

# MAutoAlign

## Overview

Phase cancellation is a constant problem when recording an instrument (or instruments) with multiple microphones. It is caused by the relatively slow speed of sound that allows the same audio signal to be received by each mike at slightly different times depending on the distance of each from the sound source, surrounding walls etc. When these tracks are subsequently mixed, problems often occur. Some frequencies cancel each other out and the audio loses punch resulting in a poor recording. This phenomenon is always present in varying degrees and it cannot be fixed physically. So the first step is to acknowledge the problem and then find a way to fix it.

The solution is to delay each of the recorded tracks by a certain number of samples and most engineers do this manually. However it is not uncommon to have delays of around 500 samples between microphones so even with just 4 microphones this gives us more than 62,500,000 possibilities!

**MAutoAlign** solves this problem in an extremely efficient way. All you need to do is place MAutoAlign on all tracks that need to be aligned, start playback and press the **Analyze button** in one of them. The plugin will then analyze all tracks and determine the correct delay for

each track after just a few seconds. MAutoAlign does not alter the tracks in any way, it only delays them and inverts the phase if necessary.

## Groups

When multiple instruments are recorded, drums and guitars for example, it's unlikely that any cancellations between the drum and guitar tracks will occur as they essentially contain completely different audio. In fact, trying to fix such a group of tracks would probably do more harm than good. In this case all that is needed is to group the different types of tracks.

For example, if 8 microphones have been used for drums, and 2 for the lead guitar, group **D** could be set for all 8 MAutoAlign instances in the drum tracks and group **G** for both guitar tracks. Pressing Analyse in any of the drum tracks, will cause all 8 to be analysed, while the guitar track settings will remain unchanged. Pressing Analyse in either guitar track will analyze just those two.

## Spectral phase compensation system

Since version 11.02 MAutoAlign features most likely the world's first spectral phase compensation system. The delay and phase inversion described above technically do nothing to the actual audio, so they are completely transparent, but they also have very limited power. In a perfect world, where audio instruments would be microscopic points in space, microphones would record perfect audio without any phase shift and no ambience, this would be fine. Unfortunately that's not the case and the reality is that whatever you do, each track will have the phase changed in some way. In practice this means that when you mix multiple signals, some frequencies will combine satisfactorily, others will cancel each other out making the output sound thin and, well, ugly. And although some people try to fix that problem using allpass filters, it's an almost impossible job. MAutoAlign can now solve that in a matter of seconds.

As part of the analysis, MAutoAlign calculates the optimal phase adjustment to minimize cancellations. You can then simply enable the **Spectral phase compensation** module and it will apply the phase adjustment to the input signals. It is disabled by default as it induces latency (hence it cannot be used live) and it may not always work.

The spectral phase compensation works when there is a stable phase difference. Hence it mostly works when there is not too much noise or ambience, ideally for close mics. Ambience and noise are very unpredictable signals with no stability whatsoever, which makes the plugin try to come up with at least something, but the results are usually not helpful. If that's the case, try setting up a longer analysis length, which can make the noise and ambience cancel itself out in time making the useful signal more pronounced.

## Spectral phase compensation system for mixing dry & wet signals

Imagine that you take some signal, let it be a piano, and process it using some equalizer or analog device for instance. This processing most likely has caused some phase shifting to the signal. Now you cannot really mix the processed version with the original anymore, because some frequencies would just cancel each other out and results would be awful, or at least not exactly ideal. The spectral phase compensation system can once again fix this for you - it will analyze the phase difference between the 2 signals and try to either revert the phase alteration in the processed signal, or cause a similar phase alteration in the dry signal. Either way it will hopefully minimize phase cancellation.

This also means, that for the first time you can now equalize the tracks before aligning them and MAutoAlign will not only fix the time differences between the tracks, but also correct the phases of each track, whether it was caused by the processing, the microphone, or anything else on the way.

## Where to place MAutoAlign in the effect chain?

MAutoAlign should be placed in the insert effects chain of your host and if you don't use any plugins causing latency, then it is only a matter of personal preference. Making MAutoAlign the first item in any chain will usually result in a more successful analysis as this will likely be free of other effects and be the most natural input. Making it the last item lets it fix the correct the phase alterations caused by any processors before it, such as equalizers or delays.

Problems may arise when you use latency-inducing plugins. The plugin uses the host's timestamps to synchronize all instances, unfortunately many hosts are rather problematic in that aspect. If you exhibit erratic behaviour, where each analysis produces in different results despite analyzing the same portion of the audio, try disabling all latency-inducing plugins temporarily. And let your host's developer know about the problem.

## How to group tracks of an acoustic drum kit?

Acoustic drums are typically recorded using several close microphones, together with overheads and room microphones. Let's start with the "close mics".

The question is, should you group all close microphones together? There is no definitive answer, but it is customary to try it this way first. If it doesn't provide satisfactory results, which is often the case if multiple drums are recorded using multiple microphones, you should try grouping the individual drum kit pieces together. In most cases, the original setting with all close mics grouped together works just fine.

Although the close mics are placed very close to the individual drums, they will often capture the sound of other drums as well. This so-called bleed usually doesn't need to be handled specifically, unless it is too loud. Drums recorded with multiple microphones, e.g. snare top and snare bottom, should always be aligned together.

*Make sure that you use a reasonable part of the recording for analysis - and that all microphones are actually capturing the performance. If some of the tracks are silent, it is unlikely these tracks will be aligned correctly. Be especially careful when you use MAutoAlign as the last item in the chain for each track and you also use a gate before it. By definition, the gate will be cutting out some parts of the track.*

Overheads are also quite close to the drum kit, but they capture lots of ambience too. Experience tells us that this ambience usually makes aligning pointless, however you should try anyway. Sometimes overhead microphones are placed some distance from each other. In this case it may be necessary to align them with each other as there may be phase collision between them and alignment would improve the stereo image.

You can also try aligning the overheads with the close mics. Your first step is to listen to discover if they are actually colliding with the close microphones. If so, first mix all the close microphones into a bus (group) track, let's call it "closedrums" and then align the overheads with that track. This grouping is done because aligning overheads with the separate close microphones, can confuse the analysis as the phasing problems are minimal and the overheads contain too much ambience. So it is usually better to work with the close microphones together, after all these are the key for a tight mix, overheads only fill the gaps, glue it together and provide some natural ambience.

Room microphones are usually placed some distance away from the whole performance and as the name suggests, are there to capture the room. With that much ambience it is difficult to find and fix phasing issues, but it is often worth trying. As with the overheads, you may use MAutoAlign to fix phasing issues between multiple room microphones if they have been placed far enough away from each other. The good news is that ambience in a way fights phase cancellations, so in most cases there actually isn't any problem in the first place.

## Presets

### 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.



### 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.

## Settings

### 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.

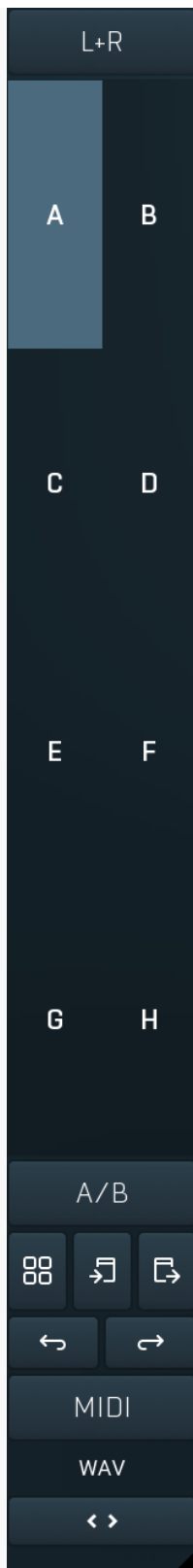
**Smart interpolation** adjusts the interpolation algorithm used when changing parameter values; the higher the setting the higher the audio quality and the lower the chance of zippering noise, but more CPU will be used.



**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.

## Plugin toolbar



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

L+R

### Channel mode

Channel mode button shows the current processing channel mode, e.g. **Left+Right (L+R)** indicates the processing of left and right channels. This is the default mode for mono and stereo audio material and effectively processes the incoming signal as expected. However the plugin also provides additional modes, of which you may take advantage as described below. Mastering this feature will give you unbelievable options for controlling the stereo field.

Note that this is not relevant for mono audio tracks, because the host supplies only one input and output channel.

**Left (L) mode and Right (R) mode** allow the plugin to process just one channel, only the left or only the right. This feature has a number of simple uses. Equalizing only one channel allows you to fix spectral inconsistencies, when mids are lower in one channel for example. A kind of stereo expander can be produced by equalizing each side differently. Stereo expansion could also be produced by using a modulation effect, such as a vibrato or flanger, on one of these channels. Note however that the results would not be fully mono compatible.

Left and right channels can be processed separately with different settings, by creating two instances of the plugin in series, one set to 'L' mode and the other to 'R' mode. The instance in 'L' mode will not touch the right channel and vice versa. This approach is perfectly safe and is even advantageous, as both sides can be configured completely independently with both settings visible next to each other.

**Mid (M) mode** allows the plugin to process the so-called mid (or mono) signal. Any stereo signal can be transformed from left and right, to mid and side, and back again, with minimal CPU usage and no loss of audio quality. The mid channel contains the mono sum (or centre), which is the signal present in both left and right channels (in phase). The side channel contains the difference between the left and right channels, which is the "stereo" part. In 'M mode' the plugin performs the conversion into mid and side channels, processes mid, leaves side intact and converts the results back into the left and right channels expected by the host.

