



# MALLET FLUX

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# 1. WELCOME TO MALLET FLUX

Thank you for purchasing MALLET FLUX. This document provides information about the library as well as step-by-step instructions and advice on how to achieve the best results with it. We hope that you will enjoy using MALLET FLUX.

## 1.1. About MALLET FLUX

MALLET FLUX is a mallet instrument library offering rhythmic and tonal sounds combined with extensive play assistance for use in a musical or cinematic context. MALLET FLUX is easy to use and play: 250 versatile Scenes — musical patterns and phrases that you can trigger and control with your MIDI keyboard — offer a rich variety of melodies and rhythms controlled by a powerful Sequencer. MALLET FLUX has a built-in effect chain for each mallet instrument and a global Mixer that allows you to adjust the Ensemble in the finest detail.

## 1.2. Document Conventions

This document uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing the following notes let you see what kind of information can be expected:



The speech bubble icon indicates a useful tip that may help you to solve a task more efficiently.



The exclamation mark icon highlights important information that is essential for the given context.



The warning icon warns you of serious issues and potential risks that require your full attention.

Furthermore, the following formatting is used:

- Paths to locations on your hard disk or other storage devices are printed in *italics*.
- Important names and concepts are printed in **bold**.
- Square brackets are used to reference keys on a computer's keyboard, e.g., Press [Shift] + [Enter].

## 2. CHOOSING THE RIGHT KONTAKT INSTRUMENT

MALLET FLUX ships with two KONTAKT Instrument (.nki) files. To help you select the right one for your specific task, here is an overview of the included Instruments.



### 2.1. Mallet Flux Single

**Mallet Flux Single.nki** allows you to play one of the five mallet instruments included in MALLET FLUX at a time. It offers the advantage of being able to switch between different Articulations on the fly, allowing you to simulate playing a real mallet instrument.

1. Double-click **Mallet Flux Single.nki** in KONTAKT's Browser to load it to KONTAKT's Instrument Rack. You can also drag and drop the **Mallet Flux Single.nki** file from the Browser to the Instrument Rack.

The included single mallet instruments are:

- Glockenspiel
- Celesta
- Xylophone
- Vibraphone
- Marimba

### 2.2. Mallet Flux

**Mallet Flux.nki** allows you to play complex arrangements with an Ensemble composed of a combination of any of the five included mallet instruments. All mallet instruments in an Ensemble are controlled at the same time by a powerful Sequencer.

1. Double-click **Mallet Flux.nki** in KONTAKT's Browser to load it to KONTAKT's Instrument Rack. You can also drag and drop the **Mallet Flux.nki** file from the Browser to the Instrument Rack.

## 3. PLAYING MALLET FLUX SINGLE INSTRUMENTS

### 3.1. Selecting a Mallet Instrument

1. Click on mallet instrument's name in the middle of the user interface, for example GLOCKENSPIEL. This opens the Instrument selector.

