MDrummer
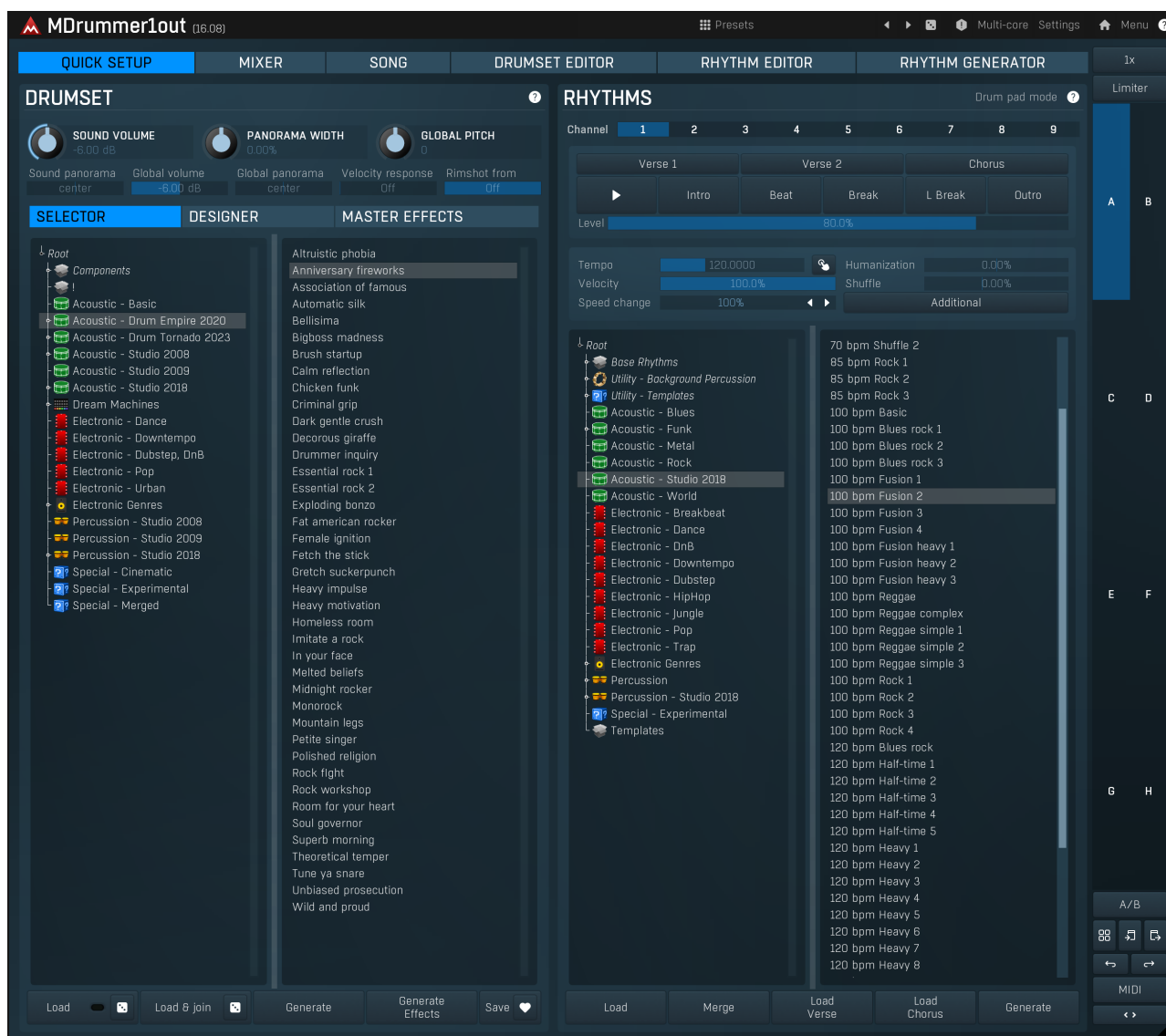

Presets

Presets button shows a window with all available presets. A preset can be loaded from the preset window by double-clicking on it, selecting via the buttons or by using your keyboard. You can also manage the directory structure, store new presets, replace existing ones etc. Presets are global, so a preset saved from one project, can easily be used in another. The arrow buttons next to the preset button can be used to switch between presets easily.

Holding **Ctrl** while pressing the button loads a random preset. There must be some presets for this feature to work of course.

Presets can be backed up by 3 different methods:
A) Using "Backup" and "Restore" buttons in each preset window, which produces a single archive of all presets on the computer.
B) Using "Export/Import" buttons, which export a single folder of presets for one plugin.
C) By saving the actual preset files, which are found in the following directories (not recommended):
Windows: C:\Users\{username}\AppData\Roaming\MeldaProduction
Mac OS X: /Library/Application support/MeldaProduction

Files are named based on the name of the plugin like this: "{pluginname}.presets", so for example MAutopan.presets or MDynamics.presets. If the directory cannot be found on your computer for some reason, you can just search for the particular file.

Please note that prior to version 16 a different format was used and the naming was "{pluginname}presets.xml". *The plugin also supports an online preset exchange. If the computer is connected to the internet, the plugin connects to our server once a week, submits your presets and downloads new ones if available. This feature is manually maintained in order to remove generally unusable presets, so it may take some time before any submitted presets become available. This feature relies on each user so we strongly advise that any submitted presets be named and organised in the same way as the factory presets, otherwise they will be removed.*

Left arrow

Left arrow button loads the previous preset.

Right arrow

Right arrow button loads the next preset.

Randomize

Randomize button loads a random preset.

Panic

Panic button resets the plugin state. You can use it to force the plugin to report latency to the host again and to avoid any audio problems. For example, some plugins, having a look-ahead feature, report the size of the look-ahead delay as latency, but it is inconvenient to do that every time the look-ahead changes as it usually causes the playback to stop. After you tweak the latency to the correct value, just click this button to sync the track in time with the others, minimizing phasing artifacts caused by the look-ahead delay mixing with undelayed audio signals in your host. It may also be necessary to restart playback in your host.

Another example is if some malfunctioning plugin generates extremely high values for the input of this plugin. A potential filter may start generating very high values as well and as a result the playback will stop. You can just click this button to reset the plugin and the playback will start again.

MultiCore

MultiCore switch lets the plugin exploit the full potential of your CPU by parallelizing rendering of audio for different voices. Note that in certain cases this may actually lower the performance depending on the host and other plugins. The performance can be especially degraded when small processing buffers hence small latency is used. On the other hand the higher number of voices is used, the bigger the gain from the parallelization can be.

Settings

Settings button shows a menu with additional settings of the plugin. Here is a brief description of the separate items.

Licence manager lets you activate/deactivate the plugins and manage subscriptions. While you can simply drag & drop a licence file onto the plugin, in some cases there may be a faster way. For instance, you can enter your user account name and password and the plugin will do all the activating for you.

There are 4 groups of settings, each section has its own detailed help information: **GUI & Style** enables you to pick the GUI style for the plug-in and the main colours used for the background, the title bars of the windows and panels, the text and graphs area and the highlighting (used for enabled buttons, sliders, knobs etc).

Advanced settings configures several processing options for the plug-in.

Global system settings contains some settings for all MeldaProduction plugins. Once you change any of them, restart your DAW if needed, and it will affect all MeldaProduction plugins.

Dry/Wet affects determines, for Multiband plug-ins, which multiband parameters are affected by the Global dry/wet control.

Smart interpolation adjusts the interpolation algorithm used when changing parameter values; the higher the setting the higher the audio quality and the lower the chance of zippering noise, but more CPU will be used.

WWW

WWW button shows a menu with additional information about the plugin. You can check for updates, get easy access to support, MeldaProduction web page, video tutorials, Facebook/Twitter/YouTube channels and more.

Menu

Menu button shows menu with advanced features, additional settings of MIDI filters and more.

Download & install products shows an integrated downloade, which lets you easily download and install available MDrummer packs from our servers. It also lets you change the MDrummer factory folder, and install 3rd party drum packs and those you have already downloaded.

Install pack lets you install a data pack, whether it is made by MeldaProduction or some 3rd party.

Create pack lets you make your own packs to share/sell, whether it is a collection of samples, rhythms, drumsets etc. or any combination of these.

Load/Save sound settings items let you store all settings related to the sound MDrummer produces. Saving a drumset isn't really sufficient, as it may not store some additional stuff such as MIDI filters. This does NOT store rhythm settings. If you need that, please just use the global presets, which store everything.

Load/Save song is an obsolete feature, which lets you save the entire MDrummer settings into a file. It's usually better to use global presets instead.

Analyze and import sample library lets you process an entire collection of samples in any folder, analyze their properties and create drumsets and components from them, all within a few clicks. Please check our video tutorials for more information.

MultiSample generator is an utility useful for acoustic drums and percussion sound designers. It takes one or more tracks (depending on

how many microphones have been used), cuts them into samples, detects velocity layers and creates multisamples from them, making the process of sampling acoustic percussive instruments quite quick and painless. For details please check http://www.meldaproduction.com/doc/MultiSampleGenerator

Input MIDI filter lets you preprocess MIDI data sent to MDrummer by assigning them to different drums and calibrating their velocities. It is an indespensable tool to make any MIDI controller "feel" right.

Output MIDI filter lets you postprocess MIDI data generated by MDrummer on channel 10, mainly change the output MIDI keys and velocity curves. It is especially useful if you want to use MDrummer's rhythm engine to drive another drum plugin.

Sample library analyzer
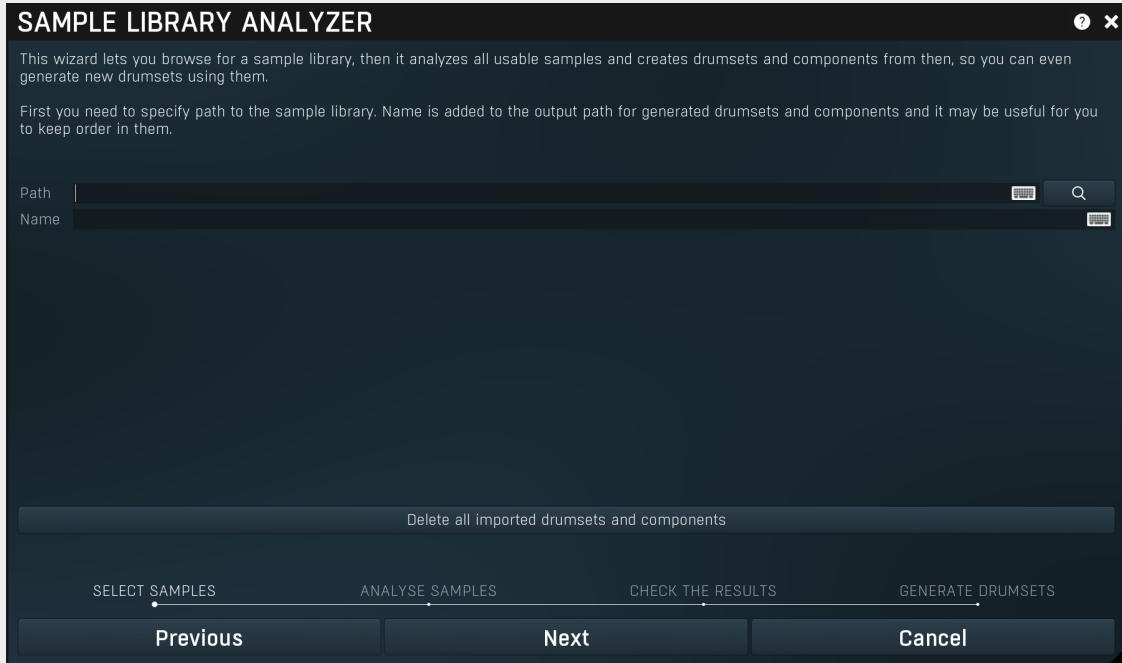
Sample library analyzer is a unique feature, which lets MDrummer analyze a whole sample library and create components and drumsets using the samples, perfectly compatible other drumsets and rhythms. The sample analyzer is a wizard, which will guide you through the whole process, which should take just a couple seconds. MDrummer will analyze all the samples, determine their type, adjust volume, create components and drumsets from them and store them in **Imported** directory. If enabled, it can even process layered multisampled drums.

Important thing to note is that MDrummer uses file names to determine types of the samples. It is impossible to determine a drum type by audio analysis, because many drums just are too alike, in fact in many cases even a human isn't able to tell what kind of drum certain sample is. So the engine is searching for substrings in the file name, including path. For example, "bass" and "kick" are typical names for bass drum samples. MDrummer contains the most typical keywords by default, but you can edit them in the sample analysis page of the wizard.

Input MIDI filter
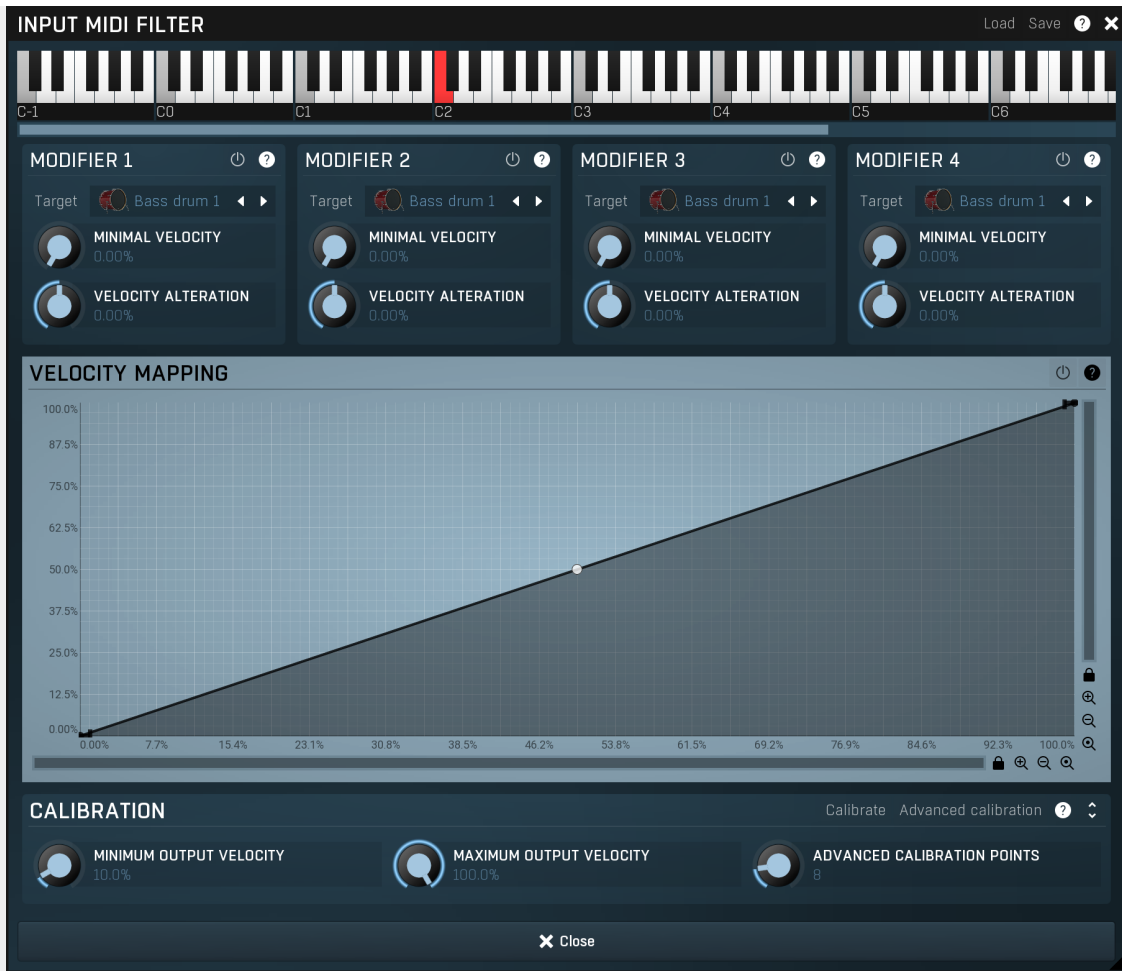
Input MIDI filter provides a very efficient way to connect MDrummer to any MIDI source, e.g. electronic drumset, keyboard or the output of another plugin. It is possible to manipulate several settings for each of the 128 keys defined by the MIDI standard.

Load
Load button loads the entire settings from a file.
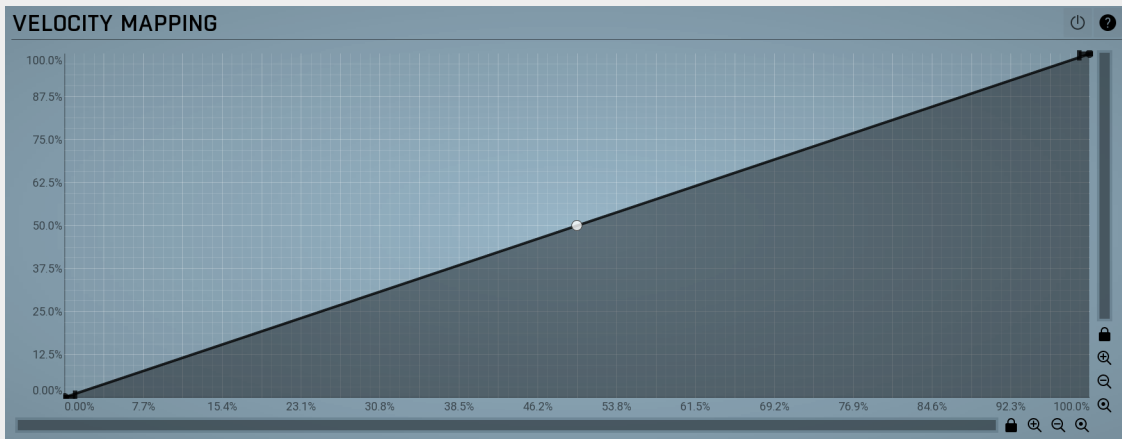
Save
Save button stores the entire settings into a file.
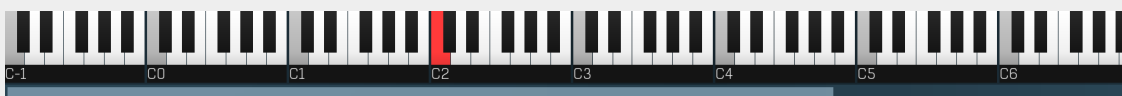
Piano keyboard
Piano keyboard shows the currently-selected source MIDI key to edit.

Velocity mapping
Velocity mapping edits the transformation from source velocities (X) into target velocity values (Y). You can also use calibration to set it automatically according to your input device characteristics.

Envelope graph

Envelope graph provides an extremely advanced way to edit any kind of shape that you can imagine. An envelope has a potentially unlimited number of points, connected by several types of curves with adjustable curvature (drag the dot in the middle of each arc) and the surroundings of each point can also be automatically smoothed using the smoothness (horizontal pull rod) control. You can also literally draw the shape in drawing mode (available via the main context menu).

- **Left mouse button** can be used to select points. If there is a *point*, you can move it (or the entire selection) by dragging it. If there is a *curvature circle*, you can set up its tension by dragging it. If there is a *line*, you can drag both edge points of it. If there is a *smoothing controller*, you can drag its size. Hold **Shift** to drag more precisely. Hold **Ctrl** to create a new point and to remove any points above or below.

- **Left mouse button double click** can be used to create a new point. If there is a *point*, it will be removed instead. If there is a *curvature circle*, zero tension will be set. If there is a *smoothing controller*, zero size will be set.

- **Right mouse button** shows a context menu relevant to the object under the cursor or to the entire selection. Hold **Ctrl** to create or remove any points above or below.

- **Middle mouse button** drag creates a new point and removes any points above or below. It is the same as holding Ctrl and dragging using left mouse button.

- **Mouse wheel** over a point modifies its smoothing controller. If no point is selected, then all points are modified.

- **Ctrl+A** selects all points. **Delete** deletes all selected points.

⏻ Enable

Enable button enables or disables the velocity transformation.

Envelope graph menu
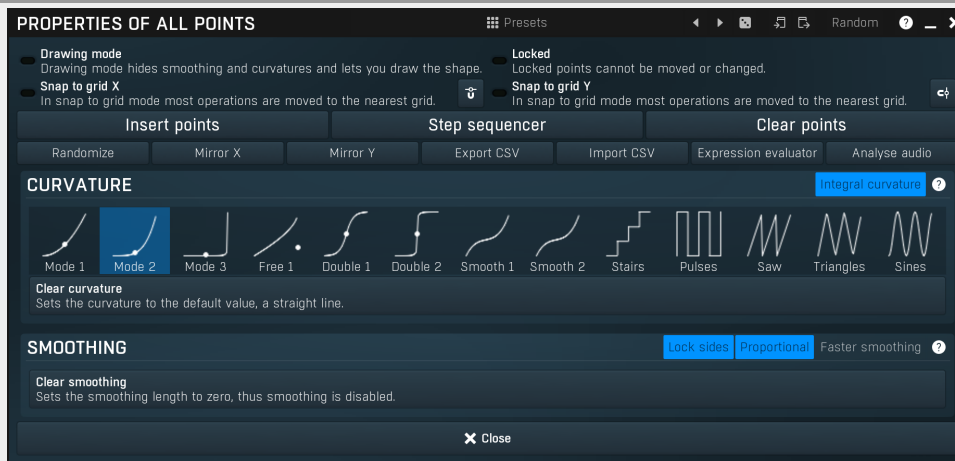
Envelope graph menu provides additional features which are used to edit the graph. Open the menu using right mouse button in the graph. Please note that if you select some points in the graph, or click on a point for example, the menu will be different and will cover only those features related to the selected set of points.

 Presets

Presets button displays a window where you can load and manage available presets. Hold **Ctrl** when clicking to load a random preset instead.

 Left arrow

Left arrow button loads the previous preset.

 Right arrow

Right arrow button loads the next preset.

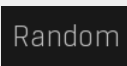 **Randomize**

Randomize button loads a random preset.

 Copy

Copy button copies the settings onto the system clipboard.

 Paste

Paste button loads the settings from the system clipboard.

 Random

Random button generates random settings using the existing presets.

Snap to grid X

Snap to grid X activates the snap to grid feature. Alternatively you can press **Alt** while dragging a point or selection.

Snap

Snap button activates the snap to grid feature. Alternatively you can press **Alt** while dragging a point or selection.

Insert point

Insert point button creates a point at mouse position.

Step sequencer

Step sequencer button generates the envelope from step sequencer.

Clear points

Clear points button deletes all points.

Randomize

Randomize button slightly modifies the Y coordinates.

Mirror X

Mirror X button inverts the X coordinates of all points.

Mirror Y

Mirror Y button inverts the Y coordinates of all points.

Export CSV

Export CSV feature lets you export the graph to a CSV file. CSV file is a simple text format, which has multiple lines with X and Y coordinates delimited by ';'. For example:
0.275;0.2
0.438;0.5
0.775;0.67

Import CSV

Import CSV feature lets you select a CSV file and imports the graph points from it. CSV file is a simple text format, which has multiple lines with X and Y coordinates delimited by ';'. For example:
0.275;0.2
0.438;0.5
0.775;0.67

Expression evaluator

Expression evaluator lets you generate points based on a mathematic formula. The only input variable is 'x', so as an example you may write 'ln(x^3 + 1) - sin(x*x)'.

Expression evaluator uses traditional C/C++ style formating, which is natural for most people. It provides arithmetics, logical and conditional operators. Following terms are supported:
Constants: **pi**, **e**, **sqrt2**, **ln2**

Arithmetic operators:
-a inverts the sign, e.g. "-x" produces +2 for x=-2
a+b = addition
a-b = subtraction
a*b = multiplication
a/b = division
a%b = modulo, remainder after division
a^b = power, e.g. "2^3" produces 2*2*2 = 8

Arithmetic functions:
min(a,b) = minimum of both values
max(a,b) = maximum of both values
limit(a,min,max) = a limited into the interval min..max
to01(a,min,max) = converts "a" as min..max to 0..1
from01(a,min,max) = converts "a" as 0..1 to min..max

tom11(a,min,max) = converts "a" as min..max to -1..1
fromm11(a,min,max) = converts "a" as -1..1 to min..max

Basic mathematic functions: **abs(x)** = absolute value, e.g. abs(-3) = 3 **sqr(x)** = x*x **sqrt(x)** = square root **exp(x)** = natural exponential e^x **ln(x)** = natural logarithm **log10(x)** = logarithm with base 10 **log(x, base)** = logarithm with specified base **inv(x)** = 1/x **sgn(x)** = sign of x, -1 or 0 or +1 depending on x*x **round(x)** = rounding to the nearest value **floor(x)** = rounding to the nearest lower value, e.g. floor(-2.3) = -3 **ceil(x)** = rounding to the nearest higher value, e.g. ceil(-2.3) = -2 **rand(x)** = random value from 0 to x

Functions for specific units:
f01(a) = converts "a" as frequency from 20...20000 into log scale 0..1
ffrom01(a) = converts "a" as 0..1 (log scale) to frequency from 20...20000
todb(a) = converts "a" as multiplier to dB value by calculating "20*log10(a)"
fromdb(a) = converts "a" as dB value to multiplier by calculating "10^(a/20)"

Trigonometric functions: **sin(x), asin(x), cos(x), acos(x), tan(x), atan(x), sinh(x), cosh(x), tanh(x)**

Logical operators:
a==b = comparison producing 1 if "a" and "b" are equal, 0 otherwise
a!=b = comparison producing 1 if "a" and "b" are NOT equal, 0 otherwise
a<b = comparison producing 1 if "a" is lower than "b", 0 otherwise
a<=b = comparison producing 1 if "a" is lower or equal to "b", 0 otherwise
a>b = comparison producing 1 if "a" is greater than "b", 0 otherwise
a>=b = comparison producing 1 if "a" is greater or equal to "b", 0 otherwise
!a = logical negation, 0 produces 1, 0 otherwise
a&&b = logical AND, produces 1 if both "a" and "b" are nonzero
a||b = logical OR, produces 1 if any of "a" and "b" are nonzero
a^^b = logical XOR, produces 1 if "a" and "b" are logically different
a ? b : c = if a is nonzero, then the result is b, otherwise it is c

Analyse audio

Analyse audio lets you analyse a portion of an audio file at specified intervals, extract its level envelope and use those levels to construct the graph's curve.
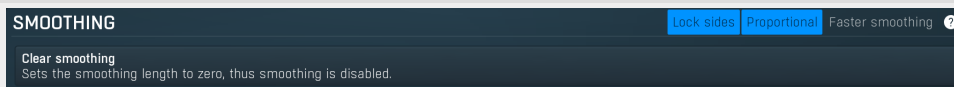
Curvature
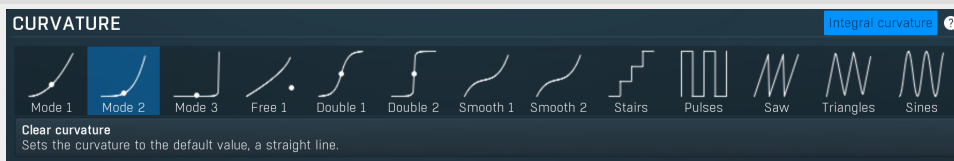
Integral curvature

Integral curvature makes the multi-curvature modes such as rectangles always have an integral number of items, e.g. 1, 2, 3, ... rectangles. If you disable this, it will be also possible to have for example 2.3 rectangles, which will however cause a discontinuity.

Smoothing

Lock sides

Lock sides makes the smoothing factor equal on both sides.

Proportional

Proportional makes the smoothing area size defined by the smaller side.

Faster smoothing

Faster smoothing enables slightly faster algorithm, which can however often cause unnecessary curving.
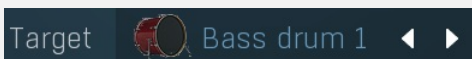
Modifier panel

Modifier panel allows you to change the output triggered by the MIDI note to a different drum type for a certain velocity range. This is useful for example when you want to play percussion with your electric drums.
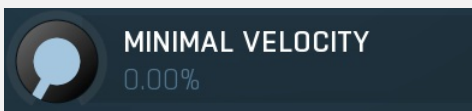
Enable
Enable button enables the modifier.

 Target
Target defines to what drum the key should be mapped.

Minimal velocity
Minimal velocity defines the threshold for the velocity of incoming notes. If a note has at least this velocity, it will be processed. Otherwise it won't. This is useful to redirect source notes to different target drums.

For example, you may use an external electronic drum kit with a limited number of pads. So you may want to play multiple drums with just one pad, depending on the velocity. For example you may want to play a ride cymbal and make MDrummer play ride bell if you hit the pad hard enough (so that the velocity is high). Another example would be percussion, say conga - there are many different kinds of hits for a conga, which may easily be selected with just a single pad, hitting it with different strengths.

Velocity alteration
Velocity alteration defines how the velocities should be increased or decreased. This is mostly useful in combination with minimal velocity. For example, when playing percussion with just one pad, you may use say 3 modifiers to play 3 different kinds of hits, depending on the velocity. But velocity is affecting not only the target drum type, but also the drum volume, so you may want to compensate for that by using this parameter. The velocity is used to select the drum hit; then it is altered by velocity alteration and that altered velocity is used to sound the hit.

Calibration
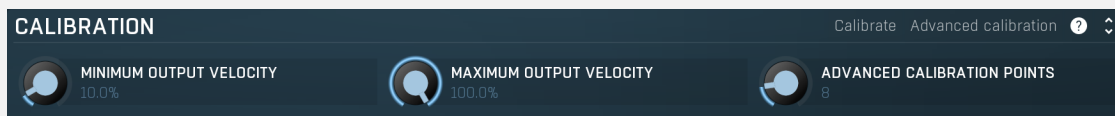
Calibrate
Calibrate button toggles the calibration mode. When calibration is enabled, any incoming notes are used to approximate the source dynamic range and a velocity transformation is generated.

For example to calibrate an external electronic drums, you enable the calibration mode and then hit each pad several times with velocities from the smallest to the biggest. Each time you hit a pad, the MIDI key is chosen and displayed, and its velocity transformation curve is adapted.

Advanced calibration
Advanced calibration switch makes the calibration analyse statistics of the velocities and adjust the calibration curve accordingly. To use it, enable this switch, then start calibration and play the MIDI controller with various velocities, ideally the same number of hits for each velocity. Stop the calibration when finished. You can also try playing normally, assuming the music you are playing is dynamic enough, so that the calibration can learn enough.

Minimum output velocity

Minimum output velocity controls the minimum velocity requested to be generated by the calibration curve. The output velocity range may be useful to intentionally make you play heavier/lighter.


Maximum output velocity

Maximum output velocity controls the maximum velocity requested to be generated by the calibration curve. The output velocity range may be useful to intentionally make you play heavier/lighter.

Advanced calibration points

Advanced calibration points controls the number of points created by **Advanced calibration**. Higher number of points provides better accuracy, but can cause higher CPU requirements and in most cases there's no need to have more than the default 8 points.

Output MIDI filter
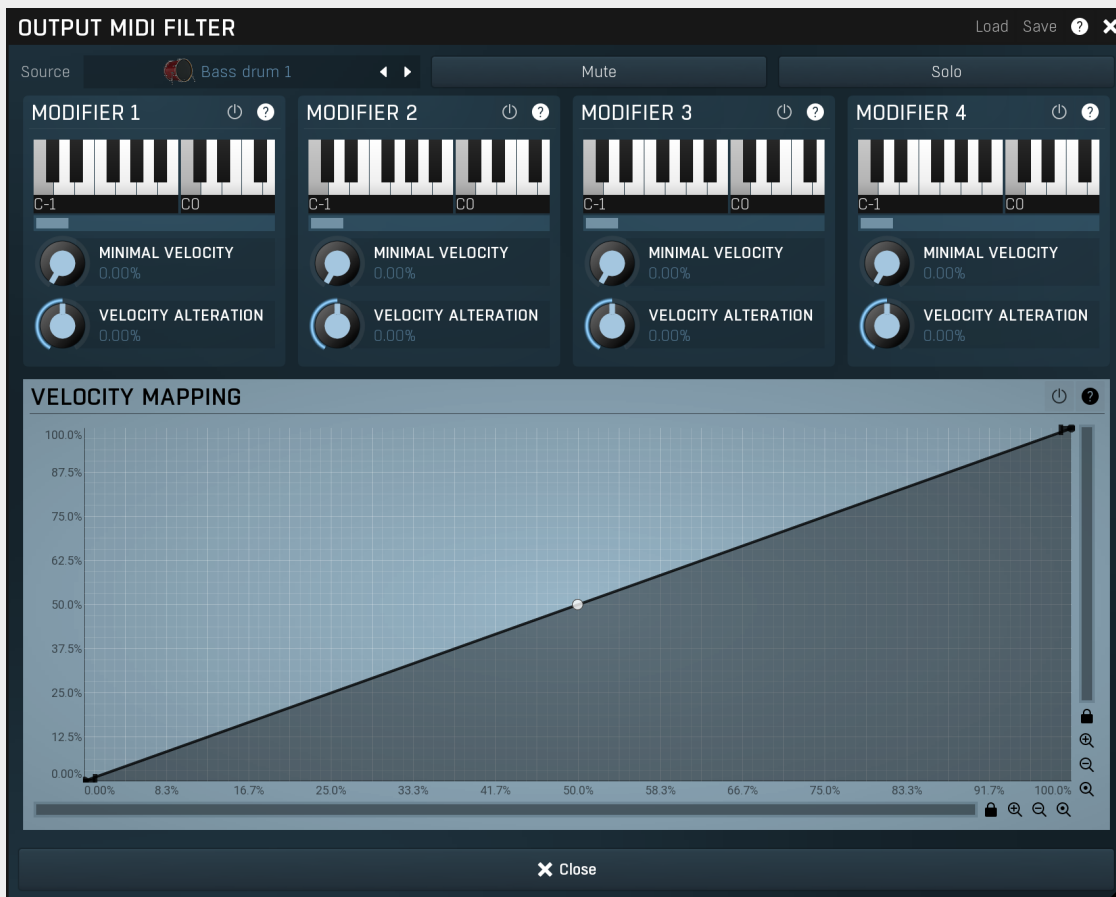
Output MIDI filter provides a very efficient way to connect MDrummer to a different target, such as another plugin. It is possible to generate different MIDI notes for each of the drum types.

 Load

Load button loads the entire settings from a file.

 Save

Save button stores the entire settings into a file.

 Source

Source defines what drum is being edited.
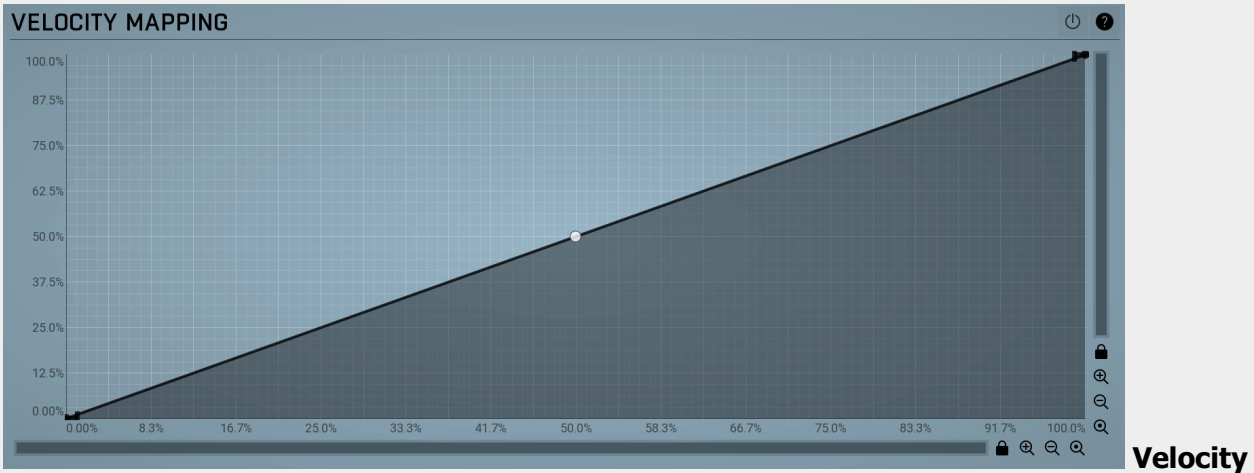
Mute

Mute

Mute

Mute button stops generating MIDI notes for this drum type completely.

Solo

Solo

Solo stops generating MIDI notes for all drums except this one.

VELOCITY MAPPING

Velocity mapping

Velocity mapping edits the transformation from source velocities (X) into target velocity values (Y) and can be used if the target device doesn't have velocity curve settings and the velocities just don't sound correct.

Envelope graph

Envelope graph provides an extremely advanced way to edit any kind of shape that you can imagine. An envelope has a potentially unlimited number of points, connected by several types of curves with adjustable curvature (drag the dot in the middle of each arc) and the surroundings of each point can also be automatically smoothed using the smoothness (horizontal pull rod) control. You can also literally draw the shape in drawing mode (available via the main context menu).

• **Left mouse button** can be used to select points. If there is a *point*, you can move it (or the entire selection) by dragging it. If there is a *curvature circle*, you can set up its tension by dragging it. If there is a *line*, you can drag both edge points of it. If there is a *smoothing controller*, you can drag its size. Hold **Shift** to drag more precisely. Hold **Ctrl** to create a new point and to remove any points above or below.

• **Left mouse button double click** can be used to create a new point. If there is a *point*, it will be removed instead. If there is a *curvature circle*, zero tension will be set. If there is a *smoothing controller*, zero size will be set.

• **Right mouse button** shows a context menu relevant to the object under the cursor or to the entire selection. Hold **Ctrl** to create or remove any points above or below.

• **Middle mouse button** drag creates a new point and removes any points above or below. It is the same as holding Ctrl and dragging using left mouse button.

• **Mouse wheel** over a point modifies its smoothing controller. If no point is selected, then all points are modified.

• **Ctrl+A** selects all points. **Delete** deletes all selected points.

This button enables or disables the velocity transformation.

Modifier panel
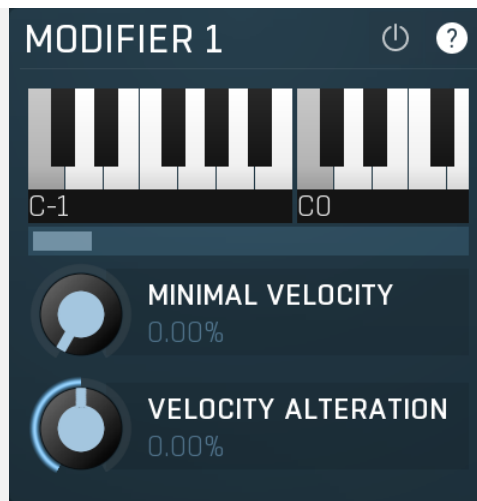
Modifier panel allows you to redirect all the notes of the drum-type in a specific velocity range to another MIDI note (other than its default). This is useful for example when you want to control another plugin by MDrummer.

 Enable
Enable button enables the modifier.

 Piano keyboard
Piano keyboard shows currently selected source MIDI key to edit.
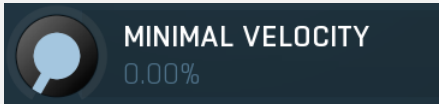
 Minimal velocity
Minimal velocity defines the threshold for the velocity of incoming notes. If the note has at least this velocity, it will be processed using modifier. Otherwise it won't. This is useful to redirect source notes to different target MIDI keys.
For example, you may have a drum sampler, which uses multiple MIDI keys for snare drum, each for a different kind of stroke. So you can use the modifier to use part of the velocity range to produce a certain kind of stroke, and another part to produce different one. Say normal drum hit and cross-stick.

