event in bars, beats, and ticks. 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 grayed out.

Event Type: This icon indicates the type of event (e.g., **Note**, **Aftertouch**, **Track Automation**, etc.). See the description of the **View** menu below for a list of types of events to learn how to show only specific ones.

Pad/Note: This is 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: This is the length of the note event in ticks. Click and drag the field to adjust it.

Velocity: This is the velocity of the note event with a velocity bar of corresponding color and length below it. Click and drag the field to adjust it.

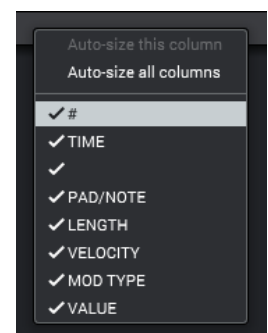
Mod Type: This is the type of modifier used on the note event via automation.

Value: This is the value of the modifier automation. Click and drag the field to adjust it.

To edit the parameters of an event, double-click it. In the window that appears, use the fields and menus to edit the event. Click **OK** to confirm your edits or **Cancel** to close with window without changing anything.

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 playhead's current position. If your sequence is playing, the arrow will move accordingly.



Click the **View** menu in the lower-right corner of the List Editor to select which types of events are shown in the list.

All: Select this option to show all event types.

Notes: Select this option to show only notes.

Aftertouch: Select this option to show only aftertouch messages.

Track Automation: Select this option to show only track automation events.

Program Automation: Select this option to show only program automation events.

Pitch Bend: Select this option to show only pitch bend events.

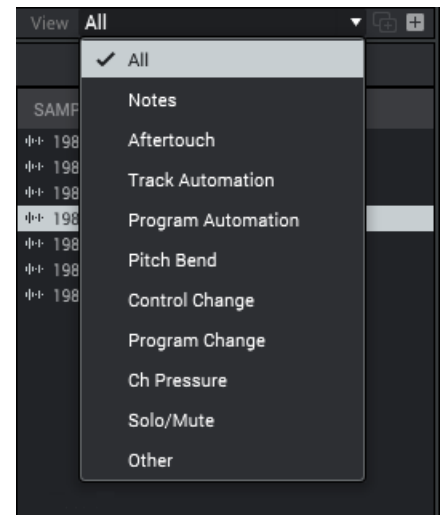
Control Change: Select this option to show only MIDI CC messages.

Program Change: Select this option to show only MIDI program change.

Ch Pressure: Select this option to show only channel pressure messages.

Solo/Mute: Select this option to show only solo and mute events for tracks, programs, and pads.

Other: Select this option to show other types of events not listed above, such as pad or keygroup parameters.



The following icons indicate the corresponding types of events:



Note



Track Mixer Automation (**Volume, Pan, Mute, Solo**)



Track MIDI CC Automation (**0–127**)



Track Parameter Automation (**Aftertouch, Pitchbend, Channel Pressure, or Program Change**)



Program Mixer Automation (**Volume, Pan, Mute, Solo, or Send 1–4**)



Program Parameter Automation (options vary based on the type of program)



Program Insert Effect Automation (options vary based on the effect)



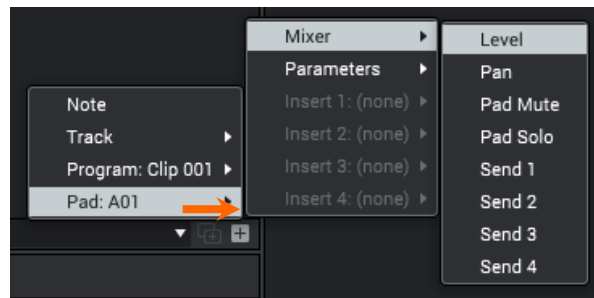
Pad/Keygroup Mixer Automation (**Level, Pan, Pad Mute, Pad Solo, or Send 1–4**)



Pad/Keygroup Parameter Automation (options vary based on the type of program)



Pad/Keygroup Insert Effect Automation (options vary based on the effect)



To insert a step in the list, click the **+** icon in the lower-right corner, and select one of the options:

Note: Select this option to create a note in the list. The note will be at the earliest possible location **not** occupied by another note played by that pad. (This location takes the Time Correct settings into account.)

Track: Select this option to create a track automation event. You can select:

a track mixer parameter: **Mixer > Volume, Pan, Mute or Solo**

a MIDI CC: **0–127**

a track-specific parameter: **Aftertouch, Pitchbend, Channel Pressure, or Program Change**

Program: Select this option to create a program automation event. Tracks using MIDI programs do not have this option. You can select:

a program mixer parameter: **Mixer > Volume, Pan, Mute, Solo, or Send 1–4**

a program insert effect parameter (options vary based on the effect)

Pad/Keygroup: Select this option to create a pad or keygroup automation event. You can select:

a pad or keygroup mixer parameter (**Mixer > Level, Pan, Pad Mute, Pad Solo, or Send 1–4**)

a pad, keygroup, or clip program parameter (options vary based on the type of program)

a pad, keygroup, or clip insert effect parameter (options vary based on the effect)

To duplicate the currently selected step in the list, click the **two-pages-and-+** icon in the lower-right corner.

Track View

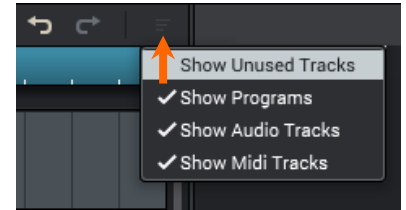
In Track View Mode, the Channel Mixer, and Track Mute Mode, the upper half of the window will show the Track View, an overview of MIDI tracks, audio tracks, and programs as horizontal strips. Each horizontal strip represents a track in the current sequence. MIDI tracks are listed first, audio tracks are listed second, and programs are listed third.

These buttons are available in the upper-right corner:

Click the **left-arrow icon** to undo your last action.

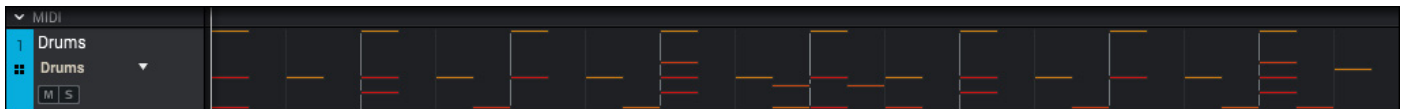
Click the **right-arrow icon** to redo the last action you undid.

Click **menu icon** (≡) in the upper-right corner, and select or deselect **Show Unused Tracks**, **Show Programs**, **Show Audio Tracks**, and **Show Midi Tracks**. Only selected items will be shown in the Track View.



To move through the list of tracks and programs, scroll up or down.

To expand or collapse each group of tracks or programs, click the > or v above the first track of each type.

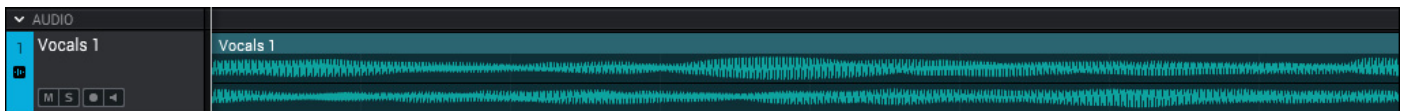


All **MIDI tracks** in the sequence are grouped together.

Click a MIDI track strip to select it.

Click the **menu** below the track name (above the **M** and **S** buttons) to select what program the track uses.

Click the **M** or **S** button to mute or solo the track (respectively).



All **audio tracks** in the sequence are grouped together.

Click an audio track strip to select it.

Click the **M** or **S** button to mute or solo the track (respectively).

Click the **Arm** button to record-enable the track. When you begin audio recording, the audio signal will be recorded to this track. You can select multiple tracks by pressing and holding **Ctrl** (Windows) or **⌘** (macOS) while clicking the **Arm** button to each track.

Click the **Monitor** button to set how your audio track will be monitored. Clicking it will cycle through its three states:

When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When **on**, you will hear incoming audio whether or not the track is record-enabled.

When **off**, you will never hear any incoming audio.



All **programs** in the sequence are grouped together.

Click a program strip to select it.

Click the **M** or **S** button to mute or solo the program (respectively).

Above the tracks and programs are buttons and a menu that let you draw or edit track regions or automation.



Click the **automation icon** in the upper-left corner of the tracks to show or hide automation. When automation is hidden, you can edit the track regions.

When the automation icon is off (**gray**), you can edit your tracks using the tools at the top of the Track View.

Click one to select its mode:



Marquee: Marquee Mode:

To select a track region, click the upper third of it. You may need to click it twice if the track itself is not already selected.

To select or deselect multiple track regions, press and hold **Shift** and click the upper third of each one. You can select multiple regions within the same track or across different tracks, though you may need to click it twice if the track itself is not already selected.

To move a track region (or multiple selected track regions), click the upper third of a track region and drag it to the desired location. Press and hold **Shift** while dragging it to move it without restricting (“snapping”) it to the quantization grid. You can move multiple regions within the same tracks or between different tracks, though you cannot move a MIDI track region onto an audio track or vice versa.

To split a track region at two specific points (creating track regions on either side and between them), click and drag across the middle third of it to create a translucent white box, and then click the upper third of that box. You can do this to multiple track regions as well.

To shorten or lengthen a track region (or multiple selected track regions), click and drag the lower third of its left or right edge. Press and hold **Shift** while dragging it to adjust the length without restricting (“snapping”) it to the quantization grid.



Arrow: Selection Mode:

To select a track region, click anywhere in the upper two thirds of it. You may need to click it twice if the track itself is not already selected.

To select or deselect multiple track regions, press and hold **Shift** and click anywhere in the upper two thirds of each one. You can select multiple regions within the same track or across different tracks, though you may need to click it twice if the track itself is not already selected.

To move a track region (or multiple selected track regions), click the upper third of a track region and drag it to the desired location. Press and hold **Shift** while dragging it to move it without restricting (“snapping”) it to the quantization grid. You can move multiple regions within the same tracks or between different tracks, though you cannot move a MIDI track region onto an audio track or vice versa.

To shorten or lengthen a track region (or multiple selected track regions), click and drag the lower third of its left or right edge. Press and hold **Shift** while dragging it to adjust the length without restricting (“snapping”) it to the quantization grid.



Eraser: Erase Mode:

To select multiple track regions, click and drag from an empty location on a track to create a translucent white box. Click an empty location on the grid to deselect them.

To erase a track region (or multiple selected track regions), click it. You may need to click it twice if the track itself is not already selected.

**Scissors:** Split Mode:

To select a track region, click its left edge.

To select multiple track regions, click and drag from an empty location on a track to create a translucent white box. Click an empty location on the grid to deselect them.

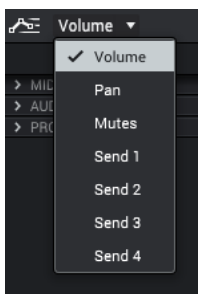
To split the track at a specific point (creating a track region on either side), click that point in the track. You may need to click it twice if the track itself is not already selected.

**Mute:** Mute Mode:

To select multiple track regions, click and drag from an empty location on a track to create a translucent white box. Click an empty location on the grid to deselect them.

To mute or unmute a track region (or multiple selected track regions), click it.

When the automation icon is on (**white**), you can select an automation curve to show and edit.



Click the **menu** in the upper-left of the tracks to show the automation curve of a parameter. You can then use the **pencil** or **marquee tool** to create and edit automation curve for this parameter in each track strip or program strip.

See the [Automation](#) chapter to learn more about automating parameters for MIDI tracks, audio tracks, programs, and pads.

Important: An automation curve consists of several **points** placed according to current time division—aligned with the quantization grid). You can create or move points without restricting them to the time division by pressing and holding **Shift**.

Click one to select its mode:

**Pencil:** Draw Mode:

To create a point, click the desired location in the track strip or program strip.

To select a point, click it.

To move a point, click and drag it to another location in the track strip or program strip.

To erase a point, double-click it.

**Marquee:** Marquee Mode:

To select a point, click it.

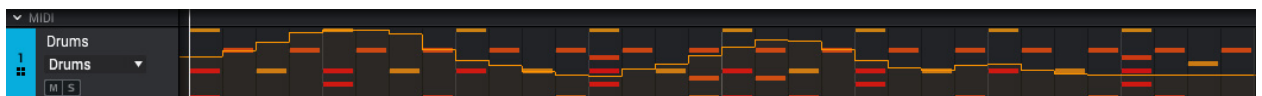
To select points, click and drag across the track strip or program strip to create a box around them.

To move a point, click and drag it to another location in the track strip or program strip. Press and hold **Shift** while doing this to move it without restricting (“snapping”) it to the quantization grid.

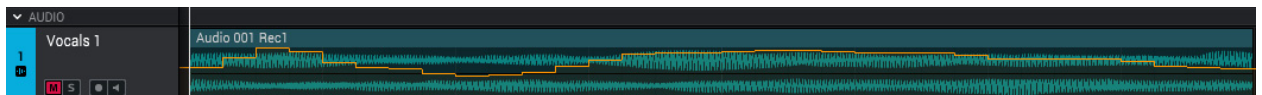
To move multiple points, select them as described above, and then click and drag them to another location in the track strip or program strip. Press and hold **Shift** while doing this to move them without restricting (“snapping”) them to the quantization grid.

MIDI track, audio track, and program strips appear slightly differently while displaying their automation curves:

MIDI track:



Audio track:



Program:

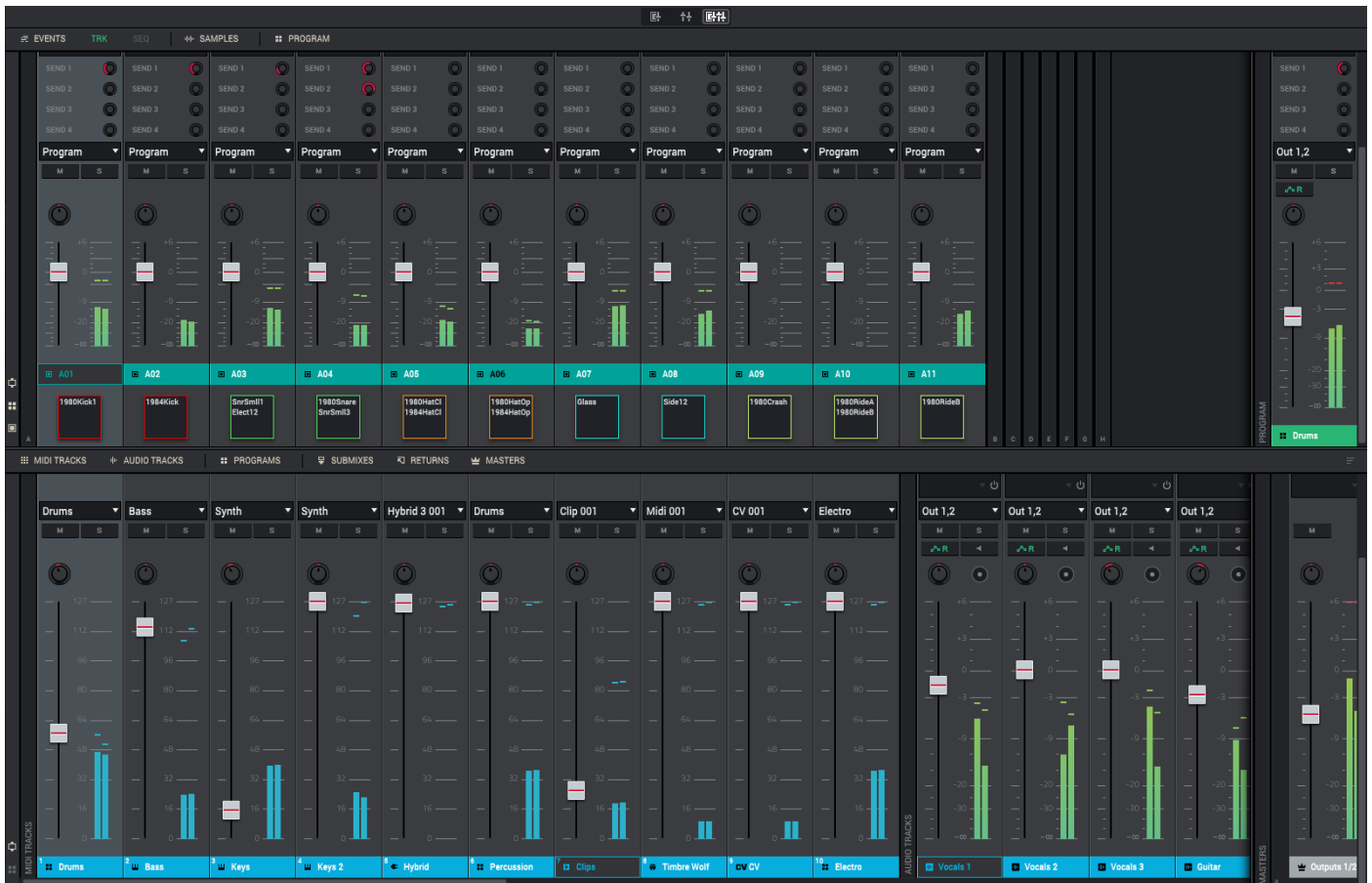


Mixer Window

If you want to see channel strips for both the Pad Mixer and the Channel Mixer at the same time, you can open the Mixer Window, which provides an overview of the channel strips in both modes in one screen.

To open or close the mixer window, do one of the following:

- Click the **menu icon** (≡), and go to **View** and click **Show Mixer Window**.
- Click the **two-sliders icon** in the lower-left corner of the window.



The upper half of this window shows the Pad Mixer channel strips (see [Modes > Pad Mixer](#) to learn about these). The lower half of the window shows the Channel Mixer channel strips (see [Modes > Channel Mixer](#) to learn about these). All selectors and channel strips work as they normally do in their respective modes.

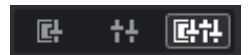
Tip: This window can be very helpful when using a dual-monitor computer setup.

Use the three icons at the top of the window to select which channel strips are shown:

Click the **pad-and-slider icon** to show just the Pad Mixer channel strips.

Click the **two-sliders icon** to show just the Channel Mixer channel strips.

Click the **pad-and-three-sliders icon** to show both Pad Mixer and Channel Mixer channel strips.



Panels

In several modes, the lower half of the window shows several different panels.

To show or hide each panel, click its selector.

To show or hide the entire lower panel, click the **two-panels icon** in the lower-left corner of the window.



This chapter describes the available panels.

Note: Similar to these panels, the lower half of the window of the Pad Mixer and Channel Mixer shows several different channel strips, which you can show or hide by clicking the selectors. See [Modes > Pad Mixer](#) and [Modes > Channel Mixer](#) chapter to learn about these.

MIDI Keyboard

The **MIDI keyboard** feature is a graphical representation of a piano keyboard at the bottom of the window.

To show or hide the MIDI keyboard, do one of the following:

- Click the **menu icon** (≡), and go to **View** and click **Show MIDI Keyboard**.
- Click the **two-panels icon** in the lower-left corner of the window.



Whenever a note is played (by pressing a pad, playing the current sequence, etc.), the corresponding keys on the MIDI keyboard will be lit, appearing to be “played.” These keys will correspond to the notes played in the current track only.

Similarly, you can click keys on the MIDI keyboard to trigger those notes on the current track. This can be useful for auditioning the sound of the track’s program in different octaves.

Click the left-arrow or right-arrow button on either side of the MIDI keyboard to shift the range of the keys displayed in the window.

If the **MIDI Keys** feature is enabled, the corresponding computer keyboard character will be shown above each key, though you can still use MIDI keys even if it is hidden. Furthermore, you can use the MIDI keyboard even if MIDI Keys is disabled. See [Toolbar > Menu > Tools](#) to learn about this feature.



Q-Links

The **Q-Links** panel shows the 16 Q-Link knobs with their assigned parameters listed below.

Click the **Q-Link Mode** menu to select the current edit mode of the Q-Link knobs:

Project: In this edit mode, the Q-Link knobs can control 16 parameters within the current project overall. See the following [Project](#) section to learn how to use this mode.

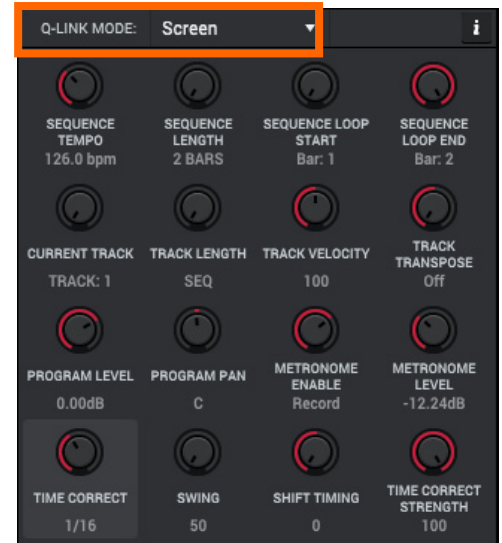
Program: In this edit mode, the Q-Link knobs can control 16 program or audio track parameters. See the following [Program](#) section to learn how to use this mode.

Pad Scene (for drum programs only): In this edit mode, the Q-Link knobs can control 16 parameters for the currently selected pad. See the following [Pad Scene](#) section to learn how to use this mode.

Pad Parameters: In this edit mode, the 16 Q-Link knobs correspond to the 16 pads, each one controlling the same parameter for each pad. This is useful if you need to adjust the same parameter on multiple pads at once rather than having to select and edit each pad individually. See the following [Pad Parameters](#) section to learn how to use this mode.

Screen: In this edit mode, the Q-Link knobs will control a default parameter or group of parameters in your currently selected mode (e.g., Main Mode, Sample Edit Mode, etc.).

Note: When using MPC hardware with four Q-Link knobs (e.g., MPC Live, MPC Touch, etc.), a gold rectangle in this panel indicates the four knobs that can be controlled by that bank of four Q-Link knobs.



While in any Q-Link Mode other than Screen Mode, click the **Learn** button to turn Learn Mode on or off. When **on**, adjusting a control in the MPC software window will immediately assign it to the currently selected Q-Link knob.

To assign a function to a Q-Link knob in Learn Mode:

1. Click **Learn** so the button is lit. (This will stop playback. Resuming playback will exit Learn Mode.)
2. Click the desired **Q-Link knob**.
3. Click the control in the software that you want to assign to the Q-Link knob. The Q-Link knob will be able to control that parameter immediately.

To assign functions to other Q-Link knobs, repeat Steps 2–3.

To clear an assignment from a Q-Link knob, see the following [Q-Link Setup](#) section.

To exit Learn Mode, click **Learn** (or resume playback).



Q-Link Setup

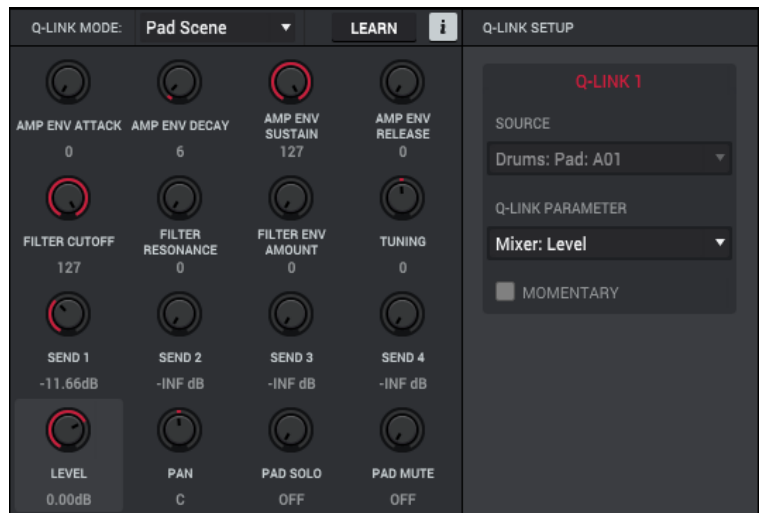
To show or hide the **Q-Link Setup** subpanel, click the *i* icon in the upper-right corner of the **Q-Links** panel.

The top of this subpanel shows the currently selected Q-Link knob number.

The **Source** menu indicates where the parameter assigned to that Q-Link knob is. The available sources depend on the Q-Link Mode as described in the following sections.

The **Q-Link Parameter** menu indicates the parameter that the currently selected Q-Link knob controls.

Click the **Momentary** box to turn momentary behavior on or off.



When **on**, moving the Q-Link knob will adjust its parameter, but the parameter will immediately return to its original position (when you turned Momentary on) when you release the Q-Link knob.

When **off**, moving the Q-Link knob will adjust its parameter, and the parameter will remain at its new setting when you release the Q-Link knob.

Project

In the **Project** Q-Link Edit Mode, the Q-Link knobs control 16 parameters within the current project.

These are the available sources for each Q-Link knob:

MIDI Track: MIDI track parameters—select one of the MIDI tracks in your project.

Audio Track: audio track parameters—select one of the audio tracks in your project.

Program: program parameters—select one of the programs in your project. For drum programs and clip programs, you can select either the entire program or a specific pad within it.

Return: return mixer parameters (**Returns 1–4**).

Submix: submixer parameters (**Submixes 1–8**).

Master: master mixer parameters (**Outputs 1/2–31/32**).

These are the available parameters for each Q-Link knob:

Mixer: mixer parameters (options vary based on the **Source**)

Program: program parameters (options vary based on the type of program; available only if the **Source** is a drum program, MIDI program, clip program, or CV program)

Insert 1–4: insert effect parameters (options vary based on the effect; available only if the **Source** has an insert effect loaded)

Program

In the **Program** Q-Link Edit Mode, the Q-Link knobs control 16 parameters within the currently selected program or audio track.

These are the available sources for each Q-Link knob:

Program or Audio Track: program or audio track parameters—select the program or audio track. For drum programs and clip programs, you can select either the entire program or a specific pad within it.

These are the available parameters for each Q-Link knob:

Mixer: program mixer parameters (options vary based on the **Source**)

Program: program parameters (options vary based on the type of program; available only if the **Source** is a drum program, MIDI program, clip program, or CV program, not an audio track)

Insert 1–4: insert effect parameters (options vary based on the effect; available only if the **Source** has an insert effect loaded)

Pad Scene

In the **Pad Scene** Q-Link Edit Mode, the Q-Link knobs control your favorite 16 parameters for the currently selected pad. You can select another pad simply by pressing it, allowing you to adjust the same 16 parameters for that new pad. (These 16 parameter assignments are automatically saved with other user settings. Any project you load will use these assignments.)

This option works for drum programs only.

The only available sources for each Q-Link knob are pads within a drum program.

To select a pad, press it.

These are the available parameters for each Q-Link knob:

Mixer: pad mixer parameters (**Level, Pan, Pad Mute, Pad Solo,** or **Send 1–4**)

Program: pad parameters (i.e., parameters used in Program Edit Mode)

Pad Parameters

In the **Pad Parameters** Q-Link Edit Mode, the Q-Link knobs control the same pad parameter for each of the 16 pads in the current pad bank.

For example, if the **Parameter** is set to **Level**, the 16 Q-Link knobs will adjust the 16 independent **Level** settings for each pad in the current pad bank. You could then set the **Parameter** to **Pan** and use the Q-Link knobs to adjust the panning of all 16 pads.

This option works for drum programs only.

The only available sources for each Q-Link knob are pads within a drum program.

To select a pad, press it.

These are the available parameters for each Q-Link knob:

Mixer: pad mixer parameters (**Level, Pan, Pad Mute, Pad Solo,** or **Send 1–4**)

Program: pad parameters (i.e., parameters used in Program Edit Mode)

Screen

In the **Screen** Q-Link Edit Mode, the Q-Link knobs will control a default parameter or group of parameters in your currently selected mode (e.g., Main Mode, Sample Edit Mode, etc.).

Pads

The **Pads** panel shows the 16 pads with their assigned samples. All pads will display their assigned colors.

Click a **Pad Bank** letter at the top of this panel to select a pad bank.

Each pad will display different contents, depending on the current mode. See the description of this panel in the chapter for each mode.

Each pad can also display a color, which you can customize for each program. See [Pad Color](#) to learn how to do this.



Program Editor

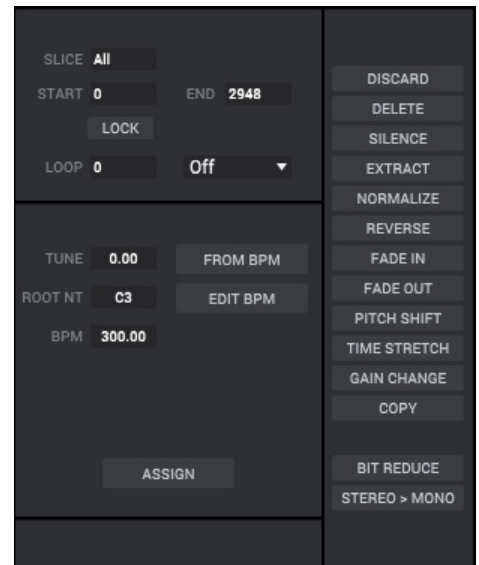


The **Program Editor** panel contains the parameters for Program Edit Mode, which vary depending on the type of program. Learn about the specific parameters for each program type in [Modes > Program Edit Mode](#).

Parameters

The **Parameters** panel shows the available parameters and editing processes in Sample Edit Mode.

See the [Modes > Sample Edit Mode](#) chapter to learn more about this panel and its different features in [Trim Mode](#), [Chop Mode](#), and [Program Mode](#).



Project

The **Project** panel is a list of all available programs, sequences, and samples in the project.

To duplicate a program in the project, right-click it and click **Duplicate**. An identical program will be created immediately. The duplicate program will use the same name but appended with a number (e.g., **Program 002**).

To duplicate a program in the project and use it on a new track, right-click it and click **Duplicate to New Track**. An identical program and new track that uses it will be created immediately. The duplicate program will use the same name but appended with a number (e.g., **Program 002**). The new track will be named **Track** and appended with a number (e.g., **Track 06**).

To copy pads (and their parameters) from one program into another, right-click the program and click **Merge**. This essentially consolidates two programs into one. See [Editing Processes > Sequence](#) for more information.

To delete samples from the project, click the **trash can icon**. In the screen that appears, select **Purge Unused Samples** to delete all unused samples from the project (from all programs, sequences, and audio or MIDI tracks), or select **Delete All Samples** to delete all samples from the project.

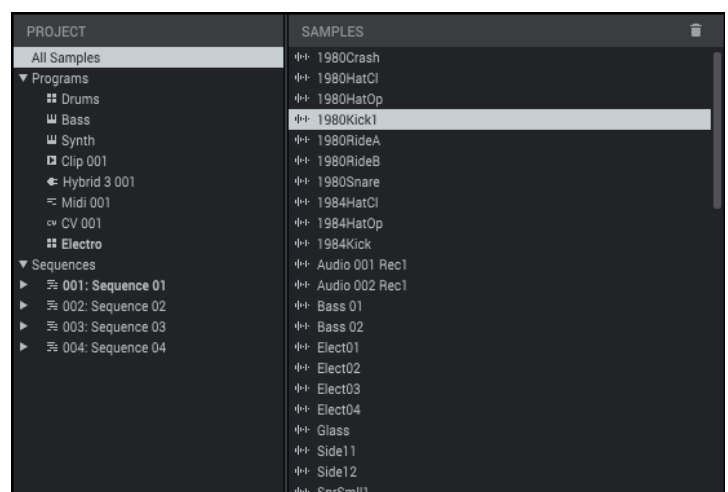
To delete a program or sample, right-click it and click **Delete**. Click **Delete** or **Delete Sample** to confirm your choice or **Cancel** to cancel the deletion.

To save a program or sample, right-click it and click **Save**. Use the window that appears to enter a name for the program file (.xpm) or sample file (.wav) and select a location. Click **Save** to confirm your choice or **Cancel** to cancel saving.

To rename a program or sample, right-click it and click **Rename**. Enter a name in the window that appears, and then click **OK** to confirm your choice or **Cancel** to cancel saving.

To view a sample in Sample Edit Mode, right-click it and click **Edit**. Alternatively, double-click the sample. You will immediately enter Sample Edit Mode and show the sample's waveform in the Wave Editor.

To add the sample as an audio track, right-click it and click **Add to current audio track**. This will immediately create a new audio track named **Audio** and appended with a number (e.g., **Audio 002**), and the sample will be loaded on it.

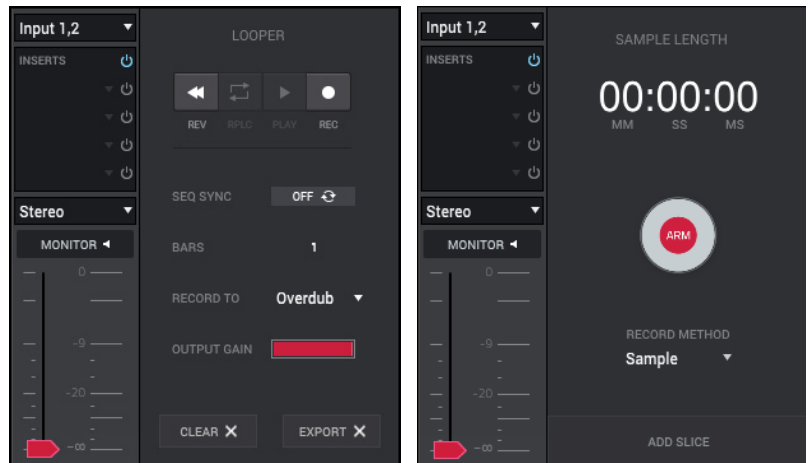


This panel is identical to the **Project Info Browser** (see [Browser > Project Info Browser](#)) but in a horizontal layout rather than vertical.

Sampler & Looper

The **Sampler** and **Looper** panels show similar controls for setting levels, monitoring, inputs, and effects of your incoming audio signal.

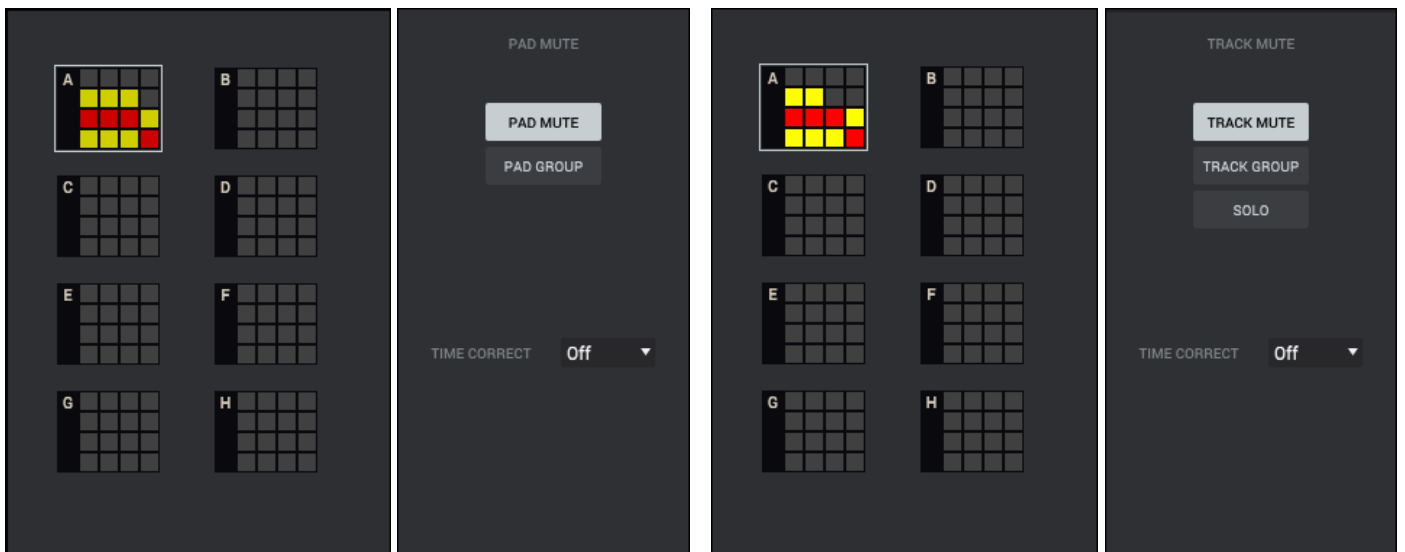
See [Modes > Sampler](#) and [Modes > Looper](#) to learn more about each one.



Pad Banks & Mute

The **Pad Banks** and **Mute** panels let you select pads, assign pad or track groups, and adjust timing correct settings in Pad Mute Mode and Track Mute Mode.

See [Modes > Pad Mute Mode](#) and [Modes > Track Mute Mode](#) to learn more about each one.



Sequence List

The **Sequence List** panel has different appearances in Next Sequence Mode and Song Mode.

In Next Sequence Mode, it shows a list of all available sequences in your project as well as their length and tempo. See [Modes > Next Sequence Mode](#) to learn about this.

In Song Mode, it shows the list of steps in the song, including the number of repeats, the tempo of each sequence, and the length of each step. See [Modes > Song Mode](#) to learn about this.

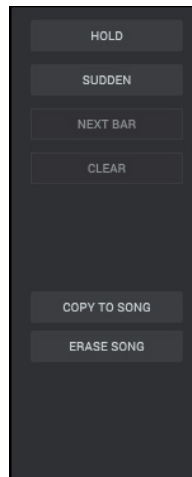
SEQUENCE	LENGTH	TEMPO
1 Sequence 01	2	80.79
2 Sequence 02	2	80.79
3 Sequence 03	2	80.79
4 Sequence 04	2	80.79
5 (unused)	2	126.00
6 (unused)	2	126.00
7 (unused)	2	126.00
8 (unused)	2	126.00
9 (unused)	2	126.00
10 (unused)	2	126.00
11 (unused)	2	126.00
12 (unused)	2	126.00
13 (unused)	2	126.00
14 (unused)	2	126.00
15 (unused)	2	126.00
16 (unused)	2	126.00
17 (unused)	2	126.00

STEP	SEQUENCE	RPTS	BPM	BARS
1	1: Sequence 01	2	80.79	2
2	2: Sequence 02	2	80.79	2
3	1: Sequence 01	2	80.79	2
4	2: Sequence 02	2	80.79	2
5	3: Sequence 03	2	80.79	2
6	4: Sequence 04	4	80.79	2
7	2: Sequence 02	2	80.79	2
8	1: Sequence 01	1	80.79	2
(end of song)				

Performance Controls

The **Performance Controls** panel shows the available commands you can execute in Next Sequence Mode.

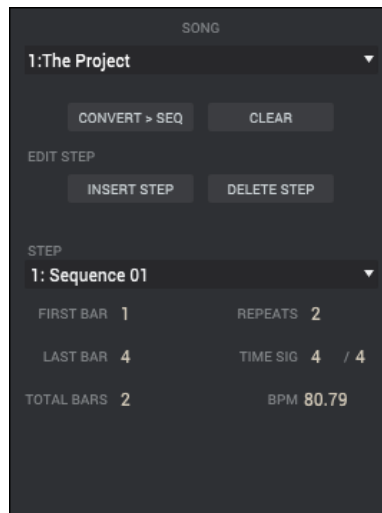
See [Modes > Next Sequence Mode](#) to learn about this.



Song Parameters

The **Song Parameters** panel shows the available controls to create a song in Song Mode. This includes controls for inserting and deleting song steps, a sequence selector for the current step, and parameters that determine how long each step plays.

See [Modes > Song Mode](#) to learn about this.



Preferences

The **Preferences** window contains many customizable elements of the software. Click the corresponding tab on the left to select it (e.g., **MIDI**, **Sequencer**, etc.). Click the **OK** button to close the **Preferences** window. Changes to the Preferences are saved automatically except for **Vintage Mode** (in the **General** tab) and **Start Time** (in the **Sync** tab).

To open the Preferences:

Windows: Click the **menu icon** (≡), select **Edit**, and click **Preferences**.

macOS: Click the **MPC** menu, and click **Preferences**.

Audio

Audio Device Type and **Device** or **Output & Input:** Click these drop-down menus to select an audio hardware driver in your computer system.

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 depends on the available sample rates of the type of MPC hardware you are using or of your audio interface (i.e., select **96000 Hz** only if your interface allows a 96 kHz sample rate).

Audio Buffer Size: Click this drop-down menu 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: This indicates the amount of latency (delay) in your audio system.

MIDI

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

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).

Plugins

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 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 configure these **Plugin** tab settings for the first time, you should click **Rescan All** to perform a complete scan of all selected plugin locations.

See the [Plugins](#) chapter to learn about managing your plugins once they are scanned.

Sequencer

The settings on this screen determine how sequencing works in Grid Editor and in the Step Sequencer.

Display Resolution: This is the display resolution (in **PPQN**—pulses per quarter note) of pulse values in certain areas of the operating system. Please note that this setting affects the display resolution, not the timing.

Instant Track Mute: When disabled, if you mute a track, its Note On messages will be ignored, and samples and notes that are playing will finish playing their entire length (this is how legacy MPCs' track-muting worked). 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. When enabled, if you mute a track, the MIDI track volume (**0**) will be sent. The loop will continue to play but at zero volume, allowing the loop to continue playing when the track is unmuted. This is useful when you want to have the track muted immediately.

Play Track Mute and Solo Events: When enabled, track mute and solo events are played back when you are in Track Mute Mode. When disabled, track mute and solo events will not be played back while in Track Mute Mode.

Record Track Mute and Solo Events: When enabled, track mute and solo events are recorded when you are in Track Mute Mode (timing correct settings will affect the recorded position events). When disabled, track mute and solo events will not be recorded while in Track Mute Mode. This feature is useful if you want to use Track Mute Mode to record track mutes or solos into your sequences as opposed to using Track Mute Mode for performance or listening purposes only.

Record Pad Aftertouch Events: When enabled, pad aftertouch data (from your MPC hardware's pressure-sensitive pads) will be recorded. When disabled, pad aftertouch data will be ignored.

Place Events Recorded During Count-In at Start Point: When 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). When disabled, no notes will be recorded until the pre-count is finished and recording has begun.

Truncate Duration: This determines if/how events are cropped if they exceed the length of the current Sequence:

To Sequence Length: If the length of an event exceeds the length of the sequence, it will be truncated. This ensures that the event will not overlap itself when the sequence loops.

To Sequence End: If an event exceeds the length of the sequence, it will be truncated to the end of the current sequence. In other words, the event will stop playing when the sequence ends or loops.

As Played: Events will play back exactly as they were recorded, even if they overlap themselves when the sequence loops.

Q-Link Swing Applied On Release: When this box is selected, moving the **Swing** parameter assigned to a **Q-Link knob** will apply the timing correct settings (including the new **Swing** value) when you release the knob.

Sync

The settings on this screen determine how the MPC software synchronizes with connected USB and MIDI devices.

Receive: This determines whether the MPC software receives MIDI Clock information (**MIDI Clock**), MIDI Time Code information (**MIDI Time Code (MTC)**), communication from **Ableton Link**, or no synchronization information (**Off**).

MTC Frame Rate: This determines the frame rate used by MIDI Time Code (**MTC**), which is important for correct timing, especially when working on film scoring projects: **24**, **25**, **30 drop**, or **30 non-drop**. In most cases, you should select **25**.

Send: This determines whether the MPC software sends MIDI Clock information (**MIDI Clock**), MIDI Time Code information (**MIDI Time Code (MTC)**), or neither (**Off**).

Start Time: This is the starting time that will be sent when **Send MIDI** is set to anything other than **Off**. The time is formatted in **hours:minutes:seconds:frames**.

To: These are the MIDI ports over which MIDI Clock or MTC information will be sent.

MIDI Machine Control (MMC):

Receive: When enabled, the MPC software will be able to receive MIDI Machine Control (MMC) information. When disabled, the MPC software will not receive this information.

Send: When enabled, the MPC software will be able to send MIDI Machine Control (MMC) information. When disabled, the MPC software will not send this information.

Hardware

The settings on this screen determine the behavior of your MPC hardware's pads as well as connected footswitches.

Pad Threshold: This determines how much force is required to strike the pads for them to trigger.

Pad Sensitivity: This determines how the pads respond to 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: This determines how striking the pads translates into velocity values. The **A** curve is essentially linear, while the **B**, **C**, and **D** curves are exponential.

Pad Response (Velocity & Aftertouch): View these meters when striking and 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).

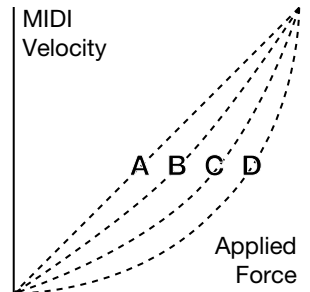
Footswitch 1 & Footswitch 2: These determine how footswitches connected to your MPC hardware will work. You can select either transport commands (e.g., Play or Stop) or trigger commands for pads and other buttons.

Display: This determines how the display functions for a connected MPC Touch.

Screen Dimming: This determines how much time must pass before your MPC hardware automatically dims its touchscreen (if it uses a battery, this can help preserve battery life).

VU Meter Source (only when using MPC X in Controller Mode): This determines what audio signal level is shown in the level meters (on the right side of the screen). When set to **Master**, the level meters show the audio signal sent out of **Outputs 1/2** (the **Main L/R outputs** on the rear panel). When set to **Current Program**, the level meters show the audio signal of the currently selected program (i.e., the program used by the currently selected track and any other tracks that also use it).

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



Project Defaults

The settings on this screen determine various default values for any new project that you create.

Default Tempo: This is the default tempo in BPM.

Default Master Tempo: When set to **On**, the default tempo value will be used for the master tempo. When set to **Off**, the default tempo will be used for sequences.

Default Sequence Bars: This determines the default number of bars of a new sequence.

Default Time Signature (Numerator/Denominator): This determines the default time signature of a new sequence. The numerator is the number of beats per bar, while the denominator is the value of each beat.

Default Pad Slice: This determines how new samples will play when you load them or record them into a project. When set to **Pad**, the **Slice** menu in Program Edit Mode will be set to **Pad**, which lets you set the start point, end point, etc. for the layer. When set to **All**, the **Slice** menu in Program Edit Mode will be set to **All**, in which the entire sample plays.

Default Drum/Keygroup Filter: This determines the default type of filter that drum and keygroup programs will use. See [Appendix > Glossary > Filter](#) to learn about this.

Default Plugin Synth: This determines the default instrument plugin that a new plugin program will use. Use the window that appears to select it. See [Plugins > Selecting Plugins](#) to learn about this.

Project Load/Save

The settings on this screen determine if (and how) projects are automatically saved.

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: To “bypass” or ignore the auto load file, press and hold **Shift** while opening the MPC software. This will open an empty project instead of your selected Auto Load file.

Enabled: When enabled, the MPC software will automatically save your current project after each **Timeout** interval. When disabled, the MPC software will not automatically save your project; you must save your project manually.

Timeout: Use this field to select how often your project will automatically save.

Template File: Click the ... button to select a project to load when you create a new project from a template. To do this, click the **menu icon** (≡) in the upper-left corner of the window, select **File**, and then click **New From Template**.

Drag & Drop

This tab shows settings that determine how a sequence is exported when you use the **Export Audio** drag-and-drop function or **Export MIDI** drag-and-drop function in the **Grid Editor**, **Wave Editor**, or **List Editor**. See [Editors](#) to learn about this feature.

Include Program Volume/Pan Settings: When enabled, the exported audio or MIDI file will include its volume and pan settings. When disabled, the volume and pan settings will be set to **0 dB** and center (**C**), respectively.

Bypass Program Effects Plugins: When enabled, the exported audio or MIDI file will include any third-party effect plugins that are used with it, but those effects will be bypassed (deactivated). When disabled, those effects will be activated.

Audio Tail Length: This determines the length of an audio tail (silence) that will be applied to the exported audio file. When set to **0**, the audio file will not have any additional audio tail.

Audio Export: This determines what part of the sequence is exported when you click the **Export Audio** icon.

Track: When this is selected, **Export Audio** will export the currently shown track in the current sequence.

Program: When this is selected, **Export Audio** will export all tracks in that sequence that use the currently shown program.

Master: When this is selected, **Export Audio** will export all tracks in that sequence that use programs routed to master outputs.