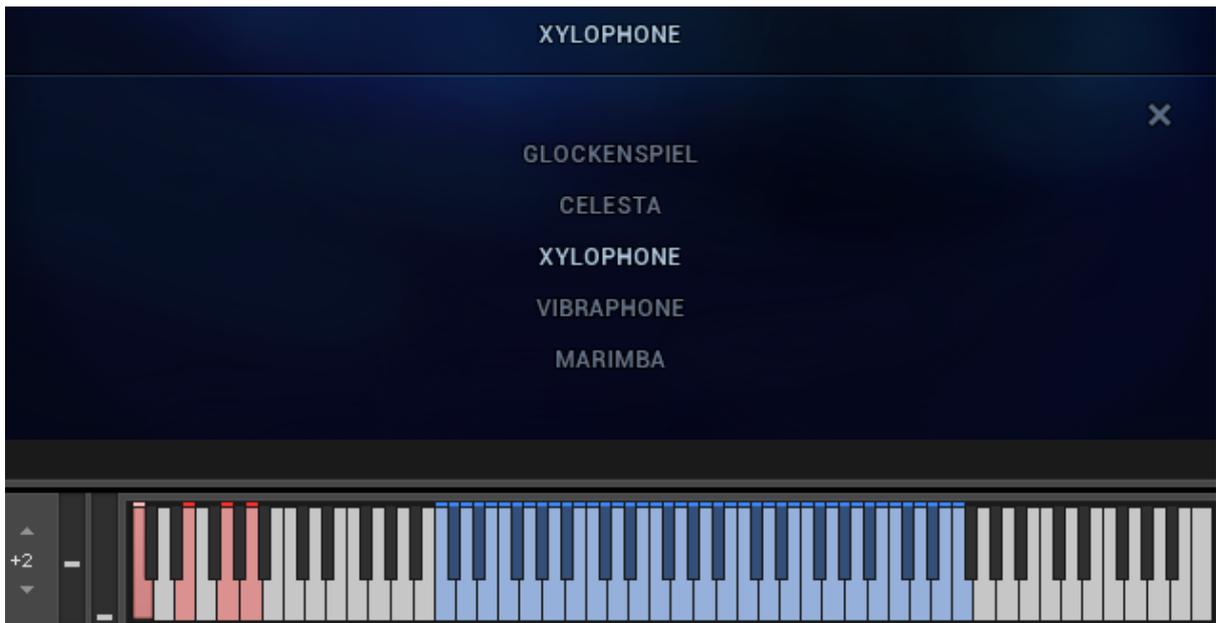


2. Select the mallet instrument you want to use by clicking on its name.
3. Close the Instrument selector by clicking the cross in the upper right corner of the section.

### 3.2. Playing a Mallet Instrument with a MIDI Controller

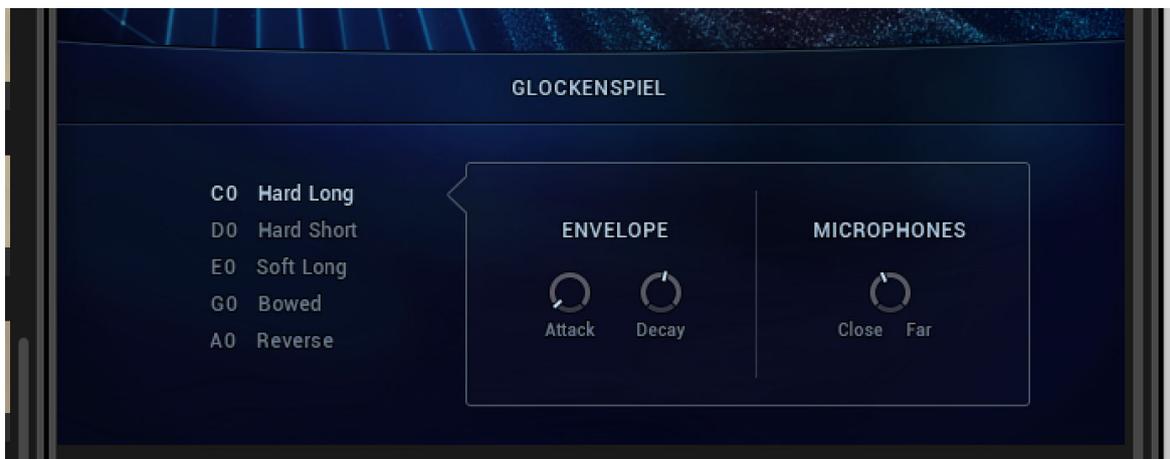
#### 3.2.1. Playing notes

You can play the Instrument with MIDI notes within a key range which is relevant in regard to the selected mallet instrument. CELESTA, for example, has the widest playable note range (C1 to F6), while XYLOPHONE has a narrower note range (C3 to C5). Both on the virtual keyboard in KONTAKT as well as on the KOMPLETE KONTROL keyboard, the note range of the selected mallet instrument is highlighted in blue.