 Velocity alteration
Velocity alteration defines how the velocities should be increased or decreased. This is mostly useful in combination with minimal velocity.

MultiSampleGenerator
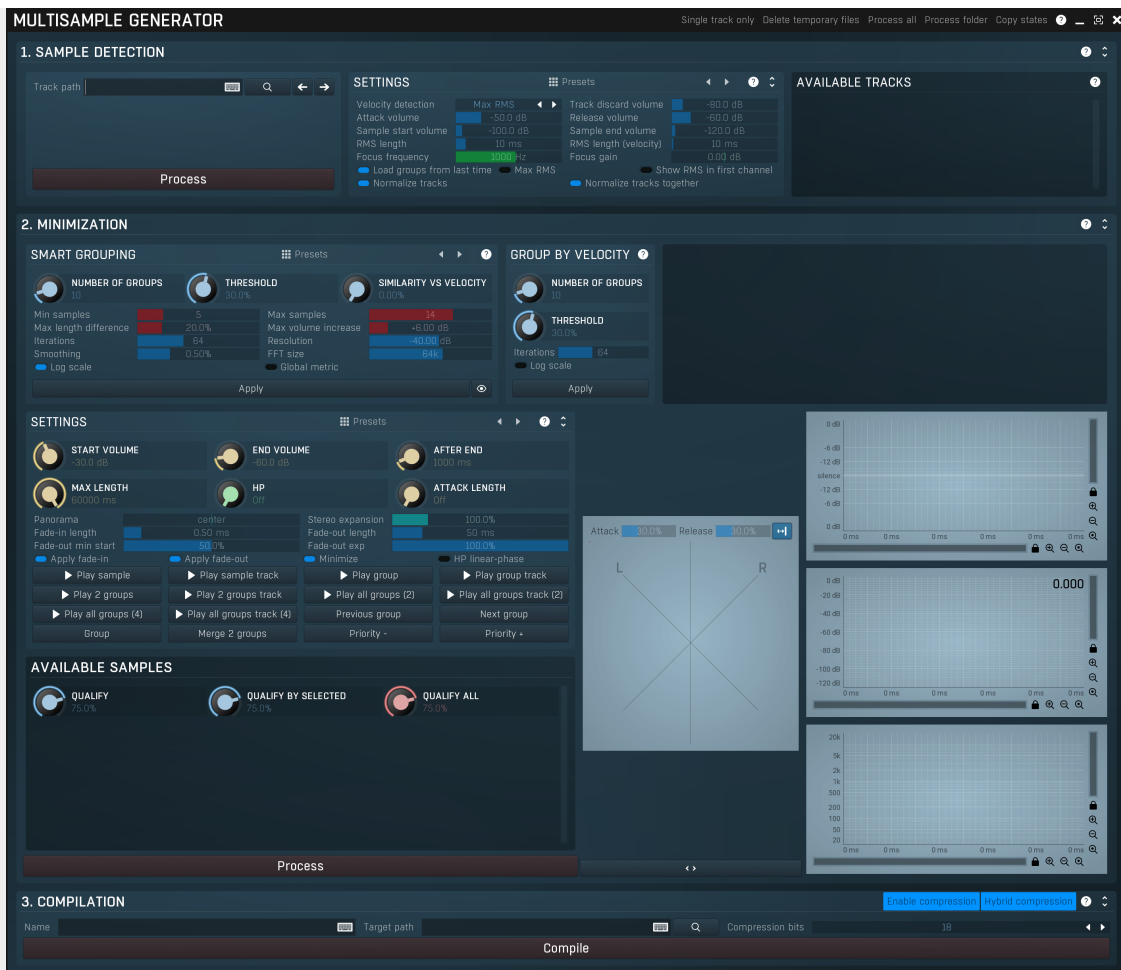
MultiSampleGenerator lets you automatically cut acoustic recordings into samples and produce multisamples from them, which can be used inside MDrummer. For more information please check http://www.meldaproduction.com/doc/MultiSampleGenerator

Single track only

Single track only should be enabled if there is just a single source track (audio recording). If you are using multiple tracks, you should disable this and a create definition XML describing the source tracks. Please refer to the examples provided to understand how the source data should look.

Delete temporary files

Delete temporary files deletes all temporary data in any subdirectory of a folder you select. The generator will still be able to perform the same analysis using the state information stored within the input data folders, so this temporary data won't be needed anymore and you can delete them to save disk space.

Sample detection panel
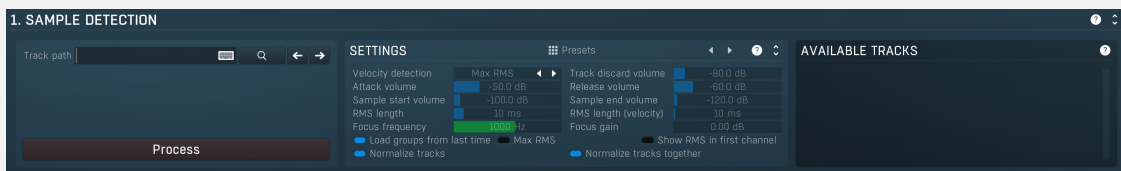

Sample detection panel contains settings for the first part of the processing. Sample detection takes the source tracks, loads them into memory and cuts them into separate samples. Most parameters specify how the sample starts and ends should be detected. Please note that the next part will also minimize the size of the samples by cutting off the silence at the beginning and at the end of each sample. Ideally you should set the parameters so that there are no empty samples or samples containing multiple hits.

The loudness of each sample is then measured using RMS with a specified time period. The generator then sorts the samples by the loudness (on the assumption that loudness represents velocity) and groups them into velocity layers. Loudness cannot be manually changed, but you can change the groups. Pay careful attention to the RMS length parameter, because if the loudness is not detected well, the resulting velocity response may not be very natural. The defaults should serve well in most cases.

When all samples are detected, they are saved with their definition into the Samples folder. In the case of a single track each sample is saved as a single file. In the case of multiple tracks each sample is stored in a separate subdirectory and a mix preview is created as well. These files are basically not important to you, only being needed by the generator itself; they are deleted by **Delete temporary flies**. Please note that after the next step (the sample minimization) all the settings will be saved alongside

the source tracks, so you can process the tracks at any time in the future with the same results. Therefore you do not need the samples at all and they only serve as a temporary result of the sample detection.

Main
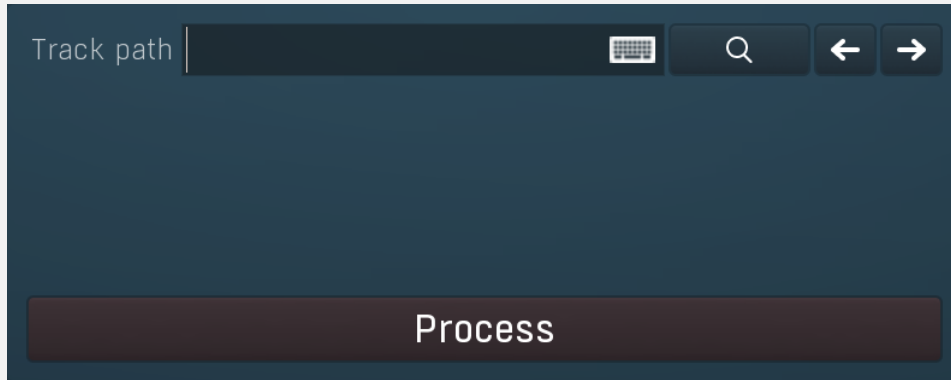
← Previous
Previous button finds the previous folder in the directory tree and is useful when navigating through a big sample set.Keyboard shortcut : K

→ Next
Next button finds the next folder in the directory tree and is useful when navigating through a big sample set.Keyboard shortcut : L

 Process

Process button performs the sample detection.Keyboard shortcut : I

Settings
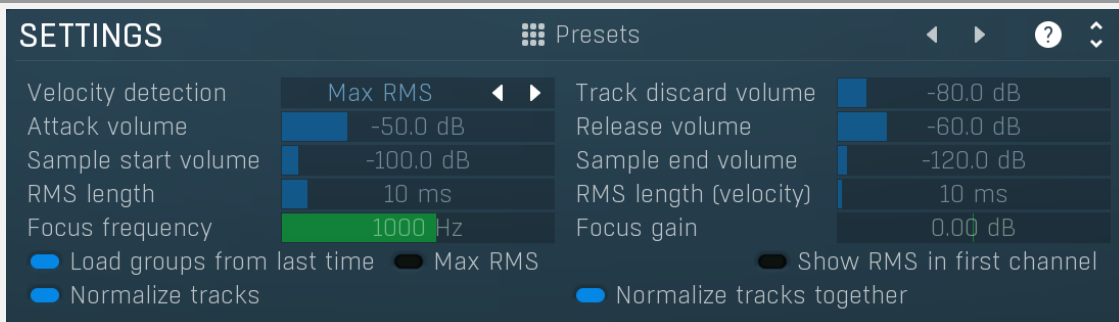
 Presets

Presets button displays a window where you can load and manage available presets. Hold **Ctrl** when clicking to load a random preset instead.

◀ Left arrow
Left arrow button loads the previous preset.

▶ Right arrow
Right arrow button loads the next preset.

 Velocity detection

Velocity detection selects the velocity detection algorithm, either Max RMS or Loudness.

 Track discard volume

Track discard volume defines the maximal peak value below which to discard that part of the track for a particular sample. When recording using multiple microphones, the partial sound may be too quiet for a particular microphone (e.g. bass drum recorded using a snare drum microphone), in which case there is no need to preserve it, since it only adds noise to the result.

 Attack volume

Attack volume defines the minimal RMS value, above which a new sample is initiated.

 Release volume

Release volume defines RMS value below which the generator switches into the "released" mode. In that case a new sample will

be started as soon as **Attack volume** is reached again and if the current sample is still being created, it will be finished. Release volume should be always lower than the attack volume.

The fade of the recorded track is often not long enough to reach the **Sample end volume**. In that case a new sample would never be initiated. Thus release volume defines the fade volume - when the signal reaches this value, it is considered only as a fade of the sample and can be finished as soon as a new attack is found or the intensity decreases even more.

Sample start volume	-100.0 dB

Sample start volume

Sample start volume defines the volume above which the sample should really start. **Attack volume** is typically much higher than the sample start volume. This is necessary to detect only real samples and omit partially raising edges. Hence when the signal reaches the attack volume, the actual position is already inside the sample, so the sample start volume is used to find the real sample beginning.

Attack volume is set higher than Sample start volume. You can think of it like this: when the level exceeds the **Attack volume** we definitely have a sample worth considering, and the generator needs to search backwards to find when the sample really starts, that is, when the level exceeds the Sample start volume.

Sample end volume	-120.0 dB

Sample end volume

Sample end volume defines the volume below which the current sample is finished no matter what. The generator assumes that the sample level rises and then slowly fades out. When the level reaches this value, the sample is considered finished. Therefore this parameter should be set somewhere above the noise level.

Please note that even if the signal does not fall to this level, the sample can still be finished and a new one initiated. See **Release volume** for more information.

RMS length	10 ms

RMS length

RMS length controls the response of the RMS detector used to cut the signal into the samples.

RMS length (velocity)	10 ms

RMS length (velocity)

RMS length (velocity) defines the length of the RMS detector, which determines sample volumes for sample detection and automatic velocity layering. There is no general rule, so you can just start with the default value and change it if the results of the sample detection are not good enough.

Focus frequency	1000 Hz

Focus frequency

Focus frequency controls a peak filter used for additional postprocessing for velocity detection.

Focus gain	0.00 dB

Focus gain

Focus gain controls a peak filter used for additional postprocessing for velocity detection.

⬤ Load groups from last time

Load groups from last time

Load groups from last time enables loading the grouping settings from the configuration file stored when you performed minimization last time if possible. This means that once you process, group and minimize the samples, the next time the generator loads it, you will not need to do that stage of processing again unless you have changed the settings, such that the number of samples is different and previous settings just cannot be used.

⬤ Max RMS

Max RMS

Max RMS controls how is the level of each sample calculated. By default this is disabled and the level is the sum of RMS values in all tracks. By enabling this option it becomes the maximum RMS value instead.

⬤ Show RMS in first channel

Show RMS in first channel

Show RMS in first channel replaces the first channel of the resulting value by the RMS signal. These files are then basically useless as samples, but you can view them in a wave editor and use the information to set up generator parameters.

⬤ Normalize tracks

Normalize tracks

Normalize tracks ensures that all tracks have normalized integrated loudness, so that the loudness of all separate multisamples is similar.

⬤ Normalize tracks together

Normalize tracks together

Normalize tracks together makes the normalization process all tracks with the same gain, which means that the mix will be intact.

Available tracks listbox

Available tracks listbox contains all the tracks available in the source directory. If you are using single-track processing, then you have to select the one being processed. When you are using multiple tracks, all of them should appear here and the source directory (or any upper directory) should also contain a XML definition for the tracks. You don't need to select anything, since all configured tracks will be processed anyway.

Minimization panel
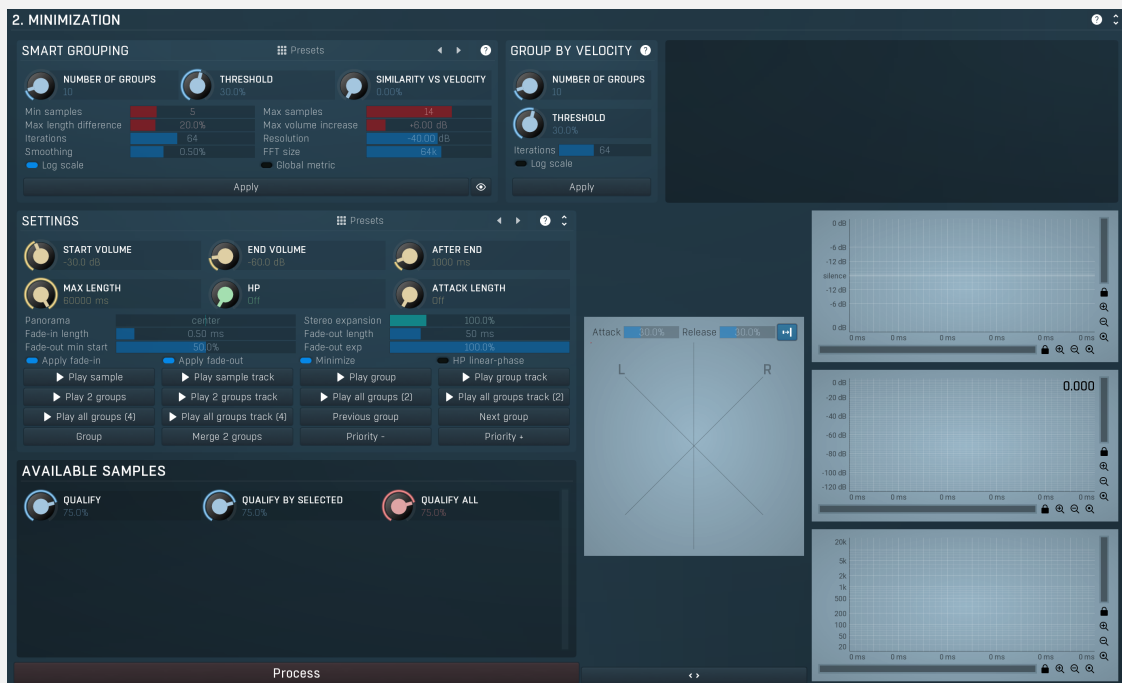
Minimization panel contains parameters for the second step, the sample minimization. The name may be a little confusing, but the goal is to post-process the samples, so they are ready to be compiled into a single multisample file.

This panel is updated every time the samples are detected (the first processing step). Your goal is to disable bad samples and correct the groups (resulting in layers). In the **Available samples** list below you can see all the generated samples sorted by loudness (note that the order is from left to right, then top to bottom). There are multiple colors used - all successive samples having the same color are assigned to a single group. When you select any sample (or use the keyboard shortcut A), it is played back and its analysis is displayed on the right. There are 2 waveform displays to the right, because you can use one to zoom to the beginning, so you can check that the minimization parameters are configured correctly (see below).

The best way to proceed is to use the **Smart grouping** feature and for starters just keep the defaults and click **Apply**. This will analyze all the samples, remove hits that don't seem 'good', and creates groups from them based on some perceptual model. This sort-of AI approach tends to provide great results instantly and all you need to do in most cases is to change the number of groups to be created. In some cases, mostly when just a few samples are create (cymbals typically), the **Group by velocity** feature may be more useful. That one doesn't compare the actual sound and creates the groups simply by analysis of the velocities and grouping similar ones together. If none of these methods work for you, you can certainly group the samples manually.

The generator provides you with various preview features, which let you listen to individual samples (keys Q, A, Z), entire groups (keys S, X) with different speeds and linear / random order and 2 groups (keys D, C). Use these to listen carefully to each layer as it should sound like the drummer is consistently playing at the same velocity. Bad samples and samples with different sound (hence better belonging to a different group) can easily be spotted by ear.

If you select multiple samples, you can use Group button (or keyboard shortcut G) to create a group from them. You can use the mouse or Enter key to enable/disable the selected sample. This way you should disable all bad samples and put all good samples into groups, which will serve as velocity layers. Please note that you should not have groups with just a single or a few samples, because MDrummer would not have any alternating hits available and you may get the infamous machine-gun effect. Also note that the samples should sound somewhat consistent. For example, many snare drums generate different tones depending where you hit them. It may not be simple to avoid recording both types of hits, but using all of them may produce less than ideal

results when you then hit the same velocity layer multiple times (or even between layers). In such cases it is usually better to discard all of the problematic samples, which sound different.

When all good samples are arranged into groups, you can set up the rest of the parameters. First you need to remove as much of the beginning as possible without destroying the attack or low-velocity samples. Use **Minimization start volume** to do that. You can see the results displayed immediately on the analysis. Please note that if you leave just a few milliseconds of silence in the beginning, the multisample will then lag behind the other samples, which is not going to be acceptable.

Use **Minimization end volume** to remove any unnecessary decay. Some drums and cymbals may be decaying for minutes and often just an unimportant resonance remains. To avoid having huge multisamples, huge memory requirements and these sounds, which may be considered artifacts, you will need to make some compromises and remove the decay if necessary.

Fade-in and fade-out may be used to make the cuts more natural. Both cases may cause clicks and plops due to resulting discontinuities unless the fades are used. Finally you can adjust the panorama and width of the samples, so that for example most of the samples in the same drumset have similar width and are panned into the center. You can also see the stereo distribution of each sample by opening the scope using the Stereo Scope button, just to the left of the waveform analysis graphs. If the stereo image has a weird shape, you may check for phase issues in your recordings.

When you are ready to process, click the **Process** button, which will process all samples and put the results into the SamplesMinimized folder. The entire configuration (including groups) is also stored alongside the source track recordings so that you can reload it later.

Smart grouping

Smart grouping lets you automatically create groups (layers) by analyzing the actual samples. The engine checks spectrum and envelopes of all samples, discards those, which don't qualify, then selects the most similar sets of samples to put into single groups. This feature can save hours of tedious work you'd otherwise need to do manually.

Presets

Presets button displays a window where you can load and manage available presets. Hold **Ctrl** when clicking to load a random preset instead.
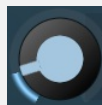

Left arrow

Left arrow button loads the previous preset.

Right arrow

Right arrow button loads the next preset.

Number of groups

Number of groups controls the expected number of groups. You will probably want to try a few numbers to see what works best for each drum. It can work pretty consistently if the performance is good, but if there are many 'bad' samples, these may end up is separate groups and things can become more difficult. Set this to minimum to make the engine select for optimal number of groups. However note that what the engine feels is optimal may not be what you consider optimal. The automatic detection tries to make the largest group at most **Max samples** in it.

Threshold

Threshold controls the maximum sound difference from the main sample in each group. Each group is based on one single sample, which has the highest number of similar samples around it. It is called the main sample. If a sample is too different from this one, it will be disabled. Difference is a hardly definable term, that's why this is kept in percents.

Similarity vs Velocity

Similarity vs Velocity controls how the plugin measures difference between samples. 0% means acoustic similarity algorithm is only used. Conversely 100% means only velocities matter. The goal is to find an optimal ratio between the 2 so that the algorithm sorts and differentiates the samples well.

Min samples

Min samples controls the minimum number of samples in each group. If there are not enough samples in a group, the entire group will be disabled.

Max samples

Max samples controls the maximum number of samples in each group. If there are too many samples in a group, the most similar samples will be chosen and the rest of them will be disabled.

Max length difference

Max length difference validates all samples by checking their length, making sure that all samples in a single group will be similar in length. This value controls how different the length can be from a median (similar to the average). If a sample is too short or too long, it is considered bad and disabled.

Max volume increase

Max volume increase validates all samples based on their level envelope. A typical drum envelope reaches its maximum and then slowly fades away. If the level rises again in the sustain, it's likely that some unwanted noise occured. If the increase exceeds this value, the sample will be disabled.

Iterations

Iterations controls the number of 'experiments'. The problem of choosing optimal sets of samples is actually extremely difficult and cannot be solved analytically. So the engine performs a statistical search based on machine learning. As such it needs to perform the experiment several times and it leads to different results every time. In theory the more iterations the better results, but often even a single iteration produces good grouping. The higher the number of iterations, the more CPU the plugin will need for every recalculation (when you change any of the parameters).

Resolution

Resolution controls the spectrum resolution used for similarity detection. The higher it is, the more detail can the detection focus on, but also more detail will confuse it.

Smoothing

Smoothing controls the accuracy of the spectrum detection. The higher the value the less prone the similarity comparison will be to small deviations in pitch, random resonances etc.

FFT size

FFT size controls size of the FFT used for similarity detection. Longer FFT will explore longer portion of the sample, but that may not be optimal for cases, where the acoustic difference is mostly in the initial transient.

Log scale

Log scale makes the spectrum comparison work in logarithmic domain. It works better if the differences may lie in smaller details of the audio. For example, a bass drum may produce different amounts of high-end clap, which may be much lower in level than the main boom. Log scale makes sure the differences in this are will have the same importance. Conversely this may not be useful for snare rimshots, which produce different amount of ringing with different pitch. When you change this, the groups are immediately redetected.

Global metric

Global metric controls a certain smart grouping algorithm property. There's no right or wrong, just try and see what will work best.

Apply

Apply button performs the processing. It has the same effect as touching any of the parameters.

View

View button displays the spectra of the selected group or a selection of samples. It can be useful for setting up the smart grouping settings for advanced users.

Group by velocity

GROUP BY VELOCITY ❓

NUMBER OF GROUPS
10

THRESHOLD
30.0%

Iterations ▕▔▔▔▏ 64

⬤ Log scale

Apply

Group by velocity panel lets you automatically create groups by analyzing the velocities. This works well if the velocities are distinct enough. Touch any parameter to perform the grouping.
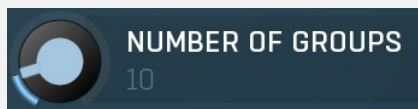
NUMBER OF GROUPS
10

Number of groups
Number of groups controls the expected number of groups. You will probably want to try a few numbers to see what works best for each drum.

THRESHOLD
30.0%

Threshold
Threshold controls the maximum sound difference from the main sample in each group. Each group is based on one single sample, which has the highest number of samples with similar velocity around it. It is called the main sample. If a sample velocity is too different from this one, it will be disabled.

Iterations ▕▔▔▔▏ 64

Iterations
Iterations controls the number of 'experiments'. The problem of choosing optimal sets of samples is actually extremely difficult and cannot be solved analytically. So the engine performs a statistical search based on machine learning. As such it needs to perform the experiment several times and it leads to different results every time. In theory the more iterations the better results, but often even a single iteration produces good grouping. The higher the number of iterations, the more CPU the plugin will need for every recalculation (when you change any of the parameters).

⬤ Log scale

Log scale
Log scale makes the RMS values used for grouping work in logarithmic scale, similar to the dB scale. It may work if the generator tends to create too many groups for high level hits and not many for low level hits. When you change this, the groups are immediately redetected.

Apply

Apply
Apply button performs the processing. It has the same effect as touching any of the parameters.

Group image
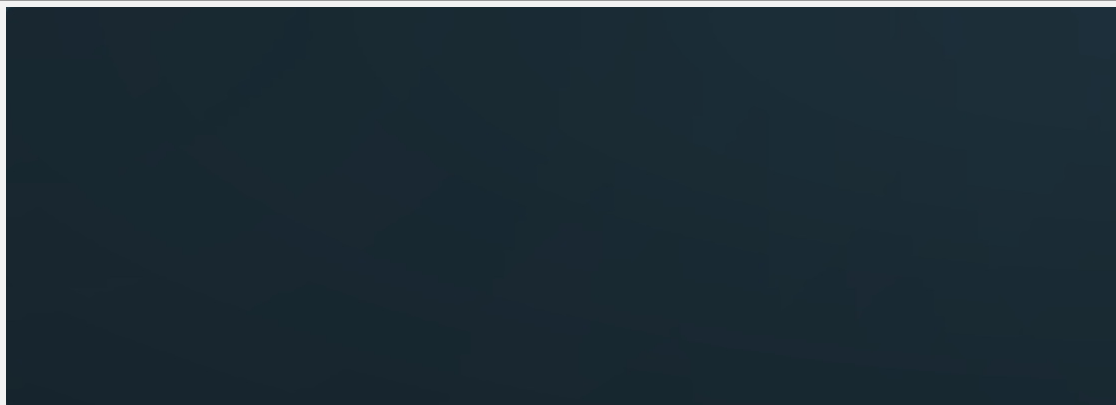
Group image displays all detected samples arranged by their RMS values and colorizes them according to the groups. Brighter colours indicate multiple samples at the same RMS level and less opaque colours indicate samples that are not considered good. It may well be used to set the group **Threshold** properly.

Settings
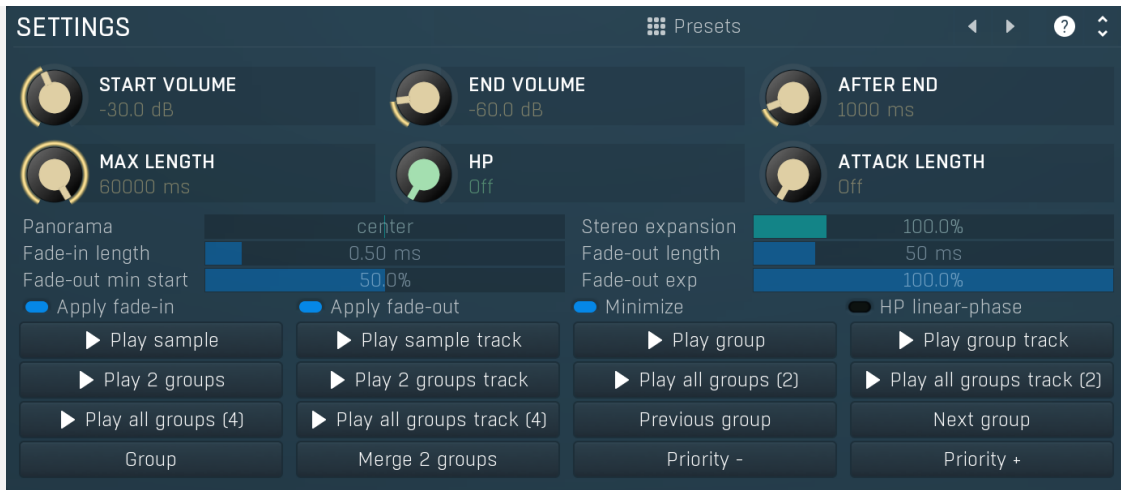
::: Presets

Presets
Presets button displays a window where you can load and manage available presets. Hold **Ctrl** when clicking to load a random preset instead.
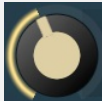
◀

Left arrow
Left arrow button loads the previous preset.

▶

Right arrow
Right arrow button loads the next preset.

START VOLUME
-30.0 dB

Start volume
Start volume defines the minimal peak to be reached at the beginning of the sample compared to the maximum of the sample. Everything before such a peak is removed. This is essential to make sure each sample starts 'immediately'.

END VOLUME
-60.0 dB

End volume
End volume defines the minimal peak to be reached at the end of the sample. Everything after such a peak is removed. Sample maximum is not relevant in this case.
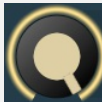
AFTER END
1000 ms

After end
After end defines the length after the end (controlled by **End volume**) that should still be part of the sample. It is useful when the tail of the samples decay into noise, so while the level reaches the noise level, it is still needed to keep some remaining reverberation tail.
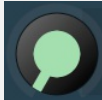
MAX LENGTH
60000 ms

Max length
Max length controls the maximum length of individual samples and works side by side with **Minimization end volume**.

HP
Off

HP
HP controls the high-pass filter useful to remove unwanted content from the samples.

ATTACK LENGTH
Off

Attack length
Attack length controls the length of the attack of each sample. It may be useful when processing shakers for example, where each note is very different, yet for playback we need the attack to be the same in order to make the performance rhythmical.

Panorama   center

Panorama
Panorama defines that additional panorama adjustment that is applied to each sample. Ideally all samples should sound in the center, hence look vertical.

Stereo expansion

Stereo expansion provides stereo width adjustment, so you can make all multisamples in a single set approximately the same width. Please note that although the effect may look good at first it is not recommended to use this unless necessary.

Fade-in length

Fade-in length avoids abrupt edges by performing a short fade-in at the beginning of each sample. 1ms is usually enough.

Fade-out length

Fade-out length avoids abrupt edges by performing a fade-out at the end of each sample. This fade never exceeds 50% of the sample.
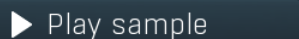
Fade-out min start

Fade-out min start controls the minimum position in each sample the fade-out can start. If this is 80% for example and the length of the sample is 10 seconds, then the fade-out starts after 8 seconds, not earlier, even if the fade-out length is supposed to be longer.

Fade-out exp

Fade-out exp controls the shape of the fade-out ranging from linear (0%) to exponential (100%).

Play sample

Play sample lets you audition the selected sample, using a mix of all available tracks. Hold Shift to play a normalized sample, hence at maximum loudness. This is useful when you want to check for the fade-out.Keyboard shortcut : A, Q (normalized)

Play sample track

Play sample track button is similar to **Play sample** button, but only auditions the selected track. Hold **Shift** to play a normalized sample, hence maximum loudness. Useful when you want to check for the fade-out.Keyboard shortcut : Z

Play group

Play group button lets you audition all samples in the selected group, so that you can easily check if they work well together. A classic problem is that when grouping is not ideal some samples sound different from the others making the resulting performance appear 'clumsy'.

It plays the samples from the first to last (and therefore in ascending volume order) and then the same thing again, which lets you consider whether the group isn't too big, which would mean that there would be a sudden drop in velocity in the middle, because the last and first samples would sound too different.

Please note that the performance is normalized, so that you can hear the details and avoid clipping. That also means that the noise gets amplified a lot for low velocity hits.

Hold **Ctrl** to make the engine play slower, hence bigger time between the hits. Similarly holding **Shift** makes the engine play faster. Hold **Alt** to play in a random order, which is the way things will work in practice. This may however make it harder to spot the problems and the position of the problematic samples.

Keyboard shortcut : S

Play group track

Play group track button is similar to **Play group** button, but only auditions the selected track. Keyboard shortcut : X

Play 2 groups

Play 2 groups button is similar to **Play group**, but it lets you audition samples from the selected group and the next one, hence you can evaluate if it would make sense to merge these 2 groups.Keyboard shortcut : D

Play 2 groups track

Play 2 groups track button is similar to **Play 2 groups** button, but only auditions the selected track. Keyboard shortcut : C

Play all groups (2)

Play all groups (2) button lets you audition all groups from the lowest to highest, 2 samples per group. This is useful to check the multisample as whole.Keyboard shortcut : R

Play all groups track (2)

Play all groups track (2) button lets you audition all groups from the lowest to highest, 2 samples per group. It only plays the selected track. This is useful to check the multisample as whole.Keyboard shortcut : T
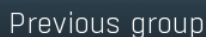
Play all groups (4)

Play all groups (4) button lets you audition all groups from the lowest to highest, 4 samples per group. This is useful to check the

multisample as whole.Keyboard shortcut : Y

Play all groups track (4)

Play all groups track (4) button lets you audition all groups from the lowest to highest, 4 samples per group. It only plays the selected track. This is useful to check the multisample as whole.Keyboard shortcut : U

Previous group

Previous group button selects the previous group.Keyboard shortcut : W

Next group

Next group button selects the previous group.Keyboard shortcut : E

Group

Group button creates a new group from the selected set of sequential samples. Keyboard shortcut : G

Merge 2 groups

Merge 2 groups button merges the selected group with the next one. Keyboard shortcut : B

Priority -

Priority - marks selected samples as 'lower' in level. This is used for sorting the samples and may be useful as an extreme measure in case the level of samples doesn't follow the sound. For example, when processing a drum containing also rimshot samples, the rimshots are likely to be wanted as the highest layer, but the sound doesn't necessarily make it that way. In this case all you need to do is select all rimshots and increase the priority, or vice versa.

Priority +

Priority + marks selected samples as 'higher' in level. This is used for sorting the samples and may be useful as an extreme measure in case the level of samples doesn't follow the sound. For example, when processing a drum containing also rimshot samples, the rimshots are likely to be wanted as the highest layer, but the sound doesn't necessarily make it that way. In this case all you need to do is select all rimshots and increase the priority, or vice versa.

Available samples
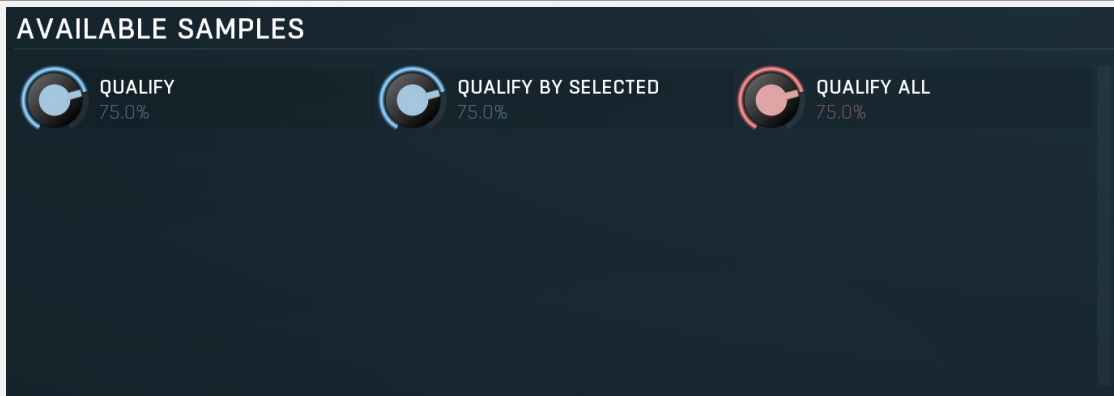
Qualify

Qualify searches through selected group and disqualifies those samples which do not correlate with the others well enough. In other words it removes samples that sound different in the group. Note that the human auditory system is extremely complex and this provides only a very broad approximation, so you should always use your ears. The qualification system finds the biggest set of samples that are similar enough to each other. In some cases the performance may be so bad that majority of samples are wrong. In that case consider using **Qualification selected**, which lets you select a good representative sample first. This value is directly proportional to the number of samples expected in the group.

Qualify by selected

Qualify by selected works in the same way as **Qualify**, but assumes that the selected item in the current group is the best sounding one and other samples should be similar to this one.

Qualification All

Qualification All processes all groups the same **Qualify** does for one group.

<div style="text-align:center">Process</div>

Process

Process button processes all the samples and stores the results in the SamplesMinimized directory.Keyboard shortcut : O

<div style="text-align:center">‹ ›</div>

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.
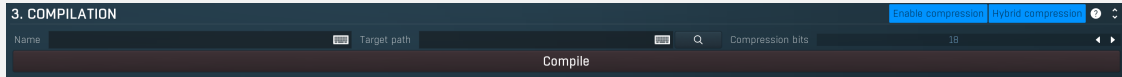
Compilation panel

3. COMPILATION

| Name | | Target path | | Q | Compression bits | 18 | ◀ ▶ |

Compile

Compilation panel contains parameters for the third step, the multisample compilation. It takes the results of the minimization and creates a single multisample file from them. Here you should consider using compression, which makes the samples much smaller without any degradation in quality.

Enable compression

Enable compression

Enable compression makes the resulting file compressed using our own sample compression method which for most sounds provides about 1:10 (almost) lossless compression. As a result, when loading, the requirements are moved from hard disk to CPU, which may or may not be desired.

Hybrid compression

Hybrid compression

Hybrid compression improves the compression factory by using the 16-bit normalized encoding, but once the level goes below certain range, it switches to high resolution to provide maximum quality in the tail.

Name

Name

Name defines the multisample file name.

Target path

Target path

Target path defines the path in which to store the multisample file.

Compression bits   18   ◀ ▶

Compression bits

Compression bits controls the number of effective bits used for compression. The lower the value, the lower the resulting file size will be. For lowest 16-bit compression the engine uses especially fast and effective algorithm, so it is recommended keeping 16-bit settings unless you can actually hear a difference. Please note that the plugin uses the so-called normalized encoding, which preserves the maximum potential dynamic range, so you usually don't need to worry about audio quality even in 16-bit encoding. We decided to make 18 bits default for some extra headroom.

<div style="text-align:center">Compile</div>

Compile

Compile button performs the compilation into the target multisample.Keyboard shortcut : P

Plugin toolbar

<div style="text-align:center">1x</div>

<div style="text-align:center">Limiter</div>

A   B

C   D

E   F

G   H

A/B

MIDI

Plugin toolbar provides some global features, A-H presets and more.

1x Oversampling

Oversampling can potentially improve sound quality by processing at a higher sample rate. Processors such as compressors, saturators, distortions etc., which employ nonlinear processing generate higher harmonics of the existing frequencies. If these frequencies exceed the Nyquist rate, which equals half of the sampling rate, they get mirrored back under the Nyquist rate. This is known as aliasing and is almost always considered an artifact. This is because the mirrored frequencies are no longer harmonic and sound as digital noise as this effect does not physically occur in nature. Oversampling reduces the problem by temporarily increasing the sampling rate. This moves the Nyquist frequency which in turn, diminishes the level of the aliased harmonics. Note that the point of oversampling is not to remove harmonics, we usually add them intentionally to make the signal richer, but to reduce or attenuate the harmonics with frequencies so high, that they just cannot be represented within the sampling rate.

To understand aliasing, try this experiment: Set the sampling rate in your host to 44100 Hz. Open MOscillator and select a "rectangle" or "full saw" waveform. These simple waveforms have lots of harmonics and without oversampling even they become highly aliased. Now select 16x oversampling and listen to the difference. If you again select 1x oversampling, you can hear that the audio signal gets extensively "dirty". If you use an analyzer (MAnalyzer or MEqualizer for example), you will clearly see how, without oversampling, the plugin generates lots of inharmonic frequencies, some of them which are even below the fundamental frequency. Here is another, very extreme example to demonstrate the result of aliasing. Choose a "sine" shape and activate 16x oversampling. Now use a distortion or some saturation to process the signal. It is very probable that you will be able to hear (or at least see in the analyzer) the aliased frequencies.