To understand what a mid signal is, consider using a simple gain feature, available in many plugins. Setting the plugin to M mode and decreasing gain, will actually lower or attenuate the mono content and the signal will appear "wider". There must be some stereo content present, this will not work for monophonic audio material placed in stereo tracks of course. Similarly amplifying the mono content by increasing the gain, will make the mono content dominant and the stereo image will become "narrower".

As well as a simple gain control there are various creative uses for this channel mode.

Using a **compressor** on the mid channel can widen the stereo image, because in louder parts the mid part gets attenuated and the stereo becomes more prominent. This is a good trick to make the listener focus on an instrument whenever it is louder, because a wider stereo image makes the listener feel that the origin of the sound is closer to, or even around them.

A **reverb** on the mid part makes the room appear thin and distant. It is a good way to make the track wide due to the existing stereo content, yet spacey and centered at the same time. Note that since this effect does not occur naturally, the result may sound artificial on its own, however it may help you fit a dominant track into a mix.

An **equalizer** gives many possibilities - for example, the removal of frequencies that are colliding with those on another track. By processing only the mid channel you can keep the problematic frequencies in the stereo channel. This way it is possible to actually fit both tracks into the same part of the spectrum - one occupying the mid (centre) part of the signal, physically appearing further away from the listener, the other occupying the side part of the signal, appearing closer to the listener.

Using various **modulation effects** can vary the mid signal, to make the stereo signal less correlated. This creates a wider stereo image and makes the audio appear closer to the listener.

**Side (S) mode** is complementary to M mode, and allows processing of only the side (stereo) part of the signal leaving the mid intact. The same techniques as described for M mode can also be applied here, giving the opposite results.

Using a **gain** control with positive gain will increase the width of the stereo image.

A **compressor** can attenuate the side part in louder sections making it more monophonic and centered, placing the origin a little further away and in front of the listener.

A **reverb** may extend the stereo width and provide some natural space without affecting the mid content. This creates an interesting side-effect - the reverb gets completely cancelled out when played on a monophonic device (on a mono radio for example). With stereo processing you have much more space to place different sounds in the mix. However when the audio is played on a monophonic system it becomes too crowded, because what was originally in two channels is now in just one and mono has a very limited capability for 2D placement. Therefore getting rid of the reverb in mono may be advantageous, because it frees some space for other instruments.

An **equalizer** can amplify some frequencies in the stereo content making them more apparent and since they psycho acoustically become closer to the listener, the listener will be focused on them. Conversely, frequencies can be removed to free space for other instruments in stereo.

A **saturator / exciter** may make the stereo richer and more appealing by creating higher harmonics without affecting the mid channel, which could otherwise become crowded.

**Modulation effects** can achieve the same results as in mid mode, but this will vary a lot depending on the effect and the audio material. It can be used in a wide variety of creative ways.

**Mid+Side (M+S)** lets the plugin process both mid and side channels together using the same settings. In many cases there is no difference to L+R mode, but there are exceptions.

A **reverb** applied in M+S mode will result in minimal changes to the width of the stereo field (unless it is true-stereo, in which case mid will affect side and vice versa), it can be used therefore, to add depth without altering the width.

A **compressor** in M+S mode can be a little harder to understand. It basically stabilizes the levels of the mid and side channels. When channel linking is disabled in the compressor, you can expect some variations in the sound field, because the compressor will attenuate the louder channel (usually the mid), changing the stereo width depending on the audio level. When channel linking is enabled, a compressor will usually react similarly to the L+R channel mode.

**Exciters or saturators** are both nonlinear processors, their outputs depend on the level of the input, so the dominant channel (usually mid) will be saturated more. This will usually make the stereo image slightly thinner and can be used as a creative effect.

**How to modify mid and side with different settings?** The answer is the same as for the L and R channels. Use two instances of the plugin one after another, one in M mode, the other in S mode. The instance in M mode will not change the side channel and vice versa.

**Left+Right(neg) (L+R-) mode** is the same as L+R mode, but the the right channel's phase will be inverted. This may come in handy if the L and R channels seem out of phase. When used on a normal track, it will force the channels out of phase. This may sound like an extreme stereo expansion, but is usually extremely fatiguing on the ears. It is also not mono compatible - on a mono device the track will probably become almost silent. Therefore be advised to use this only if the channels are actually out of phase or if you have some creative intent.

There are also 4 subsidiary modes: **Left & zero Right (L(R0))**, **Right & zero Left (R(L0))**, **Mid & zero Side (M(S0))** and **Side & zero Mid (S(M0))**. Each of these processes one channel and silences the other.

**Surround mode** is not related to stereo processing but lets the plugin process up to 8 channels, depending on how many the host supplies. For VST2 plugins you have to first activate surround processing using the **Activate surround** item in the bottom. This is a global switch for all MeldaProduction plugins, which configures them to report 8in-8out capabilities to the host, on loading. It is disabled by default, because some hosts have trouble dealing with such plugins. After activation, restart your host to start using the surround

capabilities of the plugins. Deactivation is done in the same way. Please note that all input and output busses will be multi-channel, that includes side-chain for example. For VST3/AU/AAX plugins the activation is not necessary.

First place the plugin on a surround track - a track that has more than 2 channels. Then select **Surround** from the plug-in's Channel Mode menu. The plugins will regard this mode as a natural extension of 2 channel processing. For example, a compressor will process each channel separately or measure the level by combining the levels of all of the inputs provided. Further surround processing properties, to enable/disable each channel or adjust its level, can be accessed via the **Surround settings** in the menu.

**Ambisonics mode** provides support for the modern 3D systems (mostly cinema and VR) with up to 64 channels (ambisonics 7th order). Support for this is still quite rare among the DAWs, so this needs to be activated in all DAWs using the **Activate ambisonics** item in the bottom. This is a global switch for all MeldaProduction plugins, which configures them to report 64in-64out capabilities to the host, on loading. After activation, restart your host to start using the ambisonics capabilities of the plugins. Deactivation is done in the same way. Please note that all input and output busses will be multi-channel, that includes side-chain for example.

First place the plugin on an ambisonics track, supported are all orders from 1st (4 channels) to 7th (64 channels). Then select **Ambisonics** from the plug-in's Channel Mode menu. Finally select the **Ambisonics settings** in the menu and configure the Ambisonics order and other settings if needed. The plugins will regard this mode as a natural extension of 2 channel processing. For example, a compressor will process each channel separately or measure the level by combining the levels of all of the inputs provided.



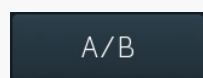
### A-H presets selector

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.

WAV

## WAV

WAV button lets you process a file using the plugin with current settings. You can either click the button and select a file, or drag & drop the file (or multiple files) onto the button. If you let the plugin process WAV files, these will be saved with the original settings. If you use a different file type (such as MP3), the plugin will create WAV files with 32-bit bits-per-sample floating point.

Please note that the files will be overwritten, so make a copy first if you want to keep the original.



## Collapse

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

Group

Drumset



Group

Group lets you select multiple tracks to synchronize with each other. All tracks with the same group are analyzed together. Plugin indicates in the right bottom corner how many instances of this plugin is in the selected group.



LATENCY

0 ms

## Latency

Latency lets all of the instances in the group report this latency. Since the process of aligning delays the tracks, they slightly shift in time, but always forwards. You may therefore experience a feeling of different timing. To compensate for it, the plugin can report latency, for which the host compensates (Plugin Delay Compensation, or PDC), which in effect moves all the audio backwards in time. It is usually necessary to restart playback after changing this value.

Range: 0 ms to 100 ms, default 0 ms



DELAY

0 samples

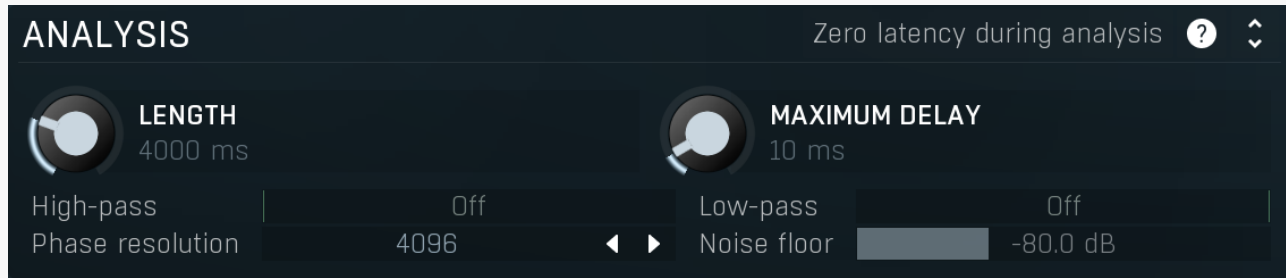
## Delay

Delay lets you manually move the computed offset. You can use this to adjust the results if you are not satisfied with them. What you do is immediately updated in the log. You cannot have negative delay, since it is impossible without inducing latency. But note that the meters showing better values may not mean the results are actually better. You should always trust your ears.