MIDI Export: This determines what part of the sequence is exported when you click the **Export MIDI** icon.

Track: When this is selected, **Export MIDI** will export the currently shown track in the current sequence.

Sequence: When this is selected, **Export MIDI** will export all tracks in the current sequence.

Bit Depth: This determines bit depth of the audio file that is exported when you click the **Export Audio** icon: **16-bit** or **24-bit**.

General

The settings on this screen determine how other features work in the hardware and operating system.

Tap Tempo: This determines how many times you have to press the **Tap Tempo** button before the new tempo is recognized.

Flash Tap Tempo Light: When enabled, the **Tap Tempo** button’s light will flash in time with the tempo. When disabled, the **Tap Tempo** button’s light will be off.

Filter ‘All Notes Off’ CC: When enabled, “All Notes Off” (“MIDI panic”) messages will be ignored. This is useful if you are using an external MIDI device that can send these types of messages but you want to filter them out. When disabled, “All Notes Off” messages will be received normally.

Program Change: This determines what an incoming MIDI program change message will change: a **Program**, **Sequence**, or **Track**.

Sampling Bit Depth: This determines bit depth of the audio recorded from a sample.

Vintage Mode: This determines the type of emulation applied to the audio output. You can apply the particular sonic qualities of, for example, the **MPC3000** or **MPC60**, or of course no emulation (**None**).

Audition Auto Play: This determines how long a sample will sound when auto-previewing it.

Audition Outputs: This determines which pair of outputs will play any auditioned sounds: **Out 1,2-31,32**. These sounds include: samples, programs, and projects in the Browser; sample playback, **Cue Preview**, and **Slice Preview** in Sample Edit Mode; and sample playback in the **Keep or Discard Sample** window in the Sampler.

Cue Preview: This determines if/how audio is played as you move the cue playhead. As you move the cue playhead through a sample waveform, you can set it to play the small part of the sample before the cue playhead (**Before**), play the small part of the sample after the cue playhead (**After**), or not play at all (**Off**).

Slice Preview: This determines if/how audio is played as you move a slice marker. As you move the slice marker through a sample waveform, you can set it to play the small part of the sample before the slice marker (**Before**), play the small part of the sample after the slice marker (**After**), or not play at all (**Off**). You can also configure this setting in the Wave Editor (see [Editors > Wave Editor](#)).

Audio Warp Algorithm: This determines how a sample is “warped” when you adjust the length of a sample without changing its pitch (e.g., the **Warp** function in Audio Edit Mode for audio tracks or in Program Edit Mode for clip programs).

Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by using a Warp algorithm other than **Elastique Pro**, which is very CPU-intensive.

Audio Tracks Auto Warp: This determines how recorded audio track regions are warped. When set to **On**, any audio track region that you record will be warped automatically to match the current sequence tempo. You can then adjust the sequence tempo while the audio track region remains in time.

Note: When you record an audio file, the current sequence tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio track region, the warping algorithm uses this sequence tempo and the current value in the **BPM** field to generate the “stretch factor.”

BPM Detection Range: This defines the range of detectable BPM values when you use any automatic BPM detection function in the software or when you press the **Tap Tempo** button to enter a new tempo.

Bank Button Press: This determines how the **Pad Bank** buttons work.

Select A-D: Pressing a **Pad Bank** button once will select the corresponding bank from Pad Banks A–D. Pressing and holding **Shift** while pressing a **Pad Bank** button will select the corresponding bank from Pad Banks E–H.

Select/toggle bank: Pressing a **Pad Bank** button will alternate between the corresponding bank from Pad Bank A–D and Pad Bank E–H. In other words, you do not need to hold Shift to select one of Pad Banks E–H.

Allow Multiple Plugin Windows: This determines whether multiple plugin windows can be displayed at the same time (a feature added to MPC 2.1) or only one plugin window can be displayed at a time (how plugin windows worked prior to MPC 2.1).

Desktop Screensaver Disable: This determines if/when your computer’s screensaver is disabled while using the MPC software (using your MPC hardware in Controller Mode):

Never: Your computer’s screensaver will function normally.

When hardware used: As long as your MPC hardware is connected to your computer and being used, your computer’s screensaver will be disabled.

When hardware attached: As long as your MPC hardware is connected to your computer and powered on, your computer’s screensaver will be disabled. It will function normally again if you power off or disconnect your MPC hardware from your computer.

Always: Your computer’s screensaver will be disabled as long as the MPC software is open (whether or not your MPC hardware is connected or powered on).

Q-Link Playhead Increment: This determines whether turning **Q-Link Knob 2 (Playhead)** in Main Mode will move the playhead location by 1/16th-note increments (**1/16 Note**) or according to the time division (**TC Division**).

Collect Usage Statistics: This determines whether or not your usage statistics will be sent occasionally to us, enabling us to improve the MPC experience.

Threads: This determines how many cores of your computer’s processor will be used to render audio. The available range depends on your processor.

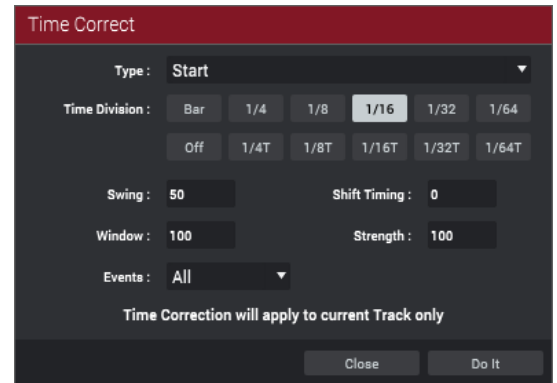
Time Correct

The **Time Correct** window contains various settings to help quantize events in your sequence. You can quantize note events on MIDI tracks or track regions on audio tracks (though you cannot apply all types of quantization to audio tracks).

To open the **Time Correct settings**, click the **menu icon** (≡), select **Edit**, and click **Time Correct**.

To apply the settings you selected, click **Do It**.

To cancel and return to the previous screen, click **Close**.



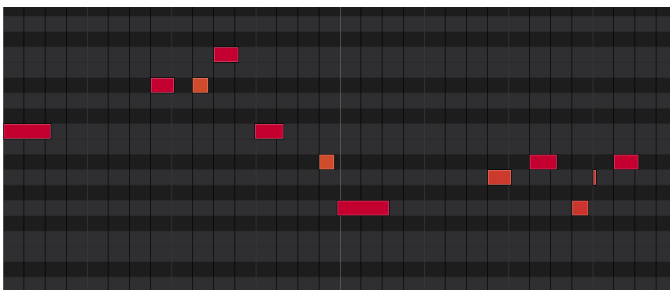
Use the **Type** selector to set how timing corrections are applied.

Start: The start points of note events or audio track regions will be extended or shortened to align with the closest time division marker in the grid. The end points will remain untouched. You can apply this to MIDI tracks or audio tracks.

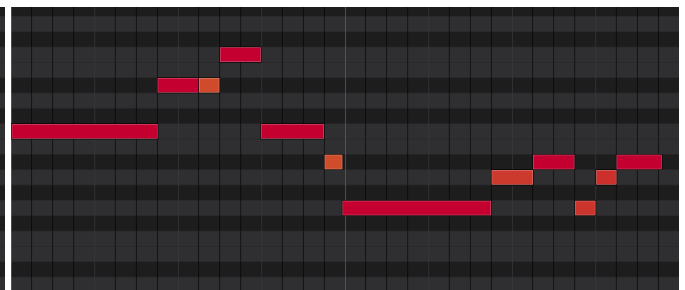
End: The end points of note events will be extended or shortened to align with the closest time division marker in the grid. The start points will remain untouched. You can apply this to MIDI tracks only.

Length: The end points of note events will be extended or shortened so that each event's length is a multiple of the time division, regardless of where it is in the grid. The start points will remain untouched. You can apply this to MIDI tracks only.

Legato: The end points of note events will be extended or shortened 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. You can apply this to MIDI tracks only.



Without legato applied.



With legato applied.

Use the **Time Division** selector to set the quantization value. Events will “snap” to these time divisions on the grid. The **T** indicates a triplet-based value.

Alternatively, click the **TC** field at the top of the window and select a time division.

Use the **Swing** field to set the amount of swing from **50%** to **75%**. Swing lets you “shuffle” your beats—from subtle to extreme.

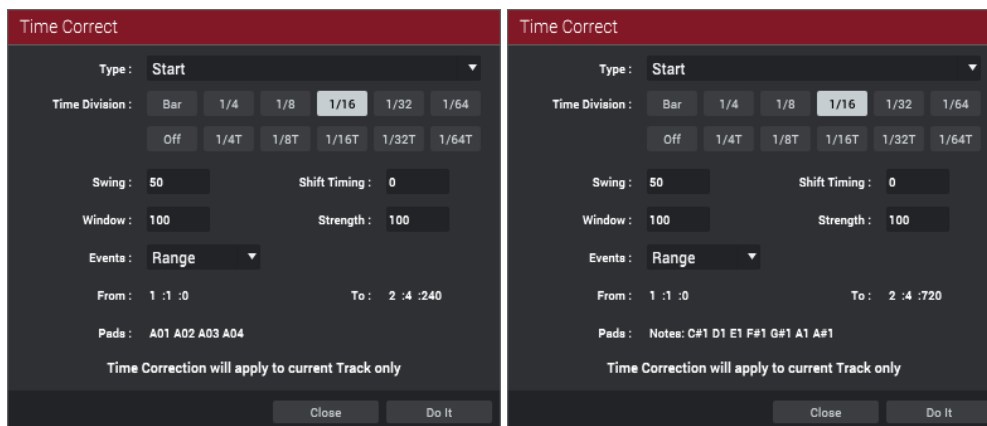
Use the **Shift Timing** field to shift all events by clock ticks.

Use the **Window** field to set how many events around a quantize value will be quantized. Any events outside this range will not be quantized; events inside will.

Use the **Strength** field to set how strictly events will be quantized (i.e., shifted toward the quantize value). Lower values move events a little bit towards the closest quantize value, resulting in a less mechanical feel than a strict quantization (a higher value).

Use the **Events** selector to set the target range for the time correction. You can apply the time correction to **All** note events or to just the **Selected** ones. To select note events to which to apply time correction, either use the various tools in the **editors**, or press or click the **pad** with the desired events (while **Hitting Pad Selects All Events** is set to **On**). You must do this **before** opening the Time Correct window.

When **Range** is selected, you can define the locations (**From** and **To**) as well as the pads or keys that will be quantized. When applying time correction to an audio track region, you will not be able to specify pads or keys.



Metronome

The **Metronome** menu contains all settings regarding the metronome (click track).

To view the metronome settings, click the **menu icon** (≡), select **Tools**, and click **Metronome**.

Use the **Count-In** submenu to set if/when the metronome counts 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.

Use the **Enable** submenu to set if/when the metronome is enabled.

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.

Use the **Rate** submenu 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** indicates a triplet-based time division.

Use the **Sound** submenu to select the sound that you want to hear for the metronome: **Sidestick 1**, **Sidestick 2**, **Clap**, **Metroclick**, **Shake**, **Tambourine**, or **MPC Click**.

Use the **Output** menu to set where the metronome signal will be heard: a pair of master outputs (**Out 1,2–31,32**) or a single master output (**Out 1–32**).

Use the **Metro** meter at the top of the window to set the volume of your metronome click.

Click the **metronome icon** at the top of the window to enable or disable the metronome.

Editing Processes

You can use the processes described in this chapter to edit an **Audio Region**, **Sequence**, **Track**, or **Program**.

Audio Region

You can use any of these functions on the currently selected region of an audio track. These functions are available in the menu (**Edit > Audio Region**) only if the **Audio** tab is selected in the Inspector and if an audio region is selected in the **Grid Editor**. To learn about using many of these functions in Grid Editor, see **Views > Grid Editor > Audio**.

- The **Duplicate** function copies and pastes the track region immediately after the original one.
To duplicate the track region, select it, click the **menu icon** (≡), select **Edit > Audio Region**, and click **Duplicate**.
- The **Mute** function silences the track region.
To mute the track region, select it, click the **menu icon** (≡), select **Edit > Audio Region**, and click **Mute**.
- The **Reverse** function reverses the track region.
To reverse the track region, select it, click the **menu icon** (≡), select **Edit > Audio Region**, and click **Reverse**.
- The **Warp** function lengthens or shortens the track region without changing its pitch.
To warp the track region, select it, click the **menu icon** (≡), select **Edit > Audio Region**, and click **Warp**.
Use the **BPM** field above the Grid Editor to change the tempo, which will change the length of the track region accordingly.
Use the **Semi** and **Fine** fields above the Grid Editor to change the pitch (this is useful for matching the durations of two samples with different pitches).

Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function.

You can also do the following while editing an audio track:

- The **Clear Regions** function erases all **regions** from the audio track without erasing the track itself.
To clear all track regions, click the **menu icon** (≡), select **Edit > Track**, and click **Clear Regions**. Click **OK** to continue or **Cancel** to return to the previous screen. Alternatively, right-click the **Track** field in the Inspector and click **Clear Regions**.
- The **Reset Channel Strip** function:
 - clears all **Insert** effect slots;
 - turns **Mute**, **Solo**, automation, and **Monitor** off;
 - resets the **pan knob** to the center;
 - resets the **level slider** to **0.00 dB**; and
 - turns the **Record Arm** (⊙) button off.

It does not change the track's inputs or outputs.

To reset the channel strip, right-click the **Track** field in the Inspector and click **Reset Channel Strip**. Click **Reset** to continue or **Cancel** to return to the previous screen.

- The **Copy Audio Track** function copies the contents of one track to another.

To copy the audio track, click the **menu icon** (≡), select **Edit > Sequence**, and click **Copy Audio Track**.

Click the **Copy Contents of Track** field and select a track. This is the track whose events you want to copy.

Click the **Over Contents of Track** field and select a track. This is the track where the source track will be copied.

Click **OK** to continue or **Cancel** to return to the previous screen.

Sequence

You can use any of these functions on the currently selected sequence.

- The **Clear** function erases **all** events from the sequence and resets **all** of its settings.

To clear the sequence, click the **menu icon** (≡), select **Edit > Sequence**, and click **Clear**. Click **OK** to continue or **Cancel** to return to the previous screen. Alternatively, right-click the **Sequence** field in the Inspector and click **Clear**. Click **OK** to continue or **Cancel** to return to the previous screen.

- The **Half Length** function will **immediately** halve the length of the sequence (without deleting any note events).

To halve the sequence length, click the **menu icon** (≡), select **Edit > Sequence**, and click **Half Length**. Alternatively, right-click the **Sequence** field in the Inspector and click **Half length**.

- The **Double Length** function will **immediately** double the sequence and copy all events from the first half to the second half.

To double the sequence length, click the **menu icon** (≡), select **Edit > Sequence**, and click **Double Length**. Alternatively, right-click the **Sequence** field in the Inspector and click **Double length**.

- The **Insert Blank Bars** function adds empty bars to a sequence at a specified point.

To insert blank bars, click the **menu icon** (≡), select **Edit > Sequence**, and click **Insert Blank Bars**. Alternatively, right-click the **Sequence** field in the Inspector and click **Insert bars**.

Use the **Sequence** field to select the desired sequence.

Use the **# of Bars** field to set how many bars you will insert.

Use the two **Time Sig** fields to set the time signature of the inserted bars.

Use the **Before Bar** field to set where you will insert the bars. The bars will be inserted before this one.

Click **Do It** to continue or **Cancel** to return to the previous screen.

- The **Delete Bars** function removes a range of bars from a sequence.

To delete bars, click the **menu icon** (≡), select **Edit > Sequence**, and click **Delete Bars**. Alternatively, right-click the **Sequence** field in the Inspector and click **Delete bars**.

Use the **Sequence** field to select the sequence whose bars you want to delete.

Use the **First Bar** and **Last Bar** fields to set the range of bars you want to delete. The bar in each field and all bars in between them will be deleted.

Click **Do It** to continue or **Cancel** to return to the previous screen.

- The **Copy Bars** function copies a range of bars from a sequence and adds them to another at a specified point.

To copy bars, click the **menu icon** (≡), select **Edit > Sequence**, and click **Copy Bars**. Alternatively, right-click the **Sequence** field in the Inspector and click **Copy bars**.

Use the **Copy From > Sequence** field to select the “source” sequence. This is the sequence whose bars you want to copy.

Use the **First Bar** and **Last Bar** fields to set the range of bars to copy in the source sequence.

Use the **Paste To > Sequence** field to select the “destination” sequence. This is the sequence where the source sequence bars will be copied.

Use the **After Bar** field to set where you want to add the copied bars. The copied bars will be inserted after this one.

Use the **Copies** field to set how many instances of the copied bars you want to add.

Click **Replace** to overwrite the destination sequence.

Click **Merge** to add the events to the destination sequence without erasing anything.

Click **Cancel** to return to the previous screen.

- The **Copy Events** function copies a range of events or selected audio track regions from a sequence and adds them to another at a specified point.

To copy events, click the **menu icon** (≡), select **Edit > Sequence**, and click **Copy Events**. Alternatively, right-click the **Sequence** field in the Inspector and click **Copy events**.

Use the **Copy From > Sequence** field to select the “source” sequence. This is the sequence whose events you want to copy.

Use the **Copy From > Track** field to select the “source” track. This is the track whose events you want to copy.

Use the **Copy From > Time** fields to set the time range (in bars, beats, and ticks) of the events you want to copy. The **Time** fields set the start of the time range, and the **To** fields set the end of the time range.

Click the **Copy All Events/Copy Only Selected Events** menu to select either option. Select **Copy All Events** to copy and paste all events in the track. Select **Copy Only Selected Events** to copy and paste only the events that are currently selected.

Use the **Paste To > Sequence** field to select the “destination” sequence. This is the sequence where the source sequence events will be copied.

Use the **Paste To > Track** field to select the “destination” track. This is the track where the source track events will be copied.

Use the **Paste To > Time** fields to set where (in bars, beats, and ticks) you want to add the copied events. The events will be added after this point.

Use the **Copies** field to set how many instances of the copied events you want to add.

Click **Replace** to overwrite the destination sequence.

Click **Merge** to add the events to the destination sequence without erasing anything.

Click **Cancel** to return to the previous screen.

- The **Copy Sequence** function copies the contents of one sequence to another.

To copy a sequence, click the **menu icon** (≡), select **Edit > Sequence**, and click **Copy Sequence**. Alternatively, right-click the **Sequence** field in the Inspector and click **Copy**.

Use the **Copy Contents of Sequence** field to select the “source” sequence. This is the sequence whose events you want to copy.

Use the **Over Contents of Sequence** field to select the “destination” sequence. This is the sequence where the source sequence will be copied.

Click **Do It** to continue or **Cancel** to return to the previous screen.

- The **Copy Track** function copies the contents of one track to another.

To copy the track, click the **menu icon** (≡), select **Edit > Sequence**, and click **Copy Track**.

Use the **Copy Contents of Track** field to select the “source” track. This is the track whose events you want to copy.

Use the **Over Contents of Track** field to select the “destination” track. This is the track where the source track will be copied.

Click **Do It** to continue or **Cancel** to return to the previous screen.

- The **Transpose** function transposes a range of events on a track in a sequence. The events within that range will shift accordingly in the Grid Editor.

To transpose the track, click the **menu icon** (≡), select **Edit > Sequence**, and click **Transpose**.

Use the **Sequence** field to select the sequence you want to transpose.

Use the **Track** field to select the track you want to transpose within the sequence.

Use the **Start** and **End** fields to set the time range (in bars, beats, and ticks) of the sequence you want to transpose. The **Start** fields set the start of the time range, and the **End** fields set the end of the time range.

For drum programs, use the two **Pad** fields to select the “source” pad (whose events you want to move) and “destination” pad (where the events will be placed). Tap each field and then press the desired pad.

For keygroup programs, plugin programs, and MIDI programs, set the range and amount of transposition:

Range: Use the two **Note** fields to set the range of notes of the events you want to transpose. Note events within this range will be transposed, while note events outside of this range will remain unchanged.

Transpose: Use this field to set how many semitones up or down you want to transpose the note events.

Click **Do It** to continue or **Cancel** to return to the previous screen.

- The **Erase** function erases all or part of a track in a specific sequence.

To erase events in the track, click the **menu icon** (≡), select **Edit > Sequence**, and click **Erase**. Alternatively, right-click the **Sequence** field in the Inspector and click **Erase**.

Use the **Sequence** field to select the sequence you want to erase.

Use the **Track** field to select the track you want to erase within the sequence.

Use the **Start** and **End** fields to set the time range (in bars, beats, and ticks) of the sequence you want to erase. The **Start** fields set the start of the time range, and the **End** fields set the end of the time range.

Select one of the **Erase** options to select what types of events you erase:

- **All** erases all pad events from the designated time range and reset all of its settings.
- **Automation** erases only automation from the designated time range.
- **Note** erases only specific pad events from the designated time range. In the diagram of the eight pad banks that appears, press each pad in each bank to select or deselect its notes.
- **Except Note** erases everything **except** pad events from the designated time range.

Click **Do It** to continue or **Cancel** to return to the previous screen.

- The **Events Double Speed** function **immediately** halves the lengths of all note events on all tracks in the sequence as well as the distance between them. In other words, all tracks’ notes are pressed closer together so the sequence sounds like it is playing at twice the previous speed. This does not actually affect the pitches of notes or the tempo.

To double the speed of all note events in the sequence, click the **menu icon** (≡), select **Edit > Sequence**, and click **Events Double Speed**.

- The **Events Half Speed** function **immediately** doubles the lengths of all note events on all tracks in the sequence as well as the distance between them. In other words, all tracks' notes are spread further apart so the sequence sounds like it is playing at half of the previous speed. This does not actually affect the pitches of notes or the tempo.

To halve the speed of all note events in the sequence, click the **menu icon** (≡), select **Edit > Sequence**, and click **Events Half Speed**.

- The **Next Sequence** and **Previous Sequence** options select the next or previous sequence in your project (respectively). If you select one of these during playback, the next or previous sequence will be selected when the current one is done playing.

To select the next or previous sequence, click the **menu icon** (≡), select **Edit > Sequence**, and click **Next Sequence** or **Previous Sequence** (respectively).

- The **Next Sequence Now** and **Previous Sequence Now** options **immediately** select the next or previous sequence in your project (respectively).

To select the next or previous sequence immediately, click the **menu icon** (≡), select **Edit > Sequence**, and click **Next Sequence Now** or **Previous Sequence Now** (respectively).

- **Export as MIDI** lets you export the current sequence as a standard MIDI (.mid) file.

To export the sequence as a MIDI file, click the **menu icon** (≡), select **Edit > Sequence**, and click **Export as MIDI**. Alternatively, right-click the **Sequence** field in the Inspector and click **Export as MIDI**.

In the **Export Current Sequence as Standard MIDI file** window, do any of the following:

To select the storage device you want to view, click the **down arrow** (▼) next to the file path. If you have storage devices connected to your MPC hardware, they will appear in this column, as well.

To enter a folder, double-click it or press **Enter**.

To create a new folder, click **New Folder**, type a name for the new folder, and then click **OK** or press **Enter** to confirm the name, or click **Cancel** or press **Esc** to keep the original name. You will immediately enter the new folder.

To move up one folder level, click the **up arrow** (↑).

To name the file, click the **File** field at the bottom of the window, and type a name.

To save the file, click **Save** or press **Enter**.

To cancel, click **Cancel** or press **Esc**.

- The **Bounce to Sample** function **immediately** renders the sequence (all of its tracks) as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the sequence name. If you have already used this function on this sequence, then it will create another audio sample appended with the next-highest number.

To bounce the sequence to a sample, click the **menu icon** (≡), select **Edit > Sequence**, and click **Bounce to Sample**. Alternatively, right-click the **Sequence** field in the Inspector and click **Bounce to sample**. You can also press **Shift+Alt+S** (Windows) or **Shift+Option+S** (macOS).

- The **Bounce to New Audio Track** function **immediately** renders the sequence (all of its tracks) as an audio track in the project. The **Audio** tab will be automatically selected. By default, the sample will be named **Bounce -** and appended with a number. This function does not work for tracks that use MIDI programs or CV programs.

To bounce the sequence to an audio track, click the **menu icon** (≡), select **Edit > Sequence**, and click **Bounce to New Audio Track**. Alternatively, right-click the **Sequence** field in the Inspector and click **Bounce to new audio track**. You can also press **Alt+S** (Windows) or **Option+S** (macOS).

Track

You can use any of these functions on the currently selected track.

- The **Select All** function selects all events or audio track regions in the current sequence and track.
To select all events or audio track regions in the track, click the **menu icon** (≡), select **Edit > Track**, and click **Select All**.
- The **Deselect** function deselects all events or audio track regions in the current sequence and track.
To deselect all events or audio track regions in the track, click the **menu icon** (≡), select **Edit > Track**, and click **Deselect**.
- The **Delete** function erases the entire audio track. This cannot be used on MIDI tracks.
To delete the track, select the **Audio** tab, click the **menu icon** (≡), select **Edit > Track**, and click **Delete**. Click **OK** to continue or **Cancel** to return to the previous screen. Alternatively, right-click the **Track** field in the Inspector and click **Delete Audio Track**.
- The **Clear** function erases all note events from the current track.
To clear the track, click the **menu icon** (≡), select **Edit > Track**, and click **Clear**. Alternatively, right-click the **Track** field in the Inspector and click **Clear**. Click **Clear** to continue or **Cancel** to return to the previous screen.
- The **Explode** function **immediately** splits the current MIDI track into multiple MIDI 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. This cannot be used on audio tracks.
To explode the track, select the **MIDI** tab, click the **menu icon** (≡), select **Edit > Track**, and click **Explode**.
- The **Events Double Speed** function **immediately** halves the lengths of all note events on the track as well as the distance between them. In other words, the track's notes are pressed closer together so the track sounds like it is playing at twice the previous speed. This does not actually affect the pitches of notes or the tempo.
To double the speed of all note events in the track, click the **menu icon** (≡), select **Edit > Track**, and click **Events Double Speed**.
- The **Events Half Speed** function **immediately** doubles the lengths of all note events on the track as well as the distance between them. In other words, the track's notes are spread further apart so the track sounds like it is playing at half of the previous speed. This does not actually affect the pitches of notes or the tempo.
To halve the speed of all note events in the track, click the **menu icon** (≡), select **Edit > Track**, and click **Events Double Speed**.
- The **Next Track** and **Previous Track** options select the next or previous track in your sequence (respectively).
To select the next or previous track, click the **menu icon** (≡), select **Edit > Track**, and click **Next Track** or **Previous Track** (respectively).
- **Export as MIDI** lets you export the current track as a standard MIDI (.mid) file.
To export the track as a MIDI file, click the **menu icon** (≡), select **Edit > Track**, and click **Export as MIDI**. Alternatively, right-click the **Track** field in the Inspector and click **Export as MIDI**.
In the **Export Current Track as Standard MIDI file** window, do any of the following:
 - To select the storage device you want to view**, click the **down arrow** (▼) next to the file path. If you have storage devices connected to your MPC hardware, they will appear in this column, as well.
 - To enter a folder**, double-click it or press **Enter**.
 - To create a new folder**, click **New Folder**, type a name for the new folder, and then click **OK** or press **Enter** to confirm the name, or click **Cancel** or press **Esc** to keep the original name. You will immediately enter the new folder.
 - To move up one folder level**, click the **up arrow** (↑).
 - To name the file**, click the **File** field at the bottom of the window, and type a name.
 - To save the file**, click **Save** or press **Enter**.
 - To cancel**, click **Cancel** or press **Esc**.

- The **Bounce to Sample** function **immediately** renders the track as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the sequence name. If you have already used this function on this sequence, then it will create another audio sample appended with the next-highest number.

To bounce the track to a sample, click the **menu icon** (≡), select **Edit > Track**, and click **Bounce to Sample**. Alternatively, right-click the **Track** field in the Inspector and click **Bounce to sample**.

- The **Bounce to New Audio Track** function **immediately** renders the track (for the current sequence only) as an audio track in the project. The Main Mode will automatically switch to the **Audio** tab, and the original track will be muted. By default, it will be named **Audio** and appended with a number (e.g., **Audio 002**). This function does not work for tracks that use MIDI programs or CV programs.

To bounce the MIDI track to an audio track, click the **menu icon** (≡), select **Edit > Track**, and click **Bounce to New Audio Track**. Alternatively, right-click the **Track** field in the Inspector and click **Bounce to new audio track**.

Program

You can use any of these functions on the currently selected program. These functions are shown in the menu (**Edit > Program**) only if the **MIDI** tab is selected in the Inspector.

- The **Duplicate** function immediately creates an identical program. The duplicate program will use the same name but appended with a number (e.g., **Program 002**).

To duplicate the program, click the **menu icon** (≡), select **Edit > Program**, and click **Duplicate**. Alternatively, right-click a program in the **Project** panel and click **Duplicate**.

- The **Duplicate to Track** function immediately creates an identical program on a new track. The duplicate program will use the same name but appended with a number (e.g., **Program 002**). The new track will be named **Track** and appended with a number (e.g., **Track 06**).

To duplicate the program to a new track, click the **menu icon** (≡), select **Edit > Program**, and click **Duplicate to Track**. Alternatively, right-click a program in the **Project** panel and click **Duplicate to Track**.

- The **Merge** function lets you copy the pads (and their parameters) from one program into another, essentially consolidating two programs into one. The name of the new program will be the names of the original two programs separated by **and**.

To merge two programs, click the **menu icon** (≡), select **Edit > Program**, and click **Merge**. Alternatively, right-click a program in the **Project** panel and click **Merge**.

Use the **Pads from program** menu to select the program you want to copy.

Use the **into program** menu to select the program to which the copied pads will be added.

Select the **Start on next bank** box if you want the copied pads to start on **Pad 01** of the next available bank. Deselect this box if you want the copied pads to start on the next available pad, regardless of the bank.

Click **OK** to continue or **Cancel** to return to the previous screen.

- The **Delete** function erases the program from the project. The samples used in that program will remain in the project's sample pool and any other programs that use them.
To delete the program, click the **menu icon** (≡), select **Edit > Program**, and click **Delete**. Alternatively, right-click the **Program** field in the Inspector and click **Delete**. You can also right-click a program in the **Project** panel and click **Delete**.
- The **Rename** function lets you enter a new name for the program. Type a name and click **OK** to continue or **Cancel** to return to the previous screen.
To rename the program, click the **menu icon** (≡), select **Edit > Program**, and click **Rename**. Alternatively, right-click a program in the **Project** panel and click **Rename**.
- The **Bounce to Sample** function **immediately** renders all tracks that use that program (for the current sequence only) as an audio sample and places it in the project's sample pool. By default, it will be named **Bounce -** and appended with the program name. This function does not work for MIDI programs or CV programs.
To bounce the program to a sample, click the **menu icon** (≡), select **Edit > Program**, and click **Bounce to Sample**. Alternatively, right-click the **Program** field in the Inspector and click **Bounce to sample**.
- The **Bounce to New Audio Track** function **immediately** renders that program (for the current sequence only) as an audio track in the project. The Main Mode will automatically switch to the **Audio** tab, and the original program will be muted. By default, it will be named **Audio** and appended with a number (e.g., **Audio 002**). This function does not work for MIDI programs or CV programs.
To bounce the program to an audio track, click the **menu icon** (≡), select **Edit > Program**, and click **Bounce to Audio Track**. Alternatively, right-click the **Program** field in the Inspector and click **Bounce to new audio track**.
- The **Pad Color** option opens the **Pad Color** window where you can assign specific colors to your pads in each program. See the [Pad Color](#) chapter to learn how to use this.
To open the Pad Color window, click the **menu icon** (≡), select **Edit > Program**, and click **Pad Color**.
- The **Note Mapping** option opens the **Note Mapping** window where you can where you can assign a MIDI note to each pad in a program. See the [Note Mapping](#) chapter to learn how to use this.
To open the Note Mapping window, click the **menu icon** (≡), select **Edit > Program**, and click **Note Mapping**.
- The **Flatten Pad** option opens the **Flatten Pad** window where you can select a pad whose layered samples will be consolidated into a single audio sample on just its first layer. This function renders all samples on a pad as an audio sample and places it on the first layer of that pad. The resulting sample is the audio signal produced by that pad at full velocity (**127**) after the pad channel strip, which means that it includes any assigned pad insert effects and the results of warping the sample. This function is useful if you need to reduce how CPU-intensive a pad or program is by essentially "embedding" the warping and effects in the sample itself. By default, it will use the name of the first sample. This function works for drum programs only. (This is the same as the Flatten Pad button shown at the top of the touchscreen in Program Edit Mode.)
To flatten the samples of a pad, click the **menu icon** (≡), select **Edit > Program**, and click **Flatten Pad**.
Use the **Pad** menu to select the pad whose samples you want to flatten. Alternatively, press the desired **pad**.
Use the **Name** field to enter a name for the flattened sample.
Use the **Tail Length** field to set the length of the audio tail. This will add extra seconds to the end of the resulting audio file. This is useful if you are using effects or samples whose sounds exceed the defined audio length (e.g., long reverb or delay, one-shot samples with long decays, etc.). We recommend using an audio tail of at least a couple of seconds.
Click **Do it** to continue or **Cancel** to return to the previous screen.

Effects

You can apply various effects to the pads, keygroups, audio tracks, programs, submixes, and master outputs, using **insert** and **send/return** effects. This chapter can help you get a good overall understanding of how the effects work.

See [Appendix > Effects & Parameters](#) for a list of all available effects (with a brief description of each) and their editable parameters.

Overview

In a program, each **pad** or **keygroup** can have up to **four insert effects** applied to it. An entire **program** can have up to **four insert effects** applied to it, as well.

An **audio track**, like a program, can have up to **four insert effects** applied to it, as well.

For even further flexibility, each **submix** can have up to **four insert effects** applied to it. You can route pads, keygroups, audio tracks, or programs to a submix, which is then routed to a master output.

Additionally, each **pad**, **keygroup**, **audio track**, **program**, and **submix** can be sent to (up to) **four return channels (returns)**, each of which can have up to **four insert effects** of their own. Their audio will be routed through the insert effects on those returns, and the processed audio will be sent to a master output.

Finally, you can apply up to **four insert effects** to each master output (a stereo pair of channels: **Outputs 1/2**, **Outputs 3/4**, etc.).

When you create an audio mixdown of a sequence or song, you can choose whether or not master insert effects are included or send/return effects are included, depending on what you are mixing down:

If you are creating an audio mixdown of a pair of **master outputs**, you can choose whether or not **master insert effects** will be included in the mixdown.

If you are creating an audio mixdown of **separate programs** or **exploded tracks**, you can choose whether or not **send/return effects** will be included in the mixdown.

See [Audio Mixdown](#) to learn about these options.

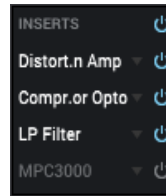
The Sampler and Looper handle effects differently:

The **Sampler** can use up to **four insert effects**, which are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later. Learn more about the Sampler in the [Modes > Sampler](#) chapter.

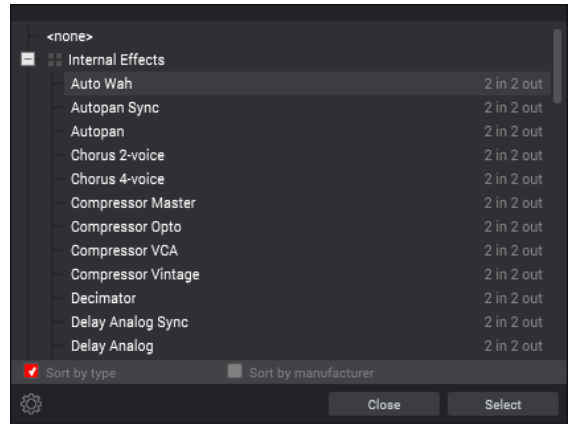
Similarly, the **Looper** can use up to **four insert effects**, which are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later. Learn more about the Looper in the [Modes > Looper](#) chapter.

Please see the rest of this chapter to learn how to use insert effects as well as send/return effects.

You can load, edit, remove, and activate or deactivate effects in the **Inserts** section of a channel strip. Each **Inserts** section has four insert effect slots.



To load an effect, double-click an empty slot in the **Inserts** section of a channel strip. In the window that appears:



- Click the **+** or **-** button to expand or collapse each category.
- The right edge of the window shows how many MIDI channels can be sent to and from each effect.
- Select **Sort by type** to sort the effects by type.
- Select **Sort by manufacturer** to sort the effects by manufacturer.
- Double-click an effect or click it and then click **Select** to load it.
- Click the **gear icon** to open the **Plugin Manager**. See [Plugins > Plugin Manager](#) to learn about this.
- Click **Close** or press **Esc** to close the window without loading any effect.

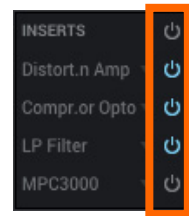
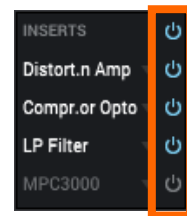
To remove a loaded effect, double-click the **down arrow** (▼) next to its name in the **Inserts** section. In the window that appears, double-click the **<none>** option at the top of the list of effects or click it once and then click **Select**.

To edit an effect, double-click its name in the **Inserts** section of a channel strip. A window with the effect's parameters will appear.

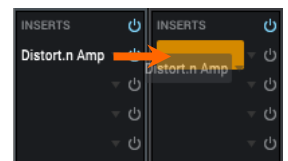
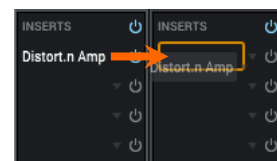


- To adjust a parameter**, click and drag its knob up or down. **To make finer adjustments**, press and hold **Ctrl** (Windows) or **⌘** (macOS) and then click and drag its knob up or down.
- To enable or disable the effect**, click the **On/Off** button in the upper-left corner.
- To keep the window on top at all times**, click the **down arrow** (↓) in the upper-right corner so it becomes an **up arrow** (↑). Click it again to allow the window to be hidden under others.
- To close the window**, click the **X** in the upper-right corner.

- To activate or deactivate an effect**, click the **on/off** button next to it.
- To deactivate all four effects**, click the **on/off** button next to **Inserts** so it turns **gray (off)**. Previously active effects will be off even though the button appears to be on.
- To reactivate the previously active effects**, click the **on/off** button next to **Inserts** so it turns **blue (on)**.



To move an effect from one slot to another, click and drag it from its original slot to another slot (the new slot will be outlined in **yellow** before you release it). The effect will retain all of its editable parameters.



To copy an effect from one slot to another, press and hold **Alt** (Windows) or **Option** (macOS) and then click and drag it from its original slot to another slot (the new slot will be **yellow** before you release it). The effect will retain all of its editable parameters.

Insert Effects

Insert effects can be applied to a **pad**, **keygroup**, **audio track**, **program**, **submix** or **master output**. The audio signal produced by that source is processed by any insert effect/effects that are loaded to that source (in the **Inserts** section of its channel strip) and activated. Each one can have up to four insert effects loaded and activated.

Below is an outline of where you can set the effects for a pad, keygroup, audio track, program, submix, or master output.

Note:

If the **Inserts** section is not shown in a channel strip in the **Inspector**, click the **menu icon** (≡), go to **View > Inspector**, and click **Inserts**.

If the **Inserts** section is not shown in a channel strip in the **Pad Mixer** or **Channel Mixer**, click the **box icon**.



Pad: You can load up to four insert effects to each pad. The **Inserts** section for a pad is available in two places:

- the **pad channel strip** in the **Inspector** (in any mode)
- the **pad channel strip** in the **Pad Mixer**

Tip: When using pad insert effects, they will be applied to the selected pad only. This means that you could apply unique combinations of effects to each pad within a program. If you want to apply the same effect to all pads, do this with a program insert effect.

Keygroup: You can load up to four insert effects to each keygroup. The **Inserts** section for a keygroup is available in two places:

- the **keygroup channel strip** in the **Inspector** (in any mode)
- the **keygroup channel strip** in the **Pad Mixer**

Important: When using keygroup insert effects, they will be applied to that keygroup only. Keep this in mind if you load insert effects to multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

Audio Track: You can load up to four insert effects to each audio track. The **Inserts** section for an audio track is available in three places:

- the **audio track channel strip** in the **Inspector**
- the **audio track channel strip** in the **Pad Mixer**
- the **audio track channel strip** in the **Channel Mixer**

Program: You can load up to four insert effects to each program. The **Inserts** section for a program is available in three places:

- the **program channel strip** in the **Inspector**
- the **program channel strip** in the **Pad Mixer**
- the **program channel strip** in the **Channel Mixer**

Submix: You can load up to four insert effects to each submix. The **Inserts** section for a submix is available only in the **submix channel strip** in the **Channel Mixer**.

Master Output: You can load up to four insert effects to each master output (a stereo pair of channels: **Outputs 1/2**, **Outputs 3/4**, etc.). The **Inserts** section for a master output is available in two places:

- the **master channel strip** in the **Inspector**
- the **master channel strip** in the **Channel Mixer**

Send/Return Effects

Send/return effects work in the following way:

1. A **pad, keygroup, audio track, program, or submix** can send its audio to a **return** at a designated **send level**.
2. That audio is processed by the effects on the return. Each return can have up to **four insert effects** loaded and activated.
3. The processed audio is sent to a pair of master outputs (stereo) or a single master output (mono).

There are four available returns. Any **pad, keygroup, audio track, program, or submix** can send its audio to any combination of those returns at the same time.

You can load send/return effects and set the **return levels** in two places:

- the **return channel strip** in the **Inspector**
- the **return channel strip** in the **Channel Mixer**

Below is a description of where to set the desired send levels for a pad, keygroup, audio track, program, or submix.

Note:

If the **Send** knobs are not shown in a channel strip in the **Inspector**, click the **menu icon** (≡), go to **View > Inspector**, and click **Sends**.

If the **Send** knobs are not shown in a channel strip in the **Pad Mixer** or **Channel Mixer**, click the **four-circles icon**.



Pad: The **Send** knobs for a pad are available in two places:

- the **pad channel strip** in the **Inspector** (in any mode)
- the **pad channel strip** in the **Pad Mixer**

Keygroup: The **Send** knobs for a keygroup are available in two places:

- the **keygroup channel strip** in the **Inspector** (in any mode)
- the **keygroup channel strip** in the **Pad Mixer**

Important: When using keygroup send/return effects, they will be applied to that keygroup only. Keep this in mind if you use send/return effects with multiple keygroups with overlapping note ranges—the effects will overlap in that range as well.

Audio Track: The **Send** knobs for an audio track are available in three places:

- the **audio track channel strip** in the **Inspector**
- the **audio track channel strip** in the **Pad Mixer**
- the **audio track channel strip** in the **Channel Mixer**

Program: The **Send** knobs for a program are available in three places:

- the **program channel strip** in the **Inspector**
- the **program channel strip** in the **Pad Mixer**
- the **program channel strip** in the **Channel Mixer**

Submix: The **Send** knobs for a submix are available only in the **submix channel strip** in the **Channel Mixer**.

Automation

You can set the automation for programs and audio tracks to be “written,” “read,” or disabled entirely. You can do this globally or for individual programs and audio tracks.

Global

A button in the upper-right corner of the **toolbar** controls the global automation. When you click this button to change its state, it will change the automation state for all programs in the project. (If you have changed the automation state of an individual program or audio track as described below, then this global automation button will indicate that rather than the global automation state.)

Click this **global automation button** to cycle through its three states:

When **off**, automation data will be ignored. If you have already recorded or entered automation, clicking this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while clicking the button.



Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, automation data will be read but not recorded. 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)**, automation can be recorded and will overwrite any existing automation. (Make sure not to touch Q-Link knobs accidentally while you are recording.)



Programs & Audio Tracks

You can also set the automation for each program or audio track by using the program/audio track automation button in the channel strip for that program or audio track (shown in the Inspector, Pad Mixer, and Channel Mixer). Automation is available for all program types.

Note: Remember that clicking the global automation button will change the automation state for **all** programs in the project; if they were originally different, all of them will then match the global automation state.

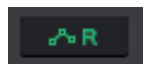
Click this **program/audio track automation button** to cycle through its three states:

When **off**, the program will ignore automation data. If you have already recorded or entered automation, clicking this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while clicking the button.



Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the program will read automation data but will not record any additional automation over it. 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.)



Recording Automation

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

You can automate three types of parameters for MIDI tracks:

- **Track Parameters:**
 - the mixer parameters of the track (**Volume, Pan, Mute, and Solo**)
 - the MIDI CCs of the track (**0–127**)
 - aftertouch messages
 - pitch bend messages
 - channel pressure messages
 - program change messages
- **Program Parameters** (not available for MIDI programs):
 - the mixer parameters of the program (**Volume, Pan, Mute, Solo, and Send 1–4**)
 - parameters of the program (options vary based on the type of program)
 - parameters for insert effects on the program (options vary based on the effect)
- **Pad Parameters** (for drum programs, keygroup programs, and clip programs):
 - the mixer parameters of the pad/keygroup (**Level, Pan, Pad Mute, Pad Solo, or Send 1–4**)
 - parameters of the pad/keygroup (options vary based on the type of program)
 - parameters for insert effects on the pad/keygroup (options vary based on the effect)

You can automate only one set of parameters for audio tracks:

- **Audio Track Parameters:**
 - the mixer parameters of the audio track (**Volume, Pan, Mute, Solo, and Send 1–4**)
 - parameters for insert effects on the audio track (options vary based on the effect)

To enter automation for track parameters on a MIDI track:

1. Select the track, and then click **Rec** (●) or **Overdub** (⊕) to record-arm it.
2. Click **Play** (▶) or **Play Start** (▶|) to start playback of the sequence.
3. Use whatever controls you want to adjust the parameter/parameters as the sequence plays. Your changes will be recorded in real time. Note that recording automation is **not** an overdub-style process (even if you clicked Overdub to record-arm the track); when the sequence repeats, it will overwrite/replace any automation that was previously recorded.
4. Click **Stop** (■) to stop the automation recording.

Alternatively, create the automation curves manually (see [Editing Automation](#) to learn how to do this).

To record automation of a program parameter or pad parameter:

1. Set the **program/audio track automation button** to the **red Write (W)** option for any program or audio track whose parameters (or pad parameters) you want to automate. Alternatively, click the **global automation button** in the upper-right corner of the window to change the state of all programs and audio tracks.
2. Click **Play** (▶) or **Play Start** (▶|) to start playback of the sequence.
3. Use whatever controls you want to adjust the parameter/parameters as the sequence plays. Your changes will be recorded in real time. Note that recording automation is **not** an overdub-style process; when the sequence repeats, it will overwrite/replace any automation that was previously recorded.
4. Click **Stop** (■) to stop the automation recording.

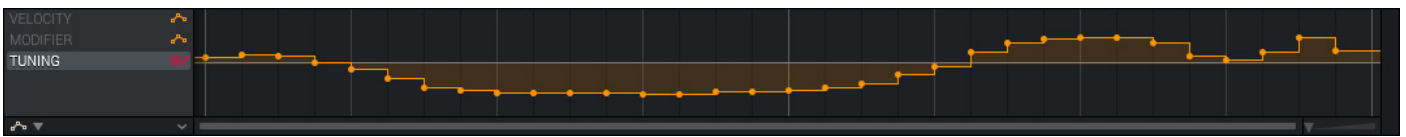
Once you are done, we recommend setting the **program/audio track automation button** for that program or audio track to the **green Read (R)** option. This ensures your track uses the automation you just recorded when you play it back (and will not be overwritten by any future adjustments you make to parameters during sequence playback).

Editing Automation

You can use automation editing tools to adjust or create automation curves for all available parameters.

To edit automation of a program parameter or pad parameter, use the automation lane in the **Grid Editor**:

1. In the **Grid Editor**, make sure the automation lane is shown. If it is not, click the **up arrow** (^) in the lower-left corner of the Grid Editor.
2. Click the **down arrow** (▼) in the lower-left corner of the Grid Editor. Use the menu and submenus that appear to select the desired parameter. The parameter name will then appear below **Modifier**.
3. Use the **pencil** and **marquee tools** described below to create and edit automation for this parameter in the automation lane.