The plugin implements a high-quality oversampling algorithm, which essentially works like this: First the audio material is upsampled to a higher sampling rate using a very complicated filter. It is then processed by the plugin. Further filtering is performed in order to remove any frequencies above the Nyquist rate to prevent aliasing from occurring, and then the audio gets downsampled to the original sampling rate.

Oversampling also has several disadvantages of which you should be aware before you start using it. Firstly, upsampled processing induces latency (at least in high-quality mode, although you can select low-quality directly in this popup), which is not very usable in real time applications. Secondly, oversampling also takes much more CPU power, due to both the processing being performed at a higher sampling rate (for 16x oversampling at 44100 Hz, this equates to 706 kHz!), and the complex filtering. Finally, and most importantly, oversampling creates some artifacts of its own and for some algorithms processing at higher sampling rates can actually lower the audio quality, or at least change the sound character. Your ears should always be the final judge.

As always, use this feature ONLY if you can actually hear the difference. It is a common misconception that oversampling is a miraculous cure all that makes your audio sound better. That is absolutely not the case. Ideally, you should work in a higher sampling rate (96kHz is almost always enough), while limiting the use of oversampling to some heavily distorting processors.

Limiter Limiter

Limiter button enables or disables the safety limiter. Its purpose is to protect you from peaks above 0dB, which can have damaging effects to your processing chain, your monitors and even your hearing.

It is generally advised to keep your audio below 0dB at all times in all stages of your processing chain. However, several plugins may cause high level outputs with certain settings, often due to unprevented resonances with specific audio materials. The safety limiter prevents that.

Note that it is NOT wise to enable this "just in case". As with any processing, the limiter requires additional processing power and modifies the output signal. It is a transparent single-band brickwall limiter, but you still need to be careful when using it.

A	B
C	D
E	F
G	H

A-H presets selector

A-H presets selector controls the current A-H preset. This allows the plugin to store up to 8 sets of settings, including those parameters

that cannot be automated or modulated. However it does not include channel mode, oversampling and potentially some other global controls available from the Settings/Settings menu.

For example, this feature can be used to keep multiple settings, when you are not sure about the ideal configuration When you change any parameter, only the currently selected preset is modified.

The four buttons below enable you to switch between the last 2 selected sets using the A/B button, morph between the first 4 sets using the morphing button and copy & paste settings from one preset to another (via the clipboard).

It is also possible to switch between the presets using MIDI program change messages sent from your host. The set selected depends on the Program Change number: 0 selects A, 7 selects H, 8 selects A, 15 selects H and so on.

A/B

A/B button switches between the active and previously active A-H preset (not necessarily the A and B presets themselves). To compare any 2 of the A-H presets, select one and then the other. Clicking this button will then switch between these two. You can do the same thing by clicking on the particular presets, but this makes it easier, letting you close your eyes and just listen.

Morph

Morph button lets you morph between the A, B, C and D settings. Morphing only affects those parameters that can be automated or modulated; that does include most of the parameters however. When you click this button, an X/Y graph is shown allowing you to drag the position indicator to any position between the letters A, B, C and D. The closer you drag the indicator to one of the letters, the closer the actual settings are to that preset.

Please note that this will overwrite and change the preset that is currently selected, so it is best to select a new preset e.g. 'E', then use the morphing method. This way you will define the settings for A, B,C and D, morph between them, and store the result in 'E' without any modification of the original A, B, C and D presets.

Please note that the ABCD morphing itself cannot be automated and that, while morphing, the changes to the underlying parameters are not notified to the host (there may be hundreds of change events).

Copy

Copy button copies the current settings to the system clipboard. Other presets, oversampling, channel mode and other global settings are not copied.
Hold **Ctrl** to save the settings as a file instead. That may be necessary for complex settings, which may be too long for system clipboard to handle. It may also be advantageous when you want to send the settings via email. You can load the settings by drag & dropping them to a plugin or holding **Ctrl** and clicking **Paste**.

Paste

Paste button pastes settings from the system clipboard into the current preset. Hold **Ctrl** to load the settings from a file instead. Hold **Shift** to paste the settings to all of the A-H slots at once.

Undo

Undo button reverts the last change. Only changes to automatable or modulatable parameters and global settings (load/randomize) are stored.

Redo

Redo button reverts the last undo operation.

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.

| QUICK SETUP | MIXER | SONG | DRUMSET EDITOR | RHYTHM EDITOR | RHYTHM GENERATOR | **Main** |

MDrummer header

The Main MDrummer header switches between the main MDrummer parts.
Use **Quick setup** to configure the basic sound and rhythm properties. In most cases this will be the only module you will need.
Use **Mixer** to adjust volume, panorama, pitch, send and other features for the drums.
Use **Effects** to setup the master and send effects.
Use **Song** to edit the integrated song sequencer.
Use **Drumset editor** to edit the sound MDrummer generates.
Use **Rhythm editor** to edit the rhythms MDrummer plays.
Use **Rhythm generator** to generate your own rhythms.

Quick setup tab

Quick setup tab is the initial tab, where you can configure the drumset and all rhythms quickly and easily. You can also generate both new drumsets and new rhythms, configure master effects from presets, control the rhythm playback etc. In most cases this first tab will be the only thing you need.

Drumset panel

🟩 Acoustic - Drum Tornado 2023	Bigboss madness
🟩 Acoustic - Studio 2008	Brush startup
🟩 Acoustic - Studio 2009	Calm reflection
🟩 Acoustic - Studio 2018	Chicken funk
▦ Dream Machines	Criminal grip
🟥 Electronic - Dance	Dark gentle crush
🟥 Electronic - Downtempo	Decorous giraffe
🟥 Electronic - Dubstep, DnB	Drummer inquiry
🟥 Electronic - Pop	Essential rock 1
🟥 Electronic - Urban	Essential rock 2
🔘 Electronic Genres	Exploding bonzo
🟨 Percussion - Studio 2008	Fat american rocker
🟨 Percussion - Studio 2009	Female ignition
🟨 Percussion - Studio 2018	Fetch the stick
🔷 Special - Cinematic	Gretch suckerpunch
🔷 Special - Experimental	Heavy impulse
🔷 Special - Merged	Heavy motivation
	Homeless room
	Imitate a rock
	In your face
	Melted beliefs
	Midnight rocker
	Monorock
	Mountain legs
	Petite singer
	Polished religion
	Rock flght
	Rock workshop
	Room for your heart
	Soul governor
	Superb morning
	Theoretical temper
	Tune ya snare
	Unbiased prosecution
	Wild and proud

Load ⬛ 🎲	Load & join 🎲	Generate	Generate Effects	Save ❤

Drumset panel provides the quickest way to control and configure the drumset and the other global sound properties. MDrummer contains a single drumset, which may have any number of drums based on an unlimited number of sampled, multisampled or synthesized layers. Here you can quickly load, merge, generate and edit the whole drumset at once. You can also load, merge and generate effects for each drum and for master tracks.

Sound settings toolbar

🔵 SOUND VOLUME -6.00 dB	🔵 PANORAMA WIDTH 0.00%	🔵 GLOBAL PITCH 0

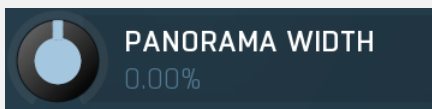| Sound panorama	Global volume	Global panorama	Velocity response	Rimshot from
center	-6.00 dB	center	Off	Off

Sound settings toolbar contains general functions to manage global sound properties.

Sound volume

Sound volume defines the output volume for all output channels and is applied immediately as opposed to the global volume. Sound volume can be automated via standard MIDI messages.
Range: silence to 6.02 dB, default -6.00 dB

Panorama width

Panorama width affects the actual panorama settings for all drums. If you increase this value above zero, the panorama of all drums will be also increased. Thus increasing this value will make the resulting sound somewhat spatial. But note that it can only modify the panorama settings; it does not accomplish any kind of stereo expansion.
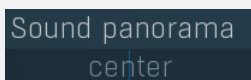Range: -300.0% to 300.0%, default 0.00%

Global pitch

Global pitch defines the output pitch of new sounds. When a note is played, MDrummer takes the actual global pitch value and assigns it to that note. Therefore if you change global pitch quickly, more than one event can play at the time and each of them can have a different pitch.
Note that this works even if some drums are frozen, in which case MDrummer needs to apply an additional pitch change and while it can be CPU expensive, you should let it be zero for maximal performance. The CPU load is not significant for drums that are not frozen.
Range: -24.00 to +24.00, default 0

Sound panorama

Sound panorama defines the output panorama for all output channels and is applied immediately as opposed to the global panorama. Sound panorama can be automated via standard MIDI messages.
Range: 100% left to 100% right, default center

Global volume

Global volume defines the volume of new sounds. When a note is played, MDrummer takes the actual global volume value and assigns it to that note. Therefore if you change global volume quickly, more than one event can play at the time and each of them can have a different volume.

This produces a more natural sound. However since it is applied before the effect pipeline, it might even change the sound character. This pays off mostly for non-linear effects such as compressor or limiter. On the other hand it theoretically simulates a drummer playing hard or soft.
Range: silence to 6.02 dB, default -6.00 dB

Global panorama

Global panorama defines the panorama of new sounds. When a note is played, MDrummer takes the actual global panorama value and assigns it to that note. Therefore if you change global panorama quickly, more than one event can play at the time and each of them can have a different panorama.

This produces a more natural sound. However since it is applied before the effect pipeline, it might even change the sound character. This pays off mostly for non-linear effects such as compressor or limiter.
Range: 100% left to 100% right, default center

Velocity response

Velocity response controls how much velocity affects the volume of each note. Set this to minimum to produce a very nonlinear curve going from silence to 0dB. In other cases the volume goes from this value for minimum velocity to 0dB for maximum velocity. Setting this to maximum 0dB, makes the volume go from 0dB to 0dB, so velocity will have no effect on note volume.
Range: Off to 0.00 dB, default -40.00 dB

Rimshot from

Rimshot from controls the velocity above which snare drums will be changed to snare rimshots. The conversion is used both for rhythm processing and normal playing via MIDI (on channel 10 for example). By default this is maximum, which makes the feature disabled. Conversely settings this to minimum makes MDrummer replace all snare hits by rimshots.
Range: 0.00% to Off, default Off

Drumset tabs

Drumset tabs lets you choose between the main modules for tweaking the drumset.

Drumset selector provides the easiest way to set up your drumset using the hundreds of predefined ones.

Drumset designer provides a simple and quick way to create your own drumsets from predefined components (drumsets stored in the Components folder) or using the drumset generator. When changing a component, MDrummer uses load & replace function to remove original drums and replace them with new ones.

Master effects selector lets you quickly load or generate master effect settings containing several room simulations, compressors etc. please note that since these are loaded to all master channels, the CPU consumption will depend on the number of output channels.

Drumset selector

```
Root
├─ 🗿 Components
├─ 🗿 !
├─ 🟩 Acoustic - Basic
├─ 🟩 Acoustic - Drum Empire 2020
├─ 🟩 Acoustic - Drum Tornado 2023
├─ 🟩 Acoustic - Studio 2008
├─ 🟩 Acoustic - Studio 2009
├─ 🟩 Acoustic - Studio 2018
├─ ▦ Dream Machines
├─ 🟥 Electronic - Dance
├─ 🟥 Electronic - Downtempo
├─ 🟥 Electronic - Dubstep, DnB
├─ 🟥 Electronic - Pop
├─ 🟥 Electronic - Urban
├─ 🟡 Electronic Genres
├─ 🟫 Percussion - Studio 2008
├─ 🟫 Percussion - Studio 2009
├─ 🟫 Percussion - Studio 2018
├─ 🔷 Special - Cinematic
├─ 🔷 Special - Experimental
└─ 🔷 Special - Merged
```

| Altruistic phobia |
| Anniversary fireworks |
| Association of famous |
| Automatic silk |
| Bellisima |
| Bigboss madness |
| Brush startup |
| Calm reflection |
| Chicken funk |
| Criminal grip |
| Dark gentle crush |
| Decorous giraffe |
| Drummer inquiry |
| Essential rock 1 |
| Essential rock 2 |
| Exploding bonzo |
| Fat american rocker |
| Female ignition |
| Fetch the stick |
| Gretch suckerpunch |
| Heavy impulse |
| Heavy motivation |
| Homeless room |
| Imitate a rock |
| In your face |
| Melted beliefs |
| Midnight rocker |
| Monorock |
| Mountain legs |
| Petite singer |
| Polished religion |
| Rock fIght |
| Rock workshop |
| Room for your heart |
| Soul governor |
| Superb morning |
| Theoretical temper |
| Tune ya snare |
| Unbiased prosecution |
| Wild and proud |

Load   ⬛ 🎲   Load & join   🎲   Generate   Generate Effects   Save ❤

Drumset selector provides the best way to load and combine predefined drumsets and to generate new ones. The directory tree lets you explore all factory, custom, generated and imported drumsets. There are directories for different styles, each of them contain several drumsets, which you can load by double clicking on them or using the buttons below.

Imported directory is initially empty (or doesn't exist at all), but will contain all drumsets created using the automatic sample import. This feature is available via the main settings button and lets you import entire sample libraries, analyze them and create perfectly compatible drumsets from them automatically.

The **Components directory** doesn't contain full drumsets but rather just so-called components used to build the drumsets, hundreds of them actually. A component is a small drumset, which contains one more more drums. For example, a hihat component contains 3 drums - a closed hihat, an open hihat and a pedal hihat. These 3 drums are tuned together to have appropriate loudness and sound character, so that this combination makes sense and is called a component.Loading just a single component doesn't make much sense, but since you can load & join multiple drumsets, you can actually build your own drumsets from these components. There is however an even easier way - the **Designer** tab, which lets you access the components directly. Nevertheless it is good to know the purpose of the Components directory, just in case you'd like to build your own components in the future.

Load

Load button loads the drumset from the selected file. You can also double-click using your left mouse button on a drumset to do this.
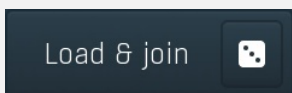
Random

Random button selects and loads a random drumset from the selected folder.

Auto-load

Auto-load makes MDrummer load the drumset whenever you change selection. When disabled, you just need to double-click or use a button to load a drumset.

Load & join

Load & join button loads the drumset from selected file and appends it to the current one. Using this feature you can combine several drumsets to produce a very full sounding drumset. If you aren't happy with the result, you can just use the **Undo** button to revert the last load & join.

Random

Random button selects and loads and joins a random drumset from the selected folder.
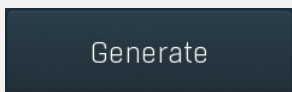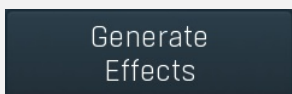
Generate

Generate button creates the drumset from several files inside the Components subdirectory or even using completely original generated components.
Hold **Ctrl** to keep the original drumset, hence joining the current drumset to a new generated one. This in fact behaves similarly to **Load & join**, but it uses a generated drumset.
Hold **Shift** to let MDrummer generate 2 drumsets and merge them. This way you usually get a fuller sound with even bigger variation at the expense of higher CPU cost. It performs the same action as clicking the button twice, holding **Ctrl** for the second time.

Generate Effects

Generate Effects button loads a random set of effects for all drums. Hold **Ctrl** to avoid removing the current settings, hence appending the new effects into the effect pipeline. Note that this feature creates lots of effects, so as a result the CPU requirements may increase significantly. If you aren't happy with the result, you can just use the **Undo** button to revert the last load & join. Please note that some of the original effects may be kept intact, because they have been present when the drum has been loaded and they are part of the sound character. For example, several bass drums are processed using a wave-shaper, which gives them the typical rough character. Removing it would change the tone, so it is kept in the pipeline and new effects are added after it. If you want to remove these effects, delete them manually or hold **Shift** when pressing the button.

Save

Save button saves current drumset.

Save favourite

Save favourite button saves current drumset into the Favourites folder. If the file already exists, it readjusts the number at the end of its name to make it unique.

Drumset designer

|						
All	**Drums**	**Cymbals**	**Percussion**		**Effects**	

Bass drum 1
Drum Empire 2020/Rock
22x16 Pearl Masters 50th Anniversary (rubb
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

Bass drum 2
Drum Empire 2020/Dry
22x16 Pearl Masters 50th Anniversary (high
◄ ► FX ✎ ⊕
… ⚄ Layer ⊖ 🔒

Snare drum 1
Drum Empire 2020/Big
14x5,5 Pearl Masters 50th Anniversary (278 o
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

Snare cross-stick 1
Drum Empire 2020
14x5,5 Pearl Masters 50th Anniversary (high
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

Snare drum 2
Drum Empire 2020/Dry/+Bigphat
14x8 Yamaha Recording Custom low +Tamb
◄ ► FX ✎ ⊕
… ⚄ Layer ⊖ 🔒

Handclap
Drum Empire 2020
Clap 3 (116 of 3408)
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

Toms
Drum Empire 2020/EQ medium
Pearl Masters 50th Anniversary (snare) (279
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

HiHat
Drum Empire 2020
13 Zildjian K (tambourine) (134 of 898)
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

Ride
Drum Empire 2020
20 Paiste Heavy (129 of 715)
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

Crash 1
Drum Empire 2020/Sticks - Left
18 Zildjian K Custom Dark (135 of 799)
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

Crash 2
Drum Empire 2020/Sticks - Right
18 Meinl Classics Dark (170 of 799)
◄ ► FX ✎ ⊕
… ⚄ Layer ⊖ 🔒

Splash
Drum Empire 2020
12 Sabian AAX Ozone (33 of 440)
◄ ► FX ✎ ⊕
… ⚄ Layer 💾 ⊖ 🔒

Generate	Generate Effects	Save

Drumset designer is a special tool, which lets you manage your drumset easily and effectively using so-called components. A component is a small drumset, which contains one more more drums. For example, a hihat component contains 3 drums - a closed hihat, an open hihat and a pedal hihat. These 3 drums are tuned together to have appropriate loudness and sound character, so that this combination makes sense and is called a component.

The drumset designer automatically analyzes the available components and lets you select each of them for your drumset, randomize them, add random layers and effects etc.
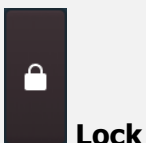
Component item
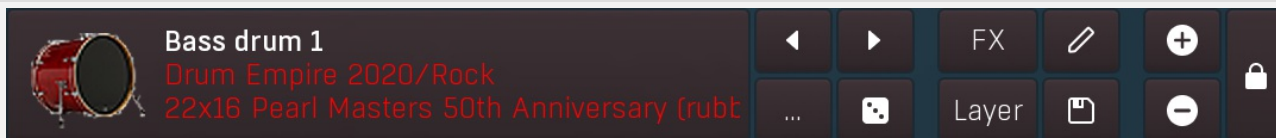
Component item contains one component of the drumset. A component contains one or more drums. For example, a hihat component contains closed hihat, open hihat and pedal hihat. These 3 drums are tuned together to have appropriate loudness and sound character, so that this combination makes sense and is called a component. In the component panel you can choose a component, randomize them, add effect layers and more.

Drum

Drum button plays example hits of all drums in the component.

Lock

Lock button locks the component preventing randomization and other operations in the drumset designer from changing it.

Plus

Plus button increases the volume of all drums in the component by 1dB. It does that using the output volume to avoid changing the nature of the effects. Adjusting the level using this button is easier because the component may contain several drums, so adjusting the volumes of all of them in the mixer or drumset editor may be quite clumsy.

Minus

Minus button decreases the volume of all drums in the component by 1dB. It does that using the output volume to avoid changing the nature of the effects. Adjusting the level using this button is easier because the component may contain several drums, so adjusting the volumes of all of them in the mixer or drumset editor may be quite clumsy.

Pencil

Pencil button switches to the drumset editor and selects the first of the component drums.

Save

Save button stores the component into a file. It is essentially the same thing as drumset, but contains only the relevant drums. The file is then used in the component list. This button is generally designed to be used to save good randomized components.

FX

FX button generates random effect settings for all of the drums in the component. Hold **Ctrl** to avoid removing the current settings, hence appending the new effects into the effect pipeline.
Note that some of the original effects may be kept intact, because they have been present when the drum has been loaded and they are part of the sound character. If you want to remove them, delete them manually or hold **Shift** when pressing the button.
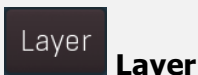
Layer

Layer button adds a random effect layer to each drum in the component. This includes various effects or even other drums. The effect layer is simply another drum of the same type loaded or generated from the "DrumsetLayers" folder in the MDrummer installation directory. This feature is particularly useful for snare drums. You can even add multiple layers by pressing the button repeatedly. Use **Undo** to remove the previously added layer. Hold **Ctrl** to force the generator to use an FX layer. Hold **Alt** to force the generator to use a subsample synthesizer or synthesizer layer. This can often be handy if you want something really original, not just samples.
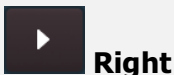
Right

Right button selects the next component, which replaces the current one.

Randomize

Randomize button selects a random component or generates a new one using randomizable synthesizers. It uses the same algorithm as drumset generator, but generates just the one component leaving the rest of the drumset intact. If you want to force using the generator instead of choosing a predefined component, hold **Alt**.

Hold **Ctrl** to keep the original component, hence adding the new random component. This in fact behaves similarly to **Load & join**, but it uses a generated drumset.

◄ Left

Left button selects the previous component, which replaces current one.

... ...

... button lets you choose a component from the library.

Generate

Generate

Generate button creates a drumset from several files inside Components subdirectory or even using completely original generated components. Hold **Ctrl** to keep the original drumset and join the new generated one. Hold **Shift** to let MDrummer generate 2 drumsets and merge them. This way you usually get fuller sound with even bigger variability at the expense of higher CPU cost.

Save

Save

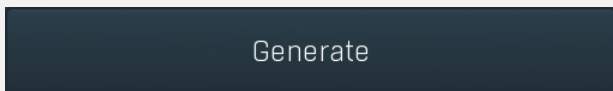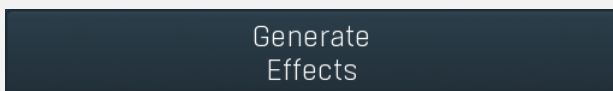Save button saves current drumset.

Generate Effects

Generate Effects

Generate Effects button loads a random set of effects for all drums. Hold **Ctrl** to avoid removing the current settings, hence appending the new effects into the effect pipeline. Note that this feature creates lots of effects, so as a result the CPU requirements may increase significantly. If you aren't happy with the result, you can just use the **Undo** button to revert the last load & join. Please note that some of the original effects may be kept intact, because they have been present when the drum has been loaded and they are part of the sound character. For example, several bass drums are processed using a wave-shaper, which gives them the typical rough character. Removing it would change the tone, so it is kept in the pipeline and new effects are added after it. If you want to remove these effects, delete them manually or hold **Shift** when pressing the button.

Master effects

Root		Amped	Big dirty stage
🥁 Bass drum		Big stage	Cathedral
🥁 Snare drum		Default	Hard compressed
🥁 Toms		Huge dirty stage	Huge stage
📁 Compressor		Medium ambience	Medium room
📁 Delay		Mild processing 1	Mild processing 2
📁 Distortion		Mild processing 3	Pumping
📁 Drum Empire 2020 add-or		Pushed too much	Small ambience
📁 EQ		Small wide ambience	Subbass stage
📁 Harmonizer		Wide comp	
📁 Modulation			
📁 Multi-effects			
📁 Reverb			
📁 Studio 2018 add-ons			
📁 Transient			

Load	Load & join	Generate	Edit

Master effects lets you choose and randomize the master effect pipeline. MDrummer generates the output by first processing each drum, mixing the results for the corresponding output channels and processing these outputs using the master effect pipeline. You can edit the effects manually in the main **Mixer tab**, but here you can get some quick results.

Load

Load button loads a set of effects from a file and puts it into the first master channels. This is often useful to change the sound character completely. Hold **Shift** to add the effects to all master channels, but note the CPU consumption may rise significantly when a large number of output channels are used. In that case it is recommended to use the main **Mixer tab** to control the effects directly for each output channel and each send channel.

Load & join

Load & join button loads a set of effects from a file and appends it to all master channels. Using this feature you can combine several effect settings to produce new original sound.

Generate

Generate button loads a random set of effects and replaces the current master settings. This basically changes the global sound character completely. Hold **Ctrl** to avoid removing the current settings, hence appending the new effects into the effect pipeline. Hold **Shift** to generate different settings for each output channel.

Edit

Edit button jumps to the **Mixer tab** where you can edit the effects with all details for all output and send channels.

Rhythms panel

RHYTHMS

Drum pad mode

| Channel | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Verse 1   Verse 2   Chorus

▶   Intro   Beat   Break   L Break   Outro

Level   80.0%

Tempo   120.0000   Humanization   0.00%
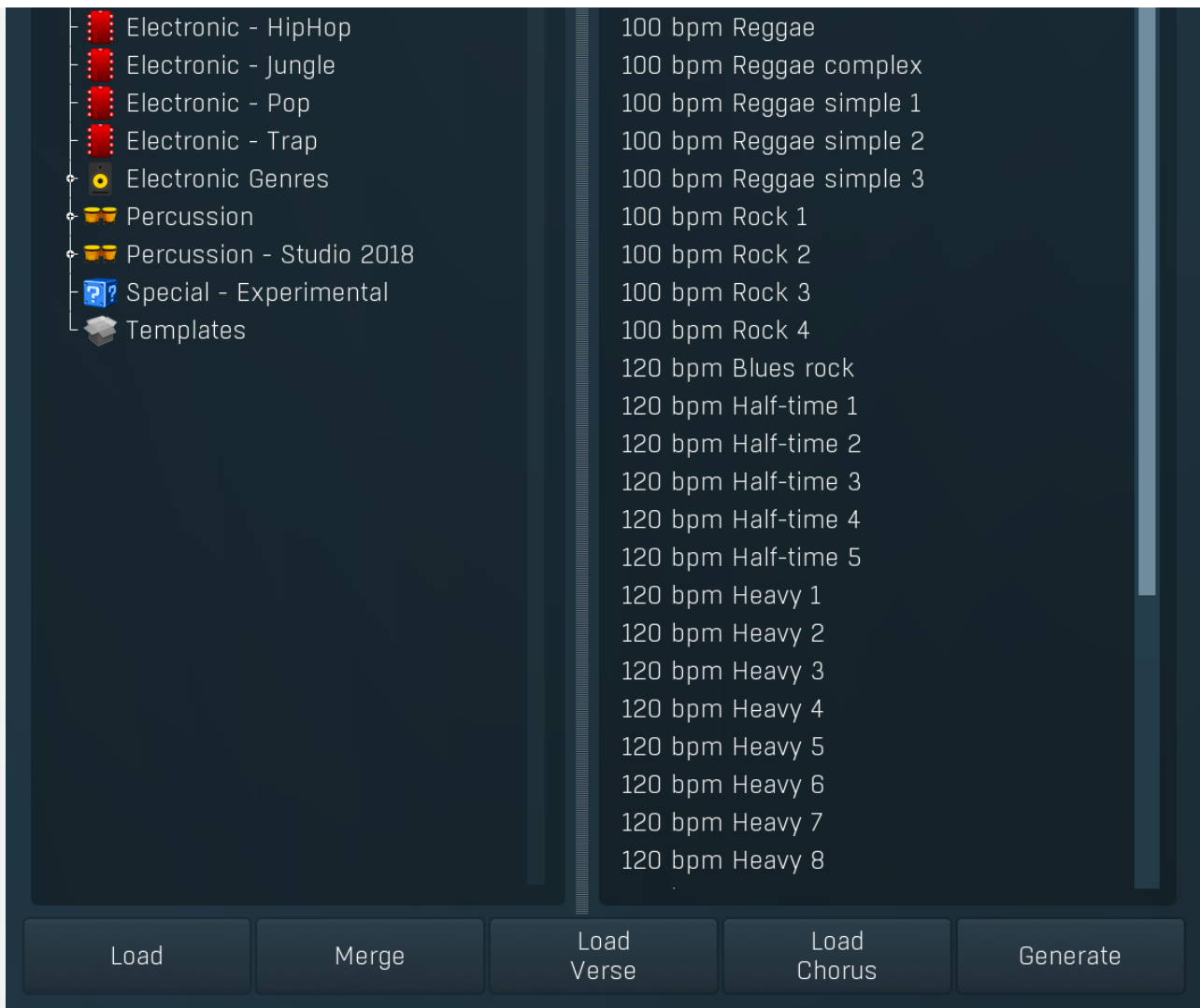Velocity   100.0%   Shuffle   0.00%
Speed change   100% ◀ ▶   Additional

Root

- Base Rhythms
- Utility - Background Percussion
- Utility - Templates
- Acoustic - Blues
- Acoustic - Funk
- Acoustic - Metal
- Acoustic - Rock
- Acoustic - Studio 2018
- Acoustic - World
- Electronic - Breakbeat
- Electronic - Dance
- Electronic - DnB
- Electronic - Downtempo
- Electronic - Dubstep

70 bpm Shuffle 2
85 bpm Rock 1
85 bpm Rock 2
85 bpm Rock 3
100 bpm Basic
100 bpm Blues rock 1
100 bpm Blues rock 2
100 bpm Blues rock 3
100 bpm Fusion 1
100 bpm Fusion 2
100 bpm Fusion 3
100 bpm Fusion 4
100 bpm Fusion heavy 1
100 bpm Fusion heavy 2
100 bpm Fusion heavy 3

Electronic - HipHop	100 bpm Reggae
Electronic - Jungle	100 bpm Reggae complex
Electronic - Pop	100 bpm Reggae simple 1
Electronic - Trap	100 bpm Reggae simple 2
Electronic Genres	100 bpm Reggae simple 3
Percussion	100 bpm Rock 1
Percussion - Studio 2018	100 bpm Rock 2
Special - Experimental	100 bpm Rock 3
Templates	100 bpm Rock 4
	120 bpm Blues rock
	120 bpm Half-time 1
	120 bpm Half-time 2
	120 bpm Half-time 3
	120 bpm Half-time 4
	120 bpm Half-time 5
	120 bpm Heavy 1
	120 bpm Heavy 2
	120 bpm Heavy 3
	120 bpm Heavy 4
	120 bpm Heavy 5
	120 bpm Heavy 6
	120 bpm Heavy 7
	120 bpm Heavy 8

Load	Merge	Load Verse	Load Chorus	Generate

Rhythms panel provides the quickest way to control and configure rhythms and the powerful virtual drummer kernel.
A rhythm is a set of loops and various settings, which MDrummer uses to simulate a real drummer. MDrummer can handle up to 9 rhythms at once, though in most cases you will probably need just a single one. Note that all of the rhythms will use the same drumset and sound settings.
Select the rhythm you want to manage using the **channel** selector, then you can load, merge etc. using the **rhythm selector** and buttons underneath. **Playback** panel can then be used to control the playback in real-time and **Settings** contains additional features such as tempo and humanization.
When controlling MDrummer from your host, use **MIDI commands** or the **integrated song sequencer** in the Song tab. MIDI command method is recommended for maximum versatility. Rhythm 1 is controlled by MIDI channel 1 etc. If you just want MDrummer to **play notes as a normal simple drum machine**, use MIDI channel 10 or switch into pad mode using **Drum pad mode button**. Alternatively you can use Settings / Global setting / MIDI mode.

Drum pad mode **Switch to drum pad mode**

Switch to drum pad mode button switches MDrummer into so-called pad mode (or back), commonly known as MPC. Pad mode basically simulates simple pad drum machines. Use it if you don't need the powerful rhythm system. In this mode the rhythm sequencer is hidden and MDrummer does not recognize MIDI commands as a virtual drummer, instead it interprets them as notes on all MIDI channels like any other drum machine. The rhythm system is still available in pad mode, however it cannot be controlled using MIDI commands and you need to use the integrated song sequencer in the **Song tab**.

You can just click each drum pad to play particular drum. You can also drag & drop sample or multiple samples onto each pad and MDrummer will import them and automatically manage velocity layers.

Channel	1	2	3	4	5	6	7	8	9

Channel

Channel is used to select the rhythm currently being edited. There are 9 availablechannels (hence 9 rhythms), this number corresponds to the MIDI channel when controlling MDrummer using the MIDI command method.

Rhythm selector

Root
- Base Rhythms
- Utility - Background Percussion
- Utility - Templates
- Acoustic - Blues
- Acoustic - Funk
- Acoustic - Metal
- Acoustic - Rock
- Acoustic - Studio 2018
- Acoustic - World
- Electronic - Breakbeat
- Electronic - Dance
- Electronic - DnB
- Electronic - Downtempo
- Electronic - Dubstep
- Electronic - HipHop
- Electronic - Jungle
- Electronic - Pop
- Electronic - Trap
- Electronic Genres
- Percussion
- Percussion - Studio 2018
- Special - Experimental
- Templates

70 bpm Shuffle 2
85 bpm Rock 1
85 bpm Rock 2
85 bpm Rock 3
100 bpm Basic
100 bpm Blues rock 1
100 bpm Blues rock 2
100 bpm Blues rock 3
100 bpm Fusion 1
100 bpm Fusion 2
100 bpm Fusion 3
100 bpm Fusion 4
100 bpm Fusion heavy 1
100 bpm Fusion heavy 2
100 bpm Fusion heavy 3
100 bpm Reggae
100 bpm Reggae complex
100 bpm Reggae simple 1
100 bpm Reggae simple 2
100 bpm Reggae simple 3
100 bpm Rock 1
100 bpm Rock 2
100 bpm Rock 3
100 bpm Rock 4
120 bpm Blues rock
120 bpm Half-time 1
120 bpm Half-time 2
120 bpm Half-time 3
120 bpm Half-time 4
120 bpm Half-time 5
120 bpm Heavy 1
120 bpm Heavy 2
120 bpm Heavy 3
120 bpm Heavy 4
120 bpm Heavy 5
120 bpm Heavy 6
120 bpm Heavy 7
120 bpm Heavy 8

Rhythm selector contains the directory tree containing the hundreds of available rhythms. These are stored in directories by style. Note that many styles require a certain tempo to sound properly. For example, drum'n'bass rhythms are designed for tempos around 160-200bpm, so if you play them in say 100bpm, they will most likely won't sound as drum'n'bass should do at all. Also note that you need to have an appropriate drumset loaded. For example, if you load a traditional drumset with drums and cymbals and then use a percussion rhythm, it is likely there won't be any output from MDrummer, because the traditional drumset doesn't contain any percussion!

The **Background percussion** directory contains supportive rhythms featuring, for example, just shakers or tambourines. These are commonly used to enhance existing rhythms and the easiest way to get some shakers into any rhythm is simply to select one from this folder and use the **Merge** button.

Base rhythms directory contains the so-called base rhythms used by the **Rhythm generator**. You will rarely need to load them here, but it is good to know about the existence of these rhythms. There is more about the base rhythms in the Rhythm generator section.

The **Templates** directory contains the so-called templates, or polymorphic rhythms. Whenever you load them, you get a different rhythm. You may say these are predefined rhythm generators without any settings and are exceptionally great for getting creative ideas.

Load

Load button loads the current rhythm from the selected file. You can also just double click on the file.

Merge

Merge button loads the current rhythm from the selected file and merges it into the current one. Typically you use it to add percussion (shakers, tambourine etc.) to your rhythms. Such percussion rhythms are located in the *background percussion* directory. You can also use rhythms from the **Templates** directory, in which case MDrummer actually uses the rhythm as a source for a simplified rhythm generator. Therefore merging such a rhythm produces a different result every time you use it and it may take more time to process.

Load verse

Load verse button loads the rhythm from the selected file, but replaces only the verse part - everything for levels 0%-50%. This is useful when you want your rhythm to vary not only by the complexity and background, but you just want your drummer to play something different in the verses than in the choruses.
Hold **Ctrl** to merge the rhythm rather than replacing it. This is useful for example to add some background percussion such as shakers only to the softer parts.

Load chorus

Load chorus button loads the rhythm from the selected file, but replaces only the chorus part - everything for levels 50%-100%. This is useful when you want your rhythm to vary not only by the complexity and background, but also you want your drummer to play something different in the verses than in the choruses.
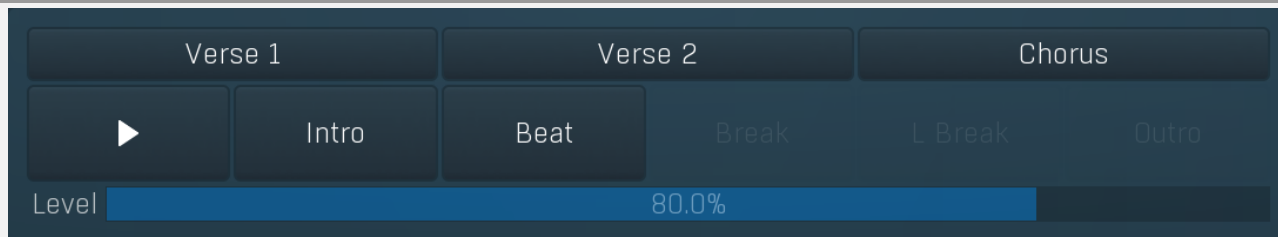Hold **Ctrl** to merge the rhythm rather than replacing it. This is useful for example to add some background percussion such as shakers only to the louder parts.

Generate

Generate button uses rhythm generator to create a completely random rhythm. It does that by loading a completely random rhythm generator settings and random essential beat (the groove) and then generates the resulting rhythm. This may serve as a huge source of inspiration.

Playback panel

Playback panel provides the rhythm playback control functions that you can use to instruct your virtual drummer.

Verse 1

Verse 1 button says *"Put a break (fill) there and change the level to 25%!"*. You can get the same behaviour by changing the **Level** value to 25% then pressing the **Break** button. Shortcut : 8

Verse 2

Verse 2 button says *"Put a break (fill) there and change level to 45%!"*. You can get the same behaviour by changing the **Level** value to 45% then pressing the **Break** button. Shortcut : 9
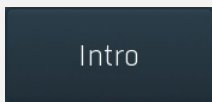
Chorus

Chorus button says *"Put a break (fill) there and change level to 75%!"*. You can get the same behaviour by changing the **Level** value to 75% then pressing the **Break** button. Shortcut : 0
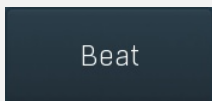
Play

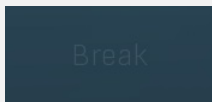Play button enables or disables playback immediately. Shortcut : Space, P, F10

Intro

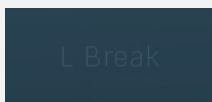Intro button says *"Play intro now !"*. Shortcut : 1

Beat

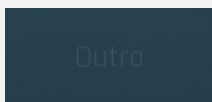Beat button says *"Play beat now !"*. Shortcut : 2

Break

Break button says *"Put a break (fill) there !"*. Please note that the break may appear later, because breaks are often very short sequences at the end of the bar. Shortcut : 3

L Break

L Break button says *"Put a long break (fill) there !"*. Long breaks are typically twice as long as short ones. Please note that the break may appear later, because breaks are often very short sequences at the end of the bar. Shortcut : 4

Outro

Outro button says *"Play the outro !"*. After the outro is finished, the virtual drummer stops the playback (if it is in **sequencer mode**). This command can be automated. Note that the outro may appear later, because outros are often very short sequences at the end of the first bar. Shortcut : 5

| Level | 80.0% | |

Level

Level defines the loop level to select. Level mostly corresponds to complexity and loudness.
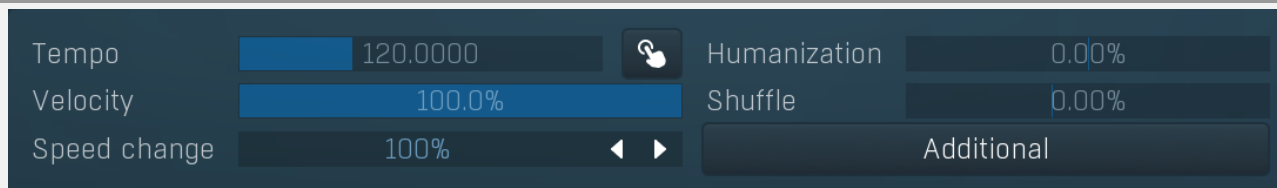But please note that this is NOT the actual sound level. The actual level is changed when you press any of the command buttons. Why? Because it sounds fairly weird when you change level suddenly. Level change is typically introduced by a fill or it should appear at the beginning of the bar.
If you want to change level immediately, you can use **loop selector** piano.
You can use the following shortcuts to set up this value :

- 6 - Decrease level to select.
- 7 - Increase level to select.
- Ctrl+1, Ctrl+2, .., Ctrl+0 - Set up specific level to select.