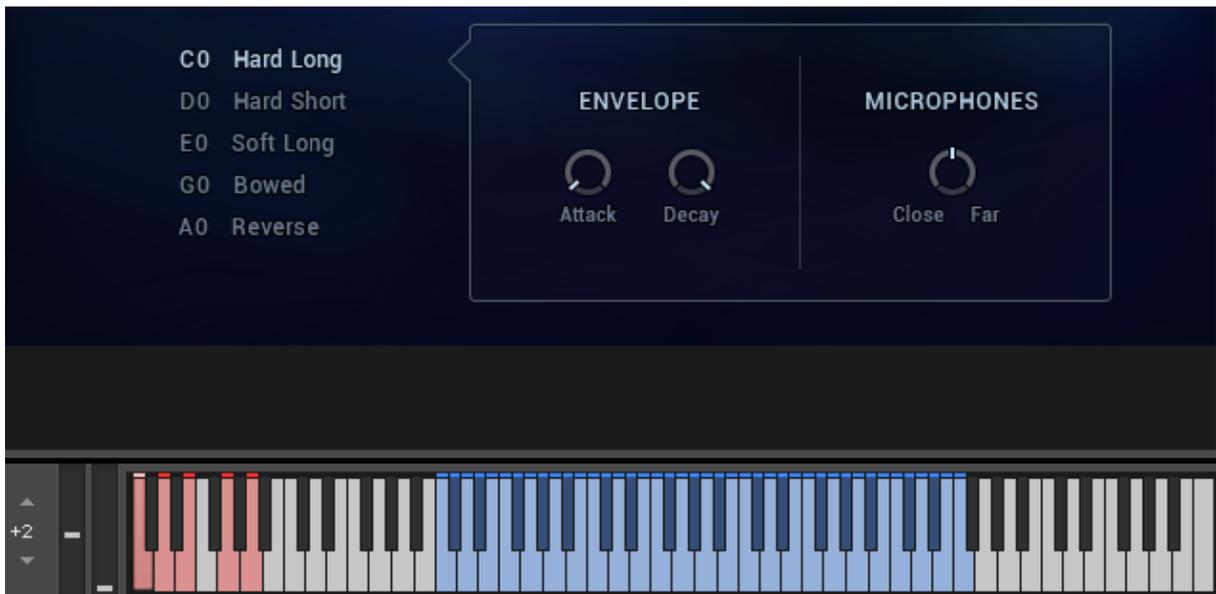


### 3.2.2. Playing with Articulations

Each mallet instrument allows you to choose from two to six Articulations, depending on the mallet instrument that is loaded. For example, GLOCKENSPIEL allows you to select one of five different articulations (**Hard Long**, **Hard Short**, **Soft Long**, **Bowed**, **Reverse**)



You can use key switch commands to select a specific Articulation. You can see which MIDI note is mapped to the corresponding key switch next to the Articulation's name. For example, the **Hard Long** Articulation is mapped to **C0**. If you do not have a MIDI controller, you can select another Articulation by clicking on its name. Both on the virtual keyboard in KONTAKT as well as on the KOMPLETE KONTROL keyboard, the key switches of the selected mallet instrument is highlighted in red.



### 3.2.3. Assigning MIDI Controllers

You can use MIDI controllers to control MALLET FLUX externally and record automation.

To assign a knob or fader on your MIDI controller to a control in MALLET FLUX:

1. Ensure that the MIDI output from your controller is routed to the instance of KONTAKT you are using.
2. Right-click on any control in the MALLET FLUX user interface.
3. Click on **Learn MIDI CC# Automation**



4. Turn a knob or move a fader on your MIDI controller.

→ The knob or fader is assigned to the control in MALLET FLUX.

### 3.3. The Main Page

On the **MAIN** page, you can customize the settings of each Articulation for the loaded mallet instrument.

1. To open the Main page, click on MAIN in the upper right corner of the MALLET FLUX Single user interface.



### 3.3.1. Editing Articulations

The Articulations included in each mallet instrument provide a set of controls for customization. You can set a different Attack and Decay time for each Articulation, allowing you to adjust the length and contour of the played note. You can also choose how close or far the microphones are placed from the instrument, which allows you to generate a more or less spatialized sound.



- **ENVELOPE:** The following controls allow you to adjust the volume envelope of the selected Articulation.
  - **Attack:** Adjusts the duration of the volume envelope's attack, which is the time the volume takes to rise from zero to peak level. Turn the knob left to obtain a faster attack or right for a slower attack.
  - **Decay:** Adjusts the duration of the volume envelope's decay, which is the time the volume takes to fall from peak to zero level. Turn the knob left to obtain a quicker decay or right for a slower decay.
- **MICROPHONES:** The following control allows you to adjust the spatialization of the selected Articulation.
  - **Close / Far:** Controls the level of the recording room's natural reverb heard in the sound. Turn left (**Close**) to obtain a dryer sound, turn right (**Far**) to obtain a more spatialized sound.