Use these tools in the Grid Editor to create or edit the automation curve in the automation lane. See [Editors > Grid Editor](#) to learn more about using the Grid Editor in general.

Important: An automation curve consists of several **points** placed according to current time division—aligned with the quantization grid). You can create or move points without restricting them to the time division by pressing and holding **Shift**.



Pencil: Draw Mode:

To create a point, click the desired location in the automation lane.

To select a point, click it.

To move a point, click and drag it to another location in the automation lane. Press and hold **Shift** while doing this to move it without restricting (“snapping”) it to the quantization grid.

To erase a point, double-click it.



Marquee: Marquee Mode:

To select a point, click it.

To select multiple points, click and drag across the automation lane to create a box around them.

To move a point, click and drag it to another location in the automation lane. Press and hold **Shift** while doing this to move it without restricting (“snapping”) it to the quantization grid.

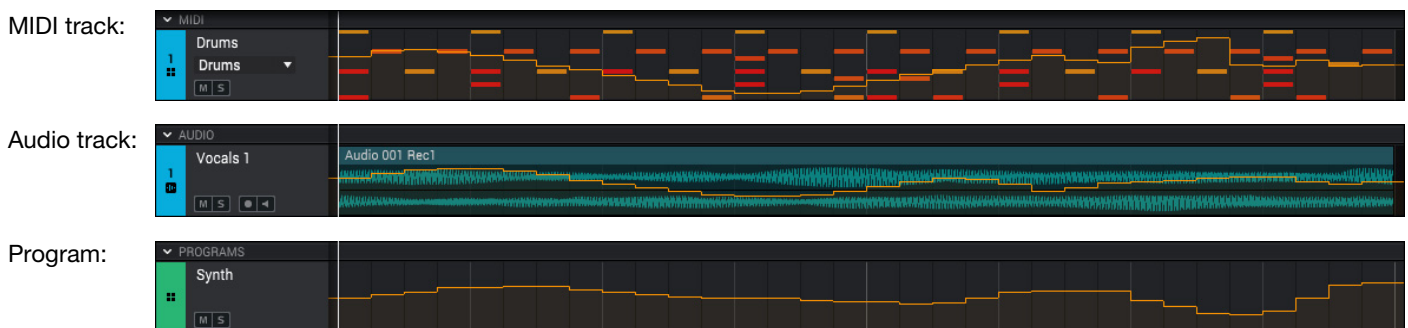
To move multiple points, select them as described above, and then click and drag them to another location in the automation lane. Press and hold **Shift** while doing this to move them without restricting (“snapping”) them to the quantization grid.

To edit automation of a track parameter for a MIDI track, use the automation lane in the **Grid Editor**, as described [above](#). Alternatively, use the **Track View** in Track View Mode, the Channel Mixer, or Track Mute Mode.

To edit automation of a track parameter in the Track View:

1. In the **Track View**, make sure the tracks you want are shown. If they are not, click **menu icon** (≡) in the upper-right corner, and select or deselect **Show Unused Tracks**, **Show Programs**, **Show Audio Tracks**, and **Show Midi Tracks**.
2. Click the **A icon** in the upper-left corner so it is **white**. The menu next to will be enabled, and **Automation** and its editing tools will appear above the middle of the Track View.
3. Click the **menu** next to the **A icon** to select the desired parameter.
4. Use the **pencil** and **marquee tools** described below to create and edit the automation curve for this parameter in the track strip or program strip.

MIDI track, audio track, and program strips appear slightly differently while displaying their automation curves:



Use these tools in the Track View Editor to create or edit the automation curve. See [Track View](#) to learn more about using the Track View in general.

Important: An automation curve consists of several points placed according to current time division—aligned with the quantization grid). You can create or move points without restricting them to the time division by pressing and holding **Shift**.



Pencil: Draw Mode:

To create a point, click the desired location in the track strip or program strip.

To select a point, click it.

To move a point, click and drag it to another location in the track strip or program strip.

To erase a point, double-click it.



Marquee: Marquee Mode:

To select a point, click it.

To select points, click and drag across the track strip or program strip to create a box around them.

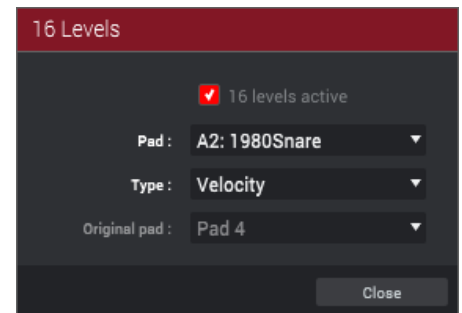
To move a point, click and drag it to another location in the track strip or program strip. Press and hold **Shift** while doing this to move it without restricting (“snapping”) it to the quantization grid.

To move multiple points, select them as described above, and then click and drag them to another location in the track strip or program strip. Press and hold **Shift** while doing this to move them without restricting (“snapping”) them to the quantization grid.

16 Level

When 16 Level is first activated, the selected pad (**Pad A01** by default) 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.

To show the 16 Level window, click the **menu icon** (≡), select **Tools**, and click **16 Level**. Alternatively, click the **16 Level** button above the **Pads** section in Main Mode or Program Edit Mode.



To select a pad, do one of the following:

- Press and hold **16 Level**, and then press the desired **pad**.
- Click the **16 Levels** box to deselect it (temporarily disabling the feature), press the desired **pad**, and then click the **16 Levels** box again to select it.
- Click the **Pad** field, and use the **data dial** or **-/+** buttons.
- Double-click the **Pad** field, and click the desired pad in the list that appears.

In the **16 Levels** window, click the **Type** menu to choose the parameter: **Velocity**, **Tune**, **Filter**, **Layer**, **Attack**, or **Decay**.

If the **Type** is set to **Tune**, click the **Original pad** menu and select the pad that will contain the note at its original pitch (tuning).

Note Mapping

Note Mapping lets you assign specific MIDI notes to your pads in each program except for keygroup programs.

To show the Note Mapping window, click the **menu icon** (≡), select **Edit > Program**, and click **Note Mapping**.

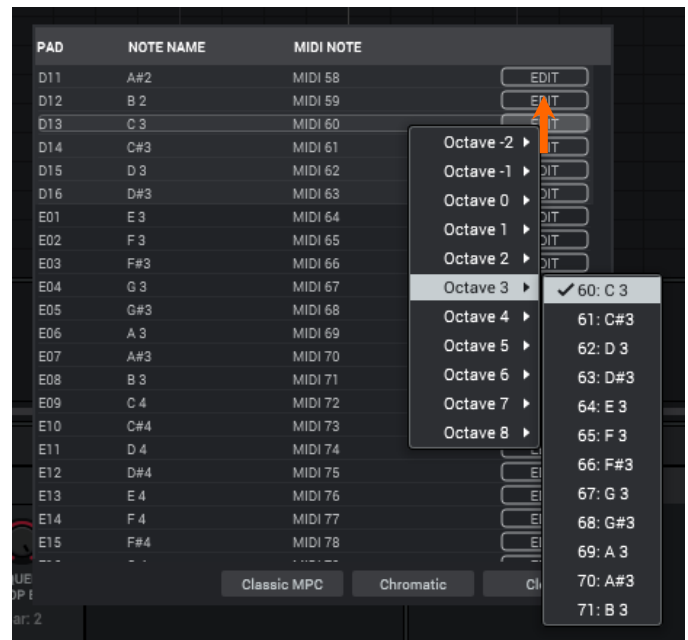
Important: If the Note Mapping window is already open and you want to assign pad colors for another program, click **Close**, select a track that uses the desired program, and then open the Note Mapping window again.

The **Pad** column indicates the pad bank and number of each pad in the program.

The **Note Name** column indicates the note value (e.g., **G#3**, **A 4**, etc.).

The **MIDI Note** column indicates the MIDI note number (corresponding to the note value).

Click **Edit** next to each pad to open a submenu listing the available octaves. Select an octave and then select the note you want to assign to the pad.



Click **Classic MPC** to assign a preconfigured note mapping to the pads that was used on early MPCs.

Click **Chromatic** to assign all notes to all pads chromatically in an ascending order (i.e. **C-2/MIDI Note 0**, assigned to **Pad A01**, through **G 8/MIDI Note 127**, assigned to **Pad H16**).

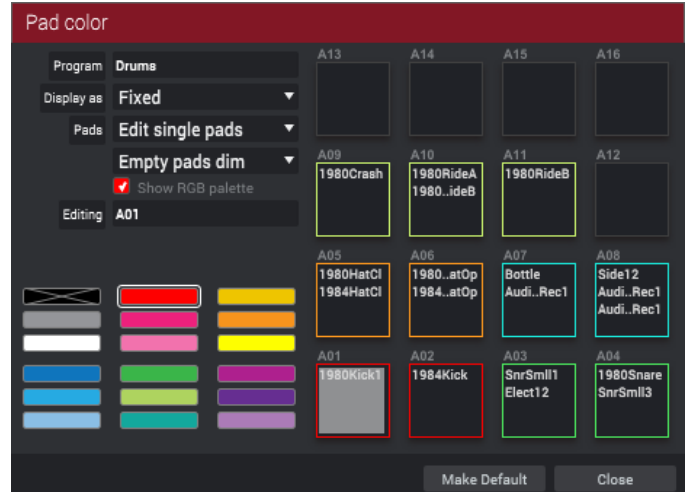
Click **Close** to close this window and use the current note mapping.

Pad Color

Pad Color lets you assign specific colors to your pads in each program.

To show the Pad Color window, click the menu icon (≡), select **Edit > Program**, and click **Pad Color**.

Important: If the Pad Color window is already open and you want to assign pad colors for another program, click **Close**, select a track that uses the desired program, and then open the Pad Color window again.



Use the **Display As** field to set how the pad lights will display:

Off: The pads will be unlit whether you are playing them or not.

Classic Velocity: The pads will be unlit while you are not playing them. When you press them, they will light with colors according to the velocity: red indicates a high velocity, yellow indicates a low velocity.

Fixed: The pads will be lit with their assigned colors whether you are playing them or not.

Off->Velocity: The pads will be unlit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.

Dim->Velocity: The pads will be dimly lit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.

Bright->Velocity: The pads will be brightly lit when you are not playing them. When you press them, they will light with their assigned color with a brightness that corresponds with the velocity.

Use the **Pads** field to determine whether you are setting the color for one pad (**Edit single pads**) or all pads (**Edit all pads**).

Tip: To quickly assign that color to all pads in the program, press and hold **Shift** while clicking a color button.

Use the **Empty pads** menu to set how empty pads will display:

Empty pads off: Pads without any sounds will remain off.

Empty pads dim: Pads without any sounds will remain more dimly lit than pads with sounds assigned.

Empty pads normal: Pads without any sounds will appear the same as pads with sounds assigned.

Click a **pad** to select it, and then click one of the **color buttons** to assign its color.

Tip: To select the color button corresponding a specific pad's color, press and hold **Shift**, and then press the pad or click it on the window.

To make the current pad color settings the defaults for all programs on the same type (e.g., drum programs, keygroup programs, etc.), click **Make Default**.

Click **Close** to close the window.

Audio Mixdown

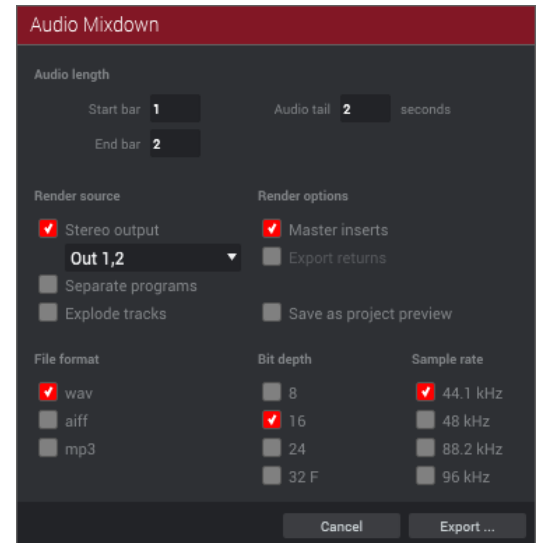
The Audio Mixdown window lets you render and export either the current sequence or song as an audio file. In Song Mode, this will export the entire song. In any other mode, this will export the current sequence only.

To open the **Audio Mixdown window**, click the **menu icon** (≡), and go to **File > Export** and click **As Audio Mixdown**.

Audio Length

Use the **Start Bar** and **End Bar** fields to define where the resulting audio file will start and end, respectively.

Use the **Audio Tail** field to add extra seconds to the end of the resulting audio file. This is useful if you are using effects or samples whose sounds exceed the defined audio length (e.g., long reverb or delay, one-shot samples with long decays, etc.). We recommend using an audio tail of at least a couple of seconds.



Render Source

Select **Stereo Output** and use the adjacent field to select a pair of outputs: **Out 1,2–31,32**. The mixdown will be taken from these outputs.

Select **Separate Programs** to create a mixdown of each program used in the sequence or song.

Select **Explode Tracks** to create a mixdown of each track used in the sequence (you cannot use this option for an entire song).

Important: Each pad or keygroup must have their output routed to **Program** to be included in the mixdown. This is the typical (and default) setting.

Render Options

If your **Render Source** is set to **Stereo Output**, select **Master Inserts** to include master insert effects in the mixdown.

If your **Render Source** is set to **Separate Programs** or **Explode Tracks**, select **Export Returns** to include return buses in the mixdown.

If your **Render Source** is set to **Stereo Output**, click **Save as Project Preview** to save the sequence or song as a project preview file (which you can play for reference in the Browser). If you select this box, **Stereo Output** will automatically be selected, as well.

File Formats

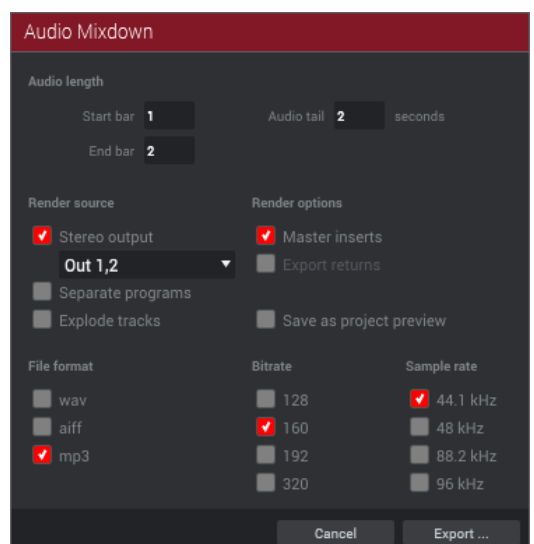
Click **WAV**, **AIFF**, or **MP3** to select the file format of the mixdown.

For **WAV** and **AIFF** files, use the **Bit Depth** field to select a bit depth of **8**, **16**, or **24** bits, or **32** bits, floating point (**32 F**). For **MP3** files, you can select a **Bitrate** of **128**, **160**, **192**, or **320** kbps.

Use the **Sample Rate** field to select a sample rate of **44.1 kHz**, **48 kHz**, **88.2 kHz**, or **96 kHz**. In most cases, we recommend selecting **44.1 kHz**.

Click **Export** to enter the **Save** screen where you can select a name and location to save your audio mixdown.

Click **Cancel** to return to the previous screen.



Plugins

The MPC software enables you to scan third-party plugins (VST or AU formats) to use within your projects.

Instrument plugins can be used with plugin programs. See [Programs > Plugin Programs](#) to learn about this.

Effect plugins can be used as insert effects on pads, keygroups, audio tracks, most types of programs, submixes, returns, and master outputs. See [Effects > Insert Effects](#) to learn about this.

See the following [Scanning Plugins](#) section to learn how to scan your computer and external storage devices for the plugins you want to use.

See the [Plugin Manager](#) section to learn how to manage all of your scanned plugins.

See the [Selecting Plugins](#) section to learn how to select a plugin when using plugin programs or insert effects.

Scanning Plugins

In order to use plugins in the MPC software, the software must scan any folders on your computer or external storage device where they are located.

To scan your plugins:

1. **Windows:** Click the **menu icon** (≡), select **Edit**, and click **Preferences**.
macOS: Click the **MPC** menu and click **Preferences**.
2. In the **Preferences** window that appears, click the **Plugins** tab.
3. Click the ... button next to one of the **VST Folders** fields.
4. In the window that appears, select the location where your plugins are stored. Select the folder and click **Open** (while not actually in the folder).
5. The file path will appear in the **VST Folders** field. Click the box next to it so it is selected.

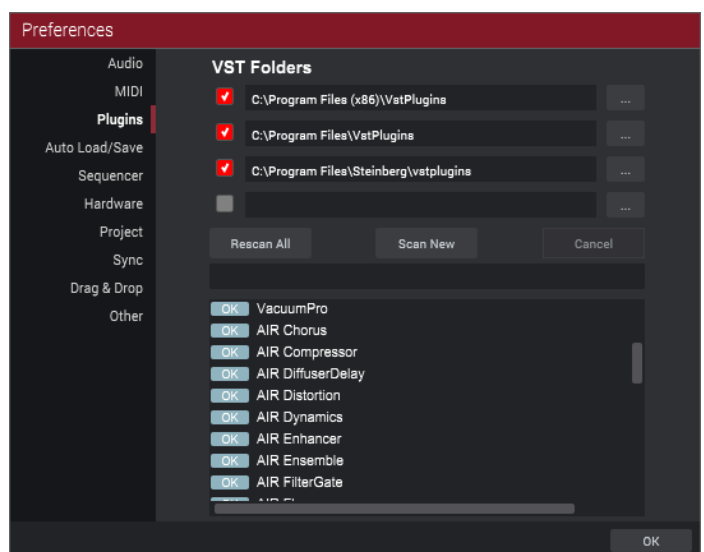
If you have plugins stored in other locations, you can repeat Steps 3–5 to select those locations.

6. Click **Scan New** to scan these recently selected locations. This is helpful if you have already scanned other locations and want to scan just the one/ones you recently added.

Alternatively, click **Rescan All** to scan all four locations again.

The list of scanned plugins will appear in the list below. When the scan is completed, the status bar above it will show **Done**.

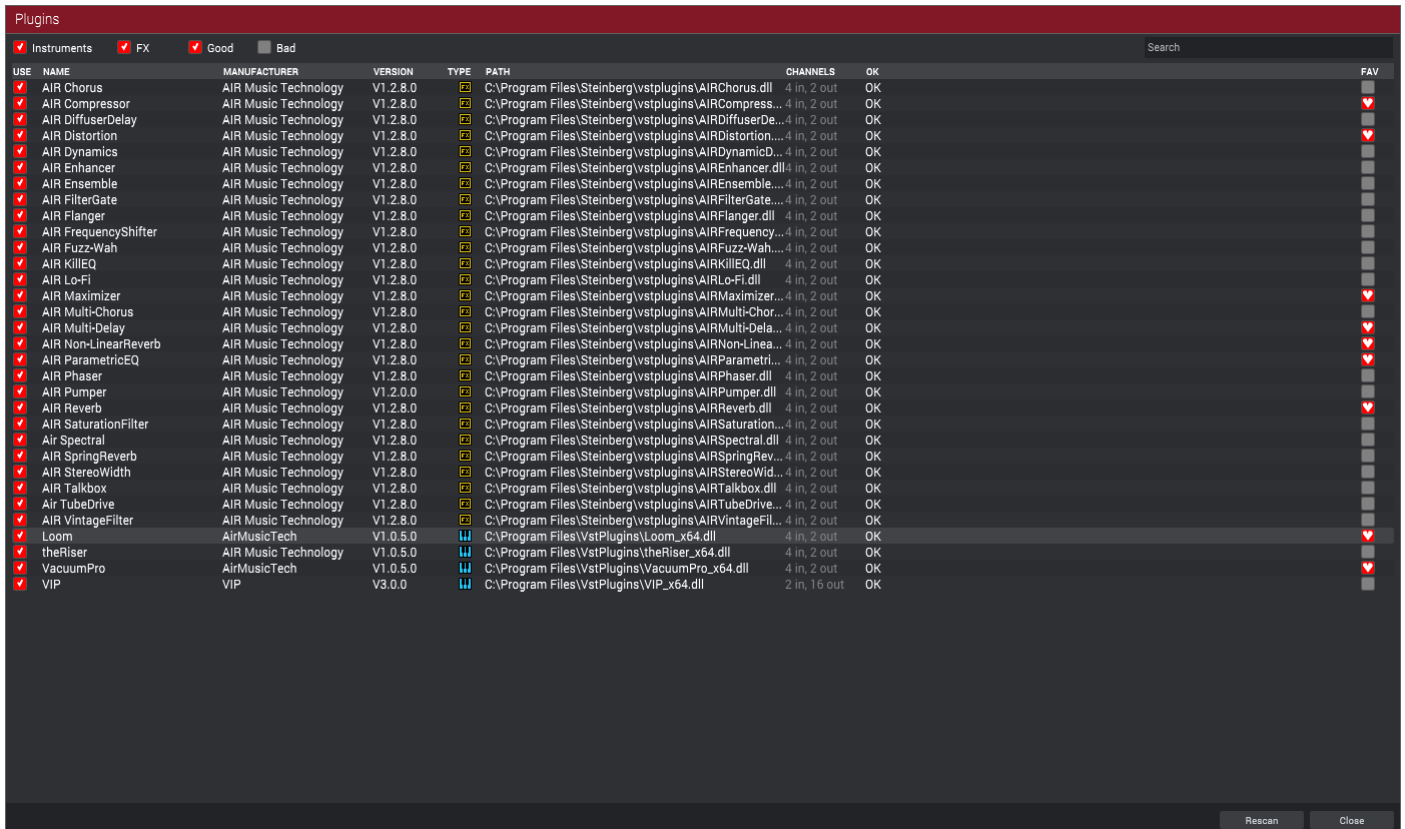
7. Click **OK** to close the window.



Plugin Manager

The Plugin Manager lets you view and manage the status of all plugins in your MPC software.

To open the **Plugin Manager**, click the **menu icon** (≡), select **Tools**, and click **Plugin Manager**. The **Plugins** window will appear. Alternatively, click the **gear icon** in the lower-left corner of the window that appears when selecting a plugin or an insert effect.



Use these boxes and the **Search** field to filter the plugins shown in the list below.

Instruments: Select this box to show instrument plugins.

FX: Select this box to show effect plugins.

Good: Select this box to show plugins that were successfully scanned.

Bad: Select this box to show plugins that failed to scan.

Search: Use this field to enter a search term. The results will appear in the list below.

The columns (described below, left to right) indicate the plugins' status. Click a column to sort the list by that category. Right-click the top of a column to **auto-size this column**, **auto-size all columns**, or to show or hide specific columns.

Note: The MPC software supports VST or AU plugins.

Use: Select this box to allow the MPC software access to this plugin. If this box is deselected, it will not appear if you select an instrument plugin (to use for a plugin program) or an effect plugin (to use on an insert effect slot).

Name: This is the plugin's name.

Manufacturer: This is the plugin's manufacturer.

Version: This is the version of the plugin.

Type: This is the type of plugin. A **waveform** and **fx** indicate an effect plugin. A **guitar** indicates an instrument plugin.

Path: This is where the plugin is located on your computer or external storage device.

Channels: This is how many MIDI channels can be sent to and from the plugin.

OK: This indicates whether the plugin has been successfully scanned or not. **OK** indicates that the plugin is properly scanned and can be used in the MPC software. **Failed** indicates that the plugin was not properly scanned. To rescan the plugin, click it and then click **Rescan** in the lower-right corner.

Fav: This indicates whether the plugin is a “favorite” or not. Favorites will appear in a separate category when you select an instrument or effect plugin. Click the box to select or deselect it.

Rescan: Click this to prompt the MPC software to rescan the selected plugin.

Close: Click this to close the window. Alternatively, press **Esc**.

Selecting Plugins

Instrument plugins can be used with plugin programs (see [Programs > Plugin Programs](#) to learn how to create a plugin program).

To select an instrument plugin for a plugin program, select the track that uses that program, and then click the **Plugin** field in the **Program** section of the **Inspector**.

In the window that appears:

Click the **+** or **-** button to expand or collapse each category. **Favorites** are instrument plugins whose **Fav** box is selected in the Plugin Manager.

The right edge of the window shows how many MIDI channels can be sent to and from each plugin.

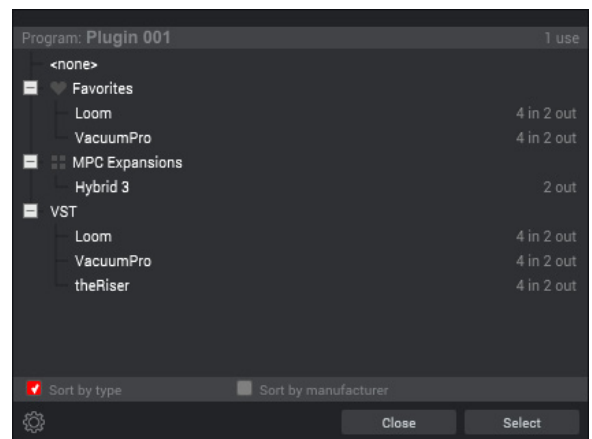
Select **Sort by type** to sort the plugins by type.

Select **Sort by manufacturer** to sort the plugins by manufacturer.

Double-click a plugin or click it and then click **Select** to load it.

Click the **gear icon** to open the **Plugin Manager**. See [Plugin Manager](#) to learn about this.

Click **Close** or press **Esc** to close the window without loading any plugin.



Effect plugins can be used as insert effects on pads, keygroups, audio tracks, most types of programs, submixes, returns, and master outputs (see [Effects > Insert Effects](#) to learn how these work).

To load an effect plugin, double-click an empty slot in the **Inserts** section of a channel strip. In the window that appears:

Click the **+** or **-** button to expand or collapse each category. **Favorites** are effect plugins whose **Fav** box is selected in the Plugin Manager.

The right edge of the window shows how many MIDI channels can be sent to and from each effect.

Select **Sort by type** to sort the effects by type.

Select **Sort by manufacturer** to sort the effects by manufacturer.

Double-click an effect or click it and then click **Select** to load it.

Click the **gear icon** to open the **Plugin Manager**. See [Plugin Manager](#) to learn about this.

Click **Close** or press **Esc** to close the window without loading any effect.



Expansions

The MPC software enables you to use MPC Expansions, collections of samples, loops, riffs, etc. available in the Akai Professional Expansion Store.

To open the Expansion Store:

Windows: Click the **menu icon** (≡), select **Help**, and select **Expansion Store**.

macOS: Click the **MPC** menu and click **Expansion Store**.

This opens an online store of available MPC Expansions on the Akai Professional website. You must have an internet connection to use this feature.

See the [Expansion Manager](#) chapter to learn how to manage all of your scanned MPC Expansions.

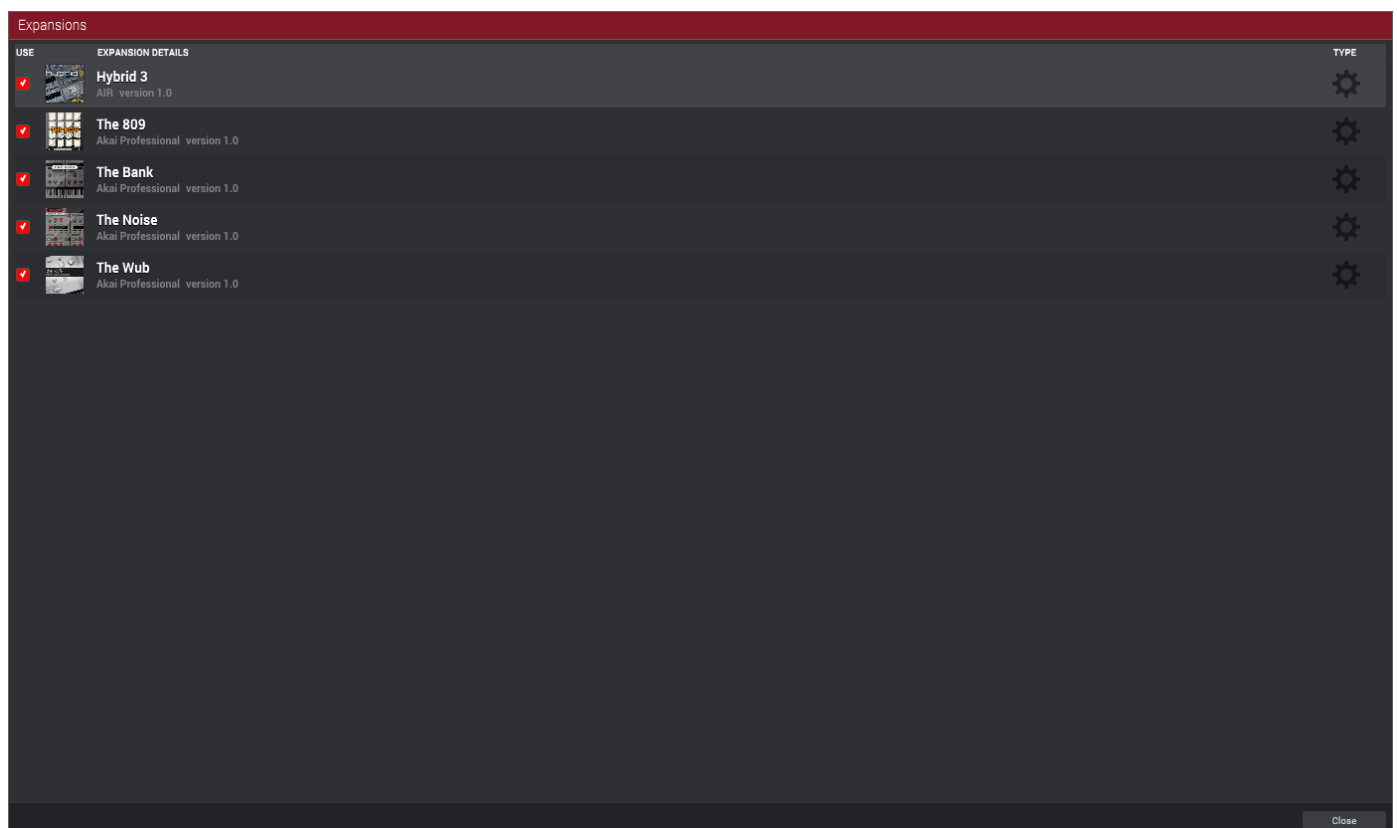
See the [Selecting Expansions](#) section to learn how to select an MPC Expansion when using plugin programs.

See the [Browser > Expansion Browser](#) chapter to learn how to use the Expansion Browser.

Expansion Manager

The Expansion Manager lets you view and manage the status of all MPC Expansions in your MPC software.

To open the Expansion Manager, click the **menu icon** (≡), select **Tools**, and click **Expansion Manager**. The **Expansions** window will appear.



The columns (described below, left to right) indicate the MPC Expansions' status. Right-click the top of a column to **auto-size this column** or **auto-size all columns**.

Use: Select this box to allow the MPC software access to this MPC Expansion. If this box is deselected, it will not appear in the Expansion Browser.

Expansion Details: This shows the MPC Expansion's name, the manufacturer, and the version.

Type: This indicates the type of MPC Expansion. A gear icon indicates an MPC Expansion that is included by default with the MPC software.

Close: Click this to close the window. Alternatively, press **Esc**.

Selecting Expansions

MPC Expansions can be used with plugin programs (see [Programs > Plugin Programs](#) to learn how to create a plugin program).

To select an MPC Expansion for a plugin program, select the track that uses that program, and then click the **Plugin** field in the **Program** section of the **Inspector**.

In the window that appears:

Click the **+** or **-** button to expand or collapse each category. **Favorites** are **instrument plugins** whose **Fav** box is selected in the Plugin Manager.

The right edge of the window shows how many MIDI channels can be sent to and from each plugin or MPC Expansion.

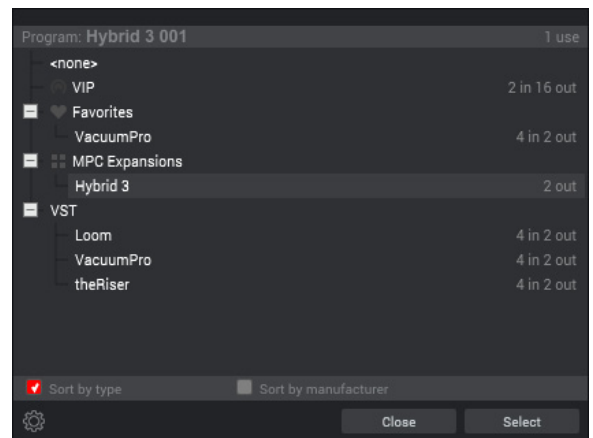
Select **Sort by type** to sort the list by type.

Select **Sort by manufacturer** to sort the list by manufacturer.

Double-click a plugin or MPC Expansion or click it and then click **Select** to load it.

Click the **gear icon** to open the **Plugin Manager**. See [Plugins > Plugin Manager](#) to learn about this.

Click **Close** or press **Esc** to close the window without loading any plugin or MPC Expansion.



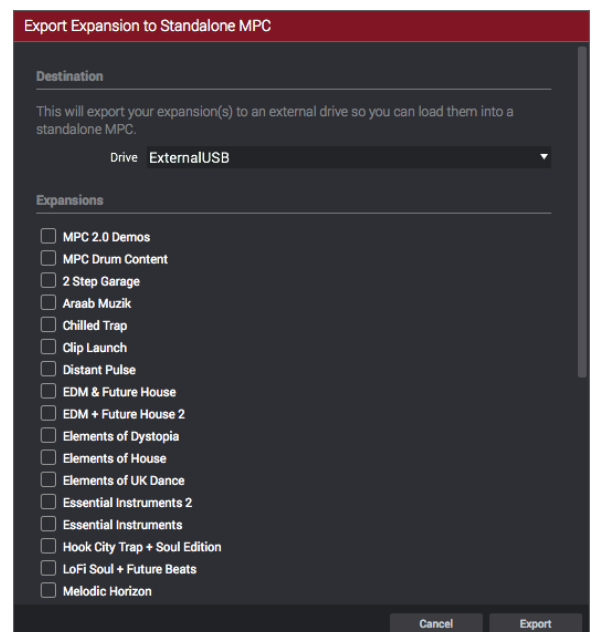
Exporting Expansions

You can export MPC Expansion Packs (installed on your computer) to your MPC X or MPC Live for use in its Standalone Mode.

To export MPC Expansions:

1. Connect your MPC X or MPC Live to your computer. Make sure both are powered on.
2. On your computer, open the MPC software.
3. On your MPC X or MPC Live, enter Controller Mode.
4. In the MPC software window, click the **menu icon** (≡), select **File > Export**, and then click **Expansion....**
5. In the **Export Expansion to Standalone MPC** window that appears, click the **Drive** menu and select a storage device that you will use with your MPC X or MPC Live: the internal SATA drive (if you have installed one in your MPC X or MPC Live), an SD card, or a USB flash drive.
6. In the **Expansions** list, click the box next to each one to select or deselect it. Only the selected ones will be exported. Click **Select all** to select all of them or **Select none** to deselect all of them.
7. Click **Export** to start exporting, or click **Cancel** to close the window and not export anything.

The exporting process creates an **Expansions** folder at the root level of your storage device and copies your MPC Expansions into it.



Modes

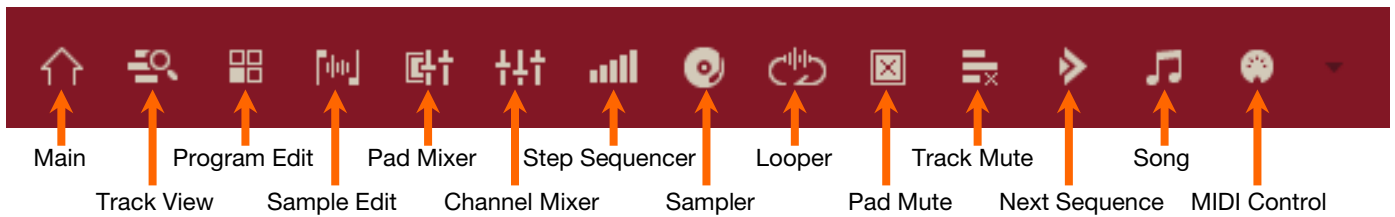
The MPC software is always in one of 14 modes. This chapter describes the various features and functions of each one.

To enter a mode, click its **mode icon**. If its icon is not shown, click the **down arrow** (▼) to show a menu of all modes, and then click it.

You can customize which mode icons are shown here by click the **menu icon** (≡) in the upper-left corner and going to **View > Toolbar > Toolbar Modes**.

Important: If a sequence is currently playing, you will not be able to enter Song Mode. Stop playback before entering Song Mode.

Click an icon below to skip directly to that chapter.



Main Mode



Main Mode provides access to all three editors as well as basic track editing functions.

To enter Main Mode, do any of the following:

- Click the **house icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Main Mode**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Main**.

The screenshot displays the MPC software interface in Main Mode. The top portion is the Grid Editor, showing a piano roll with tracks B03 through A01. The tracks are color-coded and contain various drum samples. Below the piano roll is a Velocity Modifier section. The bottom portion of the interface is divided into three panels: Q-Links, Pads, and Project. The Q-Links panel contains various settings like Sequence Tempo, Track Length, and Metronome. The Pads panel shows a grid of pads with sample names like 1980Crash, 1980RideA, and 1980RideB. The Project panel shows a list of samples and sequences.

The upper half of the window can display the Grid Editor, Wave Editor, or List Editor. Click the **Grid**, **Wave**, or **List** tab to enter the corresponding editor. See [General Features > Editors](#) to learn more about each one.

The lower half of the window can display the **Q-Links** panel, **Pads** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels](#) to learn more about the **Q-Links** or **Project** panels. The **Pads** panel is described [below](#).

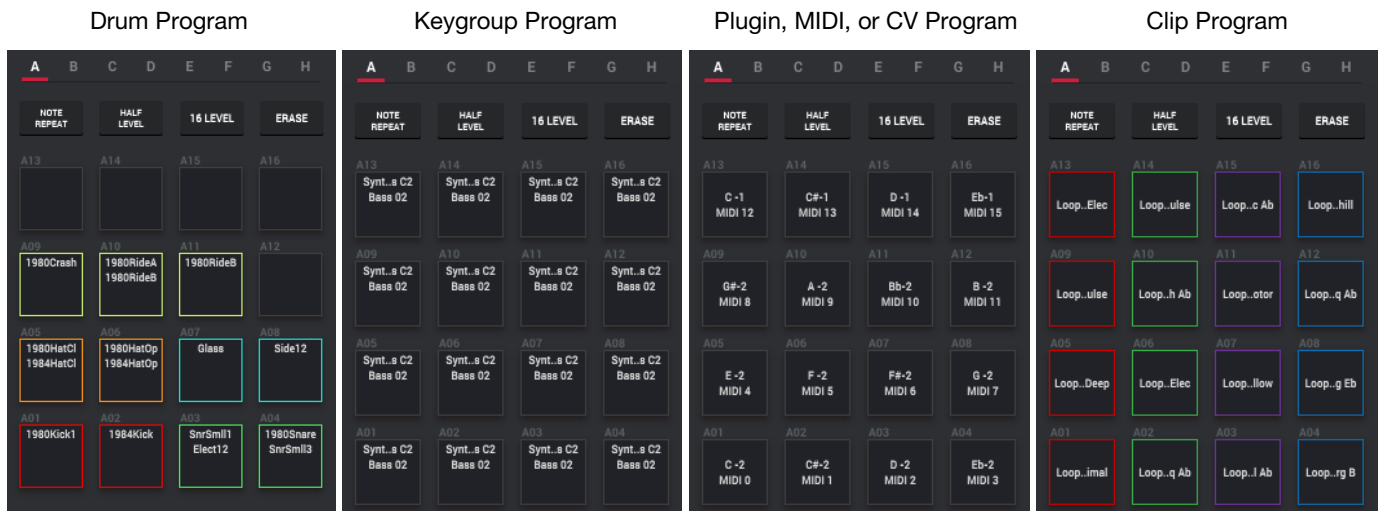
Pads

When the **MIDI** tab is selected in Main Mode, the **Pads** panel shows information for each pad, depending on the currently selected program.

Drum Programs and Keygroup Programs: Each pad will show the samples assigned to it (all four layers). Click the **Pad Bank** letters to access additional pads or the full range of notes. For keygroup programs, **Pad D13** plays the sample at its original pitch. Click a **pad** to play its sample/samples or note.

Plugin Programs, MIDI Programs, and CV Programs: Each pad will show the note it will play as both a MIDI note number (0–127) and note value (e.g., **C-1**, **G#5**, etc.). Click the **Pad Bank** letters to access the full range of notes. Click a **pad** to play its note.

Clip Programs: Each pad will show the loop (clip) assigned to it. Click the **Pad Bank** letters to access additional banks of clips. Click a **pad** to launch that clip. (If the clip belongs to a mute group, other clips in that mute group will stop playing when that clip starts. See [Program Edit Mode > Program Editor > Clip Programs](#) to learn about this.)



Each pad can also display a color, which you can customize for each program. See [General Features > Pad Color](#) to learn how to do this.

When the **Audio** tab is selected in Main Mode, the **Pads** panel is not available.

Track View Mode



Track View Mode gives you an overview of the tracks and programs of each sequence. You can use this mode to edit multiple tracks at once in the current sequence.

To enter Track View Mode, do any of the following:

- Click the **bars-and-magnifying-glass icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Track View**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Track View**.

The upper half of the window displays the Track View. See [General Features > Track View](#) to learn more about this.

The lower half of the window can display the Grid Editor, Wave Editor, or List Editor. Click the **Grid**, **Wave**, or **List** tab. See [General Features > Editors](#) to learn more about each one.

The only addition in Track View Mode is an option to keep the zoom distances of the upper and lower halves of the window identical. You could also choose to allow them to remain independent.



To lock or unlock the tracks and editor, click the **lock-and-arrows icon**.

Program Edit Mode



Program Edit Mode contains all parameters for editing your Programs.

For **drum programs**, this mode includes the parameters of four layers as well as all synthesis parameters and insert effect settings. See the [Drum Programs](#) section to learn more.

For **keygroup programs**, this mode contains slightly more parameters than drum programs. See the [Keygroup Programs](#) section to learn more.

For **plugin programs**, this mode shows the graphical user interface for the plugin. Skip to [Plugin Programs](#) to learn more.

For **clip programs**, this mode looks very different from that of other programs due to how clip launching works. See the [Clip Programs](#) section to learn more.

For **MIDI programs** and **CV programs**, skip to [MIDI Programs](#) and [CV Programs](#).

For general information on the differences between the types of programs, please see [General Features > Programs](#).

To enter Program Edit Mode, do any of the following:

- Click the **four-pads icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Program Edit**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Program Edit**.

The screenshot displays the MPC software interface in Program Edit Mode. The top section is a piano roll showing a grid of notes for various drum programs (A01 to B05). The bottom section is the parameter editor for the selected program (1980HatCl). The parameter editor is divided into several sections:

- Q-LINK MODE:** Screen
- MASTER:** POLYPHONY (Poly), SEMI (0), FINE (0)
- PAD:** LEVEL (71), PAN (C)
- SIMULTANEOUS PLAY:** PAD (Off), PAD (Off), PAD (Off), PAD (Off)
- MUTE TARGET:** PAD (A06), PAD (Off), PAD (Off), PAD (Off)

The piano roll shows a sequence of notes for the 1980HatCl program, with notes colored in red and orange. The parameter editor shows the current program's settings, including the selected program (1980HatCl) and the current pad (A06).

The upper half of the window can display the Grid Editor, Wave Editor, or List Editor. Click the **Grid**, **Wave**, or **List** tab to enter the corresponding editor. See [General Features > Editors](#) to learn more about each one.

The lower half of the window can display the **Q-Links** panel, **Pads** panel, **Program Editor** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels](#) to learn more about the **Q-Links** or **Project** panels. The **Pads** panel is described in this chapter [here](#). The **Program Editor** panel is described in this chapter [here](#).

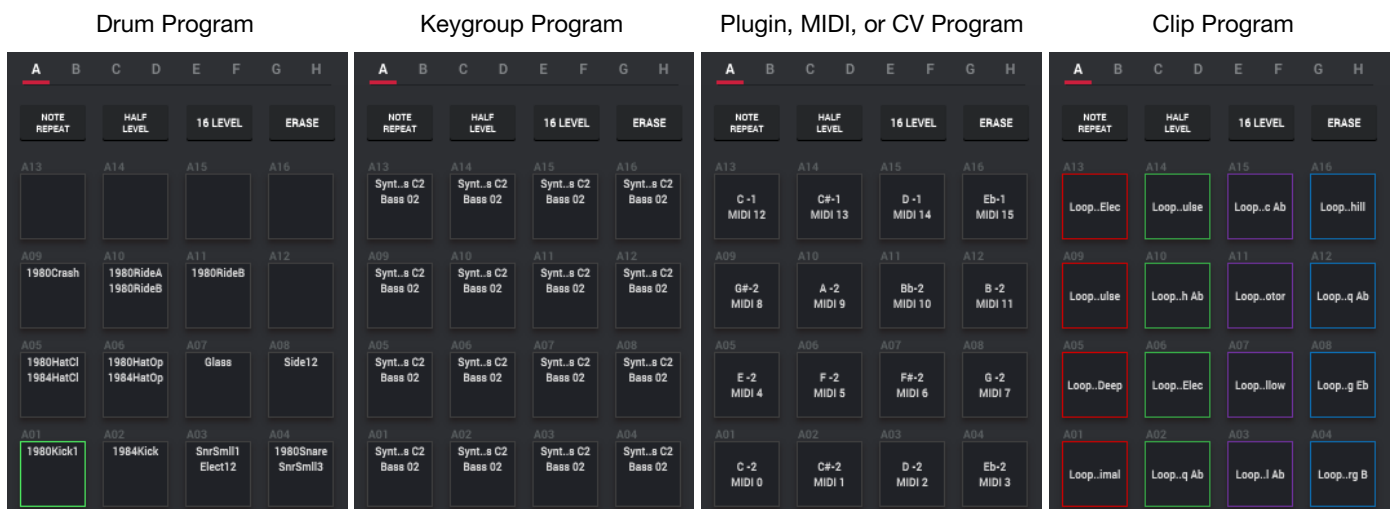
Pads

When the **MIDI** tab is selected in Program Edit Mode, the **Pads** panel shows information for each pad, depending on the currently selected program.

Drum programs and keygroup programs: Each pad will show the samples assigned to it (all four layers). Click the **Pad Bank** letters to access additional pads or the full range of notes. For keygroup programs, **Pad D13** plays the sample at its original pitch. Click a **pad** to play its sample/samples or note.

Plugin programs, MIDI programs, and CV programs: Each pad will show the note it will play as both a MIDI note number (0–127) and note value (e.g., **C-1**, **G#5**, etc.). Click the **Pad Bank** letters to access the full range of notes. Click a **pad** to play its note.

Clip programs, each pad will show the loop (clip) assigned to it. Click the **Pad Bank** letters to access additional banks of clips. Click a **pad** to launch that clip. (If the clip belongs to a mute group, other clips in that mute group will stop playing when that clip starts. See [Program Editor > Clip Programs](#) to learn about this.)



Each pad can also display a color, which you can customize for each program. See [General Features > Pad Color](#) to learn how to do this. In Program Edit Mode, these colors will be displayed only when the pad is being played with the exception of clip programs, whose pad colors will always be displayed to help you distinguish the pads' mute groups.

When the **Audio** tab is selected in Program Edit Mode, the **Pads** panel is not available.

Program Editor

When the **MIDI** tab is selected in Program Edit Mode, the Program Editor shows different settings depending on the type of program that is selected.

When the **Audio** tab is selected in Program Edit Mode, the Program Editor is non-functional.

Drum Programs



When using a drum program, the Program Editor shows the parameters for each pad and the program overall.

To select a pad, press it. Its parameters will appear on the screen immediately.

In the **Master** section, set the playback mode and tuning for the overall program.

Note: The **Sample Layers** section has some parameters similar to those in this section (**Semi**, **Fine**). Remember that the **Master** section parameters control the overall settings for the sample, while **Sample Layers** controls the settings for each layer (up to 4).