Range: -1024 samples to 1024 samples, default 0 samples



# Analysis panel

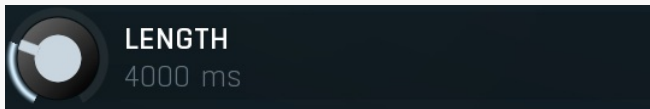


Analysis panel contains the parameters of the standard delay and phase inversion analysis.

## Zero latency during analysis

### Zero latency during analysis

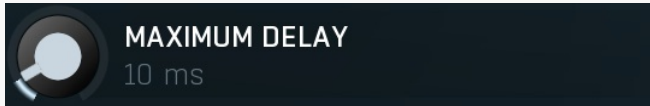
Zero latency during analysis makes all the plugins in the group report 0 latency when the analysis starts and put it back again afterwards. This is useful for hosts, which do not report correct timing info to the plugins when a plugin with latency is used. So basically leave this disabled and if you feel like things are not working properly, turn it on. Note that it makes a difference only if the plugin is actually having latency, typically when spectral phase compensation is used.



### Length

Length controls the length of the analysis, hence how much signal needs to be recorded for the analysis. The default should suit most needs, but if you feel like you are processing long and steady signals, you may increase the length for example. Note that increasing the length does not improve the accuracy of analysis and sometimes it can even make things worse.

Range: 2000 ms to 30000 ms, default 4000 ms



### Maximum delay

Maximum delay defines maximum time offset to be detected. In most cases the delay between microphones is lower than 10ms and making this value higher can make the plugin generate higher delays due repeating sequences in the audio. Please note that this parameter is relevant only when you click the **Analysis button** in.

Range: 0.10 ms to 1000 ms, default 10 ms



### High-pass

High-pass defines the high-pass filter cut-off frequency which may be used to remove part of the signal for the analysis, for example to avoid drum leakage. Please note that this filter is used only for analysis and does not affect the audio signal itself.

Range: Off to 20.0 kHz, default Off



### Low-pass

Low-pass defines the low-pass filter cut-off frequency which may be used to remove part of the signal for the analysis, for example to avoid drum leakage. Please note that this filter is used only for analysis and does not affect the audio signal itself.

Range: 20.00 Hz to Off, default Off



### Phase resolution

Phase resolution controls the block size used for spectral phase compensation analysis and processing. The algorithm is working in the so-called spectral domain. This allows it to access features that are normally unavailable, however in order to do that it requires the audio to be separated into blocks of audio. As a result, using the spectral phase compensation causes latency. This setting controls the latency length. Additionally, the higher it is the more detail the plugin has, which usually provides higher audio quality, at the expense of greater CPU cost and increased latency.

Range: 256 to 65536, default 4096

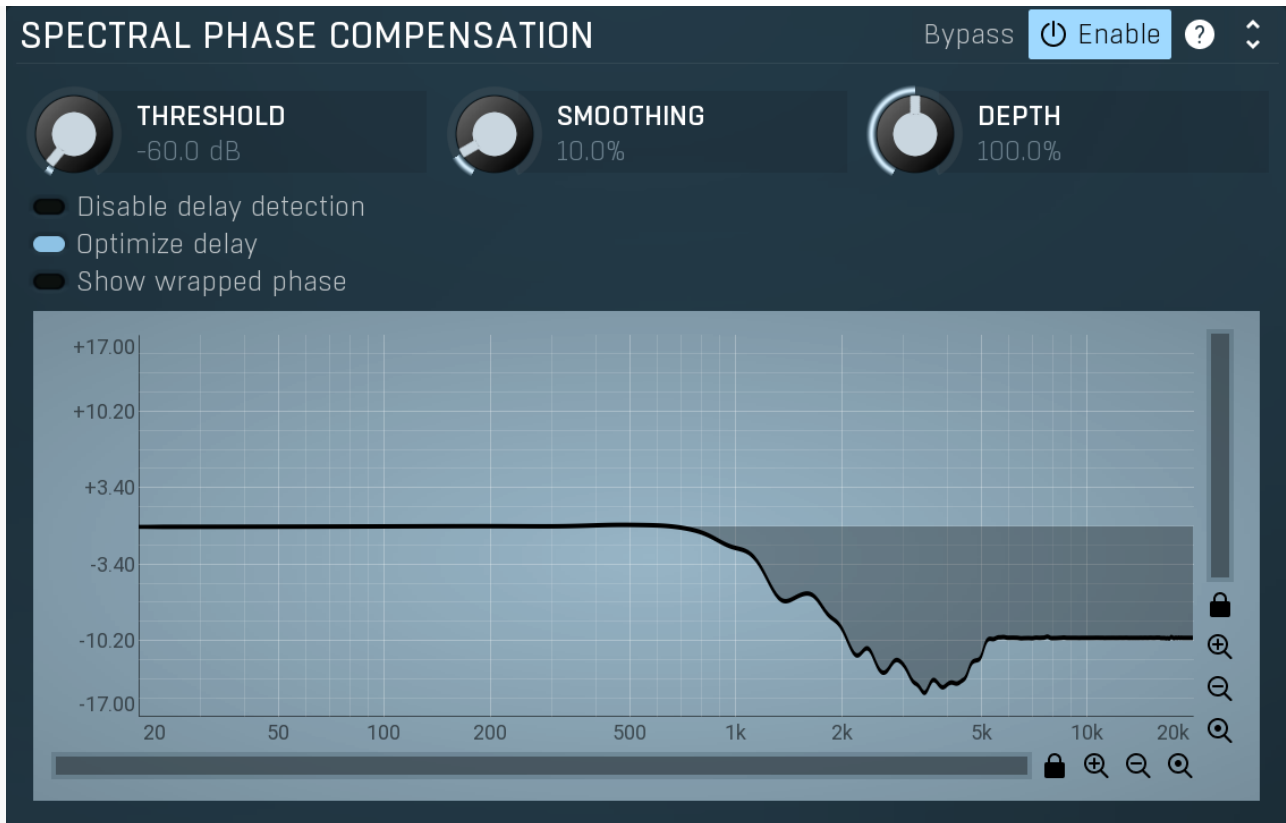


### Noise floor

Noise floor controls the input volume considered to be the noise floor, which helps the plugin distinguish between useful signal and noise during analysis. It has no effect on the audio or metering.

Range: silence to 0.00 dB, default -80.0 dB

# Spectral phase compensation panel



Spectral phase compensation panel contains parameters of the advanced algorithm, which directly adjusts the phase of all tracks to avoid phase cancellations. Please note that once you enable this panel, all of the instances in the group will start inducing latency.

### Bypass **Bypass**

Bypass switch disables the spectral phase compensation without changing the latency, which is what the **Enable** button would do, which makes it hard to use for comparison, since it causes a lag. Bypass is a better choice which lets you properly determine if the phase compensation is worth keeping enabled.

### THRESHOLD -60.0 dB

#### Threshold

Threshold defines the minimum level to be considered relevant for the phase shifting. In most signals all frequencies are actually present, but most of them are only noise, distortion and other artefacts. Shifting such signals wouldn't be a problem on its own, but the more the phase is changed, the bigger the chance that something will go wrong. In percussive signals this could lead to smearing of the initial transient for example. This parameter could be used to let the plugin consider only the prominent frequencies relevant for the analysis. All frequencies will then be processed anyway, but this can make the resulting phase envelope much less complex, which in effect improves the phase coherency and minimizes the chance that something goes wrong.

Range: silence to 0.00 dB, default -60.0 dB

### SMOOTHING 10.0%

#### Smoothing

Smoothing lets you smoothe the phase envelope. It could be helpful if the processing is too brutal, causing various artefacts such as transient smearing for percussive signals. However, please note that by using this parameter you also get further away from the theoretically ideal phase processing, so the phase cancellations can increase again.

Range: 0.00% to 100.0%, default 10.0%

### DEPTH 100.0%

#### Depth

Depth controls the amount of phase shift being performed. In most cases only 100% makes sense as it performs the exact phase shift determined as ideal. However you may want to change this as an experiment to see if different values could provide better results.

Range: 0.00% to 200.0%, default 100.0%

### Disable delay detection

#### Disable delay detection

Disable delay detection switch makes the analysis avoid detecting the delay and inversion and focus on phase compensation only. Normally you should leave this disabled as both things work together. However in some cases, such as mixing a dry signal with a wet one (with altered phase using an equalizer for example), where you know that no delay has been performed, you may try enabling this option to see if it would result in a better analysis.