### 3.4. The FX Page

On the FX page, you can add delay and reverb to the Instrument's output.

1. To open the FX page, click on FX in the upper right corner of the MALLET FLUX Single user interface.



#### 3.4.1. The Replika Delay

This delay is based on Native Instruments' dedicated Replika XT delay plug-in. It includes 21 delay presets derived from Replika XT's basic algorithms: Modern, Analog, Vintage, Tape, Diffusion. This allows you to add different flavors of delay to your sound.



- **Red dot icon:** Switches the delay effect on or off. The dot lights up red when the delay is active.

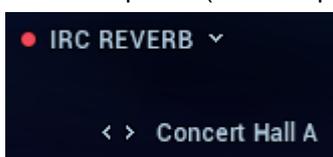
- **Delay preset:** Selects one of 21 included delay presets by clicking the preset name. Clicking on the left and right arrows selects the previous or next preset in the list, respectively.
- **Sync:** Synchronizes the delay effect to the tempo of your DAW or to incoming MIDI sync signals.
- **Time:** Adjusts the delay time in note length values when Sync is enabled, or in milliseconds when Sync is disabled.
- **Feedback:** Adjusts the level of the signal that is fed back to the delay's input. Increasing feedback adds delay repeats. Levels above 100% create swelling echo repeats up to self-oscillation.
- **Return:** Adjusts the delay's output level.

### 3.4.2. The Reverb Section

MALLET FLUX offers four different reverbs: the classic HALL, ROOM and PLATE reverbs, but also the IRC REVERB, which is a convolution reverb designed to achieve highly realistic sounds. A convolution reverb uses recordings of acoustical spaces, called impulse responses. This is why it does not offer individual controls like the other reverb algorithms but instead allows you to select the impulse response of a specific acoustical space. Therefore, some of the controls are specific to the type of reverb you use.



- **Red dot icon:** Switches the reverb effect on or off. The dot lights up red when the reverb is active.
- **Reverb algorithm:** Selects the type of reverb by clicking on the name: **IRC**, **ROOM**, **HALL**, or **PLATE**.
- **Reverb preset:** Selects one of 18 reverb presets based on the ROOM, HALL, or PLATE algorithms by clicking the preset name. Clicking on the left and right arrows selects the previous or next preset in the list, respectively. The list does not include any presets using the IRC algorithm.
- **Predelay (Room, Hall, Plate only):** Controls the delay in milliseconds before the reverb takes effect.
- **Time (Room, Hall, Plate only):** Adjusts the duration of the reverb effect.
- **HiCut (Room, Hall, Plate only):** Cuts the high-frequency content of the reverb signal.
- **Impulse response (IRC only):** Selects one of 15 impulse responses recorded in specific acoustic spaces (for example **Concert Hall A**).



- **Return:** Adjusts the reverb's output level.

## 4. PLAYING THE MALLET FLUX ENSEMBLE

### 4.1. Playing the MALLET FLUX Ensemble with a MIDI Controller

This section explains how to play the Ensemble with a MIDI controller as well as controlling dynamic mod and MIDI assignments.

#### 4.1.1. Playing Sequences with MIDI notes

Incoming MIDI notes are processed by the MALLET FLUX Sequencer, which controls all five mallet instruments in the Ensemble. The Sequencer is designed to let you easily create complex arrangements. For more information about the Sequencer, refer to [The Sequencer](#).

Playing different notes changes the pitch of the sequence, but does not retrigger it. Playing notes simultaneously alternates notes, depending on the settings of the Sequencer.

#### 4.1.2. Controlling Dynamic Mod with your Modulation Wheel

Dynamic Mod allows you to create dynamic effects using your MIDI controller's modulation wheel by morphing between different velocity values set in the velocity lanes of the Sequencer. For more information about velocity lanes, refer to [Velocity Lanes](#).

1. To use Dynamic Mod, hold a note on your MIDI keyboard to play a sequence and move the modulation wheel up and down. Moving the modulation wheel up makes the sequence more intense, while moving it down makes it more gentle.