Polyphony 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/samples, 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 program up to 36 semitones up or down.

Fine provides fine-tuning of the program up to 99 cents up or down.

In the **Pad** section, set the volume and panning for the current pad.

Note: The **Sample Layers** section has some parameters similar to those in this section (**Level**, **Pan**). Remember that the **Pad** section parameters control the overall settings for the sample, while **Sample Layers** controls the settings for each layer (up to 4).

Level controls the overall volume level of the loaded sample/samples.

Pan controls the overall panning of the loaded sample/samples in the stereo field.

The **Simultaneous Play** section lets you set up to four pads that can be triggered by pressing one pad only. This function is useful for triggering a stack of sounds (e.g., layered bass drums). Use each **Pad** menu to select the desired pad.

The **Mute Targets** section lets you select up to four pads (in the same program) for the currently selected pad. When the currently selected pad is played, it will immediately silence its mute targets. Use each **Pad** menu to select the desired mute target.

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.

The **Edit Zones** section is an overview of any selected pads. Use the selector at the top to set how the selected pads will be edited:

Current: Only the currently selected pad will be edited.

Multiple: All selected pads will be edited simultaneously.

All: All pads will be edited simultaneously.

The **Sample Layers** section shows four layers, each of which can use an assigned sample. Each layer has identical, independently assignable parameters.

Click the **Sample** menu to select the sample for that layer. Remember that the sample has to be loaded into the project's sample pool beforehand.

Semi lets you transpose the selected layer up to 36 semitones up or down.

Fine provides fine-tuning of each layer up to 99 cents up or down.

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

Use the **pan knob** to adjust the stereo placement of the respective layer.

Use the **Velocity** slider to define the velocity range of each layer.

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.

The **Filter** section lets you set the type and characteristics of the filter.

Click the **Type** menu to select a filter for the selected pad. See [Appendix > Glossary > Filter](#) for an explanation of the available filter types. You can set the default Type setting for new drum programs and keygroup programs in **Project** tab of the **Preferences** (see [General Features > Preferences](#)).

Use the **Cutoff** knob to set the cutoff frequency for low-pass and high-pass filter types or the center frequency for band-pass and band-stop filter types.

Use the **Res** knob to set 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.

Use the **Env** knob to determine 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 **Attack** and **Decay** values as well as a medium-low **Sustain** 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 **Attack** value, resulting in a slight fade-in of the higher frequencies.

The **Modulation Sources** section lets you set how much velocity is required to modulate certain other parameters as well as your filter envelope and amp envelope.

V>Start (Velocity→Start) sets how much velocity is needed (for a triggered pad) to modulate the sample start point.

V>Attack (Velocity→Attack) sets how much velocity is needed (for a triggered pad) 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>Filter (Velocity→Filter) uses the velocity to modulate the cutoff frequency directly.

The **Filter Envelope** controls affect the filter frequency. Use the fields or click and drag the "handles" of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope's influence on the filter frequency with the **Env** knob. See the later [Anatomy of an Envelope](#) section to learn about the envelope parameters.

The **Amp Envelope** controls affect level changes over time. Use the fields or click and drag the "handles" of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope's influence on the filter frequency with the **Env** knob. See the later [Anatomy of an Envelope](#) section to learn about the envelope parameters.

The **Pad Play Modes** section lets you set the behavior for each pad's samples in a drum program.

Click the **Mute Group** menu to 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. A mute group affects pads within that program only; mute groups do not affect pads in other programs.

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

Click the **Sample Play** menu to determine 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. If this option is selected, the **Filter Envelope** and **Amp Envelope** will use an **ADSR** type rather than AD or AHDS (see [Anatomy of an Envelope](#) to learn about this).

Click the **Pad Poly** menu to determine how the pad's sound behaves when multiple hits are registered. When set to **Mono**, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample/samples, the new pad will immediately mute all other currently playing pads in that program. When set to **Poly**, several pads can be triggered at the same time (limited only by the total number of voices available). You can also select a specific number of pads (**2–64**) so that you can trigger up to this many pads at the same time (unless they exceed the total number of voices available).

Click the **Layer Play** menu to determine how multiple samples assigned to the same pad are played:

Cycle: 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: The pad will switch between layers depending on how hard you press a pad.

Random: Each time the pad is played, it will play one of its layer's samples at random.

The **Velocity Sensitivity** section determines how much the velocity affects the pitch of the sound (**Pitch**), the attack of the filter envelope (**Attack**), the volume level of the filter envelope (**Amp**) and or the panning of the sound (**Pan**). Use the sliders to adjust the setting of each.

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 knob.

The **LFO** section lets you select a periodic waveform generated by the low-frequency oscillator. You can adjust the frequency and shape for modulation purposes.

Click the **Wave** menu to select the LFO waveform type:

Sine (best suited for smooth modulations)

Triangle (best suited for smooth modulations)

S&H (samples a random value and holds it until the next value is generated)

Saw (can generate interesting filter or volume changes)

Saw Down (can generate interesting filter or volume changes)

Square (interesting results with hard-panning modulations)

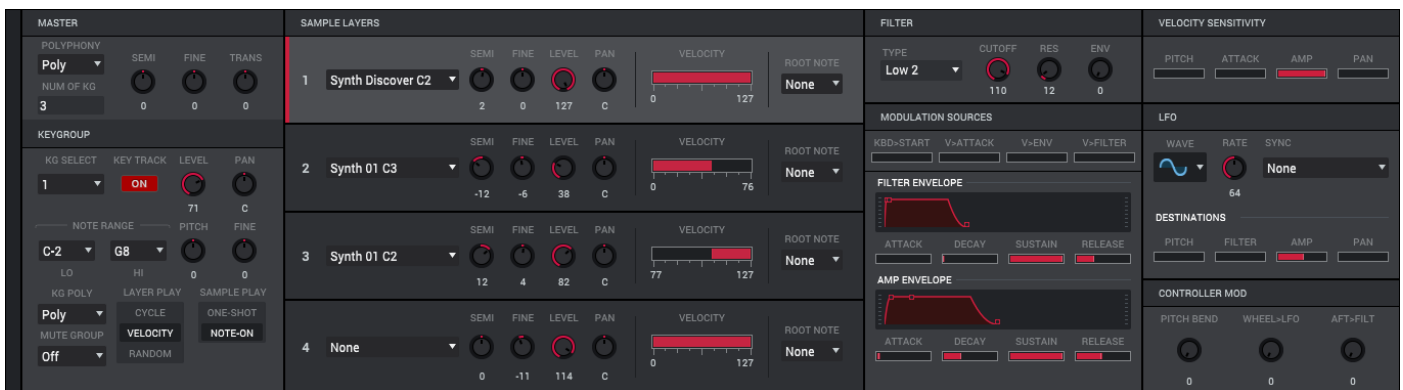
Noise (generates random values and glides)

Use the **Rate** knobs to determine 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.

Click the **Sync** menu to set how the LFO's rate is synchronized with the tempo. You can select one of several time divisions. When **None** is selected, **Sync** is off.

Use the **Destinations** sliders to determine how much the LFO affects the pitch of the sound (**Pitch**), the cutoff frequency of the filter (**Filter**), the volume level of the sound (**Amp**) and panning of the sound (**Pan**).

Keygroup Programs



When using a keygroup program, the Program Editor shows the parameters for each keygroup and the program overall.

To select a keygroup, press a **pad** within that keygroup. Its parameters will appear on the screen immediately.

In the **Master** section, set the playback mode and tuning for the overall program.

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

Num of KG (number of keygroups) lets you create up to 128 keygroups within a keygroup program. This is 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 four possible velocity layers).

Semi lets you tune the program up to 36 semitones up or down.

Fine provides fine-tuning of the program up to 99 cents up or down.

Trans shifts the pitch of the MIDI notes sent to the program up to 36 semitones up or down.

Use the **Keygroup** section to set the playback modes, level, tuning, and other settings for the keygroup.

Note: The **Sample Layers** section has some parameters similar to those in this section (**Level**, **Pan**, **Semi**, **Fine**). Remember that **Keygroup** section parameters control the overall settings for the sample, while **Sample Layers** controls the settings for each layer (up to 4).

KG Select (Keygroup Select) lets you select a specific keygroup for editing. This parameter works in conjunction with the **Num of KG** (number of keygroups) parameter at the top of the window, 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 **Num of KG**, use **KG Select** to select any keygroup for editing. **All** selects all available keygroups of a keygroup program for simultaneous editing.

Key Track 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/samples.

Pan controls the overall panning of the loaded sample/samples 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.

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

Pitch lets you transpose the sample 36 semitones up or down, while **Fine** provides fine-tuning of each layer up to 99 cents up or down.

Click the **KG Poly** (keygroup polyphony) menu to determine how the keygroup will play. When set to **Mono**, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample/samples, the new pad will immediately mute all other currently playing pads in that program. When set to **Poly**, several pads can be triggered at the same time, limited only by the total number of voices available. You can also select a specific number of pads (**2–64**) so that you can play up to this many pads at the same time (unless they exceed the total number of voices available).

Click the **Mute Group** menu to 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. A mute group affects pads within that program only; mute groups do not affect pads in other programs.

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

Cycle: 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: The pad will switch between layers depending on how hard you press a pad.

Random: Each time the pad is played, it will play one of 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. If this option is selected, the **Filter Envelope** and **Amp Envelope** will use an **ADSR** type rather than AD or AHDS (see [Anatomy of an Envelope](#) to learn about this).

The **Sample Layers** section shows four layers, each of which can use an assigned sample. Each layer has identical, independently assignable parameters.

Click the **Sample** menu to select the sample for that layer. Remember that the sample has to be loaded into the project's sample pool beforehand.

Semi lets you transpose the selected layer up to 36 semitones up or down.

Fine provides fine-tuning of each layer up to 99 cents up or down.

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

Use the **pan knob** to adjust the stereo placement of the respective layer.

Use the **Velocity** slider to define the velocity range of each layer.

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 piano key 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.

The **Filter** section lets you set the type and characteristics of the filter.

Click the **Type** menu to select a filter for the selected keygroup. See [Appendix > Glossary > Filter](#) for an explanation of the available filter types. You can set the default Type setting for new drum programs and keygroup programs in the **Project** tab of the **Preferences** (see [General Features > Preferences](#)).

Use the **Cutoff** knob to set the cutoff frequency for low-pass and high-pass filter types or the center frequency for band-pass and band-stop filter types.

Use the **Res** knob to set 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.

Use the **Env** knob to determine 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 **Attack** and **Decay** values as well as a medium-low **Sustain** 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 **Attack** value, resulting in a slight fade-in of the higher frequencies.

The **Modulation Sources** section lets you set how much velocity is required to modulate certain other parameters as well as your filter envelope and amp envelope.

Kbd>Filter (Keyboard→Filter) sets how much aftertouch data (from a pad) is needed to modulate the cutoff frequency.

V>Attack (Velocity→Attack) sets how much velocity is needed (for a triggered pad) 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>Filter (Velocity→Filter) uses the velocity to modulate the cutoff frequency directly.

The **Filter Envelope** controls affect the filter frequency. Use the fields or click and drag the “handles” of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope's influence on the filter frequency with the **Env** knob. See the later [Anatomy of an Envelope](#) section to learn about the envelope parameters.

The **Amp Envelope** controls affect level changes over time. Use the fields or click and drag the “handles” of the envelope to shape the envelope or time-variant modulation output. Adjust the envelope's influence on the filter frequency with the **Env** knob. See the later [Anatomy of an Envelope](#) section to learn about the envelope parameters.

The **Velocity Sensitivity** section determines how much the velocity affects the pitch of the sound (**Pitch**), the attack of the filter envelope (**Attack**), the volume level of the filter envelope (**Amp**) and or the panning of the sound (**Pan**). Use the sliders to adjust the setting of each.

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 knob.

The **LFO** section lets you select a periodic waveform generated by the low-frequency oscillator. You can adjust the frequency and shape for modulation purposes.

Click the **Wave** menu to select the LFO waveform type:

Sine (best suited for smooth modulations)

Triangle (best suited for smooth modulations)

S&H (samples a random value and holds it until the next value is generated)

Saw (can generate interesting filter or volume changes)

Saw Down (can generate interesting filter or volume changes)

Square (interesting results with hard-panning modulations)

Noise (generates random values and glides)

Use the **Rate** knobs to determine 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.

Click the **Sync** menu to set how the LFO's rate is synchronized with the tempo. You can select one of several time divisions. When **None** is selected, **Sync** is off.

Use the **Destinations** sliders to determine how much the LFO affects the pitch of the sound (**Pitch**), the cutoff frequency of the filter (**Filter**), the volume level of the sound (**Amp**) and panning of the sound (**Pan**).

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.

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

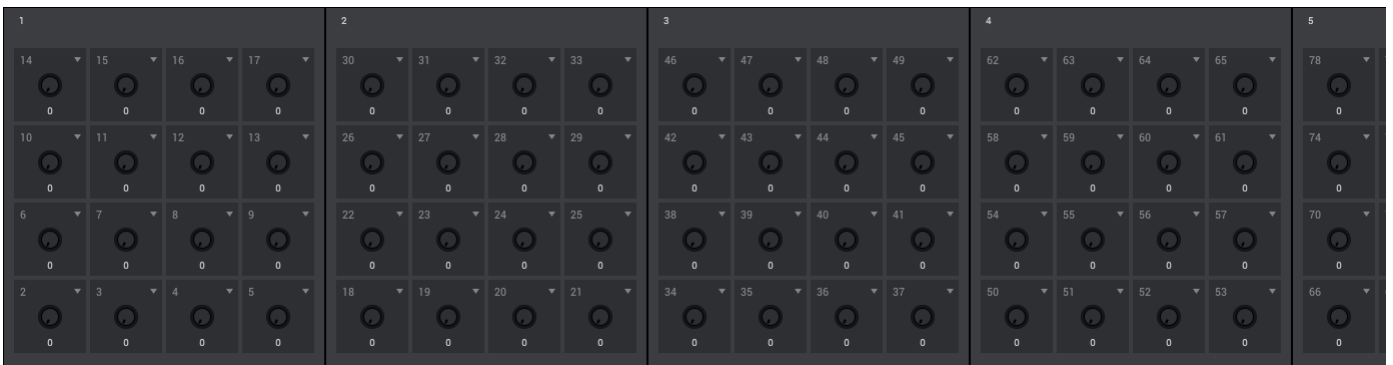
Aft>Filt (Aftertouch→Filter Cutoff) determines how much a connected MIDI keyboard's aftertouch data affects the filter cutoff.

Plugin Programs



When using a plugin program, the Program Editor shows the parameters of that plugin. Its appearance and available options depend on the plugin.

MIDI Programs



When using a MIDI program, the Program Editor shows a series of knobs corresponding to MIDI CC values—six banks of knobs with 16 knobs in each bank (a total of 96 knobs).

To set the MIDI CC of a knob, click the area above it next to **down arrow icon (▼)** and select a number from the menu.

To adjust the value that each MIDI CC sends, click and drag its knob.

Clip Programs

When using a clip program, the Program Editor shows various settings to determine how each pad launches its assigned sample (a loop called a **clip**).

To select a pad, press it. Its parameters will appear in the **Program Editor** panel immediately, and it will appear in the **Wave Editor** in the upper half of the window (see [General Features > Editors > Wave Editor](#) to learn about this).

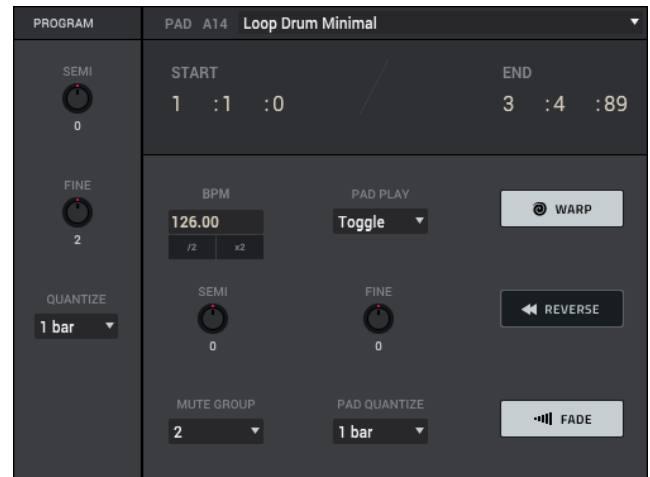
To learn how to assign a clip to a pad, use the menu at the top of the **Pad** section (described [below](#)) or see [General Features > Programs > Clip Programs](#).

The **Program** section lets you adjust the program's overall tuning and quantization.

Semi lets you transpose the program up to 36 semitones up or down.

Fine provides fine-tuning of the program up to 99 cents up or down.

Click the **Quantize** menu to set the quantization of the program: **1/64 bar**, **1/32 bar**, **1/16 bar**, **1/8 bar**, **1/4 bar**, **1/2 bar**, **1 bar**, **2 bars**, **4 bars**, **8 bars**, or **None**. When set to **None**, the program will not follow any quantization at all.



The **Pad** section controls how the clip plays.

Click the menu at the top of the **Pad** section to select the clip you want to assign to the pad.

Use the **Start** or **End** fields to set the start point or end point of the region of the clip that will be played. Alternatively, click and drag the **green** start point marker and **red** end point marker in the **Wave Editor**.

Use the **Pad Play** field to determine how the clip is played.

One Shot: When you press the pad, the entire clip will play from start to end and then stop.

Toggle: When you press the pad, the entire clip will play from start to end and loop indefinitely. Pressing it again—or launching another in the same mute group—will stop its playback. This is the most common usage.

Semi lets you transpose the pad up to 36 semitones up or down.

Fine provides fine-tuning of the pad up to 99 cents up or down.

Click the **Mute Group** menu to 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. A mute group affects pads within that program only; mute groups do not affect pads in other programs.

Note: By default, each column of pads is assigned to the same mute group. This means only one pad from each column can be playing its clip at a time. You can use the **Mute Group** field to configure this any way you like, though.

Click the **Pad Quantize** menu to set the quantization of the pad: **1/64 bar**, **1/32 bar**, **1/16 bar**, **1/8 bar**, **1/4 bar**, **1/2 bar**, **1 bar**, **2 bars**, **4 bars**, **8 bars**, **None**, or **Program**. When set to **Program**, the pad uses the same quantization as the overall program (the **Quantize** field in the adjacent **Program** section). When set to **Off**, the pad will not follow any quantization at all.

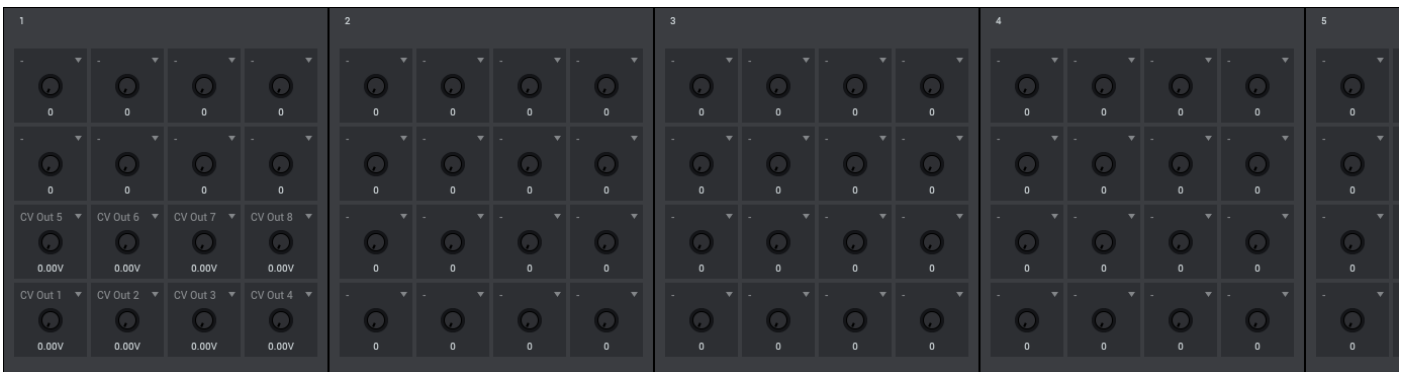
Click **Warp** to lengthen or shorten the clip without changing its pitch, and use the **BPM** field to change the tempo. Use the **Coarse** and **Fine** sliders if you want to change the pitch.

Note: The Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function.

Click **Reverse** to reverse the clip's audio.

Use the **Fade** button to apply a very small fade-in and fade-out at the start and end of the clip. This can help prevent "clicks" and glitches that may occur if the start point or end point is not placed at the waveform's "zero-crossings."

CV Programs



When using a CV program, the Program Editor shows a series of knobs. The first eight knobs correspond to CV Outputs 1–8. Although this option is selectable, it is usable only with MPC hardware that has CV outputs (e.g., **MPC X**).

To set the CV output of a knob, click the area above it next to **down arrow (▼)** and select an output from the menu.

To adjust the voltage of each one, click and drag its knob.

Anatomy of an Envelope

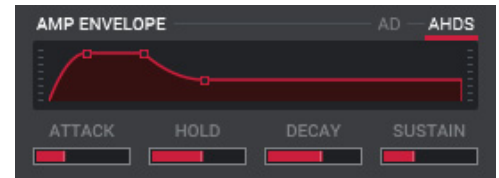
An envelope creates a variable control signal. It can be used, for instance, to modulate the filter settings of a sound over a given period of time.

For drum programs, use the **AD/AHDS** selector to select an AD or AHDS envelope. When **Sample Play** is set to **Note-On**, it will use an ADSR envelope.

Keygroup programs use **AHDS** envelopes. When **Sample Play** is set to **Note-On**, it will use an **ADSR** envelope.

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

1. Within the period of time defined by **Attack**, the sample volume rises to its maximum value.
2. 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.
4. The sample's volume will stay at the **Sustain** level until the pad is released.

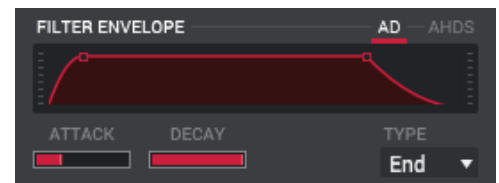


With **AD** envelopes, the following happens when you trigger a sample:

1. Within the period of time defined by **Attack**, 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 how the decay functions:

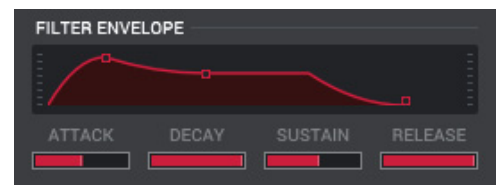
Decay From Start: The volume will start decreasing immediately after reaching its maximum level.

Decay From End: The maximum volume will be maintained for a hold phase until it reaches the decay phase.



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

1. Within the period of time defined by **Attack**, the sample volume rises to its maximum value.
2. During the **Decay** phase, the sample's volume will gradually drop to the **Sustain** level.
3. The sample's volume will stay at the **Sustain** level until the **Release** phrase begins.
4. The sample's volume will drop to "zero" over the duration set by **Release**.



Sample Edit Mode



Sample Edit Mode lets you edit samples using various functions.



To enter **Sample Edit Mode**, do any of the following:

- Click the **waveform-and-flags icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Sample Edit**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Sample Edit**.
- Double-click the desired sample in the **Project panel** or **Project Info Browser**.
- Right-click the desired sample in the **Project panel** or **Project Info Browser**, and click **Edit**.

To select a sample to edit, click it in the **Project panel** or **Project Info Browser**.

The upper half of the window shows the waveform. While you can edit the waveform in this part of the window, it is different from the standard Wave Editor.

The large waveform display shows the “active” section of the sample waveform. The strip above the large display shows an overview of the entire sample waveform. If the waveform display is showing only part of the entire sample waveform, a white box in the overview will indicate the current position.

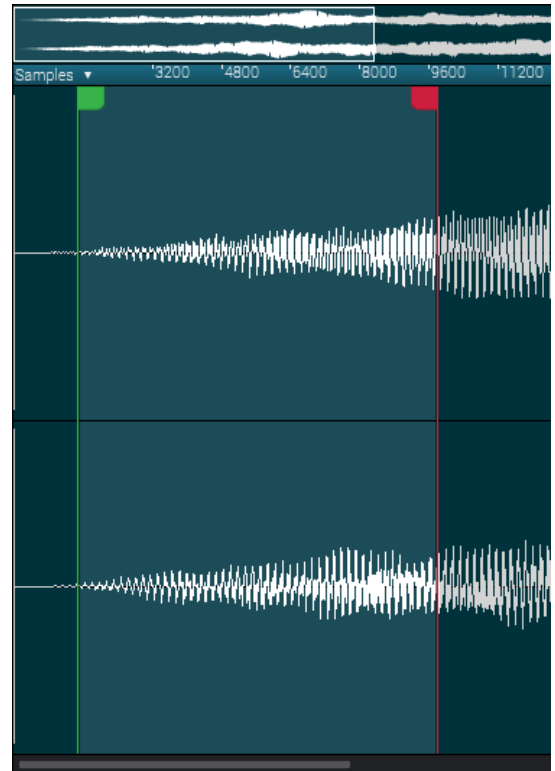
The timeline provides a reference for the length of the sample. Click the **down arrow** (▼) or right-click anywhere on the timeline to select the increments it will use: **Time (secs:ms)**, **Samples**, or **Beats**.

Scroll left or right on the waveform to move through it. Use the sliders in the lower-right corner or click the timeline and drag down or up to zoom in or out.

The green marker and red marker are the start point and end point (respectively). These two points define the region of the sample that will be played.

To move the start point or end point of the selected region, do either of the following:

- Click and drag its marker left or right.
- Use the **Start** or **End** fields in the **Parameters** panel.
- Use the **first** column of **Q-Link knobs** to adjust the start point or the **second** column of **Q-Link knobs** to adjust the end point. The top-most Q-Link knob provides coarse adjustment (**x1000**), while the bottom-most one knob provides fine adjustment (**x1**).



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.

The lower half of the window can display the **Q-Links** panel, **Pads** panel, **Parameters** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels > Project](#) to learn more about the **Project** panel.

The other three panels vary based on the current editing method: **Trim Mode**, **Chop Mode**, or **Program Mode**. The options for each mode are slightly different. Please refer to the following [Trim Mode](#), [Chop Mode](#), and [Program Mode](#) parts of this chapter to learn how each works.

Tip: You can use Trim Mode for a specific slice of the sample, previously created and selected in Chop Mode. This allows for a more detailed view of a single slice than in Chop Mode and gives you more options for auditioning the slice. You can easily switch between Trim Mode and Chop Mode while doing this.

To use both Trim Mode and Chop Mode to edit a sample slice:

1. Click **Chop** in the **Q-Links** panel.
2. Set all fields as desired to create your sample slices.
3. Select the desired slice.
4. Click **Trim** in the **Q-Links** panel. The region you are now editing is indicated by the normal start point and end point markers rather than slice markers.

Click **Chop** at any time to return to Chop Mode.

Trim Mode



We recommend using Trim Mode to simply crop the start and/or end from a sample.

To enter Trim Mode, click the **Trim** tab in the **Q-Links** panel.

Q-Links

In the **Q-Links** panel:

Use the **first** column of **Q-Link knobs** to adjust the start point. This is the same as adjusting the **Start** field in the **Parameters** panel.

Use the **second** column of **Q-Link knobs** to adjust the end point. This is the same as adjusting the **End** field in the **Parameters** panel.

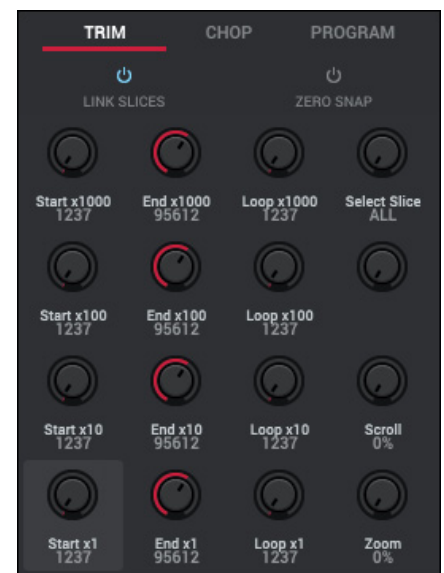
Use the **third** column of **Q-Link knobs** to adjust the loop point if **Loop Lock** is **off**. If **Loop Lock** is **on**, adjusting the loop point will also adjust the start point. This is the same as adjusting the **Loop** field in the **Parameters** panel.

Use **Q-Link Knob 16** to select the desired slice, if the sample has been split into multiple slices in Chop Mode. This is the same as adjusting the **Slice** field in the **Parameters** panel.

Use **Q-Link Knob 8** to scroll through the waveform in the large waveform display above.

Use **Q-Link Knob 4** to zoom in or zoom out of the waveform.

For the first three columns, the top-most Q-Link knob provides coarse adjustment (**x1000**), while the bottom-most one knob provides fine adjustment (**x1**).



When **Link Slices** is enabled (after you have created slices in Chop Mode), changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample. This is the same as clicking the **gear icon** in the upper-right corner of the **Wave Editor** and using the **Link Slices** submenu.

Important: **Link Slices** must be disabled to make slices nonsequential, noncontiguous, or overlapping.

Enable **Zero Snap** to force start points, end points, and loop points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample. This is the same as clicking the **gear icon** in the upper-right corner of the **Wave Editor** and using the **Zero Snap** submenu.

Pads

The **Pads** panel enables you to play certain parts of the selected sample:

Play Sample (One Shot) (Pad 10) plays the sample once from the start point to the end point. Press the pad once to play it.

Play Sample (Note On) (Pad 11) plays the sample once from the start point to the end point. Press and hold the pad to play it, and release the pad to stop playing it. Alternatively, click and hold anywhere in the waveform display.

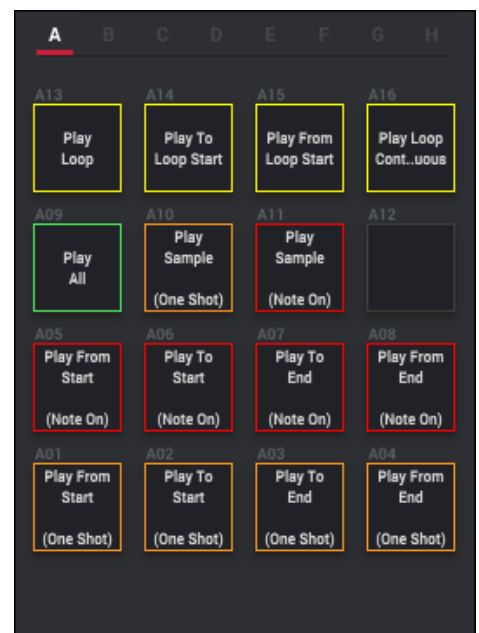
Play Loop Continuous (Pad 16) plays the sample repeatedly from the loop point to the end point.

Play Loop (Pad 13) plays the sample from the loop point to the end point. Press and hold the pad to play it, and release the pad to stop playing it.

Play to Loop Start (Pad 14) plays the part of the sample just before the loop point. Press and hold the pad to play it, and release the pad to stop playing it.

Play from Loop Start (Pad 15) plays the sample from the loop point to the end of the sample regardless of the end point. Press and hold the pad to play it, and release the pad to stop playing it.

Play All (Pad 9) plays the entire sample.



Pads 1–4 have the same respective functions as **Pads 5–8**, but **Pads 1–4** play the sample part as “**One Shots**” (pressing the pad once will play the entire part) while **Pads 5–8** 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 1, Pad 5) plays the sample from the start point to the end point.

Play to Start (Pad 2, Pad 6) plays the part of the sample just before the start point to the start point.

Play to End (Pad 3, Pad 7) plays the part of the sample just before the end point to the end point.

Play from End (Pad 4, Pad 8) plays the part of the sample from the end point to the end of the sample.

Parameters

The **Parameters** panel includes controls for editing the sample length and tuning as well as buttons for assigning the sample (see [this section](#)) and processing the slice or sample (see [this section](#)).

Use the **Slice** field to select the desired slice, if the sample has been split into multiple slices in Chop Mode. This is the same as adjusting **Q-Link Knob 16** in the **Q-Links** panel.

Use the **Start** field to adjust the start point. This is the same as adjusting the **first** column of **Q-Link knobs** in the **Q-Links** panel.

Use the **End** field to adjust the end point. This is the same as adjusting the **second** column of **Q-Link knobs** in the **Q-Links** panel.

Use the **Loop** field to adjust the loop point if **Loop Lock** is **off**. If **Loop Lock** is **on**, adjusting the loop point will also adjust the start point. This is the same as adjusting the **third** column of **Q-Link knobs** in the **Q-Links** panel.

Click the **Lock** button to turn Loop Lock on or off. When **on**, the loop point is the same as the start point. When **off**, the loop point is independent from the start point and indicated by a separate loop marker.

Click the **Loop** menu to cycle between the three loop modes:

Off: The sample will not loop.

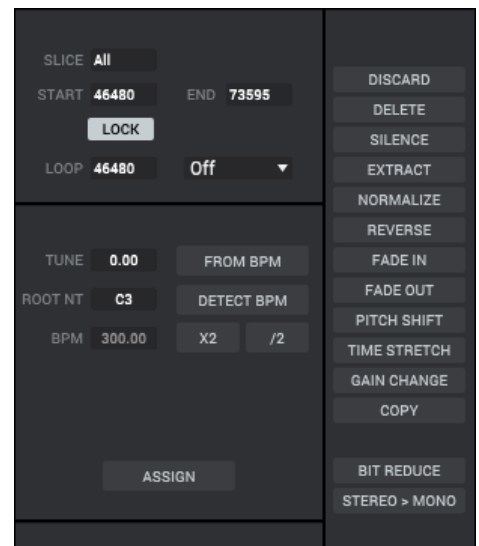
Forward (Fwd): When the loop reaches its end point, it will start playing again from the loop point.

Reverse (Rev): When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will return to the end point and continue playing in reverse.

Alternating (Alt): When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will start playing forward again from the loop point.

Use the **Tune** field to transpose the sample from its original pitch up to **24.00** semitones up or down.

Use the **Root Nt** field to set the root note of the sample. This defines which note will play the sample at its original pitch when in a keygroup program.



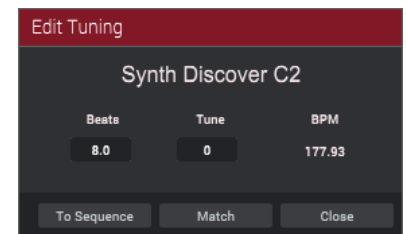
Click **From BPM** to tune a sample to the current sequence. In the **Edit Tuning** window that appears:

Use the **Beats** field to match the number of beats in the sequence.

To tune the sample to the sequence, click **Match**. The **Tune** field will adjust automatically and close the window. The sample is now tuned to the sequence.

To tune the sample to the sequence and adjust the sequence tempo, click **To Sequence**. This is the same as clicking Match but it also changes the sequence's tempo to the BPM shown in the Tempo field on the right.

To close the window, click **Close**.



Use the **BPM** field to enter a tempo manually. You can also click **X2** to double the value or **/2** to halve it.

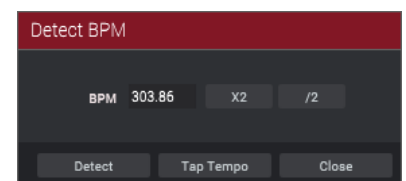
Click **Detect BPM** to automatically detect the tempo. In the **Detect BPM** window that appears:

Use the **BPM** field to enter a tempo manually. You can also click **X2** to double the value or **/2** to halve it.

Click **Detect** to detect the tempo automatically.

Click **Tap Tempo** at the bottom of the window at the desired rate to use it as the tempo. You can play a sequence in the background to help with your timing.

Click **Close** to close the window.



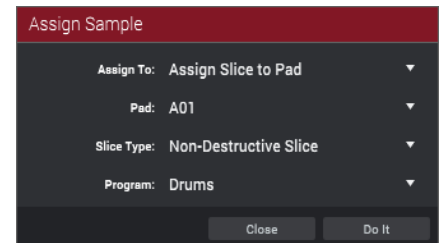
Assigning Samples

You can assign your new sample directly to a pad from Trim Mode.

Click **Assign** to assign a sample. In the **Assign Sample** window that appears, you can click the **Assign To** menu to select a different assignment, and then click **Do It** to assign the sample or **Cancel** to close the window without assigning the sample.

Important: Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

If you set the **Assign To** menu to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.



Use the **Pad** menu to select the desired pad. Alternatively, press the desired pad.

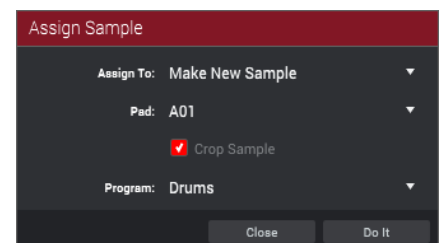
Use the **Slice Type** menu to select how the pad's layer settings will be set when the slice is assigned to it:

Non-Destructive Slice: The pad's **Slice** setting will be set to the slice number.

Pad Parameters: The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Program** menu to specify the program to which you want to add the slice.

If you set the **Assign To** menu to **Make new sample**, this will create a new sample in your project. (The original sample will remain as it is.)



Use the **Pad** menu to select the desired pad. Alternatively, press the desired pad.

Select the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box deselected to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Program** menu to specify the program to which you want to add the slice.

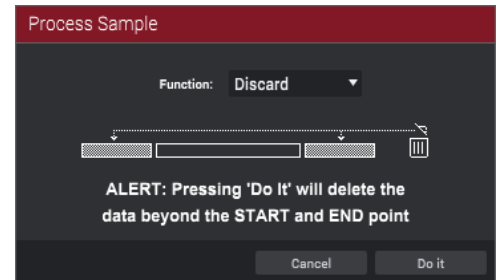
Processing Slices & Samples

Use the column of **Process** buttons to select an editing process. In the **Process Sample** window that appears, you can click the **Function** menu to select a different process, and then click **Do It** to apply the process or **Cancel** to close the window without processing the sample.

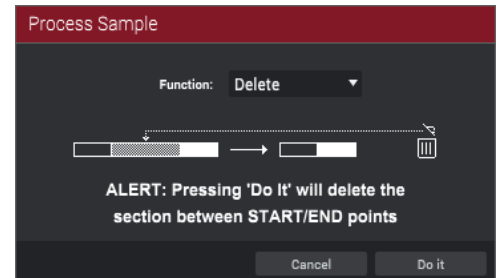
You can use any of these functions as described below.

Note: All **Slice** processes will affect only the part of the sample between the start point and the end point. The **Sample** processes (**Bit Reduce** and **Stereo > Mono**) will affect the **entire** sample regardless of its start point or end point.

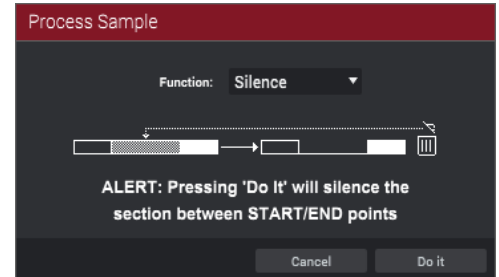
The **Discard** process deletes the regions before the start point and after the end point.



The **Delete** process deletes the region between the start point and end point and closes the gap between them.



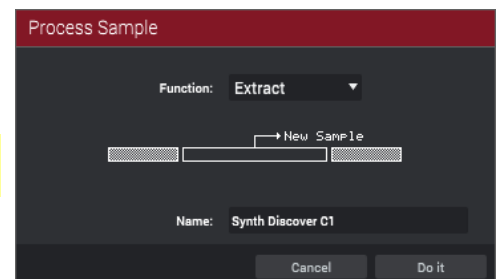
The **Silence** process replaces the region between the start point and end point with silence.



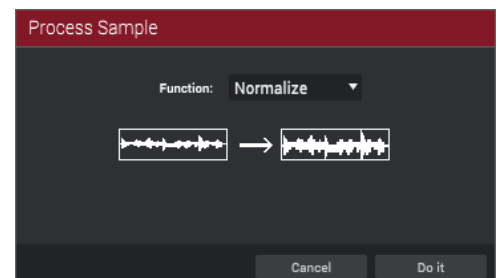
The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample in your current project.

Use the **Name** field to name the new sample.

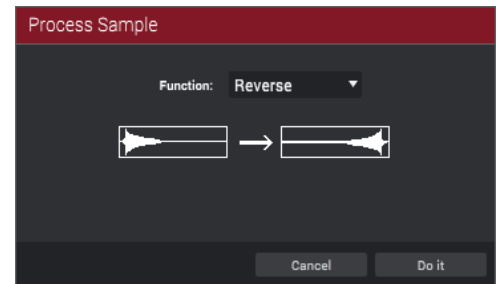
Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process 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 samples with a wide range of amplitudes.



The **Reverse** process reverses the region between the start point and end point.

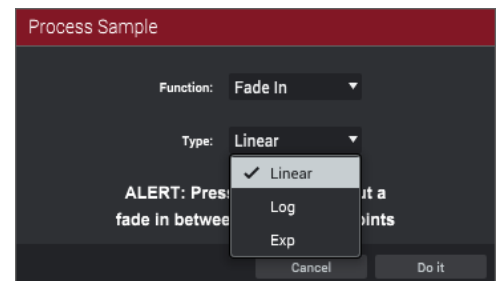


The **Fade In** process sets a fade-in between the start point and end point. Click the **Type** menu to select a type of fade:

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.

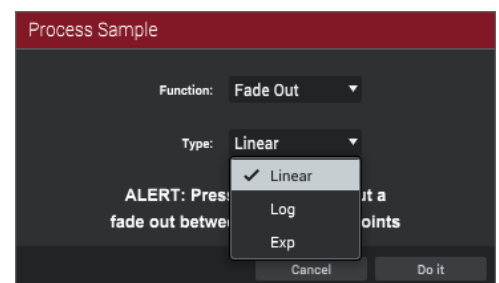


The **Fade Out** process sets a fade-out between the start point and end point. Click the **Type** menu to select a type of fade:

Linear fades the audio out with a linear curve—a straight line between the start and end.

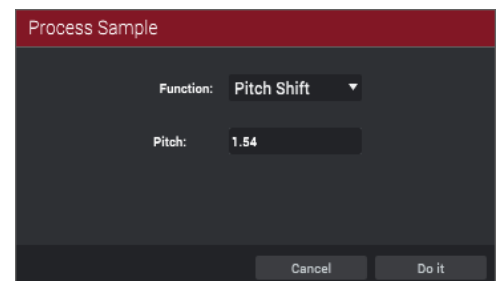
Log fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.

Exp fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.



The **Pitch Shift** process 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. Keep in mind that the audio quality may decrease at more extreme settings.

Use the **Pitch** field to shift the pitch up to **12.00** semitones up or down.



The **Time Stretch** process lengthens or shortens the sample without changing its pitch. This is useful for matching the durations of two samples with different pitches. You can enter the original tempo of the sample and the desired tempo after processing.

Use the **Number of Beats** field to set the desired value number of beats.

Use the **New** field to set the new tempo. The **Ratio** field will then automatically show the time stretch factor.

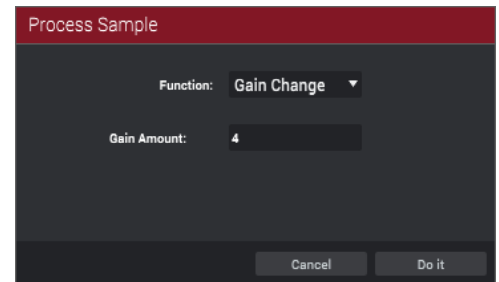
Alternatively, to adjust the ratio instead, use the **Ratio** field to set the desired ratio, and then the **New** field will change automatically based on the new time stretch factor.



The **Gain Change** process raises or lowers the volume of the sample.

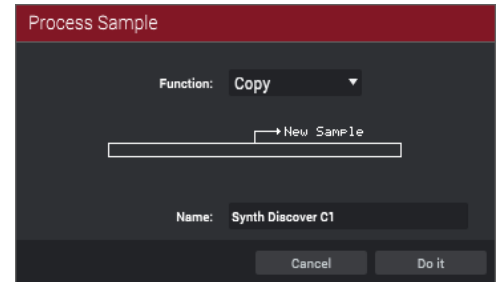
Use the **Gain Amount** field to adjust the gain up to **18 dB** up or down.

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!



The **Copy** process saves a copy of the sample.

Use the **Name** field to name the new sample. Otherwise, the process will add a consecutive number after the sample name.



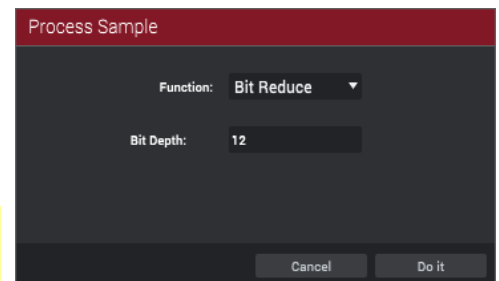
The **Bit Reduce** process lowers the bit resolution of a sample, effectively reducing its degree of faithful reproduction.

Use the **Bit Depth** field to set the bit depth from **1 bit** to **16 bits**.

The resulting 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.”

Note: This process affects the **entire** sample regardless of its start point or end point.



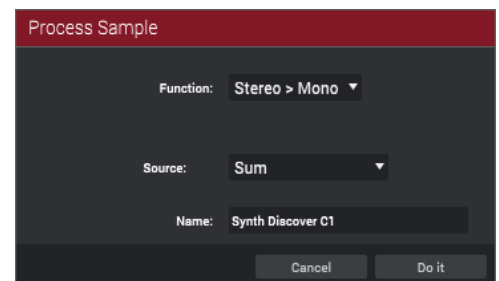
The **Stereo > Mono** process converts a stereo sample to a new mono sample and saves it as a new sample.

Click the **Source** menu to select which channels will be converted:

- **Left** will convert the left channel only.
- **Right** will convert the right channel only.
- **Sum** will combine the left and right audio channels to a single mono channel.

Use the **Name** field to name the new sample. Otherwise, the process will add a consecutive number after the sample name.

Note: This process affects the **entire** sample regardless of its start point or end point.



Chop Mode



While Trim Mode crops only the start and/or end off of a sample, Chop Mode divides the sample into multiple regions called **slices**. We recommend using Chop Mode when working with a long sample with different sounds throughout (e.g., a drum loop or a long melodic or harmonic passage).

To enter Chop Mode, click the **Chop** in the **Q-Links** panel.

To select a slice to edit, do one of the following:

- Click the lower half of the slice in the waveform in the upper half of the window.
- Click the corresponding **pad** in the **Pads** panel.
- Use **Q-Link Knob 16**.
- Adjust the **Slice** field in the **Parameters** panel.

Q-Links

In the **Q-Links** panel:

Use the **first** column of **Q-Link knobs** to adjust the start point. This is the same as adjusting the **Start** field in the **Parameters** panel.

Use the **second** column of **Q-Link knobs** to adjust the end point. This is the same as adjusting the **End** field in the **Parameters** panel.

Use **Q-Link Knob 15** to adjust the cue playhead. This is the same as adjusting the **Cue** field in the **Parameters** panel.

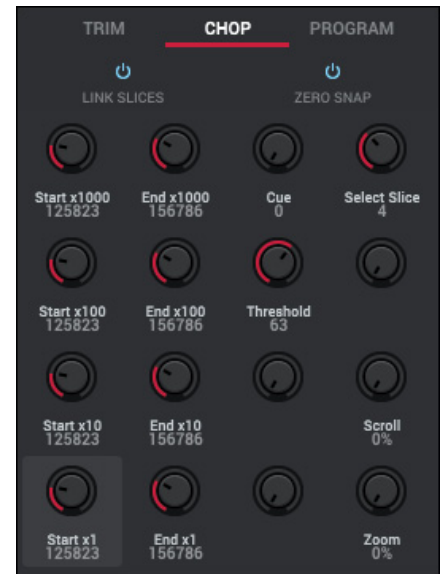
Use **Q-Link Knob 16** to select the desired slice. This is the same as adjusting the **Slice** field in the **Parameters** panel or clicking or pressing the corresponding pad.