Settings panel

Tempo	120.0000		Humanization	0.00%
Velocity	100.0%		Shuffle	0.00%
Speed change	100%	◀ ▶	Additional	

Settings panel provides the rhythm playback configuration that you use to define the behaviour of your virtual drummer.

| Tempo | 120.0000 | **Tempo** |

Tempo defines the current playback tempo. Please note that MDrummer as virtual instrument plugin synchronizes with the host automatically.

Tap

Tap button lets you easily set the tempo by tapping it. Start pressing the button rhythmically. After the first press, the tempo starts changing. The more clicks you do, the better accuracy you get. If you want to start over, wait for about 2 seconds first.

| Humanization | 0.00% | **Humanization** |

Humanization affects inaccuracy and deflection for all notes in the rhythm. A negative value causes MDrummer to be a better drummer, and positive makes it to be more human.
Range: -100.0% to 100.0%, default 0.00%

| Velocity | 100.0% | **Rhythm velocity** |

Rhythm velocity is useful if, for example, you are using multiple rhythms at once and you do not want all of them to be at the same level. Note that all of the rhythms use the same drumset, so this is only a simple way to set up the volume per rhythm.
Range: 0.00% to 100.0%, default 100.0%

| Shuffle | 0.00% | **Shuffle**

Shuffle moves the notes from straight notes to shuffled notes (triplets) and conversely. It can give the rhythm a totally new feel.
Range: -100.0% to 150.0%, default 0.00%

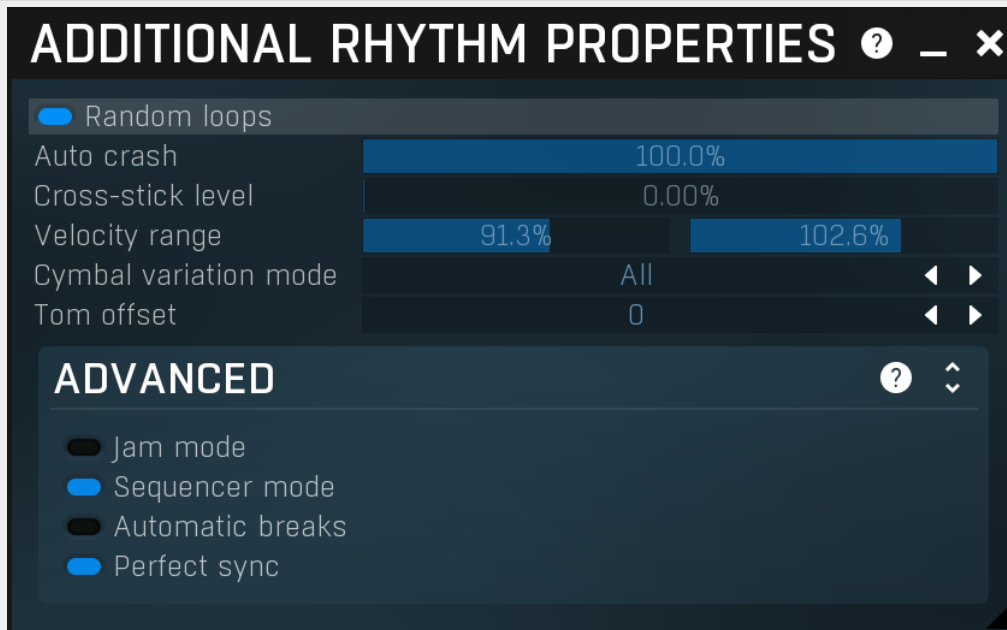| Speed change | 100% | ◀ ▶ | **Speed change**

Speed change allows you to make MDrummer play twice as fast, half as fast etc. It also applies to the virtual instrument plugin, while tempo does not.
Range: 25% to 400%, default 100%

| Additional | **Additional**

Additional button shows a menu with additional rhythm playback settings.

Additional rhythm properties window

ADDITIONAL RHYTHM PROPERTIES ❓ ─ ✕

- Random loops

Auto crash	100.0%
Cross-stick level	0.00%
Velocity range	91.3%	102.6%
Cymbal variation mode	All	◀ ▶
Tom offset	0	◀ ▶

ADVANCED ❓ ↕

- Jam mode
- Sequencer mode
- Automatic breaks
- Perfect sync

Additional rhythm properties window contains more advanced rhythm playback settings, which control MDrummer behaviour, synchronization to host, creating automatic cymbal hits etc.

| Random loops | **Random loops**

Random loops lets MDrummer choose loops randomly, if there are several available. Typically you have many breaks in a loop-box (see **loop selector**), hence this switch defines how MDrummer chooses which break to play. You usually disable random loops when finalizing your song and you want to set the most suitable break at particular moments of your song. In that case the note velocity (or the index parameter in song sequencer) defines the loop index.
please note that this parameter is NOT automated. We decided so to protect you from making it accidentally enabled.

| Auto crash | 100.0% | **Auto crash**

Auto crash makes MDrummer automatically play crash cymbal hits after a break, long break or intro in the same way as real drummers usually do. You may want to disable this for special rhythms such as Latin rhythms, where the grooves start at the fourth quarter note, or for percussions, where actually there is no crash cymbal at all. You may also give it a certain probability, which is useful for Afro-Latin rhythms, such as reggae.
When **Random loops** are enabled, Crash or Crash 2 cymbal is chosen at random ;
when **Random loops** are disabled, Crash or Crash 2 cymbal is chosen based on the parity of the MIDI velocity value used to choose a particular break or intro loop: Crash is played in the velocity value is even (e.g., 96), Crash 2 is played if it is odd (e.g., 97).

| Cross-stick level | 0.00% | **Cross-stick level**

Cross-stick level controls the loop level below which MDrummer automatically replaces snare drum notes with snare cross-stick. If you set this to 0%, you will disable this feature.

| Velocity range | 91.3% | **Velocity range**

Velocity range controls how MDrummer modifies velocity of all notes depending on the current level. This is similar to a drummer playing softly in quiet parts. Using this range you specify how loud MDrummer should play in each level.

| Cymbal variation mode | All | ◀ ▶ | **Cymbal variation mode**

Cymbal variation mode controls if MDrummer may automatically replace cymbal hits by other cymbal hits. This makes the resulting tracks less repetitive.
Disabled - no randomization;
Crashes - when a Crash or Crash 2 cymbal is played in a break, an intro, or an outro, play Crash or Crash 2 chosen at random instead;
**All** - when any of the four cymbals Crash, Crash 2, Splash, or Chinese, is played in a break, an intro, or an outro, play a random cymbal selected from these four instead;
All and everywhere - same as **All**, but do it for the regular beats as well.

| Tom offset | 0 | ◀ ▶ | **Tom offset** |

Tom offset defines if MDrummer should play higher/lower toms. For example in harder types of music lower toms are usually used; so for example, you can set this offset to -2 to let MDrummer always play 2 toms lower than expected.

Advanced panel

ADVANCED ❓ ↕

⬤ Jam mode
🔵 Sequencer mode
⬤ Automatic breaks
🔵 Perfect sync
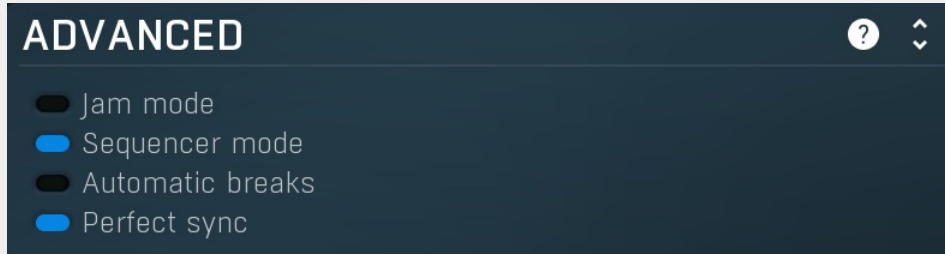
Advanced panel contains more advanced and esoteric settings.

⬤ Jam mode   **Jam mode**

Jam mode enables the jam mode for this rhythm. A rhythm in jam mode does not receive MIDI commands as usual. It listens to the incoming MIDI instead, assuming it to be a piano or another harmonic instrument and plays along with it. Please note that changes are made on breaks only, since this is the way that real drummers play.
When you enable jam mode in MDrummer plugin, you have 2 choices of how to tell MDrummer when to play and when not. First you can enable song structure. Or second, if song structure is disabled MDrummer still listens to MIDI commands, and you should play your own instrument on MIDI channel 11 or higher. For example, rhythm 1 is commanded by channel 1 as usual and you play on MIDI channel 11.
When you enable jam mode and start playback, MDrummer will repeat the beat + break cycle as usual. Or you can enable song sequencer, in which case MDrummer will follow that sequence.

🔵 Sequencer mode   **Sequencer mode**

Sequencer mode is enabled by default. In this case MDrummer automatically switches from breaks and intros back to beats, stops playback after the outro and possibly automatically plays breaks (fills). You may want to disable it, for example if you want to edit breaks.

⬤ Automatic breaks   **Automatic breaks**

Automatic breaks lets MDrummer automatically play breaks or long breaks. The interval between them depends on the break length and break interval settings. Please not that this works only in sequencer mode.
This parameter can be automated.

🔵 Perfect sync   **Perfect sync**

Perfect sync is available only inside the MDrummer plugin and makes MDrummer always play in perfect sync with the song. On the other hand MDrummer will be driven by the starting point of the song, so you may have problems with stop-times, different signatures etc.
You might try disabling this in some extreme cases, but that may cause de-synchronization when the host sends invalid notes. This can happen for example when your computer is too slow or when you rewind and the host tries to output notes that have actually already started.

Mixer tab

Mixer tab contains the master mixer, where you can easily adjust basic parameters of all drums - volume, panorama, pitch, output channel, sends etc. There are also master peak meters, which you can use to monitor levels of each output.

Mute close microphones

Mute close microphones mutes all normal drum channel outputs. It is useful if you want to listen to sends / overhead / room channels in solo. When you solo drum channels, you won't really solo the audio outputs, but the drums themselves. So if say Snare drum is soloed, all other drums are muted, hence you can listen to that single drum only, including its overhead and room channels for example. Then you can mute these channels to listen to snare drum close microphone only. But if you want the opposite - listen only to the overheads for instance, you also need to turn on this switch. While this is a bit nonstandard, in practice you are like to need to solo individual drums more than individual channels, so this should actually improve your workflow.

Mute overheads and rooms

Mute overheads and rooms mutes all additional drum channel outputs. It is useful if you want to listen to close mics only.

Global FX enable

Global FX enable lets you enable/disable all effects used by MDrummer in any of the drums, special and output channels.

Sends postfader

Sends postfader switch makes the send levels be affected by the drum output gain and volume.

Mixer scroller

Mixer scroller displays all available drums and their settings. The view is scrollable as the number of drums is unlimited and may not fit the on-screen window completely.

Bass drums panel

Bass drums panel lets you quickly change individual parameters for all bass drums drums at once.

Snare 1 panel

Snare 1 panel lets you quickly change individual parameters for all snare 1 articulations drums at once.

Snare 2 panel

Snare 2 panel lets you quickly change individual parameters for all snare 2 articulations drums at once.

Toms panel

TOMS

Volume   0.00 dB

Ratio   0.00%

Send 1   -2.06 dB

Send 2   0.00 dB

Pitch   0

Vol close   0.00 dB

Vol OH   0.00 dB

Vol Room 1 0.00 dB

Vol Room 2 0.00 dB

Toms panel lets you quickly change individual parameters for all toms drums at once.

HiHat panel

HIHAT

Volume   0.00 dB

Ratio   0.00%

Send 1   silence

Send 2   silence

Pitch   0

Vol close   0.00 dB

Vol OH   0.00 dB

Vol Room 1 0.00 dB

Vol Room 2 0.00 dB

Pan   10% left

HiHat panel lets you quickly change individual parameters for all hihat articulations drums at once.

Cymbals panel

CYMBALS ❓

Volume	-2.88 dB	➖	➕
Ratio	0.00%	➖	➕
Send 1	silence	➖	➕
Send 2	silence	➖	➕
Pitch	0	➖	➕
Vol close	0.00 dB	➖	➕
Vol OH	0.00 dB	➖	➕
Vol Room 1	0.00 dB	➖	➕
Vol Room 2	0.00 dB	➖	➕

Cymbals panel lets you quickly change individual parameters for all cymbals drums at once.
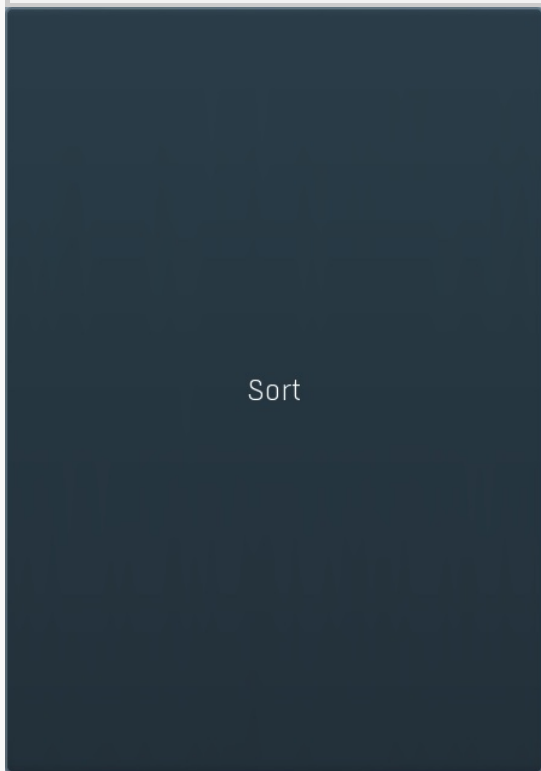
Sort

Sort
Sort button sorts the drums by the drum type providing an organized sequence in the mixer.

Output auto-gain

Output auto-gain button analyzes all drums and performs automatic leveling to all of them.

Default panorama

Default panorama button sets the panorama of all drums to default.

Drum pad

Drum pad triggers the drum sound in the same way that MIDI or the rhythm engine does. The further right you click, the higher velocity it will have.

Solo

Solo button mutes/unmutes all the other drums.

Mute

Mute button mutes/unmutes the particular drum.

Pencil

Pencil button switches to the drumset editor and selects the drums.

Channel

Channel defines audio output channel to send this drum to.

By default, channels 1-4 are automatically set according to drum type. Therefore channels 5-8 are freely available with no chance of collision with another drum using standard settings. Note that in Drumet editor / Drumset toolbar / Advanced you can store these settings and control if MDrummer should preserve the mappings whenever you load a different drumset for example.

FX list

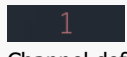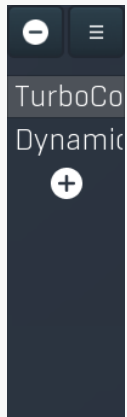FX list contains the list of effects in the pipeline.
Double click on an effect to display its editor.
Click the plus sign to add a new effect.
Hold alt and click on an effect to delete the effect from the pipeline.
Check/uncheck an effect to toggle the effect's bypass state.
Click and drag an effect up / down to move it, hence changing the order of effect processing.
Click and drag an effect left / right to copy effect with its complete settings to other effect pipeline.
Hold shift and drag an effect left / right to move the effect with its complete settings to other effect pipeline.

Delete

Delete button deletes the selected effect from the effect pipeline.

Menu

Menu button displays additional functions to randomize/load/save effects etc.
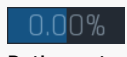
Ratio

Ratio controls the ratio between multiple microphones some drums may be using. For example, if a drum has been sampled using 2 close mics, you can use this to control the ratio between them. A typical example is snare top & bottom mics. Similar situation can happen with multiple overheads of room mics. However note that in many cases this control will have no effect at all, especially for electronic drums.

Send

Send controls the amount of drum signal sent to the master send effect pipeline, which you can control in the **Mixer tab**.
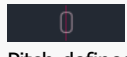
Pitch

Pitch defines pitch change of the drum sound.

Volume close

Volume close controls the output volume of the close mike only. It is provided in addition to the global fader, which controls all mics, including overheads and rooms.

Volume OH

Volume OH controls the output volume of the overheads only (if provided). This lets you control the levels for each drum individually, which is not possible in traditional mixing, but here it allows you to further improve your mixes.

Volume room 1

Volume room 1 controls the output volume of the first set of rooms only (if provided). This lets you control the levels for each drum individually, which is not possible in traditional mixing, but here it allows you to further improve your mixes.

Volume room 2

Volume room 2 controls the output volume of the second set of rooms only (if provided). This lets you control the levels for each drum individually, which is not possible in traditional mixing, but here it allows you to further improve your mixes.

Panorama

Panorama defines the output panorama of this track.

Output volume

Output volume defines volume of the drum sound applied after the effect pipeline.

Bass & Snare
MIDI

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.
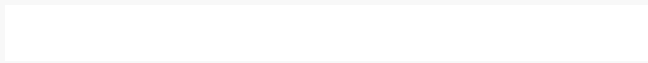
Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.
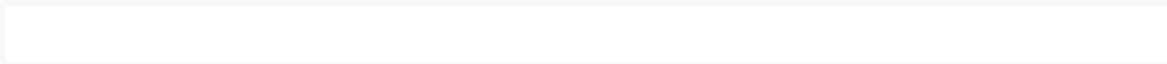
Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.
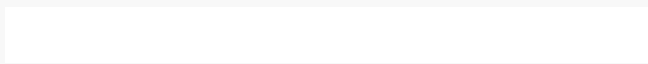
Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.

Song tab

Song tab contains the integrated song sequencer. It is provided as complementary to the MIDI command method. Song sequencer is easier to use, but far less versatile. However it provides features to actually convert the arrangement into MIDI commands, so you can actually edit your arrangement here, then drag & drop the MIDI command file into your host and stop using the sequencer afterwards. It also lets you create actual MIDI performance - no commands, but true drum MIDI file - this may come handy, if you want to edit the drum performance manually afterwards.

Finally, if you want to use MDrummer for jamming, the song sequencer is the way to go.

Song structure panel
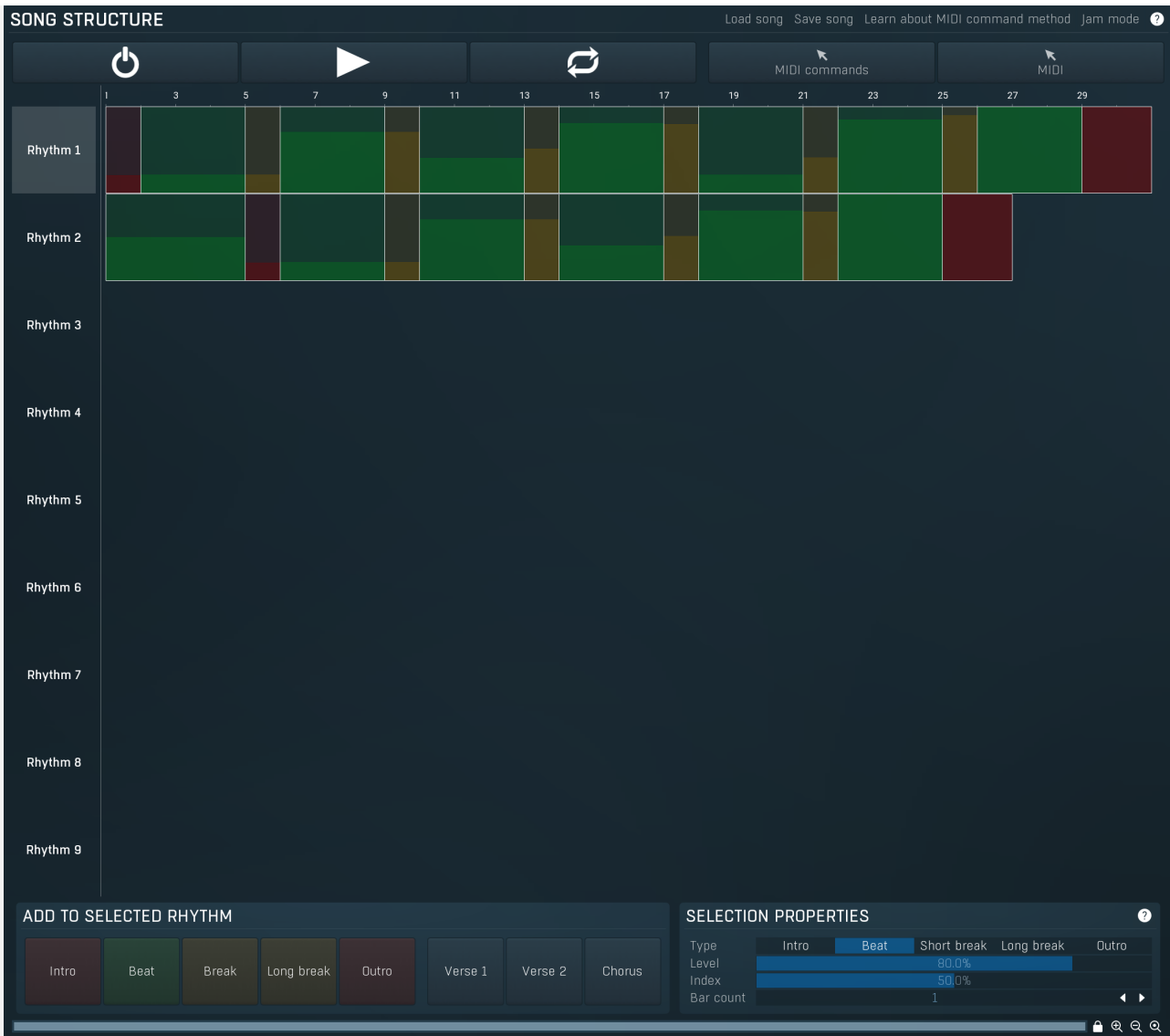
Song structure panel presents a method that is an alternative to MIDI commands. You can create a defined song structure containing verses, refrains etc. and MDrummer will follow them. This is the easiest way; however the MIDI command system is much more flexible. Note that when you use song structures, you should not use MIDI commands anymore, since those commands would collide with the song structure system.

The Song structure editor shows all rhythm channel structures, so you can easily create your song layout. Then you can use the load & save buttons to store it along with all other MDrummer settings, so when you load it next time, MDrummer will be in the same state as before. This is very powerful tool for real-time performances.

Moreover you can use the song structures to edit just a single rhythm structure and then render it as MIDI commands or even as the notes themselves using the arrow buttons at the bottom-right of the window.

Load song

Load song button loads the entire song and MDrummer settings. This is very useful for realtime performances - you select your drumsets, rhythms, song structures and other settings, and store them using the **Save song button**. Then you can load all of it using the load button.

Save song

Save song button saves the entire song with all MDrummer settings. This is very useful for realtime performances - you select your drumsets, rhythms, song structures and other settings, and store them this way. Then you can load all of it using the **Load song button**.

Learn about MIDI command method

Learn about MIDI command method shows you a tutorial about MIDI command method, the big brother of the Song tab, which is much more powerful and actually easier to use, and is highly recommended.

Jam mode

Jam mode button enables or disables jam mode for all rhythms. When enabled, MDrummer listens to the input MIDI data and makes the decisions about rhythm level on its own. It still follows the arrangement, but, for example, whether you are going to a refrain or verse is detected automatically. Take your time and you will learn to be able to control MDrummer by your playing well

enough.

Enable

Enable button toggles the song structure mode. When it is enabled you should not use MIDI commands, since they would be in conflict.

Start

Start button starts song playback from the beginning of the song.

Repeat

Repeat button makes MDrummer repeat the song when the end is reached. This is especially useful for jamming, where the typical arrangement contains just a single section repeated all over again and adjusting your playing each time.
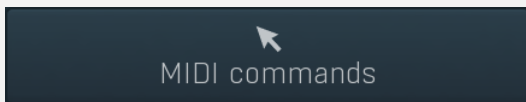
MIDI commands arrow drag & drop

MIDI commands arrow drag & drop button converts the song structure into a MIDI command file, which you can drag & drop into your host (or somewhere else).
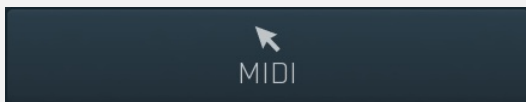
MIDI arrow drag & drop

MIDI arrow drag & drop button renders the entire song into a MIDI file, which you can drag & drop into your host (or somewhere else).

Selection properties

SELECTION PROPERTIES

Type	Intro	Beat	Short break	Long break	Outro
Level			80.0%		
Index			50.0%		
Bar count			1		◀ ▶

Type

| Type | Intro | Beat | Short break | Long break | Outro |
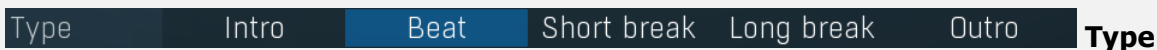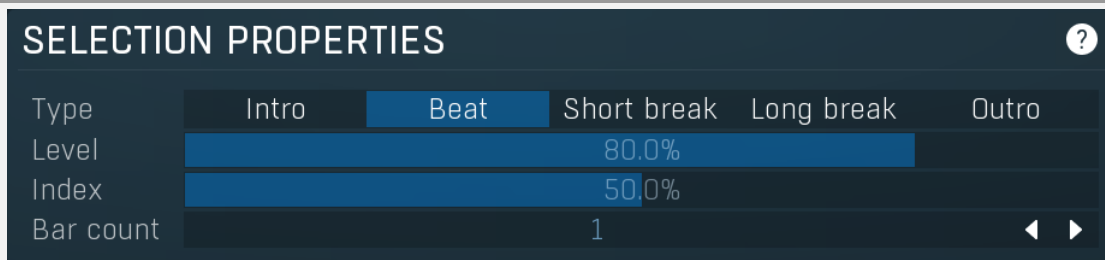
Type defines the loop type to be played in the song part.

Level

Level   80.0%
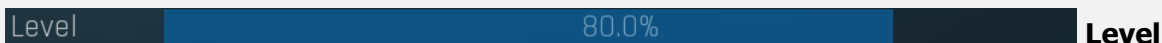
Level defines the loop level to be played in the song part. It is relevant only if jam mode is disabled.

Index

Index   50.0%

Index defines the index of the loop if there are several available. It is used in the same way as velocity in the MIDI command method. First you have to disable random loops in the Rhythm settings. MDrummer will then select loops according to this index, which also means that if you leave the defaults, MDrummer will play the same loop again.

Bar count

Bar count   1   ◀ ▶

Bar count defines the number of bars that the part should have. It is available for some types only, since for example breaks must always be 1 bar long.

Drumset editor tab
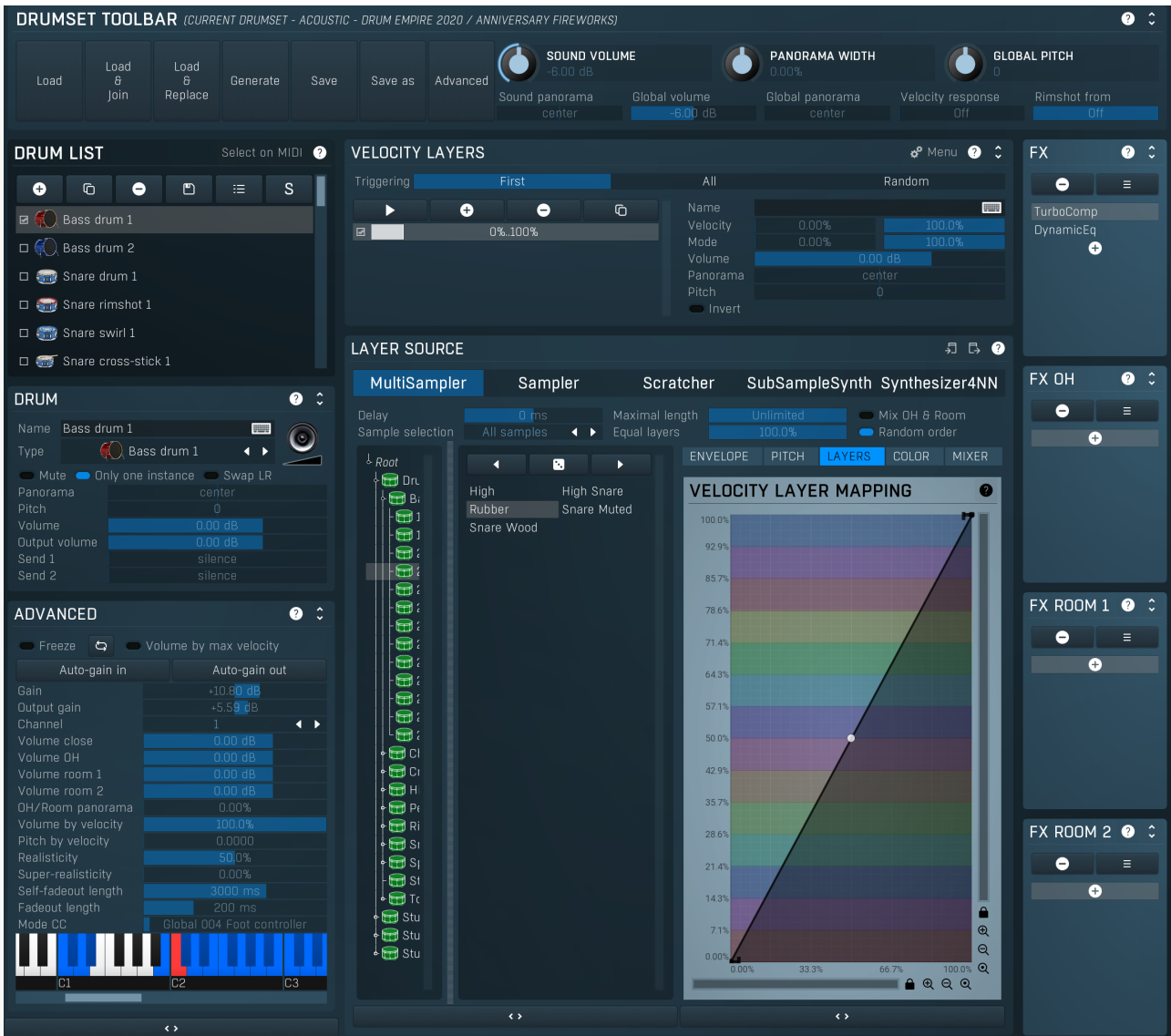
Drumset editor tab provides an extremely versatile drumset editor, where you can edit every aspect of the MDrummer's powerful sound generator engine. You can edit each of the unlimited number of drums in your drumset, from basic settings such as volume or panorama to the drum sources (generators) in each of the unlimited number of layers and per-drum effect pipeline with unlimited number of effects.

Drumset toolbar
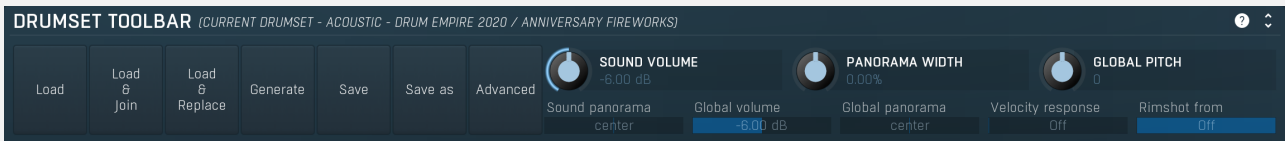
Drumset toolbar contains general functions to manage the current drumset and global sound properties.

Load

Load button loads a drumset from a file. Shortcut : F3

Load & Join

Load & Join button loads a drumset from a file and appends it to the current one. Using this feature you can combine several drumsets to produce a very full sound. Shortcut : F4
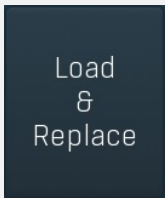
Load & Replace

Load & Replace button loads a drumset from a file, appends it to the current one and removes any existing drums of the same type as those in the drumset being loaded. Using this feature you can easily replace drumset components. Shortcut : F6
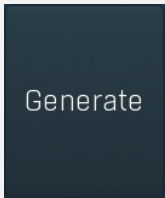
Generate

Generate button creates a drumset from several files inside Components subdirectory or even using completely original generated components. Hold **Ctrl** to keep the original drumset and join the new generated one. Hold **Shift** to let MDrummer generate 2 drumsets and merge them. This way you usually get fuller sound with even bigger variability at the expense of higher CPU cost. Shortcut : F5
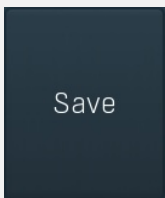
Save

Save button saves the drumset to its file (defined by name). Shortcut : F2
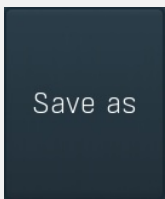
Save as

Save as button saves the drumset to another file, which you name suitably.
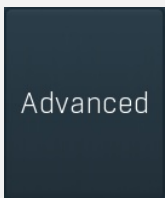
Advanced

Advanced button provides additional features such as import of soundfonts and Native Instruments' Battery 2 kits, drumset archiving and storing / loading output channel mapping.

Sound settings toolbar

SOUND VOLUME -6.00 dB	PANORAMA WIDTH 0.00%	GLOBAL PITCH 0
Sound panorama center	Global volume -6.00 dB	Global panorama center

Velocity response Off	Rimshot from Off

Sound settings toolbar contains general functions to manage global sound properties.

Sound volume

Sound volume defines the output volume for all output channels and is applied immediately as opposed to the global volume. Sound volume can be automated via standard MIDI messages.
Range: silence to 6.02 dB, default -6.00 dB

Panorama width

Panorama width affects the actual panorama settings for all drums. If you increase this value above zero, the panorama of all drums will be also increased. Thus increasing this value will make the resulting sound somewhat spatial. But note that it can only modify the panorama settings; it does not accomplish any kind of stereo expansion.
Range: -300.0% to 300.0%, default 0.00%

Global pitch

Global pitch defines the output pitch of new sounds. When a note is played, MDrummer takes the actual global pitch value and assigns it to that note. Therefore if you change global pitch quickly, more than one event can play at the time and each of them can have a different pitch.
Note that this works even if some drums are frozen, in which case MDrummer needs to apply an additional pitch change and while it can be CPU expensive, you should let it be zero for maximal performance. The CPU load is not significant for drums that are not frozen.
Range: -24.00 to +24.00, default 0

Sound panorama

Sound panorama defines the output panorama for all output channels and is applied immediately as opposed to the global panorama. Sound panorama can be automated via standard MIDI messages.
Range: 100% left to 100% right, default center

Global volume

Global volume defines the volume of new sounds. When a note is played, MDrummer takes the actual global volume value and assigns it to that note. Therefore if you change global volume quickly, more than one event can play at the time and each of them can have a different volume.

This produces a more natural sound. However since it is applied before the effect pipeline, it might even change the sound character. This pays off mostly for non-linear effects such as compressor or limiter. On the other hand it theoretically simulates a drummer playing hard or soft.
Range: silence to 6.02 dB, default -6.00 dB

Global panorama

Global panorama defines the panorama of new sounds. When a note is played, MDrummer takes the actual global panorama value and assigns it to that note. Therefore if you change global panorama quickly, more than one event can play at the time and each of them can have a different panorama.

This produces a more natural sound. However since it is applied before the effect pipeline, it might even change the sound character. This pays off mostly for non-linear effects such as compressor or limiter.
Range: 100% left to 100% right, default center

Velocity response

Velocity response controls how much velocity affects the volume of each note. Set this to minimum to produce a very nonlinear curve going from silence to 0dB. In other cases the volume goes from this value for minimum velocity to 0dB for maximum velocity. Setting this to maximum 0dB, makes the volume go from 0dB to 0dB, so velocity will have no effect on note volume.
Range: Off to 0.00 dB, default -40.00 dB

Rimshot from

Rimshot from controls the velocity above which snare drums will be changed to snare rimshots. The conversion is used both for rhythm processing and normal playing via MIDI (on channel 10 for example). By default this is maximum, which makes the feature disabled. Conversely settings this to minimum makes MDrummer replace all snare hits by rimshots.
Range: 0.00% to Off, default Off

Drum list

DRUM LIST

Select on MIDI ❓

Drum list contains the list of drums in the drumset. The toolbar on the top provides functions such as loading a drum from a file. Moreover you can change the drum order by clicking and dragging a drum, the order doesn't change the resulting audio at all. You can set up the parameters of the selected drum in editors located below the drum list and on the right.

Drag & drop samples from your file Explorer into the drum list and MDrummer will import these samples and manage the velocity layers for the selected drum.

Each drum list item has a **checkbox** next to it. The checks change depending on the selected drum and control which drums are "closed" by it "Choke groups"). This is mostly useful for hi-hats, where the closed hi-hat stops the open hi-hat from playback. In this case you should select closed hi-hat and check open hi-hat, which will ensure that every hi-hat hit will close the open hi-hat sound if present, hence it will simulate closing the hi-hat.

Select on MIDI
Select on MIDI switch makes the MDrummer select the drum being played every time it receives a MIDI note.

Add
Add button creates a new drum and lets you choose its type. Shortcut : Insert

Duplicate
Duplicate button duplicates the selected drum. Shortcut : D

Delete
Delete button deletes the selected drum. Shortcut : Delete

Save
Save button saves the selected drum to a file. Shortcut : Ctrl+F2

List
List button toggles report/overview drum list mode. Overview mode is more compact so it is suitable for large drumsets.

Solo
Solo button soloes the drum, hence it mutes/unmutes all drums except the selected one. Shortcut : S

Drum panel
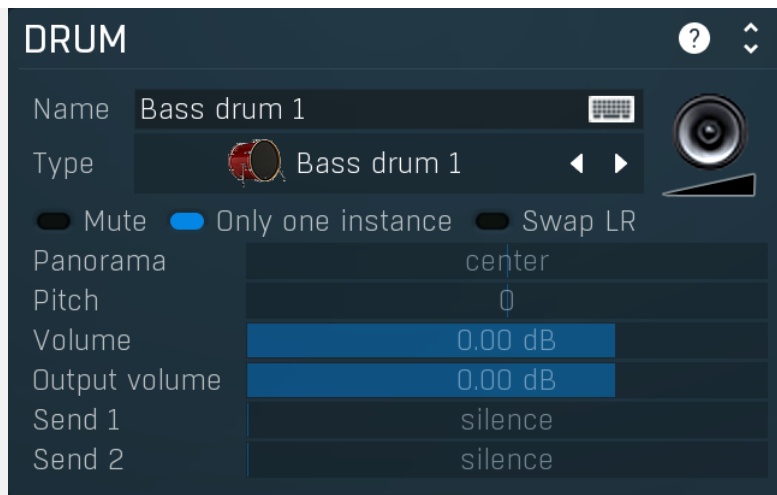
Drum panel contains basic parameters of the selected drum -appearance, sound and behaviour. The actual drum sound is generated by drum layers, which you can edit on the right-hand side. Each drum also has an effect pipeline editable on the right-hand side as well.