The indicator on the upper right side of the user interface shows the current value of Dynamic Mod. If you do not have a MIDI controller, you can also control Dynamic Mod by clicking and dragging the red line.



#### 4.1.3. MIDI Assignments

You can use MIDI controllers to control MALLET FLUX externally and record automation.

To assign a knob or fader on your MIDI controller to a control in MALLET FLUX:

1. Ensure that the MIDI output from your controller is routed to the instance of KONTAKT you are using.
2. Right-click on any control in the MALLET FLUX user interface.
3. Click on Learn MIDI CC# Automation.



4. Turn a knob or move a fader on your MIDI controller.

→ The knob or fader is assigned to the control in MALLET FLUX.

## 4.2. The Main Page

The Main page allows you to configure the Ensemble and the Scenes used to play it.

1. Click **MAIN** in the upper left corner of the user interface to open the Main page.



There are two areas on the Main page, the Scene selector at the top and the five Instrument Slots below:



- **Scene selector:** Allows you to explore the Scenes or to open the Scene Browser. For more information, refer to [The Scene Selector](#)
- **Instrument Slots:** Allow you to configure your Ensemble and control the Sequencer. For more information, refer to [The Scene Selector](#).

### 4.2.1. The Scene Selector

Scenes represent a unique musical pattern or gesture that can be loaded into the Sequencer. Each Scene includes up to five velocity sequences, one for each mallet instrument loaded in the Ensemble.

1. Click on the left and right arrows to select the previous or next preset in the list, respectively.

Alternatively, you can use the Scene Browser to select Scenes.

1. Click on the name of the Scene to open the Scene Browser. For more information, refer to [The Scene Browser](#).

## 4.2.2. The Ensemble's Instrument Slots

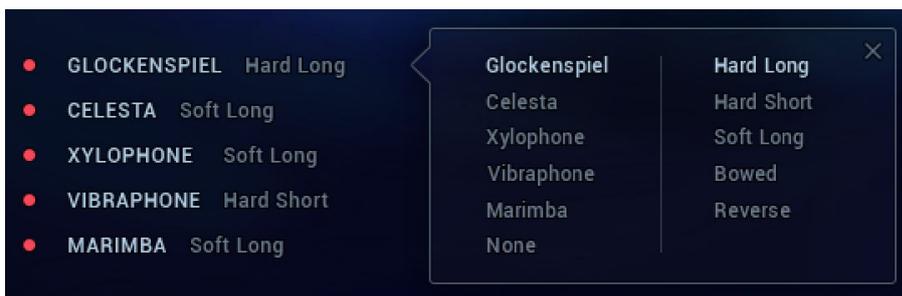
The Instrument Slots allow you to configure your Ensemble, including a number of settings for each included mallet instrument, and control the Sequencer.



- **Red dot icon:** Switches the delay mallet instrument on or off. The dot lights up red when the mallet instrument is active.
- **Mallet instrument name:** Opens the **Instrument Browser** for this slot. For more information, refer to [Instrument Browser](#).
- **Octave Shift:** Shifts the pitch of the mallet instrument's sequence in steps of 1 octave by clicking on the octave value and dragging up or down.
- **Sequence display:** Opens the Sequencer by clicking on it and shows the sequence playing the mallet instrument. The display responds dynamically to the Dynamic Mod control and shows the current velocity values accordingly. For more information, refer to [The Sequencer](#).
- **Instrument settings:** Opens the Instrument Settings menu in the middle of the user interface. For more information, refer to [Instrument Settings](#).

## 4.2.3. Instrument Browser

The Instrument Browser allows you to assign any of the mallet instruments included in MALLET FLUX to Instrument Slots and choose one of the Articulations provided for each mallet instrument.



1. Click on the name of a mallet instrument to open the Instrument Browser for the corresponding Instrument Slot.
2. Use the first column to choose the mallet instrument you want to load to this Instrument Slot.
3. Use the second column to choose the Articulation you want to use with the selected mallet instrument.
4. Close the Instrument Browser by clicking the cross on the upper right side of the menu.

→ The selected mallet instrument and Articulation are assigned to the Instrument Slot.

## 4.2.4. Instrument Settings

The Instrument Settings allow you to control different aspects of the mallet instrument.