### Optimize delay

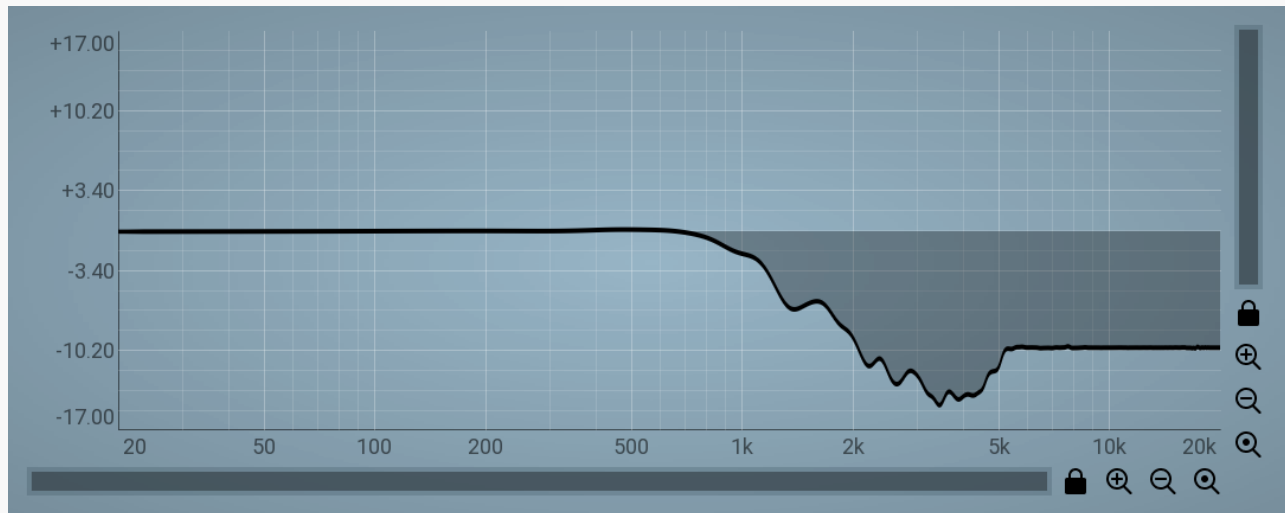
## Optimize delay

Optimize delay switch enables advanced processing which optimizes both delays and phase compensation at once. It is performed during the analysis, so to make this work, you need to have both spectral phase compensation and optimize delay enabled. It can provide better audio quality.

Show wrapped phase

### Show wrapped phase

Show wrapped phase switch changes the phase graph into a so-called wrapped one. Phase is not a classic measure, it is cyclic, meaning that -180 degrees produces the same effect as +180 degrees. Showing the phase in such a diagram (called wrapped) can then look rather hard to understand, since in many cases the line will be jumping from top to bottom eventually looking like a big mess. Therefore by default the plugin shows so-called unwrapped phase, which adjusts for that and makes the graph look easier to understand for a human.



### Phase graph display

Phase graph display shows the phase compensation for this instance after processing by Threshold and other controls. The graph basically shows how much the phase of each frequency is shifted. Note that since the phase adjustment can reach huge numbers (which is not a bad thing due to the fact that phase is cyclic), the vertical units don't show the actual phase, but the number of half-cycles - 1 means 180 degrees, 2 means 360 degrees. In any case these values are useful for your curiosity only.

Analyse

### Analyse

Analyse button starts the analysis. Start playback in your host at an averagely loud position and press this button. The processing will take a few seconds and new settings will appear immediately. If you aren't be satisfied with the results, you can just press the button again to proceed with another analysis. The reason is, that in most real cases there is no perfect solution and results highly depend on the actual part of the song being played during the analysis.

Bypass all

### Bypass all

Bypass all button bypasses all plugins in the group as opposed to the standard bypass, which overrides just the single instance. Bypassing all lets you check how all tracks sound without the automatic alignment.

A / B

### A/B

A/B button lets you switch between 2 analyses. If you switch from A to B, the plugin changes all other plugins in the same group as well. Analysis results are then stored in the particular slot, so you when you have analyzed both, you can easily switch between them using this button and audition which sounds better.

## Log view

0 samples

0.0 ms

0.0 cm

0.0 inch

1 plugin in group

INV

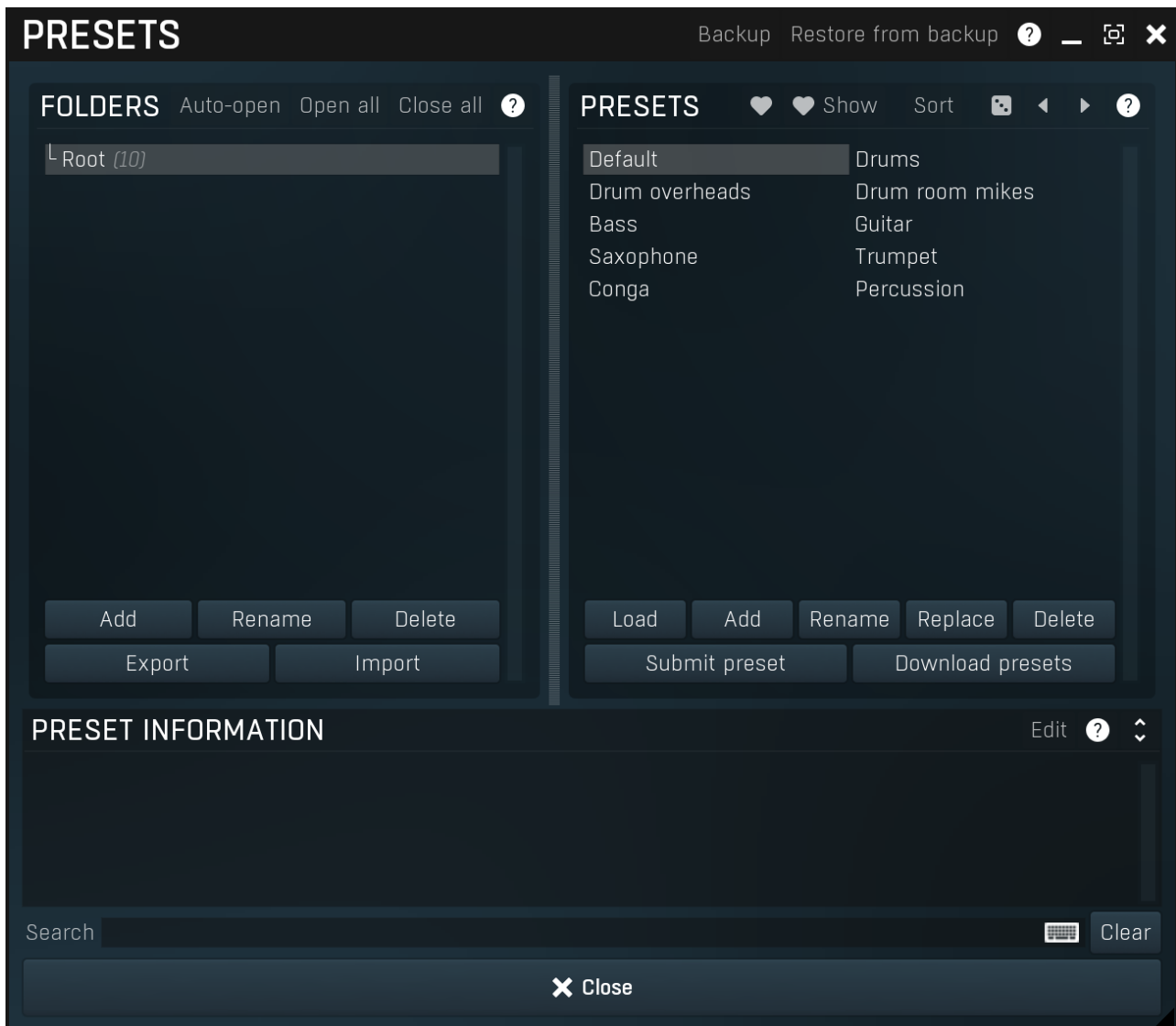
Log view displays calculated delay in samples, milliseconds, and the approximate distance in centimeters and inches.

**INV**

**INV**

INV button is highlighted if the phase has been inverted. You can change the state by clicking on it.

# Preset selector



Preset management window provides management for your presets.

**Backup**

## Backup

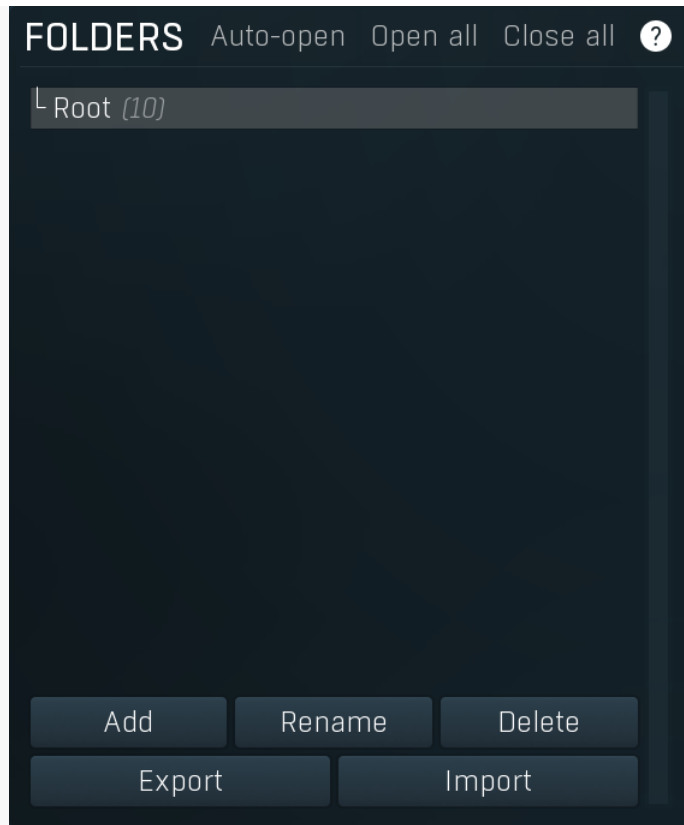
Backup button lets you backup presets for all MeldaProduction software into a single file, so you can transfer it to a different machine and restore the presets there for example.

**Restore from backup**

## Restore from backup

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

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

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

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

Add

### Add

Add button creates a new folder in the tree

Rename

### Rename

Rename button lets you rename the selected folder.