 Drum pad

Drum pad button triggers the drum sound in the same way as MIDI or the rhythm engine does. The further right you click, the higher velocity it will have (and, generally, the louder it will be). Shortcut : A

 Name

Name of the selected drum. It is only for information, basically you can leave it with its original value corresponding to the actual drum type.
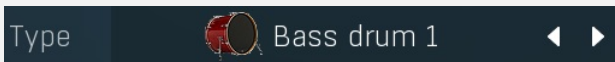
 Drum type

Drum type serves as a shortcut for some settings common to some specific types of drums. You just need to change drum type and MDrummer configures all basic settings, such as name, MIDI keys and image of the drum. It also serves to maximize compatibility in MDrummer's rhythm engine. Internally MDrummer doesn't use MIDI at all as this archaic format is very limited. It identifies the drums using their type instead, which ensures that every drumset and rhythm is compatible with each other. But of course, rhythms designed for congas won't be compatible with classic drumsets containing bass and snare drums for example.

 Muted

A Muted drum does not generate any sound. Shortcut : M
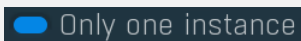
 Only one instance

Only one instance trigger can solve problems with long sounds. Normally a drum is polyphonic, but if you enable this trigger, it becomes monophonic. This means that when you hit the drum, it sounds and when you hit it again, the first hit quickly fades out. Using this trigger you can prevent stacking up too many of long sounds (e.g. ride cymbals), that may normally howl down all other drums and even exceed 0dB.
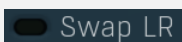
 Swap LR

Swap LR swaps the left and right channels. It is useful with acoustic drums to virtually move the the drum to the other side spatially. Panorama itself cannot deal with it in these cases, because the delay between left and right channels is causing phase issues and spatially moves the drum on its own.

 Panorama

Panorama defines the panorama of the drum sound.

 Pitch

Pitch defines the pitch change of the drum sound.

 Volume

Volume defines the volume of the drum sound. It is applied BEFORE the effect pipeline so it can actually change the sound character.

 Output volume

Output volume defines the volume of the drum sound applied AFTER the effect pipeline.

 Send 1

Send 1 defines the amount of the signal that is sent to the send 1 effect pipeline.

 Send 2

Send 2 defines the amount of the signal that is sent to the send 2 effect pipeline.

Advanced panel

Advanced panel contains additional parameters of selected drum -behavior, routing, MIDI settings etc.

Freeze **Freezing capability**

Freezing capability can heavily decrease the CPU usage of audio processing by pre-computing the entire drum sound, even with effects.

Freezing pre-renders only one drum sound for each velocity layer, of course. This can have an impact on the sound, while some drum source plug-ins may be velocity-dependent and some effect plugins (e.g. wave-shaper) do make use of velocity and time too. On the other hand freezing the sound modification is often not so audible and may even be useful.

Moreover you should enable freezing capability when using high latency effects. The plugin can compensate for latency only to some extent that depends on audio card settings. If you enable freezing, the plugin will avoid all latency problems.

Enable the trigger to switch on freezing capability.

Update

Update button refreshes the freeze state. For optimization reasons the plugin doesn't detect changes in the effects and generators, hence it cannot know when you change the settings. So if you are using **Freeze** feature, whenever you change the settings, you need to click this button to rerecord the freeze buffer.

Volume by max velocity **volume by max velocity**

If volume by max velocity option is enabled (which is the default), the volume of a sound will be determined by the difference between the velocity and the maximal velocity for the layer.

For example if you have a velocity layer with range 0%-50% and the plugin receives a note with velocity 50%, the note will be played with its maximal volume (as opposed to half volume if this option were disabled).

Let's have for example natural multi-sampled drums. You first record your drums with different velocities and do not perform any gain modification (such as by normalization). Then you just need to set up the velocity ranges correctly. You can leave layer volumes, because they would be in fact already configured in the volumes of the samples themselves.

Auto-gain in **Auto-gain in**

Auto-gain in measures the peak level of the drum sound by playing a short performance in the background, resets the **Volume** and

the **Output volume** to 0dB, and sets the **Gain** to make the peak level reach say -1dB, hence providing a nice level for most effects. This is useful as a preparation of a drumset to be further processed using effects etc.

Auto-gain out

Auto-gain out

Auto-gain out measures the loudness of the drum sound by playing a short performance in the background and sets the **Output gain** to make its loudness similar to other factory the plugin content, hence making compatible and in a way already 'mixed'.

Gain	+10.80 dB

Gain

Gain defines the additional level modification of the drum sound. It is applied BEFORE the effect pipeline so it can actually change the sound character. It does exactly the same thing as **Volume**, but it has a different range and is often suitable for samples with low loudness for example. Although you can do the same thing using effect plugins, this way is much easier and faster.

Output gain	+5.59 dB

Output gain

Output gain defines the additional level modification of the drum sound. It is applied AFTER the effect pipeline. It does exactly the same thing as **Output volume**, but it has a different range and is often suitable for samples with low loudness for example. Although you can do the same thing using effect plugins, this way is much easier and faster.

Channel	1	◀ ▶

Channel

Channel defines audio output channel to send this drum to.
By default, channels 1-4 are automatically set according to drum type. Therefore channels 5-8 are freely available with no chance of collision with another drum using standard settings. Note that in Drumet editor / Drumset toolbar / Advanced you can store these settings and control if MDrummer should preserve the mappings whenever you load a different drumset for example.

Volume close	0.00 dB

Volume close

Volume close controls the output volume of the close mike only. It is provided in addition to the global fader, which controls all mics, including overheads and rooms.

Volume OH	0.00 dB

Volume OH

Volume OH controls the output volume of the overheads only (if provided). This lets you control the levels for each drum individually, which is not possible in traditional mixing, but here it allows you to further improve your mixes.

Volume room 1	0.00 dB

Volume room 1

Volume room 1 controls the output volume of the first set of rooms only (if provided). This lets you control the levels for each drum individually, which is not possible in traditional mixing, but here it allows you to further improve your mixes.

Volume room 2	0.00 dB

Volume room 2

Volume room 2 controls the output volume of the second set of rooms only (if provided). This lets you control the levels for each drum individually, which is not possible in traditional mixing, but here it allows you to further improve your mixes.

OH/Room panorama	0.00%

OH/Room panorama

OH/Room panorama controls the amount of panning for additional channels (overheads and rooms). When 0%, no panorama is applied on these channels and only close mics are processed. When 100%, the exact same panorama is applied on all channels.

Volume by velocity	100.0%

Volume by velocity

Volume by velocity defines how much velocity affects the volume of the drum sound. Normally you would leave this at 100%.

Pitch by velocity	0.0000

Pitch by velocity

Pitch by velocity defines how much velocity affects the pitch of the drum sound. Normally you would leave this at zero, but it can provide some interesting effects or it can even help to increase the realism.

Realisticity	50.0%

Realisticity

Realisticity defines how much the plugin should modify the sound parameters to prevent a machine-gun effect, which is very common when one drum is hit many times.

Super-realisticity	0.00%

Super-realisticity

Super-realisticity provides an amazing machine-gun effect protection. This algorithm usually provides great results, but also consumes significant CPU resources, therefore it is disabled by default.

Self-fadeout length	3000 ms

Self-fadeout length

Self-fadeout length of the drum sound defines the time a drum sound takes to become silent after it has been "closed" by itself, which can protect it from stacking up (see **only one instance**) and in those cases the fade out time is defined by this parameter.

Fadeout length	200 ms

Fadeout length

Fadeout length of the drum sound is the time a drum sound takes to become silent after it has been "closed" by another drum. The drum can be closed by another one to simulate for example hi-hats (see **drum list**) and in those cases the fade out length is defined exactly by this parameter.

Mode CC	Global 004 Foot controller

Mode CC

Mode CC defines which MIDI CC controls the mode used by velocity layers. Typically this is set to CC4 and used for multiple opening levels of hihat.
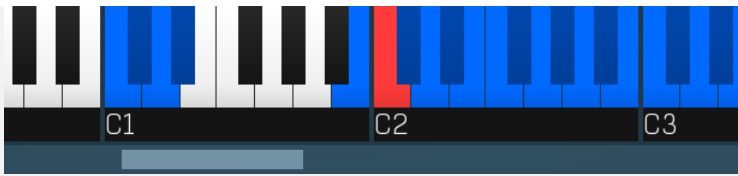
MIDI piano keyboard

In MIDI piano keyboard you can setup MIDI keys associated with the drum. It is useful only when feeding MDrummer with MIDI; hence this controls MDrummer's MIDI input. MDrummer's rhythm system uses drum types rather than MIDI keys to offer maximal compatibility; therefore this option doesn't make a difference. Please note that MDrummer configures the MIDI keys automatically depending on the actual drum type to free you from complicated configuration and to make the resulting drum sets maximally compatible.

Click on a piano key to enable/disable the association with this drum. Each key can have following colors :

- Black/white - the key is not assigned to any drum.
- Red - the key is assigned to this drum.
- Blue - the key is assigned to another drum.

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.

Velocity layers panel

Velocity layers panel lets you setup velocity layers for this drum. The plugin processes notes for the drum by playing the sound of one or more layers. Each velocity layer has a separate sound source which you can configure (see below). The same drum effect pipeline is used for all layers of the drum.

 Menu

Menu button shows a menu with additional features.

Triggering

Triggering defines which layers the plugin should play. Each layer can have a different velocity range and only those matching the input note velocity will be used. But there may be several of them, so this mode controls the plugin's behaviour.
First mode makes the plugin play the first available velocity layer to play a particular note.
All mode makes the plugin play all available velocity layers. You can use it to make a fuller sound using multiple sound sources.
Random mode makes the plugin play a random available layer. This is mostly like an enhanced round-robin and is mostly used to create studio drumsets containing alternative hits - sounds with the same velocity layer but a slightly different sound to prevent a machine-gun effect.

List of velocity layers

List of velocity layers contains the names and ranges of all layers of this drum. Use the top toolbar to manage them. Use the drum source editor below to edit the drum source for the selected layer.

 Play

Play button plays the sound of the selected layer with maximum velocity. Shortcut : A

➕ **Add**

Add button adds a velocity layer.

➖ **Delete**

Delete button deletes the selected velocity layer.

▣ **Duplicate**

Duplicate button duplicates the selected velocity layer.

Name ▦ **Name**

Name defines the name of the selected velocity layer. It is for information only, so you can leave it empty.

Velocity 0.00% **Velocity**

Velocity controls the velocity range for this layer.
For example if you want to have two layers, you may set up one of them to process velocities from range 0% to 50% (1 to 63), and another one from 50% to 100% (64 to 127). When using **First** *mode, it is even more simple - the second layer could be from 0% to 100% as a catch-all, because the plugin knows that the first one would process velocities up to 50%.*

Mode 0.00% **Mode**

Mode controls the range of the 'mode' for this layer. The mode is attached to a CC controller, such as hihat opening, or controller directly from the rhythm.

Volume 0.00 dB **Volume**

Volume defines the sound volume of the layer (this is independent of the drum volume) which you can use to balance the layers. Note that **velocity** can affect the volume too.

Panorama center **Panorama**

Panorama defines the sound panorama of the layer (this is independent of the drum panorama) which you can use to balance the layers.

Pitch 0 **Invert**

Invert switch inverts the phase of the layer output. Use it when you experience phase cancellation problems.

Layer source panel
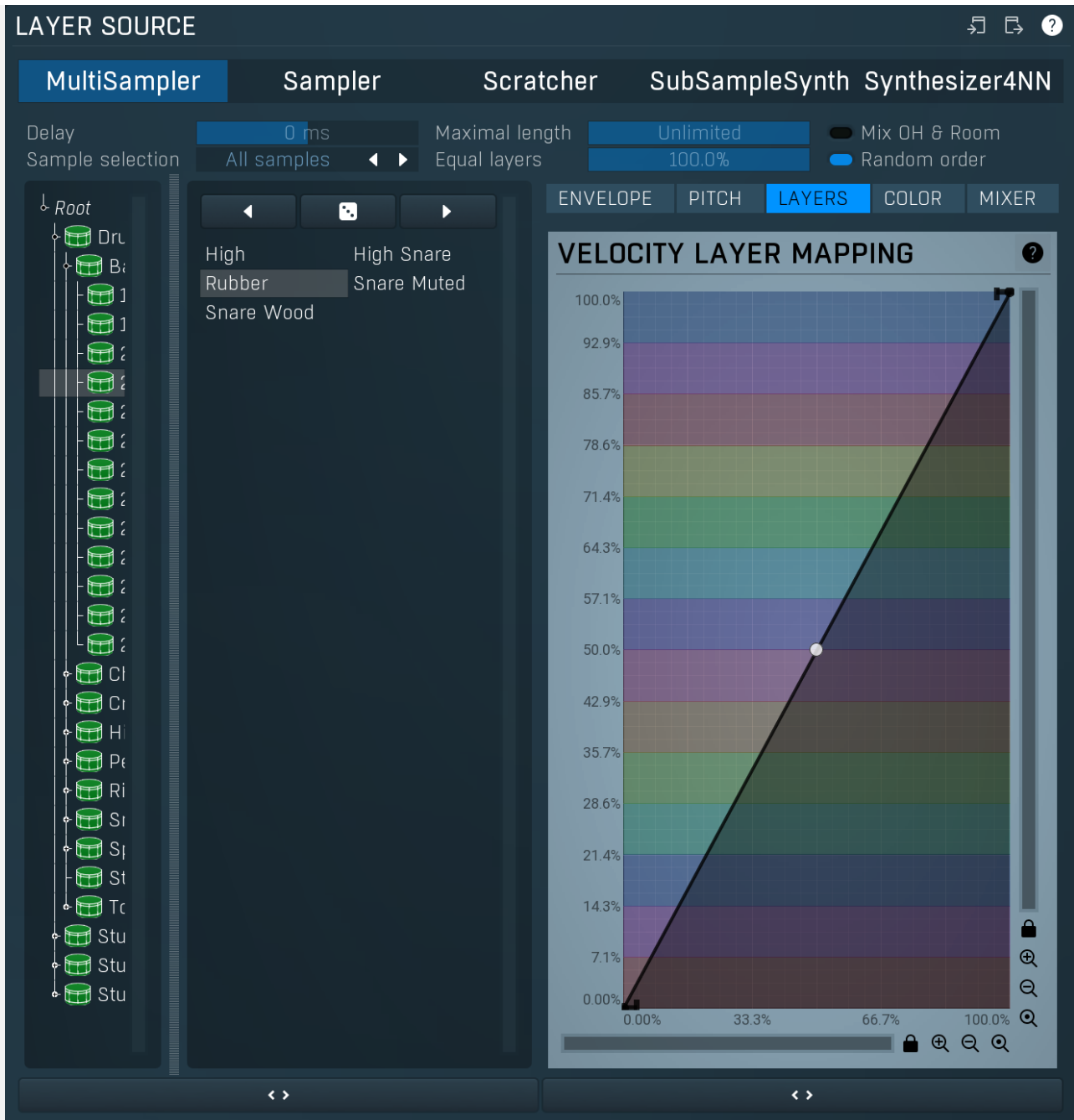
Layer source panel allows you to set up the drum sound source sample and its parameters for the selected layer.

⊡ Copy
Copy button copies the selected velocity layer onto the system clipboard.

⊡ Paste
Paste button pastes the selected velocity layer settings from the system clipboard.

MultiSampler	Sampler	Scratcher	SubSampleSynth Synthesizer4NN

Source sample selector
Source sample selector contains the list of installed sound source samples. The currently-loaded one is highlighted. Click on another one to change the sound source for the current layer of this drum. Click using right mouse button to get a context menu containing all of the plugins.
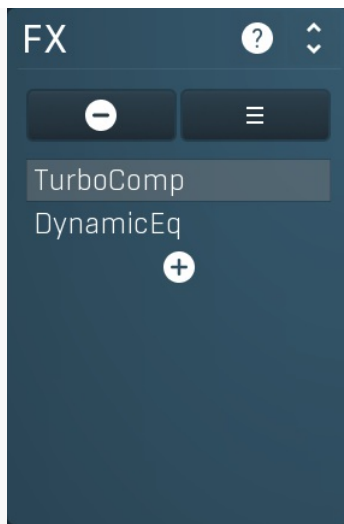
FX list

FX list contains the list of effects in the pipeline.
Double click on an effect to display its editor.
Click the plus sign to add a new effect.
Hold alt and click on an effect to delete the effect from the pipeline.
Check/uncheck an effect to toggle the effect's bypass state.
Click and drag an effect up / down to move it, hence changing the order of effect processing.
Click and drag an effect left / right to copy effect with its complete settings to other effect pipeline.
Hold shift and drag an effect left / right to move the effect with its complete settings to other effect pipeline.

FX panel contains the drum effect pipeline, which lets you manipulate the list of effects processing the drum signal. You can have as many of them as you want, but note that each effect consumes some CPU and memory. The plugin generates an audio stream from the drum layers, similar to mixing a single drum using one or more microphones. Then it processes this stream using this effect pipeline. The output of the effect pipeline is then sent to all available sends and mixed with the output.

Delete

Delete button deletes the selected effect from the effect pipeline.

Menu

Menu button displays additional functions to randomize/load/save effects etc.

FX list

FX list contains the list of effects in the pipeline.
Double click on an effect to display its editor.
Click the plus sign to add a new effect.
Hold alt and click on an effect to delete the effect from the pipeline.
Check/uncheck an effect to toggle the effect's bypass state.
Click and drag an effect up / down to move it, hence changing the order of effect processing.
Click and drag an effect left / right to copy effect with its complete settings to other effect pipeline.
Hold shift and drag an effect left / right to move the effect with its complete settings to other effect pipeline.

FX OH panel contains the effect pipeline for overheads (if available). Having such a thing is impossible when mixing drums normally, since it requires dedicated signal from overhead microphones containing the individual drums only, but The plugin mixes all drums separately, so this is indeed available. You can use it for example to produce a big snare sound by compressing the overheads, but leaving the rest of the kit intact.

Delete

Delete button deletes the selected effect from the effect pipeline.

 Menu

Menu button displays additional functions to randomize/load/save effects etc.

 FX list

FX list contains the list of effects in the pipeline.
Double click on an effect to display its editor.
Click the plus sign to add a new effect.
Hold alt and click on an effect to delete the effect from the pipeline.
Check/uncheck an effect to toggle the effect's bypass state.
Click and drag an effect up / down to move it, hence changing the order of effect processing.
Click and drag an effect left / right to copy effect with its complete settings to other effect pipeline.
Hold shift and drag an effect left / right to move the effect with its complete settings to other effect pipeline.

FX Room 1 panel contains the effect pipeline for room microphones (if available). Having such a thing is impossible when mixing drums normally, since it requires dedicated signal from room microphones containing the individual drums only, but The plugin mixes all drums separately, so this is indeed available. You can use it for example to produce a big snare sound by compressing the room mics, but leaving the rest of the kit intact.

 Delete

Delete button deletes the selected effect from the effect pipeline.

 Menu

Menu button displays additional functions to randomize/load/save effects etc.

 FX list

FX list contains the list of effects in the pipeline.
Double click on an effect to display its editor.
Click the plus sign to add a new effect.
Hold alt and click on an effect to delete the effect from the pipeline.
Check/uncheck an effect to toggle the effect's bypass state.
Click and drag an effect up / down to move it, hence changing the order of effect processing.
Click and drag an effect left / right to copy effect with its complete settings to other effect pipeline.
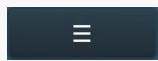**Hold shift and drag** an effect left / right to move the effect with its complete settings to other effect pipeline.

FX Room 2 panel contains the effect pipeline for room microphones (if available). Having such a thing is impossible when mixing drums normally, since it requires dedicated signal from room microphones containing the individual drums only, but The plugin mixes all

drums separately, so this is indeed available. You can use it for example to produce a big snare sound by compressing the room mics, but leaving the rest of the kit intact.
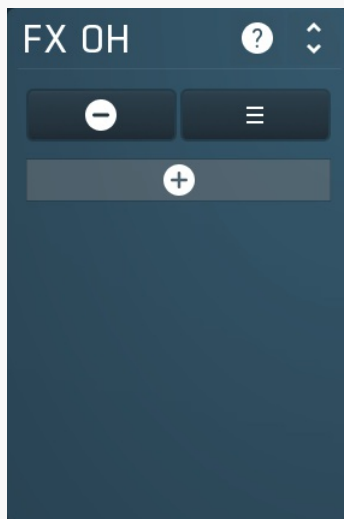
 Delete

Delete button deletes the selected effect from the effect pipeline.

 Menu

Menu button displays additional functions to randomize/load/save effects etc.

Rhythm editor tab

Rhythm editor tab provides an extremely versatile rhythm editor, where you can edit every aspect of the MDrummer's powerful rhythm engine.

Globals panel
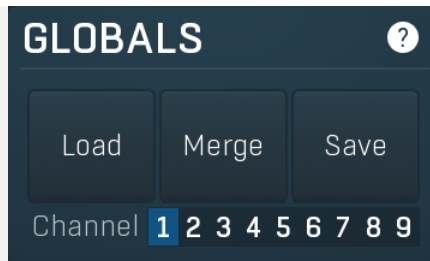
Globals panel provides general rhythm functions for loading, saving and configuring the current rhythm channel.
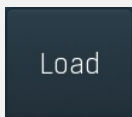
Load
Load button loads a rhythm from a file. Shortcut : F3
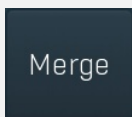
Merge
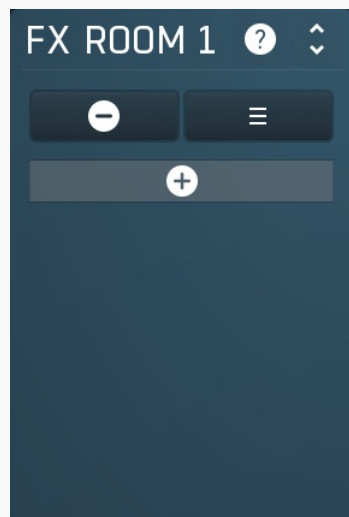Merge button loads a rhythm from a file and merges it with the current one. Typically you would use it to add percussion (shakers, tambourine etc.) to your rhythms. Such percussion rhythms are located in **background percussion** directory. Shortcut : F4
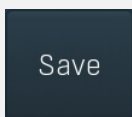
Save
Save button saves the rhythm to a file. Shortcut : F2
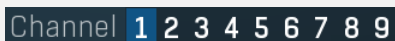
Channel
Channel defines which one of the 9 rhythms is being edited. This number corresponds to the MIDI channel if you are using MDrummer virtual instrument plugin.

Playback panel

Playback panel provides the rhythm playback control functions that you can use to instruct your virtual drummer.

Verse 1
Verse 1 button says *"Put a break (fill) there and change the level to 25%!"*. You can get the same behaviour by changing the **Level** value to 25% then pressing the **Break** button. Shortcut : 8

Verse 2
Verse 2 button says *"Put a break (fill) there and change level to 45%!"*. You can get the same behaviour by changing the **Level** value to 45% then pressing the **Break** button. Shortcut : 9

Chorus
Chorus button says *"Put a break (fill) there and change level to 75%!"*. You can get the same behaviour by changing the **Level** value to 75% then pressing the **Break** button. Shortcut : 0

Play
Play button enables or disables playback immediately. Shortcut : Space, P, F10

Intro
Intro button says *"Play intro now !"*. Shortcut : 1

Beat

Beat button says *"Play beat now !"*. Shortcut : 2

Break

Break button says *"Put a break (fill) there !"*. Please note that the break may appear later, because breaks are often very short sequences at the end of the bar. Shortcut : 3

L Break

L Break button says *"Put a long break (fill) there !"*. Long breaks are typically twice as long as short ones. Please note that the break may appear later, because breaks are often very short sequences at the end of the bar. Shortcut : 4

Outro

Outro button says *"Play the outro !"*. After the outro is finished, the virtual drummer stops the playback (if it is in **sequencer mode**). This command can be automated. Note that the outro may appear later, because outros are often very short sequences at the end of the first bar. Shortcut : 5

Level

Level defines the loop level to select. Level mostly corresponds to complexity and loudness.
But please note that this is NOT the actual sound level. The actual level is changed when you press any of the command buttons. Why? Because it sounds fairly weird when you change level suddenly. Level change is typically introduced by a fill or it should appear at the beginning of the bar.
If you want to change level immediately, you can use **loop selector** piano.
You can use the following shortcuts to set up this value :

- 6 - Decrease level to select.
- 7 - Increase level to select.

- Ctrl+1, Ctrl+2, .., Ctrl+0 - Set up specific level to select.

Settings panel

SETTINGS   ?

Tempo	120.0000	🖱	Humanization	0.00%
Velocity	100.0%		Shuffle	0.00%
Speed change	100%	◀ ▶	Additional	

Settings panel provides the rhythm playback configuration that you use to define the behaviour of your virtual drummer.

Tempo

Tempo defines the current playback tempo. Please note that MDrummer as virtual instrument plugin synchronizes with the host automatically.

Tap

Tap button lets you easily set the tempo by tapping it. Start pressing the button rhythmically. After the first press, the tempo starts changing. The more clicks you do, the better accuracy you get. If you want to start over, wait for about 2 seconds first.

Humanization

Humanization affects inaccuracy and deflection for all notes in the rhythm. A negative value causes MDrummer to be a better drummer, and positive makes it to be more human.
Range: -100.0% to 100.0%, default 0.00%

Rhythm velocity

Rhythm velocity is useful if, for example, you are using multiple rhythms at once and you do not want all of them to be at the same level. Note that all of the rhythms use the same drumset, so this is only a simple way to set up the volume per rhythm.
Range: 0.00% to 100.0%, default 100.0%

Shuffle

Shuffle moves the notes from straight notes to shuffled notes (triplets) and conversely. It can give the rhythm a totally new feel.
Range: -100.0% to 150.0%, default 0.00%

Speed change 100% ◀ ▶ **Speed change**

Speed change allows you to make MDrummer play twice as fast, half as fast etc. It also applies to the virtual instrument plugin, while tempo does not.
Range: 25% to 400%, default 100%

Additional **Additional**

Additional button shows a menu with additional rhythm playback settings.

⌄ **Collapse**

Collapse button minimizes or enlarges the panel to release space for other editors.

Edit panel

EDIT ❓

Signature	4/4	◀ ▶
Break length	1	◀ ▶
Break interval	3	◀ ▶

Rhythm processing
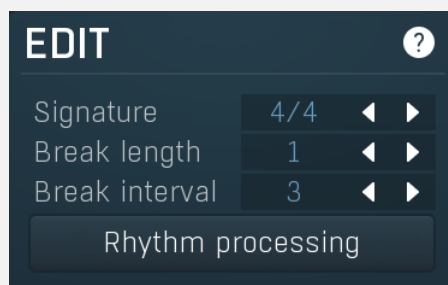
Edit panel provides the current rhythm configuration.

Signature 4/4 ◀ ▶ **Signature**

Signature defines the current rhythm signature. If you change this, all of the loops in the rhythm will be modified to fit the new signature by moving, removing or adding notes. please note that changing signature from 4/4 to 6/4 directly may produce a different rhythm from changing 4/4 to 5/4 and then to 6/4. Only quarter signatures (x/4) are supported, but note that, for example, 6/8 is the same thing as 3/4.

Break length 1 ◀ ▶ **Break length**

Break length defines the number of bars in all of the breaks. MDrummer uses it to determine the interval between two automatically-started breaks. Hence if you have different break lengths, MDrummer will not play them correctly in synchronisation with each other. In most cases this is just one bar.

Break interval 3 ◀ ▶ **Break interval**

Break interval parameter means "How many sequences of the break length should occur between two breaks.".
Lets take an example: Consider standard breaks with length of one bar. If you set break interval to 2, then there must be 2 (interval) multiplied by 1 (length) bars of beats before MDrummer decides to play another break. So MDrummer will play 2 bars of beat and then a break of 2 bars, and repeats the same cycle again.
There may be an exception and a long break is taken. Long breaks should be twice as long as breaks, so then MDrummer could play one bar of beat and play a long break.
A value of 3 is very typical, because the cycle then takes 4 bars (3 beats plus one break).

Rhythm processing **Rhythm processing**

Rhythm processing button shows a menu with additional rhythm edit functions.
Normalize fixes any errors in the loop, for example it removes doubles and removes empty loops.
Clear removes all loops in the rhythm, good for a 'fresh start'.
Generate from template lets you generate a whole new rhythm using a rhythm template. It can be a great source of inspiration if you don't want to use the "big" rhythm generator.
Double/half tempo feel changes the tempo of all tracks except for background percussion - hihats, cymbals, shakers etc. Therefore this basically changes tempo of drums only keeping the fullness defined by hihats and cymbals intact.
Double/half speed changes the tempo of all tracks, no exceptions.
Double/half pattern speed is the exact opposite of double/half tempo feel. It changes the tempo of the background percussion tracks only. This keeps the beat defined by bass and snare drums for example.
Double/half beat speed changes the tempo of all beat loops, it keeps the breaks, intros and other loops intact.
Double/half loop speed is the exact opposite, it changes the tempo of all loops except for beats.
Clear beats deletes beat loops. This is useful when recording and processing rhythms using **Smart MIDI import**.

Clear breaks deletes all break and long break loops. This is useful when designing base rhythms for rhythm generator.

Clear all except beats deletes all break, long break, intro and outro loops. This is useful when designing base rhythms for rhythm generator.

Copy beats to breaks copies beat loops into break and long break loops. This is useful when designing base rhythms for rhythm generator.

Copy loopbox to all others copies contents of the selected loopbox to all other loopboxes of the same type.

Change type of one track changes a track type in all loops into a different one.

Change type of all tracks merges all tracks in all loops into a single track and lets you choose its type. It is useful when designing background percussion rhythms.

Load track to all loops (of current type) lets you choose a track pattern and drum type and adds that track to all loops in the rhythm (or just to those of the current loop type). This is an alternative to merging a background percussion rhythm and is useful, because preparing a track file is very simple unlike preparing background percussion rhythms.

Smart MIDI import lets you analyze a MIDI track, quantize and fix various timing and velocity problems and generate and save loops from it. It is handy when preparing loop collections.

Batch MIDI import lets you import a whole MIDI loop collection.

Load/Save multiple loops can load/save a whole directory of loops.

Generate rhythm from template

Template

TEMPLATES

```
└ Root
```

Create   Rename   Delete   Rename   Delete

The Template selector contains the list of available templates. These are ordinary rhythms, except each loop-box contains more than a single loop. Please see **Generate** button help for more info.

Generate template
Generate template
Generate template button creates a template simply by merging multiple rhythms. When you press this button, a window for selecting the rhythms is displayed. Select several of them and store the result as a template. You can then use this template in the rhythm generator.

Generate
Generate
Generate button generates a new rhythm using the selected template. It loads the template, which is nothing more than a rhythm with multiple loops in each box. Then it mingles all loops in each box and produces one resulting loop. This feature is especially useful for creating base rhythms for the rhythm generator. In electronic music the background (hi-hats and rides for example) are usually switching between several patterns, and this feature can easily produce these sequences.

Close
Close
Close button closes the window.

Advanced settings

ADVANCED SETTINGS   Settings for rhythms   Settings for base rhythms   ?

○ Preserve background percussion
○ Keep the same randomization seeds for each loop
Merge quantization   1/4   ◄ ►
Intros, breaks and outros mode   Choose random set   ◄ ►
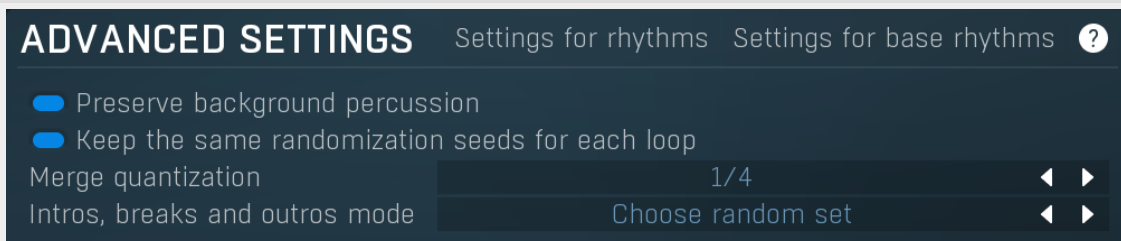
Settings for rhythms
Settings for rhythms
Settings for rhythms button sets the default settings for generating normal rhythms.

Settings for base rhythms
Settings for base rhythms
Settings for base rhythms button sets the default settings for generating base rhythms used by rhythm generator.

○ Preserve background percussion
Preserve background percussion
Preserve background percussion is useful when using full rhythm templates because it varies the groove, but keeps the background percussion, such as the hi-hats, intact. On the other hand for more creative results and for example breakbeat rhythms, this could be disabled. This setting however makes no sense when generating base rhythms, because these essentially contain only background percussion, so the generator would do nothing.

○ Keep the same randomization seeds for each loop
Keep the same randomization seeds for each loop
Keep the same randomization seeds for each loop causes each loop to be generated with the same randomization seed, hence resulting in the same randomization results. This is usually desired when processing full rhythms, because since the original rhythms contained a similar groove between multiple levels, then it will be preserved. On the other hand, if you

disable it, then every level can contain a different groove, which may be creatively abused, especially for styles such as breakbeat.

| Merge quantization | 1/4 | ◀ ▶ | **Merge** |

quantization
Merge quantization defines to how long intervals are the loops cut. The shorter the intervals are, the more different combinations can be generated, but the less natural the results may be.

| Intros, breaks and outros mode | Choose random set | ◀ ▶ | **Intros,** |

breaks and outros mode
Intros, breaks and outros mode controls the way in which the intros, breaks, long breaks and outros are generated.
Choose random set simply chooses a random set of available loops, therefore the resulting loops are exactly the same as the original ones. You can use this for example to generate a new rhythm from existing ones. First you need to generate template using the button in the templates panel title. Then generate a new rhythm using that template and this mode.
Mingle mode takes all loops in each loop-box and mingles them into one in the same way as beats are processed. It is especially useful to generate new base rhythms for example.
Mingle many mode generates many loops of the same type in the same way as mingle mode works. It is useful for example to generate complicated breakbeat rhythms.

Smart MIDI import

Smart MIDI import is the most advanced way to import MID files used for whole tracks. It loads a MIDI file, cuts it into separate loops of length you specify, calibrates velocities, detects flams and other properties, quantizes the loops using 2 co-operating quantizers and puts the loops into appropriate loop-boxes.
It is mostly used to generate loop collections from recorded tracks. For example you let a drummer play many rock breaks in a row, record it as MIDI and use this function to process the entire track generating the loops from it and applying all necessary processing automatically.

| Path | | ⌨ | **Path** |

Path contains the current path. Write a different one and press Enter to jump into it.

🔍 **Locate**

Locate button shows the selected folder in system explorer/finder.

Settings
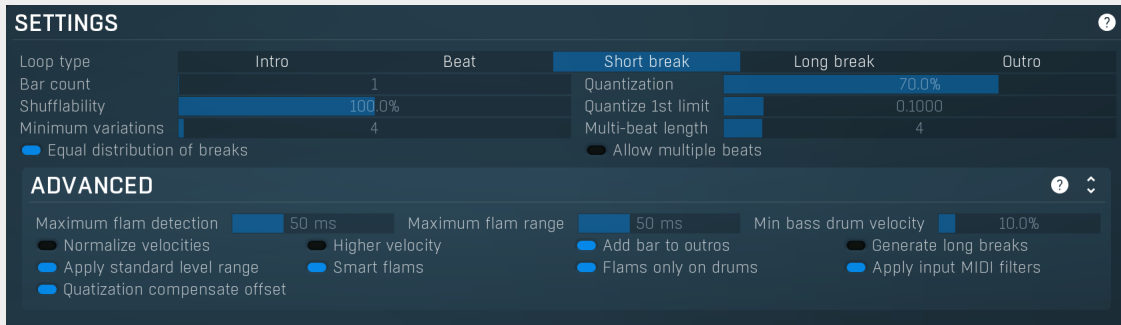
 Loop type

Loop type defines the loop type to create.

 Bar count

Bar count defines number of bars per loop.

 Quantization

Quantization controls the amount of quantization. With 100% the notes will be shifted to perfect positions, like if the computer played the performance. 0% means no quantization at all.

 Shufflability

Shufflability defines shufflability parameters for each note. Generally you leave it at 100%, but for some specific rhythms (e.g. Afro breaks) you may want to change the value, since these are often shuffled to some extent already.

 Quantize 1st limit

Quantize 1st limit controls the limit of latency compensation and quantization of the first quarter notes. MDrummer detects the standard shift often caused by latency and compensates for it and then quantizes the 1st quarter notes, so that the loops always start properly. This value defines the limit (in quarter notes) in which a note can be considered 1st quarter note.

 Minimum variations

Minimum variations defines the minimum number of loops per box and is used when **Allow multiple beats** or **Equal distribution of breaks** is enabled to calculate the number of boxes to fill.

 Multi-beat length

Multi-beat length controls the length of each sequence for multi-beat processing. It is used only when **Allow multiple beats** is enabled.By default it is 4, which means that the drummer is supposed to play 4 repetitions of the beat and the 3rd is taken, the rest of them are deleted. But you can make sequences of different length if the drummer prefers it. The pre-last one is taken. The extreme cases are 1, which is useful to keep all repetitions, not deleting any, and is useful for jamming styles such as jazz or reggae. Another case is 2, which would normally let the engine take the 1st repetition, which doesn't seem to be useful, so 2nd is taken instead.

 Equal distribution of breaks

Equal distribution of breaks makes MDrummer place approximately the same number of breaks/intros/outros into each bin. It chooses the number of bins to provide a reasonable number of variations. It is disabled by default, in which case each loop level is measured based on the complexity of the performance and put into appropriate bin. The problem is that with some music styles the level may be too similar for most loops and that may result for example in very small number of variations for lower levels.

 Allow multiple beats

Allow multiple beats makes MDrummer create multiple beats if needed. If this is disabled, it assumes that each beat is played 4 times and it takes the 3rd one only assuming that one is the best.

Advanced
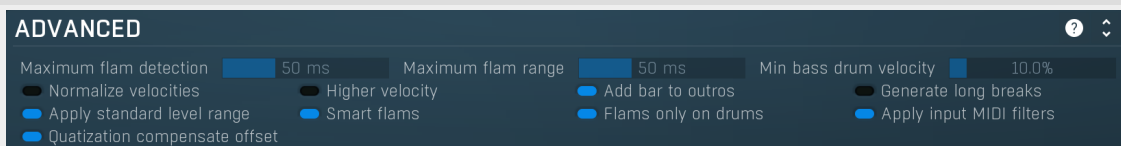
 Maximum flam detection

Maximum flam detection controls the maximum time between 2 hits to be considered a flam. It is used only if **Smart flams**

is enabled.

Maximum flam range

Maximum flam range controls the maximum time between 2 hits to be kept when these are considered a flam. Use this to make flams sound closer together. It is used only if **Smart flams** is enabled.