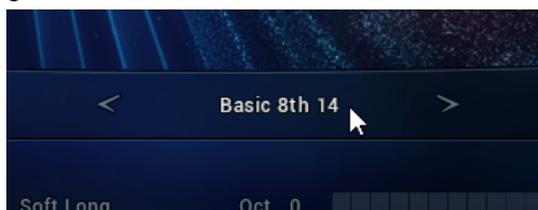


- **ENVELOPE:** This section allows you to control the **Attack** and **Decay** of the mallet instrument's volume envelope.
- **FILTER:** This section allows you to turn the filter on (dot is red) or off (dot is gray), select the filter type (**SV LP4**, **Ladder LP2**, **SV HP4**, **Ladder HP2**, or **SV BP4**), and adjust the cutoff frequency (**Freq**) and the resonance (**Res**) of the filter.
- **MOD:** This section allows you to turn the modulation effect on (dot is red) or off (dot is gray), select the effect preset (**Choruslow/fast**, **Flangerslow/fast**, **Phaserslow/fast**), and adjust the **Depth** and **Mix** of the effect.

## 4.3. The Scene Browser

The Scene Browser (**Scenes**) allows you to choose from over 250 different Scenes, each representing a unique musical pattern or phrase that can be loaded into the Sequencer. The Scenes include basic sequences, single notes, interesting multi-arpeggios, as well as complex sonic structures.

1. Open the Scene Browser by clicking on the name of the Scene, in the middle of the Main page's user interface.



The Scene Browser consists of the following controls:

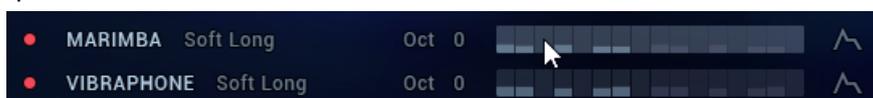


- **Scene list:** Loads the selected Scene into the Sequencer. The list is updated dynamically according to the filters that are set with the **Type**, **Feel** and **Meter** controls.
- **Type:** The **Seq/Single** filter selects either sequences or single notes to be shown in the Scene list. When **Seq** is selected, only sequences are shown. In this case, you can refine the results with the **Basic/Arp** filter, allowing you to show only basic or arpeggiated patterns. When **Single** is selected, only single notes are shown in the Scene list. In this case, you can refine the results with the **Hit/Drone** filter, allowing you to show only single hits or long drones.
- **Feel:** Selects sequences based on **8th**, **16th**, or **Triplets** rhythms to be shown in the Scene selector.
- **Meter:** Selects sequences based on **4/4** or **Odd** musical meter to be shown in the Scene selector.

## 4.4. The Sequencer

The MALLET FLUX Sequencer is composed of five different velocity sequences running simultaneously, one for each mallet instrument loaded in the Ensemble. The velocity sequences consist of two sequencer lanes, allowing you to create two sets of velocity values. The Dynamic Mod feature enables you to morph between the different velocity values using the modulation wheel. The additional controls provided in the Sequencer can be used to customize and refine sequences, allowing you to create very intricate patterns.

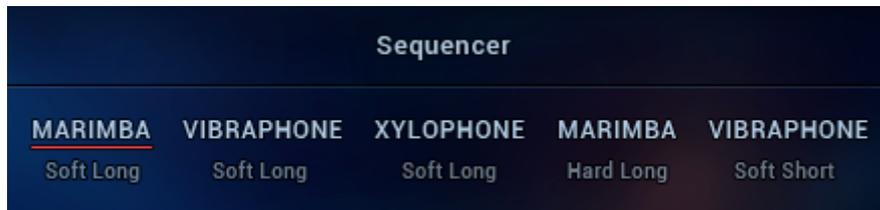
1. Click on the sequence display in any of the five individual Instrument Slots to open the Sequencer.



→ The Sequencer appears in middle of the user interface. You can close it by clicking on the cross in the upper right corner.

### 4.4.1. The Sequence Selector

The top row of the Sequencer shows the names of the mallet instruments loaded in the Ensemble with their selected Articulation.



1. Click on the mallet instrument's name to show and edit the corresponding velocity lanes.

### 4.4.2. Velocity Lanes

The two velocity lanes are at the center of the Sequencer. They run in parallel, allowing you to morph between them by using the Dynamic Mod feature.