Delete

### Delete

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

Export

### 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

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

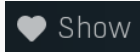


Presets list contains all presets available in the selected folder. **Double-click** on a preset or use **Load** button to load a preset. Use the buttons at the bottom of the list to perform additional changes. Please note that these are not actual files & folders on disk, but are records in the preset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



## Favourite

Favourite button toggles the 'favourite' indicator for the selected preset.



## Show

Show button shows only the favourite presets and hides the others.



## 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

Add button creates a new preset using the current settings.

Rename

### Rename

Rename button lets you rename the selected preset.

Replace

### Replace

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

Delete

### Delete

Delete button deletes the selected preset.

Search



Search

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

Clear

### Clear

Clear button deletes all text in the search field.

PRESET INFORMATION

Edit



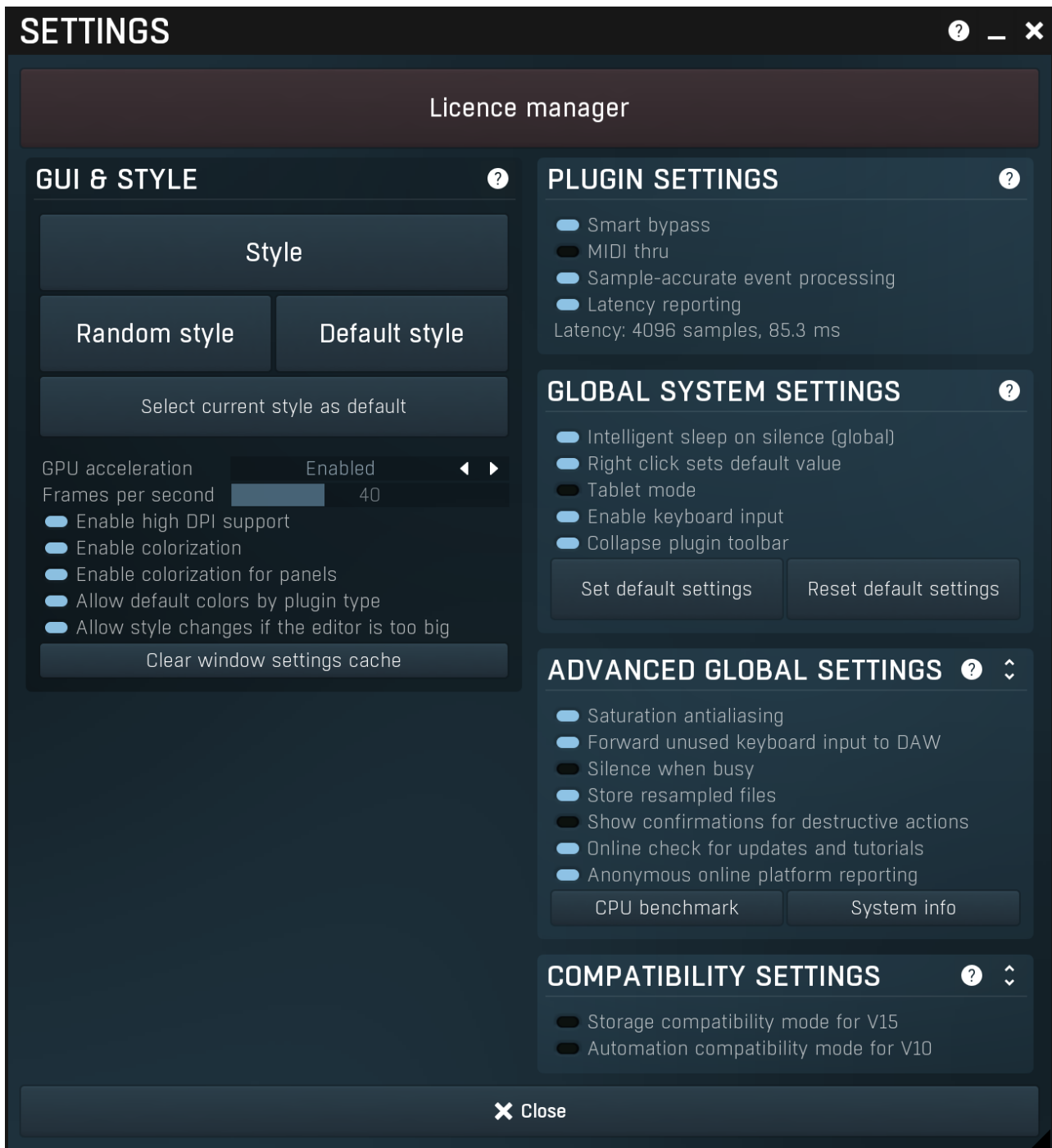
Preset

### information

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



# Plugin settings



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

## Licence panel

Licence manager

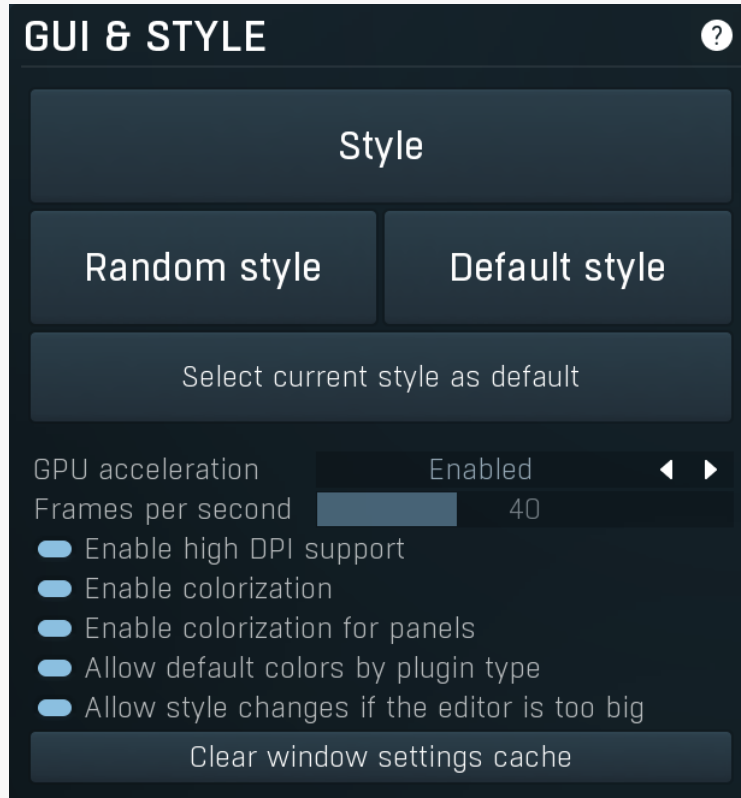
Licence panel lets you manage licences on this computer.

Licence manager

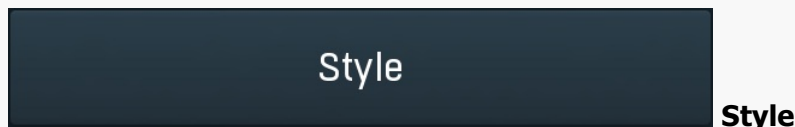
## Activate

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

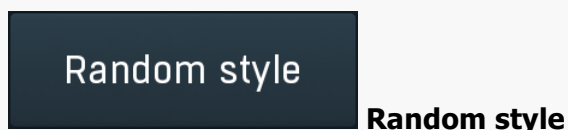
# GUI & Style panel



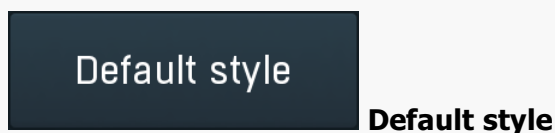
GUI & Style panel lets you configure the plugin's style (and potentially styles of other plugins) and other GUI properties.



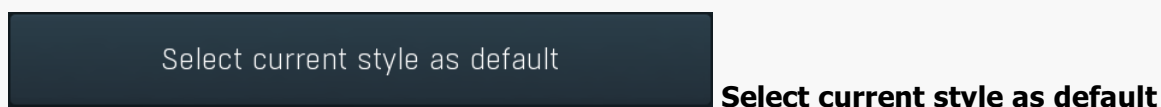
Style button lets you change the style for this particular plugin.



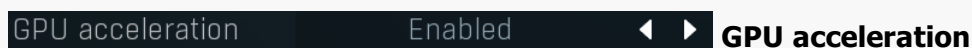
Random style button selects a random style with random editor mode.



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 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 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** 40 **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 support** **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**

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**

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.

**Allow default colors by plugin type** **Allow default colors by plugin type**

Allow default colors by plugin type is on by default and makes the plugin select its default colors depending on the type of the Plugin. Hence for instance equalizer will always be green. This is done by selecting one of the first 8 color presets for the current style, so the actual colors depend on selected style and its presets. You may want to disable this if you for example want all plugins to look the same including the style and colors. It is necessary to restart your host for a change to this option to take effect.