Min bass drum velocity

Min bass drum velocity controls the minimum bass drum velocity to keep. Bass drum notes with lower velocities are deleted. This is useful especially with MIDI recorded via electronic drum kit, because the kick pads are often receiving repeated hits from the bass drum beater, either because the beater hits the pad multiple times, or even when untouching it before a next hit.

Normalize velocities

Normalize velocities makes MDrummer detect the range of note velocities in the MIDI file and transform them using a predefined velocity range.

Higher velocity

Higher velocity is closely related to **Normalize velocities** and makes MDrummer generate higher velocities that are present in louder styles such as metal.

Add bar to outros

Add bar to outros makes MDrummer add a bar containing a crash cymbal and bass drum hit at the end of all loops. This way you can import several break loops and convert them into outros.

Generate long breaks

Generate long breaks is used for long breaks only and makes MDrummer "mingle" existing loops to generate additional ones from them.

Apply standard level range

Apply standard level range defines how loops are placed into loopboxes. If disabled, MDrummer spreads all of the loops into loopboxes according to total level range detected from the loops. If this is enabled, MDrummer uses standard range we approximated as common for most styles.

Smart flams

Smart flams makes MDrummer detect flams in advance to quantization. As a result notes with the defined offset are created ensuring that the flams are played perfectly in any tempo.

Flams only on single drum

Flams only on single drum makes MDrummer detect flams only if played on a drums. This helps the if there is hihat and cymbals for example to avoid MDrummer detecting inaccuracies in playing on these as flams.

Apply input MIDI filters

Apply input MIDI filters makes MDrummer use the current MIDI input filters when processing the input MIDI file. This way you can adjust velocities, change target drums if the loops are not General MIDI compatible etc.

Quatization compensate offset

Quatization compensate offset makes MDrummer perform dual pass quantization. In the first pass it is detected how much are the notes away from the optimum in average and the offset is compensated. This is useful to avoid technical offset often caused by latency and it may also mitigate the drummer's tendency to be ahead/late of the correct timing.

Batch MIDI import

BATCH MIDI IMPORT ❓ ― ⌐ ✕

Batch MIDI import lets you import all MID files from a particular directory and its subdirectories and put them into loop-boxes of specified type or into another directory in the MDrummer loop format. It also automatically detects the loop levels.

Loop type   Short break   ◀ ▶ **Loop type**

Loop type defines the loop type to be created.

🔵 **Apply standard level range**   **Apply standard level range**

Apply standard level range defines how loops are placed into loop-boxes. If disabled, MDrummer spreads all of the loops into loop-boxes according to the total level range detected from the loops. If this is enabled, MDrummer uses a predefined standard range that we approximated as typical for most styles.

⚫ **Just import and keep the names**   **Just import and keep the names**

Just import and keep the names makes MDrummer import the loops and store them in the requested target directory without detecting levels or renaming them.

🔵 **Apply input MIDI filters**   **Apply input MIDI filters**

Apply input MIDI filters makes MDrummer use the current MIDI input filters when processing the loops. This way you can adjust velocities, change target drums if the loops are not General MIDI compatible etc.

Load multiple loops

LOAD MULTIPLE LOOPS ❓ ＿ ▣ ✕
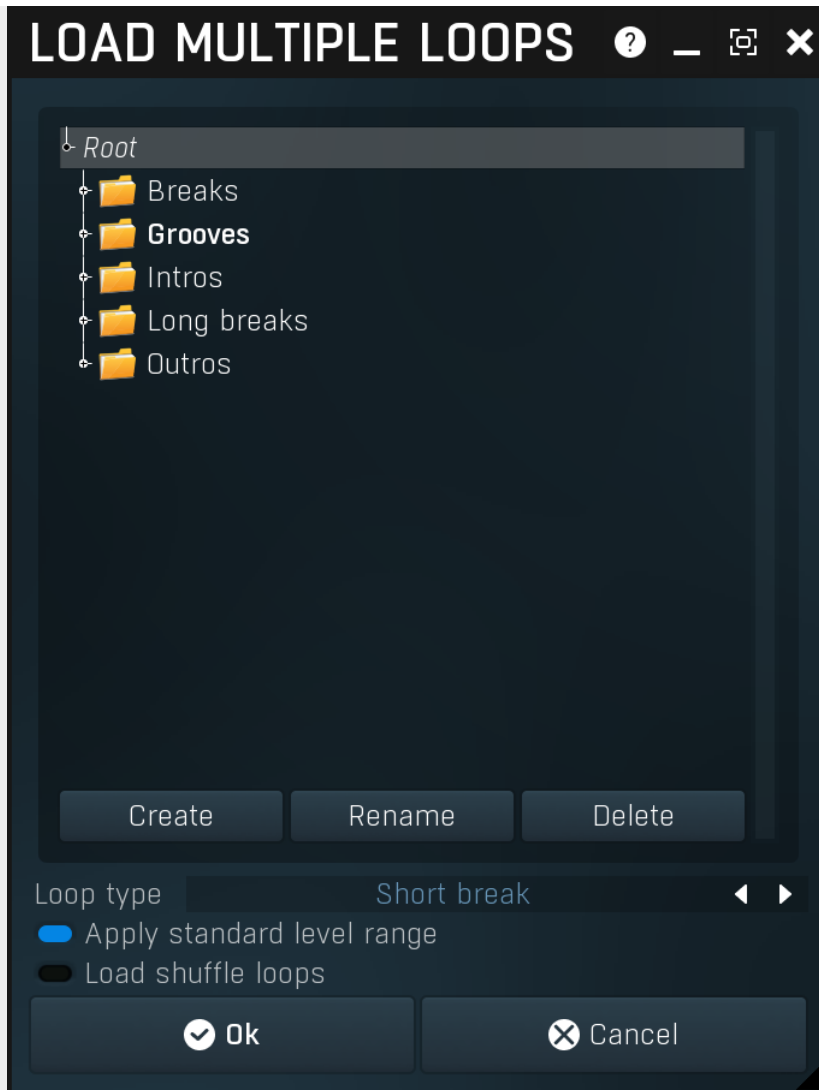
Load multiple loops lets you load all loops from a directory into loop-boxes of the specified type. It also automatically detects loop levels. It can be used for example to load all the loops previously stored by using **save multiple loops** function.

Loop type   Short break   ◀ ▶ **Loop type**
Loop type defines loop type to create.

◖ Apply standard level range   **Apply standard level range**
Apply standard level range defines how loops are placed into loopboxes. If disabled, MDrummer spreads all of the loops into loopboxes according to total level range detected from the loops. If this is enabled, MDrummer uses standard range we approximated as typical for most styles.

◖ Load shuffle loops   **Load shuffle loops**
Load shuffle loops makes MDrummer load only shuffle loops (as opposed to straight loops).

Save multiple loops

Save multiple loops lets you save all loops of a specified type to a target directory. This way you can easily save the loop collection that you have edited or imported. It also marks the loop levels, so the result is usable in rhythm generator.

 Loop type

Loop type defines the loop type to be stored.

 Mark as shuffle loops

Mark as shuffle loops makes MDrummer mark all loops as shuffle (as opposed to straight). This convention is required for rhythm generator.

Loop selector panel
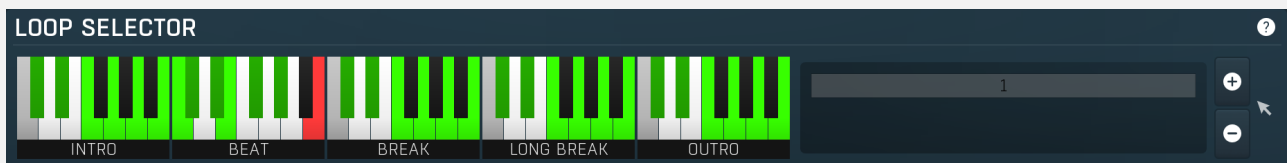
Loop selector panel allows you to select the current loop-box and the loop inside it. That loop is then being edited in the loop editor and is also used for playback. Note that MDrummer changes the selected loop during playback and you may need to reselect the one you want to edit.
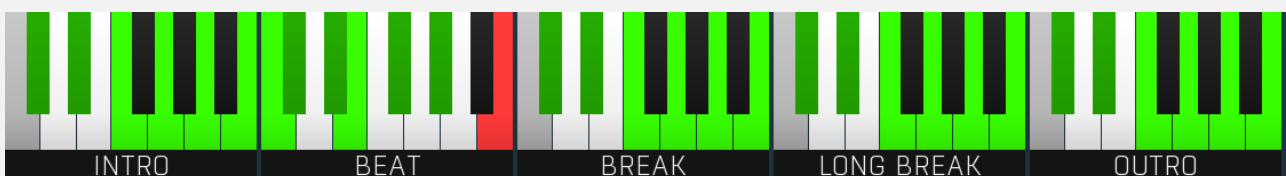
Loop type piano

Loop type piano you can use to select the current loop-box. A loop-box is a kind of container for several loops. When MDrummer

needs to play a loop of certain type, it selects one from the loop-box (either randomly, or you can specify the loop index directly). This makes MDrummer very versatile and non-repetitive. The current one is shown in orange. Empty loop-boxes are black or white, non-empty loop-boxes are yellow. If you click on an empty loop-box, a new (empty) loop is automatically created.

Loop index list

1
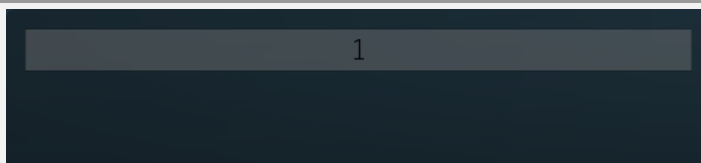
Loop index list contains all the loops inside the selected **loop-box**. You can have as many loops as you need in each loop-box.

Drag & drop
Drag & drop button exports the current loop into a MIDI file and lets you drag & drop it somewhere (to Explorer / Finder or into your host Arranger).

Add
Add button creates a new loop in the current loop-box and selects it.

Delete
Delete button deletes the current loop from the current loop-box.

Collapse
Collapse button minimizes or enlarges the panel to release space for other editors.

Loop editor

Loop editor is a very advanced editor of a single loop. A loop contains several tracks with attached drum types, which makes all loops perfectly compatible with each other. You can manage the set of tracks using left mouse double-click or right mouse button in the left-hand side of the editor.

Each loop can contain an unlimited number of notes, displayed on the right of the list of tracks. There are 3 note editing modes - pencil, eraser and selector. Generally you can use just pencil mode if you are OK with keyboard shortcuts. See the mode buttons for more information about the shortcuts (on the right).

Above the note tracks you can see the line with current position and bar limits. Click into the position field to rewind. Alternatively you can use your middle mouse button anywhere in the editor. Each bar contains 3 buttons. **Left arrow** adds another bar to the left. If you hold Ctrl, notes from current bar will also be duplicated. **Right arrow** is similar, but adds the bar to the right. Finally **Delete icon** deletes current bar.

On the right of the note tracks you can see additional parameters for the notes being created and quantization settings. Parameters of the notes in the loop are also available below the editor. If you select multiple notes, the parameters of only the notes in the selection are modified. Note that you can use right mouse button to set nearest default values for some parameters such as velocity.

Pencil

Pencil button switches to **pen** loop editor edit mode.
In this mode you can insert notes using **left mouse button** click and move. You can also delete notes using **right mouse button** click and move. If you **hold Ctrl**, it will behave in **selection mode** - you can select notes using left mouse click and drag. Selection enlargement using **Shift** works too.
Therefore pen mode can handle all of the work, but you may use all 3 different modes, if you wish. Shortcut : A

Selector

Selector button switches to **selection** loop editor edit mode.
In this mode you can select notes using **left mouse button** click and move. If you **hold Shift** the newly-selected notes will be added to the previous selection. If you **hold Shift and click just one note**, its selection state will be toggled. You can move the selected notes (even across tracks) using **drag & drop** when over one of them. Shortcut : D

Eraser

Eraser button switches to **eraser** loop editor edit mode.
In this mode you can delete notes using **left mouse button** click and move. If you erase a selected note, the entire selection is removed. You can also insert notes using **right mouse button** click and move. If you **hold Ctrl**, it will behave in **selection mode** - you can select notes using left mouse click and drag. Selection enlargement using **Shift** works too.
Therefore eraser mode can handle all of the work, but you may use all 3 different modes, if you wish so. Shortcut : S

Copy

Copy button copies the selected notes to the system clipboard. Shortcut : Ctrl+C

Paste

Paste button pastes notes from the system clipboard. The first of them will appear at the actual playback position, which you can set by clicking on the locator bar above the loop tracks or using your middle mouse button. The other notes will be positioned relative to that first note. Shortcut : Ctrl+V

Delete

Delete button clears the loop by deleting all notes and all bars except one.

Load

Load button loads a loop from a file. Shortcut : Ctrl+F3

Save

Save button saves the loop to a file. Shortcut : Ctrl+F2

Undo

Undo button reverts the previous edit.

Redo

Redo button takes back the previous undone edit.

Record

Record button enables or disables the recording mode in which you can simply play notes using your MIDI device and MDrummer records them into the loop.

Generate

Generate button lets you generate a new loop from other loops. It is especially useful for creating new original grooves.

Generate loop from template

GENERATE LOOP FROM TEMPLATE ❓ — ⧉ ✖

Root

📁 Breaks

📁 Grooves

📁 Intros

📁 Long breaks

📁 Outros

Create | Rename | Delete

ADVANCED SETTINGS ❓

Merge quantization   1/4   ◀ ▶

⬤ Include subdirectories

Generate | Close
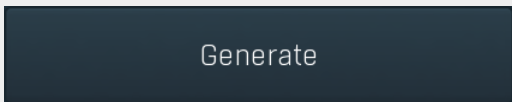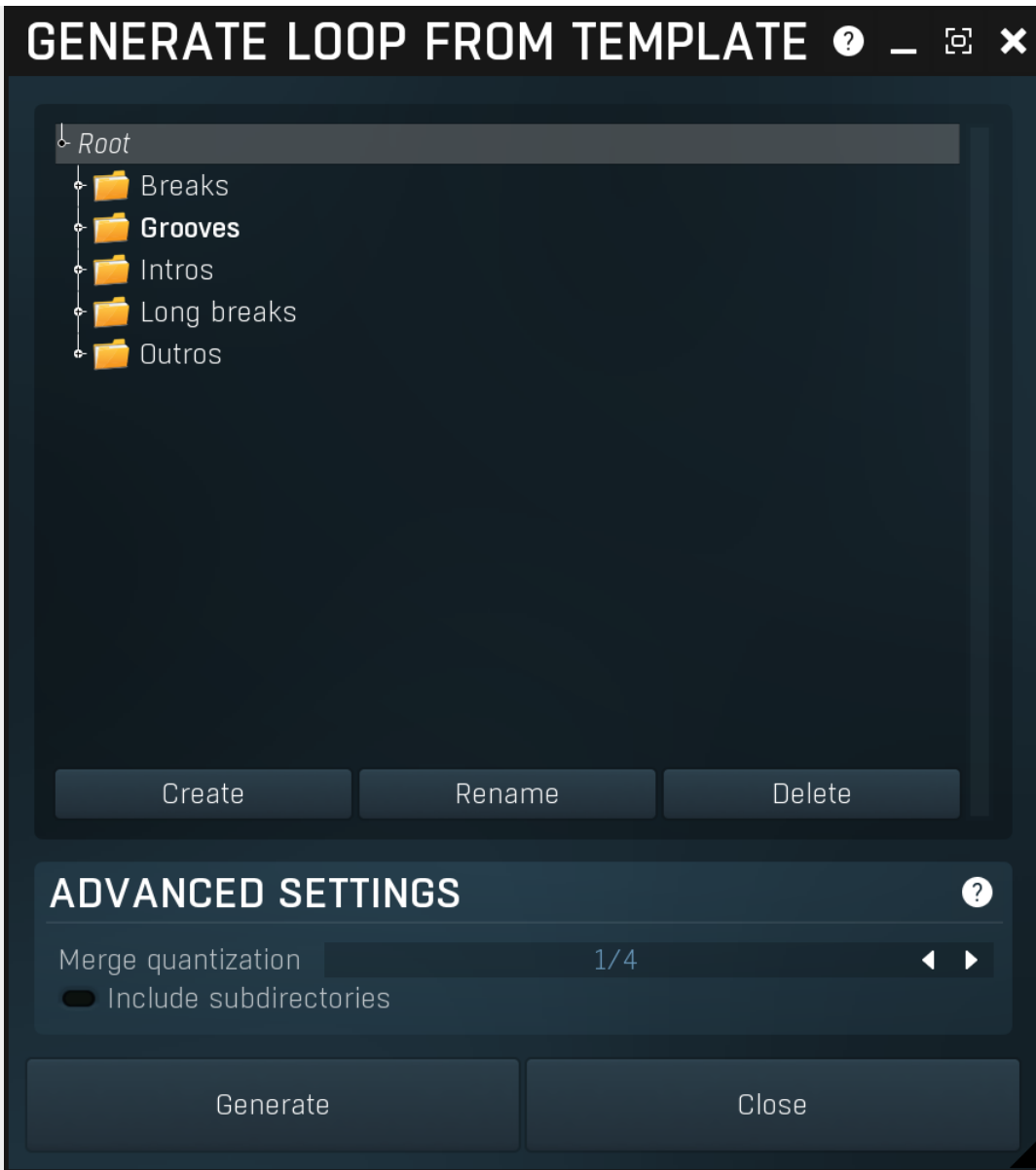
Generate

Generate

Generate button generates a new loops using the loops from selected directory.
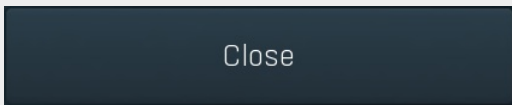
Close

Close

Close button closes the window.

Advanced settings

ADVANCED SETTINGS ❓

Merge quantization   1/4   ◀ ▶

⬤ Include subdirectories

Merge quantization   1/4   ◀ ▶ **Merge quantization**
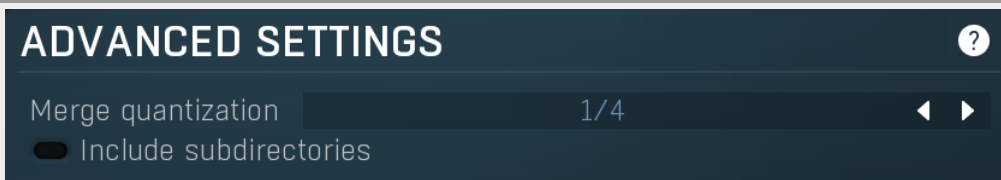
Merge quantization defines the intervals into which the loops are cut. The shorter the intervals, the more different combinations can be generated, but the less natural the results may be.

⬤ Include subdirectories **Include**

subdirectories

Include subdirectories makes MDrummer use loops from the selected directory as well as any subdirectories inside it. This provides more inspiration, but may not always be desired and may take longer to process.

Functions **Functions**

Functions button shows a menu with additional loop functions.

Double/half speed speeds up or slows down the loop. Note that since the loop has to follow the rhythm's signature, it may be necessary to copy notes or add bars to the loop.

Import/export MIDI generates or analyses a MIDI file. Note that many of the features (such as note deviation or probability) cannot be converted to MIDI format, because these are not defined in the MIDI standard.

Export WAV renders the whole loop using the current drumset into a wave file.

Record replace switch enables or disables replacing when recording. By default this is enabled, which means that when you are recording the loop using your MIDI device, the new contents replace the previous ones. This can be disabled if you want to add new notes instead ("over-dubbing").

`70` **Zoomer**

Zoomer lets you zoom horizontally into the loop editor.

Note panel

NOTE	?
Inaccuracy	0.0000
Offset	0 ms
Velocity	78.7%
Deflection	0.00%
Probability	100.0%
Minimal level	0.00%
Maximal level	100.0%
Shufflability	100.0%
Pitch	0
Mode	75.0%

Note panel provides configuration of note parameters which are used when creating new notes. Also in **selection mode** whenever you change any of the parameters, the changes are applied to all selected notes.

`Inaccuracy 0.0000` **Note inaccuracy**

Note inaccuracy defines the "skill" of the virtual drummer. A higher value makes the virtual drummer more inaccurate.

`Offset 0 ms` **Note offset**

Note offset causes the note to be played either earlier or later. Unlike the note position this value is time-based, which means that it is not affected by tempo. That makes it ideal for flams, modern raw beats and similar effects.

`Velocity 78.7%` **Note velocity**

Note velocity basically defines the note loudness. Using velocity layers and some other settings however you can make MDrummer play different sounds depending on the velocity. You can switch between 3 predefined velocity values using the shortcut "Z".

`Deflection 0.00%` **Note deflection**

Note deflection defines the variation of the note velocity. A higher value causes the velocity to be randomly changed. This is a kind of humanization.

`Probability 100.0%` **Note probability**

Note probability defines the chance that the note will be played. A lower value means a higher chance of the note being omitted.

`Minimal level 0.00%` **Note minimal level**

Note minimal level defines the minimal **loop level** that the note will be played in. Using this parameter you can make the loop vary according to the actual loop level (and for example rhythm with just one loop). This is especially useful for essential beats in **Rhythm generator**. You can switch between 3 predefined velocity values using the shortcut "N".

`Maximal level 100.0%` **Note maximal level**

Note maximal level defines the maximal **loop level** that the note will be played in. You rarely use this one as it means that if the loop level gets higher, some notes won't be played. Rhythm generator is also affected by this parameter.You can switch between 3 predefined velocity values using the shortcut "M".

`Shufflability 100.0%` **Shufflability**

Shufflability controls how much shuffle affects the note position.

`Pitch 0` **Note pitch**

Note pitch controls an additional pitch shift for this note.

| Mode | 75.0% | **Note mode** |

Note mode controls an custom value used for selecting a velocity layer. It is most commonly used for open hihats to select how open it is, but generally you can use it for anything, e.g. to select articulation for example.

Quantization panel
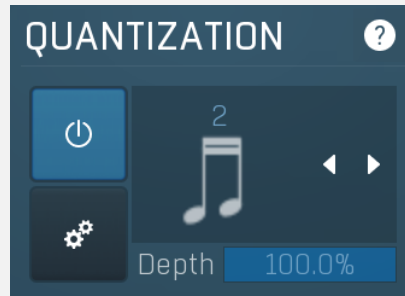
Quantization panel provides configuration of quantization state which helps you managing new and even existing note positions.
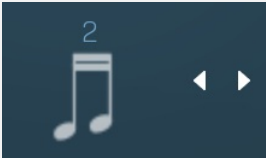
Quantization factor

Quantization factor defines current quantization state that defines the behavior of the loop editor. You can use following shortcuts to setup this factor :

- F - quarter notes (divided by current tuplet factor)
- G - eight notes (divided by current tuplet factor)
- H - sixteenth notes (divided by current tuplet factor)
- J - 32 notes (divided by current tuplet factor)

Enable

Enable button enables the quantization. If it is not pushed, quantization is disabled, so you can put and erase notes anywhere.
Shortcut : Q
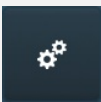
Requantize

Requantize button quantizes the selected notes or all of them if none are selected.

| Depth | 100.0% | **Depth** |

Depth controls the amount of quantization. 100% means fully quantized, 0% means not quantized at all.

Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.

Rhythm generator tab
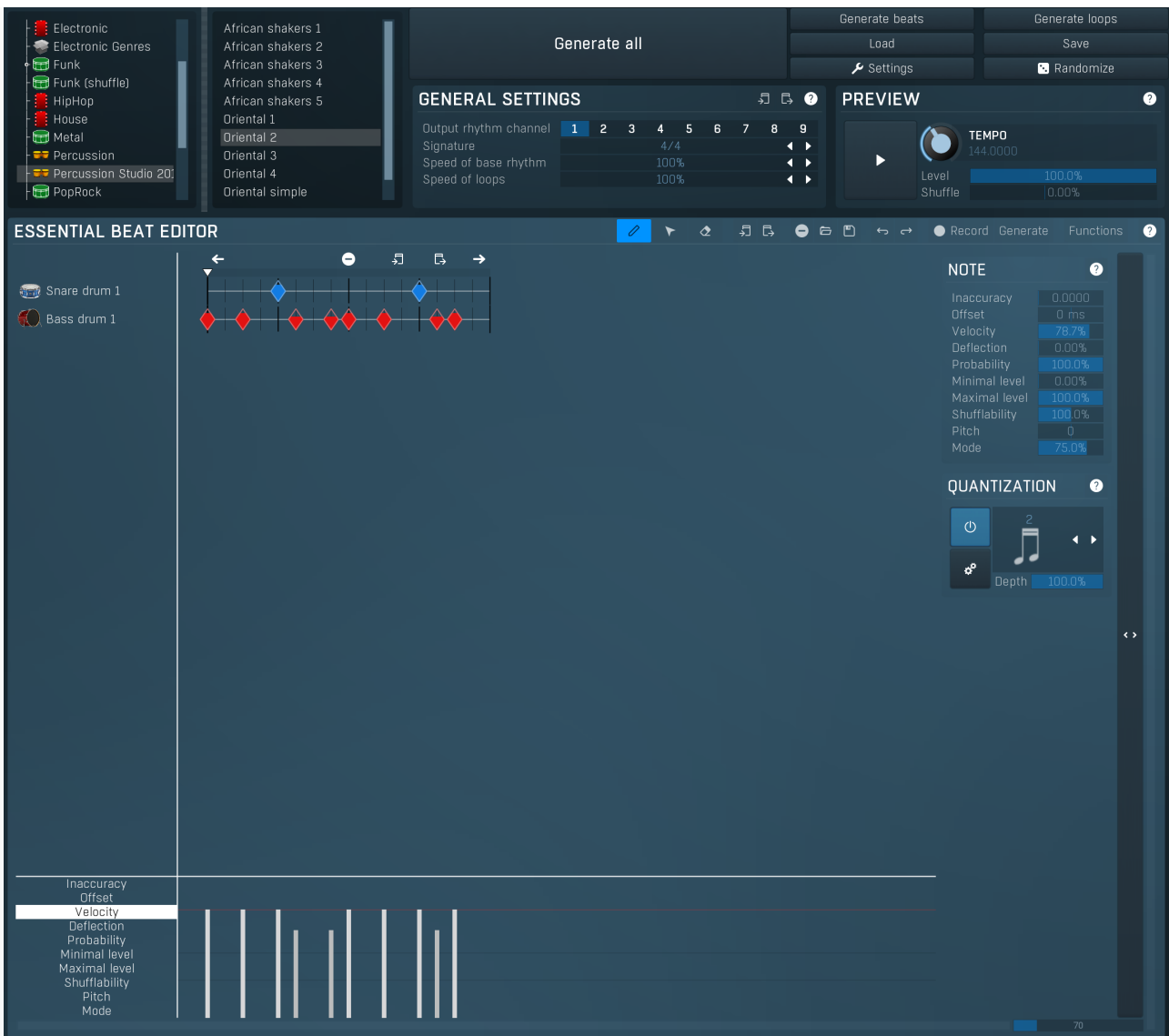
Rhythm generator tab contains the unique rhythm generator, which lets you create powerful rhythms from just a single groove. Most settings of the rhythm generator are initially hidden, but you can control every aspect of this marvelous feature here.

Base rhythms
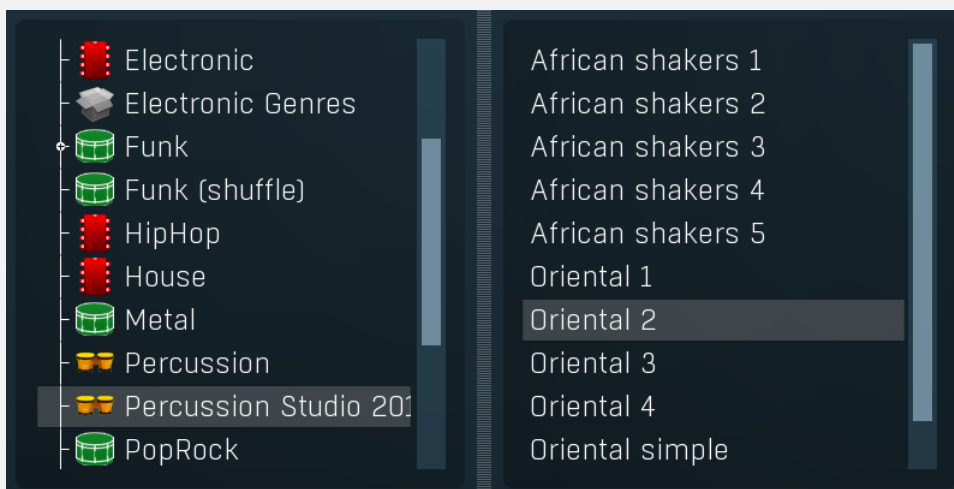
Base rhythms file selector contains the available base rhythms that you want to use to generate the resulting rhythm. A base rhythm is a normal rhythm that contains typically only background percussion, e.g. hi-hats and cymbals. This rhythm is then merged with your essential beat and several loops that you can configure in Advanced settings to form the resulting rhythm.

One special case is a base rhythm template, which is recognized simply by having Template in the name. These templates then result in a different base rhythm every time that you select them or double-click on them, so you can use them to create completely different rhythms. Please note that the settings are preserved, so that when you save it, the next time you use the rhythm generator, it will produce the same base rhythm. The base rhythm is generated again only when you reselect it or double-click on it.

Generate all

Generate all button generates the output rhythm with the channel **Output rhythm channel**. It sets the rhythm properties, generates the beats and all other loops.

Generate beats

Generate beats button generates only the beats into the target rhythm. It leaves all other loops unaffected. You may use the **Generate all** button to generate the whole rhythm and then tweak the essential beat without affecting any breaks/intros/outros that wouldn't be changed anyways.

Generate loops

Generate loops button generates the breaks, intros and outros into the target rhythm. It leaves all beats unaffected.

Load

Load button loads rhythm generator settings from a file. This includes the base rhythm, advanced settings and basically everything except the essential loop. Therefore this feature generally configures a music style.

Save

Save button saves rhythm generator settings to a file. This includes the base rhythm, advanced settings and basically everything except the essential loop. Therefore this feature generally saves a music style.

Settings

Settings button shows additional rhythm generator settings. In most cases you just need to use the **Load** button, but sometimes you may will want to select which loops will be used to generate the rhythm, their pre-processing, the number of them etc.

Advanced settings

General settings panel

General settings panel contains additional settings that apply to the rhythm as a whole and mainly to generated beats.

Merge base rhythm

Merge base rhythm makes MDrummer use the base rhythm to generate the target loops. You will probably leave this on.

Use straight loops

Use straight loops makes MDrummer use straight loops when generating breaks, intros and outros. If you are creating a shuffled rhythm, you will probably turn this off and enable **Use shuffled loops**.

Fill base rhythm boxes only

Fill base rhythm boxes only makes MDrummer ignore **Beat loop boxes** and then the generated rhythm will contain beats in exactly same loop-boxes as the base rhythm. This means that the generated rhythm extends the loops existing in the base rhythm in some way, but no more beat loops would be added.

Use shuffled loops

Use shuffled loops makes MDrummer use shuffled loops when generating breaks, intros and outros. If you are creating a straight rhythm, you will probably turn this off and enable **Use straight loops**.

Beat loop boxes

Beat loop boxes defines how many beats should be generated. It is relevant only when **Fill base rhythm boxes only** is disabled.

Intro panel

Intro panel provides configuration of generator parameters for intro loops.

⚙ **Process**

Process button generates loops of this type. Other loop types are not affected.

Merge base rhythm

Merge base rhythm makes the generator use the base rhythm to generate target loops. Loops from the base rhythm will be used for background in the target loops. You will probably leave this on.

Prevent hi-hat collision

Prevent hi-hat collision ensures that there are will be no colliding tracks if both the base rhythm and the loops being merged contain hi-hat tracks. Since most of the acoustic drum base rhythms contain hi-hats in non-beat loop-boxes, it would create an

unnatural effect if the loops contain them too. However this rarely matters in electronic music.

Random cut-off

Random cut-off makes MDrummer shortens the loops from those directories that you check below, so the target rhythm will be even more original.

Count per box

Count per box defines how many loops should be generated in each loop-box. A higher value causes MDrummer to "learn more", but the resulting rhythm will be larger and therefore occupy a larger amount of memory and disk space.

Number of boxes

Number of boxes defines how many loop-boxes (keys) in Loop box selector will be used for loops. Each of them will contain **Count per box** loops. A higher value causes MDrummer to "learn more", but the resulting rhythm will be larger and therefore occupy a larger amount of memory and disk space.

Type offset

Type offset is a very specific feature, which shifts the drum types of all tracks by a certain amount. This may come handy with percussion. For example you may have a set of conga breaks. But then you decide to use bongo instead. One way would be change all tracks manually, but this would be incredibly exhaustive (and you'll probably miss one). So you can check the drum type selection where you would find out that Bongo Hi is 2 items after Conga Hi, so to remap all congas to bongos, all you need to do is specify an offset of -2. Obviously this will remap all of the tracks, not just congas, so in most cases this features may not be suitable.

Directory tree
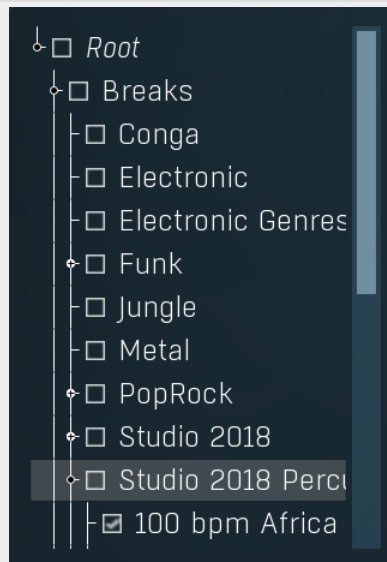
Directory tree lets you specify (check), from which sub-trees you want to take the loops. MDrummer then retrieves a list of all loops inside those directories and chooses suitable random ones to generate the target loops. The more directories you check, the more free will MDrummer be and the resulting rhythm can be more sophisticated, but you should be careful, because for example metal loops are not very suitable for pop rhythms.

Randomize

Randomize button generates random settings by loading a random essential beat, random settings and selecting a random base rhythm. This serves as a great source of inspiration since it combines backgrounds and grooves that are often not related to each other.

General settings panel

General settings panel provides general generator settings.

⇥ Copy

Copy button copies the current settings to the system clipboard.

⇨ Paste

Paste button loads the settings from the system clipboard. It is useful for example when you want to copy the settings into another rhythm channel.

| Output rhythm channel | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | **Channel** |

Channel defines which one of the 9 rhythms will be replaced with the generated one. Each channel also has separate settings, so when you come up with some rhythm generator settings in say channel 2, MDrummer will store it with your project, so you can modify it later but keep the other rhythms intact.

| Signature | 4/4 | ◀ ▶ | **Signature** |

Signature defines the target rhythm signature and also immediately changes the signature of the essential beat (edited below). Note that MDrummer automatically converts generated non-beat loops and even the base rhythm, because they are typically saved in 4/4 signature. All you need to do is to prepare a good essential beat and MDrummer will convert everything that needs conversion.

| Speed of base rhythm | 100% | ◀ ▶ | **Speed of base rhythm** |

Speed of base rhythm is used to control the speed of the base rhythm. Sometimes you may want to create a rhythm with a slower or faster background. In these cases you can either modify the base rhythm or this parameter, which is obviously easier.

| Speed of loops | 100% | ◀ ▶ | **Speed of loops** |

Speed of loops is used to control the speed of the resulting rhythm. Sometimes you may want to create a rhythm with unusual loops, e.g. breaks. This often happens when you try to create rhythms with a slow base (typically bass & snare). Original loops may be very unsuitable in these cases, so you can compensate for it using this parameter.

If you for example select 50%, all intros, breaks, long breaks and outros will become half as fast, but the length will remain the same (so only the first half of each is played). Please note that if you generate the rhythm and then use the half-speed function, the result will be similar, but the loops will be twice as long and that could cause some problems with rhythm tracks.

Preview panel

Preview panel is used to control playback of your essential beat. Only the essential beat will be played (you cannot play breaks that haven't been generated yet for example), but you can use it to audition the essential beat and its combination with the selected base rhythm. None of the settings affects the resulting rhythm.
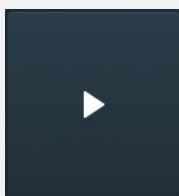
▶ Play

Play button enables or disables playback of your essential beat.

TEMPO 144.0000 Tempo
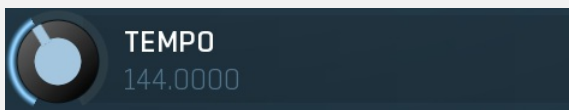
Tempo defines the playback tempo for the essential beat.

| Level | 100.0% | **Level** |

Level defines the set-up for the current loop level playback. You use this to preview the resulting rhythm played in a certain loop level. You can imagine that the essential beat is a small rhythm with just one loop. Here you set up the loop level and as there are no other loops, MDrummer has to play this one, but the level setting may cause some notes not to be played (see note parameters), which makes the resulting rhythm more variable. It also affects the background contained in the base rhythm.

Shuffle

Shuffle

Shuffle moves the notes from straight notes to shuffled notes (triplets) and conversely. It can give the rhythm a totally new feel.
Range: -100.0% to 150.0%, default 0.00%

Loop editor

Loop editor should be used to edit your essential beat. Essential beats typically contain only the major rhythmic instruments such as a bass and a snare drum, while the rest is contained in the base rhythm. Do not forget to set up the minimal and maximal levels for those notes that you want to include only in some of the target beats.

Preset selector
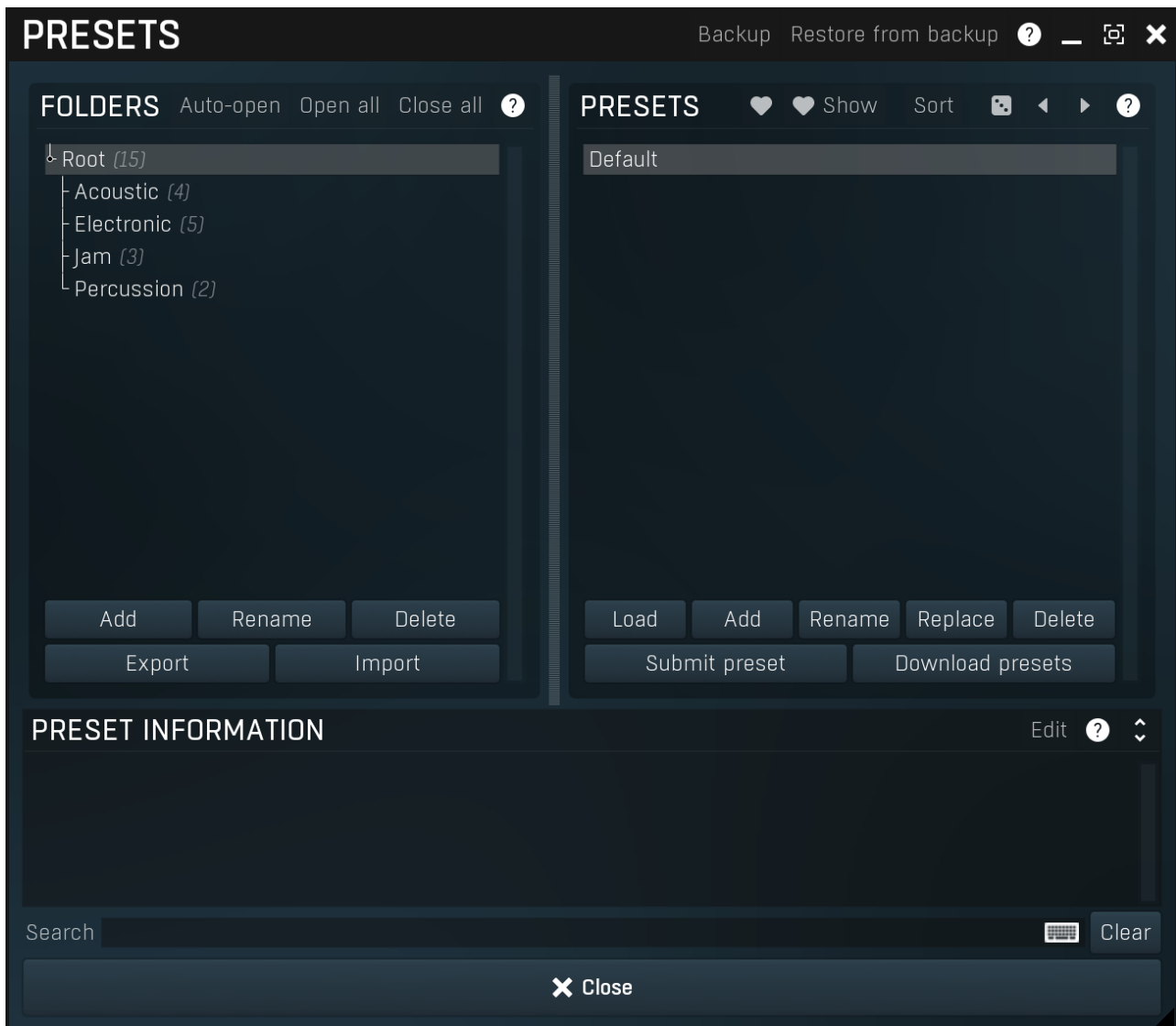
Preset management window provides management for your presets.