Use **Q-Link Knob 8** to scroll through the waveform in the large waveform display above.

Use **Q-Link Knob 4** to zoom in or zoom out of the waveform.

When the **Chop To** menu is set to **Regions**, use **Q-Link Knob 11** to set into how many regions the sample will be divided.

When the **Chop To** menu is set to **Threshold**, use **Q-Link Knob 11** to set the threshold level.



For the first three columns, the top-most Q-Link knob provides coarse adjustment (**x1000**), while the bottom-most one knob provides fine adjustment (**x1**).

When **Link Slices** is enabled, changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample. This is the same as clicking the **gear icon** in the upper-right corner of the **Wave Editor** and using the **Link Slices** submenu.

Important: **Link Slices** must be disabled to make slices nonsequential, noncontiguous, or overlapping.

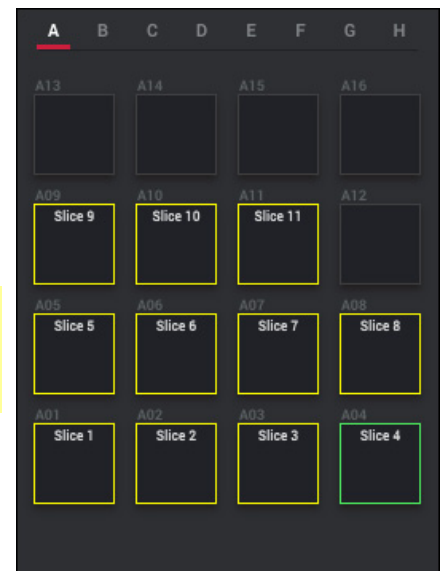
Enable **Zero Snap** to force start points, end points, and loop points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample. This is the same as clicking the **gear icon** in the upper-right corner of the **Wave Editor** and using the **Zero Snap** submenu.

Pads

The **Pads** panel enables you to play and select each slice of the selected sample:

Press the **pad** to play and select its corresponding the slice. If your sample has more than 16 slices, use the additional pad banks. This is the same as turning **Q-Link Knob 16** in the **Q-Links** panel or using the **Slice** field in the **Parameters** panel.

Note: When the **Pad Audition** menu is set to **One Shot**, clicking or pressing the pad will play the slice from its start marker. When **Pad Audition** is set to **Note On**, clicking (or pressing) and then holding the pad will play the slice from its start marker—releasing the pad will stop playback.



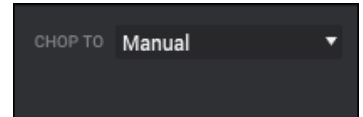
Parameters

The **Parameters** panel includes controls for editing the sample length and tuning as well as buttons for converting or assigning the sample (see [this section](#)) and processing the slice or sample (see [this section](#)).

Use the **Chop To** menu to choose how you want to use Chop Mode:

Manual

This method lets you insert slices at locations you select.

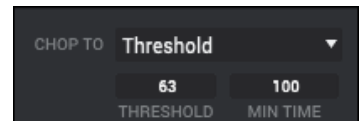


Threshold

This method uses an adjustable detection algorithm that derives the number of slices created from the volume levels present in the sample.

Use the **Threshold** field to set the threshold level. Alternatively, turn **Q-Link Knob 11**. The higher the selected value, the more slices will be created.

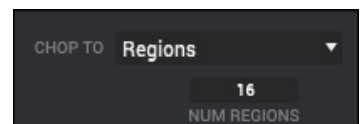
Use the **Min Time** field to set the minimum length of a slice in milliseconds.



Regions

This method divides a sample into slices of equal length.

Use the **Num Regions** field to set into how many regions the sample will be divided. Alternatively, turn **Q-Link Knob 11**. The higher the selected value, the more slices will be created.



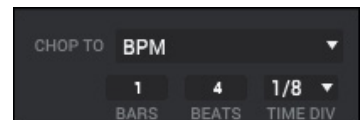
BPM

This method divides a sample into slices based on the tempo (beats per minute).

Use the **Bars** field to set how many bars are in the sample. Alternatively, turn the second **Q-Link knob** in the third bank.

Use the **Beats** field to set how many beats are in each bar. Alternatively, turn the third **Q-Link knob** in the third bank.

Use the **Time Div** field to set a note division. Alternatively, turn the bottom-most **Q-Link knob** in the third bank. 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**.)



Use the **Slice** field to select the desired slice. This is the same as turning **Q-Link Knob 16** field in the **Q-Links** panel or clicking or pressing the corresponding **pad**.

Use the **Start** field to adjust the start point. This is the same as turning the **first** column of **Q-Link knobs** in the **Q-Links** panel.

Use the **End** field to adjust the end point. This is the same as turning the **second** column of **Q-Link knobs** in the **Q-Links** panel.

Note: When **Link Slices** is enabled, changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample.

Click **+Slice** (under the **End** field) to add a slice at the current playhead position. You can do this at any point during sample playback.

To insert a slice marker manually, click the upper part of the waveform at the desired location (the cursor will appear as a **red** arrow with a **+** symbol: **↓+**).

To insert a slice marker during sample playback, press an **unlit pad** (usually **Pad 1**) to start playback of the sample, and then press an **unlit pad** during playback to place a slice marker at each location of the playhead. (If you press a lit pad, playback will restart from that pad's corresponding slice marker.) The number of the pad that is lit **green** is the number of the most-recently inserted slice marker. The numbers of the pads that are lit **yellow** are the numbers of the slice markers that are already inserted.

Click the **-** button (to the right of the **Slice** field) to combine the currently selected slice with the one before it.

Click the **+** button (to the right of the **Slice** field) to split the currently selected slice into two slices of the same size.

Click **-All** (to the right of the **Slice** field) to remove all slices from a sample.

The cue playhead is useful when manually inserting slice markers. You can set its position and behavior to suit your workflow.

Use the **Cue** field (below the **Start** field) to adjust the position of the cue playhead. Alternatively, click and drag the white marker with the triangle (**▼**) in the timeline.

Click **>Play** to play the sample from the cue playhead.

Click **+Slice** to create a slice marker at the cue playhead position.

Click the **Cue Audition** menu to select how the audio plays from the cue playhead:

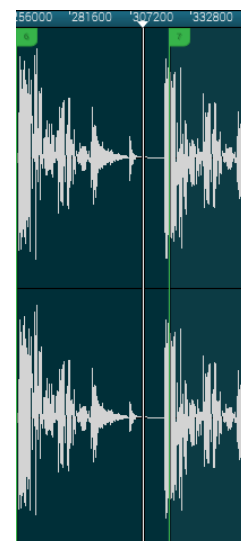
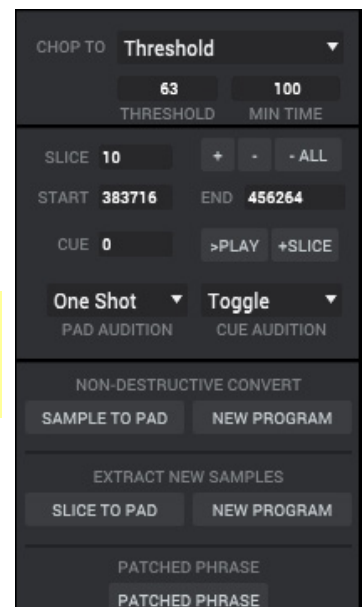
One Shot: Clicking **>Play** will play the entire sample from the cue playhead.

Toggle: Clicking **>Play** once will start playback from cue playhead. Clicking it once more will stop playback.

Click the **Pad Audition** menu to select how each slice plays from each start marker when you press the corresponding **pad**:

One Shot: Clicking or pressing the **pad** will play the slice from its start marker.

Note On: Clicking (or pressing) and then holding the **pad** will play the slice from its start marker. Releasing the **pad** will stop playback.

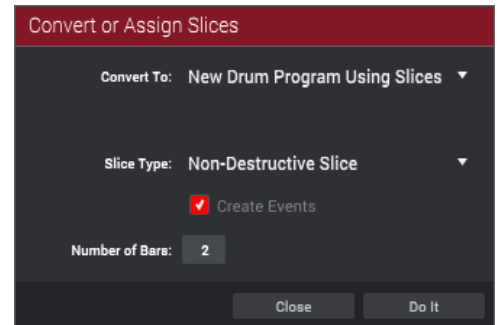


Converting or Assigning Slices

In Chop Mode, you can assign your new sample directly to a pad or convert the new sample into a new program or patched phrase.

Use the buttons in the **Non-Destructive Convert** and **Extract New Samples** sections to select a conversion and assignment process. In the **Convert or Assign Slices** window that appears, you can click the **Convert To** menu to select a different process, and then click **Do It** to apply the process or **Close** to close the window without processing the sample.

If you set the **Convert To** menu to **New [program type] program using slices**, this will create a new program and assign the sample's slices to its pads. The pads will simply refer to the slices in this sample instead of creating new samples. This is useful for reducing clutter in your project. The new program will be named after the sample and appended with **ch**.



Use the **Slice Type** menu to select how each pad's layer settings will be set when the slices are assigned to them (see [Program Edit Mode](#) to learn more about the parameters mentioned below):

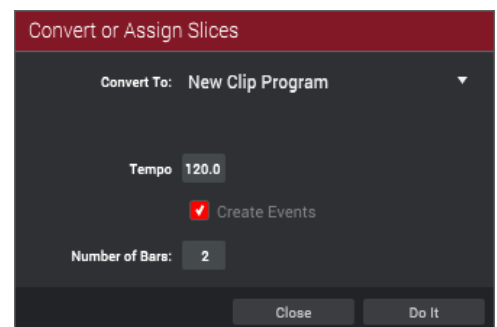
Non-Destructive Slice: Each pad's **Slice** setting will be set to the slice number.

Pad Parameters: Each pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** parameters will be set to the slice's start point and end point values, and the **Loop Pos** parameter will be set to the slice's start point but with **Pad Loop** deactivated.

Select the **Create Events** box to automatically create a new track for the new program in which each pad plays its corresponding slice in ascending sequence by pad number.

If **Create Events** is selected, use the **Bars** field to set how many bars the slices' events will occupy.

If you set the **Convert To** menu to **New clip program**, this will create a new clip program and assign the sample's slices to its pads as clips. The pads will simply refer to the slices in this sample instead of creating new samples. This is useful for reducing clutter in your project. The new program will be named after the sample and appended with **ch**.



Use the **Tempo** field to enter the tempo of the clips in the new program.

Select the **Create Events** box to automatically create a new track for the new program in which each pad plays its corresponding slice in ascending sequence by pad number.

If **Create Events** is selected, use the **Number of Bars** field to set how many bars the slices' events will occupy.

If you set the **Convert To** menu to **New program with new samples**, this will create a new sample from each slice and assign them to pads in a new program.

The new program will be named after the sample and appended with **ch**. The new samples will be appended with **SI-#** (where # is a consecutive number).

Select the **Crop Samples** box to delete the unused parts from the sample when they are created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box deselected to keep the unused parts of the samples when they're created and assigned. This way, you will still be able to edit the entire samples further even though you are using only part of them at the moment.

By default, this option already will create a new program. You can **deselect** the **Create New Program** box to convert each slice into a sample that is placed in the project's sample pool but not assigned to a program or pad.

If **Create New Program** is selected, select the **Create Events** box to automatically create a new track in which each pad plays its corresponding slice in ascending sequence by pad number.

If **Create Events** is selected, use the **Number of Bars** field to set how many bars the slices' events will occupy.

If you set the **Convert To** menu to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.

Important: Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

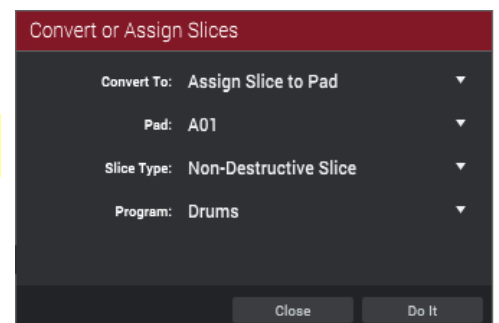
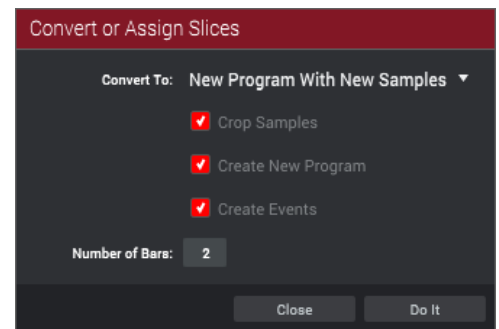
Use the **Pad** menu to select the desired pad. Alternatively, press the desired pad.

Use the **Slice Type** menu to select how the pad's layer settings will be set when the slice is assigned to it (see [Program Edit Mode](#) to learn more about the parameters mentioned below):

Non-Destructive Slice: The pad's **Slice** setting will be set to the slice number.

Pad Parameters: The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Program** menu to specify the program to which you want to add the slice.



If you set the **Convert To** menu to **New Sample to Pad**, this will create a new sample in your project. (The original sample will remain as it is.)

Important: Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

Use the **Pad** menu to select the desired pad. Alternatively, press the desired pad.

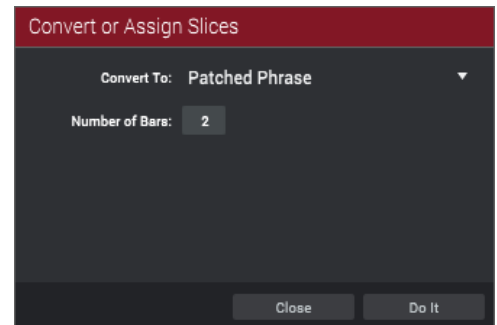
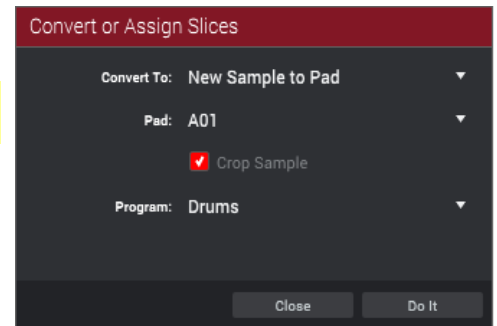
Select the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box deselected to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Program** menu to specify the program to which you want to add the slice.

If you set the **Convert To** menu to **Patched phrase**, this will create a new sample that will play based on the tempo of your Sequence, and places it in the current project. The patched phrase will have the same name as the original sample but appended with **pp** and will use a different icon when viewing your project information.

Use the **Bars** field to set how many bars long the patched phrase is meant to be.



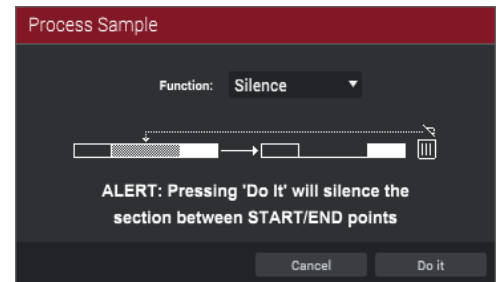
Processing Slices

Use the column of **Process** buttons to select an editing process. In the **Process Sample** window that appears, you can click the **Function** menu to select a different process, and then click **Do It** to apply the process or **Cancel** to close the window without processing the sample.

You can use any of these functions as described below.

Important: Chop Mode is non-destructive: You can choose the slice/edit behavior without destroying your original sample, giving you more control over sample playback; you can save your sliced sample and but also reuse all of the slice data in another project.

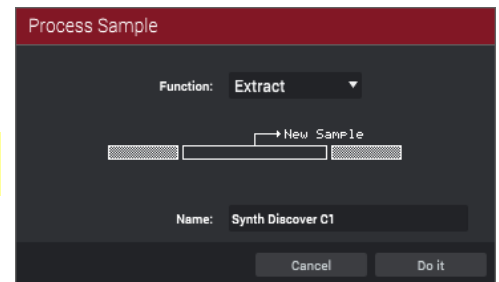
The **Silence** process replaces the region between the start point and end point with silence.



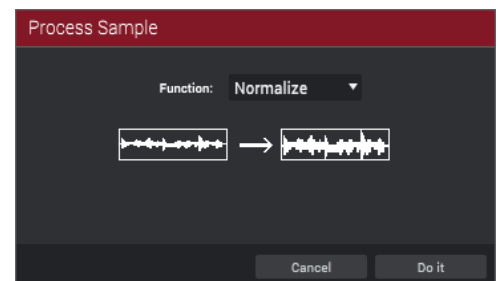
The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample in your current project.

Use the **Name** field to name the new sample.

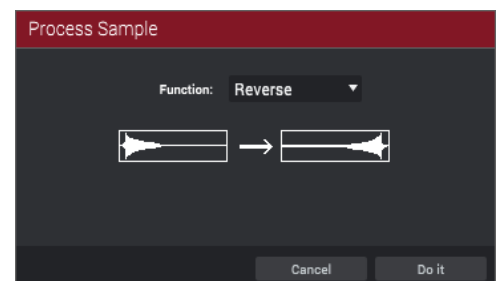
Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process 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 samples with a wide range of amplitudes.



The **Reverse** process reverses the region between the start point and end point.

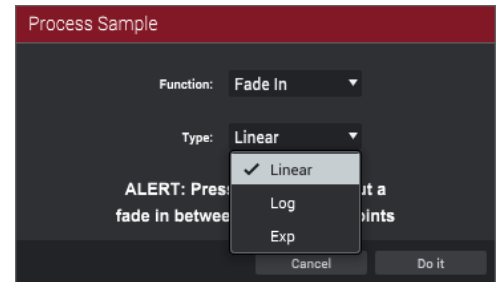


The **Fade In** process sets a fade-in between the start point and end point. Click the **Type** menu to select a type of fade:

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.

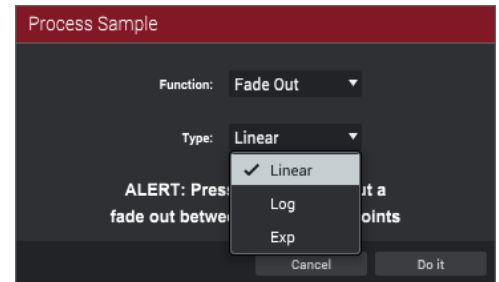


The **Fade Out** process sets a fade-out between the start point and end point. Click the **Type** menu to select a type of fade:

Linear fades the audio out with a linear curve—a straight line between the start and end.

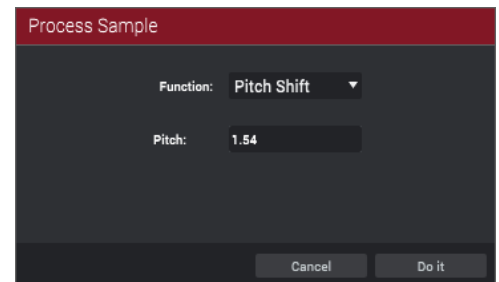
Log fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.

Exp fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.



The **Pitch Shift** process 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. Keep in mind that the audio quality may decrease at more extreme settings.

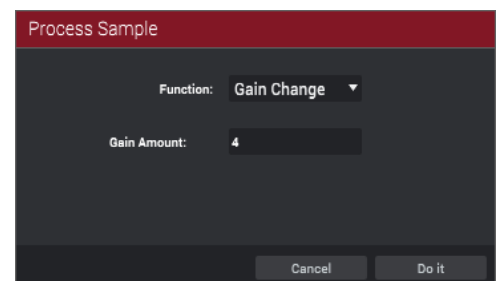
Use the **Pitch** field to shift the pitch up to **12.00** semitones up or down.



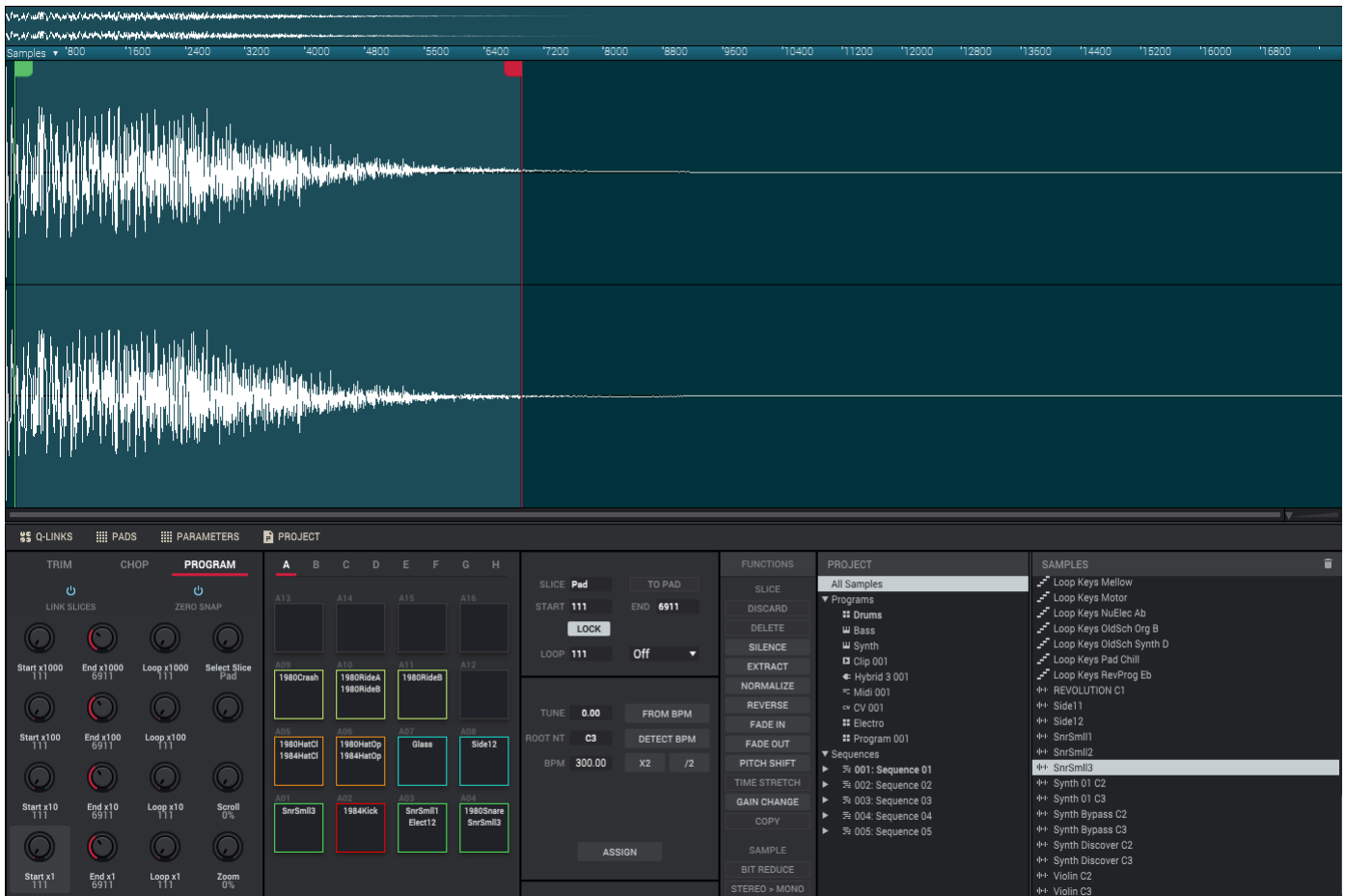
The **Gain Change** process raises or lowers the volume of the sample.

Use the **Gain Amount** field to adjust the gain up to **18 dB** up or down.

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!



Program Mode



Program Mode lets you edit a sample in the context of the program in which you will use it. You can adjust the pad parameters as though you were in Program Edit Mode, auditioning and hearing how it will sound in the program's audio path.

To enter Program Mode, click **Program** in the **Q-Links** panel.

Q-Links

In the **Q-Links** panel:

Use the **first** column of **Q-Link knobs** to adjust the start point. This is the same as adjusting the **Start** field in the **Parameters** panel.

Use the **second** column of **Q-Link knobs** to adjust the end point. This is the same as adjusting the **End** field in the **Parameters** panel.

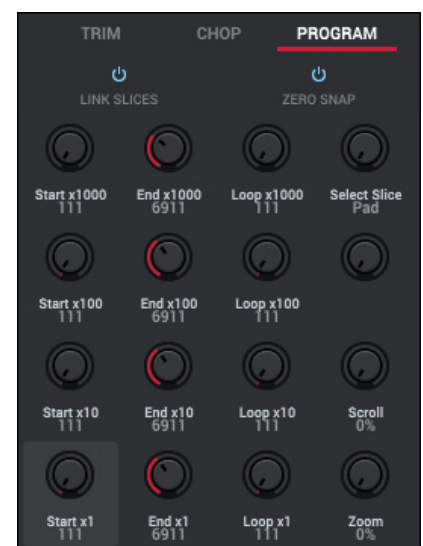
Use the **third** column of **Q-Link knobs** to adjust the loop point if **Loop Lock** is **off**. If **Loop Lock** is **on**, adjusting the loop point will also adjust the start point. This is the same as adjusting the **Loop** field in the **Parameters** panel.

Use **Q-Link Knob 16** to display either the sample as it has been edited (**Pad**) or the entire sample (**All**). This is the same as adjusting the **Slice** field in the **Parameters** panel.

Use **Q-Link Knob 8** to scroll through the waveform in the large waveform display above.

Use **Q-Link Knob 4** to zoom in or zoom out of the waveform.

For the first three columns, the top-most Q-Link knob provides coarse adjustment (**x1000**), while the bottom-most one knob provides fine adjustment (**x1**).



When **Link Slices** is enabled (after you have created slices in Chop Mode), changing the start point of a slice will also change the end point of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Disable **Link Slices** if you are trying to create slices that use non-contiguous parts of the sample. This is the same as clicking the **gear icon** in the upper-right corner of the **Wave Editor** and using the **Link Slices** submenu.

Important: **Link Slices** must be disabled to make slices nonsequential, noncontiguous, or overlapping.

Enable **Zero Snap** to force start points, end points, and loop points to occur only at the waveform's "zero-crossings." This can help to avoid clicks and glitches when playing a sample. This is the same as clicking the **gear icon** in the upper-right corner of the **Wave Editor** and using the **Zero Snap** submenu.

Pads

The **Pads** panel shows their assigned samples in the current program.

Click each **pad** to hear its sample/samples. The sample on its first layer will automatically appear in the waveform display for editing.



Parameters

The **Parameters** panel includes controls for editing the sample length and tuning as well as buttons for assigning the sample (see [this section](#)) and processing the slice or sample (see [this section](#)).

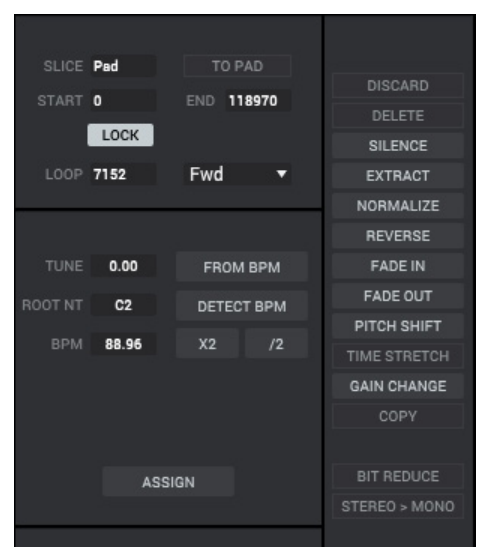
Use the **Slice** field to display either the sample as it has been edited (**Pad**) or the entire sample (**All**). This is the same as adjusting **Q-Link Knob 16** in the **Q-Links** panel.

If the **Slice** field is set to **All**, you can display the sample as it has been edited but keep the start point and end point by clicking **To Pad**. The **Slice** field will change to **Pad**, but the start point and end point will remain in their current locations.

Use the **Start** field to adjust the start point. This is the same as adjusting the **first** column of **Q-Link knobs** in the **Q-Links** panel.

Use the **End** field to adjust the end point. This is the same as adjusting the **second** column of **Q-Link knobs** in the **Q-Links** panel.

Use the **Loop** field to adjust the loop point if **Loop Lock** is **off**. If **Loop Lock** is **on**, adjusting the loop point will also adjust the start point. This is the same as adjusting the **third** column of **Q-Link knobs** in the **Q-Links** panel.



Click the **Lock** button to turn Loop Lock on or off. When **on**, the loop point is the same as the start point. When **off**, the loop point is independent from the start point and indicated by a separate loop marker.

Click the **Loop** menu to cycle between the three loop modes:

Off: The sample will not loop.

Forward (Fwd): When the loop reaches its end point, it will start playing again from the loop point.

Reverse (Rev): When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will return to the end point and continue playing in reverse.

Alternating (Alt): When the loop reaches its end point, it will play in reverse. When it reaches the loop point again, it will start playing forward again from the loop point.

Use the **Tune** field to transpose the sample from its original pitch up to **24.00** semitones up or down.

Use the **Root Nt** field to set the root note of the sample. This defines which note will play the sample at its original pitch when in a keygroup program.

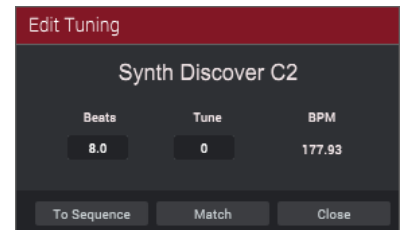
Click **From BPM** to tune a sample to the current sequence. In the **Edit Tuning** window that appears:

Use the **Beats** field to match the number of beats in the sequence.

To tune the sample to the sequence, click **Match**. The **Tune** field will adjust automatically and close the window. The sample is now tuned to the sequence.

To tune the sample to the sequence and adjust the sequence tempo, click **To Sequence**. This is the same as clicking Match but it also changes the sequence's tempo to the BPM shown in the Tempo field on the right.

To close the window, click **Close**.



Use the **BPM** field to enter a tempo manually. You can also click **X2** to double the value or **/2** to halve it.

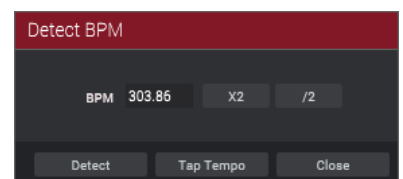
Click **Detect BPM** to automatically detect the tempo. In the **Detect BPM** window that appears:

Use the **BPM** field to enter a tempo manually. You can also click **X2** to double the value or **/2** to halve it.

Click **Detect** to detect the tempo automatically.

Click **Tap Tempo** at the bottom of the window at the desired rate to use it as the tempo. You can play a sequence in the background to help with your timing.

Click **Close** to close the window.



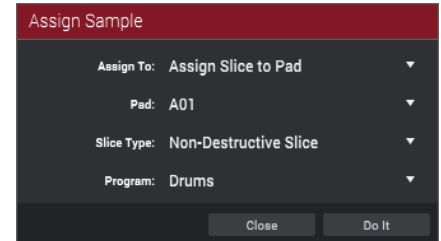
Assigning Samples

You can assign your new sample directly to a pad from Program Mode.

Click **Assign** to assign a sample. In the **Assign Sample** window that appears, you can click the **Assign To** menu to select a different assignment, and then click **Do It** to assign the sample or **Cancel** to close the window without assigning the sample.

Important: Assigning a sample to a pad in this way will replace the sample on the first layer of the pad.

If you set the **Assign To** menu to **Assign slice to a pad**, the pad will simply refer to the slice in this sample instead of creating a new sample. This is useful for reducing clutter in your project.



Use the **Pad** menu to select the desired pad. Alternatively, press the desired pad.

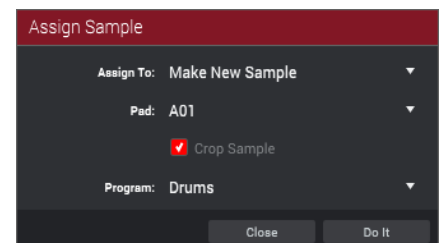
Use the **Slice Type** menu to select how the pad's layer settings will be set when the slice is assigned to it:

Non-Destructive Slice: The pad's **Slice** setting will be set to the slice number.

Pad Parameters: The pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated.

Use the **Program** menu to specify the program to which you want to add the slice.

If you set the **Assign To** menu to **Make new sample**, this will create a new sample in your project. (The original sample will remain as it is.)



Use the **Pad** menu to select the desired pad. Alternatively, press the desired pad.

Select the **Crop Sample** box to delete the unused parts from the sample when it's created and assigned. This feature is destructive, though the project will still contain your original sample.

Leave this box deselected to keep the unused parts of the sample when it is created and assigned. This way, you will still be able to edit the entire sample further even though you are using only part of it at the moment.

Use the **Program** menu to specify the program to which you want to add the slice.

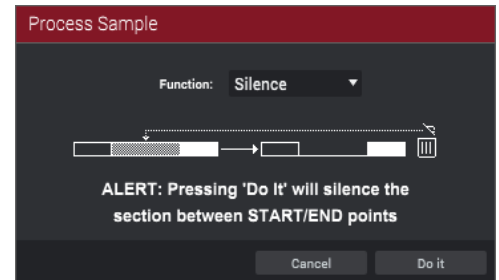
Processing Slices

Use the column of **Process** buttons to select an editing process. In the **Process Sample** window that appears, you can click the **Function** menu to select a different process, and then click **Do It** to apply the process or **Cancel** to close the window without processing the sample.

You can use any of these functions as described below.

Important: Program Mode is non-destructive: You can choose the slice/edit behavior without destroying your original sample, giving you more control over sample playback; you can save your sliced sample and but also reuse all of the slice data in another project. See the [Program Edit Mode](#) chapter to learn more about setting a pad to play the entire sample, a specific slice of a sample, or a specific region of the sample (independent of its slice markers).

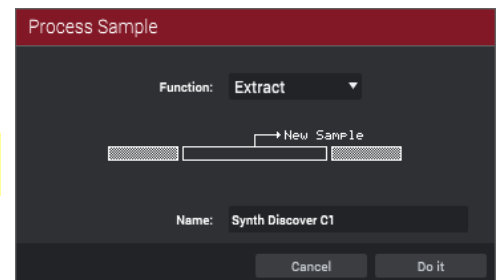
The **Silence** process replaces the region between the start point and end point with silence.



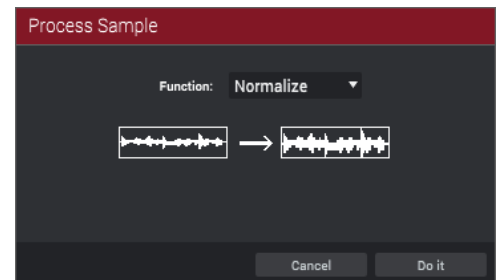
The **Extract** process deletes the regions before the start point and after the end point and saves it as a new sample in your current project.

Use the **Name** field to name the new sample.

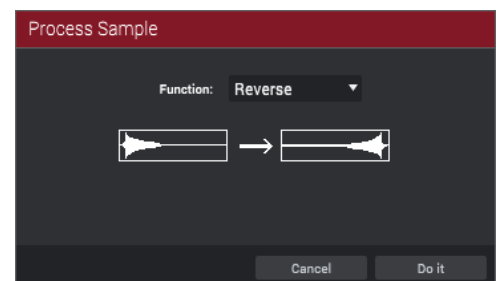
Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the project.



The **Normalize** process 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 samples with a wide range of amplitudes.



The **Reverse** process reverses the region between the start point and end point.

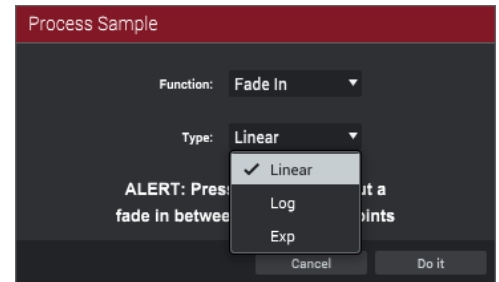


The **Fade In** process sets a fade-in between the start point and end point. Click the **Type** menu to select a type of fade:

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.

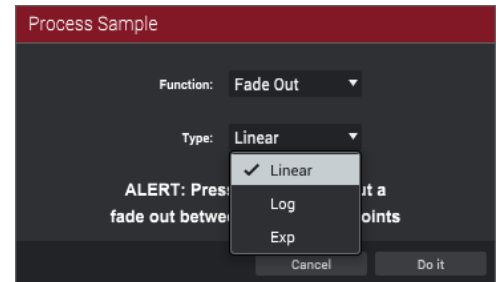


The **Fade Out** process sets a fade-out between the start point and end point. Click the **Type** menu to select a type of fade:

Linear fades the audio out with a linear curve—a straight line between the start and end.

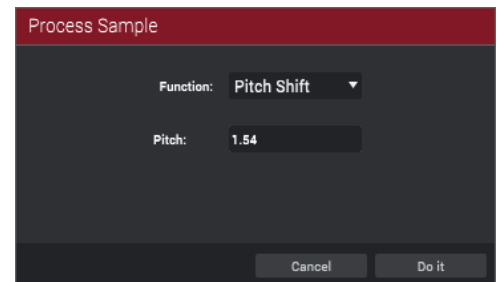
Log fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.

Exp fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.



The **Pitch Shift** process 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. Keep in mind that the audio quality may decrease at more extreme settings.

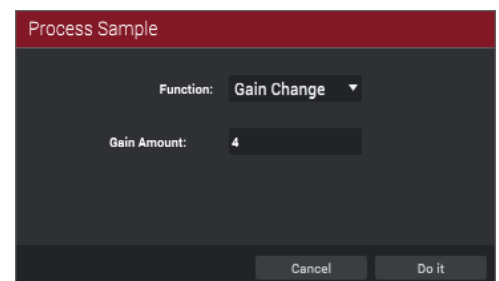
Use the **Pitch** field to shift the pitch up to **12.00** semitones up or down.



The **Gain Change** process raises or lowers the volume of the sample.

Use the **Gain Amount** field to adjust the gain up to **18 dB** up or down.

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!



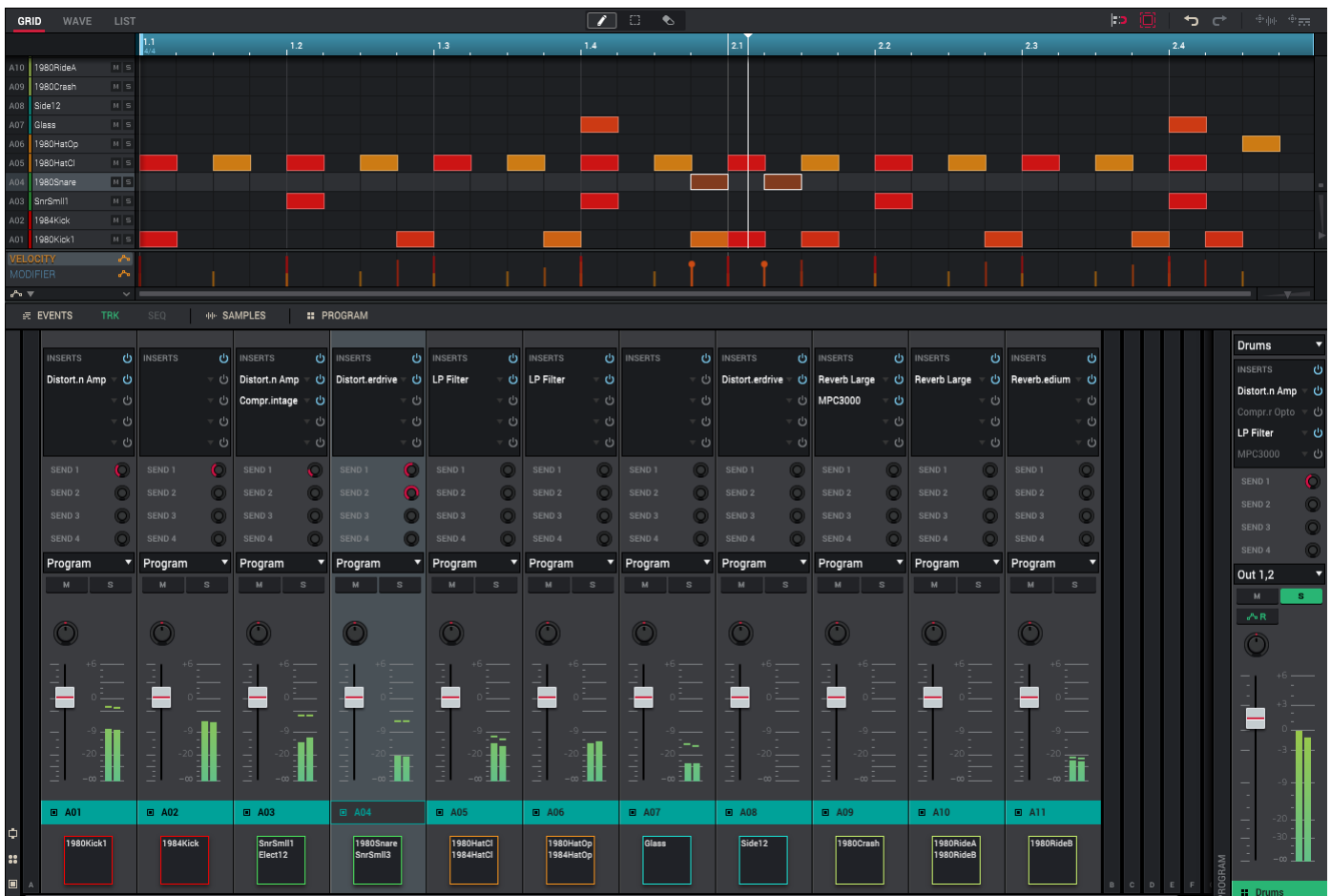
Pad Mixer



In the Pad Mixer, you can set a program's levels, stereo panning, routing, and effects.

To enter the Pad Mixer, do any of the following:

- Click the **pad-and-sliders icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Pad Mixer**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Pad Mixer**.



The Pad Mixer works like an audio mixer with various settings for each pad.

The upper half of the window can display the Grid Editor, Wave Editor, or List Editor. Click the **Grid**, **Wave**, or **List** tab. See [General Features > Editors](#) to learn more about each one.

The lower half of the window displays channel strips representing the pads of the current program (used by the currently selected track) used in the current sequence. Each type has a slightly different appearance.

Tip: If you want to see channel strips for both the Channel Mixer and the Pad Mixer at the same time, use the **Mixer Window**, which provides an overview of the channel strips in both modes in one screen. See [General Features > Mixer Window](#) to learn about this.

Select a track to view the channel strips for its program and pads. When an audio track or a track using a plugin program is selected, there will be no pad channel strips. When a track using a MIDI program or CV program is selected, there will be no pad channel strips or program strips.

Use the buttons in the lower-left corner of this area to show or hide different parts of the channel strips:

Click the **box icon** to show or hide the **Inserts** slots on the channel strips.

Click the **four-circles icon** to show or hide the **Send** knobs on the channel strips.

Click the **pad icon** to show or hide the **pad** on the channel strips for drum programs.



Use the selectors between the upper and lower halves of the window to filter which channel strips are shown or hidden:

Events: When **Events** is selected, the channel strips that are shown or hidden depend on whether **Trk** or **Seq** is selected next to it:

Trk: When **Trk** is selected, channel strips whose pads play in the current track will be shown. All others will be hidden.

Seq: When **Seq** is selected, channel strips whose pads play in the current sequence (if multiple tracks use this program) will be shown. All others will be hidden.

Samples: When **Samples** is selected, only channel strips whose pads or keygroups have samples assigned to them will be shown. When **Samples** is deselected, channel strips for all pads or keygroups will be shown.

Program: When **Program** is selected, the program channel strip will be shown on the right edge of the lower half of the window. When **Program** is deselected, the program channel strip will be hidden.

When a MIDI track is selected, the **pad channel strips** or **keygroup channel strips** for that program are grouped together on the left. The corresponding **program channel strip** will appear on the right. (When an audio track or a track using a plugin program is selected, there will be no pad channel strips. When a track using a MIDI program or CV program is selected, there will be no pad channel strips or program strips.)

Pad Channel Strip

When a track using a drum program or clip program is selected, the **pad channel strip** has these controls:

Click a pad channel strip to select it.

The number of the pad is at the bottom of the channel strip. If pads are shown at the bottom of the channel strips, you can click a **pad** to select its channel strip and play its sound.

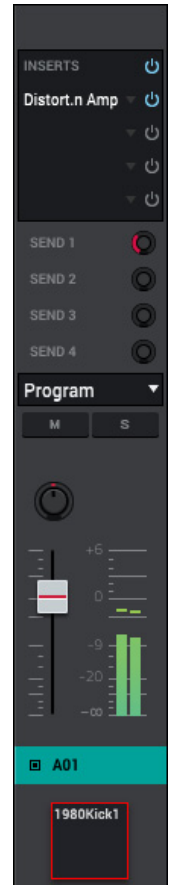
The **Inserts** slots show any enabled or disabled effects for that pad. See [General Features > Effects > Insert Effects](#) to learn more about pad insert effects.

Click and drag the **Send** knobs, which control the send levels for the pad. See [General Features > Effects > Send/Return Effects](#) to learn more about pad send/return effects.

The menu below the **Send** knobs shows where the pad is routed, which you can set to the current program (**Program**), a submix (**Submix > Sub 1–8**), a pair of master outputs (**Stereo Output > Out 1,2–31,32**), or a single master output (**Mono Output > Out 1–32**). Usually, this is set to **Program**.

Click **M** or **S** to mute or solo the pad (respectively).

To change the panning or level of the pad, adjust the **pan knob** or **level slider**. The **green** level meter next to the slider shows the pad's current volume level in **dB**.



Keygroup Channel Strip

When a track using a keygroup program is selected, the **keygroup channel strip** has these controls:

Click a keygroup channel strip to select it. Alternatively, click the **KG** menu at the top of the channel strip and select one—that channel strip will then display that keygroup.

The number of the keygroup is at the bottom of the channel strip.

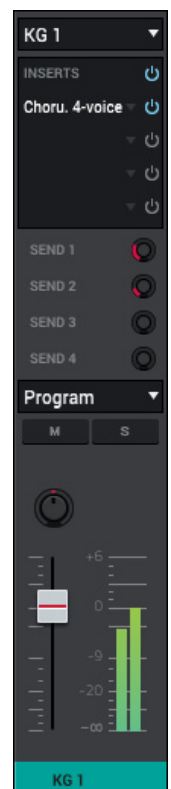
The **Inserts** slots show any enabled or disabled effects for that keygroup. See [General Features > Effects > Insert Effects](#) to learn more about keygroup insert effects.

Click and drag the **Send** knobs, which control the send levels for the keygroup. See [General Features > Effects > Send/Return Effects](#) to learn more about keygroup send/return effects.

The menu below the **Send** knobs shows where the keygroup is routed, which you can set to the current program (**Program**), a submix (**Submix > Sub 1–8**), a pair of master outputs (**Stereo Output > Out 1,2–31,32**), or a single master output (**Mono Output > Out 1–32**). Usually, this is set to **Program**.

Click **M** or **S** to mute or solo the keygroup (respectively).

To change the panning or level of the keygroup, adjust the **pan knob** or **level slider**. The **green** level meter next to the slider shows the keygroup's current volume level in **dB**.



Program Channel Strip

When a track using a drum program, keygroup program, plugin program, or clip program is selected, the **program channel strip** has these controls:

The name of the program is at the bottom of the channel strip.

The first menu shows the current program (which you can change).

The **Inserts** slots show any enabled or disabled effects for that program. See [General Features > Effects > Insert Effects](#) to learn more about program insert effects.

Click and drag the **Send** knobs, which control the send levels for the program. See [General Features > Effects > Send/Return Effects](#) to learn more about program send/return effects.

The menu below the **Send** knobs shows where the program is routed, which you can set to a submix (**Submix > Sub 1–8**), a pair of master outputs (**Stereo Output > Out 1,2–31,32**), or a single master output (**Mono Output > Out 1–32**).

Click **M** or **S** to mute or solo the program (respectively).

Click the **program automation button** to cycle through the three possible states of program automation:

When **off**, the program will ignore automation data. If you have already recorded or entered automation, clicking this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while clicking the button.

Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the program will read automation data but will not record any additional automation over it. 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.)

See [General Features > Automation](#) to learn about recording and editing automation.

Tip: You can quickly set all programs and audio tracks to the same automation by clicking the global automation button in the upper-right corner of the window.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the program. The **green** level meter next to the slider shows the program's current volume level in **dB**.



Audio Track Channel Strip

When an audio track is selected, there will be only an **audio track channel strip** (instead of a program channel strip) shown on the right with these controls:

The name of the track is at the bottom of the channel strip.

The first menu defines the input source of the external audio signal, which you can set to a pair of inputs (**Stereo > Input 1,2-31,32**) or a single input (**Mono > Input 1-32**).

The **Inserts** slots show any enabled or disabled effects for that track. See [General Features > Effects > Insert Effects](#) to learn more about audio track insert effects.

Click and drag the **Send** knobs, which control the send levels for the track. See [General Features > Effects > Send/Return Effects](#) to learn more about audio track send/return effects.

The menu below the **Send** knobs shows where the track is routed, which you can set to a submix (**Submix > Sub 1-8**), a pair of master outputs (**Stereo Output > Out 1,2-31,32**), or a single master output (**Mono Output > Out 1-32**).

Click **M** or **S** to mute or solo the track (respectively).

Click the **audio track automation button** to cycle through the three possible states of audio track automation:

When **off**, the audio track will ignore automation data. If you have already recorded or entered automation, clicking this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while clicking the button.

Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the audio track will read automation data but will not record any additional automation over it. 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 audio track 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.)

See [General Features > Automation](#) to learn about recording and editing automation.

Tip: You can quickly set all programs and audio tracks to the same automation by clicking the global automation button in the upper-right corner of the window.

Click the **Monitor** button to set how your audio track will be monitored. Clicking it will cycle through its three states:

When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When **on**, you will hear incoming audio whether or not the track is record-enabled.

When **off**, you will never hear any incoming audio.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the track. The **green** level meter next to the slider shows the track's current volume level in **dB**.

Click the **Record Arm** (Ⓢ) button to record-enable the track. When you begin audio recording, the audio signal will be recorded to this track.

Tip: You can record-enable multiple tracks by pressing and holding **Ctrl** (Windows) or **⌘** (macOS) while clicking the **Arm** button to each track (in the upper half of the window).



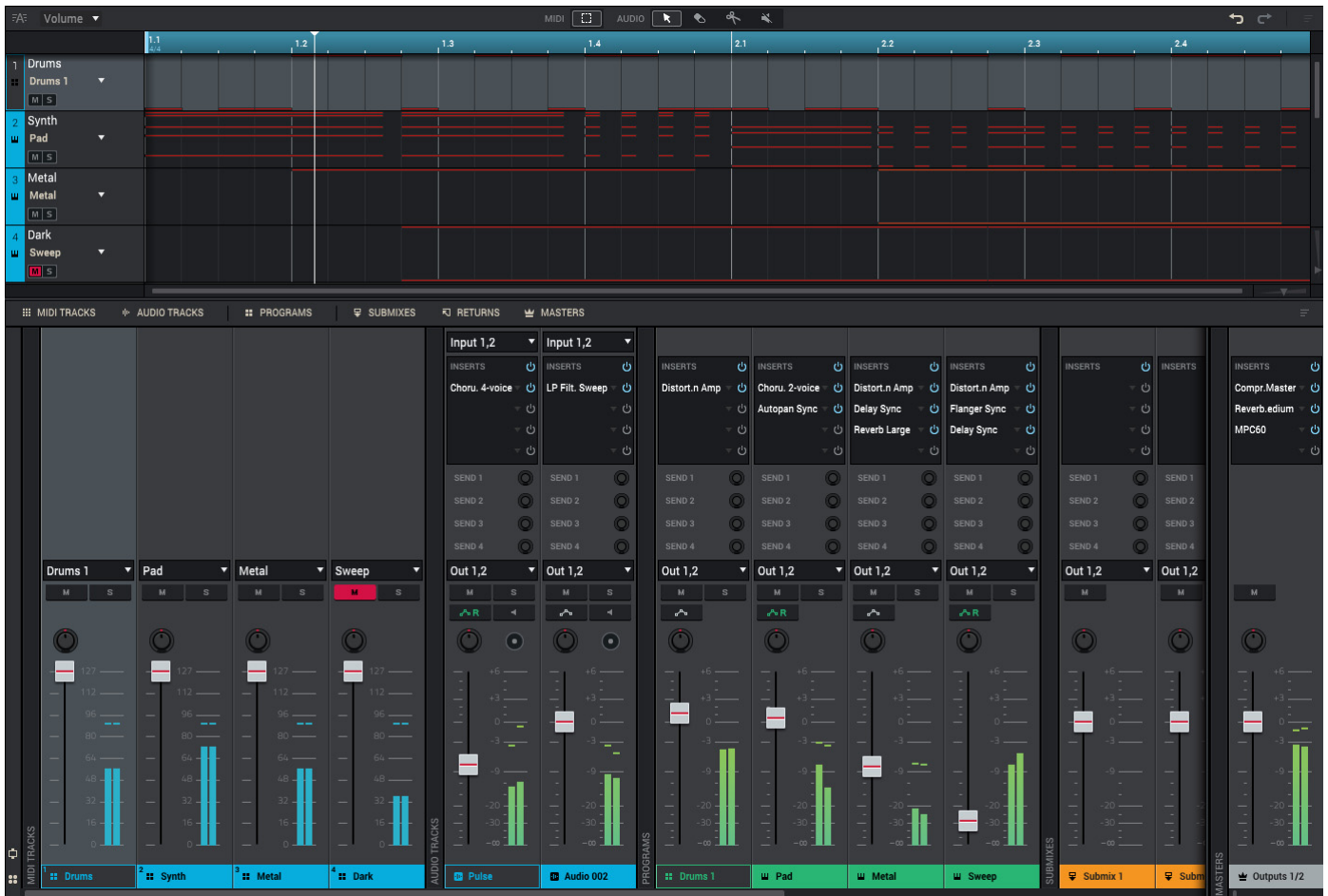
Channel Mixer



In the Channel Mixer, you can set levels, stereo panning, and other settings for your tracks, programs, returns, submixes, and masters.

To open the **Channel Mixer**, do any of the following:

- Click the **sliders icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Channel Mixer**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Channel Mixer**.



The Channel Mixer works like an audio mixer for the currently selected sequence with various settings for each MIDI track, audio track, program, submix, return, or master output.

The upper half of the window displays the Track View. See [General Features > Track View](#) to learn more about this.

The lower half of the window displays channel strips representing the MIDI tracks, audio tracks, programs, submixes, returns, and master outputs used in the current sequence. Each type has a slightly different appearance.

Tip: If you want to see channel strips for both the Channel Mixer and the Pad Mixer at the same time, use the **Mixer Window**, which provides an overview of the channel strips in both modes in one screen. See [General Features > Mixer Window](#) to learn about this.

Select a sequence to view its channel strips. There will be no program strips shown for MIDI programs or CV programs, though channel strips will be shown for any MIDI tracks that use those programs.

Use the buttons in the lower-left corner of this area to show or hide different parts of the channel strips:

Click the **box icon** to show or hide the **Inserts** slots on the channel strips.

Click the **four-circles icon** to show or hide the **Send** knobs on the channel strips.

Click the **menu icon** (≡) in the upper-right corner of the channel strips, and select or deselect **Show Unused Programs** and/or **Show Unused Tracks**.



Use the selectors between the upper and lower halves of the window to filter which channel strips are shown or hidden. When an option is selected, those channel strips will be shown. When it is deselected, its channel strips will be hidden.



MIDI Track Channel Strip

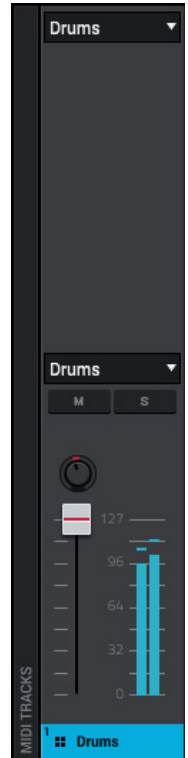
A **MIDI track channel strip** has these controls:

The name of the track is at the bottom of the channel strip.

The first menu shows the current program (which you can change).

Click **M** or **S** to mute or solo the track (respectively).

To change the panning or level of the track, adjust the **pan knob** or **level slider**. The **blue** level meter next to the slider shows the track's current velocity level (0–127).



Audio Track Channel Strip

An **audio track channel strip** has these controls:

The name of the track is at the bottom of the channel strip.

The first menu defines the input source of the external audio signal, which you can set to a pair of inputs (**Stereo > Input 1,2–31,32**) or a single input (**Mono > Input 1–32**).

The **Inserts** slots show any enabled or disabled effects for that track. See [General Features > Effects > Insert Effects](#) to learn more about audio track insert effects.

Click and drag the **Send** knobs, which control the send levels for the track. See [General Features > Effects > Send/Return Effects](#) to learn more about audio track send/return effects.

The menu below the **Send** knobs shows where the track is routed, which you can set to a submix (**Submix > Sub 1–8**), a pair of master outputs (**Stereo Output > Out 1,2–31,32**), or a single master output (**Mono Output > Out 1–32**).

Click **M** or **S** to mute or solo the track (respectively).

Click the **audio track automation button** to cycle through the three possible states of audio track automation:

When **off**, the audio track will ignore automation data. If you have already recorded or entered automation, clicking this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while clicking the button.

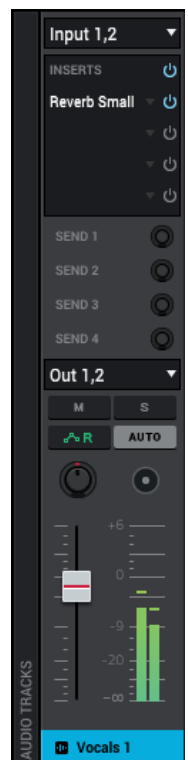
Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the audio track will read automation data but will not record any additional automation over it. 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 audio track 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.)

See [General Features > Automation](#) to learn about recording and editing automation.

Tip: You can quickly set all programs and audio tracks to the same automation by clicking the global automation button in the upper-right corner of the window.



Click the **Monitor** button to set how your audio track will be monitored. Clicking it will cycle through its three states:

When set to **Auto**, you will hear incoming audio while the track is record-enabled only.

When **on**, you will hear incoming audio whether or not the track is record-enabled.

When **off**, you will never hear any incoming audio.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the track. The **green** level meter next to the slider shows the track's current volume level in **dB**.

Click the **Record Arm** (Ⓞ) button to record-enable the track. When you begin audio recording, the audio signal will be recorded to this track.

Tip: You can select record-enable multiple tracks by pressing and holding **Ctrl** (Windows) or **⌘** (macOS) while clicking the **Arm** button to each track (in the upper half of the window or in the channel strips).

Program Channel Strip

A **program channel strip** has these controls:

The name of the program is at the bottom of the channel strip.

The **Inserts** slots show any enabled or disabled effects for that program. See [General Features > Effects > Insert Effects](#) to learn more about program insert effects.

Click and drag the **Send** knobs, which control the send levels for the program. See [General Features > Effects > Send/Return Effects](#) to learn more about program send/return effects.

The menu below the **Send** knobs shows where the program is routed, which you can set to a submix (**Submix > Sub 1–8**), a pair of master outputs (**Stereo Output > Out 1,2–31,32**), or a single master output (**Mono Output > Out 1–32**).

Click **M** or **S** to mute or solo the program (respectively).

Click the **program automation button** to cycle through the three possible states of program automation:

When **off**, the program will ignore automation data. If you have already recorded or entered automation, clicking this will switch between Read (**R**) and Write (**W**) only, but you can override this and turn it off by pressing and holding **Shift** while clicking the button.

Important: If you have already recorded automation and turn it off, the track will still use the effect and its parameter values at the point where you turned it off.

When set to **Read (R)**, the program will read automation data but will not record any additional automation over it. 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.)

See [General Features > Automation](#) to learn about recording and editing automation.

Tip: You can quickly set all programs and audio tracks to the same automation by clicking the global automation button in the upper-right corner of the window.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the program. The **green** level meter next to the slider shows the track's current volume level in **dB**.



Submix Channel Strip

A **submix channel strip** has these controls:

The number of the submix is at the bottom of the channel strip.

The **Inserts** slots show any enabled or disabled effects for that submix. See [General Features > Effects > Insert Effects](#) to learn more about submix insert effects.

Click and drag the **Send** knobs, which control the send levels for the submix. See [General Features > Effects > Send/Return Effects](#) to learn more about submix send/return effects.

The menu below the **Send** knobs shows where the program is routed, which you can set to a pair of master outputs (**Stereo Output > Out 1,2–31,32**), or a single master output (**Mono Output > Out 1–32**).

Click **M** to mute the submix.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the submix. The **green** level meter next to the slider shows the submix's current volume level in **dB**.



Return Channel Strip

A **return channel strip** has these controls:

The number of the return is at the bottom of the channel strip.

The **Inserts** slots show any enabled or disabled effects for that return. See [General Features > Effects > Send/Return Effects](#) to learn more about send/return effects.

The menu above the **M** button shows where the return is routed, which you can set to a pair of master outputs (**Stereo Output > Out 1,2–31,32**) or a single master output (**Mono Output > Out 1–32**).

Click **M** to mute the return.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the return. The **green** level meter next to the slider shows the return's current volume level in **dB**.



Master Channel Strip

A **master channel strip** has these controls:

The number of the pair of master outputs is at the bottom of the channel strip.

The **Inserts** slots show any enabled or disabled effects for that pair of outputs. See [General Features > Effects > Insert Effects](#) to learn more about master insert effects.

Click **M** to mute the outputs.

Adjust the **pan knob** or **level slider** to change the panning or level (respectively) of the outputs. The **green** level meter next to the slider shows the outputs' current volume level in **dB**.



Step Sequencer



The Step Sequencer lets you create or edit sequences by using the pads as “step buttons,” simulating the experience of a traditional step-sequencer-style drum machine.

This is available for MIDI tracks only, not audio tracks.

To enter the Step Sequencer, do any of the following:

- Click the **step-bars icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Step Sequencer**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Step Sequencer**.

The screenshot displays the MPC Step Sequencer interface. The main grid shows 16 steps (1.1 to 2.4) and 16 pads (A01 to B04). The pads are lit with various colors (red, orange, yellow, brown) representing different drum sounds. Below the grid is a velocity modifier section with 16 knobs. At the bottom, there are control panels for Q-LINKS, PADS, PROJECT, and SAMPLES.

To enter or delete steps in a sequence:

1. Use the **Pad** field in the **Pads** area to select the pad whose steps you want to enter or delete. The current pad number is shown in the upper-left corner.
2. Use the **Bar** field in the **Pads** area to select the bar of the sequence whose steps you want to enter or delete. The current bar number is shown in the upper-left corner.
3. Click the **pads**. Each pad corresponds to a step in the bar and will light with a color corresponding to its velocity.

Keep in mind that for time divisions larger than 16, the bar's steps will be represented by multiple pad banks. In this case, use **Pad Bank Buttons A** and **B** to view all the steps within a bar.

The upper half of the window can display the Grid Editor, Wave Editor, or List Editor. Click the **Grid**, **Wave**, or **List** tab to enter the corresponding editor. See [General Features > Editors](#) to learn more about each one.

The lower half of the window can display the **Q-Links** panel, **Pads** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels](#) to learn more about the [Project](#) panel. The [Q-Links](#) and [Pads](#) panels are described below.

Q-Links

The **Q-Links** panel (when **Q-Link Mode** is set to **Screen**) lets you to adjust the velocity of each step. The number of each step will be shown under the corresponding Q-Link knob.

Use each **Q-Link knob** to adjust the velocity (**1–127**) of its corresponding step. Setting a value of **0 (Off)** will delete the note event from that step. Changing a velocity from **0 (Off)** to a value of **1** or greater will enter a note event at that step.



Pads

The **Pads** panel lets you quickly create and delete note events as “steps” by using the pads of your MPC hardware or MPC software, similar to step recording with drum machines in the 1980s.

Each pad represents a step in the bar. Keep in mind that the total number of steps depends on the Time Correct setting. For time divisions larger than 16 (e.g., 32), the bar’s steps will be represented by multiple pad banks. In that case, use the **Pad** field to view all the steps within a bar.

Use the **Bar** field or the arrows (◀ or ▶) on either side of it to select the bar whose steps you want to edit.

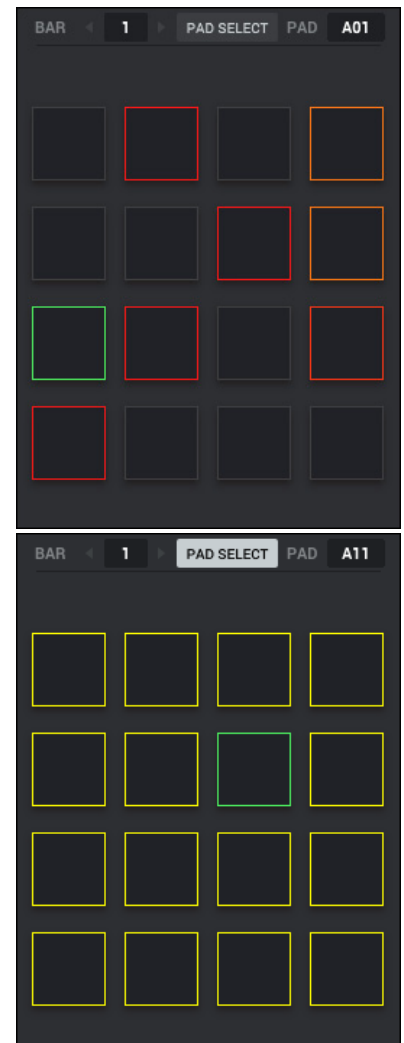
Use the **Pad Select** button to select the pad whose steps you want to edit. Click **Pad Select** to activate it, click a **pad** (the currently selected pad is lit **green**), and then click **Pad Select** again to deactivate it.

Alternatively, click and drag the **Pad** field up or down. You can also click a **pad** in the **Grid Editor**.

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.

The **green pad** indicates the current step (playhead position) in the sequence.



Sampler



The Sampler lets you record audio samples to use in your projects.

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

To open the **Sampler**, do any of the following:

- Click the **vinyl-and-tonearm icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Sampler**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Sampler**.



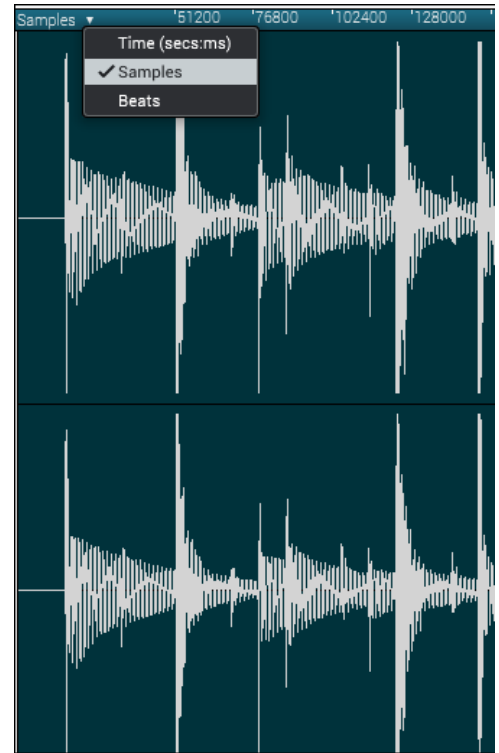
To set up the Sampler before recording:

1. Make sure to reduce the volume levels of your audio source and speakers, headphones, and/or monitors before you make any connections to avoid “pops” or feedback.
2. Connect a synthesizer or other line-level audio source to the input/inputs of your MPC hardware or external audio interface.
3. On your MPC hardware or external audio interface, turn the **Rec Vol** knob to set the input level while playing your audio source. You should now see the level in the meter. Make sure it does not exceed the maximum level (the meter should not be “peaking” constantly).
4. Set the recording controls as desired (described in this chapter).
5. Click the **Arm** button to record-arm the Sampler.

The upper half of the window shows the waveform. Unlike other times the waveform is shown here, you cannot edit the waveform in this part of the window; you must use the Wave Editor in Main Mode or Sample Edit Mode instead.

The timeline provides a reference for the length of the sample. Click the **down arrow** (▼) or right-click anywhere on the timeline to select the increments it will use: **Time (secs:ms)**, **Samples**, or **Beats**.

Scroll left or right on the waveform to move through it. Use the sliders in the lower-right corner or click the timeline and drag down or up to zoom in or out.



The lower half of the window can display the **Q-Links** panel, **Pads** panel, **Sampler** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels > Project](#) to learn more about the **Project** panel.

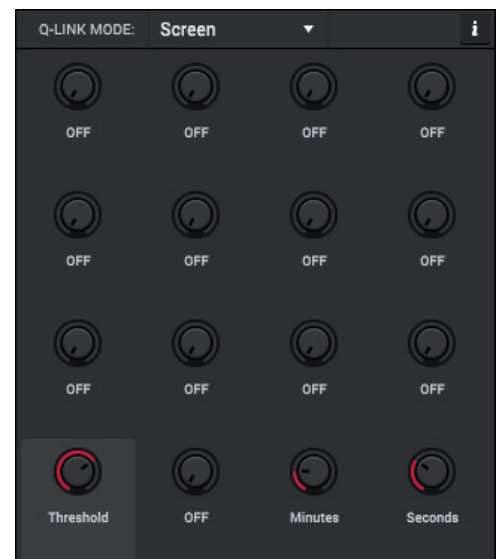
The **Pads** panel varies based on the four different recording methods: **Sample**, **Slice**, **Pad Tap**, or **Pad Hold**, all described in this chapter.

Q-Links

In the **Q-Links** panel:

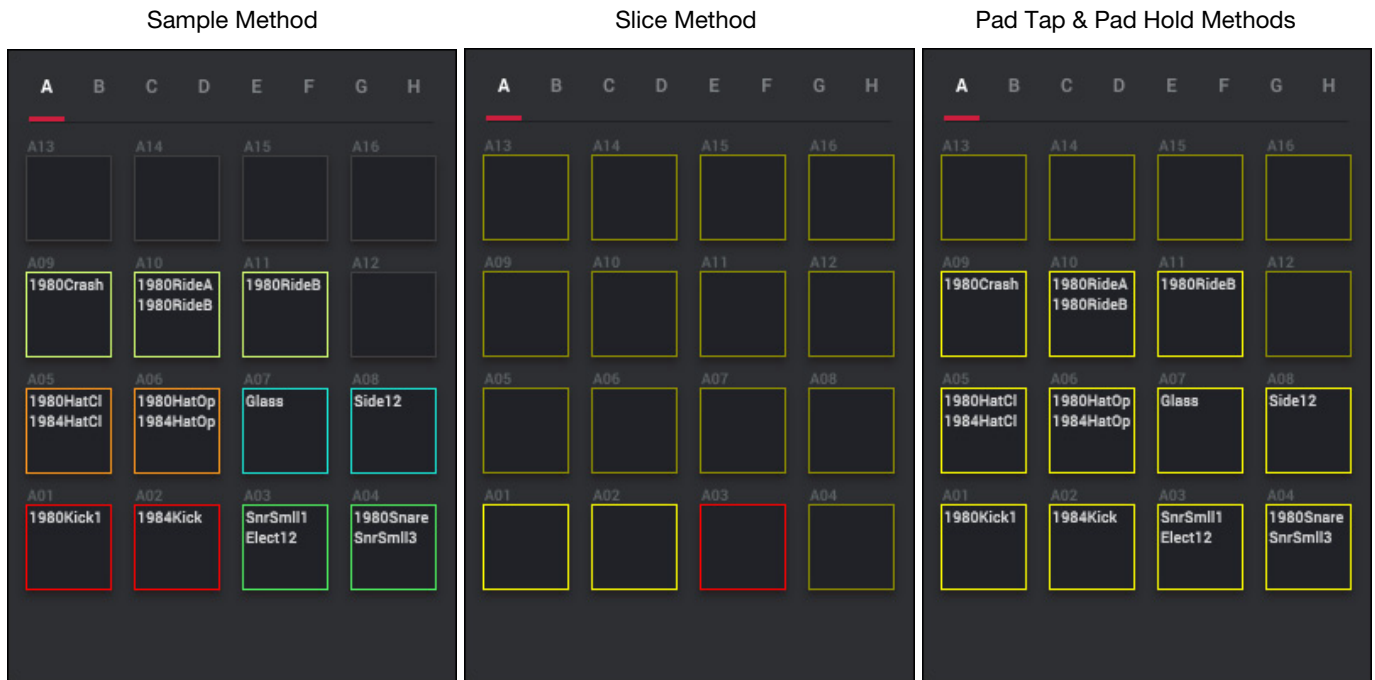
Use **Q-Link Knob 1** to adjust the threshold. This is the same as adjusting the **threshold slider** in the **Sampler** panel.

Use **Q-Link Knobs 3** and **4** to define the maximum sampling time. This is the same as adjusting the **Max Length** field as shown on your MPC hardware. You can record up to 19 minutes and 59 seconds (**19:59**) per sample. We recommend setting these to values that roughly match your estimated recording duration.



Pads

The **Pads** panel has three different appearances, depending on the recording method:



While using the **Sample** Method, the **Pads** panel shows information for each pad, depending on the currently selected program. This is identical to how the Pads panel appears in Main Mode (see the [Main Mode](#) chapter to learn more).

While using the **Slice** Method, the pads correspond to slices of the currently recorded sample. See [Recording Methods > Slice](#) to learn how to use the Pads panel with this method.

While using the **Pad Tap** or **Pad Hold** Methods, clicking a pad or clicking and holding a pad immediately starts or continues recording directly to that pad. See [Recording Methods > Pad Tap](#) or [Pad Hold](#) to learn how to use the Pads panel with those methods.

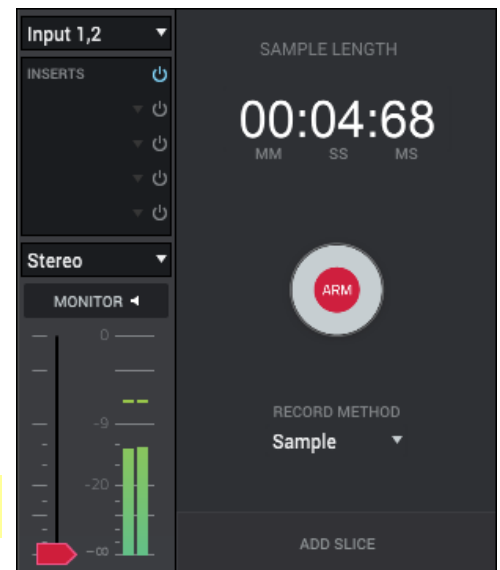
Sampler

The **Input Source** menu in the upper-left corner of the **Sampler** panel defines whether you are going to record an external audio signal (**Stereo** or **Mono**) or an internal signal from within the MPC software (**Resample L**, **Resample R**, or **Resample L+R**).

Resampling does not require an audio connection because the source is within the MPC 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 or by simply playing a sequence.

The **Inserts** slots show any enabled or disabled effects for the Sampler. See [General Features > Effects > Insert Effects](#) to learn more about insert effects.

Important: These effects are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later.



Click the **Mono/Stereo** menu to choose whether your recorded samples will be monaural (**Mono**) or binaural (**Stereo**).

Click the **Monitor** button to set how the Sampler will be monitored:

When **on**, the audio you hear in your headphones will be taken **before** it reaches the Sampler, ensuring zero latency.

When **off**, the audio you hear in your headphones will be taken **after** it is processed in the Sampler, so there may be some latency, but you will hear the audio source as it sounds in the recording.

Tip: To avoid possible clicks or feedback while input monitoring, reduce the level of the audio sources.

Use the **threshold slider** to adjust the threshold. Alternatively, turn **Q-Link Knob 1**.

When the Sampler is record-armed, it automatically starts recording when the level of the incoming source exceeds this setting. If you set it 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 it 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.

For reference, the **Sample Length** counter shows you the length of your sample during the recording procedure.

Click **Arm** to record-arm the Sampler. The button will then change to **Record**.

At that point, start recording by doing either of the following:

- Start performing so that the incoming audio level exceeds the level of the **threshold slider**.
- Click the **Record** button under the **Sample Length** counter.

Click the **Record Method** menu to select the recording method you want to use: [Sample](#), [Slice](#), [Pad Tap](#), or [Pad Hold](#), all described in the following section.

Click **Add Slice** as the sample records to insert a slice marker in a sample while recording. Each time you press it, a slice marker will be placed at that location.

Recording Methods

Sample

Using this method, you can insert slice markers directly in your sample as you record it.

Slice markers divide the sample into multiple regions called **slices**, which you can adjust in the Chop Mode of Sample Edit Mode (see [Sample Edit Mode > Chop Mode](#) for more information). This is useful when working with a long sample with different sounds throughout (e.g., a drum loop or a long melodic or harmonic passage).

To start recording, do one of the following:

- Start performing so that the incoming audio level exceeds the level of the **threshold slider**.
- Click the **Record** button under the **Sample Length** counter.

To insert a slice marker in a sample while recording, click **Add Slice** as the sample records. Each time you press it, a slice marker will be placed at that location.

To stop recording, click the **Stop** button under the **Sample Length** counter.

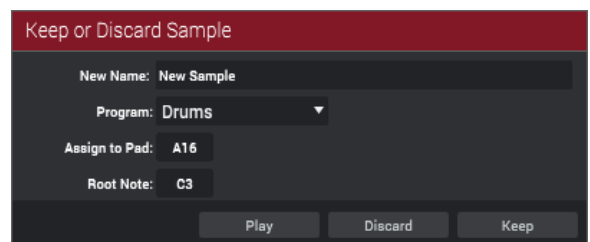
After you stop your recording, the **Keep or Discard Sample** window will appear.

Use the **New Name** field to name the new sample. Otherwise, the process will add a consecutive number after the sample name.

Click the **Program** menu to assign the new sample to a drum program. Select **<none>** if you want to save it to the project without assigning it to a program.

Use the **Assign to Pad** field to assign the sample to a pad in the selected drum program.

Use the **Root Note** field to set where the sample's original pitch will be on the keyboard.



If you recorded a sample while a sequence was playing, the **Keep or Discard Sample** window will show a few more options after you select a pad.

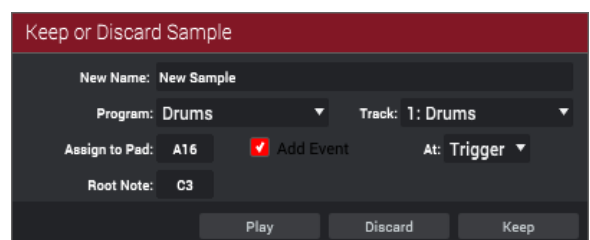
Check the **Add Event** box to automatically add the sample to the currently playing sequence.

Use the **At** menu to select where you want the event to start:

Start: The sample will be a note event at the start of the currently playing sequence.

Trigger: The sample will be a note event where you began recording it in the currently playing sequence.

Use the **Track** field to set which track will contain the new event.



To play the recording, click **Play**.

To discard the recording and close the window, click **Discard**.

To confirm your selections, click **Keep**.

Tip: We recommend editing your recorded sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).

Slice

Using this method, the pads correspond to slices of the currently recorded sample. Slice markers divide the sample into multiple regions called **slices**, which you can adjust in the Chop Mode of Sample Edit Mode (see [Sample Edit Mode > Chop Mode](#) for more information). This is useful when working with a long sample with different sounds throughout (e.g., a drum loop or a long melodic or harmonic passage).

To start recording, do one of the following:

- Start performing so that the incoming audio level exceeds the level of the **threshold slider**.
- Click the **Record** button under the **Sample Length** counter.

To insert a slice marker in a sample while recording, press any **pad** as the sample records. Each time you press it, a slice marker will be placed at that location.

The number of the pad that flashes **red** is the number of the slice marker that will be inserted next. The numbers of the pads that are lit **yellow** are the numbers of the slice markers that are already inserted.

When you are done recording, you can name the sample and create a new program using the slices.

To stop recording, click the **Stop** button under the **Sample Length** counter.

After you stop your recording, the **Keep or Discard Sample** window will appear.

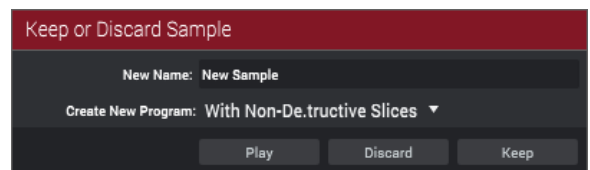
Use the **New Name** field to name the new sample. Otherwise, the process will add a consecutive number after the sample name.

Click the **Create New Program** menu to assign the new sample to a new program:

Off: No program will be created. The slices will still be added to your project's sample pool.

With Non-Destructive Slices: In the new program, each pad's **Slice** setting will be set to the corresponding slice number. This is identical to how you can assign samples in Sample Edit Mode (as described in [Sample Edit Mode > Chop Mode](#)).

With Pad Parameters: In the new program, each pad's **Slice** setting will be set to **Pad**. The **Pad Start** and **Pad End** will be set to the slice's start point and end point values, and the **Loop Position** will be set to the slice's start point but with **Pad Loop** deactivated. This is identical to how you can assign samples in Sample Edit Mode (as described in [Sample Edit Mode > Chop Mode](#)).



To play the recording, click **Play**.

To discard the recording and return to the Sampler, click **Discard**.

To confirm your selections, click **Keep**.

Tip: We recommend editing your recorded sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).

Pad Tap

Important: This mode works for **drum programs only**; you must select a drum program before using this mode. Otherwise, this feature will not do anything, even though it may appear to work.

With this method, clicking or pressing a pad immediately starts or continues recording directly to that pad (make sure you are using the desired program before you start recording). Pads with assigned samples are lit **bright yellow**. Pads without samples are lit **dim yellow**.

To start recording to a pad, click or press it. Recording will start immediately, and the pad will flash **red**. If you click or press a new pad, the recording will stop on the previous pad, which will turn **green**, and start on the new pad, which will flash **red**.

Note: If you start recording by clicking **Record** under the **Sample Length** counter—or if the volume exceeds the level of the **threshold slider**—the sample will record to your project's sample pool, not to a pad.

To stop recording to a pad, click or press the currently recording **pad**, which is flashing **red**. The sample will continue recording. You can start recording on another **pad** at any time.

To stop all recording, click the **Stop** button under the **Sample Length** counter.

When you are done recording, each pad that you have clicked or pressed during recording:

- will have its **Slice** setting set to **Pad**;
- will have its **Pad Start** and **Pad End** set to the slice's start point and end point values; and
- will have its **Loop Position** set to the slice's start point but with **Pad Loop** deactivated.

This is identical to how you can assign samples in Sample Edit Mode (described in [Sample Edit Mode > Chop Mode](#)).

Tip: We recommend editing your recorded sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).

Pad Hold

Important: This mode works for **drum programs only**; you must select a drum program before using this mode. Otherwise, this feature will not do anything, even though it may appear to work.

With this method, clicking or pressing and holding a pad immediately starts or continues recording directly to that pad (make sure you are using the desired program before you start recording). Pads with assigned samples are lit **bright yellow**. Pads without samples are lit **dim yellow**.

To start recording to a pad, click and hold it, or press and hold it. Recording will start immediately, and the pad will light **red**.

Note: If you start recording by clicking **Record** under the **Sample Length** counter—or if the volume exceeds the level of the **threshold slider**—the sample will record to your project's sample pool, not to a pad.

To stop recording, release the **pad**. The pad will light **green**, and the sample will continue recording. You can start recording on another **pad** at any time.

To stop all recording, click the **Stop** button under the **Sample Length** counter.

When you are done recording, each pad that you have clicked or pressed during recording:

- will have its **Slice** setting set to **Pad**;
- will have its **Pad Start** and **Pad End** set to the slice's start point and end point values; and
- will have its **Loop Position** set to the slice's start point but with **Pad Loop** deactivated.

This is identical to how you can assign samples in Sample Edit Mode (described in [Sample Edit Mode > Chop Mode](#)).

Tip: We recommend editing your recorded sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).

Looper



The Looper lets you record and overdub audio in real time—a great tool for live performance as well as spontaneous moments in the studio. You can export the loop as a sample to use in your project.

To open the Looper, do any of the following:

- Click the **loop-and-waveform icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Looper**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Looper**.

The screenshot displays the MPC Looper interface. At the top, a timeline shows time markers from 1:1.240 to 1:4.720. The main area is a waveform display with a dark blue background and a white waveform. Below the waveform is a control panel with several sections:

- Q-LINK MODE:** Set to "Screen".
- Q-LINKS:** Four knobs, all set to "OFF".
- Threshold:** A knob set to "OFF".
- Gain:** A knob set to "Gain".
- Channel Strip:** A grid of 16 channels (D13-D16, D09-D12, D05-D08, D01-D04) with "Synt.r C2" and "Synt.l C2" labels.
- Input 1,2:** A dropdown menu.
- INSERTS:** A vertical stack of four buttons.
- MONITOR:** A vertical stack of four buttons.
- STEREO:** A dropdown menu.
- LOOPER:** A section with buttons for "REV", "RPLC", "PLAY", and "OVR".
- SEQ SYNC:** A dropdown menu set to "OFF".
- BARS:** A dropdown menu set to "1".
- RECORD TO:** A dropdown menu set to "Overdub".
- OUTPUT GAIN:** A horizontal slider.
- CLEAR X** and **EXPORT X** buttons.
- PROJECT:** A list of project elements including "All Samples", "Programs", "Drums", "Bass", "Synth", "Clip 001", "Hybrid 3 001", "Midi 001", "CV 001", "Electro", and "Sequences".
- SAMPLES:** A list of sample names including "Loop Keys Crystal Ab", "Loop Keys Mellow", "Loop Keys Motor", "Loop Keys NuElec Ab", "Loop Keys OldSch Org B", "Loop Keys OldSch Synth D", "Loop Keys Pad Chill", "Loop Keys RevProg Eb", "Side11", "Side12", "Electro", "Sequences", "001: Sequence 01", "002: Sequence 02", "003: Sequence 03", "004: Sequence 04", "SnrSm111", "SnrSm112", "SnrSm113", "Synth 01 C2", "Synth 01 C3", "Synth Bypass C2", "Synth Bypass C3", "Synth Discover C2", "Synth Discover C3", "Violin C2", and "Violin C3".

Below is a brief step-by-step process so you can get started quickly. Continue reading the rest of this chapter to learn how to use the Looper in different cases.

To get started using the Looper:

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 a synthesizer, audio player, etc. to the input/inputs of your MPC hardware or external audio interface.
3. On your MPC hardware or external audio interface, turn the **Rec Vol** knob to set the input level while playing your audio source. You should now see the level in the meter in the **Looper** panel. Make sure it does not exceed the maximum level (the meter should not be “peaking” constantly).
4. In the **Looper** panel, set the recording controls as desired (described later in this chapter).
5. Click the **Record To** menu in the **Looper** panel and select **Overdub**.
6. Click the **Ovr** (⊕) button in the **Looper** panel to record-arm the Looper.
7. Play your audio source. The Looper will start recording immediately when the input level reaches the threshold value. Alternatively, click **Play** (▶) in the **Looper** panel to manually start recording.

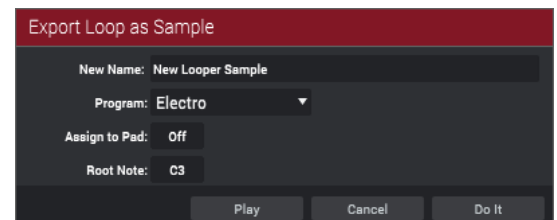
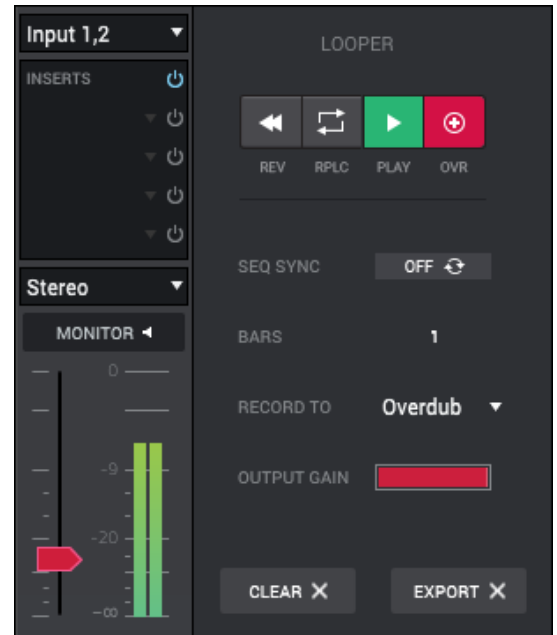
Each time the Looper repeats, its contents are being overdubbed—a new layer of audio will be added each time you let the Looper repeat as it records.

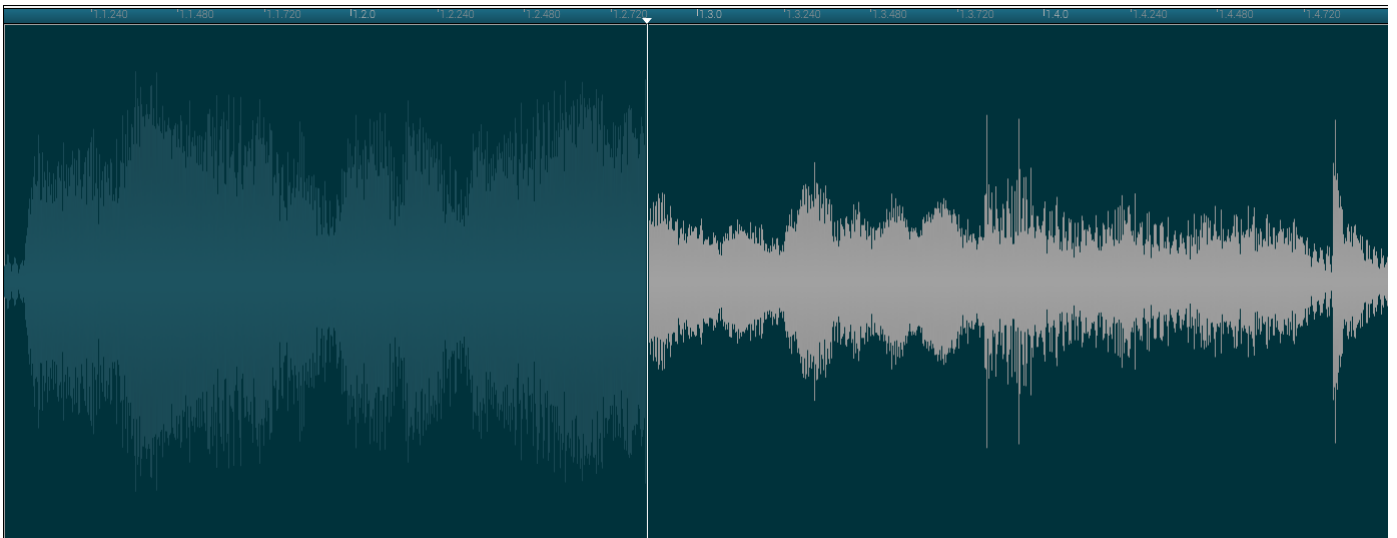
Tip: You can record a loop while playing a sequence in the background for reference.

8. **To stop recording**, click **Play** (▶) in the **Looper** panel.

To export your loop as a sample, click **Export** to open the **Export Loop as Sample** window.

To clear the contents of the Looper, click **Clear**.





The upper half of the window shows the real-time waveform of the Looper's audio. Unlike other times the waveform is shown here, you cannot edit the waveform in this part of the window.

The audio playhead indicates the Looper's current playback and/or recording position.

The timeline provides a reference for the length of the sample as **bars.beats.ticks**.

The lower half of the window can display the **Q-Links** panel, **Pads** panel, **Looper** panel, and **Project** panel. Click the corresponding selector to show or hide each one.

The **Pads** panel shows information for each pad, depending on the currently selected program. This is identical to how the Pads panel appears in Main Mode (see the [Main Mode](#) chapter to learn more).

See [General Features > Panels > Project](#) to learn more about the **Project** panel.

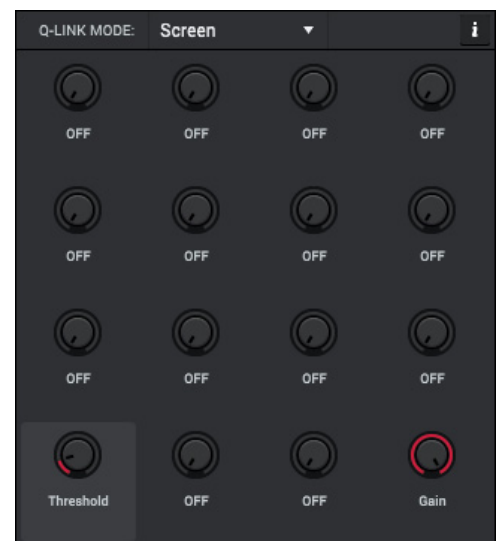
The [Q-Links](#) panel and [Looper](#) panel are described in the following sections.

Q-Links

In the **Q-Links** panel:

Use **Q-Link Knob 1** to adjust the threshold. This is the same as adjusting the **threshold slider** in the **Looper** panel.

Use **Q-Link Knob 4** to adjust the Looper's output gain level. This is the same as adjusting the **Output Gain** slider in the **Looper** panel.



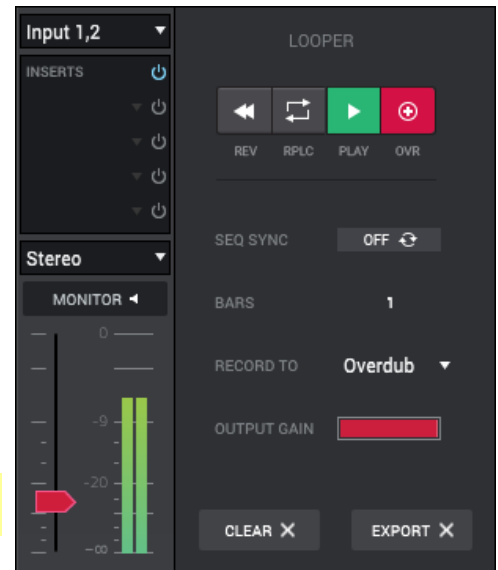
Looper

The **Input Source** menu in the upper-left corner of the **Looper** panel defines whether you are going to record an external audio signal (**Stereo** or **Mono**) or an internal signal from within the MPC software (**Resample L**, **Resample R**, or **Resample L+R**).

Resampling does not require an audio connection because the source is within the MPC 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 or by simply playing a sequence.

The **Inserts** slots show any enabled or disabled effects for the Looper. See [General Features > Effects > Insert Effects](#) to learn more about insert effects.

Important: These effects are applied to the audio as you record it. This means that the effects cannot be “removed” from the sound later.



Click the **Mono/Stereo** menu to choose whether your recorded loop will be monaural (**Mono**) or binaural (**Stereo**).

Click the **Monitor** button to set how the Looper will be monitored:

When **on**, the audio you hear in your headphones will be taken **before** it reaches the Sampler, ensuring zero latency.

When **off**, the audio you hear in your headphones will be taken **after** it is processed in the Sampler, so there may be some latency, but you will hear the audio source as it sounds in the recording.

Tip: To avoid possible clicks or feedback while input monitoring, reduce the level of the audio sources.

Use the **threshold slider** to adjust the threshold. Alternatively, turn **Q-Link Knob 1**.

When the Looper is record-armed, it automatically starts recording when the level of the incoming source exceeds this setting. If you set it 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 it 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.

Click **Rplc** or **Ovr** (⊕) to record-arm the Looper. The **Play** (▶) and **Ovr** (⊕) buttons will then flash.

At that point, start recording by doing either of the following:

- Start performing so that the incoming audio level exceeds the level of the **threshold slider**.
- Click the **Play** (▶) button in the **Looper** panel.