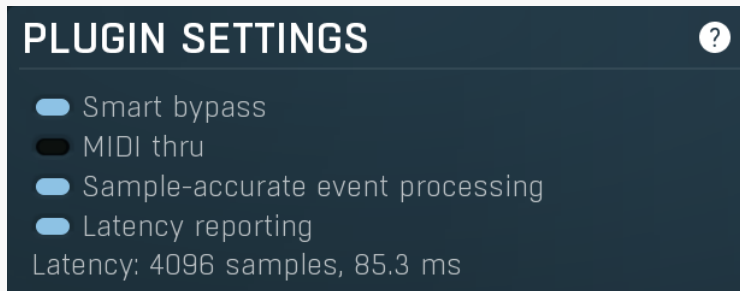
**Allow style changes if the editor is too big** **Allow style changes if the editor is too big**

Allow style changes if the editor is too big is on by default and makes the plugin change its style, editor mode and other settings if it finds out it is too big to fit the current screen resolution.

**Clear window settings cache** **Clear window settings cache**

Clear window settings cache button deletes stored states of all popup windows on all MeldaProduction software. The window settings mostly contain positions and sizes, but in some cases also the data inside the popup windows. You can use this feature if something goes wrong, a window doesn't appear at all, problems like that. While this shouldn't happen and it's generally better to contract our support, this button provides a potential quick fix.

## Plugin settings panel



Plugin settings panel contains settings that control the behaviour of this plugin instance. These are properties that rarely need to be changed, so they have been moved here.

**Smart bypass** **Smart bypass**

Smart bypass enables the high quality crossfading bypass system, which ensures a smooth transition between the processed and dry signals. You may want to disable it if you are using settings with latency on a plugin, which demands lots of CPU power, which would otherwise need to perform processing even when bypassed, which is pretty much the only downside of the smart bypassing algorithm.

## MIDI thru

### MIDI thru

MIDI thru makes the plugin pass all input MIDI through to its MIDI output. That is often advantageous in DAWs such as Reaper, which naturally pass MIDI from one plugin to the next.

## Sample-accurate event processing

### Sample-accurate event processing

Sample-accurate event processing makes the plugin schedule every event such as MIDI or automation to their accurate locations with sample accuracy, if the host allows it.

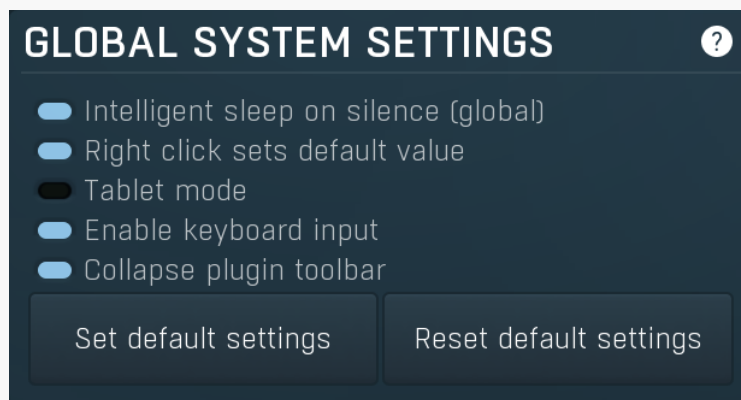
For example, if the block size in your host's audio settings is 1024 samples, this means the plugin is probably processing blocks of 1024 samples, in 44100 Hz sampling rate it is about 23ms. If this setting is disabled, any change in automation, MIDI, modulation etc. may then be granularized to 23ms (once per block), which means that you will not be able to recognize events that occur say 10ms apart from each other. When this setting is enabled however, the plugin divides processing blocks to sub-blocks and processes the events at their correct positions. This may, of course, require more CPU power.

## Latency reporting

### Latency reporting

Latency reporting makes the plugin report latency to the DAW, if any. Normally this is enabled, but in certain live situations you may want to disable this, so that the DAW stops compensating the latency on other tracks. It has no effect if the plugin is placed on master track.

## 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)

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

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

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

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

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.

Set default settings

### Set default settings

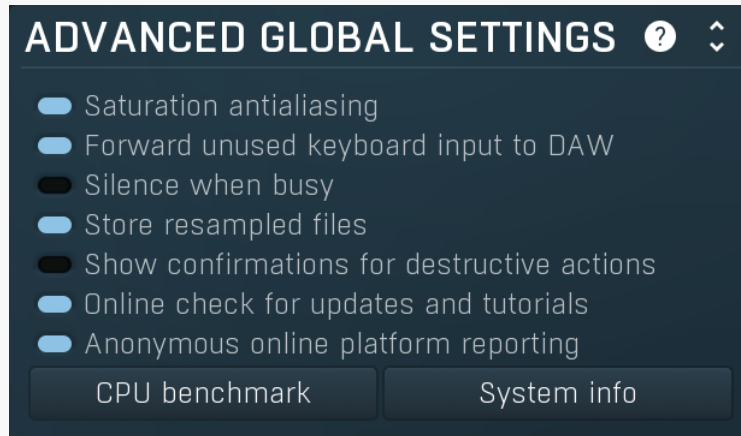
Set default settings button stores the current plugin settings as the defaults, so that when you open a new instance of the plugin, these settings will be loaded automatically.

Reset default settings

### Reset default settings

Reset default settings button removes the defaults that you set using **Set default settings** button, so that when you open a new instance of the plugin, the factory defaults will be loaded.

## Advanced global settings panel



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

Saturation antialiasing

### 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

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

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

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.

Show confirmations for destructive actions

### Show confirmations for destructive actions

Show confirmations for destructive actions makes the plugin display a confirmation window whenever you are going to change the plugin settings irreversibly when using a feature, for example: when resetting your settings.

Online check for updates and tutorials

### Online check for updates and tutorials

Online check for updates and tutorials lets the plugin ask about once a week if there is a new version or tutorial available so you can be easily kept up to date.

Anonymous online platform reporting

### Anonymous online platform reporting

Anonymous online platform reporting helps us maximize compatibility with your operating system and host. If enabled, our plugins will send information about the system and host that you are using. We can use this information to find out which plugins and platforms are used the most and maximize testing and support there. Platform reporting is completely anonymous and requires only minimal internet connection time (a few kB once a week).

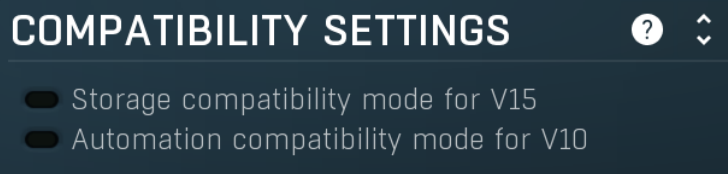
CPU benchmark

### CPU benchmark

CPU benchmark button calculates the performance of the plugin with the current settings.

System info button displays some technical information about the build and the machine.

## 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**

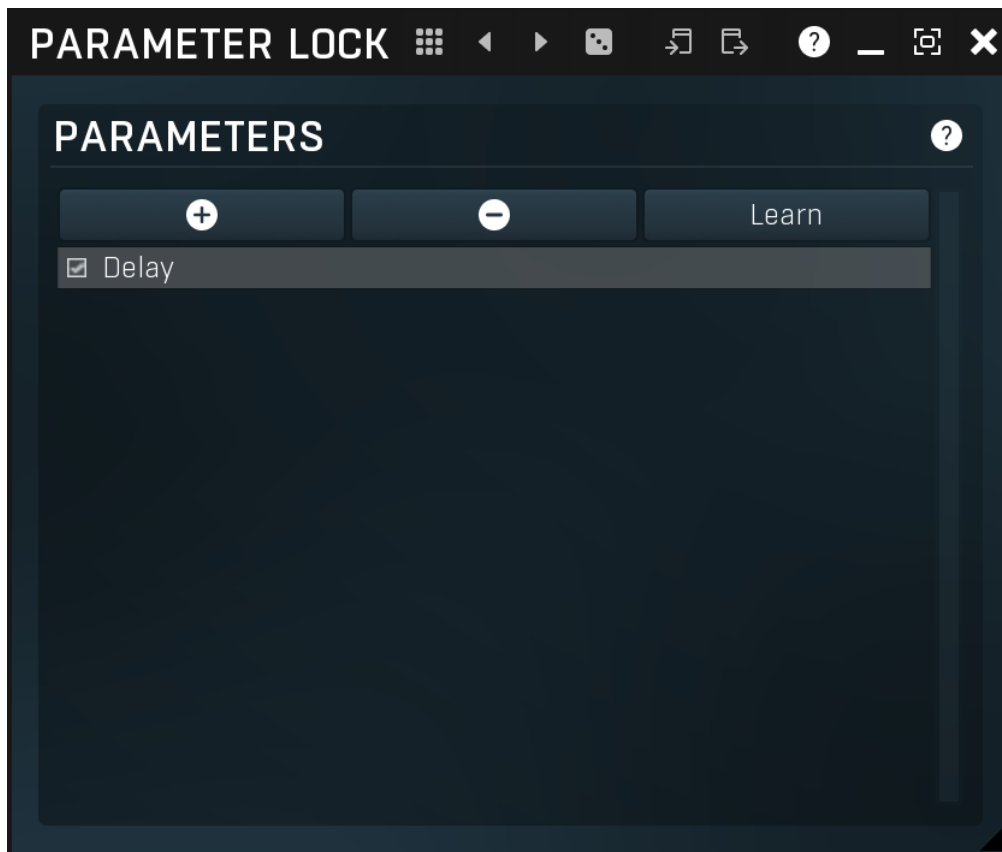
Storage compatibility mode for V15 reverts to the older and much slower storage system used by version 15 and older. Use this if you want to open your projects or presets on older version of MeldaProduction plugins.