Backup
Backup button lets you backup presets for all MeldaProduction software into a single file, so you can transfer it to a different machine and restore the presets there for example.

Restore from backup
Restore from backup button lets you restore presets for all MeldaProduction software from a single file created by the **Backup** button.

Folders tree
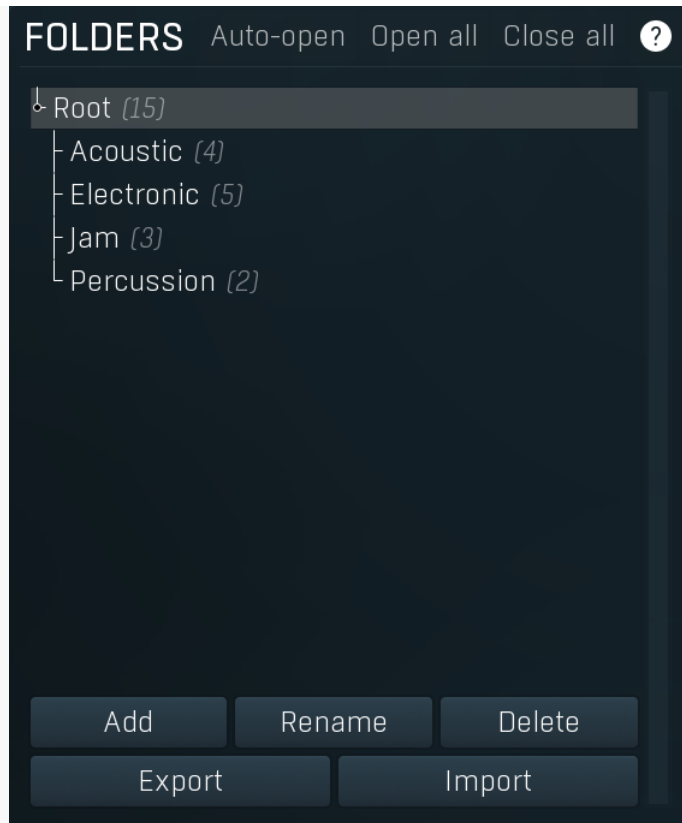
Folders tree lets you organize your presets into any number of folders. Use the buttons at the bottom of the window to create, rename or delete sub-folders. Note that these are not actual files & folders on disk, but are records in the preset database.

Auto-open
Auto-open switch makes the tree automatically open selected items, so that all sub-folders are visible, whenever you select one. This makes it easier to browse through large structures containing many folders. The switch also makes the browser show all presets available in the selected folder including all sub-folders (except when you select the root folder).

Open all
Open all button expands the whole tree, so you can see all of the folders. This may be handy when editing large preset structures.

Close all
Close all button collapses the whole tree except for the root folder. This may be handy when editing large preset structures.

Add
Add button creates a new folder in the tree

Rename
Rename button lets you rename the selected folder.

Delete
Delete button deletes the folder including all the presets and subfolders in it.

Export
Export button lets you export the selected folder including all presets and sub-folders into a file, which you can then transfer to any computer. Or just use as a back-up.

Import
Import button lets you import a file containing presets and sub-folders and add it to the selected folder. The importer will ask you whether to destroy the original contents, so that the new presets replace previous ones, or to keep both.

Presets list
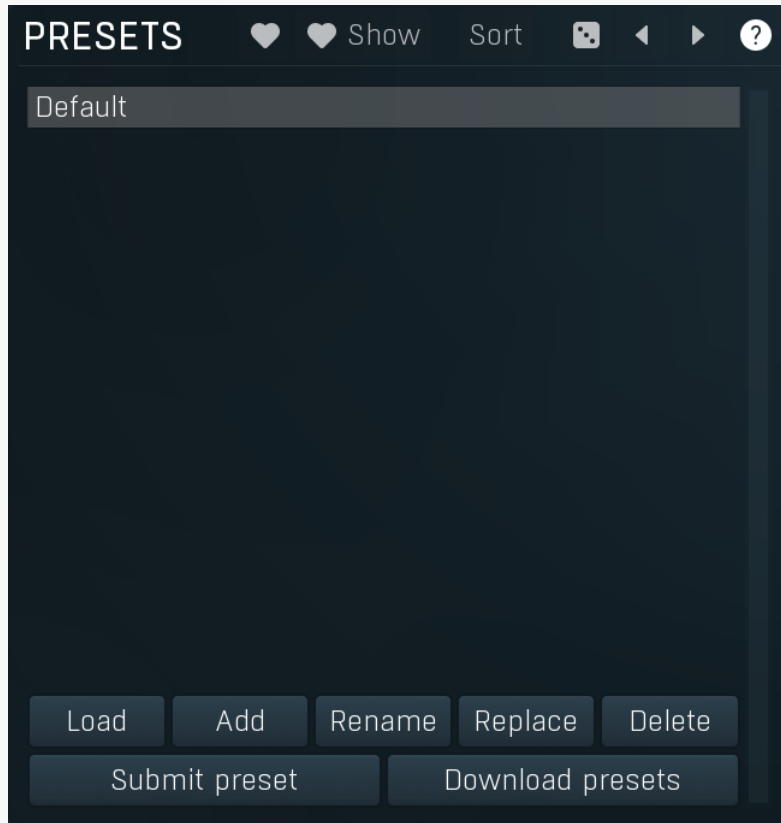
Presets list contains all presets available in the selected folder. **Double-click** on a preset or use **Load** button to load a preset. Use the buttons at the bottom of the list to perform additional changes. Please note that these are not actual files & folders on disk, but are records in the preset database.

❤ Favourite
Favourite button toggles the 'favourite' indicator for the selected preset.
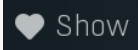
❤ Show ▸ Show
Show button shows only the favourite presets and hides the others.

Sort ▸ Sort
Sort button shows the presets sorted alphabetically.

🎲 Random
Random button selects and loads a random preset from the current folder. This way you can quickly browse the presets in the folder in a completely random order.

◀ Previous
Previous button selects and loads the previous preset from the current folder.

▶ Next
Next button selects and loads the next preset from the current folder.

Submit preset ▸ Submit preset
Submit preset button submits the selected preset to the online exchange servers and retrieves all the presets currently in the database. This feature serves as an online database of presets available for all the user community. Please do not submit garbage presets.

Download presets ▸ Download presets
Download presets button retrieves all the presets currently in the database. This feature serves as an online database of presets available for all the user community. Please consider participating by submitting your presets as well.

Load ▸ Load

Load button loads the specified preset. Please note that you can do the same thing by double-clicking the preset itself or pressing the Enter key.

Add
Add button creates a new preset using the current settings.

Rename
Rename button lets you rename the selected preset.

Replace
Replace button replaces the selected preset by one with current settings.

Delete
Delete button deletes the selected preset.

Search
Search filters the list of available presets to those containing the keywords in name or information.

Clear
Clear button deletes all text in the search field.

PRESET INFORMATION   Edit

Preset information
Preset information field contains optional information about the preset, which you can edit when creating or renaming the preset.

Plugin settings

SETTINGS

Licence manager

GUI & STYLE

Style

Random style | Default style

Select current style as default

GPU acceleration | Enabled
Frames per second | 40
◉ Enable high DPI support
◉ Enable colorization
◉ Enable colorization for panels

MULTI-SAMPLER

Preload | 1 **2** 4 8 16 32 64
Max memory | 4000 MB
Parallel loading threads | 4

DRUMSET GENERATOR SETTINGS

Include
Exclude
Prefer

GLOBAL SYSTEM SETTINGS

◉ Intelligent sleep on silence (global)
◉ Right click sets default value
○ Tablet mode
◉ Enable keyboard input
◉ Collapse plugin toolbar

ADVANCED GLOBAL SETTINGS

◉ Saturation antialiasing
◉ Forward unused keyboard input to DAW
○ Silence when busy
◉ Store resampled files

COMPATIBILITY SETTINGS

○ Storage compatibility mode for V15

MIDI SETTINGS

MIDI input mode | Full
MIDI transpose | 0
○ Use drum channels as MIDI output channels
◉ Invert hihat controller CC#4
◉ Follow MIDI pitchbend
◉ Follow MIDI volume
◉ Follow MIDI panorama

AUDIO RECORDING

○ Enable WAV file output
○ Write separate WAV tracks
○ Timestamps
WAV output directory | C:/Users/me

VIRTUAL COMPONENTS

Bass drum 2 = Bass drum 1
Snare drum 2 = Snare drum 1
Crash 2 = Crash 1

✕ Close

Plugin settings window offers more advanced settings and is available via the Settings button.

Licence panel

<div style="text-align: center">Licence manager</div>

Licence panel lets you manage licences on this computer.

<div style="text-align: center">Licence manager</div>

Activate

Activate button lets you activate your licence for the plugin on this computer.

GUI & Style panel
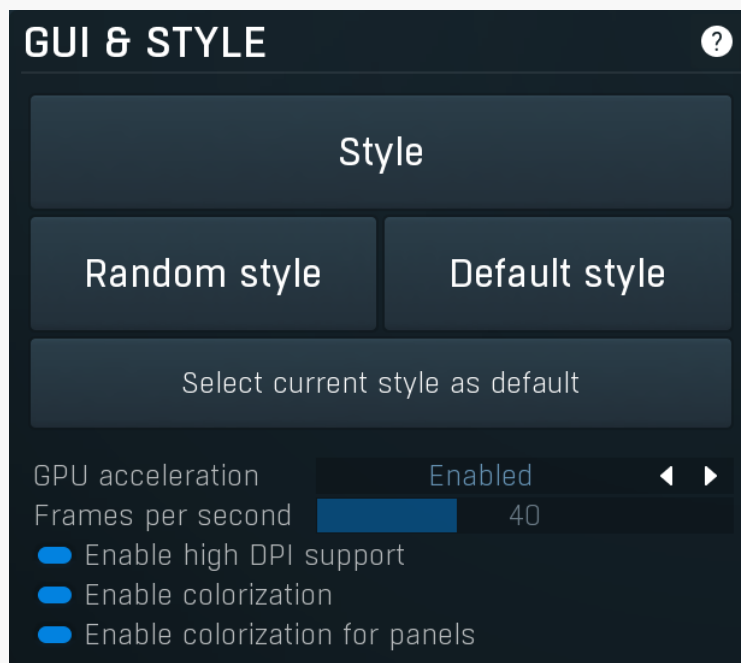
GUI & Style panel lets you configure the plugin's style (and potentially styles of other plugins) and other GUI properties.

Style

Style button lets you change the style for this particular plugin.

Random style

Random style button selects a random style with random editor mode.

Default style

Default style button reverts to the default style and default size of the GUI. Hold the Ctrl key while clicking to revert all MeldaProduction software products, not just the current plugin.

Select current style as default

Select current style as default button stores the current style as the default for all MeldaProduction software. This is used for the other plugins that are currently using the default style; that is, those plugins for which you have NOT selected a specific style. Please note that if you have already selected a specific style for a particular plugin, then it won't be changed until you use the Default style button.

GPU acceleration

GPU acceleration controls how much the GPU is used for visual rendering to save CPU power.
Enabled mode provides maximum speed and lets the GPU perform as many drawing operations as possible.
Compatibility mode uses the GPU for drawing, but doesn't use modern technologies for maximum performance. Use it if you experience occasional problems with drawing, the usual case for older ATI graphics cards. With Pro Tools on OSX this mode is always used instead of Enabled mode due to compatibility problems with this host.
Disabled mode disables GPU acceleration completely, drawing is then performed by the CPU. Use only if you experience technical difficulties.
A known problem may occur when using multiple displays with multiple graphical interfaces. When moving the plugin window from one display to another, it may stop displaying correctly until you move it back to the original display.

Frames per second

Frames per second controls the refresh rate of the visual engine. The higher the number is the smoother everything is, but the more CPU it requires. You might want to lower this value if your computer is running out of CPU power.

Enable high DPI / retina support

Enable high DPI / retina support enables the plugin to use the high resolution on high DPI (Windows) and retina (OSX) devices. It is enabled by default and detected automatically, if the host allows it. If you run into any problems, you can disable it using this option. It may be desired if you use multiple displays where only some of them feature the high resolution making the image on the low resolution ones look ugly.

If you disable this option, on Windows the high DPI device detection will be ignored and the plugin will probably appear very small. You can manually compensate for it by using a bigger style. On OSX disabling this option will disable the high DPI rendering, resulting in the classic blurry look of non-compliant applications. Changes take effect after you restart the host.

Enable colorization

Enable colorization enables the plugin to change the colors of certain elements overriding your style settings. Plugins use that to highlight different parts of the graphics interface for easier workflow. You may want to disable it if you just feel it's not for you. This particular option is relevant only for controls - knobs, sliders, checkboxes etc.

Enable colorization for panels

Enable colorization for panels enables the plugin to change the colors of certain elements overriding your style settings. Plugins use that to highlight different parts of the graphics interface for easier workflow. You may want to disable it if you just feel it's not for you. This particular option is relevant only for containers - panels, graphs etc.

Multi-sampler panel

Multi-sampler panel contains settings of the multisampler engine.

Preload

Preload controls how much of the samples are loaded initially when loading an instrument/project. Increasing this value makes the loading slower and increases memory consumption, but avoids possibility of required samples not being loaded in time producing audible clicks and lags. Lower this value if your computer (and specifically your hard drives) is fast enough. The compression algorithm organizes the samples typically in 64kB blocks and this value controls the number of blocks being loaded.

Max memory

Max memory controls the maximum memory occupied by samples above which the engine starts releasing the unused ones. Please note that this value is only a hint, the consumed memory may exceed this value when the samples are needed. Lowering this value will reduce the memory usage, however it will also require additional CPU/disk processing to reload the samples when needed. Therefore it is best to keep this value as high as possible. If the OS runs out of system memory, it should still be able to operate properly using the so-called virtual memory, which means that unused memory blocks are swapped to HDD.

Parallel loading threads

Parallel loading threads controls the number of threads that can perform loading. This option allows the sampling engine to exploit the

modern fast SSDs to load big sample libraries. However if you have an old system using a hard drive, set this to 1 for optimal performance. Otherwise, the faster your SSD is, the higher you can set this value to. But please note that at some point it may start interfering with the actual audio processing. Therefore it is recommended to keep this default unless you experience glitches.

Drumset generator settings
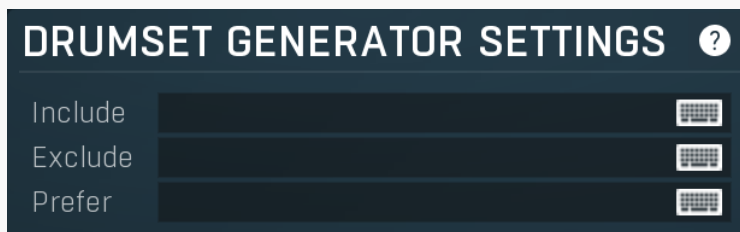
Drumset generator settings contain advanced options for the drumset generator spread throughout MDrummer. Whenever you want a drumset or a component to be generated, this unit is executed and you can specify additional options to control it. The drumset generator is based on the huge library of components, so the main issue here is to select which components may or may not be used. For example, for certain styles you may limit the selection to those components designed specifically for the style. Or if you want only acoustic drums and do not use any synthetic ones, then the filter is again what you are looking for.
please note that if you specify any filter, then only predefined components are used. In contrast, without any filter, MDrummer may also choose to generate a new component.

Include

Include may contain keywords, which must be included in every component used by the drumset generator. You can specify multiple keywords by separating them using semicolon ";".*For example, "hiphop;synth" will make the generator use only those components, which has both hiphop and synth in their names.*If any of the keywords is not used in any file for a particular component, then that keyword is ignored, because using it would not allow the generator to create the component at all as there would be no files available.

Exclude

Exclude may contain keywords, which must NOT be included in components used by drumset generator. You can specify multiple keywords by separating them using semicolon ";".*For example, "studio;mtotaldrums" will rule out any studio drums, because these have either the "studio" or "mtotaldrums" keyword in their names.*

Prefer

Prefer may contain keywords, which the generator may use as a hint when choosing each component. In many cases using **Include** or **Exclude** would cause too strong a condition, which may restrict the list of available components to just a few. This may not be desired, because MDrummer cannot then be very creative afterwards and will start repeating the same components. *For example, specifying hiphop as an included keyword may be quite radical, because although there are for example hundreds of snare drums suitable for this style, only a few are actually marked hiphop, simply because they are suitable for several other styles as well. But specifying hiphop as a preference will make MDrummer use these more often, but not limit its creative possibilities.*

Global system settings panel
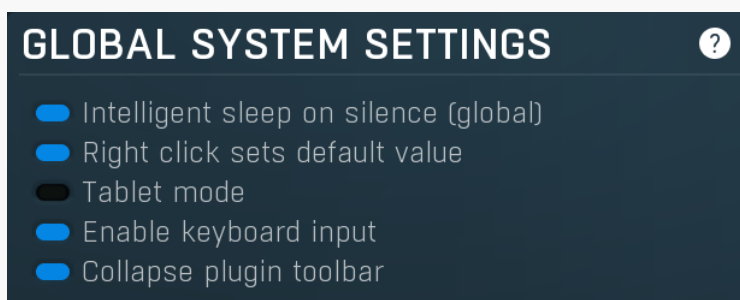
Global system settings panel contains settings which are applied to all plugins on this computer.

Intelligent sleep on silence (global)

Intelligent sleep on silence (global) is a global switch, which disables the **Auto disable on silence** feature in all plugins on the system. It is provided "just in case" something goes wrong.

Right click sets default value

Right click sets default value makes the engine set default value to a parameter when you right click on it. By default, a menu is displayed instead, with an option to set the default value, but potentially with more features. When this is disabled, you can still set a default value by holding ctrl/cmd when right clicking the control.

Tablet mode

Tablet mode enables better support for tablets at the expense of the mouse. Enable this if you are using a tablet to control the plugins and it is behaving incorrectly.

Enable keyboard input

Enable keyboard input enables the keyboard input for the main plugin window. You may want to disable if the plugin intercepts spacebar key (often used by the host for playback enable/disable and your host doesn't allow for the problem itself.

Collapse plugin toolbar

Collapse plugin toolbar makes all plugins collapse the plugin toolbar containing more advanced features such as channel modes, A-H presets, oversampling, safety limiter etc. It is enabled by default to make the user interfaces cleaner and easier to grasp for beginners.

Advanced global settings panel
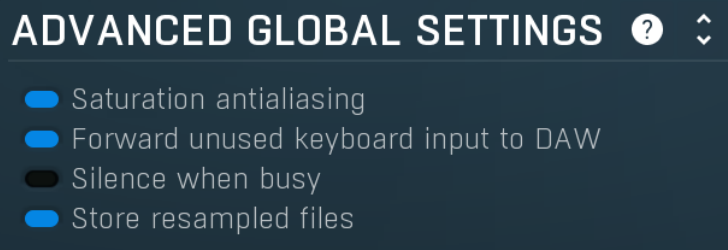
Advanced global settings panel contains advanced settings which are applied to all plugins on this computer.

Saturation antialiasing

Saturation antialiasing enables a global support for antialiasing in saturation algorithms available in many of the plugins. These require additional CPU processing, however significantly reduce aliasing artifacts without a need for oversampling.

Forward unused keyboard input to DAW

Forward unused keyboard input to DAW makes the plugin forward unused keyboard events to the DAW from its popups. If this is disabled, pressing say spacebar commonly used to start/stop playback won't work if a popup window is active. Enabling this makes this work and it is optional just in case your DAW does something unexpected.

Silence when busy

Silence when busy makes all plugins silence the output when something time consuming is being performed in background and the plugin needs to wait for it. For instance, in modular plugins such as MXXX, adding a module requires lots of changes in the entire engine, so it is performed in background and while the plugin is inconsistent state, it is temporarily bypassed. Sometimes however, when performing live, bypassing makes the dry signal go through and that may not be wanted. So you can enable this option, and the plugin will silence the output instead.

Store resampled files

Store resampled files allows the plugins create audio files for sampling rates being used if they differ from the original file sampling rate. It is used only by a few plugins, but it can improve the loading performance a lot at the cost of some additional storage on the hard drive. Disable this option if you are short on free space.

Compatibility settings panel
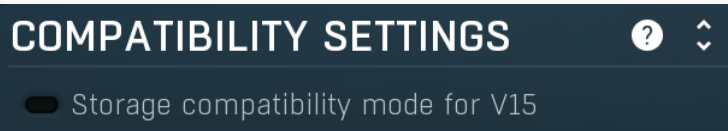
Compatibility settings panel contains advanced settings you rarely need unless you run into some problems when using multiple versions

or old projects.

Storage compatibility mode for V15

Storage compatibility mode for V15

Storage compatibility mode for V15 reverts to the older and much slower storage system used by version 15 and older. Use this if you want to open your projects or presets on older version of MeldaProduction plugins.

MIDI settings panel
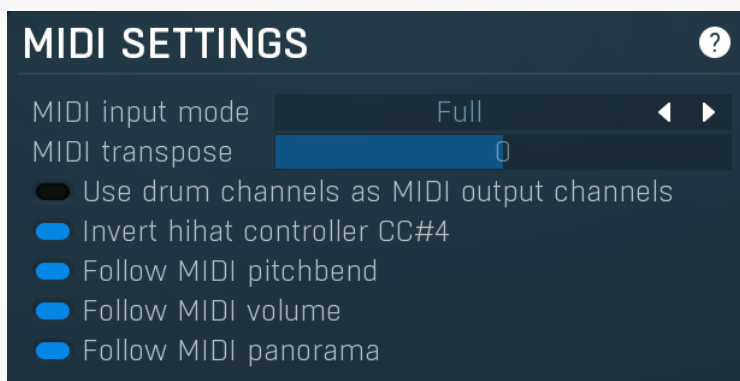
MIDI settings panel contains additional settings controlling MDrummer's behaviour for incoming MIDI events. The most important is probably the **MIDI input mode** that you can use to override MDrummer's rhythm system. The **MIDI transpose** parameter can shift all incoming notes and is useful when you want to control MDrummer using a MIDI keyboard, which has just a few octaves and doesn't provide transposing itself.

MIDI input mode   Full   ◀ ▶   **MIDI input mode**

MIDI input mode defines how MDrummer reacts to incoming MIDI notes. By default **Full** mode makes MDrummer be driven by rhythm commands on MIDI channels 1-9 and you can trigger specific drums on MIDI channel 10 as usual. However you can make MDrummer play drums on every MIDI channel by selecting (**Notes only**), use only channel 10 and ignore the others, by selecting (**Notes on channel 10 only**) or even completely disable the MIDI input, by selecting (**Disabled**).

MIDI transpose   0   **MIDI transpose**

MIDI transpose moves all notes by the specified offset up or down. It can be a life-saver when you are controlling MDrummer using a small keyboard with only a few octaves for example.

Use drum channels as MIDI output channels   **Use drum channels as MIDI output channels**

Use drum channels as MIDI output channels makes MDrummer produce drum MIDI notes depending on the drum output channel. By default all notes are set to MIDI channel 10 as defined by the MIDI standard. By enabling this option, the MIDI channel of notes for each specific drum will be defined by the output channel of that drum, which you can configure in Mixer and Drumset Editor.

Invert hihat controller CC#4   **Invert hihat controller CC#4**

Invert hihat controller CC#4 controls how MDrummer understands the MIDI CC#4, the foot controller, used for controlling how far is the hihat open. When disabled, the higher the CC#4 value, the more open the hihat is. Interestingly many electronic drum controller manufacturers use the opposite way - the higher the CC#4 value, the more closed the hihat is. In this case, this switch needs to be enabled.

Follow MIDI pitchbend   **Follow MIDI pitchbend**

Follow MIDI pitchbend lets MDrummer follow the MIDI pitch-bend controller to control the global pitch.

Follow MIDI volume   **Follow MIDI volume**

Follow MIDI volume lets MDrummer follow the MIDI volume controller to control the global volume.

Follow MIDI panorama   **Follow MIDI panorama**

Follow MIDI panorama lets MDrummer follow the MIDI panorama controller to control the global panorama.

Audio recording panel

AUDIO RECORDING

Enable WAV file output
Write separate WAV tracks
Timestamps

WAV output directory   C:/Users/me
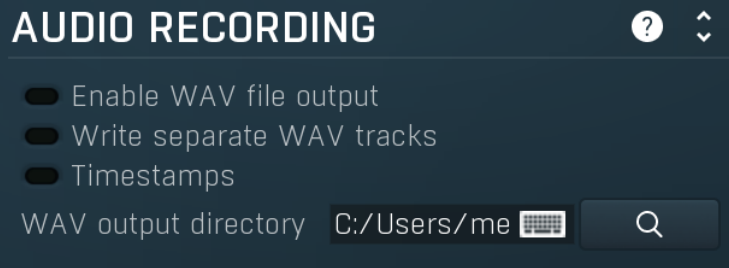
Audio recording panel contains settings for MDrummer audio output recording. When playing in your host, MDrummer produces audio output, but it can store it as WAV files as well. This may come handy when jamming with some background audio playing for example.

Enable WAV file output
Enable WAV file output immediately starts recording the MDrummer output using the settings specified below. This feature is useful for example to record output of your practice sessions.

Write separate WAV tracks
Write separate WAV tracks defines if MDrummer should record each output channel separately. If disabled MDrummer creates a single file containing an output mixdown.

Timestamps
Timestamps automatically adds a timestamp to the filename to make sure MDrummer won't rewrite existing files.

WAV output directory
WAV output directory defines where should MDrummer place the files created when recording.

VIRTUAL COMPONENTS

Bass drum 2 = Bass drum 1
Snare drum 2 = Snare drum 1
Crash 2 = Crash 1
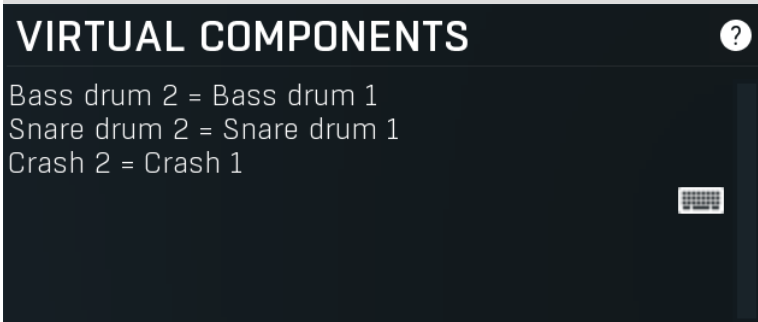
Virtual components
Virtual components let you specify components that will be cloning existing components. For example, if you want an additional Snare drum, which would be using the normal Snare drum 1 components, and you decide that the target drum type for your new virtual component will be Music 1, then you simply enter "Music 1 = Snare drum 1". Then you need to restart MDrummer (or your host). After that a new component called Music 1 will appear and will provide the same content as Snare drum 1. Note that these virtual components can only contain a single drum. If you create a virtual component from say hihat, there will only be one hihat (closed) in the virtual component. You can specify multiple virtual components, one per row.

MIDI editor
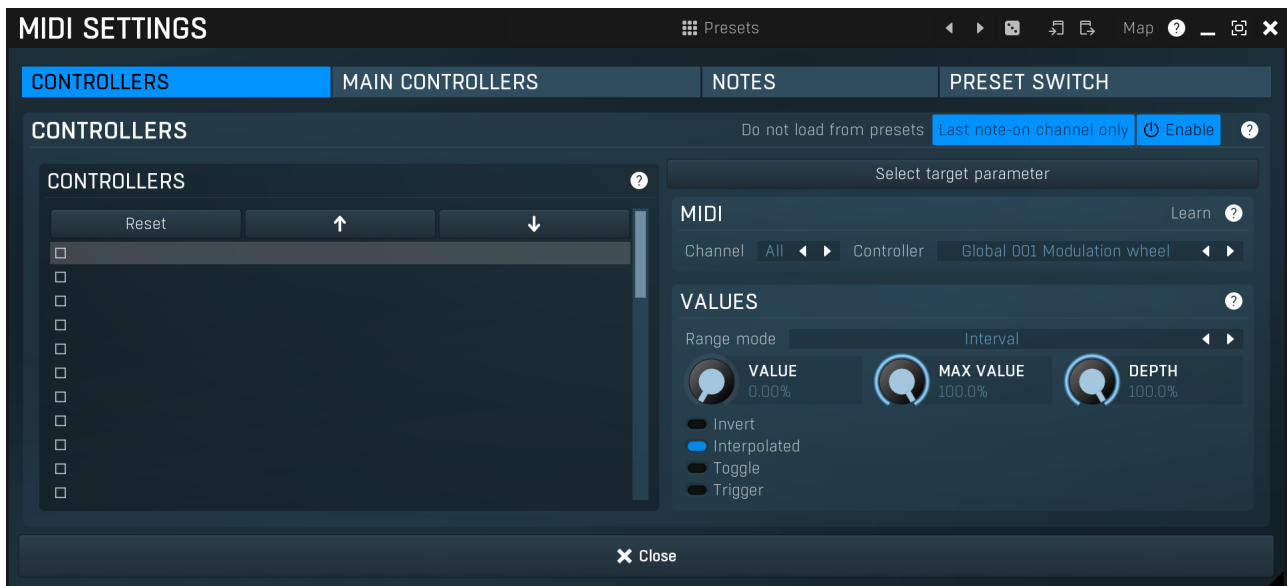
MIDI settings window lets you configure, how the plugin reacts to various MIDI messages. You can use MIDI controllers or MIDI notes and you can also configure a controller to switch between presets, which is especially useful for realtime performances.

 Presets

Presets button displays a window where you can load and manage available presets. Hold **Ctrl** when clicking to load a random preset instead.

 Left arrow

Left arrow button loads the previous preset.

 Right arrow

Right arrow button loads the next preset.

 Randomize

Randomize button loads a random preset.

 Copy

Copy button copies the settings onto the system clipboard.

 Paste

Paste button loads the settings from the system clipboard.

 Map

Map button displays all current mappings of modulators, multiparameters and MIDI (whichever subsystems the plugin provides).

 Tab selector

Tab selector switches between subsections.

Controllers panel

Do not load from presets   Last note-on channel only   ⏻ Enable   ❓

CONTROLLERS   ❓

Select target parameter

Reset   ↑   ↓

MIDI   Learn   ❓

Channel   All ◀ ▶   Controller   Global 001 Modulation wheel   ◀ ▶

VALUES   ❓

Range mode   Interval   ◀ ▶

VALUE   MAX VALUE   DEPTH
0.00%   100.0%   100.0%

Invert
Interpolated
Toggle
Trigger
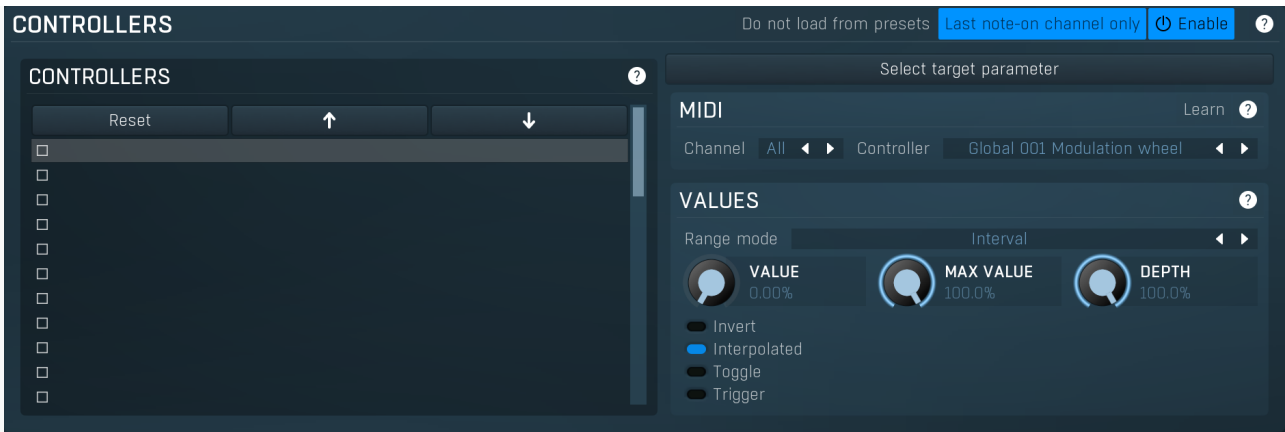
Controllers panel contains settings of MIDI controllers.

Do not load from presets   **Do not load from presets**

Do not load from presets button disables loading the controllers from presets. This may be handy if you have configured specific MIDI controllers with target parameters and you want to browse the presets without the need to configure them every time. Please note that some presets may rely on specific controllers though. For example, if a preset requires a velocity controller to provide velocity-dependent response, this option will avoid loading it, so the preset won't be complete, until you reconfigure it.

Last note-on channel only   **Last note-on channel only**

Last note-on channel only button makes the engine more suitable for voice-per-channel devices. These devices are able to send different controllers for each note you press, which however means that these could collide. This option makes the engine pass only the controllers that are related to the last note you pressed. For classic keyboards it is not relevant as you will usually use a single MIDI channel to transmit both the controllers and notes. Some more modern keyboard controllers will allow you to select one MIDI channel for the notes and a different one (or the same one) for the controllers.

Controllers

CONTROLLERS   ❓

Reset   ↑   ↓

Reset   **Reset**

Reset button resets the selected controller to undefined state.

↑   **Up**

Up button moves the selected controller up one item, if possible. This may be useful when keeping things organized, but please note that if you have some multiparameter, modulator or another subsystem access the ranges of individual controllers, this function will reorder them, so these connections will no longer be correct.

↓   **Down**

Down button moves the selected controller down one item, if possible. This may be useful when keeping things organized, but please note that if you have some multiparameter, modulator or another subsystem access the ranges of individual controllers, this

function will reorder them, so these connections will no longer be correct.

Select target parameter

ParameterIndex

ParameterIndex button lets you choose the parameter being controlled. The set contains all automatable parameters.

MIDI
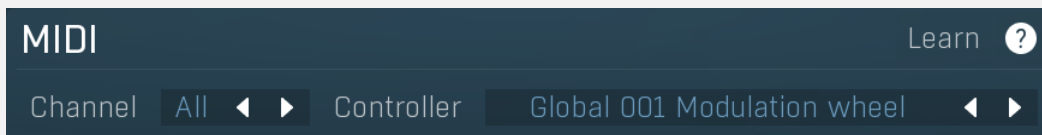
MIDI   Learn ❓

Channel   All ◀ ▶   Controller   Global 001 Modulation wheel   ◀ ▶

Learn **Learn**

Learn enables or disables MIDI learn. When enabled, the plugin listens to both the MIDI CC messages from the controllers that you touch and the target parameters that you touch and associates the last-touched of each with the selected slot. You can perform several mappings by selecting another slot, adjusting a hardware controller. Then adjusting a target parameter, and repeating those steps for each mapping desired.

Channel   All ◀ ▶ **Channel**

Channel defines the controller MIDI channel.

Controller   Global 001 Modulation wheel   ◀ ▶ **Controller**

Controller defines the source controller.

Values

VALUES   ❓

Range mode   Interval   ◀ ▶

VALUE   MAX VALUE   DEPTH
0.00%   100.0%   100.0%

⬤ Invert
🔵 Interpolated
⬤ Toggle
⬤ Trigger
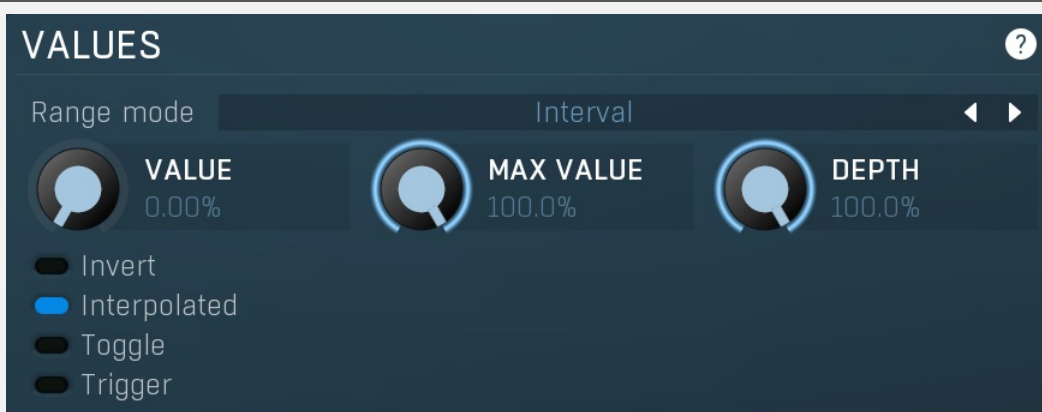
Range mode   Interval   ◀ ▶ **Range mode**

Range mode defines how the parameter range is selected. While sometimes it is better to specify minimum and maximum, other times it is better to use a nominal center and depth (% of full scale). This control allows you to define which one it will be.

Up and down mode makes the values go above and below the selected **Value**, which is considered the center. The interval is made smaller if necessary.

Full range mode is similar, except the range is symmetrically constrained, so the selected **Value** may not be the center anymore.

Up/down only modes goes from the selected value up/down only.

Let's compare these 4 modes. Taking a value of -12dB value, with a depth of 75% and a scale of +/- 24dB. The nominal range is therefore = +/-24 dB * 75% = 36dB. With values of 0%, 50% and 100% the outputs are:
Up and down: -24, -12, 0 (range constrained to 12 dB either side)
Full range: -24, -6, 12 (range limited to minimum, but not constrained)
Up only: -12, 6, 24 (range not constrained = +/-24 dB * 75% = 36dB)
Down only: -12, -18, -24 (range limited to minimum)

Interval mode is the most simple one and goes from **Value** to **Maximal value**.