The top velocity lane controls the mallet instrument's velocity when your modulation wheel is moved all the way up. The bottom lane controls the velocity when the modulation wheel is moved all the way down. For more information about using Dynamic Mod, refer to [Controlling Dynamic Mod with your Modulation Wheel](#).

### 4.4.3. Editing the Velocity Lanes

You can use the velocity lanes to create note events and set their velocity.

1. To create a note event, click on a step in the sequence. By clicking and dragging your mouse up or down you can set their velocity.

Alternatively, you can set velocity values for multiple steps at once using the draw function.

1. Right-click on any step in the sequence and draw a line with the right-mouse button pressed to create a linear velocity progression across several steps.



You can also use the **FILL** function to quickly load Fill Blocks into the sequence. Fill Blocks are presets of four-step sequences.

1. Click on **FILL** above the first velocity lane to open the Fill menu.
2. Click on any of the Fill Blocks to load them into the sequence.



#### 4.4.4. Sequencer Controls

The additional sequencer controls allow you to customize and refine sequences.



- **Top Sequencer controls:** The following controls are available at the top of the two velocity lanes:
  - **SEQ:** Switches the sequence for this Instrument Slot on or off. The dot lights up red when the sequence is active. When **SEQ** is inactive, you can still play the mallet instrument with single notes.
  - **SOLO:** Activates the solo function for the selected sequence.
  - **FILL:** Opens the Fill menu, which provides 12 Fill Blocks that allow you to quickly load presets of four-step sequences. For more information, refer to [The Reverb Section \[13\]](#).
  - **Arpeggiator:** Allows you to choose from 12 different arpeggiator presets or activate chord mode.
  - **SKIP:** Skips sequencer steps that have a velocity value of 0.
  - **Note filter:** Filters the MIDI note input for the selected sequence. **Off** allows all notes in a chord to generate the sequence, **Top 3** only allows the highest three notes in a chord to generate the sequence, **Lowest 2** only allows the lowest two notes to generate the sequence, and so on.
  - **Oct Range:** Defines how the arpeggiator behaves when cycling through the sequence. **0** repeats the sequence in the same octave, **+1** repeats the sequence one octave above, and so on.
  - **Repeat:** Sets the number of repeats per note. When set to **0**, the sequence plays all steps one after the other. When set to **1**, each step is repeated once, and so on.
- **Bottom Sequencer controls:** The following controls are available at the bottom of the two velocity lanes:
  - **Length:** Adjusts the number of steps in the sequence.
  - **Rate:** Adjusts the step duration of the Sequencer.

- **Reset menu:** Forces the arpeggiator to start the sequence from the beginning after one or two bars. When set to **No reset**, the sequence cycles continuously.
- **2x/:2:** Doubles or halves the sequence length, respectively.
- **Left/right arrow:** Shifts the whole sequence left or right by one step.
- **Sequence down/up:** Copies the content of the upper velocity lane to the lower velocity lane, and vice versa.
- **Copy/Paste menu:** Copies or pastes the sequence, respectively.
- **Global:** The following controls affect all the running sequences globally and are available at the bottom of the Sequencer:
  - **Bar signature:** click and select in the drop down menu one of the five available time signatures (4/4, 3/4, 5/8, etc.)
  - **Host tempo sync:** half/one/two.
  - **Swing:** Adjusts the amount of Swing applied to the sequences.
  - **Humanize:** Adjusts the amount of Humanize applied to the sequences, which introduces minimal random rhythmical shifts to simulate the feeling of human musicians.

## 4.5. The Mix Page

The Mix page allows you to control the volume levels, panorama, and effect amounts for all mallet instruments in the Ensemble, as well as adjust the controls of the individual effects.