### Automation compatibility mode for V10

#### **Automation compatibility mode for V10**

Automation compatibility mode for V10 reverts the set of automation parameters back to version 10 and earlier. Use this if you need the plugins to work with projects, which contain automation, made using version 10 or older. In version 11 the list of automatable parameters have been highly simplified and reorganized and multiparameters are provided for the vast number of hidden parameters. This should speed up loading, improve workflow with the plugins and improve compatibility with various hosts.

# Parameter lock editor



Lock provides a simple way to keep some parameters unchanged when using randomization or browsing presets. You can still change these locked parameters by adjusting the control directly. You simply use the learn feature (right click) in the same way you would with modulators or multiparameters, and touch every parameter you want to keep locked. You can also select them directly in the Parameter Lock window where you can also save them as presets, copy & paste etc. Learning mode is ended by clicking the button again. Please note that this list is not saved with global plugin presets for obvious reasons. The parameters can be locked or unlocked directly in the list or by clicking the lock button associated with the parameter on the Easy screen.



## 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

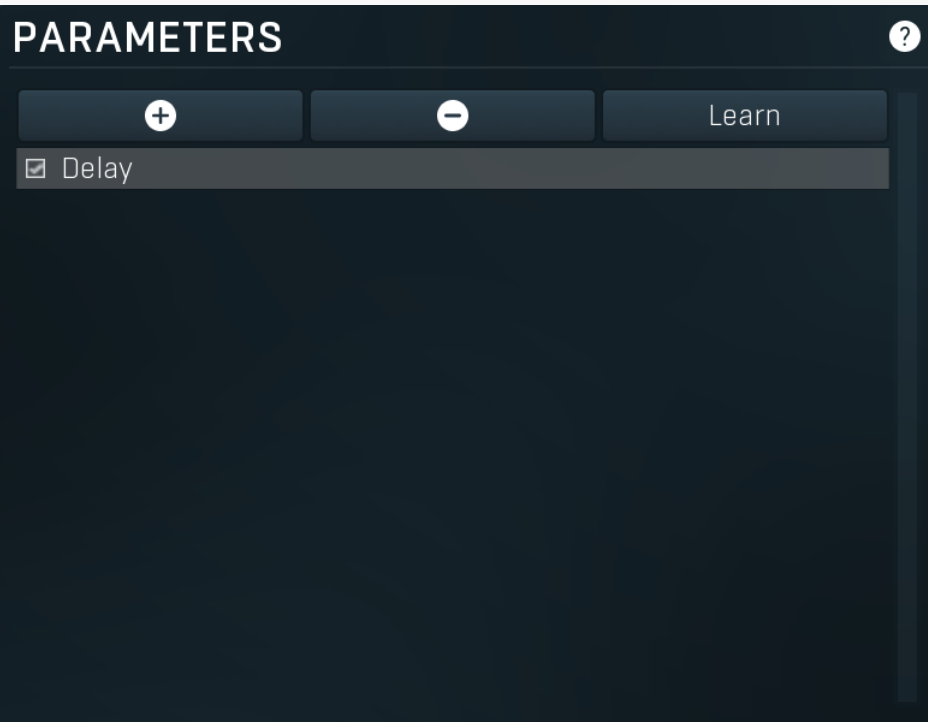
Copy button copies the settings onto the system clipboard.



## Paste

Paste button loads the settings from the system clipboard.

## Parameters panel



Parameters panel configures the list of the parameters which are locked.



### **Add**

Add button adds a parameter to the list of locked parameters. Alternatively you can use the learn feature available by right-clicking the paramlock button for example.



### **Delete**

Delete button deletes the selected parameter from the list of controlled parameters.

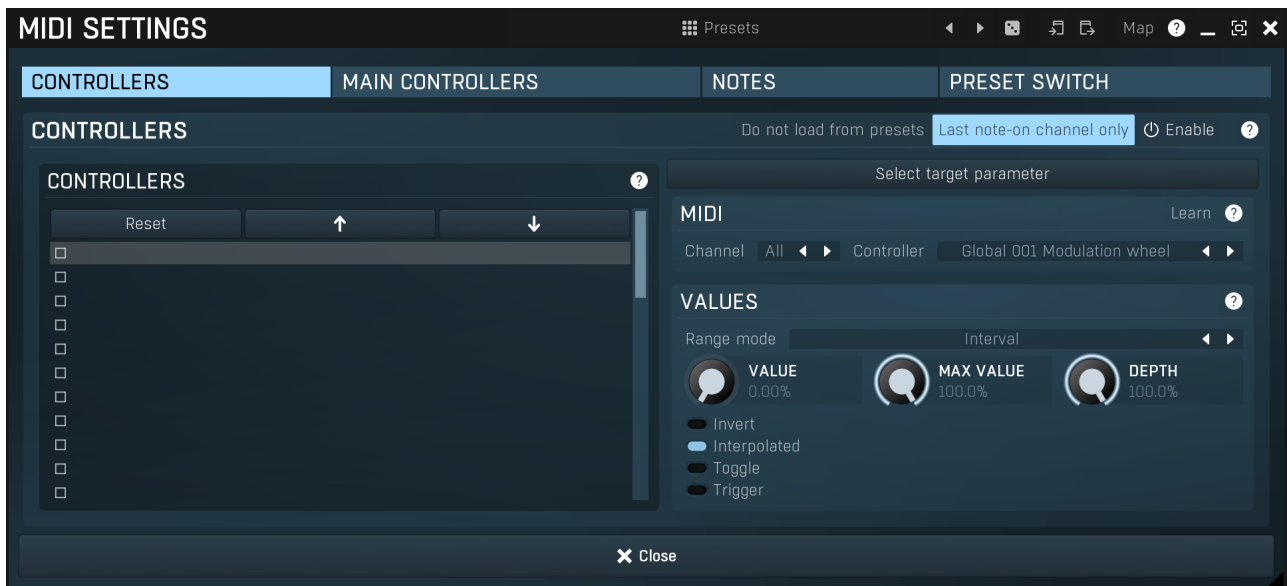


### **Learn**

Learn button starts or stops the learning. Click it, then move some parameters in the plugin, then click it again. Learning can also be accessed from the global parameter lock menu.



# 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

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).

CONTROLLERS

MAIN CONTROLLERS

NOTES

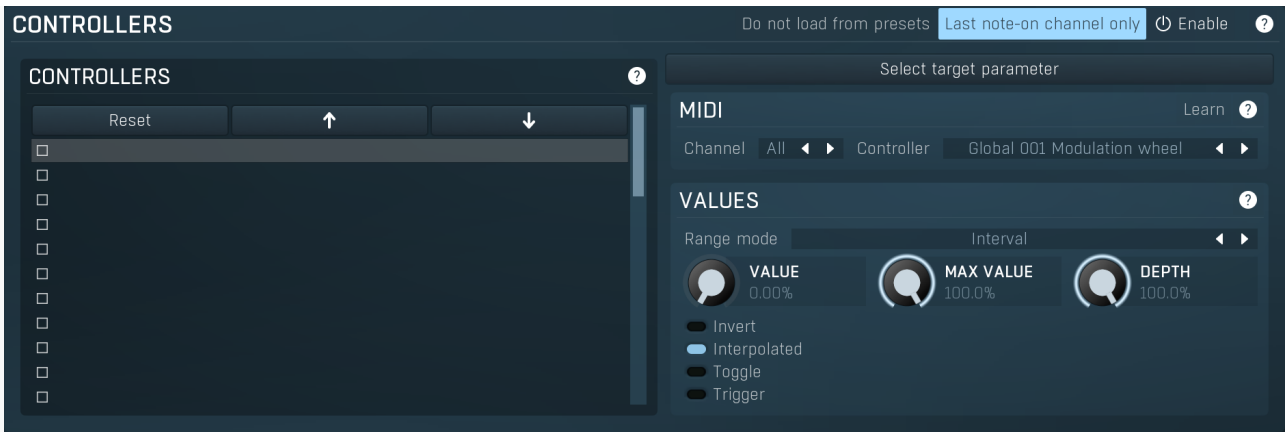
PRESET SWITCH

Tab

## selector

Tab selector switches between subsections.

## Controllers panel



Controllers panel contains settings of MIDI controllers.