Click **Rev** (◀) to reverse playback and recording of the Looper.

Use the **Bars** field to define the length of your loop. Regardless of how much or how little audio you record, this is how long your loop will be.

Click **Sync** button to sync or un-sync the looper with sequence playback. When **on**, the Looper will stay in step with your current sequence. When you play or record into the Looper, it will wait until the sequence starts playing Bar 1 to start.

Use the **Record To** selector to determine the loop recording behavior:

Play: Before recording, you must first click the **Play** (▶) button on the window, which will start playing the Looper.

Overdub: Before recording, you must first click **Rplc** or **Ovr** (⊕) to record-arm the Looper.

Click **Clear** ✕ to erase the loop immediately.

Click **Export** ✕ to open the **Export Loop as a Sample** window.

Use the **Output Gain** slider to adjust the Looper's output gain level. This is the same as adjusting **Q-Link Knob 4** in the **Q-Links** panel.

Below are step-by-step instructions for using the Looper's functions.

To record with the Looper:

Important:

To record without erasing any audio you've already recorded in the loop, use the ⊕/Ovr button.

To overwrite the audio you've already recorded, use the Rplc button.

If **Record To** is set to **Play**:

To start recording, click the **Rplc** or **Ovr** (⊕) button as the loop is playing. The Looper will start recording immediately.

To stop recording, click the **Rplc** or **Ovr** (⊕) button. The Looper will stop recording but continue playing.

To stop playback and recording, click the **Play** (▶) button.

If **Record To** is set to **Overdub**:

To start recording, click the **Play** (▶) button on the window.

If **Sync** is off, you can also play your audio source so that the input level reaches the threshold value.

If **Sync** is on, you can also click the **Play** (▶) or **Play Start** (▶|) button in the toolbar to start playing a sequence; recording will start when the sequence starts on Bar 1.

To stop recording, click the **Ovr** (⊕) button. The Looper will stop recording but continue playing.

To stop playback and recording, click the **Play** (▶) button, or press stop to stop sequence playback.

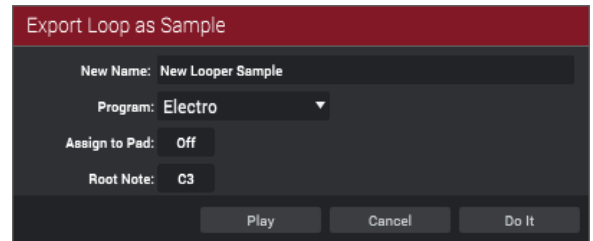
To play or stop the loop (without recording), click the **Play** (▶) button on the window.

To reverse loop playback, click the **Rev** (◀) button. If **Seq Sync** is **on**, playback will reverse once the Looper's playhead reaches the end of the loop. If **Seq Sync** is **off**, playback will reverse immediately.

To erase the loop immediately, click **Clear** ✕.

To export the loop as a sample:

1. Click **Export X** to open the **Export Loop as a Sample** window.
2. Use the **New Name** field to name the new sample. Otherwise, the process will add a consecutive number after the sample name.
3. **Optional:** Click the **Program** menu to assign the new sample to a program. Select **<none>** if you want to save it to the project without assigning it to a program.
4. **Optional:** Use the **Assign to Pad** field to assign the sample to a pad in the program.
5. Use the **Root Note** field to set where the sample's original pitch will be on the keyboard.



To play the recording, click **Play**.

To close the window without exporting, click **Cancel**.

To confirm your selections and export the loop, click **Do It**.

Tip: We recommend editing your sample in **Sample Edit Mode** (see [Sample Edit Mode](#) for more information).

Pad Mute Mode



Pad Mute Mode lets you easily mute pads within a program or set mute groups for each pad within a program.

To enter **Pad Mute Mode**, do any of the following:

- Click the **square-and-X icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Pad Mute**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Pad Mute**.

The screenshot displays the MPC software interface in Pad Mute Mode. The top section is the Grid Editor, showing a grid of pads (A01-A16) with colored blocks representing their activity. The lower section is the Mute panel, which includes a grid of pads (A-H) and buttons for PAD MUTE and PAD GROUP. The Project panel on the right shows a list of samples and sequences.

While **Pad Mute** is selected in the **Mute** panel, 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 muting pads one at a time in the grid but more convenient.

The **Pad Group** feature in the **Mute** panel 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 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 groups.

The upper half of the window can display the Grid Editor, Wave Editor, or List Editor. Click the **Grid**, **Wave**, or **List** tab to enter the corresponding editor. See [General Features > Editors](#) to learn more about each one.

The lower half of the window can display the **Pad Banks** panel, **Pads** panel, **Mute** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels > Project](#) to learn more about the **Project** panel. The other panels are described below: [Pad Banks](#), [Pads](#), and [Mute](#).

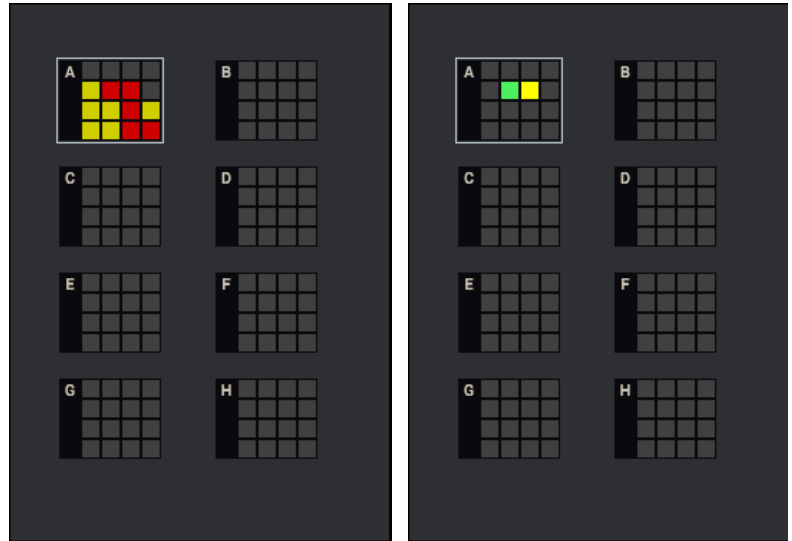
Pad Banks

The **Pad Banks** panel is an overview of all pads in all eight pad banks.

Click a **pad bank** to select it. That bank will also appear in the Grid Editor and the Pads panel.

While using the **Pad Mute** function (selected in the **Mute** panel), click a **pad** with a sample to mute or unmute it. Muted pads are **red**. Unmuted pads are **yellow**.

While using the **Pad Group** function (selected in the **Mute** panel), click a **pad** to select it to assign to a group. The selected pad is **green**. Pads that belong to the same group flash **yellow**.



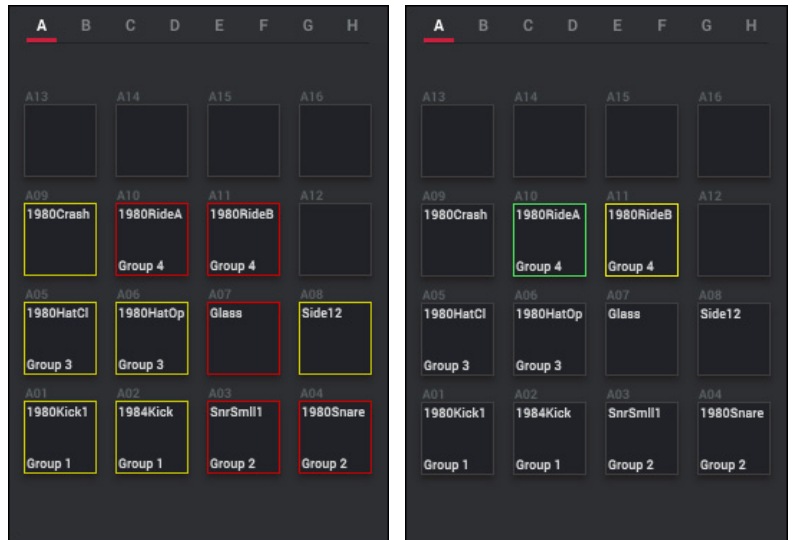
Pads

The **Pads** panel represents the pads in the current bank. If a pad is assigned to a group, the group number will appear at the bottom of the pad.

Click a **pad bank** to select it. That bank will also appear in the Grid Editor and the Pad Banks panel.

While using the **Pad Mute** function (selected in the **Mute** panel), click a **pad** with a sample to mute or unmute it. Muted pads are **red**. Unmuted pads are **yellow**.

While using the **Pad Group** function (selected in the **Mute** panel), click a **pad** to select it to assign to a group. The selected pad is **green**. Pads that belong to the same group flash **yellow**.



Mute

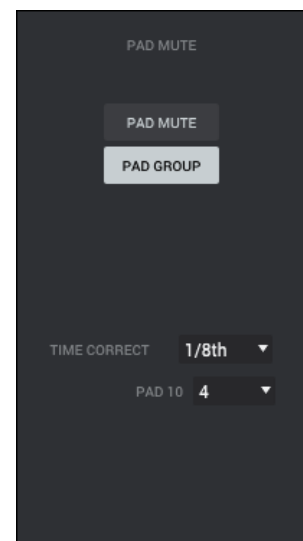
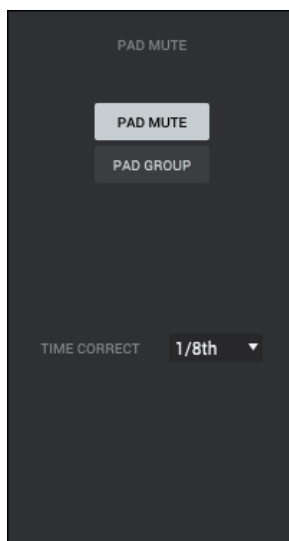
The **Mute** panel lets you configure how pad mutes work.

Click **Pad Mute** to use Pad Mute Mode normally. Clicking or pressing a **pad** will mute or unmute it (and any pads in the same group).

Click **Pad Group** to assign pads to groups. Clicking or pressing a **pad** will select it.

Click the **Time Correct** menu to select a time division to quantize pad mutes in this mode. For example, while set to **1 Bar**, your mutes will always align with the beginning of the measure immediately after you press the pad. Select **Off** to deactivate this feature.

While **Pad Group** is selected, click the **Pad** menu to assign the currently selected pad to a group. Select **Group Off** to un-assign the pad from any group.



Track Mute Mode



Track Mute Mode lets you easily mute MIDI tracks within a sequence or set track groups, enabling you to mute multiple tracks at once.

Important: Track Mute Mode applies to MIDI tracks only—not audio tracks.

To enter Track Mute Mode, do any of the following:

- Click the **bars-and-X icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Track Mute**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Track Mute**.

The screenshot shows the MPC software interface in Track Mute Mode. The top section displays a piano roll with tracks 1-8. The bottom section shows the Mute panel with a grid of pads (A-H) and buttons for TRACK MUTE, TRACK GROUP, and SOLO. The PROJECT and SAMPLES panels are also visible.

While **Track Mute** is selected in the **Mute** panel, you can mute, unmute, or solo MIDI tracks (in a single sequence) in real time by pressing the pads. This is useful if you want to hear a sequence without a particular MIDI 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 MIDI tracks one at a time in the Track View.

The **Track Group** feature in the **Mute** panel extends the concept of track mutes: you can mute or unmute multiple MIDI tracks (in a single sequence) by pressing one pad that you have assigned to a track 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 track groups.

The upper half of the window displays the Track View. See [General Features > Track View](#) to learn more about this.

The lower half of the window can display the **Pad Banks** panel, **Pads** panel, **Mute** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels > Project](#) to learn more about the **Project** panel. The other panels are described below: [Pad Banks](#), [Pads](#), and [Mute](#).

Pad Banks

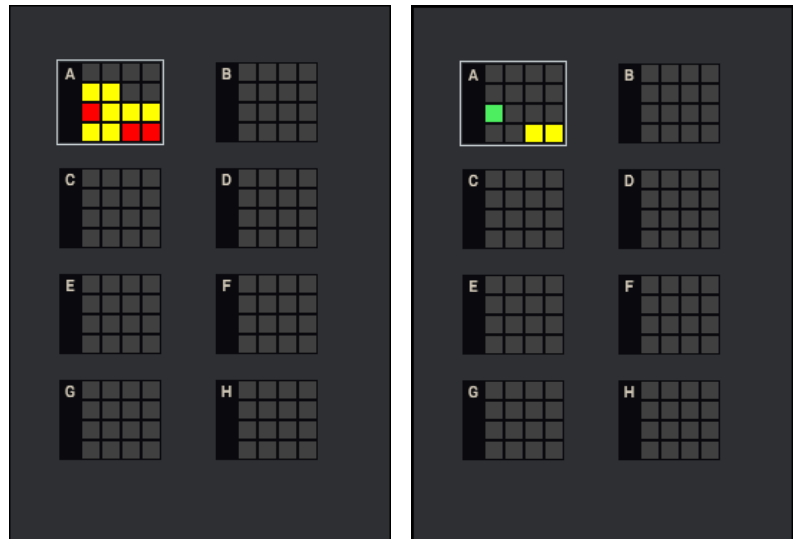
The **Pad Banks** panel is an overview of all pads in all eight pad banks. Each pad represents a MIDI track in the current sequence.

Click a **pad bank** to select it.

While using the **Track Mute** function (selected in the **Mute** panel), click a **pad** to mute or unmute its track. Pads with muted tracks are **red**. Pads with unmuted tracks are **yellow**.

While using the **Track Group** function (selected in the **Mute** panel), click a **pad** to select its track to assign to a group. The pad with the selected track is **green**. Pads with tracks that belong to the same group flash **yellow**.

While using the **Solo** function (selected in the **Mute** panel), click a **pad** to solo its track (muting all others). The pad with the soloed track is **green**. The colors of other pads will not change when using this feature.



Pads

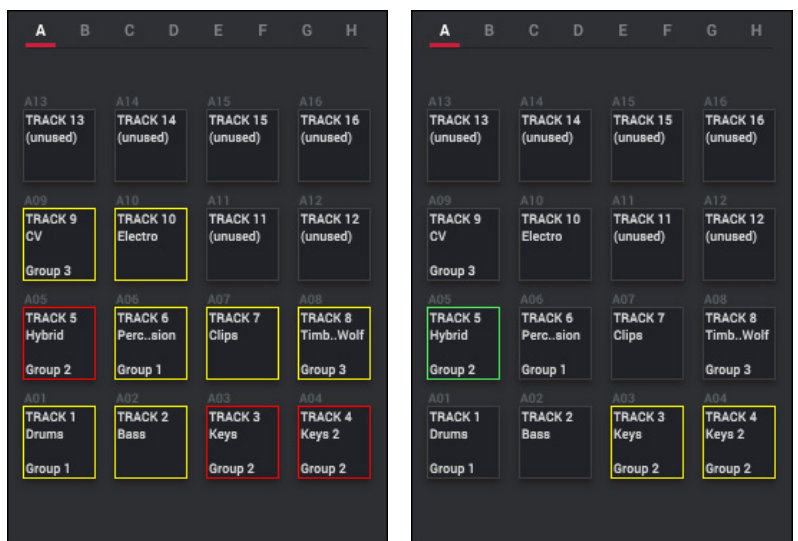
The **Pads** panel represents 16 MIDI tracks (per bank) in the current sequence. If a pad's track is assigned to a group, the group number will appear at the bottom of the pad.

Click a **pad bank** to select it.

While using the **Track Mute** function (selected in the **Mute** panel), click a **pad** to mute or unmute its track. Pads with muted tracks are **red**. Pads with unmuted tracks are **yellow**.

While using the **Track Group** function (selected in the **Mute** panel), click a **pad** to select its track to assign to a group. The pad with the selected track is **green**. Pads with tracks that belong to the same group flash **yellow**.

While using the **Solo** function (selected in the **Mute** panel), click a **pad** to solo its track (muting all others). The pad with the soloed track is **green**. The colors of other pads will not change when using this feature.



Mute

The **Mute** panel lets you configure how track mutes work.

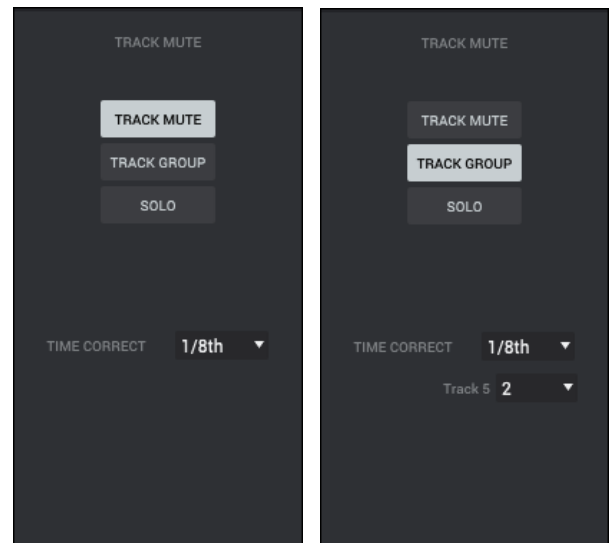
Click **Track Mute** to use Track Mute Mode normally. Clicking or pressing a **pad** will mute or unmute its track (and any tracks in the same group).

Click **Track Group** to assign tracks to groups. Clicking or pressing a **pad** will select its track.

Click the **Time Correct** menu to select a time division to quantize track mutes in this mode. For example, while set to **1 Bar**, your mutes will always align with the beginning of the measure immediately after you press the pad. Select **Off** to deactivate this feature.

While **Track Group** is selected, click the **Track** menu to assign the track of the currently selected pad to a group. Select **Group Off** to un-assign the track from any group.

Click **Solo** to enable or disable the solo feature. When enabled, click a **pad** to solo its track (muting all others).



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**, do any of the following:

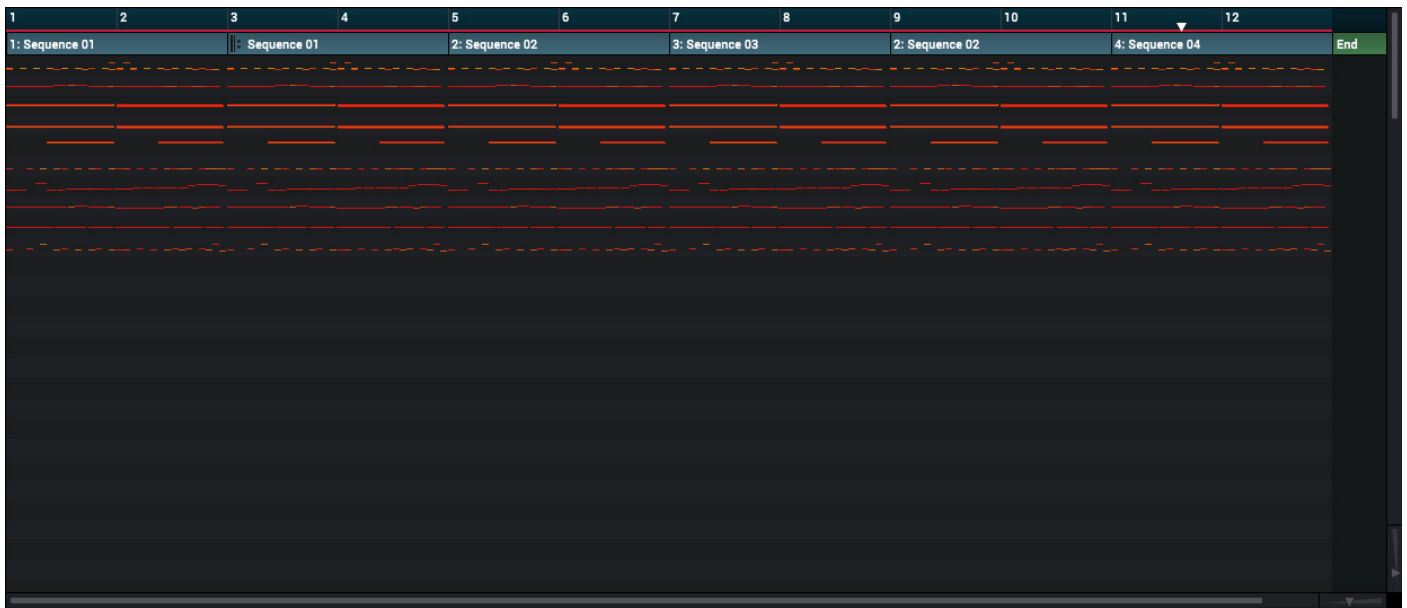
- Click the **double-arrow icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Next Sequence**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Next Sequence**.

SEQUENCE	LENGTH	TEMPO
1 Sequence 01	2	126.00
2 Sequence 02	2	126.00
3 Sequence 03	2	126.00
4 Sequence 04	2	126.00
5 (unused)	2	126.00
6 (unused)	2	126.00
7 (unused)	2	126.00
8 (unused)	2	126.00
9 (unused)	2	126.00
10 (unused)	2	126.00
11 (unused)	2	126.00
12 (unused)	2	126.00
13 (unused)	2	126.00
14 (unused)	2	126.00
15 (unused)	2	126.00
16 (unused)	2	126.00
17 (unused)	2	126.00

In Next Sequence Mode, every pad is assigned to a sequence, starting from **Pad A01** with **Sequence 1** and ascending from there.

In this mode, you can start playback and choose the sequence that plays next in real time. Select the next sequence by pressing its corresponding pad. Alternatively, allow the current sequence to repeat indefinitely. When you stop playback, you can copy the order of sequences you played into Song Mode to export it.

The upper half of the window displays a representation of the sequences that have played.



The dark blue timeline at the top indicates the number of bars that have elapsed with each sequence. The **white arrow** (▼) is the audio playhead, indicating the current playback position.

Each block represents a sequence with miniature track note events. The sequence number and name is at the top of each block. A repeat symbol (||:) next to the sequence name indicates it is a repeat of the previous sequence.

Use the sliders in the lower-right corner of this area (along each axis) to zoom in or zoom out.

The lower half of the window can display the **Sequence List** panel, **Pads** panel, **Performance Controls** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels > Project](#) to learn more about the **Project** panel. The other panels are described below: [Sequence List](#), [Pads](#), and [Performance Controls](#).

Sequence List

The **Sequence List** panel shows a list of all available sequences in your project as well as their length and tempo. The currently selected one is highlighted. Select one by clicking or pressing its corresponding pad.

The **Sequence** column shows the name of the sequence.

The **Length** column indicates the length of the sequence in **bars**.

The **Tempo** column indicates the tempo of the sequence in **BPM**. Keep in mind that each sequence will not play back at this tempo if the **Seq/Mst** button in the **toolbar** is set to **Mst**; if it is set to **Seq**, then each sequence follows its own tempo during playback.

Note: To set the **BPM** of a sequence, select that sequence and then use **(A)** the **BPM** field in its **Sequence** section of the **Inspector** or **(B)** the **BPM** field in the **toolbar** (when set to **Seq** instead of **Mst**).

	SEQUENCE	LENGTH	TEMPO
1	Sequence 01	2	126.00
2	Sequence 02	2	126.00
3	Sequence 03	2	126.00
4	Sequence 04	2	126.00
5	(unused)	2	126.00
6	(unused)	2	126.00
7	(unused)	2	126.00
8	(unused)	2	126.00
9	(unused)	2	126.00
10	(unused)	2	126.00
11	(unused)	2	126.00
12	(unused)	2	126.00
13	(unused)	2	126.00
14	(unused)	2	126.00
15	(unused)	2	126.00
16	(unused)	2	126.00
17	(unused)	2	126.00

Pads

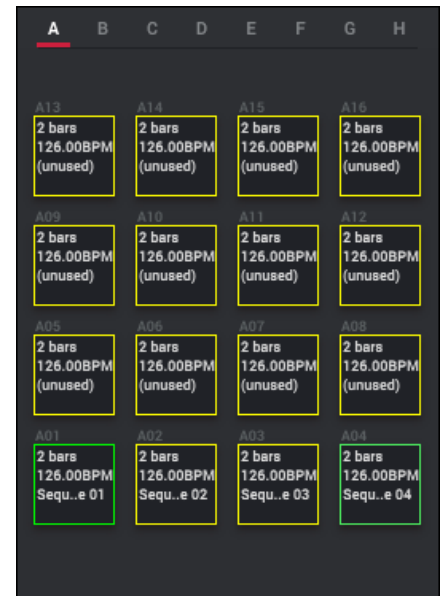
The **Pads** panel represents 16 sequences (per bank). Each pad shows the length of the sequence in **bars**, the tempo of the sequence in **BPM**, and the name of the sequence. (Keep in mind that each sequence will not play back at this tempo if the **Seq/Mst** button in the **toolbar** is set to **Mst**; if it is set to **Seq**, then each sequence follows its own tempo during playback.)

Click a **pad bank** to select it.

Click a **pad** to select its sequence.

If a sequence on another pad will play next, that pad will flash **green**.

During playback, the pad with the currently playing sequence will be lit **green**.



Performance Controls

The **Performance Controls** panel shows the available commands you can execute.

As a sequence plays, you can use the buttons in this panel to change how playback works in this mode:

Click **Hold** to repeat the current sequence indefinitely and temporarily ignore pad presses. Click it again to return to normal operation. This is useful if you want to select other pads without selecting them to play next.

Click **Sudden** to switch to the currently selected sequence **immediately**. The new sequence will start playing whether or not the current sequence is done. This is useful in live performances if you need to switch to the next sequence instantly at a certain cue.

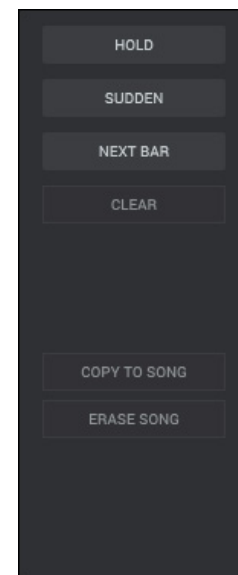
Click **Next Bar** to switch to the currently selected sequence at the beginning of the next bar. This is useful if you want to switch to another sequence before the current one ends without having to worry about timing issues.

If there is a sequence that will play next, you can click **Clear** to cancel it. The current sequence will continue playing or you can click or press a **pad** to select another sequence to play next. This option is available only if that sequence is not playing at that moment.

While playback is stopped, you can use these buttons:

While playback is stopped, click **Copy to Song** to copy the sequence playlist to a song (see the [Song Mode](#) chapter to learn about creating a song).

While playback is stopped, click **Erase Song** to clear all sequences from the upper half of the window.



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 step can have an assigned sequence as well as the number of times that sequence will repeat.

To open **Song Mode**, do any of the following:

- Click the **musical-notes icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **Song**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **Song**.

Important: If a sequence is currently playing, stop playback before entering Song Mode. You cannot enter Song Mode during playback.

In Song Mode, every pad is assigned to a sequence, starting from **Pad A01** with **Sequence 1** and ascending from there. In this mode, you can create a song as a list “steps.” Each step corresponds to a sequence and will play a certain number of times.

Important: When creating a song, the program used by each track in the song’s **first sequence** will be used by **all subsequent tracks**. In other words, all identically numbered tracks (across sequences) will use the program used by the first sequence in the song—regardless of what programs each track uses while not in Song Mode.

For example, if you create a project in this way...:

Track 1 of **Sequence 1** uses a **drum** program.

Track 1 of **Sequence 2** uses a **keygroup** program.

A song uses Sequence 1 as its first sequence and then uses Sequence 2 any time after it.

...then, in that song, Track 1 in Sequence 2 will use the same drum program as Track 1, Sequence 1.

Because of this, we recommend trying to be consistent while creating tracks in sequences that you intend to use in a single song. Remember that you can copy one track to another if you ever need to reorder the tracks of a sequence (see [General Features > Editing Processes](#) to learn about this).

The upper half of the window displays a representation of the sequences in the song.



The dark blue timeline at the top indicates the number of bars that have elapsed with each sequence. The **white arrow** (▼) is the audio playhead, indicating the current playback position.

Each block represents a sequence with miniature track note events. The sequence number and name is at the top of each block. A repeat symbol (||:) next to the sequence name indicates it is a repeat of the previous sequence.

Click the **blue** bar at the top of each block to select that step in the song. The bar will be **yellow** when selected. If the step contains repetitions of a sequence, all repetitions in that step will be selected.

Click the **X** in the **blue** bar at the top of a block to delete that step in the song. If the step contains repetitions of a sequence, all repetitions in that step will be deleted.

Use the sliders in the lower-right corner of this area (along each axis) to zoom in or zoom out.

The lower half of the window can display the **Sequence List** panel, **Pads** panel, **Song Parameters** panel, and **Project** panel. Click the corresponding selector to show or hide each one. See [General Features > Panels > Project](#) to learn more about the **Project** panel. The other panels are described below: [Sequence List](#), [Pads](#), and [Song Parameters](#).

Sequence List

The **Sequence List** panel shows a list of the steps of the song. Each step can have one sequence assigned to it and will show its information. The currently selected one is highlighted. Select one by clicking it.

The **Step** column shows the number of the step. Each song can contain up to **999 steps**.

The **Sequence** column shows the number and name of the assigned sequence. Click this menu to select a different sequence. This is the same as the **Step** menu in the **Song Parameters** panel.

The **Rpts** column indicates how many times the sequence plays. Click and drag this field up or down to set the number of repeats. Each step can play up to **999 times**. You can set it to **Hld** (the lowest/minimum value) to set the sequence to repeat indefinitely until you stop playback.

The **BPM** column indicates the tempo of the sequence in **BPM**. Keep in mind that each sequence will not play back at this tempo if the **Seq/Mst** button in the **toolbar** is set to **Mst**; if it is set to **Seq**, then each sequence follows its own tempo during playback.

Note: To set the BPM of a sequence, select that sequence and then use **(A)** the **BPM** field in its **Sequence** section of the **Inspector** or **(B)** the **BPM** field in the **toolbar** (when set to **Seq** instead of **Mst**).

The **Bars** column indicates the length of the sequence in **bars**.

STEP	SEQUENCE	RPTS	BPM	BARS
1	1: Sequence 01	2	126.00	2
2	2: Sequence 02	1	126.00	2
3	3: Sequence 03	1	126.00	2
4	2: Sequence 02	1	126.00	2
5	4: Sequence 04	1	126.00	2
(end of song)				

Pads

The **Pads** panel represents 16 sequences (per bank). Each pad shows the length of the sequence in **bars**, the tempo of the sequence in **BPM**, and the name of the sequence. (Keep in mind that each sequence will not play back at this tempo if the **Seq/Mst** button in the **toolbar** is set to **Mst**; if it is set to **Seq**, then each sequence follows its own tempo during playback.)

The pad whose sequence is assigned to the currently selected step will flash **green**.

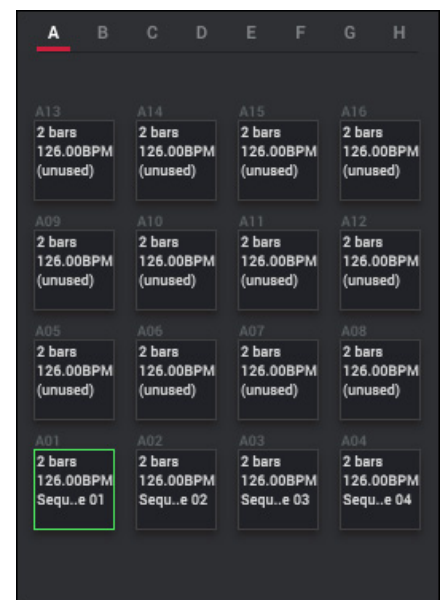
Click a **pad bank** to select it.

Click and drag a **pad** onto one of the following locations to use it in the song:

- onto a step in the **Sequence List** panel or onto a block in the upper half of the window. This will replace its currently assigned sequence with the one you clicked and dragged onto it.
- between two steps in the **Sequence List** panel or between two blocks in the upper half of the window. This will insert a step at that location and assign the sequence to it.

If a sequence on another pad will play next, that pad will flash **yellow**.

During playback, the pad with the currently playing sequence will be lit **green**.



Song Parameters

The **Song Parameters** panel shows the available controls for Song Mode. You can use the buttons in this panel to edit the song.

Click the **Song** menu to select the song you want to show.

Double-click the name in this menu to rename the song.

Click **Convert > Seq** to open the **Convert Song** window. In this window:

Click the **To Sequence** menu to select the sequence that will use the converted song.

Click the **Track Status** menu to select how you want to convert muted tracks. Select **Include Muted Tracks** if you want muted tracks to be included in the converted song. Select **Ignore Muted Tracks** if you want muted tracks to be excluded from the converted song.

Click **Do It** to convert the song to that sequence, or click **Close** to close the window without converting.

Click **Clear** to clear the entire sequence playlist (delete all steps) and the name of the song.

Click **Insert Step** to insert a step after the currently selected one.

Click **Delete Step** to delete the currently selected step.

The **Step** menu shows the number and name of the sequence assigned to the currently selected step. Click this menu to select a different sequence. This is the same as the **Sequence** menu/column in the **Sequence List** panel.

The **First Bar** and **Last Bar** values indicate the numbers of the bars (in the entire song) where the step starts and ends, respectively.

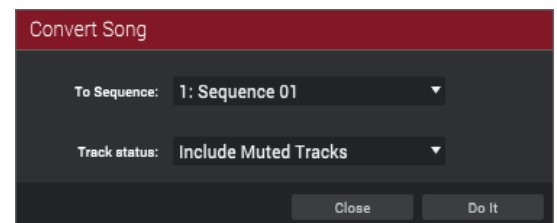
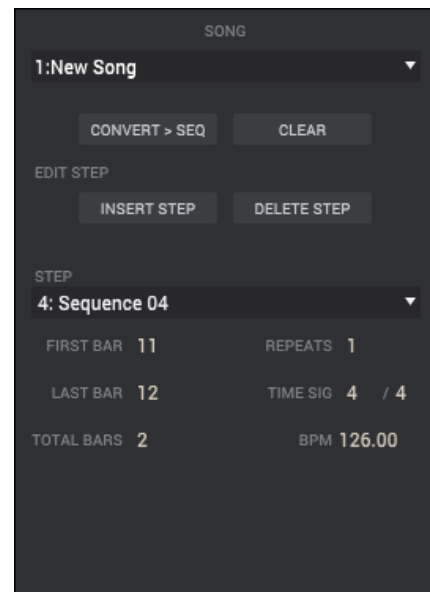
The **Total Bars** value indicates the length of the sequence in **bars**.

The **Repeats** value indicates how many times the sequence plays. Click and drag the **Rpts** field in the **Sequence List** panel up or down to set the number of repeats. Each step can play up to **999 times**. When this is set to **Hold** (the lowest/minimum value), the sequence to repeat indefinitely until you stop playback.

The **Time Sig** value indicates the time signature of the sequence.

The **BPM** value indicates the tempo of the sequence assigned to the currently selected step in **BPM**. Keep in mind that each sequence will not play back at this tempo if the **Seq/Mst** button in the **toolbar** is set to **Mst**; if it is set to **Seq**, then each sequence follows its own tempo during playback.

To render/export your song as an audio file, click the **menu icon** (≡), and go to **File > Export** and click **As Audio Mixdown**. See [General Features > Audio Mixdown](#) to learn how to use this screen to export your song.



MIDI Control Mode



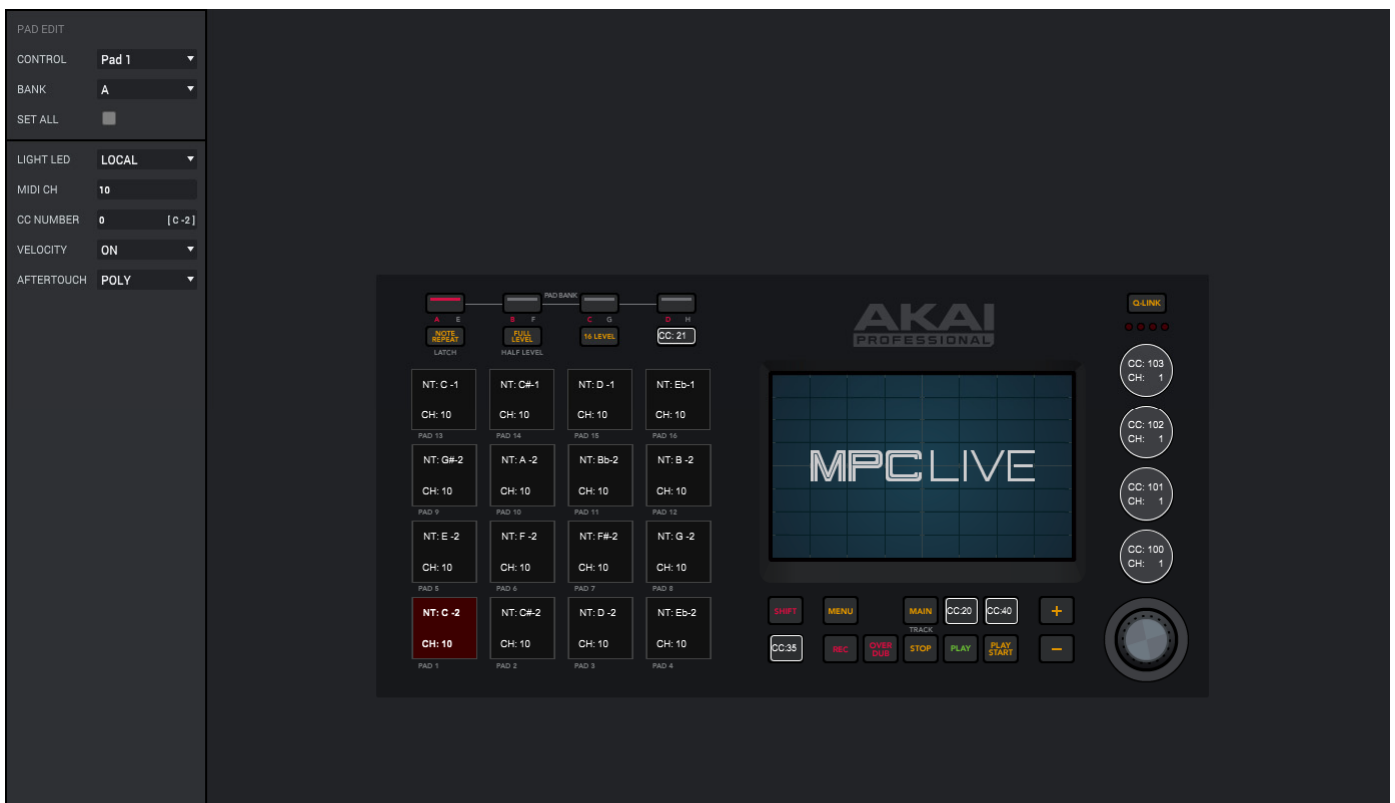
You can use MIDI Control Mode to customize what MIDI messages are sent from certain controls on your MPC hardware. This custom “control map” will then work whenever you are in MIDI Control Mode. The edits you make in MIDI Control Mode will be retained with the current MPC project.

This is helpful when using the MPC software 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.

To enter MIDI Control Mode, do any of the following:

- Click the **MIDI-jack icon** in the toolbar (if shown).
- Click the **down arrow (▼)** next to the other mode icons in the toolbar, and click **MIDI Control**.
- Click the **menu icon (≡)**, and go to **View > Mode** and click **MIDI Control**.

Important: Make sure your MPC hardware is connected to your computer and powered on. MIDI Control Mode is not functional without a connected MPC hardware unit.



In the window, use the following fields and selectors to set each control's parameters to your preference. The available parameters depend on its type: **Pads**, **Buttons**, **Q-Link Knobs**, and **XY Pad**. When you have set all of the parameters as desired, you can select another control or enter another mode.

The software window will also display a graphical representation of your MPC hardware. Editable controls show their current MIDI message. Pads and Q-Link knobs show their current MIDI channels.

To select a control to edit, do one of the following:

- Press or turn it on your MPC hardware.
- Click it on the graphical representation of your MPC hardware.
- Click the **Control** menu in the upper-left corner of the window and select one.

Note: The **Control** menu may show many more hardware controls than are actually available on your MPC hardware. This is because the list includes all possible controls from all current MPC models (MPC Renaissance, MPC Studio, MPC Touch, etc.).

Pads

These are the MIDI parameters you can edit for each **pad**:

Control: This is the hardware control you are currently editing (**Pad 1–Pad 16**). Click this menu to select another control.

Bank: This is the pad bank of the current pad (**A–H**). If you select the **Set All** box, the pad's messages and parameters will be identical across all eight banks. Click this menu to select another bank.

Set All: Click this box to select or deselect it. When selected, the pad's messages and parameters will be identical across all eight banks. When deselected, the pad's messages and parameters will apply to the current pad only.

Light LED: This determines how the pad's LEDs will behave. Click this menu to select an option:

When set to **Never**, the LEDs will always be off.

When set to **MIDI Input**, the LEDs will light up when the software receives a MIDI message that matches the pad.

When set to **Local**, the LEDs will light up when you press the pad and/or MIDI input is received.

MIDI Ch: This determines which MIDI channel (**1–16**) the pad will use to send its message to the software.

CC Number: This determines what MIDI Control Change number the pad will send to the software when you press it.

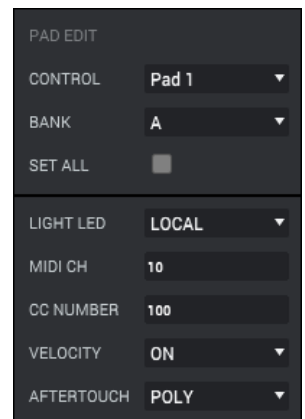
Velocity: This determines whether the pad will be velocity-sensitive (**On**) or not (**Off**). When set to **Off**, pressing the pad will send a note at full-level (**127**) always.

Aftertouch: This determines how the pad's aftertouch (pressure applied to the pad after the initial press) behaves.

Off: The pad will not send any aftertouch messages.

Channel: If you press multiple pads that have this setting, the aftertouch messages they send will be identical.

Poly: If you press multiple pads, the aftertouch message each pad sends will be independent from the others.



Buttons

These are the MIDI parameters you can edit for each **button**:

Control: This is the hardware control you are currently editing (**Erase, Tap Tempo, Undo, Copy**, etc.). Click this menu to select another option.

Light LED: This determines how the button's LED/LEDs will behave. Click this menu to select an option:

When set to **Never**, the LEDs will always be off.

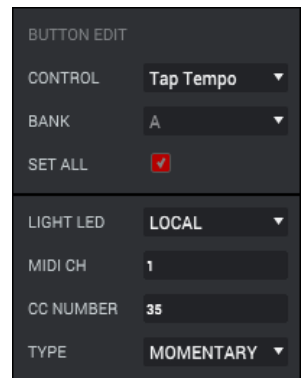
When set to **MIDI Input**, the LEDs will light up when the software receives a MIDI message that matches the button.

When set to **Local**, the LEDs will light up when you press the button and/or MIDI input is received.

MIDI Ch: This determines which MIDI channel (**1–16**) the button will use to send its message to the software.

CC Number: This determines what MIDI control change number the button will send to the software.

Type: This determines whether the button will behave as a **Momentary** switch or **Toggle** (latching) switch.



Q-Link Knobs

These are the MIDI parameters you can edit for each **Q-Link knob**:

Control: This is the hardware control you are currently editing (**Q-Link 1–16**). Click this menu to select another option.

Light LED: Although you can edit this parameter, it does not actually have a function on your MPC hardware. Click this menu to select an option:

When set to **Never**, the LEDs will always be off.

When set to **MIDI Input**, the LEDs will light up when the software receives a MIDI message that matches the Q-Link knob.

When set to **Local**, the LEDs will light up when you touch or turn the Q-Link knob and/or MIDI input is received.

MIDI Ch: This determines which MIDI channel (**1–16**) the Q-Link knob will use to send its message to the software.

CC Number: This determines what MIDI Control Change number the Q-Link knob will send to the software.

Mode: This determines how the Q-Link knob will control its parameter.

Absolute: The Q-Link knob's current position determines its parameter's value; moving it may cause its parameter to "snap" to a new position if you're using it to control different parameters in different modes.

Relative: Moving the Q-Link knob will increase or decrease its parameter regardless of its physical position.

Low Range: This is the Q-Link knob's lowest possible value (**0–127**).

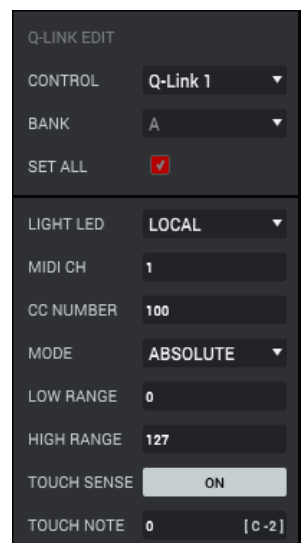
High Range: This is the Q-Link knob's highest possible value (**0–127**).

Touch Sense: This activates or deactivates the Q-Link knob's touch-capacitive circuitry.

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).

Off: The Q-Link knob will not send any Note On messages; it will only send CC messages when you turn it.

Touch Note: 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.



XY Pad

These are the MIDI parameters you can edit for each axis of the **XY pad** of an MPC X, MPC Live, or MPC Touch:

Control: This is the axis you are currently editing (**XYFX X-Axis** or **XYFX Y-Axis**).

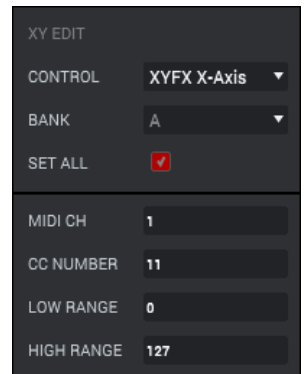
Mute: This button determines whether the axis is muted or not. When muted, its MIDI output is disabled. You must be viewing the **Settings** to do this.

MIDI Ch: This determines which MIDI channel (**1–16**) the axis will use to send its message to the software.

CC Number: This determines what MIDI Control Change number the axis will send to the software.

Low Range: This is the axis's lowest possible value (**0–127**).

High Range: This is the axis's highest possible value (**0–127**).



Appendix

Effects & Parameters

This chapter lists the available effects and their parameters. To learn more about how effects work in general in the MPC software, please see [Operation > General Features > Effects](#).

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. While viewing the rate of these effects, a “.” next to the time division indicates a triplet-based rate.