1. Click **MIX** in the upper left corner of the user interface to open the Mix page.



### 4.5.1. The Mixer

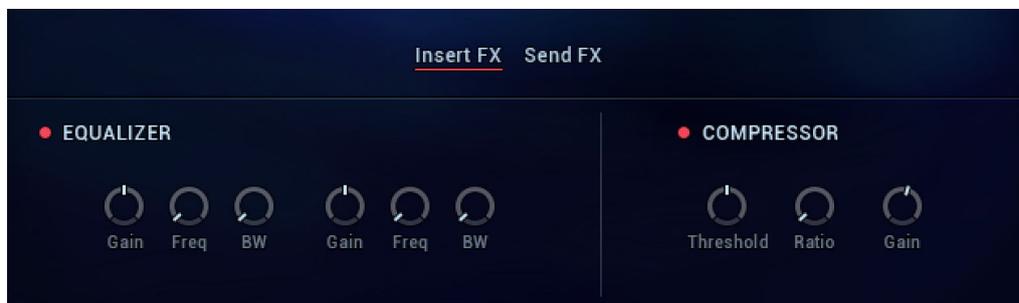
The Mixer provides a classic mixing desk layout providing a channel strip for each of the five mallet instruments loaded in the Ensemble's slots.



- **Red dot icon:** Mutes the channel for this mallet instrument. The dot lights up red when the respective channel is active. Holding the Alt key and clicking the dot mutes all other channels (solo function).
- **Reverb:** Adjusts the Reverb send level for this channel.
- **Delay:** Adjusts the Delay send level for this channel..
- **Pan:** Adjusts the panorama for this channel..
- **Mic:** Adjusts the microphone position in the recording room for this channel. Turn left to obtain a drier sound, turn right to obtain a more spatialized sound.
- **Level:** Adjusts the volume level for this channel.
- **Output channel selector:** Routes the channel to KONTAKT's individual outputs.

## 4.5.2. Insert FX

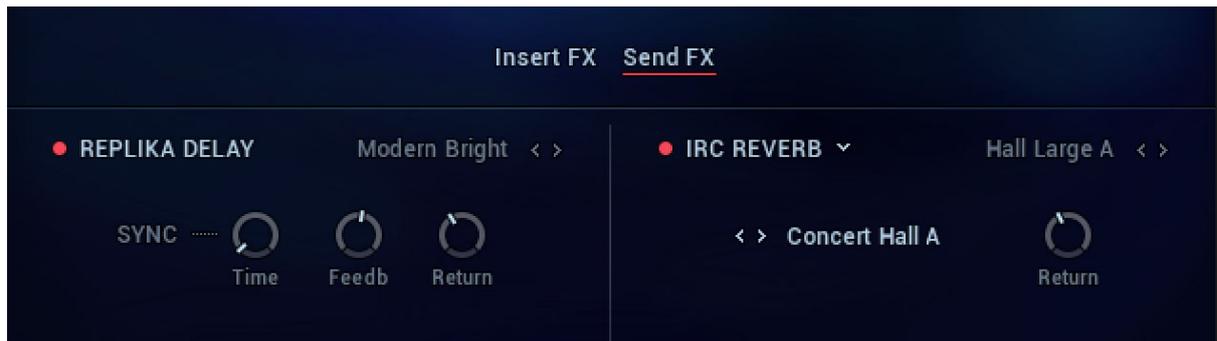
The **Insert FX** process the final output signal of the Mixer.



- **EQUALIZER:** Provides two bell filters that allow you to control the frequency content of the output signal.
  - **Red dot icon:** Switches the equalizer on or off. The dot lights up red when the equalizer is active.
  - **Gain:** Adjusts the gain of the bell filter.
  - **Frequency:** Adjusts the center frequency of the bell filter.
  - **Bandwidth:** Adjusts the bandwidth of the bell filter.
- **COMPRESSOR:** Allows you to control the dynamics of the output signal.
  - **Red dot icon:** Switches the compressor on or off. The dot lights up red when the compressor is active.
  - **Threshold:** Adjusts the compressor's threshold. When the level of a signal crosses the threshold, the compressor starts to attenuate the signal dynamically.
  - **Ratio:** Adjusts the amount of attenuation applied to signals when their level crosses the threshold of the compressor. Increasing **Ratio** leads to stronger attenuation.
  - **Gain:** Adjusts the makeup gain of the compressor.

## 4.5.3. Send FX

The **Send FX** allow you to add effects to individual mallet instruments by using the **Reverb** and **Delay** controls in the Mixer.



- **REPLIKA DELAY:** For more information, refer to [The Replika Delay](#).
- **REVERB:** For more information, refer to [The Reverb Section](#).

## 5. CREDITS

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