**Do not load from presets**

### Do not load from presets

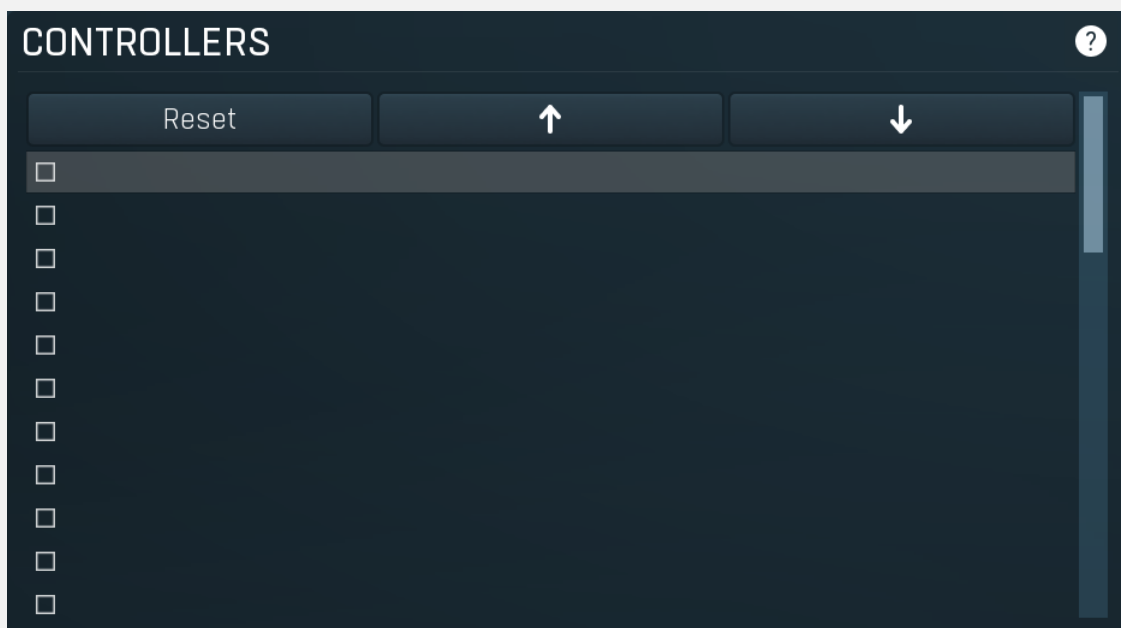
Do not load from presets button disables loading the controllers from presets. This may be handy if you have configured specific MIDI controllers with target parameters and you want to browse the presets without the need to configure them every time. Please note that some presets may rely on specific 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



**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

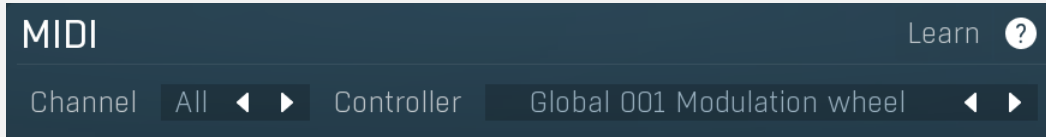
function will reorder them, so these connections will no longer be correct.

Select target parameter

ParameterIndex

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

## MIDI



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.

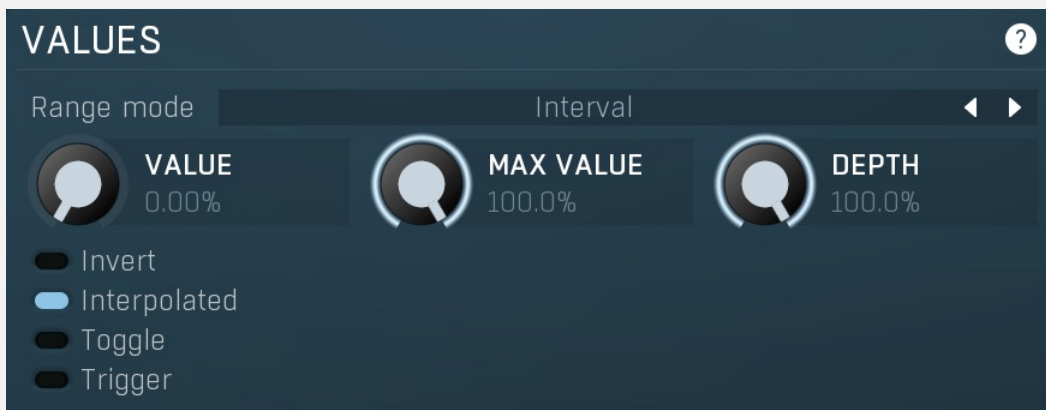
Channel All ◀ ▶ **Channel**

Channel defines the controller MIDI channel.

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

Controller defines the source controller.

## Values



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

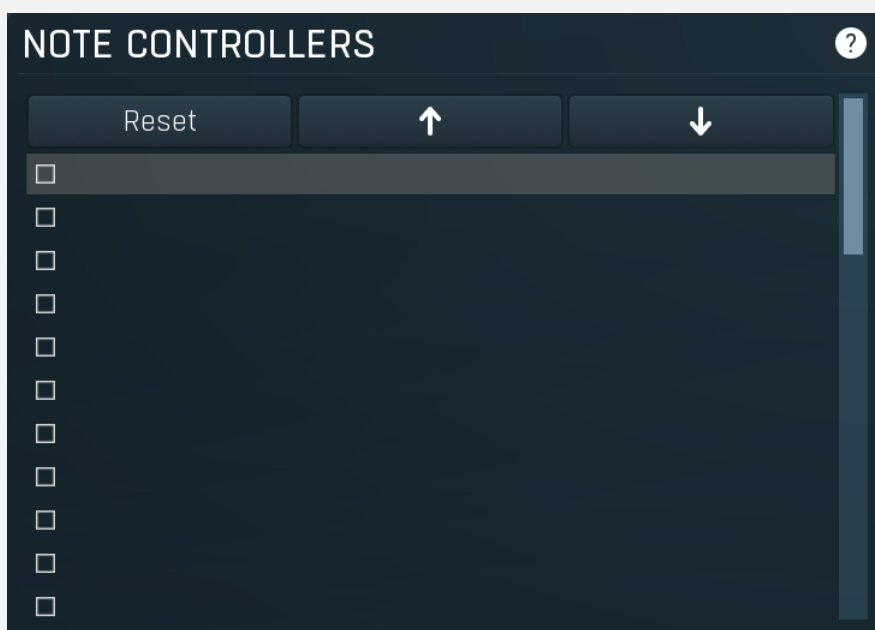
Learn enables or disables MIDI learn. When enabled, the plugin listens to the controllers you touch and associates them to the main controller.

# 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

### Channel

Channel defines the controller MIDI channel.

### 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

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

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

### 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.

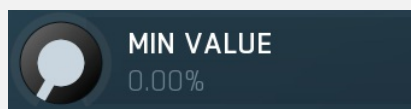
**Switch** modes are similar, but only recognize when a note is pressed. The Note Offs are ignored. Note Ons select the **Max value** and **Min value** alternately. In all octaves mode it doesn't matter which octave is used. For example, this is useful when you want to use any note C to switch something 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

Learn  Enable ?

Channel  
Controller

All  
Global 000 Bank select

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**

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.

## 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 be 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.

## Value button



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.

## Switcher



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.

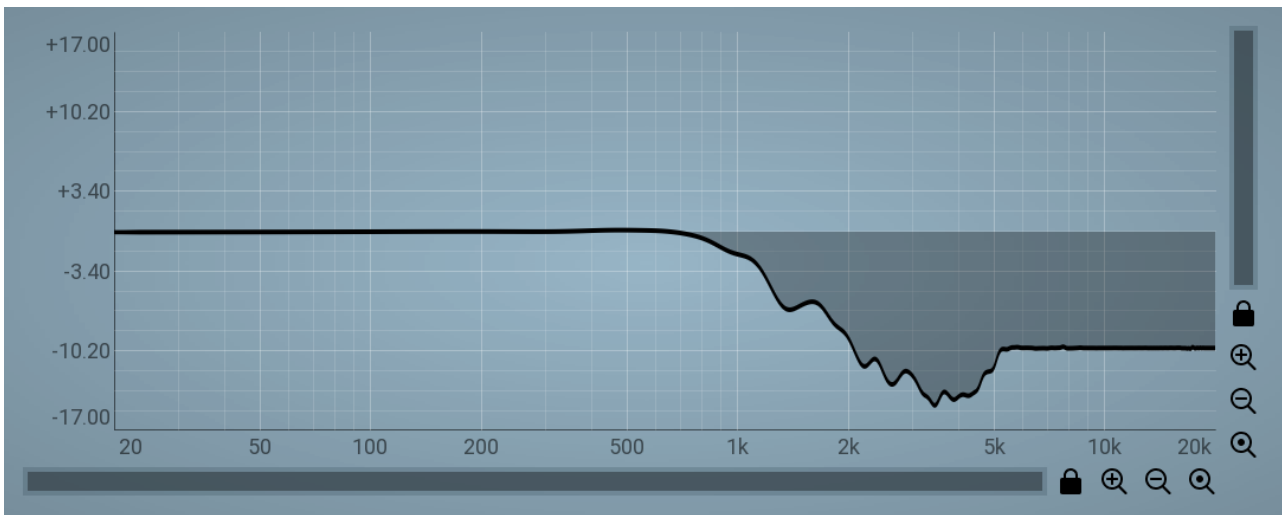
## Knob



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.

# Graph editor



Graph editor will show and edit one or more graphs.

- **Zoomers** below and on the right control the zoom amount and position of the view.
- **Mouse wheel** zooms in or out. Hold **Shift** to move the view horizontally instead, without zooming. Hold **Ctrl** to move the view vertically instead, without zooming. Alternatively you can zoom in using **Alt + right button double click** and out using **Alt + left button double click**. You can also use keyboard **numbers 0 to 9** to quickly set the zoom level.
- **Drag a rectangle using the left mouse button while holding Alt** zooms into the selected rectangle if possible.
- **Drag using the left mouse button while holding Alt and Ctrl** to scroll the view. This is not possible when zoomed all the way out as there is nothing to scroll.

# 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](mailto: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](mailto: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](mailto: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 linked 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



**MELDA** production  
*The only limit is your imagination*

## 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.*

[www.meldaproduction.com](http://www.meldaproduction.com)

[info@meldaproduction.com](mailto:info@meldaproduction.com)

MeldaProduction (c) 2017