VALUE
0.00%

Value

Value defines the center of the target parameter's range or the minimum if the **Range mode** is set to **Interval**.

MAX VALUE
100.0%

Maximal value

Maximal value defines the upper limit of the target parameter's range. It is available only if the **Range mode** is set to **Interval**. This value can be lower than **Value**. 0% is always mapped to reference>Value and 100% to reference>Maximal value.

DEPTH
100.0%

Depth

Depth defines size of the target parameter's range. It is used only if the **Range mode** is not set to **Interval**.

Invert

Invert

Invert checkbox inverts the controller shape, so the minimum becomes the maximum etc.

Interpolated

Interpolated

Interpolated makes the controller value interpolated over the time using the smart interpolation. This approach ensures there won't be abrupt changes, which could lead to clicks and pops. However sometimes you may want to apply these changes immediately - for example when changing ADSR based on the note velocity, in which case this parameter should be disabled.

Toggle

Toggle

Toggle mode makes the controller switch between the maximum and minimum of the target parameter whenever triggered. By default triggering it means going from values below 50% to above 50%. By enabling **Trigger** you can make it perform the trigger everytime the value is changed.

Trigger

Trigger

Trigger mode makes the controller automatically produce maximum and the minimum right after it. It can be handy with some buggy MIDI controllers providing buttons, which however do not send value 0, and only repeat value 127. Trigger makes it behave like the minimum was actually sent by the MIDI controller a little bit after the original message.

Main controllers panel

Main controllers panel lets you define the set of main MIDI controllers on your MIDI device. These are not stored with the presets, so using them lets you easily switch between MIDI controllers, create presets that will work for users of other MIDI controllers etc. Using the Main controllers is no different than using the standard MIDI controllers, but the extra 'layer' can make things simple when using multiple controllers and also in general situations where your MIDI device has several controllers with quite 'random' numbers.

::: Presets

Presets

Presets button displays a window where you can load and manage available presets. Hold **Ctrl** when clicking to load a random preset instead.

◀

Left arrow

Left arrow button loads the previous preset.

Right arrow

Right arrow button loads the next preset.

Randomize

Randomize button loads a random preset.

Global 001 Modulation wheel ◀ ▶ **Controller**

Controller defines the MIDI controller associated to this Main controller.

Learn **Learn**

Learn enables or disables MIDI learn. When enabled, the plugin listens to the controllers you touch and associates them to the main controller.

Notes panel
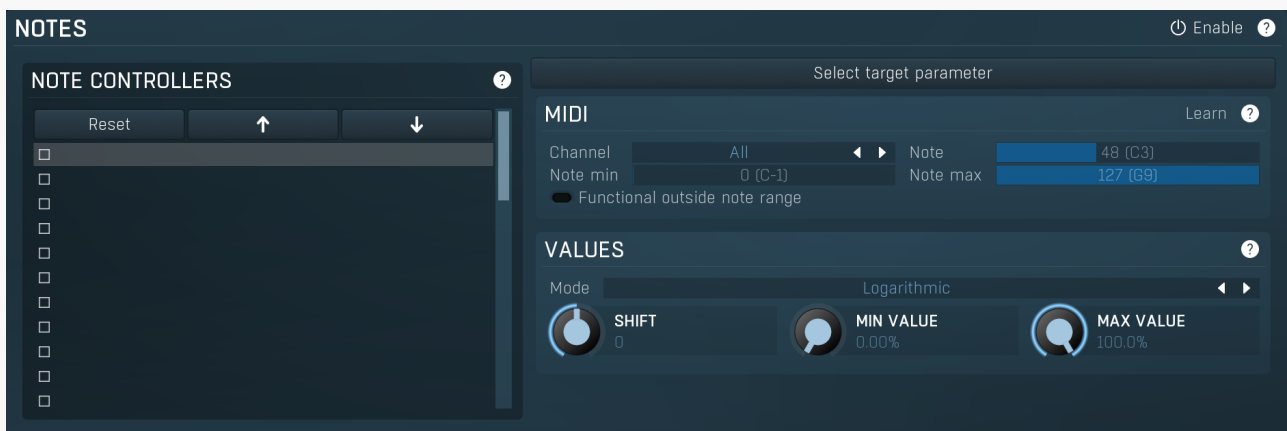
Notes panel contains settings of MIDI note controllers, if you want to control parameters using MIDI keys.

Note controllers

Reset **Reset**

Reset button resets the selected controller to undefined state.

↑ **Up**

Up button moves the selected controller up one item, if possible. This may be useful when keeping things organized, but please note that if you have some multiparameter, modulator or another subsystem access the ranges of individual controllers, this function will reorder them, so these connections will no longer be correct.

↓ **Down**

Down button moves the selected controller down one item, if possible. This may be useful when keeping things organized, but please note that if you have some multiparameter, modulator or another subsystem access the ranges of individual controllers, this function will reorder them, so these connections will no longer be correct.

Select target parameter

Learn
Learn enables or disables MIDI learn. When enabled, the plugin listens to both the notes you touch and the parameters you touch and associates them with the selected slot.

MIDI

MIDI				Learn	❓
Channel	All	◀ ▶	Note		48 (C3)
Note min	0 (C-1)		Note max		127 (G9)
⬤ Functional outside note range					

Channel   All   ◀ ▶ **Channel**

Channel defines the controller MIDI channel.

Note   48 (C3) **Note**

Note defines the controller's target MIDI note. It is used only in On/off and Switch modes, which you can set using **Mode** parameter (in the **Values** panel).

Note min   0 (C-1) **Note min**

Note min controls the lowest note to be used by a controller in Linear or Logarithmic mode. The minimum value of the target parameter will then be associated to this note.
If both Note min and Note max parameters are default, the plugin takes the actual frequency of each note, and transforms it into the range 20Hz to 20kHz, which is the range used by all equalizers and filters, so that you can literally play a parameter on a MIDI keyboard. If you change either of these 2 parameters however, the plugin takes the range of notes as the requested interval. This is useful for example if you have a small MIDI keyboard used for soloing and you want increase some parameter the higher you play. In the default mode it would be difficult, since the range of frequencies is much bigger than the range of your MIDI keyboard.*Set the **Note min** and **Note max** to C0 and B0 respectively, the **Mode** to Logarithmic and select a suitable target parameter (Dry/Wet is fine). Send MIDI notes in the specified range to the plugin and you will see the target parameter increase (by 9.09% (= 100 / (12-1)) for a 100% range).*

Note max   127 (G9) **Functional outside note range**

Functional outside note range makes the note controller work even if the note isn't in the specified range, clamping the value to the minimum or maximum.

Values

VALUES		❓
Mode	Logarithmic	◀ ▶
🎛 SHIFT 0	🎛 MIN VALUE 0.00%	🎛 MAX VALUE 100.0%

Mode   Logarithmic   ◀ ▶

Mode
Mode controls how the controller works.

Key takes the note index and transforms it into 0..1, which is the output of any controller. This mode is useful for scale switches for example - if you want to use MIDI keys to change values linearly.

Key (in octave) is similar but it has only 12 values - one per each key and it doesn't matter which octave you press it in.

Linear converts the notes into frequencies and then transform them into the linear scale from 20Hz to 20kHz.

Logarithmic converts the notes into the frequencies and then into the logarithmic scale from log(20) to log(20000). A typical use case is when you want to control an equalizer band using a MIDI keyboard. Since EQ frequencies work in logarithmic scale, this mode makes both things compatible and the EQ frequency will be set to the note frequency.

On/off modes react only to single notes and can be used for triggers. When the Note On is received the parameter is changed to its **Max value** and when the Note Off is received the parameter is changed to its **Min value**. So this mode can also be used to change between any 2 parameter values.

Switch modes are similar, but only recognize when a note is pressed. The Note Offs are ignored. Note Ons select the **Max value** and **Min value** alternately. In all octaves mode it doesn't matter which octave is used. For example, this is useful when you want to use any note C to switch something on and off.

Velocity modes do not actually follow the note number being pressed, but it's velocity instead. While you can do the same thing with normal MIDI controllers using the special Velocity controllers, this one allows you to select only some notes to follow.
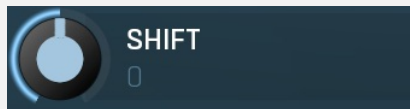
Shift
Shift lets you shift the original note up or down by the specified number of semitones.
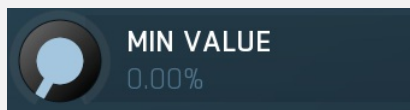
Min value
Min value defines the minimum value for the target parameter.

Max value
Max value defines the maximum value for the target parameter.

Enable MIDI program change

Enable MIDI program change
Enable MIDI program change enables processing program change MIDI message.

Preset previous/next trigger panel

Preset previous/next trigger panel lets you select a MIDI controller, which will switch presets. It provides the same action as clicking the arrows next to the main preset button. When the controller value gets below 33%, the previous preset is loaded. When the controller value gets above 66%, the next preset is loaded.

Learn
Learn enables or disables MIDI learn.

Channel
Channel defines the controller MIDI channel.

Controller
Controller defines the source controller.

Simulate program change via controller panel

SIMULATE PROGRAM CHANGE VIA CONTROLLER   Learn ⏻ Enable ❓

Channel	All	◀ ▶
Controller	Global 000 Bank select	◀ ▶
Number of values	128	

Simulate program change via controller panel lets you select a MIDI controller, that will work as program change, for convenience. You can use it then to switch between A-H presets or presets via panel below.

Learn Learn

Learn enables or disables MIDI learn.

| Channel | All | ◀ ▶ |

Channel

Channel defines the controller MIDI channel.

| Controller | Global 000 Bank select | ◀ ▶ |

Controller

Controller defines the source controller.

| Number of values | 128 |

Number of values

Number of values defines the number of programs to switch between. By default Program change MIDI standard offers 128 programs. However it may by too many and could be hard to actually control with the specific controller. Hence you can lower the number of actual programs.

Program change in presets panel

PROGRAM CHANGE IN PRESETS   ⏻ Enable ❓

| Folder | PROGRAMS | ⌨ |
| Channel | All | ◀ ▶ |

Program change in presets panel enables the MIDI program change processing. If disabled, the plugin follows Program Change messages by changing the A-H presets. The obvious disadvantage is that this way there are just 8 presets. By enabling this feature the plugin stops selecting A-H presets and rather loads different presets from the specified preset folder, including all sub-folders. The default folder is called "Programs". To use it, you simply need to create a preset folder called Programs and put the presets into it. Note that the order matters of course. And you can change the folder name at any time, so you can have several sets of selectable presets.

| Folder | PROGRAMS | ⌨ |

Folder

Folder defines the preset folder from which the presets for program-change MIDI messages are taken.

| Channel | All | ◀ ▶ |
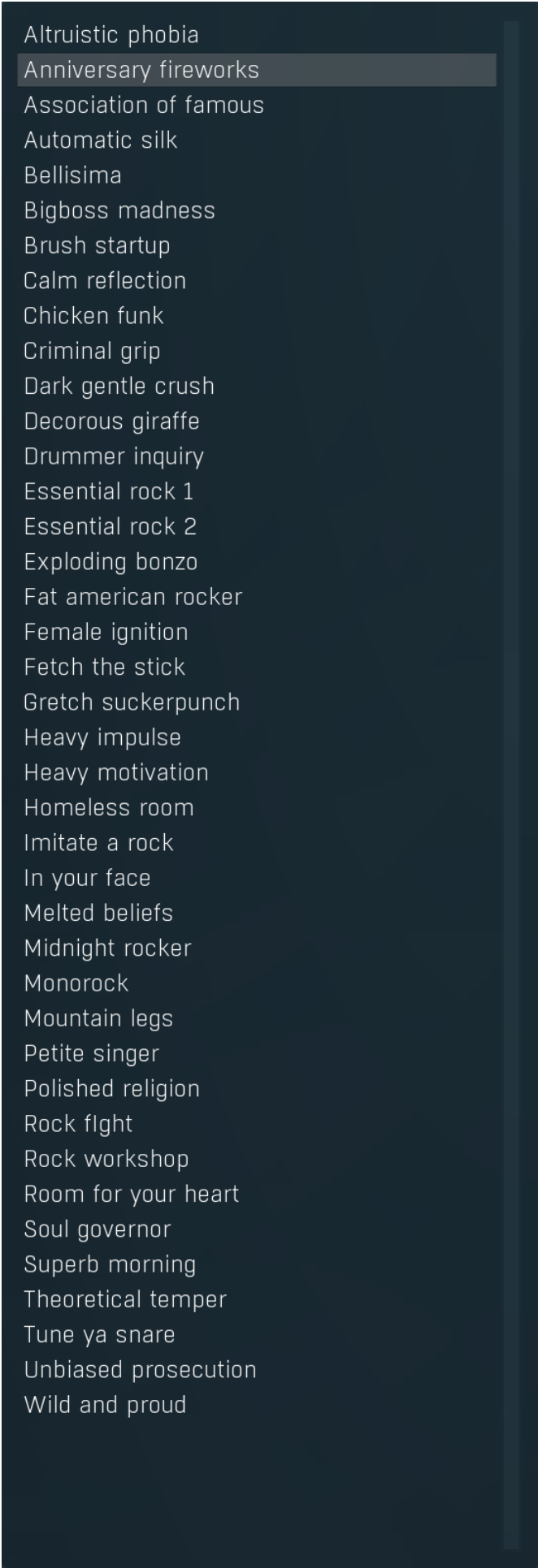
Channel

Channel defines the program change MIDI channel.

Used controls

Here we discuss the general properties of all application controls. As a most important rule you should note, that you can always use any question mark button or F1 (or Ctrl+F1 or Ctrl+H) key with the mouse cursor over a specified control to get detailed information about what it does and how to use it.

Listbox

Altruistic phobia
Anniversary fireworks
Association of famous
Automatic silk
Bellisima
Bigboss madness
Brush startup
Calm reflection
Chicken funk
Criminal grip
Dark gentle crush
Decorous giraffe
Drummer inquiry
Essential rock 1
Essential rock 2
Exploding bonzo
Fat american rocker
Female ignition
Fetch the stick
Gretch suckerpunch
Heavy impulse
Heavy motivation
Homeless room
Imitate a rock
In your face
Melted beliefs
Midnight rocker
Monorock
Mountain legs
Petite singer
Polished religion
Rock fIght
Rock workshop
Room for your heart
Soul governor
Superb morning
Theoretical temper
Tune ya snare
Unbiased prosecution
Wild and proud

- **Left mouse button** selects an item. If you click on a check-box, the item will be checked/unchecked.
- **Mouse-wheel** scrolls the view.
- **Arrow keys**, **Page Up** and **Page Down** move the selection.
- **Space** checks or unchecks the selected item(s).

- **Home** key selects the first item, **End** selects the last one.

Tree-control

- **Left mouse button** selects an item. If you click on a check-box, the item will be checked/unchecked.
- **Mouse-wheel**, **Up** and **Down** arrow keys, **Page Up** and **Page Down** move the selection.
- **Enter** opens/closes the selected item.
- **Space** checks or unchecks the selected item.
- **Home** key selects the topmost item, **End** selects the last one.

Value button

Sound panorama
center

Value button is an alternative to the knobs and its main advantage is that it is very small. In some cases the button simply serves as a clickable item and a menu is shown when clicked. However the mouse wheel and other controls still do work.

- **Click and drag using the left mouse button** to change the value.
- **Right mouse button** shows a menu with additional options. Hold **ctrl/cmd** to select the default value.
- **Mouse wheel**, **arrow keys** and vertical drag using **middle mouse button** or using **left mouse button while holding Ctrl** modifies the value more precisely.
- **Home key** configures the minimal possible value, conversely **end key** setups the maximal one.
- **Esc or Backspace keys** restore the original value when either one is pressed during dragging.
- **Shift + left mouse button** or **double-click using left mouse button** lets you edit the value as text. You can use the virtual keyboard or type on your computer keyboard. In some cases this shows a menu with all possible values instead.
- **Alt + press then release** measures the time between the press and the release and applies it as time/frequency tap. Usable only for certain values of course.

Edit

Name   Bass drum 1

Edit control provides a standard way to specify any kind of text or numeric string. It can have a limited length or a limited set of allowed characters.

- **Shift+arrows/Home/End** modifies selection.
- **Ctrl+C** copies the selected text to the system clipboard.
- **Ctrl+V** pastes text from the system clipboard replacing the selected text or inserting it at the current cursor position.
- **Ctrl+A** selects the whole text.
- **Ctrl+Tab** inserts a tabulation character. This combination is provided because the Tab key alone moves the keyboard focus to the next control.

Multi-selection listbox
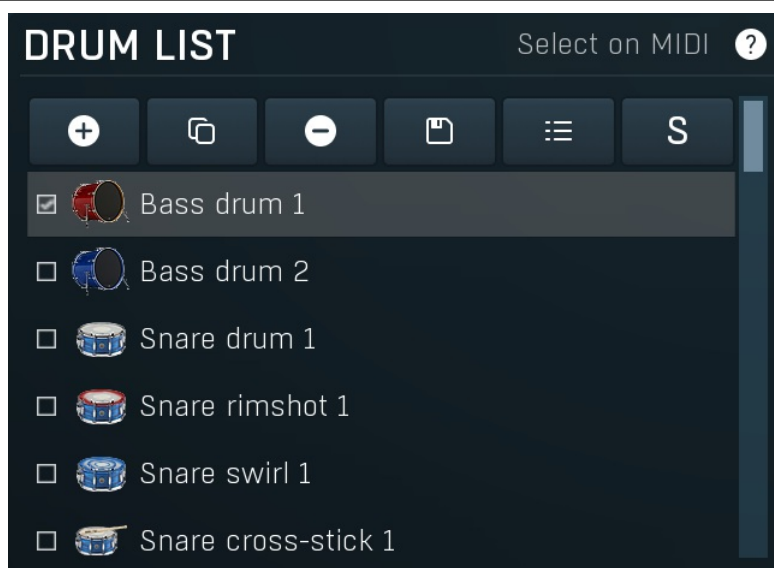
DRUM LIST   Select on MIDI ❓

☑ 🥁 Bass drum 1

☐ 🥁 Bass drum 2

☐ 🥁 Snare drum 1

☐ 🥁 Snare rimshot 1

☐ 🥁 Snare swirl 1

☐ 🥁 Snare cross-stick 1

- **Left mouse button** selects an item. If you click on a check-box, the item will be checked/unchecked.
- **Left mouse button drag** changes the order of items by moving the selected item(s).
- **Mouse-wheel** scrolls the view.
- **Arrow keys**, **Page Up** and **Page Down** move the selection.
- **Space** checks or unchecks the selected item(s).

- **Home** key selects the first item, **End** selects the last one.
- **Click with Ctrl** inverts the items selection state.
- **Click with Shift** selects all items from the clicked one to the selected one.

Switcher

Speed change   100%   ◀ ▶

Switcher is an alternative to a tracker or knob control, but it has a limited set of values.

- **Left mouse button** shows a menu with list of all possible values. This function might be unavailable in certain cases when the number of possible values is too high.
- **Right mouse button** shows a menu with additional options. Hold **ctrl/cmd** to select the default value.
- **Up** and **Down** arrow keys, **buttons** in the control and **mouse-wheel** increase or decrease the value.

Zoomer

Zoomer provides a simple way to zoom and move in an enlargeable view.

- **Plus button** zooms-in.
- **Minus button** zooms-out.
- **Zoom default button** zooms to the default ratio, which typically means full zoom-out.
- **Lock button** locks the zoom ratio.

File selector

⌐ *Root*	Altruistic phobia
├ ◈ *Components*	**Anniversary fireworks**
├ ◈ !	Association of famous
├ ▤ Acoustic - Basic	Automatic silk
├ ▤ Acoustic - Drum Empire 2020	Bellisima
├ ▤ Acoustic - Drum Tornado 2023	Bigboss madness
├ ▤ Acoustic - Studio 2008	Brush startup
├ ▤ Acoustic - Studio 2009	Calm reflection
├ ▤ Acoustic - Studio 2018	Chicken funk
├ ▦ Dream Machines	Criminal grip
├ ▮ Electronic - Dance	Dark gentle crush
├ ▮ Electronic - Downtempo	Decorous giraffe
├ ▮ Electronic - Dubstep, DnB	Drummer inquiry
├ ▮ Electronic - Pop	Essential rock 1
├ ▮ Electronic - Urban	Essential rock 2
├ ◉ Electronic Genres	Exploding bonzo
├ 🎴 Percussion - Studio 2008	Fat american rocker
├ 🎴 Percussion - Studio 2009	Female ignition
├ 🎴 Percussion - Studio 2018	Fetch the stick
├ 🔲 Special - Cinematic	Gretch suckerpunch
├ 🔲 Special - Experimental	Heavy impulse
└ 🔲 Special - Merged	Heavy motivation
	Homeless room
	Imitate a rock
	In your face
	Melted beliefs
	Midnight rocker
	Monorock
	Mountain legs
	Petite singer
	Polished religion
	Rock fIght
	Rock workshop
	Room for your heart
	Soul governor
	Superb morning
	Theoretical temper
	Tune ya snare
	Unbiased prosecution
	Wild and proud

File selector contains a directory tree that you use to move across the file system. In many cases the range is limited to a sub-tree to maintain better organisation. Next to the tree you can see the list of files present in the selected directory. There is a splitter between both of them that you can use to change the width of both of the lists.
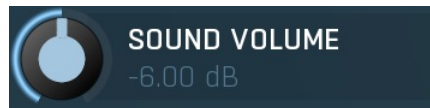
Knob

Knob simulates physical knobs used to edit various values.

- **Click and drag using the left mouse button** to change the value.
- **Right mouse button** shows a menu with additional options. Hold **ctrl/cmd** to select the default value.
- **Mouse wheel**, **arrow keys** and vertical drag using **middle mouse button** or using **left mouse button while holding Ctrl** modifies the value more precisely.
- **Home key** configures the minimal possible value, conversely **end key** setups the maximal one.
- **Esc or Backspace keys** restore the original value when either one is pressed during dragging.
- **Shift + left mouse button** or **double-click using left mouse button** lets you edit the value as text. You can use the virtual keyboard or type on your computer keyboard. In some cases this shows a menu with all possible values instead.
- **Alt + press then release** measures the time between the press and the release and applies it as time/frequency tap. Usable only for certain values of course.

Tab-set

Tab-set is typically used wherever there is too much to edit, but not enough space to display it all. It can be also used to switch between possible alternatives.

- **Left mouse button** selects a tab.
- **Ctrl + Left mouse button or Right mouse button** displays the whole tab in a pop-up window (this is not used for all sets of tabs). This comes handy when you want to have multiple tabs visible at the same time.
- **Left and Right arrows** select the neighbouring tab.
- Click on one of the buttons on the border to scroll the control and show tabs that are currently invisible.

Piano
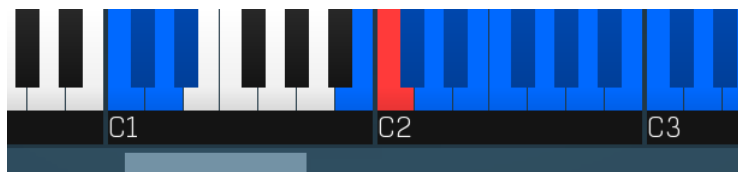
Piano provides an easy way to mark a set of keys for some purpose.

- **Left mouse button** marks or unmarks a particular key.
- **Mouse-wheel** or **border buttons** scroll the piano if the display does not fit in the available space.

Installation, activation, introduction to audio plugins

Installation

All MeldaProduction plugins are currently available for Windows and Mac OS X operating systems, both 32-bit and 64-bit versions. You can download all software directly from our website. Since the installation procedures for the two operating systems are quite different, we will cover each one separately.

The download files for the effects include all the effects plug-ins and MPowerSynth. During the installation process you can select which plug-ins or bundles to install. If you have not licensed all of the plugins in a bundle then you just need to activate each plugin separately.

If you have multiple user accounts on your computer, always install the software under your own account! If you install it under one account and run it under a different one, it may not have access to all the resources (presets for example) or may not even be able to start.

Installation on Windows

All plugins are available for VST, VST3 and AAX interfaces. The installer automatically installs both the 32-bit and 64-bit versions of the plugins.

Note: Always use 32-bit plugins in 32-bit hosts, or 64-bit plugins in 64-bit hosts. 64-bit plugins cannot work in 32-bit hosts even if the operating system is 64-bit. Conversely, never use 32-bit plugins in 64-bit hosts. Otherwise they would have to be 'bridged' and, in some hosts, can become highly unstable.

You can select the destination VST plugins paths on your system. The installer will try to detect your path, however you should check that the correct path has been selected and change it if necessary. In all cases it is highly recommended to use the current standard paths to avoid any installation issues:
32-bit Windows:
C:\Program files\VstPlugins

64-bit Windows:
C:\Program files (x86)\VstPlugins *(for 32-bit plugins)*
C:\Program files\VstPlugins *(for 64-bit plugins)*

If your host provides both VST and VST3 interfaces, VST3 is usually preferable. If a plugin cannot be opened in your host, ensure the plugin file exists in your VST plugin path and that if your host is 32-bit, the plugin is also 32-bit, and vice versa. If you experience any issues, contact our support via info@meldaproduction.com

Installation on Mac OS X

All plugins are available for VST, VST3, AU and AAX interfaces. Installers create both 32-bit and 64-bit versions of the plugins.

If your host provides multiple plugin interface options, VST3 is usually preferable. If you experience any issues, contact our support via info@meldaproduction.com

Most major hosts such as Cubase or Logic should work without problems. In some other hosts the keyboard input may be partly non-functional. In that case you need to use the virtual keyboard available for every text input field. You may also experience various minor graphical glitches, especially during resizing plugin windows. This unfortunately cannot be avoided since it is caused by disorder in Mac OS X.

Uninstallation on Windows

The Uninstaller is available from the Start menu and Control panel, in the same way as for other applications. If you don't have any of these for any reason, go to Program files / MeldaProduction / MAudioPlugins and run setup.exe.

Uninstallation on OSX

The Uninstaller is available from Applications / MeldaProduction / MAudioPlugins / setup.app.

Deleting all data, presets etc.

Even if you uninstall the plugins, some data will be left behind - because of potential crossdependencies or because these are your presets, settings, configurations etc. If you want to wipe out everything, please manually delete following folders:

Windows:
C:\ProgramData\MeldaProduction

C:\Users\{username}\AppData\Roaming\MeldaProduction

OSX:
Macintosh HD/Library/Application support/MeldaProduction/
HOME/Library/Application support/MeldaProduction

Performance precautions

In order to maximize performance of your computer and minimize CPU usage it is necessary to follow a few precautions. The most important thing is to keep your buffer sizes (latency) as high as possible. There is generally no reason to use latency under 256 samples for 44kHz sampling rates (hence 512 for 96kHz etc.). Increasing buffer sizes (hence also latency) highly decreases required CPU power. In rare cases increasing buffer sizes may actually increase CPU power, in which case you can assume your audio interface driver is malfunctioning.

You should also consider using only necessary features. Usually the most CPU demanding features are oversampling and modulation of certain parameters. You can reduce modulation CPU usage at the cost of lower audio quality in Settings/Settings/Modulator protection.

Troubleshooting

The plugins are generally very stable, there are known problems however.

GPU compatibility

The software uses hardware acceleration to move some of the processing (mainly GUI related) from your CPU (processor) to your GPU (graphics processing unit). It is highly recommended to use a new GPU, as it will provide higher performance improvements, and update your GPU drivers. Older GPUs are slower and may not even provide required features, so the software will have to perform all calculations in the main CPU. We also have had extremely bad experiences with GPUs from ATI and despite the fact that software is now probably bulletproof, it is recommended to use NVidia GPUs as there has not been a single case of a problem with them.

If you experience problems with your GPU (crashing, blank/dysfunctional GUI), and that you cannot disable the GPU acceleration from the plugin's Settings window itself, download this file:

http://www.meldaproduction.com/download/GPU.zip

And place the GPU.xml included in the zip into

Windows: C:\Users\{username}\AppData\Roaming\MeldaProduction
Mac OS X: ~/Library/Application support/MeldaProduction

Memory limits of 32-bit platform

Most hosts are now 64-bit ready, however some of them are not or users willingly choose 32-bit edition, because the required plugins are not 64-bit ready yet. All our software is 64-bit ready. Please note that you must NOT use the 64-bit plugins in 32-bit hosts, even if you have a bridge. If you are stuck with a 32-bit host for any reason, note that there is a memory limit (about 1.5 GB), which you may not exceed. This can happen if you load too many samples or different plugins for example. In that case the host may crash. There is no other solution than to use a 64-bit host.

Updating

You can use "Home/Check for updates" feature in any of the plugins. This will check online if there is a newer version available and open the download page if necessary.

To install a newer (or even older) version you simply need to download the newest installer and use it. There is no need to uninstall the previous version, the installer will do that if necessary. You also do not need to worry about your presets when using the installer. Of course, frequent backup of your work is recommended as usual.

Using touch-screen displays

Touch screen displays are supported on Windows 8 and newer and the GUI has been tweaked to provide a good workflow. Up to 16 connections/fingers/inputs are supported. Any input device such as touch-screens, mouse, tablets are supported. These are the main gestures used by the plugins:
- Tap = left click
- Double tap = double click
- Tap & hold and quickly tap next to it with another finger = right click. Tap & hold is a classic right-click gesture, however that doesn't provide a good workflow, so came up with this method, which is much faster and does not collide with functionality of some elements.

Purchasing and activation

You can purchase the plugin from our website or any reseller, however purchasing directly from our website is always the quickest and simplest option. The software is available online only, purchasing is automatic, easy and instant. After the purchase you will immediately receive a keyfile via email. If you do not receive an e-mail within a few minutes after your purchase, firstly check your spam folder and if the email is not present there, contact our support team using **info@meldaproduction.com** so we can send you the licence again.

To activate the software simply **drag & drop the licence file onto the plugin**. Unfortunately some hosts (especially on Mac OS X) either do not allow drag & drop, or make it just too clumsy, so you can use Home/Activate in any of the plugins and follow the instructions. For more information about activation please check the **online video tutorial**.

You are allowed to use the software on all your machines, but only you are allowed to operate the software. The licences are "to-person" as defined in the licence terms, therefore you can use the software on all your computers, but you are the only person allowed to operate them. MeldaProduction can provide a specialized licence for facilities such as schools with different licence terms.

Quick start with your host

In most cases your host will be able to recognize the plugin and be able to open it the same way as it opens other plugins. If it doesn't, ensure you did installation properly as described above and let your host rescan the plugins.

Cubase

Click on an empty slot (in mixer or in track inserts for example) and a menu with available plugins will be displayed. VST2 version is located in MeldaProduction subfolder. However VST3 version is recommended and is located in the correct folder along with Cubase's factory plugins. For example, dynamic processors are available from the "Dynamics" subfolder.

To route an audio to the plugin's **side-chain** (if it has one), you need to use the VST3 version. Enable the side-chain using the arrow button in the Cubase's plugin window title. Then you can route any set of tracks into the plugin's side-chain either by selecting the plugin as the track output or using sends.

To route **MIDI** to the plugin, simply create a new MIDI track and select the plugin as its output.

Logic

Choose an empty insert slot on one of your audio tracks (or instrument tracks for example) and select the plugin from the popup menu. You will find it in the Audio Units / MeldaProduction folder.

To route an audio to the plugin's **side-chain** (if it has one), a side-chain source should be available in the top of the plugin's window, so simply select the source track you want to send to the plugin's side-chain.

To route **MIDI** to the plugin, you need to create a new Instrument track, click on the instrument slot and select the plugin from AU MIDI-controlled Effects / MeldaProduction. The plugin will receive MIDI from that track. Then route the audio you want to process with the plugin to this track.

Studio One

Find the plugin in the Effects list and drag & drop it onto the track you would like to insert the plugin to.

To route an audio track to the plugin's **side-chain** (if it has one), first enable the side-chain using the "Side-chain" button in the Studio One's plugin window title. Then you can route any set of tracks into the plugin's side-chain from the mixer.

To route **MIDI** to the plugin, simply create a new MIDI track and select the plugin as its output.

Digital performer

In the Mixing Board, find an empty slot in the track you would like to insert the plugin to. Click on the field and select the plugin from the effects list.

To route an audio track to the plugin's **side-chain** (if it has one), choose the track you want to send using Side-chain menu, which appears at the top of the DP's plugin window.

To route **MIDI** to the plugin, simply create a new MIDI track in the Track view and select the plugin as its output.

Reaper

Click on an empty slot in the mixer and a window with available plugins will be displayed. Select the plugin you want to open by double clicking on it or using Ok button.

It is highly recommended to select all MeldaProduction plugins in the plugin window the first time you open it, click using your right mouse button and enable "Save minimal undo states". This will disable the problematic Undo feature, which could cause glitches whenever you change certain parameters.

To route an audio track to the plugin's **side-chain** (if it has one), click on I/O button of the side-chain source track in the mixer. Routing window will appear, there you click "Add new send" and select the track the plugin is on. In the created send slot select the channels (after the "=>" mark) for the send, in stereo configuration 3/4 for example. Note that this way the whole track receives the side-chain signal and all plugins with it. It is possible to send it to a single plugin only, but it is more complicated, please check the Reaper's documentation about that.

To route **MIDI** to the plugin, create a new MIDI track and do the same thing as with side-chain, except you don't need to change output channels.

Live

In Session view, select the track you would like to insert the plugin to. At the left top of Ableton Live's interface, click on the Plug-in Device Browser icon (third icon from the top). From the plug-ins list choose the plugin (from MeldaProduction folder), double click on it or drag & drop it into the track.

The X/Y grid usually doesn't provide any parameters of the plugin. This is because the plugins have too many of them, so you have to select them manually. Check Live's documentation for more information.

To route an audio to the plugin's **side-chain** (if it has one), select the track you want to send to the side-chain and in the 'Audio To' menu, choose the audio track that has the plugin on it. Then in the box just below that select the plugin from the menu.

NOTE: Live does NOT support any interface correctly, it doesn't use the reported buses properly, hence it doesn't work with surround capable plugins. Therefore you need to use VST version, which reports only stereo capabilities by default.

To route **MIDI** to the plugin, create a new MIDI track and in the 'MIDI to' menu, choose the audio track that has the plugin on it. Note that in Live only the first plug-in on any track can receive MIDI.

ProTools

In the mixer click an empty slot to insert the plugin to and select the plugin from the tree. The plugin may be present multiple times, once for each channel configuration (mono->stereo etc.). As of now ProTools do not arrange them in the subfolders, which is a workflow dealbreaker, but we cannot do anything about it. The huge empty space on top of each plugin window, which occupies so much of the precious display area, is part of ProTools and every plugin window and again we cannot do anything about it. In some cases you may experience CPU overload messages, in which case please contact Avid for support. Note that ProTools 10 and newer is supported. RTAS compatibility for PT9 and older will never be added.

To route an audio to the plugin's **side-chain** (if it has one), open the plugin, click on the *No key input* button in the plugin title and select the bus you want the audio taken from. You might need to remember the bus number, unless your ProTools version supports bus renaming. ProTools doesn't support stereo (or surround) side-chains at all.

To route **MIDI** to the plugin, create a new MIDI track and in the mixer click the output field for that track and select the plugin, which should already be in the menu.

FL Studio

First make sure plugins are scanned, either a full scan through the Plugin Manager or an automatic fast scan when you open the Plugin Database section of the browser in FL. The scanned plugins will show up in the Plugin Database > Installed section of the FL browser. The Effects and Generators sections in the Plugin Database will show all "favorite" plugins. These can be checked and unchecked in the Plugin Manager or added in some other ways. These favorites also show up in the Add menu, the menu for the "+" button in the channel rack, when you right click an existing channel button to replace or insert, in the plugin slot menu in the mixer and in the plugin picker (F8). The menus with favorite plugins also have a "More" choice that will show all scanned plugins. The full explanation is in our help file, on the page **Installing Plugins**.

To route an audio to the plugin's **side-chain**, first set up the mixer: make sure the track you want to receive audio from is sent to the track the plugin as a sidechain (**help**). Then set up the plugin wrapper: choose the desired input on the **Processing tab** of the wrapper options.

To route **MIDI notes** to the plugin, first configure the sender: choose a MIDI port for the input device in the MIDI settings (for a hardware device), or an output port in the **wrapper options** (for a VST plugin that produces MIDI). For the receiving plugin, set the input port in the wrapper options to the same value you chose in step 1.

To route **MIDI controllers**, the procedure is different. The usual method in FL is to link CC messages to plugin parameters (**help file**). VST plugins will also have 128 CC parameters published (through the wrapper) that can be linkes this way. Those will send the specified CC MIDI message to the plugin, instead of changing a published parameter.

GUI styles, editor modes and colors

MeldaProduction plugins provide a state of the art styling engine, which lets you change the appearance to your liking. The first time you run the plugins a style wizard will appear and let you choose the style and other settings. It may not be available in ProTools and other problematic hosts.

By default each plugin has a certain color scheme, which differs based on what kind of plugin is that. Also, sections of some plugins are colorized differently, again, based on what kind of section is that (this can be disabled in global settings). Despite you can change the colors anyhow you want, it is advantageous to keep the defaults as these are standardized and have predefined meaning, so just by looking at a plugin's color you can immediately say what kind of plugin and section is that. Same rules apply when designing devices for easy screens. This is the current set of colors:

Dynamics = orange

Equalization, filtering = green
Reverb, delay = brown/yellow
Modulation = blue
Distortion, limiting = red
Stereo = cyan/yellow
Time, pitch, unison... = purple/pink
Tools = grey

Special colors:
Synchronization = grey
Detection = blue/green
Side-chain = green
Effects = red
Advanced stuff = grey

About MeldaProduction

The best sound on the market, incredible workflow and versatility beyond your imagination. We create the deepest and the most powerful audio plugins with unbelievable sound and tons of unique features you cannot find anywhere else.

Innovative Thinking

At MeldaProduction, we make the most advanced tools for music production and audio processing. We get inspired by the whole range of tools from the ancient analog gear to the newest digital creations, but we always push forward.
We've always felt the audio industry is extremely conservative, still relying on the prehistoric equipment making the job unnecessarily slow and complicated. That's why we invent new technologies, which make audio processing easier, faster, better sounding and more creative.

Sound Matters

In the world full of audiophiles you just need superb audio quality. And that's why we spend so much time perfecting audio algorithms until they sound unbeatable. Everything from dynamic filters to spectral dynamic processing. Our technologies just sound perfect.

Inspiring User Interface

Modern user interfaces must not only be easy and quick to use, but also versatile and the whole visual appearance should inspire you. MeldaProduction plugins provide the most advanced GUI engine on the market. It is still the first and only GUI engine, which is freely resizable and stylable. Our plugins can look as an ancient vintage gear, if you are working on old-school rock music. Or as super-modern

futuristic devices if you are working on modern electronic music.

Easy to Use, Yet Versatile

The only limit is your imagination. Our plugins are with absolutely no doubt the most powerful and versatile tools on the market. Yet we managed to make the plugins easy to use via the devices and smart randomization system. But when you are ready, you are one click away from the endless potential the plugins provide.

Never-Ending Improvements

Most companies create a plugin, sell it and abandon it. We improve our plugins, add features, optimize... until there is nothing left to improve and there are no more ideas. Unfortunately that hasn't happened yet :). And the best thing is that the updates are free-for-life!

MeldaProduction was founded in 2009 by Vojtech Meluzin and is based in Prague, Czech Republic.

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