Reverbs

Options: [Reverb Small](#), [Reverb Medium](#), [Reverb Large](#), [Reverb Large 2](#), [Reverb In Gate](#), [Reverb Out Gate](#)

Reverb Small

This is a spatial effect, designed to emulate a small room.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	50
Lo-Cut	0–100	15
Hi-Cut	0–100	10

Reverb Medium

This is a spatial effect, designed to emulate a medium room.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	50
Lo-Cut	0–100	15
Hi-Cut	0–100	10

Reverb Large

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

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10

Reverb Large 2

This is a less CPU-intensive spatial effect, emulating the sound of a large hall.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10

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
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10
Gate In	0–100	0

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
Dry/Wet	0–100 (dry–wet)	50
Pre-Delay	1–100	50
Early Reflection	0–100	50
Density	0–100	50
Diffuse	0–100	50
Decay	0–100	75
Lo-Cut	0–100	10
Hi-Cut	0–100	10
Gate Out	0–100	0

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](#), [Delay Multi-Tap](#)

Delay Mono

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	25
Damping	0–100	100

Delay Mono Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Damping	0–100	100

Delay Stereo

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

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	25
Damping	0–100	100

Delay Sync (Stereo)

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

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Damping	0–100	100

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
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	500
Feedback	0–100	50
Cutoff	0–100	50
Resonance	0–100	20

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
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	50
Cutoff	0–100	33
Resonance	0–100	33

Delay Analog

Analog Delay is similar to the Mono Delay, except that it's designed to emulate 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
Dry/Wet	0–100 (dry–wet)	50
Time	2–2000 ms	100
Feedback	0–100	25

Delay Analog Sync

Analog Delay is similar to Mono Delay, except that it's designed to emulate 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
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Ramp	0–100	50

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
Dry/Wet	0–100 (dry–wet)	50
Time	1 bar – 1/16 triplets	1/4
Feedback	0–100	50
Ramp	0–100	50
Head 1	0–100	100
Head 2	0–100	0
Head 3	0–100	0
Head 4	0–100	0
Tone	0–100	50
Spread	0–100	50
Wow & Flutter	0–100	50

Delay Ping Pong

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

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	50
Time, Left	2–2000 ms	100
Time, Right	2–2000 ms	100
Feedback	0–100	25
Damping	0–100	100

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
Dry/Wet	0–100 (dry–wet)	50
Time 1	2–2000 ms	100
Time 2	2–2000 ms	100
Time 3	2–2000 ms	100
Feedback	0–100	25
Pan 1	0–100	50
Pan 2	0–100	50
Pan 3	0–100	50
Damping	0–100	100
Gain 1	0–100	25
Gain 2	0–100	25
Gain 3	0–100	25

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](#), [Flanger Sync](#)

Flanger

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10
Feedback	-100 – 100	0
Delay	0–100	20
Width	0–100	80

Flanger Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	8 bars – 1/16 triplets	1/4
Feedback	-100 – 100	0
Delay	0–100	20
Width	0–100	80

Choruses

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](#), [Chorus 4-Voice](#)

Chorus 2-Voice

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Delay	0–100	20
Amount	0–100	80
Width	0–100	80
Feedback	0–100	50
Rate	0–100	10

Chorus 4-Voice

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Delay	0–100	20
Amount	0–100	80
Width	0–100	80
Feedback	0–100	50
Rate	0–100	10

Autopans

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

Options: [Autopan](#), [Autopan Sync](#)

Autopan

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10

Autopan Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	8 bars – 1/32	1/4

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](#), [Tremolo Sync](#)

Tremolo

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10
Sine to Square	0–100 (sine–square)	0

Tremolo Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	1 bar – 1/16 triplets	1/4
Sine to Square	0–100 (sine–square)	0

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](#), [Phaser Sync](#)

Phaser 1

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10

Phaser 2

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	10

Phaser Sync

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Rate	1 bar – 1/16 triplets	1/4

HP (High-Pass) Filters

Options: [HP Filter](#), [HP Filter Sweep](#), [HP Filter Sync](#), [HP Shelving Filter](#)

HP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value
Frequency	10–19999 Hz	1500
Resonance	0–100	0

HP Filter Sweep

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	80
Low Frequency	0–100	50
High Frequency	0–100	100
Resonance	0–100	33
Rate	0–100	10

HP Filter Sync

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	50
Rate	8 bars – 1/32	1/4

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
Frequency	22–19999 Hz	1500
Resonance	0–100	0
Gain	-18.0 – 18.0 dB	0.0

LP (Low-Pass) Filters

Options: [LP Filter](#), [LP Filter Sweep](#), [LP Filter Sync](#), [LP Shelving Filter](#)

LP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value
Frequency	22–19999 Hz	1500
Resonance	0–100	0

LP Filter Sweep

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	80
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	33
Rate	0–100	10

LP Filter Sync

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Low Frequency	0–100	0
High Frequency	0–100	100
Resonance	0–100	50
Rate	8 bars – 1/32	1/4

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
Frequency	22–19999 Hz	1500
Resonance	0–100	0
Gain	-18.0 – 18.0 dB	0.0

Parametric EQs

Options: *PEQ 2-Band*, *2-Shelf*, *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
Low Frequency	22–1000 Hz	220
Frequency 1	82–3900 Hz	820
Frequency 2	220–10000 Hz	2200
High Frequency	560–19999 Hz	5600
Q1	0–100	0
Q2	0–100	0
Low Gain	-18.0 – 18.0 dB	0.0
Gain 1	-18.0 – 18.0 dB	0.0
Gain 2	-18.0 – 18.0 dB	0.0
High Gain	-18.0 – 18.0 dB	0.0

PEQ 4-Band

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

Parameter	Value Range	Default Value
Low Frequency	22–1000 Hz	220
Frequency 1	82–3900 Hz	820
Frequency 2	220–10000 Hz	2200
High Frequency	560–19999 Hz	5600
Q1	0–100	5
Q2	0–100	5
Q3	0–100	5
Q4	0–100	5
Gain 1	-18.0 – 18.0 dB	0.0
Gain 2	-18.0 – 18.0 dB	0.0
Gain 3	-18.0 – 18.0 dB	0.0
Gain 4	-18.0 – 18.0 dB	0.0

Distortions

Options: *Distortion Amp*, *Distortion Fuzz*, *Distortion Grimey*, *Distortion Overdrive*, *Distortion Custom*

Distortion Amp

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

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Tone	0–100	50
Dynamics	0–100	50
Output	0–100	50

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
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Output	0–100	50
Low	0–100	50
Low-Mid	0–100	50
High-Mid	0–100	50
High	0–100	50

Distortion Grimey

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

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Grime	0–100	50
Center	0–100	50
Width	0–100	50
Resonance	0–100	50
Output	0–100	50

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
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
Tone	0–100	50
Output	0–100	50

Distortion Custom

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

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Drive	0–100	50
+Soft	5–75	2
+Clip	5–50	25
–Soft	5–75	2
–Clip	5–50	25
Low	-18.0 – 18.0 dB	0.0
Mid	-18.0 – 18.0 dB	0.0
High	-18.0 – 18.0 dB	0.0
Output	-18.0 – 18.0 dB	50

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](#), [Compressor Vintage](#)

Compressor Master

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

Parameter	Value Range	Default Value
Dry/Wet	0–100 (dry–wet)	100
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Oldskool	Off, On	Off
Output	-6 – 24 dB	0

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
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

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
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

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
Dry/Wet	0–100 (dry–wet)	100
Input	-6 – 18 dB	0
Attack	0–100	50
Release	0–100	50
Threshold	-50 – 0 dB	0
Ratio	1–20	1
Knee	1–100	1
Output	-6 – 24 dB	0

Bit Reducers

Options: [Decimator](#), [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
Dry/Wet	0–100 (dry–wet)	100
Decimate	0–100	0
Bit Reducer	4–32	32

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
Dry/Wet	0–100 (dry–wet)	100
Rate	0–100	0
Decimate	0–100	0

Other

Options: *Auto Wah*, *Frequency Shifter*, *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
Dry/Wet	0–100 (dry–wet)	100
Resonance	0–100	75
Attack	0–100	30
Release	0–100	30
Center	0–100	50
Sensitivity	0–100	50

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
Dry/Wet	0–100 (dry–wet)	100
Frequency	-1000 – 1000	0
Asynchrony	0–1000	0
A Pan	0–100	0
B Pan	0–100	100
A Gain	0–100	75
B Gain	0–100	75

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
Dry/Wet	0–100 (dry–wet)	100
Attack	0–100	50
Release	0–100	50
Output	0–100	50

Glossary

This glossary briefly defines and explains many of the technical terms used throughout this manual.

- 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 are 16-bit. MPC supports full 24-bit resolution.
- Bounce** When you “bounce” a sequence, track, or program, you are rendering that part of your project as an audio file (as opposed to a MIDI file). The MPC software lets you bounce sequences, tracks, or programs as **samples** (saved to your project's sample pool) or as full **audio tracks** (saved to your project's sample pool **and** added directly to the current sequence).
- Bouncing a **track** will render that track after it is sent through its program. Bouncing a **program** will render all tracks that use that program after they are sent through it. Bouncing a **sequence** will render all tracks in that sequence after they are sent through their respective programs.
- Clipping** Clipping is a sort of distortion that occurs when a signal exceeds the maximum value that can be handled by a signal processing system it is fed into. The curve of a clipped signal is dependent on the system where the clipping occurs. In the analog domain, clipping effectively limits the signal to a given maximum level. In the digital domain, clipping is similar to a numerical overflow, resulting in negative polarity of the signal's portions exceeding the maximum level.
- Control Change** MIDI messages enable you to manipulate the behavior of a sound generator to a significant degree. This message essentially consists of two components:
(Controllers)
- 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 a *filter*. 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.

CV stands for **control voltage**, an analog method of sending control messages to external synthesizers, drum machines, etc. CV messages are typically used in conjunction with **Gate** messages (CV messages determine the pitch of notes while Gate messages determine note activation and length). CV messages are sent from the CV out ports of your MPC hardware (e.g., MPC X) and to the CV in ports of your external MIDI device.

Please note that each external MIDI device uses a specific control voltage range, which determines how many volts are used in each octave (e.g., **1V/oct**). Be mindful of this when setting it up with the MPC software and/or controller hardware—mismatched voltage ranges can produce unusual/undesirable “re-scaling” of the octaves.

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.

You can see and read about the envelopes used in the MPC software in [Operation > Modes > Program Edit Mode > Anatomy of an Envelope](#).

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**. These are the available filters in the MPC software:

A **low-pass** filter (the most common type) dampens all frequencies above the cutoff frequency.

A **high-pass** filter in turn dampens the frequencies below the cutoff.

A **band-pass** filter allows only those frequencies around the cutoff frequency to pass. All others are dampened.

A **band-stop** filter does the opposite of a band-pass: it dampens only the frequencies around the cutoff frequency.

A **band-boost** filter boosts the frequencies around the cutoff frequency, similar to what a band on an equalizer would do. All other frequencies pass through normally.

The number of **poles** in a filter’s “slope” determines how extreme or subtle the effect of the filter will be. Filters with one or two poles produce a more subtle sound while filters with six or eight poles are much more pronounced.

In the MPC software, the **Model** filters are analog-style emulations of famous vintage synth filters. **Model1** is a four-pole filter that distorts at high input levels. **Model2** uses a mellow resonance with a “fattening” distortion in the lower frequencies. **Model3** can produce howling, piercing resonances and extreme sub frequencies—watch your speakers!

In the MPC software, the **Vocal** filters are formant filters that emulate the human voice. **Vocal1** produces “ah” and “ooh” vowel sounds. **Vocal2** uses three bands to produce “oh” and “ee” vowel sounds. **Vocal3** uses five bands to emulate an idealized model of the vocal tract.

In the MPC software, **MPC3000 LPF** is a dynamic, resonant low-pass filter (12 dB/oct) that was used on the original MPC3000, released in 1994.

Please also see the entry for [Resonance](#), an essential characteristic of a filter’s sound.

Gate	Gate messages are analog messages sent to external synthesizers, drum machines, etc. Gate messages are typically used in conjunction with CV messages (CV messages determine the pitch of notes while Gate messages determine note activation and length). Gate messages are sent from the CV out ports of your MPC hardware (e.g., MPC X) and to the CV/Gate in ports of your external MIDI device.
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 1–16 are available for this purpose.
MIDI Clock	The MIDI clock message transmits real-time tempo information to synchronize processes among several connected devices (e.g., a sound generator's delay time to a MIDI sequencer).
Modulation	A modulation influences or changes a sound-shaping component via a modulation source. Modulation sources include envelopes, LFOs or MIDI messages. The modulation destination is a sound-shaping component such as a filter or a VCA.
Note On & Note Off	This is the most important MIDI message. It determines the pitch and velocity of a generated note. A note-on message will start a note. Its pitch is derived from the note number, which can range from 0 to 127 . The velocity ranges from 1 to 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.
Pitch-Bend	Pitch-bend is a MIDI message. Although pitch-bend messages are similar in function to control change messages, they are a distinct type of message. The resolution of a pitch-bend 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 pitch-bend information more accurately.

Program	<p>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 (read more about this in Operation > Modes > Program Edit Mode). You can have a total of 128 programs in a project.</p> <p>There are three kinds of programs that use samples for their sound source. Drum programs are mostly used for creating drum programs and easy and quick assigning of samples to a pad. 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. Clip programs use several samples that can be looped (clips), each of which can be assigned to a pad; launching different combinations of clips together lets you create intriguing, layered performances.</p>
Program Change	<p>These are MIDI messages that select sound programs. Programs 1 through 128 can be changed via program change messages.</p>
Release	<p>An <i>envelope</i> 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.</p>
Resonance	<p>Resonance or emphasis is an important <i>filter</i> parameter. It emphasizes the frequencies around the filter cutoff frequency by amplifying them with a narrow bandwidth. This is one of the most popular methods of manipulating sounds. If you increase the emphasis to a level where the filter enters a state of self-oscillation, it will generate a relatively pure sine waveform.</p>
Root Key	<p>The root key defines the original pitch of a recorded instrument or of a sample. Samples in the MPC software contain the dedicated root key information. This information will be created automatically during recording or importing.</p>
Sample	<p>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 be recorded using the recording (sampling) function of your MPC hardware or loaded from the Browser.</p> <p>You can edit and process a sample in different ways. For example, a sample can be trimmed, looped, pitch-shifted or processed, using various effects. 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.</p>
Sample Rate	<p>This is the frequency representing the amount of individual digital sample scans per second that are taken to capture an analog signal digitally. For normal CD audio recordings, 44100 samples per second are used, also written as 44.1 kHz. The MPC software offers sampling rates up to 96 kHz.</p>
Sequence	<p>A sequence is the most basic "building block" of music you can compose in the MPC software. MIDI information from the MPC hardware pads, buttons, and Q-Link knobs are recorded to the tracks of a sequence. Each sequence can contain 128 MIDI tracks and 128 audio tracks. Each project can store up to 128 separate sequences.</p> <p>The length of a sequence can be set from 1 to 999 bars, which would be enough to create an entire song using only one sequence. However, the MPC software has a dedicated Song Mode that lets you chain sequences together to create a song.</p>
Song	<p>The MPC software's 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 999 "steps" (stages in which a sequence may play one or more times). Each project can store up to 32 songs.</p>

- Stretch Factor** The stretch factor is a value generated by the **Warp** algorithm in the software. When you record an audio file, the current sequence tempo will be embedded with it. This information is stored within the sample file when you save the project. When you warp an audio track region, the warping algorithm uses this sequence tempo and the current value in the **BPM** field to generate the stretch factor.
- 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.
- Time-Stretch** See **Warp** below.
- Track** A sequence can contain **128** MIDI tracks and **128** audio tracks.
- Each **MIDI track** contains MIDI note events and controller data. In this case, the track contains no audio information—only MIDI information that uses the samples in a program (or an external MIDI sound module) to generate its audio. You can edit your performance in many different ways once the performance has been captured.
- Each **audio track** contains an audio signal that has been recorded or imported into your project. You can edit this audio within the software and incorporate it into your sequences alongside your MIDI tracks.
- 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.
- Warp** The Warp feature in the MPC software lengthens or shortens a region of an audio track or sample without changing its pitch. This enables you to fit the length of an audio track or sample to the length of a sequence, a bar in your sequence, etc. while maintaining its original key.
- Please note that the Warp algorithms are very CPU-intensive and can result in audio drop-outs during playback if used too freely. Be mindful of how (and how often) you use the warp function. You can reduce the CPU resources required by doing any/all of the following:
- Minimize the amount of pitch adjustment of warped audio.
 - In the Wave Editor, avoid using extreme **Stretch** values, especially anything below **100**.
 - Avoid warping very small audio regions.
 - Warp as few tracks or track regions as possible (i.e., reduce the number of total number of voices of the polyphonic limit that use the Warp algorithm at a given time), especially instances where the warped regions start at the same time.
 - Avoid rapidly triggering samples that are warped.
 - If you have warped samples used in a drum program, consider using the **Flatten Pad** function to consolidate the affected pad's layers into one audio sample (see [here](#) to learn about this). After you flatten the pad, its sample/samples no longer need to be warped.
 - Use a Warp algorithm other than Elastique Pro, which is very CPU-intensive. See [Operation > General Features > Preferences > General](#) to learn how to change this.
 - Using a higher buffer size (usually above **256**) can reduce the possibility of CPU issues. See [Operation > General Features > Preferences > Audio](#) to learn how to do this.

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Addenda

Updates in MPC 2.1

New Features

Exporting Expansions

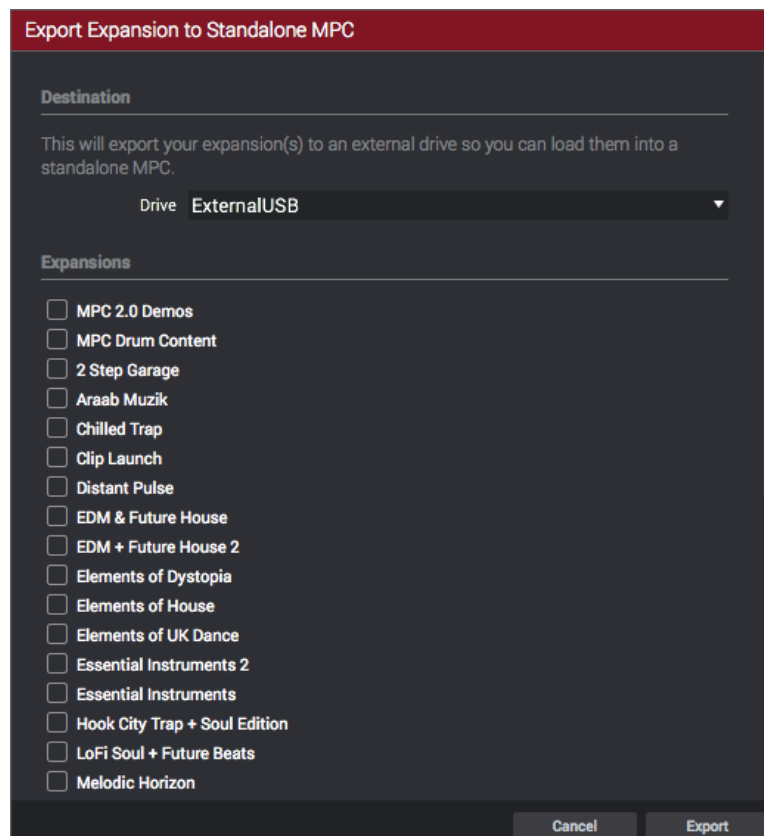
You can export MPC Expansion Packs (installed on your computer) to your MPC X or MPC Live for use in its Standalone Mode. (This has been added to [Operation > General Features > Expansions > Exporting Expansions](#).)

To export MPC Expansions:

1. Connect your MPC X or MPC Live to your computer. Make sure both are powered on.
2. On your computer, open the MPC software.
3. On your MPC X or MPC Live, enter Controller Mode.
4. In the MPC software window, click the **menu icon** (≡), select **File > Export**, and then click **Expansion....**
5. In the **Export Expansion to Standalone MPC** window that appears, click the **Drive** menu and select a storage device that you will use with your MPC X or MPC Live: the internal SATA drive (if you have installed one in your MPC X or MPC Live), an SD card, or a USB flash drive.
6. In the **Expansions** list, click the box next to each one to select or deselect it. Only the selected ones will be exported. Click **Select all** to select all of them or **Select none** to deselect all of them.
7. Click **Export** to start exporting, or click **Cancel** to close the window and not export anything.

The exporting process creates an **Expansions** folder at the root level of your storage device and copies your MPC Expansions into it.

To use your expansions, restart your MPC X or MPC Live in Standalone Mode, enter the **Browser**, and tap **Expansion**.



Snap: Absolute & Relative

While editing a MIDI or audio track, you can now use the Grid Editor to move or copy events using two different ways of “snapping” note events to the grid: Absolute or Relative. (This has been added to [Operation > General Features > Editors](#).)

To switch between **Absolute** and **Relative**, click the **magnet icon** above the grid:

Absolute: Events will “snap” to the nearest time division on the grid (as determined by the **TC** field or **Time Correct** window). This is the typical and traditional method of using the snap/quantization feature.

Relative: Events will “snap” to the nearest time division on the grid (as determined by the **TC** field or **Time Correct** window) **plus** the original time position of the event (e.g., an event that is originally three ticks past a time division on the grid will snap only to positions that are three ticks past every time division).



Pitch Quantization

In a MIDI track, you can now force the pitches of note events into a specific scale. (This has been added to [Operation > General Features > Toolbar > Menu > Edit](#).)

To open the **Pitch Quantize** window, click the **menu icon** (≡), select **Edit**, and click **Pitch Quantize**.

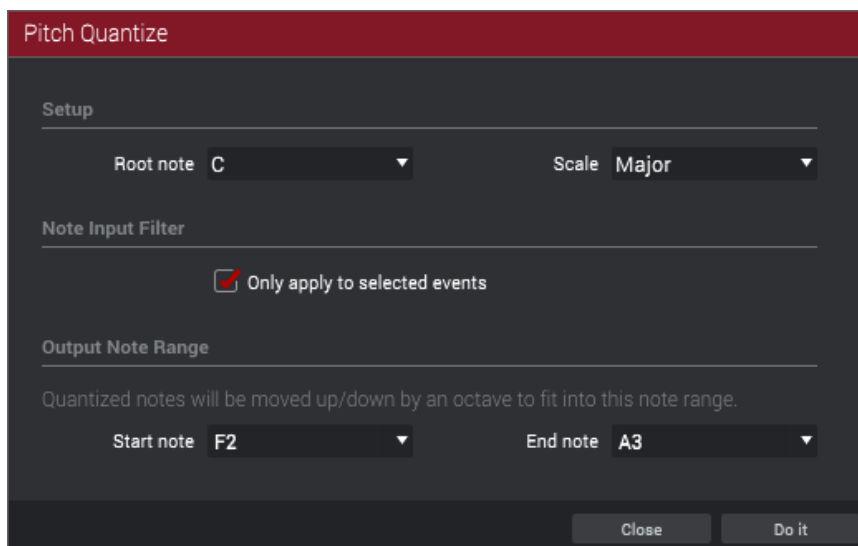
Click the **Setup** menu and select the desired root note of the scale.

Click the **Scale** menu and select a type of scale.

Click **Only apply to selected events** to select or deselect it. When selected, only the currently selected note events will be quantized. When deselected, **all** pitches in the current track will be quantized.

Click the **Start note** and **End note** menus and select the lowest-possible and highest-possible pitches (respectively) where the quantized note events will be placed. If a note event is originally outside of this range, it will be forced to the nearest pitch (within the scale) inside the range.

Click **Do It** to continue or **Close** to return to the previous screen.



Step Sequencer: Velocity Adjustment via Q-Links

While using the Step Sequencer, you can now use the Q-Link knobs to adjust the velocity of the note event at each step (while **Q-Link Mode** is set to **Screen**). The number of each step will be shown under the corresponding Q-Link knob. (This has been added to [Operation > Modes > Step Sequencer > Q-Links](#).)

To adjust the velocity of each note event, use the corresponding **Q-Link knob** to select a value (1–127).

To enter a note event at a step, use the corresponding **Q-Link knob** to change its velocity from **0 (Off)** to a value of **1** or greater.

To delete a note event from a step, set the corresponding **Q-Link knob** to its minimum position, **0 (Off)**.



Faster Attack for Amp Envelopes

In the amp envelope of a drum program or keygroup program, an attack value of **0** now produces a much faster response, thus making your drum hits even punchier than before. (You can set the attack value in Program Edit Mode. See [Operation > Modes > Program Edit Mode > Drum Programs](#) and [Keygroup Programs](#) to learn more.)

Important: Any drum or keygroup programs that you created and saved before this update will load in MPC 2.1 with an attack value of **1** to ensure backwards compatibility.

Multiple Plugin Windows

You can now view multiple plugin windows at the same time.

Support for Akai Professional MPD2 & MPK2 Series

The software now supports pad control, pad colors, and bank-switching while using an **MPK225**, **MPK249**, or **MPK261**. It also now supports pad control while using an **MPD218**, **MPD226**, or **MPD232**.

Updates in MPC 2.2

New Features

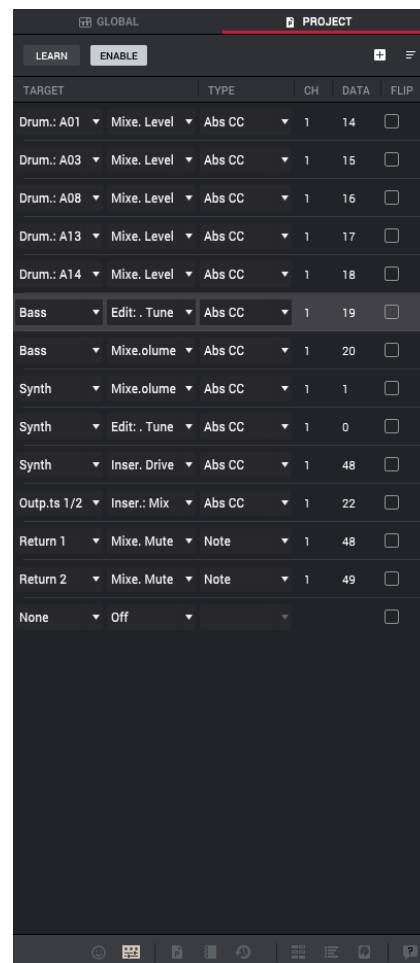
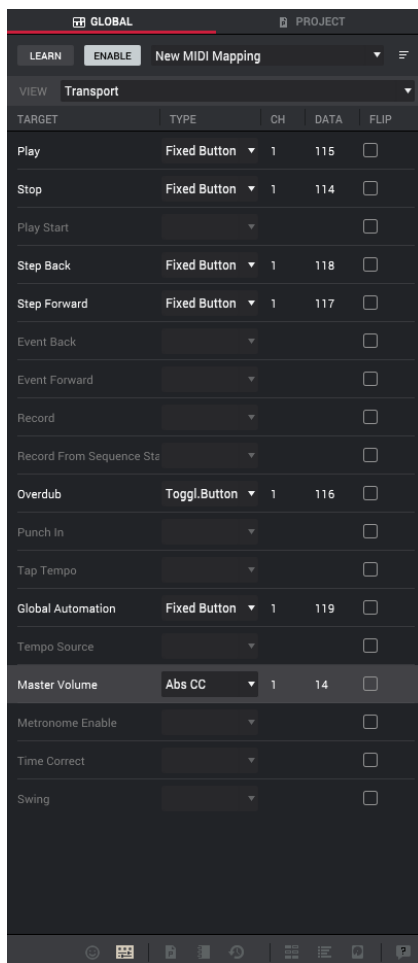
MIDI Learn

You can now use the MIDI Learn function to assign areas of the MPC software to external MIDI controllers.

To display the MIDI Learn browser, do either of the following:

- Click the **menu icon** (≡), select **View > Browser**, and then click **MIDI Learn Browser**.
- In the lower-right corner, click the **MIDI controller icon**.

To select a MIDI Learn mode, click **Global** or **Project** at the top of the browser to show its assignments below. Global MIDI mappings are helpful if you use certain MIDI controllers across multiple projects. Project MIDI mappings are saved within a project, which can be helpful if your MIDI controller usage is particular to each one. See [Global](#) or [Project](#) below.



Each assignment has the following settings:

Target: This is the assigned command or parameter. The list of targets in the Global tab is comprehensive, while the list of targets in the Project tab must be added and selected.

Type: This is the type of message: **Toggle Button**, **Momentary Button**, **Fixed Button**, **Note**, **Abs CC**, **Rel CC Offset**, **Rel CC 2's Complement**. This is automatically detected based on the parameter itself, but you can use this field to assign it manually if it does not detect it properly.

Ch: This is the MIDI channel the control is using.

Data: This is the MIDI note number or CC number.

Flip: Click this box to select or deselect it. When selected, the control's polarity will be reversed (e.g., a button's "off" state will become its "on" state and vice versa).

Global

Use the Global MIDI Learn feature to assign your MIDI controller to pads, Q-Link knobs, transport controls, or other assignable parameters in the MPC software.

To assign a global parameter to a hardware control:

1. Click **Learn** at the top of the MIDI Learn browser so it turns **yellow**. (The **Enable** button will also activate and turn **light gray** if it is not already activated.)
2. Click a parameter that has a **yellow** overlay to select it. Alternatively, click it in the list in the MIDI Learn Browser.



3. Move or press the desired control on your MIDI controller.

To assign more controls, repeat **Steps 2–3**.

To stop assigning controls, click **Learn** again so it turns **gray**.

To clear an assignment, right-click or press and hold **Ctrl** (Windows) or **Control** (macOS) and click the assignment in the MIDI Learn browser. Click **Clear MIDI Mapping** to clear the assignment, or press **Esc** or click anywhere else to cancel.

To select an assignment, click **Learn** so it turns **yellow**, and then press and hold **Shift** while moving the control on your MIDI controller.

Each collection of these assignments is called a **MIDI map**, which you can export as a file (.xmm) to import into other MPC projects. You can also disable, re-enable, or switch between different MIDI maps while working with your project.

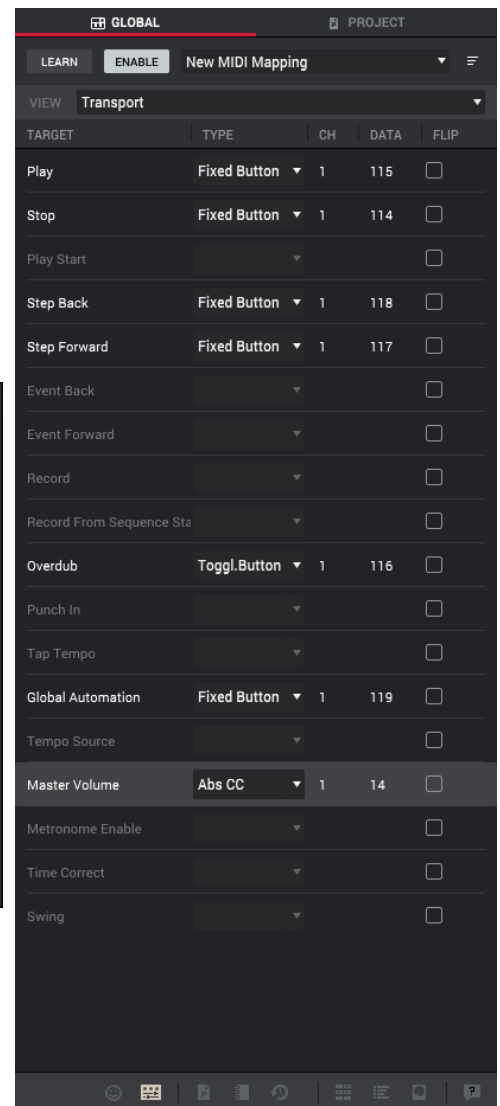
To select a MIDI map, click the menu next to **Enable**. Select **Factory** to view the available preset MIDI maps, or select **User** to view MIDI maps you have created.

To enable or disable a MIDI map, click **Enable** at the top of the MIDI Learn browser. The button is **light gray** when activated and **dark gray** when deactivated.

To show only mappings for specific controls or commands, click the **View** menu above the list of assignments, and then click a type of control or command.

To show only mappings for the selected control type, click the **three-lines icon** next to the controller menu, and then click **List Follows Control** so it is selected.

To create a new MIDI map, click the **three-lines icon** next to the controller menu, and then click **New MIDI Map**.



To create a duplicate of the current MIDI map, click the **three-lines icon** next to the controller menu, and then click **Duplicate**. An identical MIDI map will be created and appended with **Copy**.

To clear all assignments from the current MIDI map, click the **three-lines icon** next to the controller menu, and then click **Clear**. In the window that appears, click **OK** to continue and clear the assignments, or click **Cancel** to close the window and keep them. (You can do this with MIDI maps from the list of **User** maps only, not the **Factory** list.)

To delete the current MIDI map, click the **three-lines icon** next to the controller menu, and then click **Delete**. In the window that appears, click **OK** to continue and delete the MIDI map, or click **Cancel** to close the window and keep it. (You can do this with MIDI maps from the list of **User** maps only, not the **Factory** list.)

To export the current MIDI map, click **three-lines icon** next to the controller menu, and then click **Export**. In the **Export MIDI Mapping** window that appears, do any of the following:

To select the storage device you want to view, click the **down arrow (▼)** next to the file path. If you have storage devices connected to your MPC hardware, they will appear in this column, as well.

To enter a folder, double-click it or press **Enter**.

To create a new folder, click **New Folder**, type a name for the new folder, and then click **OK** or press **Enter** to confirm the name, or click **Cancel** or press **Esc** to keep the original name. You will immediately enter the new folder.

To move up one folder level, click the **up arrow (↑)**.

To name the file, click the **File** field at the bottom of the window, and type a name.

To save the file, click **Save** or press **Enter**.

To cancel, click **Cancel** or press **Esc**.

To import a different MIDI map, do any of the following:

- Click and drag a MIDI map file (.xmm) onto the software window and release it. That map will be selected immediately.
- Place a MIDI map file (.xmm) in the MIDI Learn folder on your computer, and then click the **three-lines icon** next to the controller menu, and then click **Refresh**.

Windows: [your hard drive]\Program Data\Akai\MPC\Midi Learn

macOS: [your hard drive]\Users\[your user name]\Library\Application Support\Akai\MPC\Midi Learn

- Click the **three-lines icon** next to the controller menu, and then click **Import**. In the **Import MIDI Mapping** window that appears, do any of the following:

To select the storage device you want to view, click the **down arrow (▼)** next to the file path. If you have storage devices connected to your MPC hardware, they will appear in this column, as well.

To enter a folder, double-click it or press **Enter**.

To move up one folder level, click the **up arrow (↑)**.

To import the file, click **Open** or press **Enter**.

To cancel, click **Cancel** or press **Esc**.

To refresh the list of MIDI maps, click the **three-lines icon** next to the controller menu, and then click **Refresh**. Do this if you have manually placed a MIDI map file (.xmm) in the **Midi Learn** folder (in the MPC application folder) and need it to appear in the list.

Project

Use the Project MIDI Learn feature to assign your MIDI controller to various parameters in your specific MPC project:

- Mixer parameters such as volume, pan, mute, and solo for MIDI or audio tracks, programs, returns, submixes, and master outputs
- Pad parameters (for drum programs and clip programs only) such as tuning, filter and amp envelopes, layer settings, LFO settings, and velocity
- Program parameters, which depend on the program type
- Insert effects parameters, which depend on the effect type
- Plugin instrument parameters, which depend on the plugin

These assignments will be saved with your MPC project.

Tip: Because these MIDI assignments are saved within a project, you can use them while working with a project on both the desktop version of the MPC software or on your MPC hardware in Standalone Mode.

To assign a project parameter to a hardware control:

1. Click **Learn** at the top of the MIDI Learn browser so it turns **yellow**. (The **Enable** button will also activate and turn **light gray** if it is not already activated.)
2. Click the **+** icon in the upper-right corner of the browser to create an “empty” assignment (its Target menus will be set to **None** and **Off**).

Alternatively, click an assignment that is already in the list if you want to change it.

3. Click a project-specific parameter (e.g., a mixer setting or program parameter) to select it. The two **Target** menus will indicate the parameter you selected.

Alternatively, click the first **Target** menu to select a MIDI or audio track, program, return, submix, or master output (for drum programs and clip programs, you can select the entire program or a single pad within it). After that, click the second **Target** menu to select the parameter.

4. Move or press the desired control on your MIDI controller. You can press and hold **Alt** (Windows) or **Option** (macOS) while moving or pressing multiple controls to assign them simultaneously.

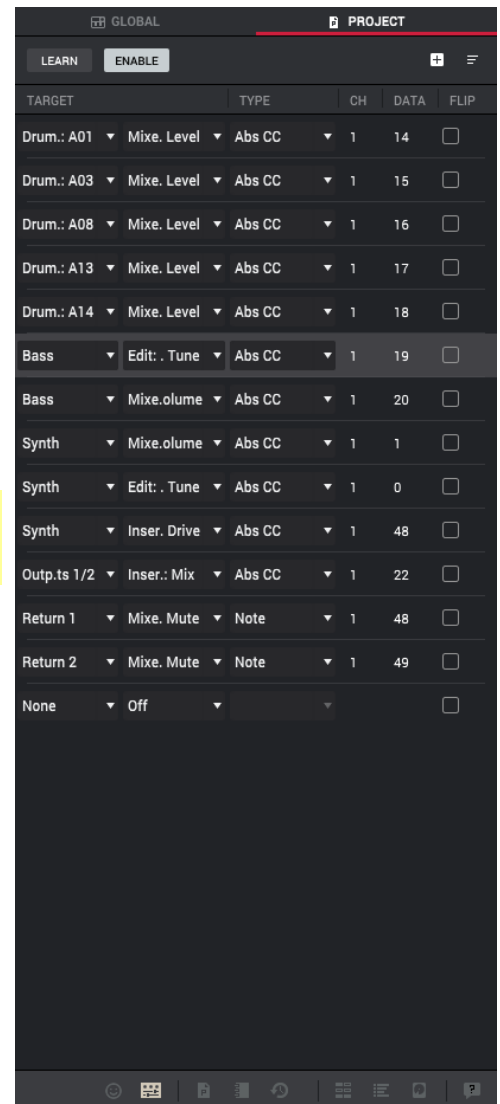
To assign more controls, repeat **Steps 2–4**.

To stop assigning controls, click **Learn** again so it turns **gray**.

To clear an assignment, right-click or press and hold **Ctrl** (Windows) or **⌘** (macOS) and click the assignment in the MIDI Learn browser. Click **Clear MIDI Mapping** to clear the assignment, or press **Esc** or click anywhere else to cancel.

To delete an assignment (the entire slot), right-click or press and hold **Ctrl** (Windows) or **⌘** (macOS) and click the assignment in the MIDI Learn browser. Click **Delete Assignment** to delete the assignment, or press **Esc** or click anywhere else to cancel.

To clear all assignments, click the **three-lines icon** next to the controller menu, and then click **Clear All Assignments**. In the window that appears, click **OK** to continue and delete the assignments, or click **Cancel** to close the window and keep them.



Humanize

You can now apply randomization to the timing, length, and/or velocity of MIDI events.

The screenshot shows the 'Humanize' dialog box with the following settings:

- Time**
 - Humanize Time
 - Amount (Pulses): 38
 - Less than a 64th note
 - Eagerness: 5
 - Often after the beat
- Length**
 - Humanize Note Length
 - Length (%): 8
- Velocity**
 - Humanize Velocity
 - Strength (%): 16
- Input Filter**
 - Only apply to selected events

Buttons at the bottom: Close, Apply, Do it

To open the Humanize window, click the menu icon (≡), select **Edit**, and click **Humanize**.

Click each checkbox to select or deselect its option.

Click and drag each slider left or right to set its value. Alternatively, click anywhere along its length, or click it, type a value, and press **Enter**.

Humanize Time determines whether or not humanization will be applied to the timing of MIDI events.

Amount (Pulses) determines the maximum number of pulses by which the timing of an event will be adjusted.

Eagerness determines how dramatically the humanization effect is applied to the timing. Negative values correspond to playing “ahead of the beat” while positive values correspond to playing “behind the beat.”

Humanize Note Length determines whether or not humanization will be applied to the duration of MIDI note events.

Length (%) determines how dramatically the humanization effect is applied to note lengths.

Humanize Velocity determines whether or not humanization will be applied to the velocities of MIDI note events.

Strength (%) determines how dramatically the humanization effect is applied to note velocities.

Only apply to selected events determines whether or not these humanization values will be applied to all notes in the track (deselected) or just the currently selected notes (selected).

Click **Apply** to apply the humanization values while keeping this window open.

Click **Do It** to apply the humanization values and close the window.

Click **Close** to close the window without making any changes.

Generate Random Events

You now create random melodic or drum patterns on the current MIDI track.

To open the **Generate Random Events window**, click the **menu icon** (≡), select **Tools**, and click **Generate Random Events**.

Click the **Event Type** menu to select the type of events you want to create: **Drum events** or **Melodic events**.

Click the **Replace** menu to select how the events will be created relative to the existing events on the track:

- **Replace all events:** Select this option to replace all events on the track with the randomly generated ones.
- **Replace events in note range:** Select this option to replace all events in the designated note range on the track with the randomly generated ones. Use the **Bank** or **Start pad** and **End pad** menus to set the note range for drum events or the **Start note** and **End note** menus to set the note range for melodic events.
- **Add to existing events:** Select this option to add the randomly generated events to the track without replacing or overwriting the existing ones.

Click and drag the **Pattern size (bars)** field up or down to set how many bars the events will use. Alternatively, click it, type a value, and press **Enter**. The highest possible value is the number of bars in the current sequence.

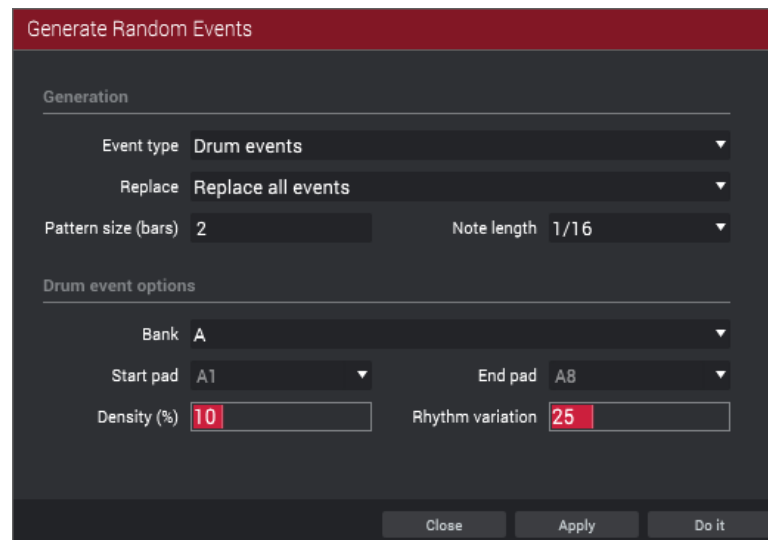
Click the **Note length** menu to select the duration of the events. (This feature is nonfunctional if **Legato** is enabled while generating melodic events.)

Click **Apply** to generate the events while keeping this window open.

Click **Do It** to generate the events and close the window.

Click **Close** to close the window without generating any events.

If **Event Type** is set to **Drum events**:



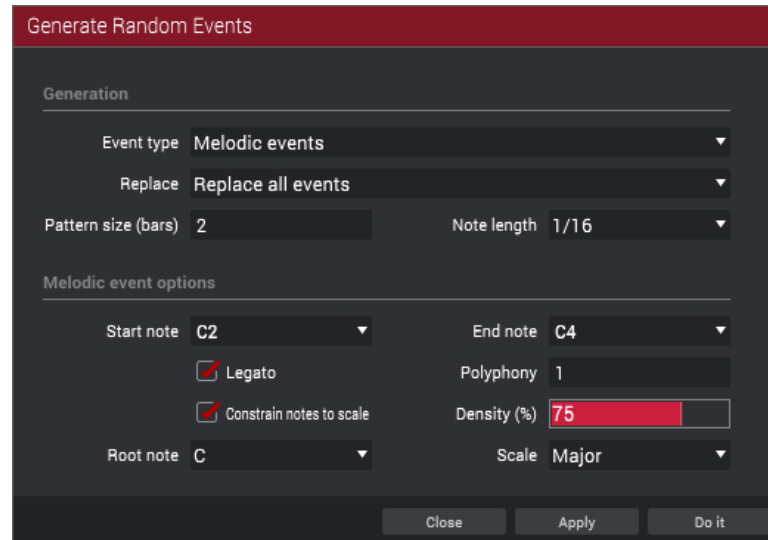
Click the **Bank** menu to select the pad bank that will be used to generate the events or select **Range** to use the **Start pad** and **End pad** menus to define a specific pad range instead.

Click the **Start pad** or **End pad** menus to define a specific pad range over which the events will be generated. You can use these menus only if the **Bank** menu is set to **Range**.

Click and drag the **Density (%)** slider left or right to set how closely together the events will be placed in the track. Alternatively, click anywhere along its length, or click it, type a value, and press **Enter**.

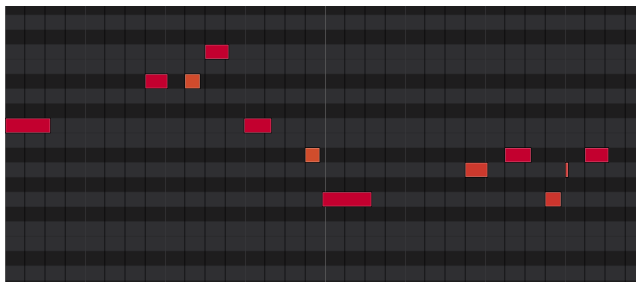
Click and drag the **Rhythm variation** slider left or right to set how widely or narrowly the rhythmic patterns of the generated notes vary. Alternatively, click anywhere along its length, or click it, type a value, and press **Enter**.

If **Event Type** is set to **Melodic events**:

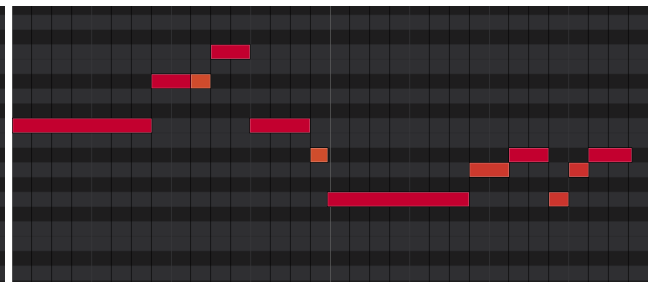


Click the **Start note** or **End note** menus to define a specific note range over which the events will be generated.

Click **Legato** to select or deselect it. When selected, the generated notes will be extended or shortened 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. When deselected, the generated notes will use the duration set by the **Note length** menu.



Without legato applied.



With legato applied.

Click and drag the **Polyphony** field up or down to set the maximum number of note events that can be sounding simultaneously in the track: **1–8**. Alternatively, click it, type a value, and press **Enter**.

Click **Constrain notes to scale** to select or deselect it. When selected, the notes will be within the scale determined by the **Scale** menu. When deselected, the notes will be chromatic.

Click and drag the **Density (%)** slider left or right to set how closely together the events will be placed in the track. Alternatively, click anywhere along its length, or click it, type a value, and press **Enter**.

Click the **Root note** menu to set the root note of the scale that the generated notes will use.

Click the **Scale** menu to select the scale or mode that the notes will use (based on the **Root note** selection).

Multiple Plugin Windows Enable/Disable

You can now choose to allow multiple plugin windows to be displayed at the same time (a feature added to MPC 2.1) or to restrict it to single plugin windows (how plugin windows worked prior to MPC 2.1). (This has been added to [Operation > General Features > Preferences > General](#).)

To enable or disable multiple plugin windows, click the **menu icon** (≡), select **Edit**, and click **Preferences**. In the **Preferences** window, click the **General** tab, and then click **Allow Multiple Plugin Windows** to select or deselect the option.

Corrections

[Tutorial > Renaming & Saving \(Page 15\)](#)

[Operation > General Features > Toolbar > Menu > File \(Page 42\)](#)

[Operation > General Features > Preferences \(Page 95\)](#)

We corrected the explanations of how project templates work.

[Operation > General Features > Preferences \(Page 92\)](#)

We added the following exceptions to how the **Preferences** are saved.

Changes to the **Preferences** are saved automatically except for **Vintage Mode** (in the **General** tab) and **Start Time** (in the **Sync** tab).

[Operation > General Features > Preferences \(Page 92–96\)](#)

We revised the lists of options to match the formatting and order shown in the **Preferences** window.

[Operation > Modes > Program Edit Mode > Program Editor > Keygroup Programs \(Page 132\)](#)

We added the following description of the **Trans** parameter for keygroup programs:

Trans shifts the pitch of the MIDI notes sent to the program up to 36 semitones up or down.

[Operation > Modes > Song Mode \(Page 197\)](#)

We added the following note to the Song Mode chapter:

Important: When creating a song, the program used by each track in the song's **first sequence** will be used by **all subsequent tracks**. In other words, all identically numbered tracks (across sequences) will use the program used by the first sequence in the song—regardless of what programs each track uses while not in Song Mode.

For example, if you create a project in this way...:

Track 1 of **Sequence 1** uses a **drum** program.

Track 1 of **Sequence 2** uses a **keygroup** program.

A song uses Sequence 1 as its first sequence and then uses Sequence 2 any time after it.

...then, in that song, Track 1 in Sequence 2 will use the same drum program as Track 1, Sequence 1.

Because of this, we recommend trying to be consistent while creating tracks in sequences that you intend to use in a single song. Remember that you can copy one track to another if you ever need to reorder the tracks of a sequence (see [General Features > Editing Processes](#) to learn about this).

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